U.S. Department of Transportation
Federal Aviation Administration
Washington, DC

Master Minimum Equipment List (MMEL)

Revision: 8
Date: XX/XX/XXXX

Boeing 747
B-747-8, B-747-8i, B-747-8F

Flight Operations Evaluation Board (FOEB)

Federal Aviation Administration (FAA)
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The following changes are the Highlights of Changes for **Revision 8**. This revision was initiated by the manufacturer to correct errors that may have safety impacts. Policy Letter (PL) and templated updates were not applied to this revision. Those updates will be incorporated in Revision 9, which will immediately follow this revision.

PAGE NO.	EXPLANATION OF CHANGE
General	Minor editorial corrections were made throughout the document that do not affect the reliefs and are not indicated with change bars. These editorial corrections may be adopted in Minimum Equipment Lists (MEL) at the operator's discretion.
21-2	Removed provisos from item 21-02 titles that are not associated with any relief.
21-11	For aircraft certification the position of the forward overboard valve is used to manage airflow through the affected compartment during cargo fire extinguishing and smoke penetration. For the 747-8F, the forward overboard valve is commanded closed during a main deck cargo fire or a forward lower lobe cargo fire. The forward overboard valve is commanded open during aft lower lobe fire on the 747-8F. For the 747-8I, the forward overboard valve works opposite of the 747-8F, it is commanded open during a forward lower lobe fire and closed during an aft lower lobe fire. This MMEL revision changes item 21-26-06-02 Forward Overboard Valve provisos on the 747-8i to reflect the design requirements.
33-8	Changed item 51-01-01B, Interior Emergency Lights, 747-8F, repair category from "C" to "B".
34-8	Corrected sequence number of Marker Beacon System from item 31-01 to 32-01.

DEFINITIONS

Refer to the current FAA MMEL Policy Letter (PL)- 25, MMEL/MEL Definitions, found on the FAA Dynamic Regulatory System (DRS) website at https://drs.faa.gov.)

FAA DRS - MMEL Policy Letter 25

PREAMBLE

For operations under 14 CFR parts 91 subpart K (part 91K), 121, 125, 125 LODA, 129, and 135, refer to the current FAA MMEL Policy Letter PL-34, MMEL and MEL Preamble. For operations under 14 CFR part 91, refer to current FAA MMEL Policy Letter PL-36, 14 CFR Part 91 MEL Approval and Preamble. Both Policy Letters are found on the FAA Dynamic Regulatory System (DRS) website at https://drs.faa.gov.

FAA DRS - MMEL Policy Letter 34

FAA DRS - MMEL Policy Letter 36

Guidelines for (M) and (O) Procedures are based on Boeing Dispatch Deviation Guide (DDG), (M) and (O) Procedures for BOEING B747-8, published by the aircraft manufacturer.

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
21-01	Occupant Backup Shutoff Valve (OBSOV)					
21-01-01	747-8F	**C**	**1**	**0**	(M) May be inoperative provided: a) OBSOV is deactivated closed, b) Packs 1 and 3 operate normally, c) Air cycle machines (ACMs) 1 and 3 operate normally, and d) Pack temperature control valves (TCVs) 1 and 3 operate normally.	
21-01-02	747-8I	**C**	**1**	**0**	(M) May be inoperative provided: a) OBSOV is deactivated closed, b) Pack 1 operates normally, c) Air cycle machine (ACM) 1 operates normally, d) Pack temperature control valve (TCV) 1 operates normally, and e) Alternate ventilation system (AVS) operates normally.	
21-02	Flow Regulating Shutoff Valves (FRSOVs)					
21-02-01	747-8F					
21-02-01-01	FRSOV 1	**C**	**1**	**0**	(M) May be inoperative provided: a) FRSOV 1 is deactivated closed, b) FRSOVs 2 and 3 operate normally, and c) Pack 1 is not used.	

(Continued)

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SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
21-02	Flow Regulating Shutoff Valves (FRSOVs) (Cont'd)					|
21-02-01	747-8F (Cont'd)					|
21-02-01-02	FRSOV 2					
21-02-01-02A		**C**	**1**	**0**	(M) May be inoperative provided: a) FRSOV 2 is deactivated closed, b) FRSOVs 1 and 3 operate normally, c) Pack differential pressure sensor (PDPS) 2 operates normally, d) All packs operate normally, e) All air cycle machines (ACMs) operate normally, f) All pack temperature control valves (TCVs) operate normally, g) Forward cargo flow regulating shutoff valve (CFRSOV) operates normally, h) Aft cargo flow regulating shutoff valve (CFRSOV) operates normally, i) Both forward cargo overboard exhaust valves operate normally, j) ECS miscellaneous card operates normally, k) ECS freighter card operates normally, l) Both outflow valves operate normally, m) Both aft cargo flapper valves operate normally, n) APU-to-Pack Takeoff Supplementary Procedure is not used, and o) FWD and AFT LOWER LOBE TEMP selectors remain in AUTO. (Continued)	

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21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
21-02	Flow Regulating Shutoff Valves (FRSOVs) (Cont'd)					
21-02-01	747-8F (Cont'd)					
21-02-01-02	FRSOV 2 (Cont'd)					
21-02-01-02B		**C**	**1**	**0**	(M) May be inoperative provided: a) FRSOV 2 is deactivated closed, b) FRSOVs 1 and 3 operate normally, and c) Pack 2 is not used.	

(Continued)

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SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
21-02	Flow Regulating Shutoff Valves (FRSOVs) (Cont'd)					
21-02-01	747-8F (Cont'd)					
21-02-01-03	FRSOV 3					
21-02-01-03A		**C**	**1**	**0**	(M) May be inoperative provided: a) FRSOV 3 is deactivated closed, b) FRSOVs 1 and 2 operate normally, c) Pack differential pressure sensor (PDPS) 3 operates normally, d) All packs operate normally, e) All air cycle machines (ACMs) operate normally, f) All pack temperature control valves (TCVs) operate normally, g) Forward cargo flow regulating shutoff valve (CFRSOV) operates normally, h) Both forward cargo overboard exhaust valves operate normally, i) ECS miscellaneous card operates normally, j) ECS freighter card operates normally, k) Both outflow valves operate normally, and l) FWD LOWER LOBE TEMP selector remains in AUTO.	
21-02-01-03B		**C**	**1**	**0**	(M) May be inoperative provided: a) FRSOV 3 is deactivated closed, b) FRSOVs 1 and 2 operate normally, and c) Pack 3 is not used.	

(Continued)

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SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
21-02	Flow Regulating Shutoff Valves (FRSOVs) (Cont'd)					
21-02-02	747-8I without Aft Cargo Air Conditioning	**C**	**1**	**0**	May be inoperative provided pack 1 is not used.	
21-02-03	747-8I with Aft Cargo Air Conditioning					
21-02-03-01	FRSOV 1	**C**	**1**	**0**	May be inoperative provided: a) FRSOV 2 operates normally, and b) Pack 1 is not used.	
21-02-03-02	FRSOV 2					
21-02-03-02A		**C**	**1**	**0**	May be inoperative provided: a) FRSOV 1 operates normally, b) Pack differential pressure sensor (PDPS) 2 operates normally, c) All packs operate normally, d) All air cycle machines (ACMs) operate normally, e) All pack temperature control valves (TCVs) operate normally, f) Aft cargo flow regulating shutoff valve (CFRSOV) operates normally, g) Both outflow valves operate normally, h) Aft cargo flapper valve operates normally, and i) AFT CARGO TEMP selector remains in AUTO.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
21-02	Flow Regulating Shutoff Valves (FRSOVs) (Cont'd)					
21-02-03	747-8I with Aft Cargo Air Conditioning (Cont'd)					
21-02-03-02	FRSOV 2 (Cont'd)					
21-02-03-02B		**C**	**1**	**0**	May be inoperative provided: a) FRSOV 1 operates normally, and b) Pack 2 is not used.	
22-01	Alternate Ventilation System (AVS)					
22-01-01	747-8F	**C**	**1**	**0**	(M) May be inoperative provided AVS valve is deactivated closed.	
22-01-01-01	ON Light	**C**	**1**	**0**		
22-01-02	747-8I	**C**	**1**	**0**	(M) May be inoperative provided: a) AVS valve is deactivated closed, b) Packs 1 and 2 operate normally, c) Air cycle machines (ACMs) 1 and 2 operate normally, d) Pack temperature control valves (TCVs) 1 and 2 operate normally, and e) Occupant backup shutoff valve (OBSOV) operates normally.	
22-01-02-01	ON Light	**C**	**1**	**0**		

(Continued)

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SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
25-01	Lower Recirculation Fans	**C**	**3**	**0**	(M) May be inoperative deactivated.	
25-02	Lower Recirculation Shutoff Valves (RSOVs)	**C**	**3**	**0**	(M) May be inoperative locked closed.	
25-03	Upper Recirculation Fans (747-8I)	**C**	**2**	**0**	(M) May be inoperative deactivated.	
26-01	Forward Cargo Overboard Exhaust Valve(s) (747-8F)					
26-01-01	Two Valve Installation (Without PRR 86398-31)	**C**	**2**	**0**	(M) May be inoperative provided: a) Forward cargo overboard exhaust backup valve is deactivated closed, and b) FWD LOWER LOBE TEMP selector remains OFF.	
26-01-02	One Valve Installation (With PRR 86398-31)	**C**	**1**	**0**	(M) May be inoperative provided: a) Forward cargo overboard exhaust valve is deactivated, b) Duct caps are installed upstream of the forward cargo overboard exhaust valve, and c) FWD LOWER LOBE TEMP selector remains OFF.	
26-02	Flight Deck Ventilation Fan (747-8F)	**C**	**1**	**0**	(M) May be inoperative deactivated.	
26-03	Lower Cargo Ventilation Fans (747-8F)	**C**	**4**	**0**	(M) May be inoperative deactivated.	

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Sequence No.	Item	1	2	3	4	Change Bar
26-04	Aft Cargo Flapper Valves					
26-04-01	747-8F	**C**	**2**	**0**	(O) May be inoperative provided: a) LOWER LOBE AFT CARGO HT selector remains OFF, b) AFT LOWER LOBE TEMP selector remains OFF, and c) Aft lower cargo compartment remains empty, except for ballast, empty cargo containers (ballast may be loaded in ULDs), fly away kits, pallets, and cargo restraint components. NOTE: Operator MELs must define items which are approved for inclusion in the fly away kits and which materials can be used as ballast.	
26-04-02 ***	747-8I	**C**	**1**	**0**	(O) May be inoperative provided: a) LOWER LOBE AFT CARGO HT selector remains OFF, b) AFT CARGO TEMP selector remains OFF, and c) Aft lower cargo compartment remains empty, except for ballast, empty cargo containers (ballast may be loaded in ULDs), fly away kits, pallets, and cargo restraint components. NOTE: Operator MELs must define items which are approved for inclusion in the fly away kits and which materials can be used as ballast.	

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Sequence No.	Item	1	2	3	4	Change Bar
26-05	Environmental Control System (ECS) Miscellaneous Card					
26-05-01	747-8F	**C**	**1**	**0**	May be inoperative provided: a) Forward overboard valve is considered inoperative, b) Forward cargo heating system is considered inoperative, c) One pack is not used, d) LOWER LOBE AFT CARGO HT selector remains OFF, and e) FWD LOWER LOBE TEMP selector remains OFF.	
26-05-02	747-8I	**C**	**1**	**0**	(M) May be inoperative provided: a) One lavatory/galley fan is verified to operate normally once each flight day, b) Forward overboard valve is considered inoperative, c) Forward cargo heating system is considered inoperative, d) Flight crew rest heating system is considered inoperative, e) One pack is not used, and f) LOWER LOBE AFT CARGO HT selector remains OFF.	

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Sequence No.	Item	1	2	3	4	Change Bar
26-06	Forward Overboard Valve					
26-06-01	747-8F					
26-06-01A		**C**	**1**	**0**	(M)(O) May be inoperative provided: a) Forward overboard valve is deactivated closed, and b) Aft lower cargo compartment remains empty, except for ballast, empty cargo containers (ballast may be loaded in ULDs), fly away kits, pallets, and cargo restraint components. NOTE: Operator MELs must define items which are approved for inclusion in the fly away kits and which materials can be used as ballast.	
26-06-01B		**C**	**1**	**0**	(M)(O) May be inoperative provided: a) Forward overboard valve is deactivated open, b) Extended overwater flight is prohibited, and c) Main deck and forward lower cargo compartments remain empty, except for ballast, empty cargo containers (ballast may be loaded in ULDs), fly away kits, pallets, and cargo restraint components. NOTE: Operator MELs must define items which are approved for inclusion in the fly away kits and which materials can be used as ballast.	

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SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
26-06	Forward Overboard Valve (Cont'd)					
26-06-02	747-8I					
26-06-02A		**C**	**1**	**0**	(M)(O) May be inoperative provided: a) Forward overboard valve is deactivated closed, and b) Forward lower cargo compartment remains empty, except for ballast, empty cargo containers (ballast may be loaded in ULDs), fly away kits, pallets, and cargo restraint components. NOTE: Operator MELs must define items which are approved for inclusion in the fly away kits and which materials can be used as ballast.		
26-06-02B		**C**	**1**	**0**	(M)(O) May be inoperative provided: a) Forward overboard valve is deactivated open, b) Extended overwater flight is prohibited, and c) Aft lower cargo compartment remains empty, except for ballast, empty cargo containers (ballast may be loaded in ULDs), fly away kits, pallets, and cargo restraint components. NOTE: Operator MELs must define items which are approved for inclusion in the fly away kits and which materials can be used as ballast.		
26-07 ***	Forward Chiller Exhaust Fan (747-8I)	**C**	**1**	**0**	(M) May be inoperative deactivated.	

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Sequence No.	Item	1	2	3	4	Change Bar
26-08 ***	Forward Chiller Exhaust Piccolo Valves (747-8I)	**C**	**2**	**0**	May be inoperative provided forward chiller exhaust fan is considered inoperative.	
26-09 ***	Forward Chiller Exhaust Overboard Valves (747-8I)	**C**	**4**	**0**	(M) May be inoperative provided all forward chiller exhaust overboard valves are deactivated closed.	
26-10	Lavatory/Galley Fans (747-8I)	**C**	**2**	**1**	(M) One may be inoperative deactivated.	
28-01	Forward Cargo Flow Regulating Shutoff Valve (CFRSOV) (747-8F)	**C**	**1**	**0**	(M) May be inoperative provided: a) Forward CFRSOV is deactivated closed, and b) FWD LOWER LOBE TEMP selector remains OFF.	
28-02	Aft Cargo Flow Regulating Shutoff Valve (CFRSOV)					
28-02-01	747-8F	**C**	**1**	**0**	(M) May be inoperative provided: a) Aft CFRSOV is deactivated closed, and b) AFT LOWER LOBE TEMP selector remains OFF.	
28-02-02 ***	747-8I	**C**	**1**	**0**	(M) May be inoperative provided: a) Aft CFRSOV is deactivated closed, and b) AFT CARGO TEMP selector remains OFF.	

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Sequence No.	Item	1	2	3	4	Change Bar
28-03	Environmental Control System (ECS) Freighter Card (747-8F)					
28-03A		**C**	**1**	**0**	(M) May be inoperative provided: a) Aft cargo flapper valves are verified open before each departure, b) Flight deck ventilation fan is considered inoperative, c) Lower cargo ventilation fans are considered inoperative, and d) FWD LOWER LOBE TEMP selector remains OFF.	
28-03B		**C**	**1**	**0**	May be inoperative provided: a) Aft cargo flapper valves are considered inoperative, b) Flight deck ventilation fan is considered inoperative, c) Lower cargo ventilation fans are considered inoperative, and d) FWD LOWER LOBE TEMP selector remains OFF.	
28-04 ***	Cargo A/C Card (747-8I)	**C**	**1**	**0**	May be inoperative provided: a) Forward chiller exhaust fan is considered inoperative, and b) Forward chiller exhaust overboard valves are considered inoperative.	
29-01	Smoke Mode Shutoff Valve (747-8F)	**C**	**1**	**0**	(M)(O) May be inoperative provided: a) Smoke mode shutoff valve is deactivated closed, b) Crew rest trim air valve (TAV) is considered inoperative, and c) For crew rest occupied, crew rest door and bunk privacy curtains remain open.	

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Sequence No.	Item	1	2	3	4	Change Bar
29-02	Door 5 Overhead Crew Rest Shutoff Valves (747-8I)	**C**	**2**	**0**	(M) May be inoperative provided: a) Both door 5 overhead crew rest shutoff valves are deactivated closed, and b) Door 5 overhead crew rest is considered inoperative.	
31-01	Outflow Valves					
31-01-01	747-8F					
31-01-01A		**C**	**2**	**1**	(M) One may be inoperative provided: a) Inoperative outflow valve is deactivated closed, b) Manual cabin pressure control system is verified to operate normally on remaining outflow valve, c) Cabin rate of climb indication operates normally, d) Cabin pressure backup sensor system operates normally, and e) One pack is not used.	
31-01-01B		**C**	**2**	**0**	(M)(O) May be inoperative provided: a) Both outflow valves are deactivated open, b) Flight is conducted unpressurized, c) Extended overwater flight is prohibited, d) Flight must remain within 60 minutes of a suitable airport, and e) Main deck and forward and aft lower cargo compartments remain empty, except for ballast, empty cargo containers (ballast may be loaded in ULDs), fly away kits, pallets, and cargo restraint components. NOTE: Operator MELs must define items which are approved for inclusion in the fly away kits and which materials can be used as ballast. (Continued)	

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SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
31-01	Outflow Valves (Cont'd)					
31-01-02	747-8I					
31-01-02A		**C**	**2**	**1**	(M) One may be inoperative provided: a) Inoperative outflow valve is deactivated closed, b) Manual cabin pressure control system is verified to operate normally on remaining outflow valve, c) Cabin rate of climb indication operates normally, d) Cabin pressure backup sensor system operates normally, and e) One pack is not used.	
31-01-02B		**C**	**2**	**0**	(M)(O) May be inoperative provided: a) Both outflow valves are deactivated open, b) Flight is conducted unpressurized, c) Extended overwater flight is prohibited, d) Flight must remain within 60 minutes of a suitable airport, e) Occupancy is limited to essential flight crewmembers, including official observers, and f) Forward and aft lower cargo compartments remain empty, except for ballast, empty cargo containers (ballast may be loaded in ULDs), fly away kits, pallets, and cargo restraint components. NOTE: Operator MELs must define items which are approved for inclusion in the fly away kits and which materials can be used as ballast.	

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Sequence No.	Item	1	2	3	4	Change Bar
31-02	Automatic Cabin Pressure Controllers					
31-02A		**C**	**2**	**1**	(M) One may be inoperative provided: a) Manual cabin pressure control system is verified to operate normally on each operative outflow valve, b) Cabin rate of climb indication operates normally, and c) Cabin pressure backup sensor system operates normally.	
31-02B		**C**	**2**	**0**	May be inoperative provided both outflow valves are considered inoperative.	
31-03	Manual Cabin Pressure Control Systems (MAN L and MAN R)	**C**	**2**	**0**	May be inoperative provided associated outflow valve is considered inoperative.	
31-04	Landing Altitude (LDG ALT) Switch	**C**	**1**	**0**	(O) Automatic mode may be inoperative provided alternate procedures are used to set landing altitude.	
32-01	Positive Pressure Relief Valves	**C**	**2**	**0**	May be inoperative provided both outflow valves are considered inoperative.	

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Sequence No.	Item	1	2	3	4	Change Bar
33-01	Cabin Rate of Climb Indication					
33-01A		**C**	**1**	**0**	May be inoperative provided: a) Both outflow valves operate normally, and b) Both automatic cabin pressure controllers operate normally.	
33-01B		**C**	**1**	**0**	May be inoperative provided both outflow valves are considered inoperative.	
33-02	Cabin Differential Pressure Indication					
33-02A		**C**	**1**	**0**	(O) May be inoperative provided: a) Cabin altitude indication operates normally, and b) A chart is provided to convert cabin altitude to cabin differential pressure.	
33-02B		**C**	**1**	**0**	May be inoperative provided both outflow valves are considered inoperative.	
33-03	Cabin Altitude Indication					
33-03A		**C**	**1**	**0**	(O) May be inoperative provided: a) Cabin differential pressure indication operates normally, and b) A chart is provided to convert cabin differential pressure to cabin altitude.	
33-03B		**C**	**1**	**0**	May be inoperative provided both outflow valves are considered inoperative.	

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Sequence No.	Item	1	2	3	4	Change Bar
33-04	Outflow Valve Position Indicators (Overhead Panel)					
33-04A		**C**	**2**	**1**	One may be inoperative provided associated outflow valve is considered inoperative.	
33-04B		**C**	**2**	**0**	(O) May be inoperative provided alternate procedures are used to manually move associated outflow valve.	
33-05	Cabin Pressure Backup Sensor System	**C**	**1**	**0**	May be inoperative provided: a) Both outflow valves operate normally, and b) Both automatic cabin pressure controllers operate normally.	
41-01	Flight Crew Rest Heating System (747 8I)	**C**	**1**	**0**	(M) May be inoperative deactivated.	
41-01-01	Heater Control Positions (LOW, MED, HIGH)	**C**	**3**	**0**		
41-02	Door 5 Overhead Crew Rest Heating System (747-8I)	**C**	**1**	**0**	(M) May be inoperative deactivated.	
41-02-01	Temperature Indicator	**C**	**1**	**0**		
42-01	Flight Crew Foot Heater Systems	**C**	**2**	**0**	(M) May be inoperative deactivated.	
42-02	Flight Crew Shoulder Heater Systems	**C**	**2**	**0**	(M) May be inoperative deactivated.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
43-01	Forward Cargo Heating System	**C**	**1**	**0**	(M) May be inoperative provided inoperative supplemental heater is deactivated.	
44-01	Aft Cargo Heating System					
44-01A		**C**	**1**	**0**	(M) May be inoperative provided aft cargo heat shutoff valve is deactivated closed.	
44-01B		**C**	**1**	**0**	(M) May be inoperative provided aft cargo heat temperature control valve is deactivated closed.	
44-01-01	Temperature Control Switches (Low, High, Overheat)	**C**	**3**	**0**	May be inoperative provided LOWER LOBE AFT CARGO HT selector remains OFF.	
51-01	Packs					
51-01-01	747-8F					
51-01-01-01	Pack 1	**C**	**1**	**0**	(O) May be inoperative provided: a) Packs 2 and 3 operate normally, b) Air cycle machines (ACMs) 2 and 3 operate normally, c) Pack temperature control valves (TCVs) 2 and 3 operate normally, d) Right trim pressure regulating shutoff valve (TPRSOV) operates normally, e) Pre-trim air valve (TAV) 3 operates normally, f) Occupant backup shutoff valve (OBSOV) operates normally, and g) Right wing isolation valve operates normally.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
51-01	Packs (Cont'd)					
51-01-01	747-8F (Cont'd)					
51-01-01-02	Pack 2	**C**	**1**	**0**	(O) May be inoperative provided: a) Packs 1 and 3 operate normally, b) Air cycle machines (ACMs) 1 and 3 operate normally, c) Pack temperature control valves (TCVs) 1 and 3 operate normally, and d) AFT LOWER LOBE TEMP selector remains OFF.	
51-01-01-03	Pack 3	**C**	**1**	**0**	(O) May be inoperative provided: a) Packs 1 and 2 operate normally, b) Air cycle machines (ACMs) 1 and 2 operate normally, c) Pack temperature control valves (TCVs) 1 and 2 operate normally, d) Left trim pressure regulating shutoff valve (TPRSOV) operates normally, e) Pre-trim air valve (TAV) 1 operates normally, f) Occupant backup shutoff valve (OBSOV) operates normally, g) Left wing isolation valve operates normally, and h) FWD LOWER LOBE TEMP selector remains OFF.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
51-01	Packs (Cont'd)					
51-01-02	747-8I without Aft Cargo Air Conditioning					
51-01-02-01	Pack 1	**C**	**1**	**0**	(O) May be inoperative provided: a) Packs 2 and 3 operate normally, b) Air cycle machines (ACMs) 2 and 3 operate normally, c) Pack temperature control valves (TCVs) 2 and 3 operate normally, d) Right trim pressure regulating shutoff valve (TPRSOV) operates normally, e) Occupant backup shutoff valve (OBSOV) operates normally, f) Alternate ventilation system (AVS) operates normally, and g) Right wing isolation valve operates normally.	
51-01-02-02	Pack 2	**C**	**1**	**0**	(O) May be inoperative provided: a) Packs 1 and 3 operate normally, b) Air cycle machines (ACMs) 1 and 3 operate normally, c) Pack temperature control valves (TCVs) 1 and 3 operate normally, and d) Alternate ventilation system (AVS) operates normally.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
51-01	Packs (Cont'd)					
51-01-02	747-8I without Aft Cargo Air Conditioning (Cont'd)					
51-01-02-03	Pack 3	**C**	**1**	**0**	(O) May be inoperative provided: a) Packs 1 and 2 operate normally, b) Air cycle machines (ACMs) 1 and 2 operate normally, c) Pack temperature control valves (TCVs) 1 and 2 operate normally, d) Left trim pressure regulating shutoff valve (TPRSOV) operates normally, and e) Left wing isolation valve operates normally.	
51-01-03	747-8I with Aft Cargo Air Conditioning					
51-01-03-01	Pack 1	**C**	**1**	**0**	(O) May be inoperative provided: a) Packs 2 and 3 operate normally, b) Air cycle machines (ACMs) 2 and 3 operate normally, c) Pack temperature control valves (TCVs) 2 and 3 operate normally, d) Right trim pressure regulating shutoff valve (TPRSOV) operates normally, e) Occupant backup shutoff valve (OBSOV) operates normally, f) Alternate ventilation system (AVS) operates normally, and g) Right wing isolation valve operates normally.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
51-01	Packs (Cont'd)					
51-01-03	747-8I with Aft Cargo Air Conditioning (Cont'd)					
51-01-03-02	Pack 2	**C**	**1**	**0**	(O) May be inoperative provided: a) Packs 1 and 3 operate normally, b) Air cycle machines (ACMs) 1 and 3 operate normally, c) Pack temperature control valves (TCVs) 1 and 3 operate normally, d) Alternate ventilation system (AVS) operates normally, and e) AFT CARGO TEMP selector remains OFF.	
51-01-03-03	Pack 3	**C**	**1**	**0**	(O) May be inoperative provided: a) Packs 1 and 2 operate normally, b) Air cycle machines (ACMs) 1 and 2 operate normally, c) Pack temperature control valves (TCVs) 1 and 2 operate normally, d) Left trim pressure regulating shutoff valve (TPRSOV) operates normally, and e) Left wing isolation valve operates normally.	
51-02	Pack Flow Control Valves (FCVs)	**C**	**3**	**2**	(M) One may be inoperative provided: a) Inoperative FCV is locked closed, and b) Associated pack is considered inoperative.	
51-03	Pack HI FLOW Switch	**C**	**1**	**0**		

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
51-04	Air Cycle Machines (ACMs)					
51-04-01	747-8F	**C**	**3**	**2**		
51-04-01-01	ACM 1	**C**	**1**	**0**	May be inoperative provided: a) ACMs 2 and 3 operate normally, b) Ram air inlet door 1 operates normally, c) Ram air exit door 1 operates normally, d) Packs 2 and 3 operate normally, e) Pack temperature control valves (TCVs) 2 and 3 operate normally, f) Right trim pressure regulating shutoff valve (TPRSOV) operates normally, g) Pre-trim air valve (TAV) 3 operates normally, h) Occupant backup shutoff valve (OBSOV) operates normally, and i) Right wing isolation valve operates normally.	
51-04-01-02	ACM 2	**C**	**1**	**0**	May be inoperative provided: a) ACMs 1 and 3 operate normally, b) Ram air inlet door 2 operates normally, c) Ram air exit door 2 operates normally, d) Packs 1 and 3 operate normally, e) Pack temperature control valves (TCVs) 1 and 3 operate normally, and f) AFT LOWER LOBE TEMP selector remains OFF.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
51-04	Air Cycle Machines (ACMs) (Cont'd)					
51-04-01	747-8F (Cont'd)					
51-04-01-03	ACM 3	**C**	**1**	**0**	May be inoperative provided: a) ACMs 1 and 2 operate normally, b) Ram air inlet door 3 operates normally, c) Ram air exit door 3 operates normally, d) Packs 1 and 2 operate normally, e) Pack temperature control valves (TCVs) 1 and 2 operate normally, f) Left trim pressure regulating shutoff valve (TPRSOV) operates normally, g) Pre-trim air valve (TAV) 1 operates normally, h) Occupant backup shutoff valve (OBSOV) operates normally, i) Left wing isolation valve operates normally, and j) FWD LOWER LOBE TEMP selector remains OFF.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
51-04	Air Cycle Machines (ACMs) (Cont'd)					
51-04-02	747-8I without Aft Cargo Air Conditioning	**C**	**3**	**2**	One may be inoperative provided associated pack is not used.	
51-04-02-01	ACM 1	**C**	**1**	**0**	May be inoperative provided: a) ACMs 2 and 3 operate normally, b) Ram air inlet door 1 operates normally, c) Ram air exit door 1 operates normally, d) Packs 2 and 3 operate normally, e) Pack temperature control valves (TCVs) 2 and 3 operate normally, f) Right trim pressure regulating shutoff valve (TPRSOV) operates normally, g) Occupant backup shutoff valve (OBSOV) operates normally, h) Alternate ventilation system (AVS) operates normally, and i) Right wing isolation valve operates normally.	
51-04-02-02	ACM 2	**C**	**1**	**0**	May be inoperative provided: a) ACMs 1 and 3 operate normally, b) Ram air inlet door 2 operates normally, c) Ram air exit door 2 operates normally, d) Packs 1 and 3 operate normally, e) Pack temperature control valves (TCVs) 1 and 3 operate normally, and f) Alternate ventilation system (AVS) operates normally.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
51-04	Air Cycle Machines (ACMs) (Cont'd)					
51-04-02	747-8I without Aft Cargo Air Conditioning (Cont'd)					
51-04-02-03	ACM 3	**C**	**1**	**0**	May be inoperative provided: a) ACMs 1 and 2 operate normally, b) Ram air inlet door 3 operates normally, c) Ram air exit door 3 operates normally, d) Packs 1 and 2 operate normally, e) Pack temperature control valves (TCVs) 1 and 2 operate normally, f) Left trim pressure regulating shutoff valve (TPRSOV) operates normally, and g) Left wing isolation valve operates normally.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
51-04	Air Cycle Machines (ACMs) (Cont'd)					
51-04-03	747-8I with Aft Cargo Air Conditioning	**C**	**3**	**2**	One may be inoperative provided associated pack is not used.	
51-04-03-01	ACM 1	**C**	**1**	**0**	May be inoperative provided: a) ACMs 2 and 3 operate normally, b) Ram air inlet door 1 operates normally, c) Ram air exit door 1 operates normally, d) Packs 2 and 3 operate normally, e) Pack temperature control valves (TCVs) 2 and 3 operate normally, f) Right trim pressure regulating shutoff valve (TPRSOV) operates normally, g) Occupant backup shutoff valve (OBSOV) operates normally, h) Alternate ventilation system (AVS) operates normally, and i) Right wing isolation valve operates normally.	
51-04-03-02	ACM 2	**C**	**1**	**0**	May be inoperative provided: a) ACMs 1 and 3 operate normally, b) Ram air inlet door 2 operates normally, c) Ram air exit door 2 operates normally, d) Packs 1 and 3 operate normally, e) Pack temperature control valves (TCVs) 1 and 3 operate normally, f) Alternate ventilation system (AVS) operates normally, and g) AFT CARGO TEMP selector remains OFF.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
51-04	Air Cycle Machines (ACMs) (Cont'd)					
51-04-03	747-8I with Aft Cargo Air Conditioning (Cont'd)					
51-04-03-03	ACM 3	**C**	**1**	**0**	May be inoperative provided: a) ACMs 1 and 2 operate normally, b) Ram air inlet door 3 operates normally, c) Ram air exit door 3 operates normally, d) Packs 1 and 2 operate normally, e) Pack temperature control valves (TCVs) 1 and 2 operate normally, f) Left trim pressure regulating shutoff valve (TPRSOV) operates normally, and g) Left wing isolation valve operates normally.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
51-05	Pack Temperature Control Valves (TCVs)					
51-05-01	747-8F	**C**	**3**	**2**	One may be inoperative provided associated pack is not used.	
51-05-01-01	TCV 1	**C**	**1**	**0**	(M)(O) May be inoperative provided: a) TCV 1 is deactivated open, b) TCVs 2 and 3 operate normally, c) Ram air inlet door 1 operates normally, d) Ram air exit door 1 operates normally, e) Packs 2 and 3 operate normally, f) Air cycle machines (ACMs) 2 and 3 operate normally, g) Right trim pressure regulating shutoff valve (TPRSOV) operates normally, h) Pre-trim air valve (TAV) 3 operates normally, i) Occupant backup shutoff valve (OBSOV) operates normally, j) Right wing isolation valve operates normally, and k) Alternate procedures are used for pack 1.	
51-05-01-02	TCV 2	**C**	**1**	**0**	(M)(O) May be inoperative provided: a) TCV 2 is deactivated open, b) TCVs 1 and 3 operate normally, c) Ram air inlet door 2 operates normally, d) Ram air exit door 2 operates normally, e) Packs 1 and 3 operate normally, f) Air cycle machines (ACMs) 1 and 3 operate normally, g) AFT LOWER LOBE TEMP selector remains OFF, and h) Alternate procedures are used for pack 2.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
51-05	Pack Temperature Control Valves (TCVs) (Cont'd)					
51-05-01	747-8F (Cont'd)					
51-05-01-03	TCV 3	**C**	**1**	**0**	(M)(O) May be inoperative provided: a) TCV 3 is deactivated open, b) TCVs 1 and 2 operate normally, c) Ram air inlet door 3 operates normally, d) Ram air exit door 3 operates normally, e) Packs 1 and 2 operate normally, f) Air cycle machines (ACMs) 1 and 2 operate normally, g) Left trim pressure regulating shutoff valve (TPRSOV) operates normally, h) Pre-trim air valve (TAV) 1 operates normally, i) Occupant backup shutoff valve (OBSOV) operates normally, j) Left wing isolation valve operates normally, k) FWD LOWER LOBE TEMP selector remains OFF, and l) Alternate procedures are used for pack 3.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
51-05	Pack Temperature Control Valves (TCVs) (Cont'd)					
51-05-02	747-8I without Aft Cargo Air Conditioning	**C**	**3**	**2**	One may be inoperative provided associated pack is not used.	
51-05-02-01	TCV 1	**C**	**1**	**0**	(M)(O) May be inoperative provided: a) TCV 1 is deactivated open, b) TCVs 2 and 3 operate normally, c) Ram air inlet door 1 operates normally, d) Ram air exit door 1 operates normally, e) Packs 2 and 3 operate normally, f) Air cycle machines (ACMs) 2 and 3 operate normally, g) Right trim pressure regulating shutoff valve (TPRSOV) operates normally, h) Occupant backup shutoff valve (OBSOV) operates normally, i) Alternate ventilation system (AVS) operates normally, j) Right wing isolation valve operates normally, and k) Alternate procedures are used for pack 1.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
51-05	Pack Temperature Control Valves (TCVs) (Cont'd)					
51-05-02	747-8I without Aft Cargo Air Conditioning (Cont'd)					
51-05-02-02	TCV 2	**C**	**1**	**0**	(M)(O) May be inoperative provided: a) TCV 2 is deactivated open, b) TCVs 1 and 3 operate normally, c) Ram air inlet door 2 operates normally, d) Ram air exit door 2 operates normally, e) Packs 1 and 3 operate normally, f) Air cycle machines (ACMs) 1 and 3 operate normally, g) Alternate ventilation system (AVS) operates normally, and h) Alternate procedures are used for pack 2.	
51-05-02-03	TCV 3	**C**	**1**	**0**	(M)(O) May be inoperative provided: a) TCV 3 is deactivated open, b) TCVs 1 and 2 operate normally, c) Ram air inlet door 3 operates normally, d) Ram air exit door 3 operates normally, e) Packs 1 and 2 operate normally, f) Air cycle machines (ACMs) 1 and 2 operate normally, g) Left trim pressure regulating shutoff valve (TPRSOV) operates normally, h) Left wing isolation valve operates normally, and i) Alternate procedures are used for pack 3.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
51-05	Pack Temperature Control Valves (TCVs) (Cont'd)					
51-05-03	747-8I with Aft Cargo Air Conditioning	**C**	**3**	**2**	One may be inoperative provided associated pack is not used.	
51-05-03-01	TCV 1	**C**	**1**	**0**	(M)(O) May be inoperative provided: a) TCV 1 is deactivated open, b) TCVs 2 and 3 operate normally, c) Ram air inlet door 1 operates normally, d) Ram air exit door 1 operates normally, e) Packs 2 and 3 operate normally, f) Air cycle machines (ACMs) 2 and 3 operate normally, g) Right trim pressure regulating shutoff valve (TPRSOV) operates normally, h) Occupant backup shutoff valve (OBSOV) operates normally, i) Alternate ventilation system (AVS) operates normally, j) Right wing isolation valve operates normally, and k) Alternate procedures are used for pack 1.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
51-05	Pack Temperature Control Valves (TCVs) (Cont'd)					
51-05-03	747-8I with Aft Cargo Air Conditioning (Cont'd)					
51-05-03-02	TCV 2	**C**	**1**	**0**	(M)(O) May be inoperative provided: a) TCV 2 is deactivated open, b) TCVs 1 and 3 operate normally, c) Ram air inlet door 2 operates normally, d) Ram air exit door 2 operates normally, e) Packs 1 and 3 operate normally, f) Air cycle machines (ACMs) 1 and 3 operate normally, g) Alternate ventilation system (AVS) operates normally, h) AFT CARGO TEMP selector remains OFF, and i) Alternate procedures are used for pack 2.	
51-05-03-03	TCV 3	**C**	**1**	**0**	(M)(O) May be inoperative provided: a) TCV 3 is deactivated open, b) TCVs 1 and 2 operate normally, c) Ram air inlet door 3 operates normally, d) Ram air exit door 3 operates normally, e) Packs 1 and 2 operate normally, f) Air cycle machines (ACMs) 1 and 2 operate normally, g) Left trim pressure regulating shutoff valve (TPRSOV) operates normally, h) Left wing isolation valve operates normally, and i) Alternate procedures are used for pack 3.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
51-06	Pack OFF Lights	**C**	**3**	**0**		
51-07	Pack Temperature Sensors (PTSs)	**C**	**3**	**2**		
51-08	Mixer Discharge Temperature Sensors (MDTSs)	**C**	**3**	**2**	One may be inoperative provided associated pack is considered inoperative.	
51-09	Compressor Discharge Temperature Sensors (CDTSs)	**C**	**3**	**2**	One may be inoperative provided associated pack is considered inoperative.	
51-10	Pack Inlet Pressure Sensors (PIPSs)					
51-10A		**C**	**3**	**2**	One may be inoperative provided flow differential pressure sensors (FDPSs) on remaining operating packs operate normally.	
51-10B		**C**	**3**	**2**	One may be inoperative provided associated pack is not used.	
51-11	Flow Differential Pressure Sensors (FDPSs)					
51-11A		**C**	**3**	**2**	One may be inoperative provided pack inlet pressure sensors (PIPSs) on remaining operating packs operate normally.	
51-11B		**C**	**3**	**2**	One may be inoperative provided associated pack is not used.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
51-12	Pack Differential Pressure Sensors (PDPSs)					
51-12-01	747-8F					
51-12-01A		**C**	**3**	**2**	One may be inoperative provided: a) Associated flow regulating shutoff valve (FRSOV) operates normally, and b) Associated lower recirculation fan is considered inoperative.	
51-12-01B		**C**	**3**	**2**	One may be inoperative provided associated pack is not used.	
51-12-02	747-8I without Aft Cargo Air Conditioning	**C**	**3**	**2**	One may be inoperative provided associated lower recirculation fan is considered inoperative.	
51-12-03	747-8I with Aft Cargo Air Conditioning					
51-12-03-01	PDPS 1	**C**	**1**	**0**	May be inoperative provided: a) PDPSs 2 and 3 operate normally, and b) Lower recirculation fan 1 is considered inoperative	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
51-12	Pack Differential Pressure Sensors (PDPSs) (Cont'd)					
51-12-03	747-8I with Aft Cargo Air Conditioning (Cont'd)					
51-12-03-02	PDPS 2					
51-12-03-02A		**C**	**1**	**0**	May be inoperative provided: a) PDPSs 1 and 3 operate normally, b) Flow regulating shutoff valve (FRSOV) 2 operates normally, and c) Lower recirculation fan 2 is considered inoperative.	
51-12-03-02B		**C**	**1**	**0**	May be inoperative provided: a) PDPSs 1 and 3 operate normally, and b) Pack 2 is not used.	
51-12-03-03	PDPS 3	**C**	**1**	**0**	May be inoperative provided: a) PDPSs 1 and 2 operate normally, and b) Lower recirculation fan 3 is considered inoperative.	
51-13	Pack SYS FAULT Light	**C**	**1**	**0**		
51-14	Ozone Converters					
51-14-01	747-8F	**D**	**3**	**0**		
51-14-02	747-8I	**C**	**3**	**0**	As required by 14 CFR.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
58-01	Equipment Cooling Control System (NORM Mode)	**C**	**1**	**0**	May be inoperative provided: a) EQUIP COOLING selector is set to STBY, and b) For ground operations above 41 degrees C OAT, at least one pack is operated or airplane is supplied with conditioned air.	
58-02	Equipment Cooling Inboard Exhaust Valve					
58-02-01	747-8F					
58-02-01A		**C**	**1**	**0**	(M) May be inoperative provided: a) Inboard exhaust valve is deactivated closed, and b) One equipment cooling fan is considered inoperative.	
58-02-01B		**C**	**1**	**0**	(M)(O) May be inoperative provided: a) Inboard exhaust valve is deactivated open, b) Equipment cooling supply fan operates normally, c) Equipment cooling exhaust fan operates normally, d) Equipment cooling inboard supply valves are not deactivated closed, e) Equipment cooling barrier filter is not blocked, and f) Main deck and forward lower cargo compartments remain empty, except for ballast, empty cargo containers (ballast may be loaded in ULDs), fly away kits, pallets, and cargo restraint components. NOTE: Operator MELs must define items which are approved for inclusion in the fly away kits and which materials can be used as ballast.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
58-02	Equipment Cooling Inboard Exhaust Valve (Cont'd)					
58-02-02	747-8I					
58-02-02A		**C**	**1**	**0**	(M) May be inoperative provided: a) Inboard exhaust valve is deactivated closed, and b) One equipment cooling fan is considered inoperative.	
58-02-02B		**C**	**1**	**0**	(M)(O) May be inoperative provided: a) Inboard exhaust valve is deactivated open, b) Equipment cooling supply fan operates normally, c) Equipment cooling exhaust fan operates normally, d) Equipment cooling inboard supply valves are not deactivated closed, e) Equipment cooling barrier filter is not blocked, and f) Forward lower cargo compartment remains empty, except for ballast, empty cargo containers (ballast may be loaded in ULDs), fly away kits, pallets, and cargo restraint components. NOTE: Operator MELs must define items which are approved for inclusion in the fly away kits and which materials can be used as ballast.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
58-03	Equipment Cooling Bypass Valve					
58-03-01	747-8F					
58-03-01A		**C**	**1**	**0**	(M)(O) May be inoperative provided: a) Bypass valve is deactivated closed, b) Equipment cooling supply fan operates normally, c) Equipment cooling exhaust fan operates normally, d) Equipment cooling inboard exhaust valve is not deactivated closed, e) Equipment cooling inboard supply valves are not deactivated closed, f) Equipment cooling barrier filter is not blocked, g) FWD LOWER LOBE TEMP selector remains OFF, and h) Main deck cargo compartment remains empty, except for ballast, empty cargo containers (ballast may be loaded in ULDs), fly away kits, pallets, and cargo restraint components. NOTE: Operator MELs must define items which are approved for inclusion in the fly away kits and which materials can be used as ballast.	

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MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
58-03	Equipment Cooling Bypass Valve (Cont'd)					
58-03-01	747-8F (Cont'd)					
58-03-01B		**C**	**1**	**0**	(M)(O) May be inoperative provided: a) Bypass valve is deactivated closed, b) Equipment cooling supply fan operates normally, c) Equipment cooling exhaust fan operates normally, d) Equipment cooling inboard exhaust valve is not deactivated closed, e) Equipment cooling inboard supply valves are not deactivated closed, f) Equipment cooling barrier filter is not blocked, g) FWD LOWER LOBE TEMP selector remains above 50 degrees F (10 degrees C), and h) Main deck cargo compartment remains empty, except for ballast, empty cargo containers (ballast may be loaded in ULDs), fly away kits, pallets, and cargo restraint components. NOTE: Operator MELs must define items which are approved for inclusion in the fly away kits and which materials can be used as ballast.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
58-03	Equipment Cooling Bypass Valve (Cont'd)					
58-03-02	747-8I	**C**	**1**	**0**	(M) May be inoperative provided: a) Bypass valve is deactivated closed, b) Equipment cooling supply fan operates normally, c) Equipment cooling exhaust fan operates normally, d) Equipment cooling inboard exhaust valve is not deactivated closed, e) Equipment cooling inboard supply valves are not deactivated closed, and f) Equipment cooling barrier filter is not blocked.	
58-04	Equipment Cooling Exhaust Fan	**C**	**1**	**0**	(M) May be inoperative provided: a) Exhaust fan is deactivated, b) Equipment cooling supply fan operates normally, c) Equipment cooling bypass valve operates normally, d) Equipment cooling inboard exhaust valve is not deactivated open, and e) For ground operations above 29 degrees C OAT, at least one pack is operated or airplane is supplied with conditioned air.	
58-05	Equipment Cooling Inboard Supply Valves					
58-05A		**C**	**2**	**0**	(M) May be inoperative provided: a) Inoperative inboard supply valve is deactivated closed, and b) One equipment cooling fan is considered inoperative.	
58-05B		**C**	**2**	**1**	(M) One may be inoperative deactivated open.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
58-06	Equipment Cooling Supply Fan	**C**	**1**	**0**	(M) May be inoperative provided: a) Supply fan is deactivated, b) Equipment cooling exhaust fan operates normally, c) Equipment cooling bypass valve operates normally, d) Equipment cooling inboard exhaust valve is not deactivated open, and e) For ground operations above 29 degrees C OAT, at least one pack is operated or airplane is supplied with conditioned air.	
58-07	Equipment Cooling Ground Exhaust Valve	**C**	**1**	**0**	(M) May be inoperative provided: a) Ground exhaust valve is deactivated closed, b) EQUIP COOLING selector is set to STBY, and c) For ground operations above 41 degrees C OAT, at least one pack is operated or airplane is supplied with conditioned air.	
58-08	Equipment Cooling Barrier Filter					
58-08A		**C**	**1**	**0**	(M) May be removed.	
58-08B		**C**	**1**	**0**	May be blocked provided one equipment cooling fan is considered inoperative.	
58-09	Aft Equipment Cooling Fans (747-8F)	**C**	**2**	**1**		

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

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Sequence No.	Item	1	2	3	4	Change Bar
58-10	Equipment Cooling Three-Way Valve (747 8F)					
58-10A		**C**	**1**	**0**	(M)(O) May be inoperative provided: a) Three-way valve is deactivated closed (C-B position), and b) Main deck cargo compartment remains empty, except for ballast, empty cargo containers (ballast may be loaded in ULDs), fly away kits, pallets, and cargo restraint components. NOTE: Operator MELs must define items which are approved for inclusion in the fly away kits and which materials can be used as ballast.	
58-10B		**B**	**1**	**0**	(M) May be inoperative provided: a) Three-way valve is deactivated open (A-B position), and b) At least two packs are operated continuously for flight instrument cooling.	
58-11	In-Flight Entertainment (IFE) Cooling System (747-8I)	**D**	**1**	**0**	(M) May be inoperative provided IFE system is deactivated.	
61-01	Trim Isolation Shutoff Valve (TSOV)	**C**	**1**	**0**	(M) May be inoperative deactivated closed.	
61-02	Trim Air Pressure Sensors (TPSs)	**C**	**2**	**0**		

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SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
61-03	Trim Pressure Regulating Shutoff Valves (TPRSOVs)					
61-03-01	747-8F					
61-03-01-01	Left TPRSOV	**C**	**1**	**0**	(M) May be inoperative provided: a) Left TPRSOV is deactivated closed, b) Right TPRSOV operates normally, c) Pack 3 operates normally, d) Air cycle machine (ACM) 3 operates normally, e) Pack temperature control valve (TCV) 3 operates normally, and f) Pre-trim air valve (TAV) 3 operates normally.	
61-03-01-02	Right TPRSOV	**C**	**1**	**0**	(M) May be inoperative provided: a) Right TPRSOV is deactivated closed, b) Left TPRSOV operates normally, c) Pack 1 operates normally, d) Air cycle machine (ACM) 1 operates normally, e) Pack temperature control valve (TCV) 1 operates normally, and f) Pre-trim air valve (TAV) 1 operates normally.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
61-03	Trim Pressure Regulating Shutoff Valves (TPRSOVs) (Cont'd)					
61-03-02	747-8I					
61-03-02-01	Left TPRSOV	**C**	**1**	**0**	(M) May be inoperative provided: a) Left TPRSOV is deactivated closed, b) Right TPRSOV operates normally, c) Pack 3 operates normally, d) Air cycle machine (ACM) 3 operates normally, and e) Pack temperature control valve (TCV) 3 operates normally.	
61-03-02-02	Right TPRSOV	**C**	**1**	**0**	(M) May be inoperative provided: a) Right TPRSOV is deactivated closed, b) Left TPRSOV operates normally, c) Pack 1 operates normally, d) Air cycle machine (ACM) 1 operates normally, and e) Pack temperature control valve (TCV) 1 operates normally.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
61-04	Main Deck Trim Air Valves (TAVs)					
61-04-01	747-8F	**C**	**2**	**0**	(M) May be inoperative deactivated closed.	
61-04-01-01	Forward Main Deck TAV	**C**	**1**	**0**	May be inoperative provided: a) Pack 1 operates normally, b) Air cycle machine (ACM) 1 operates normally, c) Pack temperature control valve (TCV) 1 operates normally, d) Left trim pressure regulating shutoff valve (TPRSOV) operates normally, e) Pre-TAV 1 operates normally, and f) R TRIM AIR switch remains Off.	
61-04-01-02	Aft Main Deck TAV	**C**	**1**	**0**	May be inoperative provided: a) Pack 3 operates normally, b) Air cycle machine (ACM) 3 operates normally, c) Pack temperature control valve (TCV) 3 operates normally, d) Right trim pressure regulating shutoff valve (TPRSOV) operates normally, e) Pre-TAV 3 operates normally, and f) L TRIM AIR switch remains Off.	

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MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
61-04	Main Deck Trim Air Valves (TAVs) (Cont'd)					
61-04-02	747-8I	**C**	**5**	**0**	(M) May be inoperative deactivated closed.	
61-04-02-01	Main Deck Zone A TAV	**C**	**1**	**0**	May be inoperative provided: a) Pack 3 operates normally, b) Air cycle machine (ACM) 3 operates normally, c) Pack temperature control valve (TCV) 3 operates normally, d) Right trim pressure regulating shutoff valve (TPRSOV) operates normally, and e) L TRIM AIR switch remains Off.	
61-04-02-02	Main Deck Zone B TAV	**C**	**1**	**0**	May be inoperative provided: a) Pack 1 operates normally, b) Air cycle machine (ACM) 1 operates normally, c) Pack temperature control valve (TCV) 1 operates normally, d) Left trim pressure regulating shutoff valve (TPRSOV) operates normally, and e) R TRIM AIR switch remains Off.	
61-04-02-03	Main Deck Zone C TAV	**C**	**1**	**0**	May be inoperative provided: a) Pack 3 operates normally, b) Air cycle machine (ACM) 3 operates normally, c) Pack temperature control valve (TCV) 3 operates normally, d) Right trim pressure regulating shutoff valve (TPRSOV) operates normally, and e) L TRIM AIR switch remains Off.	

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MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
61-04	Main Deck Trim Air Valves (TAVs) (Cont'd)					
61-04-02	747-8I (Cont'd)					
61-04-02-04	Main Deck Zone D TAV	**C**	**1**	**0**	May be inoperative provided: a) Pack 1 operates normally, b) Air cycle machine (ACM) 1 operates normally, c) Pack temperature control valve (TCV) 1 operates normally, d) Left trim pressure regulating shutoff valve (TPRSOV) operates normally, and e) R TRIM AIR switch remains OFF.	
61-04-02-05	Main Deck Zone E TAV	**C**	**1**	**0**	May be inoperative provided: a) Pack 3 operates normally, b) Air cycle machine (ACM) 3 operates normally, c) Pack temperature control valve (TCV) 3 operates normally, d) Right trim pressure regulating shutoff valve (TPRSOV) operates normally, and e) L TRIM AIR switch remains OFF.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
61-05	Pre-Trim Air Valves (TAVs) (747-8F)					
61-05-01	Pre-TAV 1	**C**	**1**	**0**	(M) May be inoperative provided: a) Pre-TAV 1 is deactivated closed, b) Pre-TAV 3 operates normally, c) Pack 3 operates normally, d) Air cycle machine (ACM) 3 operates normally, e) Pack temperature control valve (TCV) 3 operates normally, and f) Right trim pressure regulating shutoff valve (TPRSOV) operates normally.	
61-05-02	Pre-TAV 3	**C**	**1**	**0**	(M) May be inoperative provided: a) Pre-TAV 3 is deactivated closed, b) Pre-TAV 1 operates normally, c) Pack 1 operates normally, d) Air cycle machine (ACM) 1 operates normally. e) Pack temperature control valve (TCV) 1 operates normally, and f) Left trim pressure regulating shutoff valve (TPRSOV) operates normally.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
61-06	Flight Deck Trim Air Valve (TAV)					
61-06-01	747-8F					
61-06-01A		**C**	**1**	**0**	(M) May be inoperative deactivated closed.	
61-06-01B		**C**	**1**	**0**	May be inoperative provided: a) Pack 3 operates normally, b) Air cycle machine (ACM) 3 operates normally, c) Pack temperature control valve (TCV) 3 operates normally, d) Right trim pressure regulating shutoff valve (TPRSOV) operates normally, e) Pre-TAV 3 operates normally, and f) L TRIM AIR switch remains OFF.	
61-06-02	747-8I					
61-06-02A		**C**	**1**	**0**	(M) May be inoperative deactivated closed.	
61-06-02B		**C**	**1**	**0**	May be inoperative provided: a) Pack 3 operates normally, b) Air cycle machine (ACM) 3 operates normally, c) Pack temperature control valve (TCV) 3 operates normally, d) Right trim pressure regulating shutoff valve (TPRSOV) operates normally, and e) L TRIM AIR switch remains OFF.	

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21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
61-07	Upper Deck Trim Air Valve (TAV)					
61-07-01	747-8F					
61-07-01A		**C**	**1**	**0**	(M) May be inoperative deactivated closed.	
61-07-01B		**C**	**1**	**0**	May be inoperative provided: a) Pack 3 operates normally, b) Air cycle machine (ACM) 3 operates normally, c) Pack temperature control valve (TCV) 3 operates normally, d) Right trim pressure regulating shutoff valve (TPRSOV) operates normally, e) Pre-TAV 3 operates normally, and f) L TRIM AIR switch remains OFF.	
61-07-02	747-8I					
61-07-02A		**C**	**1**	**0**	(M) May be inoperative deactivated closed.	
61-07-02B		**C**	**1**	**0**	May be inoperative provided: a) Pack 1 operates normally, b) Air cycle machine (ACM) 1 operates normally, c) Pack temperature control valve (TCV) 1 operates normally, d) Left trim pressure regulating shutoff valve (TPRSOV) operates normally, and e) R TRIM AIR switch remains OFF.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
61-08	Crew Rest Trim Air Valve (TAV) (747-8F)					
61-08A		**C**	**1**	**0**	(M) May be inoperative deactivated closed.	
61-08B		**C**	**1**	**0**	May be inoperative provided: a) Pack 3 operates normally, b) Air cycle machine (ACM) 3 operates normally, c) Pack temperature control valve (TCV) 3 operates normally, d) Right trim pressure regulating shutoff valve (TPRSOV) operates normally, e) Pre-TAV 3 operates normally, and f) L TRIM AIR switch remains OFF.	
61-09	Forward Cargo Trim Air Valve (TAV) (747 8F)					
61-09A		**C**	**1**	**0**	(M) May be inoperative deactivated closed.	
61-09B		**C**	**1**	**0**	May be inoperative provided: a) Pack 1 operates normally, b) Air cycle machine (ACM) 1 operates normally, c) Pack temperature control valve (TCV) 1 operates normally, d) Left trim pressure regulating shutoff valve (TPRSOV) operates normally, e) Pre-TAV 1 operates normally, and f) R TRIM AIR switch remains OFF.	

MMEL TABLE KEY

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Sequence No.	Item	1	2	3	4	Change Bar
61-10	Aft Cargo Trim Air Valve (TAV)					
61-10-01	747-8F					
61-10-01A		**C**	**1**	**0**	(M) May be inoperative deactivated closed.	
61-10-01B		**C**	**1**	**0**	May be inoperative provided: a) Pack 1 operates normally, b) Air cycle machine (ACM) 1 operates normally, c) Pack temperature control valve (TCV) 1 operates normally, d) Left trim pressure regulating shutoff valve (TPRSOV) operates normally, e) Pre-TAV 1 operates normally, and f) R TRIM AIR switch remains OFF.	
61-10-02 ***	747-8I					
61-10-02A		**C**	**1**	**0**	(M) May be inoperative deactivated closed.	
61-10-02B		**C**	**1**	**0**	May be inoperative provided: a) Pack 1 operates normally, b) Air cycle machine (ACM) 1 operates normally, c) Pack temperature control valve (TCV) 1 operates normally, d) Left trim pressure regulating shutoff valve (TPRSOV) operates normally, and e) R TRIM AIR switch remains OFF.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

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Sequence No.	Item	1	2	3	4	Change Bar
61-11	Duct Temperature Sensors (DTSs)					
61-11-01	747-8F					
61-11-01-01	Pre-Trim DTSs	**C**	**2**	**1**	One may be inoperative provided associated pre trim air valve (TAV) is considered inoperative.	
61-11-01-02	Flight Deck DTS	**C**	**1**	**0**	May be inoperative provided: a) Flight deck zone temperature sensor (ZTS) operates normally, and b) Flight deck trim air valve (TAV) is considered inoperative.	
61-11-01-03	Upper Deck DTS	**C**	**1**	**0**	May be inoperative provided: a) Upper deck zone temperature sensor (ZTS) operates normally, and b) Upper deck trim air valve (TAV) is considered inoperative.	
61-11-01-04	Crew Rest DTS	**C**	**1**	**0**	May be inoperative provided: a) One crew rest zone temperature sensor (ZTS) operates normally, and b) Crew rest trim air valve (TAV) is considered inoperative.	
61-11-01-05	Forward Main Deck DTS	**C**	**1**	**0**	May be inoperative provided: a) One forward main deck zone temperature sensor (ZTS) operates normally, and b) Forward main deck trim air valve (TAV) is considered inoperative.	

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MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
61-11	Duct Temperature Sensors (DTSs) (Cont'd)					
61-11-01	747-8F (Cont'd)					
61-11-01-06	Aft Main Deck DTS	**C**	**1**	**0**	May be inoperative provided: a) One aft main deck zone temperature sensor (ZTS) operates normally, and b) Aft main deck trim air valve (TAV) is considered inoperative.	
61-11-01-07	Forward Cargo DTS					
61-11-01-07A		**C**	**1**	**0**	May be inoperative provided: a) Forward cargo zone temperature sensor (ZTS) operates normally, and b) Forward cargo trim air valve (TAV) is considered inoperative.	
61-11-01-07B		**C**	**1**	**0**	May be inoperative provided FWD LOWER LOBE TEMP selector remains OFF.	
61-11-01-08	Aft Cargo DTS					
61-11-01-08A		**C**	**1**	**0**	May be inoperative provided: a) Aft cargo zone temperature sensor (ZTS) operates normally, and b) Aft cargo trim air valve (TAV) is considered inoperative.	
61-11-01-08B		**C**	**1**	**0**	May be inoperative provided AFT LOWER LOBE TEMP selector remains OFF.	

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MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
61-11	Duct Temperature Sensors (DTSs) (Cont'd)					
61-11-02	747-8I					
61-11-02-01	Flight Deck DTS	**C**	**1**	**0**	May be inoperative provided: a) Flight deck zone temperature sensor (ZTS) operates normally, and b) Flight deck trim air valve (TAV) is considered inoperative.	
61-11-02-02	Upper Deck DTS	**C**	**1**	**0**	May be inoperative provided: a) Upper deck zone temperature sensor (ZTS) operates normally, and b) Upper deck trim air valve (TAV) is considered inoperative.	
61-11-02-03	Main Deck Zone A DTS	**C**	**1**	**0**	May be inoperative provided: a) Main deck zone A zone temperature sensor (ZTS) operates normally, and b) Main deck zone A trim air valve (TAV) is considered inoperative.	
61-11-02-04	Main Deck Zone B DTS	**C**	**1**	**0**	May be inoperative provided: a) One main deck zone B zone temperature sensor (ZTS) operates normally, and b) Main deck zone B trim air valve (TAV) is considered inoperative.	

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MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
61-11	Duct Temperature Sensors (DTSs) (Cont'd)					
61-11-02	747-8I (Cont'd)					
61-11-02-05	Main Deck Zone C DTS	**C**	**1**	**0**	May be inoperative provided: a) One main deck zone C zone temperature sensor (ZTS) operates normally, and b) Main deck zone C trim air valve (TAV) is considered inoperative.	
61-11-02-06	Main Deck Zone D DTS	**C**	**1**	**0**	May be inoperative provided: a) One main deck zone D zone temperature sensor (ZTS) operates normally, and b) Main deck zone D trim air valve (TAV) is considered inoperative.	
61-11-02-07	Main Deck Zone E DTS	**C**	**1**	**0**	May be inoperative provided: a) Main deck zone E zone temperature sensor (ZTS) operates normally, and b) Main deck zone E trim air valve (TAV) is considered inoperative.	
61-11-02-08 ***	Aft Cargo DTS					
61-11-02-08A		**C**	**1**	**0**	May be inoperative provided: a) Aft cargo zone temperature sensor (ZTS) operates normally, and b) Aft cargo trim air valve (TAV) is considered inoperative.	
61-11-02-08B		**C**	**1**	**0**	May be inoperative provided AFT CARGO TEMP selector remains OFF.	

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Sequence No.	Item	1	2	3	4	Change Bar
61-12	Zone Temperature Sensors (ZTSs)					
61-12-01	747-8F					
61-12-01-01	Flight Deck ZTS	**C**	**1**	**0**	May be inoperative provided flight deck duct temperature sensor (DTS) operates normally.	
61-12-01-02	Upper Deck ZTS	**C**	**1**	**0**	May be inoperative provided upper deck duct temperature sensor (DTS) operates normally.	
61-12-01-03	Crew Rest ZTSs					
61-12-01-03A		**C**	**2**	**1**		
61-12-01-03B		**C**	**2**	**0**	May be inoperative provided crew rest duct temperature sensor (DTS) operates normally.	
61-12-01-04	Forward Main Deck ZTSs					
61-12-01-04A		**C**	**2**	**1**		
61-12-01-04B		**C**	**2**	**0**	May be inoperative provided forward main deck duct temperature sensor (DTS) operates normally.	

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SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
61-12	Zone Temperature Sensors (ZTSs) (Cont'd)					
61-12-01	747-8F (Cont'd)					
61-12-01-05	Aft Main Deck ZTSs					
61-12-01-05A		**C**	**2**	**1**		
61-12-01-05B		**C**	**2**	**0**	May be inoperative provided aft main deck duct temperature sensor (DTS) operates normally.	
61-12-01-06	Forward Cargo ZTS					
61-12-01-06A		**C**	**1**	**0**	May be inoperative provided forward cargo duct temperature sensor (DTS) operates normally.	
61-12-01-06B		**C**	**1**	**0**	May be inoperative provided FWD LOWER LOBE TEMP selector remains OFF.	
61-12-01-07	Aft Cargo ZTS					
61-12-01-07A		**C**	**1**	**0**	May be inoperative provided aft cargo duct temperature sensor (DTS) operates normally.	
61-12-01-07B		**C**	**1**	**0**	May be inoperative provided AFT LOWER LOBE TEMP selector remains OFF.	
61-12-01-08	Bulk Cargo ZTSs	**C**	**2**	**0**		

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
61-12	Zone Temperature Sensors (ZTSs) (Cont'd)					
61-12-02	747-8I without Aft Cargo Air Conditioning					
61-12-02-01	Flight Deck ZTS	**C**	**1**	**0**	May be inoperative provided flight deck duct temperature sensor (DTS) operates normally.	
61-12-02-02	Upper Deck ZTS	**C**	**1**	**0**	May be inoperative provided upper deck duct temperature sensor (DTS) operates normally.	
61-12-02-03	Main Deck Zone A ZTS	**C**	**1**	**0**	May be inoperative provided main deck zone A duct temperature sensor (DTS) operates normally.	
61-12-02-04	Main Deck Zone B ZTSs					
61-12-02-04A		**C**	**2**	**1**		
61-12-02-04B		**C**	**2**	**0**	May be inoperative provided main deck zone B duct temperature sensor (DTS) operates normally.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
61-12	Zone Temperature Sensors (ZTSs) (Cont'd)					
61-12-02	747-8I without Aft Cargo Air Conditioning (Cont'd)					
61-12-02-05	Main Deck Zone C ZTSs					
61-12-02-05A		**C**	**2**	**1**		
61-12-02-05B		**C**	**2**	**0**	May be inoperative provided main deck zone C duct temperature sensor (DTS) operates normally.	
61-12-02-06	Main Deck Zone D ZTSs					
61-12-02-06A		**C**	**2**	**1**		
61-12-02-06B		**C**	**2**	**0**	May be inoperative provided main deck zone D duct temperature sensor (DTS) operates normally.	
61-12-02-07	Main Deck Zone E ZTS	**C**	**1**	**0**	May be inoperative provided main deck zone E duct temperature sensor (DTS) operates normally.	
61-12-02-08	Forward Cargo ZTS	**C**	**1**	**0**		

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
61-12	Zone Temperature Sensors (ZTSs) (Cont'd)					
61-12-02	747-8I without Aft Cargo Air Conditioning (Cont'd)					
61-12-02-09	Aft Cargo ZTS	**C**	**1**	**0**		
61-12-02-10	Bulk Cargo ZTSs	**C**	**2**	**0**		
61-12-03	747-8I with Aft Cargo Air Conditioning					
61-12-03-01	Flight Deck ZTS	**C**	**1**	**0**	May be inoperative provided flight deck duct temperature sensor (DTS) operates normally.	
61-12-03-02	Upper Deck ZTS	**C**	**1**	**0**	May be inoperative provided upper deck duct temperature sensor (DTS) operates normally.	
61-12-03-03	Main Deck Zone A ZTS	**C**	**1**	**0**	May be inoperative provided main deck zone A duct temperature sensor (DTS) operates normally.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
61-12	Zone Temperature Sensors (ZTSs) (Cont'd)					
61-12-03	747-8I with Aft Cargo Air Conditioning (Cont'd)					
61-12-03-04	Main Deck Zone B ZTSs					
61-12-03-04A		**C**	**2**	**1**		
61-12-03-04B		**C**	**2**	**0**	May be inoperative provided main deck zone B duct temperature sensor (DTS) operates normally.	
61-12-03-05	Main Deck Zone C ZTSs					
61-12-03-05A		**C**	**2**	**1**		
61-12-03-05B		**C**	**2**	**0**	May be inoperative provided main deck zone C duct temperature sensor (DTS) operates normally.	
61-12-03-06	Main Deck Zone D ZTSs					
61-12-03-06A		**C**	**2**	**1**		
61-12-03-06B		**C**	**2**	**0**	May be inoperative provided main deck zone D duct temperature sensor (DTS) operates normally.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
61-12	Zone Temperature Sensors (ZTSs) (Cont'd)					
61-12-03	747-8I with Aft Cargo Air Conditioning (Cont'd)					
61-12-03-07	Main Deck Zone E ZTS	**C**	**1**	**0**	May be inoperative provided main deck zone E duct temperature sensor (DTS) operates normally.	
61-12-03-08	Forward Cargo ZTS	**C**	**1**	**0**		
61-12-03-09	Aft Cargo ZTS					
61-12-03-09A		**C**	**1**	**0**	May be inoperative provided aft cargo duct temperature sensor (DTS) operates normally.	
61-12-03-09B		**C**	**1**	**0**	May be inoperative provided AFT CARGO TEMP selector remains OFF.	
61-12-03-10	Bulk Cargo ZTSs	**C**	**2**	**0**		
61-13	Flight Deck Temperature Selector	**C**	**1**	**0**	(M) AUTO mode may be inoperative provided MAN control mode is verified to operate normally.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
61-14	Cargo Temperature Selectors					
61-14-01	747-8F	**C**	**4**	**0**		
61-14-02 ***	747-8I	**C**	**1**	**0**		
61-15	Cabin Temperature Selector (747-8F)	**C**	**1**	**0**	NOTE: Any function that operates normally may be used.	
62-01	Ram Air Door Systems	**C**	**3**	**2**	(M) One may be inoperative provided: a) Associated inlet and exit doors are deactivated closed, and b) Associated pack is considered inoperative.	
62-01-01	Inlet Doors	**C**	**3**	**2**	(M) One may be inoperative provided: a) Inoperative inlet door is deactivated 70-75% closed, b) Associated exit door operates normally, c) Associated air cycle machine (ACM) operates normally, and d) Associated pack temperature control valve (TCV) operates normally.	
62-01-02	Exit Doors	**C**	**3**	**2**	(M)(O) One may be inoperative provided: a) Inoperative exit door is deactivated 80-85% closed, b) Associated inlet door operates normally, c) Associated air cycle machine (ACM) operates normally, d) Associated pack temperature control valve (TCV) operates normally, and e) Alternate procedures are used for associated pack.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
63-01	Integrated Air System Controllers (IASCs)					
63-01-01	747-8F					
63-01-01-01	IASC 1 Channels					
63-01-01-01A		**C**	**2**	**1**	IASC 1 channel A may be inoperative provided: a) Bleed systems on engines 3 and 4 operate normally, and b) APU-to-Pack Takeoff Supplementary Procedure is not used.	
63-01-01-01B		**C**	**2**	**1**	IASC 1 channel B may be inoperative provided: a) Bleed systems on engines 3 and 4 operate normally, b) Pack 1 is not used, and c) APU-to-Pack Takeoff Supplementary Procedure is not used.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
63-01	Integrated Air System Controllers (IASCs) (Cont'd)					
63-01-01	747-8F (Cont'd)					
63-01-01-02	IASC 2 Channels					
63-01-01-02A		**C**	**2**	**1**	IASC 2 channel A may be inoperative.	
63-01-01-02B		**C**	**2**	**1**	IASC 2 channel B may be inoperative provided pack 2 is not used.	
63-01-01-02C		**C**	**2**	**1**	May be inoperative provided: a) Pack 2 is considered inoperative, b) Trim isolation shutoff valve (TSOV) is considered inoperative, c) Forward main deck trim air valve (TAV) is considered inoperative, d) Aft cargo trim air valve (TAV) is considered inoperative, and e) APU pneumatic function is considered inoperative.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
63-01	Integrated Air System Controllers (IASCs) (Cont'd)					
63-01-01	747-8F (Cont'd)					
63-01-01-03	IASC 3 Channels					
63-01-01-03A		**C**	**2**	**1**	IASC 3 channel A may be inoperative provided: a) Bleed systems on engines 1 and 2 operate normally, and b) APU-to-Pack Takeoff Supplementary Procedure is not used.	
63-01-01-03B		**C**	**2**	**1**	IASC 3 channel B may be inoperative provided: a) Bleed systems on engines 1 and 2 operate normally, b) Pack 3 is not used, and c) APU-to-Pack Takeoff Supplementary Procedure is not used.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
63-01	Integrated Air System Controllers (IASCs) (Cont'd)					
63-01-02	747-8I without Aft Cargo Air Conditioning					
63-01-02-01	IASC 1 Channels					
63-01-02-01A		**C**	**2**	**1**	IASC 1 channel A may be inoperative provided: a) Bleed systems on engines 3 and 4 operate normally, and b) APU-to-Pack Takeoff Supplementary Procedure is not used.	
63-01-02-01B		**C**	**2**	**1**	IASC 1 channel B may be inoperative provided: a) Bleed systems on engines 3 and 4 operate normally, b) Pack 1 is not used, and c) APU-to-Pack Takeoff Supplementary Procedure is not used.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
63-01	Integrated Air System Controllers (IASCs) (Cont'd)					
63-01-02	747-8I without Aft Cargo Air Conditioning (Cont'd)					
63-01-02-02	IASC 2 Channels					
63-01-02-02A		**C**	**2**	**1**	IASC 2 channel A may be inoperative.	
63-01-02-02B		**C**	**2**	**1**	IASC 2 channel B may be inoperative provided pack 2 is not used.	
63-01-02-02C		**C**	**2**	**0**	May be inoperative provided: a) Pack 2 is considered inoperative, b) Trim isolation shutoff valve (TSOV) is considered inoperative, c) Main deck zone C trim air valve (TAV) is considered inoperative, d) Main deck zone E trim air valve (TAV) is considered inoperative, and e) APU pneumatic function is considered inoperative.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
63-01	Integrated Air System Controllers (IASCs) (Cont'd)					
63-01-02	747-8I without Aft Cargo Air Conditioning (Cont'd)					
63-01-02-03	IASC 3 Channels					
63-01-02-03A		**C**	**2**	**1**	IASC 3 channel A may be inoperative provided: a) Bleed systems on engines 1 and 2 operate normally, and b) APU-to-Pack Takeoff Supplementary Procedure is not used.	
63-01-02-03B		**C**	**2**	**1**	IASC 3 channel B may be inoperative provided: a) Bleed systems on engines 1 and 2 operate normally, b) Pack 3 is not used, and c) APU-to-Pack Takeoff Supplementary Procedure is not used.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
63-01	Integrated Air System Controllers (IASCs) (Cont'd)					
63-01-03	747-8I with Aft Cargo Air Conditioning					
63-01-03-01	IASC 1 Channels					
63-01-03-01A		**C**	**2**	**1**	IASC 1 channel A may be inoperative provided: a) Bleed systems on engines 3 and 4 operate normally, and b) APU-to-Pack Takeoff Supplementary Procedure is not used.	
63-01-03-01B		**C**	**2**	**1**	IASC 1 channel B may be inoperative provided: a) Bleed systems on engines 3 and 4 operate normally, b) Pack 1 is not used, and c) APU-to-Pack Takeoff Supplementary Procedure is not used.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
63-01	Integrated Air System Controllers (IASCs) (Cont'd)					
63-01-03	747-8I with Aft Cargo Air Conditioning (Cont'd)					
63-01-03-02	IASC 2 Channels					
63-01-03-02A		**C**	**2**	**1**	IASC 2 channel A may be inoperative.	
63-01-03-02B		**C**	**2**	**1**	IASC 2 channel B may be inoperative provided pack 2 is not used.	
63-01-03-02C		**C**	**2**	**0**	May be inoperative provided: a) Pack 2 is considered inoperative, b) Trim isolation shutoff valve (TSOV) is considered inoperative, c) Main deck zone C trim air valve (TAV) is considered inoperative, d) Main deck zone E trim air valve (TAV) is considered inoperative, e) Aft cargo trim air valve (TAV) is considered inoperative, and f) APU pneumatic function is considered inoperative.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

21. AIR CONDITIONING

Sequence No.	Item	1	2	3	4	Change Bar
63-01	Integrated Air System Controllers (IASCs) (Cont'd)					
63-01-03	747-8I with Aft Cargo Air Conditioning (Cont'd)					
63-01-03-03	IASC 3 Channels					
63-01-03-03A		**C**	**2**	**1**	IASC 3 channel A may be inoperative provided: a) Bleed systems on engines 1 and 2 operate normally, and b) APU-to-Pack Takeoff Supplementary Procedure is not used.	
63-01-03-03B		**C**	**2**	**1**	IASC 3 channel B may be inoperative provided: a) Bleed systems on engines 1 and 2 operate normally, b) Pack 3 is not used, and c) APU-to-Pack Takeoff Supplementary Procedure is not used.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

22. AUTOFLIGHT

Sequence No.	Item	1	2	3	4	Change Bar
10-01	Autopilot Systems					
10-01A		**C**	**3**	**2**	(M)(O) One may be inoperative provided: a) Associated autopilot servo is deactivated, b) A/P SINGLE SYS indication is not displayed on EICAS, and c) Approach minimums do not require use of the autopilot.	
10-01B		**C**	**3**	**1**	(M)(O) May be inoperative provided: a) Associated autopilot servos are deactivated, b) At least two flight control computer (FCC) power circuit breakers remain closed to provide inputs to lateral control electronics (LCE), c) A/P SINGLE SYS indication is not displayed on EICAS, and d) Approach minimums do not require use of the autopilots.	
10-01C		**B**	**3**	**0**	(M) May be inoperative provided: a) All autopilot servos are deactivated, b) At least two flight control computer (FCC) power circuit breakers remain closed to provide inputs to lateral control electronics (LCE), c) Enroute operations do not require use of the autopilots, d) Approach minimums do not require use of the autopilots, and e) Number of flight segments and segment duration is acceptable to flight crew.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

22. AUTOFLIGHT

Sequence No.	Item	1	2	3	4	Change Bar
11-01	Control Wheel Autopilot Disengage Switches					
11-01A		**C**	**2**	**1**	One may be inoperative provided: a) Autopilot is not used below 1500 feet AGL, and b) Approach minimums do not require use of the autopilot.	
11-01B		**B**	**2**	**0**	May be inoperative provided: a) Autopilot is not used, b) Enroute operations do not require use of the autopilots, c) Approach minimums do not require use of the autopilots, and d) Number of flight segments and segment duration is acceptable to flight crew.	
11-02	Mode Control Panel Windows					
11-02-01	Airspeed (IAS/MACH)	**C**	**1**	**0**		
11-02-02	Heading (HDG)	**C**	**1**	**0**		
11-02-03	Vertical Speed (VERT SPD)	**C**	**1**	**0**		
11-02-04	Altitude (ALT)	**C**	**1**	**0**		
11-02-05	Window Lighting	**B**	**1**	**0**		

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

22. AUTOFLIGHT

Sequence No.	Item	1	2	3	4	Change Bar
11-03	Mode Control Panel Selectors					
11-03-01	V/S Selector (DN, UP)	**C**	**1**	**0**		
11-03-02	BANK LIMIT Selector (AUTO, 5, 10, 15, 20, 25)	**C**	**1**	**0**		
11-03-03	Selector Push Functions					
11-03-03-01	ALT	**C**	**1**	**0**		
11-03-03-02	HDG SEL	**C**	**1**	**0**		
11-03-03-03	IAS/MACH	**C**	**1**	**0**		

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

22. AUTOFLIGHT

Sequence No.	Item	1	2	3	4	Change Bar
11-04	Mode Control Panel Switches					
11-04-01	Autopilot (A/P) ENGAGE Switches					
11-04-01A		**C**	**3**	**1**		
11-04-01B		**B**	**3**	**0**	May be inoperative provided: a) Enroute operations do not require use of the autopilots, b) Approach minimums do not require use of the autopilots, and c) Number of flight segments and segment duration is acceptable to flight crew.	
11-04-02	Autothrottle (A/T) ARM Switch					
11-04-02A		**C**	**1**	**0**	May be inoperative ARM provided both autothrottle disconnect switches operate normally.	
11-04-02B		**C**	**1**	**0**	May be inoperative OFF provided autothrottle system is considered inoperative.	
11-04-03	A/T Speed Mode Engage Switch (SPD)	**C**	**1**	**0**	May be inoperative provided approach minimums do not require use of the autothrottle.	
11-04-04	Flight Director Switches (F/D)	**C**	**2**	**0**	May be inoperative provided procedures do not require use of the flight director.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

22. AUTOFLIGHT

Sequence No.	Item	1	2	3	4	Change Bar
11-04	Mode Control Panel Switches (Cont'd)					
11-04-05	IAS/MACH Select (SEL) Switch	**C**	**1**	**0**	May be inoperative provided IAS is displayed in associated window.	
11-04-06	Approach (APP) Switch	**C**	**1**	**0**	May be inoperative provided approach minimums do not require use of the autopilot or flight director.	
11-04-07	Localizer (LOC) Switch	**C**	**1**	**0**	May be inoperative provided integrated approach navigation (IAN) final approach course (FAC) only or localizer only approach is not used.	
11-04-08	Thrust (THR), Lateral Navigation (LNAV), Vertical Navigation (VNAV), Flight Level Change (FLCH), Heading (HOLD), Vertical Speed (V/S), and Altitude (HOLD) Switches	**C**	**7**	**0**	May be inoperative provided procedures do not require their use.	
11-05	Mode Control Panel Switch Lights					
11-05-01	Autopilot (A/P) ENGAGE Switch Lights (CMD)	**C**	**3**	**2**		
11-05-02	Mode Selector Switch Lights	**C**	**10**	**0**		

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

22. AUTOFLIGHT

Sequence No.	Item	1	2	3	4	Change Bar
11-06	Flight Director Systems	**C**	**2**	**0**	May be inoperative provided procedures do not require their use.	
13-01	Automatic Landing System (Autoland)	**C**	**1**	**0**	May be inoperative provided approach minimums do not require its use.	
13-01-01	Triple Channel Autoland (LAND 3)	**C**	**1**	**0**	May be inoperative provided approach minimums do not require its use.	
13-01-02	Automatic Rollout Control	**C**	**1**	**0**	May be inoperative provided approach minimums do not require its use.	
21-01	Yaw Damper Functions	**C**	**2**	**1**	(M) One may be inoperative provided: a) Remaining yaw damper function is verified to operate normally, and b) Associated YAW DAMPER switch remains OFF.	
21-02	Yaw Damper INOP Lights	**C**	**2**	**0**		
21-03	Yaw Damper Stabilizer Trim Module (YSM) Monitoring Functions					
21-03-01	Gross Weight	**C**	**1**	**0**	May be dispatched with YSM GROSS WEIGHT faults.	
21-03-02	YSM Interface	**C**	**1**	**0**	May be dispatched with YSM INTERFACE faults.	
31-01	Autothrottle System	**C**	**1**	**0**	May be inoperative provided approach minimums do not require its use. NOTE: Any mode that operates normally may be used.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

22. AUTOFLIGHT

Sequence No.	Item	1	2	3	4	Change Bar
31-02	Autothrottle Disconnect Switches					
31-02A		**C**	**2**	**1**	One may be inoperative provided autothrottle (A/T) ARM switch operates normally.	
31-02B		**C**	**2**	**0**	May be inoperative provided: a) Autothrottle is not armed, and b) Approach minimums do not require use of the autothrottle.	
31-03	Takeoff/Go-Around (TO/GA) Switches					
31-03A		**C**	**2**	**1**	One may be inoperative provided approach minimums do not require its use.	
31-03B		**C**	**2**	**0**	May be inoperative provided: a) Thrust levers are operated manually for takeoff and go-around, and b) Autopilot and flight director are not used below 500 feet AGL or MDA, whichever is higher. NOTE: Flight director go-around and windshear guidance are not available with both TO/GA switches inoperative.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

23. COMMUNICATIONS

Sequence No.	Item	1	2	3	4	Change Bar
10-01	Radio Tuning Panels (RTPs)	**C**	**3**	**2**	Center or right RTP may be inoperative.	
11-01	High Frequency (HF) Communication Systems					
11-01A		**D**	**2**	**-**	Any in excess of those required by 14 CFR may be inoperative.	
11-01B		**C**	**2**	**1**	(O) May be inoperative while conducting operations that require two LRCS provided: a) Aircraft SATVOICE system operates normally, b) SATVOICE services are available as a LRCS over the intended route of flight, c) The ICAO Flight Plan is updated (as required) to notify ATC of the communications equipment status of the aircraft, and d) Alternate procedures are established and used.	
11-01-01	HF Datalink Systems					
11-01-01A		**C**	**2**	**0**	(O) May be inoperative provided alternate procedures are established and used.	
11-01-01B		**D**	**2**	**0**	May be inoperative provided procedures do not require their use.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

23. COMMUNICATIONS

Sequence No.	Item	1	2	3	4	Change Bar
12-01	Very High Frequency (VHF) Communications Systems	**D**	**3**	**-**	Any in excess of those required by 14 CFR may be inoperative provided left VHF radio operates normally.	
24-01	Fixed Emergency Locator Transmitter (ELT)					
24-01A		**A**	**1**	**0**	(M) May be inoperative provided: a) ELT is deactivated, and b) Repairs are made within 90 calendar days.	
24-01B		**A**	**1**	**0**	May be missing provided repairs are made within 90 calendar days.	
24-01C		**D**	**1**	**0**	(M) Any in excess of those required by 14 CFR may be inoperative provided ELT is deactivated.	
24-01D		**D**	**1**	**0**	Any in excess of those required by 14 CFR may be missing.	
25-01	Satellite Communication (SATCOM) System					
25-01A		**C**	**1**	**0**	(O) Except for ER operations, may be inoperative provided alternate procedures are established and used.	
25-01B		**D**	**1**	**0**	May be inoperative provided procedures do not require its use.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

23. COMMUNICATIONS

Sequence No.	Item	1	2	3	4	Change Bar
25-01	Satellite Communication (SATCOM) System (Cont'd)					
25-01-01	SATCOM Voice System					
25-01-01A		**C**	**1**	**0**	(O) Except for ER operations, may be inoperative provided alternate procedures are established and used.	
25-01-01B		**D**	**1**	**0**	May be inoperative provided procedures do not require its use.	
25-01-02	SATCOM Datalink System					
25-01-02A		**C**	**1**	**0**	(O) May be inoperative provided alternate procedures are established and used.	
25-01-02B		**D**	**1**	**0**	May be inoperative provided procedures do not require its use.	
27-01	Aircraft Communication Addressing and Reporting System (ACARS)					
27-01A		**C**	**1**	**0**	(O) May be inoperative provided alternate procedures are established and used.	
27-01B		**D**	**1**	**0**	May be inoperative provided procedures do not require its use.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

23. COMMUNICATIONS

Sequence No.	Item	1	2	3	4	Change Bar
27-01	Aircraft Communication Addressing and Reporting System (ACARS) (Cont'd)					
27-01-01	ACPT/CANC/RJCT Switch Lights	**C**	**6**	**0**		
28-01	Selective Call System (SELCAL)					
28-01A		**C**	**1**	**0**	(O) May be inoperative provided alternate procedures are established and used.	
28-01B		**D**	**1**	**0**	May be inoperative provided procedures do not require its use.	
31-01	Personnel Address (PA) System (747-8F)					
31-01A		**C**	**1**	**0**	(O) May be inoperative provided alternate procedures are established and used.	
31-01B		**D**	**1**	**0**	May be inoperative provided procedures do not require its use.	
31-01-01	Lavatory Speaker					
31-01-01A		**C**	**1**	**0**	(O) May be inoperative provided alternate procedures are established and used.	
31-01-01B		**D**	**1**	**0**	May be inoperative provided procedures do not require its use.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

23. COMMUNICATIONS

Sequence No.	Item	1	2	3	4	Change Bar
41-01	Service Interphone System					
41-01-01	Nose Gear Jack					
41-01-01A		**C**	**1**	**0**	(O) Service interphone flight deck to ground/ground to flight deck function may be inoperative provided: a) At least one nose gear flight interphone jack operates normally, and b) Alternate procedures are established and used.	
41-01-01B		**B**	**1**	**0**	(O) May be inoperative provided alternate procedures are established and used.	
41-01-02	Other Than Nose Gear Jack	**D**	**-**	**0**	May be inoperative provided procedures do not require their use.	
43-01	Ground Crew Call System	**C**	**1**	**0**	(O) May be inoperative provided: a) Equipment cooling system is continuously monitored during ground operations, and b) Alternate procedures are established and used.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

23. COMMUNICATIONS

Sequence No.	Item	1	2	3	4	Change Bar
45-01	Upper Deck Call and Communication System (747-8F)					
45-01-01	Flight Deck to Supernumerary, Supernumerary to Flight Deck Function					
45-01-01A		**C**	**1**	**0**	(O) May be inoperative provided alternate, normal and emergency procedures, and/or operating restrictions are established and used.	
45-01-01B		**D**	**1**	**0**	May be inoperative provided procedures do not require its use.	
45-01-02	Flight Deck to Crew Rest, Crew Rest to Flight Deck Functions					
45-01-02A		**C**	**2**	**0**	(O) May be inoperative provided alternate, normal and emergency procedures, and/or operating restrictions are established and used.	
45-01-02B		**D**	**2**	**0**	May be inoperative provided procedures do not require its use.	
45-01-03	Flight Deck Call System (Lights and EICAS Messages)					
45-01-03A		**B**	**1**	**0**	NOTE: The flight deck chime must always be operative.	
45-01-03B		**D**	**1**	**0**	May be inoperative provided supernumerary area and crew rest remain unoccupied.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

23. COMMUNICATIONS

Sequence No.	Item	1	2	3	4	Change Bar
45-01	Upper Deck Call and Communication System (747-8F) (Cont'd)					
45-01-04	Supernumerary Alerting System (Call Light and Chime)					
45-01-04A		**B**	**1**	**0**	(O) May be inoperative provided: a) Personnel address (PA) system operates normally, and b) Alternate procedures are established and used. NOTE: Any function that operates normally may be used.	
45-01-04B		**D**	**1**	**0**	May be inoperative provided supernumerary area remains unoccupied.	
45-01-05	Crew Rest Alerting System (Call Lights and Chime)					
45-01-05A		**B**	**1**	**0**	(O) May be inoperative provided: a) Personnel address (PA) system operates normally, and b) Alternate procedures are established and used. NOTE: Any function that operates normally may be used.	
45-01-05B		**D**	**1**	**0**	May be inoperative provided crew rest remains unoccupied.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

23. COMMUNICATIONS

Sequence No.	Item	1	2	3	4	Change Bar
45-02	Crew Rest Handset Systems (747-8F)					
45-02A		**C**	**2**	**0**	(O) May be inoperative provided alternate procedures for communication with crew rest occupants are established and used.	
45-02B		**D**	**2**	**0**	May be inoperative provided procedures do not require their use.	
46-01	Cargo Interphone/ Intercom System (747-8F)					
46-01A		**C**	**1**	**0**	(O) May be inoperative provided alternate procedures are established and used. NOTE: Any function that operates normally may be used.	
46-01B		**D**	**1**	**0**	May be inoperative provided procedures do not require its use.	
46-02	Loadmaster Handsets (747-8F)					
46-02A		**C**	**2**	**0**	(O) May be inoperative provided alternate procedures are established and used.	
46-02B		**D**	**2**	**0**	May be inoperative provided procedures do not require their use.	
51-01	Flight Deck Hand Microphones					
51-01A		**C**	**-**	**0**	May be inoperative or missing provided associated boom microphone operates normally.	
51-01B		**D**	**-**	**0**	May be inoperative or missing provided procedures do not require their use.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

23. COMMUNICATIONS

Sequence No.	Item	1	2	3	4	Change Bar
51-02	Flight Deck Headsets/ Headphones	**D**	**-**	**-**	Any in excess of those required by 14 CFR may be inoperative.	
51-02-01	Headset Boom Microphones	**A**	**-**	**0**	May be inoperative provided: a) Associated hand microphone is installed and operates normally, and b) Repairs are made within three flight days.	
51-02-02	Headset Earphones/ Headphones	**C**	**-**	**1**	Either captain's or first officer's earphone/headphones may be inoperative provided associated flight deck speaker operates normally.	
51-03	Flight Deck Speakers	**C**	**2**	**0**	May be inoperative provided: a) Associated headset earphones or headphones are installed and operate normally, and b) Procedures do not require their use.	
51-04	Audio Control Panels (ACPs)					
51-04-01	Captain's ACP	**C**	**1**	**0**	(O) May be inoperative provided first observer's ACP operates normally.	
51-04-02	First Observer's ACP	**A**	**1**	**0**	May be inoperative provided: a) Captain's ACP operates normally, and b) Repairs are made within two flight days.	
51-04-03	Second Observer's ACP	**D**	**1**	**0**		

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

23. COMMUNICATIONS

Sequence No.	Item	1	2	3	4	Change Bar
51-05	Flight Crew Push To-Talk (PTT) Switches					
51-05-01	Control Wheel PTT Switches	**C**	**2**	**1**	(M) One may be inoperative provided: a) Inoperative switch is deactivated open, and b) Associated audio control panel (ACP) PTT switch operates normally.	
51-05-02	Audio Control Panel (ACP) PTT Switches	**C**	**2**	**1**	(M) One may be inoperative provided: a) Inoperative switch is verified open, and b) Associated control wheel PTT switch operates normally.	
51-05-03	Glareshield PTT Switches	**C**	**2**	**0**	(M) May be inoperative deactivated open.	
51-06	Flight Interphone System					
51-06-01	Nose Gear Jacks					
51-06-01A		**C**	**2**	**1**		
51-06-01B		**C**	**2**	**0**	(O) Flight interphone flight deck to ground/ground to flight deck function may be inoperative provided: a) Nose gear service interphone jack operates normally, and b) Alternate procedures are established and used.	
51-06-01C		**B**	**2**	**0**	(O) May be inoperative provided alternate procedures are established and used.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

23. COMMUNICATIONS

Sequence No.	Item	1	2	3	4	Change Bar
51-06	Flight Interphone System (Cont'd)					
51-06-02	Other Than Nose Gear Jack	**D**	**-**	**0**	May be inoperative provided procedures do not require their use.	
71-01	Cockpit Voice Recorder (CVR) System	**A**	**1**	**0**	May be inoperative provided: a) Flight data recorder (FDR) system operates normally, and b) Repairs are made within three flight days.	
71-01-01	Backup Battery Power System	**C**	**1**	**0**	NOTE: The main and APU batteries must always be operative.	
75-01	Flight Deck Door Visual Surveillance Systems (747-8I)					
75-01-01	Flight Deck Door Viewing Port					
75-01-01A		**A**	**1**	**0**	(O) May be inoperative provided: a) Alternate procedures are established and used, and b) Repairs are made within three flight days.	
75-01-01B		**C**	**1**	**0**	(O) May be inoperative provided: a) Electronic video surveillance system is installed and operates normally, and b) Alternate procedures are established and used.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

23. COMMUNICATIONS

Sequence No.	Item	1	2	3	4	Change Bar
75-01	Flight Deck Door Visual Surveillance Systems (747-8I) (Cont'd)					
75-01-02 ***	Electronic Video Surveillance System					
75-01-02A		**A**	**1**	**0**	(O) May be inoperative and components may be missing provided: a) Alternate procedures are established and used, and b) Repairs are made within three flight days. NOTE: Any portion of the system that operates normally may be used.	
75-01-02B		**C**	**1**	**0**	(O) May be inoperative and components may be missing provided: a) Flight deck door viewing port operates normally, and b) Alternate procedures are established and used. NOTE: Any portion of the system that operates normally may be used.	
75-01-02C		**D**	**1**	**0**	May be inoperative and components may be missing provided procedures do not require its use.	

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SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

23. COMMUNICATIONS

Sequence No.	Item	1	2	3	4	Change Bar
75-02 ***	Video Surveillance System (747-8F)					
75-02A		**C**	**1**	**0**	(O) May be inoperative and components may be missing provided alternate procedures are established and used. NOTE: Any portion of the system that operates normally may be used.	
75-02B		**D**	**1**	**0**	May be inoperative and components may be missing provided procedures do not require its use.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

24. ELECTRICAL POWER

Sequence No.	Item	1	2	3	4	Change Bar
00-01	Electrical System (ELEC) Synoptic Display	**C**	**1**	**0**		
11-01	Engine Driven Generator Systems (IDG, GCU, GCB)					
11-01-01	747-8F					
11-01-01A		**C**	**4**	**3**	(M) One may be inoperative provided: a) Associated generator control breaker (GCB) is verified open, and b) Associated integrated drive generator (IDG) is disconnected.	
11-01-01B		**C**	**4**	**3**	(M) One may be inoperative provided: a) Associated generator control breaker (GCB) is verified open, and b) Associated integrated drive generator (IDG) is removed.	
11-01-02	747-8I					
11-01-02A		**B**	**4**	**3**	(M) One may be inoperative provided: a) Associated generator control breaker (GCB) is verified open, and b) Associated integrated drive generator (IDG) is disconnected.	
11-01-02B		**B**	**4**	**3**	(M) One may be inoperative provided: a) Associated generator control breaker (GCB) is verified open, and b) Associated integrated drive generator (IDG) is removed.	
11-02	Generator DRIVE Lights	**C**	**4**	**0**		

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

24. ELECTRICAL POWER

Sequence No.	Item	1	2	3	4	Change Bar
21-01	Lightning Protectors	**C**	**12**	**9**	One of each phase may be inoperative provided all AC busses are paralleled. NOTE: For triple channel autoland, at least two of the three generators used must have lightning protection on all three phases.	
21-02	APU Driven Generator Systems (Generator, AGCU, APB)					
21-02A		**C**	**2**	**0**	(M)(O) May be inoperative provided associated auxiliary power breaker (APB) remains open.	
21-02B		**C**	**2**	**0**	(M) May be inoperative and removed provided APU is considered inoperative.	
22-01	Bus Tie Breakers (BTBs)	**C**	**4**	**3**	One may be inoperative closed provided: a) Split system breaker (SSB) operates normally, and b) Approach minimums do not require its use.	
22-02	Split System Breaker (SSB)	**C**	**1**	**0**	(O) May be inoperative provided SSB is verified closed before each departure.	
23-01	APU Generator Power ON Lights	**C**	**2**	**0**		
23-02	APU Generator Power AVAIL Lights	**C**	**2**	**0**		
23-03	AC Bus ISLN Lights	**C**	**4**	**0**		
23-04	Engine and APU Generator FIELD OFF Lights (Overhead Maintenance Panel)	**C**	**6**	**0**		

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

24. ELECTRICAL POWER

Sequence No.	Item	1	2	3	4	Change Bar
23-05	Split System Breaker OPEN Light (Overhead Maintenance Panel)	**C**	**1**	**0**		
23-06	GEN CONT Lights	**C**	**4**	**0**		
32-01	Transformer Rectifier Units (TRUs)					
32-01-01	Main TRUs	**C**	**4**	**3**		
32-01-02	APU TRU	**C**	**1**	**0**	(O) May be inoperative provided APU battery is selected for APU start.	
32-01-03	Ground Handling TRUs	**C**	**2**	**0**		
32-02	DC Bus Isolation Relays	**C**	**4**	**3**	One may be inoperative closed provided approach minimums do not require its use.	
33-01	Towing Static Inverter	**D**	**1**	**0**	(M) May be inoperative deactivated or removed.	
41-01	External Power Systems	**C**	**2**	**0**		
41-01-01	AVAIL Lights (Flight Deck)	**C**	**2**	**0**	(O) May be inoperative provided alternate procedures are established and used.	
41-01-02	ON Lights (Flight Deck)	**C**	**2**	**0**	(O) May be inoperative provided alternate procedures are established and used.	

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MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

24. ELECTRICAL POWER

Sequence No.	Item	1	2	3	4	Change Bar
41-01	External Power Systems (Cont'd)					
41-01-03	AC CONNECTED Lights (External Power Panel)	**C**	**2**	**0**	(O) May be inoperative provided alternate procedures are established and used.	
41-01-04	POWER NOT IN USE Lights (External Power Panel)	**C**	**2**	**0**	(O) May be inoperative provided alternate procedures are established and used.	
51-01	Electrical Load Control Units (ELCUs)					
51-01-01	747-8F	**C**	**4**	**3**	One may be inoperative provided associated utility bus components are considered inoperative.	
51-01-02	747-8I					
51-01-02-01	Utility Power ELCUs	**C**	**4**	**3**	One may be inoperative provided associated utility bus components are considered inoperative.	
51-01-02-02	Galley Power ELCUs	**C**	**4**	**0**		
51-02	Utility Power OFF Lights	**C**	**2**	**0**		

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SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

25. EQUIPMENT/FURNISHINGS

Sequence No.	Item	1	2	3	4	Change Bar
00-01	Non-Essential Equipment and Furnishings (NEF)			**0**	May be inoperative, damaged, or missing provided the item(s) is deferred in accordance with the operator's NEF deferral program. The NEF program, procedures, and processes are outlined in the operator's (insert name) Manual. (M) and (O) procedures, if required, must be available to the flight crew and included in the operator's appropriate document. NOTE: Exterior lavatory door ashtrays are not considered NEF items.	
11-01	Flight Crew Seats					
11-01-01	Power Adjustment Systems	**D**	**2**	**0**	(M) May be inoperative deactivated.	
11-01-02	Manual Adjustment Systems					
11-01-02-01	Recline Mechanisms	**A**	**2**	**0**	(M) May be inoperative provided: a) Seat back is secured in an upright position acceptable to affected crewmember, and b) Repairs are made within two flight days.	
11-01-02-02	Armrests	**B**	**4**	**0**	(M) May be inoperative provided: a) Armrest is stowed in retracted position or removed, and b) Seat is acceptable to affected crewmember.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

25. EQUIPMENT/FURNISHINGS

Sequence No.	Item	1	2	3	4	Change Bar
11-01	Flight Crew Seats (Cont'd)					
11-01-02	Manual Adjustment Systems (Cont'd)					
11-01-02-03	Lumbar/Thigh Supports	**C**	**4**	**0**	May be inoperative provided seat is acceptable to affected crewmember.	
11-01-02-04	Headrests	**C**	**2**	**0**	May be inoperative provided seat is acceptable to affected crewmember.	
11-01-02-05	Vertical Adjustments					
11-01-02-05A		**C**	**2**	**0**	May be inoperative provided associated vertical power adjustment system operates normally.	
11-01-02-05B		**A**	**2**	**0**	(M) May be inoperative provided: a) Seat is secured in a vertical position acceptable to affected crewmember, and b) Repairs are made within two flight days.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

25. EQUIPMENT/FURNISHINGS

Sequence No.	Item	1	2	3	4	Change Bar
11-02	Observer Seats					
11-02-01	First Observer Seat (Including Associated Equipment)					
11-02-01A		**A**	**1**	**0**	May be inoperative provided: a) A supernumerary/passenger seat is made available to an FAA inspector for performance of official duties, and b) Repairs are made within two flight days.	
11-02-01B		**A**	**1**	**0**	May be inoperative provided: a) Second observer seat is available to an FAA inspector for performance of official duties, and b) Repairs are made within two flight days.	
11-02-01C		**A**	**1**	**0**	May be inoperative provided: a) Required minimum safety equipment (safety belt and oxygen) is available, b) Seat is acceptable to an FAA inspector for performance of official duties, and c) Repairs are made within two flight days. NOTE 1: These provisos are intended to provide for occupancy of the above seat by an FAA inspector when the minimum safety equipment (safety belt and oxygen) is functional and the inspector determines the conditions to be acceptable. NOTE 2: The pilot in command will determine if the minimum safety equipment is functional for other persons authorized to occupy an observer seat.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

25. EQUIPMENT/FURNISHINGS

Sequence No.	Item	1	2	3	4	Change Bar
11-02	Observer Seats (Cont'd)					
11-02-02	Second Observer Seat (Including Associated Equipment)	**D**	**1**	**0**	NOTE: The pilot in command will determine if the minimum safety equipment is functional for other persons authorized to occupy an observer seat.	
19-01	Flight Crew Rest					
19-01A		**C**	**1**	**0**	(M)(O) May be inoperative provided: a) Flight crew rest is deactivated closed. b) Appropriate adjustments to flight crew FDP times are applied. NOTE: This proviso is not intended to prohibit inspections by crewmembers.	
19-01B		**C**	**1**	**0**	May be inoperative provided operations do not require its use.	
19-01-01	Bunks	**C**	**-**	**0**	(M)(O) May be inoperative provided: a) Inoperative bunk is blocked and placarded, DO NOT OCCUPY. b) Appropriate adjustments to flight crew FDP times are applied.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

25. EQUIPMENT/FURNISHINGS

Sequence No.	Item	1	2	3	4	Change Bar
25-01	Supernumerary Seats (747-8F)	**D**	**6**	**0**	(M) May be inoperative provided seat is blocked and placarded, DO NOT OCCUPY. NOTE: A seat with an inoperative or missing seat belt is considered inoperative.	
25-01-01	Recline Mechanisms					
25-01-01A		**D**	**6**	**0**	(M) May be inoperative and seat occupied provided seat back is secured in the full upright position.	
25-01-01B		**D**	**6**	**0**	May be inoperative and seat occupied provided seat back is immovable in the full upright position.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

25. EQUIPMENT/FURNISHINGS

Sequence No.	Item	1	2	3	4	Change Bar
25-02	Passenger Seats (747-8I)	**D**	**-**	**0**	(M) May be inoperative provided: a) Seat does not block an emergency exit, b) Seat does not restrict any passenger from access to the main aircraft aisle, and c) Affected seat(s) is blocked and placarded, DO NOT OCCUPY. NOTE 1: A seat with an inoperative or missing seat belt is considered inoperative. NOTE 2: Inoperative seats do not affect the required number of flight attendants. NOTE 3: Affected seat(s) may include the seat(s) behind and/or adjacent outboard seats.	
25-02-01	Recline Mechanisms					
25-02-01A		**D**	**-**	**0**	(M) May be inoperative and seat occupied provided seat back is secured in the full upright position.	
25-02-01B		**D**	**-**	**0**	May be inoperative and seat occupied provided seat back is immovable in the full upright position.	
25-02-02	Underseat Baggage Restraining Bars	**C**	**-**	**0**	(O) May be inoperative or missing provided: a) Associated seat is placarded, DO NOT STOW BAGGAGE UNDER THIS SEAT, b) Baggage is not stowed under seat with inoperative restraining bar, and c) Procedures are established to alert cabin crew of inoperative restraining bar.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

25. EQUIPMENT/FURNISHINGS

Sequence No.	Item	1	2	3	4	Change Bar
25-02	Passenger Seats (747-8I) (Cont'd)					
25-02-03	Armrests					
25-02-03-01	Armrests with Recline Mechanism	**D**	**-**	**0**	(M) May be inoperative or missing and seat occupied provided: a) Armrest does not block an emergency exit, b) Armrest does not restrict any passenger from access to the main aircraft aisle, and c) For armrest missing, associated seat back is secured in the full upright position.	
25-02-03-02	Armrests without Recline Mechanism	**D**	**-**	**0**	May be inoperative or missing and seat occupied provided: a) Armrest does not block an emergency exit, and b) Armrest does not restrict any passenger from access to the main aircraft aisle.	
25-02-04 ***	Seat Belt Air Bag Restraint Systems					
25-02-04A		**D**	**-**	**-**	(M) May be inoperative provided affected seat is blocked and placarded, DO NOT OCCUPY.	
25-02-04B		**D**	**-**	**-**	May be inoperative or disconnected and seat occupied provided: a) Seat belt operates normally, and b) Seat belt air bag is not required by 14 CFR.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

25. EQUIPMENT/FURNISHINGS

Sequence No.	Item	1	2	3	4	Change Bar
25-03	Flight Attendant Seat Assemblies (Single or Dual Position) (747-8I)					
25-03-01	Required Flight Attendant Seats					
25-03-01A		**B**	**-**	**-**	(M)(O) One seat position or assembly (dual position) may be inoperative provided: a) Folding type seat stows automatically or is secured in the retracted position, b) Inoperative seat position or seat assembly is not occupied, c) Flight attendant(s) displaced by inoperative seat(s) occupies either an adjacent flight attendant seat or the passenger seat which is most accessible to the inoperative seat(s), so as to most effectively perform assigned duties, d) Passenger seat assigned to flight attendant is placarded, FOR FLIGHT ATTENDANT USE ONLY, and e) Alternate procedures are established and used as published in crewmember manuals. NOTE 1: An automatic folding seat that will not stow automatically is considered inoperative. NOTE 2: A seat position with an inoperative or missing restraint system is considered inoperative. (Continued)	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

25. EQUIPMENT/FURNISHINGS

Sequence No.	Item	1	2	3	4	Change Bar
25-03	Flight Attendant Seat Assemblies (Single or Dual Position) (747-8I) (Cont'd)					
25-03-01	Required Flight Attendant Seats (Cont'd)					
25-03-01A	(Cont'd)				NOTE 3: Individual operators, when operating with inoperative seats, will consider the locations and combinations of seats to ensure that proximity to exits and distribution requirements of the applicable regulation are met. NOTE 4: If one side of a dual seat assembly is inoperative and a flight attendant is displaced to the adjacent seat, the adjacent seat must operate normally.	
25-03-01B		**C**	**-**	**0**	(M)(O) May be inoperative provided: a) Folding type seat stows automatically or is secured in the retracted position, b) Inoperative seat position or seat assembly is not occupied, c) No passengers are carried, d) A maximum of 19 persons authorized by 14 CFR for non-passenger carrying operations are carried, and e) Alternate procedures are established and used. NOTE 1: An automatic folding seat that will not stow automatically is considered inoperative. NOTE 2: A seat position with an inoperative or missing restraint system is considered inoperative. (Continued)	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

25. EQUIPMENT/FURNISHINGS

Sequence No.	Item	1	2	3	4	Change Bar
25-03	Flight Attendant Seat Assemblies (Single or Dual Position) (747-8I) (Cont'd)					
25-03-02	Excess Flight Attendant Seats	**C**	**-**	**0**	(M) May be inoperative provided: a) Folding type seat stows automatically or is secured in the retracted position, and b) Inoperative seat position or seat assembly is not occupied. NOTE 1: An automatic folding seat that will not stow automatically is considered inoperative. NOTE 2: A seat position with an inoperative or missing restraint system is considered inoperative.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

25. EQUIPMENT/FURNISHINGS

Sequence No.	Item	1	2	3	4	Change Bar
25-04	Crew Rest Seats (747-8I)					
25-04A		**C**	**-**	**0**	(M) May be inoperative provided: a) Seat is blocked and placarded, DO NOT OCCUPY. b) Airplane is not used for augmented flight crew member operations. NOTE: A seat with an inoperative or missing seat belt is considered inoperative.	
25-04B		**C**	**-**	**0**	May be inoperative provided operations do not require their use.	
25-04-01	Recline Mechanisms					
25-04-01A		**C**	**-**	**0**	(M) May be inoperative and seat occupied provided seat back is secured in the full upright position.	
25-04-01B		**C**	**-**	**0**	May be inoperative and seat occupied provided seat back is immovable in the full upright position.	
25-04-02	Armrests	**C**	**-**	**0**	(M) May be inoperative and seat occupied provided armrest is stowed in retracted position or removed.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

25. EQUIPMENT/FURNISHINGS

Sequence No.	Item	1	2	3	4	Change Bar
26-01 ***	Crew Ladder Enclosure Door Indication (747-8F)	**C**	**1**	**0**	May be inoperative provided crew ladder enclosure door is verified closed prior to each departure.	
28-01	Storage Bins/Cabin, Galley, and Lavatory Storage Compartments/ Closets					
28-01A		**C**	**-**	**-**	(M) May be inoperative provided: a) Procedures are established to secure affected bin, compartment, or closet in the closed position, b) Affected bin, compartment, or closet is prominently placarded, DO NOT USE, c) Any emergency equipment located in affected bin, compartment, or closet is considered inoperative, and d) Affected bin, compartment, or closet is not used for storage of any items except those permanently affixed. NOTE: For overhead bins, if no partitions are installed, the entire overhead bin is considered inoperative.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

25. EQUIPMENT/FURNISHINGS

Sequence No.	Item	1	2	3	4	Change Bar
28-01	Storage Bins/Cabin, Galley, and Lavatory Storage Compartments/ Closets (Cont'd)					
28-01B		**C**	**-**	**-**	(M)(O) May be inoperative provided: a) For non-retractable doors, affected door is removed, b) For retractable doors, affected door is removed or secured in the retracted (fully open) position, c) Affected bin, compartment, or closet is prominently placarded, DO NOT USE, d) Affected bin, compartment, or closet is not used for storage of any items except those permanently affixed, e) Procedures are established and used to alert crewmembers and supernumeraries/passengers of inoperative bins, compartments, or closets, and f) Supernumeraries/passengers are briefed that affected bin, compartment, or closet is not used. NOTE 1: For overhead bins, if no partitions are installed, the entire overhead bin is considered inoperative. NOTE 2: Any emergency equipment located in the affected bin, compartment, or closet (permanently affixed) is available for use. (Continued)	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

25. EQUIPMENT/FURNISHINGS

Sequence No.	Item	1	2	3	4	Change Bar
28-01	Storage Bins/Cabin, Galley, and Lavatory Storage Compartments/ Closets (Cont'd)					
28-01-01	Multi Latch/Quarter Turn Lug Installations	**C**	**-**	**-**	One latch/lug per compartment may be inoperative provided: a) Remaining latch(es)/lug(s) on affected compartment operates normally, and b) If affected compartment is used for a galley cart, the cart remains empty.	
28-01-02 ***	Storage Compartment Key Locks	**D**	**-**	**0**	(M) May be inoperative in the unlocked position provided doors can be secured by other means.	
30-01	Galley/Cabin Waste Container Access Doors/Covers	**C**	**-**	**-**	(M)(O) May be inoperative provided: a) Associated waste container is empty, b) Access is secured to prevent waste introduction into associated waste container, and c) Procedures are established to ensure that sufficient galley/cabin waste containers are available to accommodate all waste that may be generated on a flight.	
38-01	Galley Cart Lift System (747-8I)	**C**	**1**	**0**	(M) May be inoperative provided: a) Galley cart lift system is deactivated, and b) Galley cart lift remains empty.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

25. EQUIPMENT/FURNISHINGS

Sequence No.	Item	1	2	3	4	Change Bar
40-01	Exterior Lavatory Door Ashtrays					
40-01-01	747-8F	**A**	**1**	**0**	May be missing or inoperative for ten calendar days.	
40-01-02	747-8I					
40-01-02A		**A**	**-**	**-**	Up to and including 50 percent may be missing or inoperative for ten calendar days. NOTE: Crew lavatories are included in the total aircraft exterior lavatory door ashtray count.	
40-01-02B		**A**	**-**	**-**	More than 50 percent may be missing or inoperative for three calendar days. NOTE: Crew lavatories are included in the total aircraft exterior lavatory door ashtray count.	
40-02	Lavatory Waste Container Flappers/ Access Doors					
40-02-01	747-8F	**C**	**1**	**0**	(M)(O) May be inoperative provided: a) Associated waste container is empty, b) Access is secured to prevent waste introduction into associated waste container, and c) Crewmembers/supernumeraries are appropriately briefed before each departure.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

25. EQUIPMENT/FURNISHINGS

Sequence No.	Item	1	2	3	4	Change Bar
40-02	Lavatory Waste Container Flappers/Access Doors (Cont'd)					
40-02-02	747-8I	**C**	**-**	**-**	(M)(O) May be inoperative provided: a) Associated waste container is empty, b) Access is secured to prevent waste introduction into associated waste container, c) Associated lavatory door is locked closed and placarded, INOPERATIVE - DO NOT ENTER, and d) Associated lavatory is used only by crewmembers. NOTE: These provisos are not intended to prohibit lavatory use or inspections by crewmembers.	
52-01	Lower Cargo Compartment Lining Panels	**C**	**172**	**0**	(O) May be damaged or missing provided associated lower cargo compartment remains empty, except for ballast, empty cargo containers (ballast may be loaded in ULDs), fly away kits, pallets, and cargo restraint components. NOTE: Operator MELs must define which items are approved for inclusion in the fly away kits and which materials can be used as ballast.	
53-01	Lower Cargo Handling Systems	**D**	**2**	**0**	NOTE: Any portion of the system that operates normally may be used.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

25. EQUIPMENT/FURNISHINGS

Sequence No.	Item	1	2	3	4	Change Bar
54-01	Lower Cargo Restraint Systems					
54-01A		**A**	**2**	**0**	(M) May be inoperative or missing provided: a) Acceptable cargo loading limits from an approved source, i.e., an approved Cargo Loading Manual, Cargo Handling Manual, or Weight and Balance Manual are observed, and b) Repairs are made prior to completion of the next heavy maintenance visit.	
54-01B		**C**	**2**	**0**	May be inoperative or missing provided associated cargo compartment remains empty.	
57-01	Main Deck Cargo Handling System (747-8F)	**D**	**1**	**0**	NOTE: Any portion of the system that operates normally may be used.	
58-01	Main Deck Cargo Restraint System (747-8F)					
58-01A		**A**	**1**	**0**	(M) May be inoperative or missing provided: a) Acceptable cargo loading limits from an approved source, i.e., an approved Cargo Loading Manual, Cargo Handling Manual, or Weight and Balance Manual are observed, and b) Repairs are made prior to completion of the next heavy maintenance visit.	
58-01B		**C**	**1**	**0**	May be inoperative or missing provided main deck cargo compartment remains empty.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

25. EQUIPMENT/FURNISHINGS

Sequence No.	Item	1	2	3	4	Change Bar
59-01	Main Deck Cargo Compartment Lining Panels (747-8F)	**C**	**386**	**0**	(O) May be damaged or missing provided main deck cargo compartment remains empty, except for ballast, empty cargo containers (ballast may be loaded in ULDs), fly away kits, pallets, and cargo restraint components. NOTE: Operator MELs must define which items are approved for inclusion in the fly away kits and which materials can be used as ballast.	
60-01	Emergency Medical Equipment					
60-01-01	747-8F					
60-01-01A		**A**	**-**	**-**	(O) If more than one is required by 14 CFR, only one of the required first aid kits (FAKs) may be incomplete, missing, or inoperative provided: a) FAK is resealed in a manner that will identify it as a unit that cannot be mistaken for a fully serviceable unit, and b) Repairs or replacements are made within one flight.	
60-01-01B		**D**	**-**	**-**	Any first aid kits (FAKs) in excess of those required by 14 CFR may be incomplete, missing, or inoperative.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

25. EQUIPMENT/FURNISHINGS

Sequence No.	Item	1	2	3	4	Change Bar
60-01	Emergency Medical Equipment (Cont'd)					
60-01-02	747-8I					
60-01-02-01	Automatic External Defibrillator (AED) and/or Associated Equipment					
60-01-02-01A		**A**	**-**	**0**	(O) May be incomplete, missing, or inoperative provided: a) AED is resealed in a manner that will identify it as a unit that cannot be mistaken for a fully serviceable unit, and b) Repairs or replacements are made within one flight.	
60-01-02-01B		**D**	**-**	**-**	Any in excess of those required by 14 CFR may be incomplete, missing, or inoperative.	
60-01-02-02 ***	Emergency Medical Kit (EMK) and/or Associated Equipment					
60-01-02-02A		**A**	**-**	**0**	(O) May be incomplete, missing, or inoperative provided: a) EMK is resealed in a manner that will identify it as a unit that cannot be mistaken for a fully serviceable unit, and b) Repairs or replacements are made within one flight.	
60-01-02-02B		**D**	**-**	**-**	Any in excess of those required by 14 CFR may be incomplete, missing, or inoperative.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

25. EQUIPMENT/FURNISHINGS

Sequence No.	Item	1	2	3	4	Change Bar
60-01	Emergency Medical Equipment (Cont'd)					
60-01-02	747-8I (Cont'd)					
60-01-02-03	First Aid Kit (FAK) and/or Associated Equipment					
60-01-02-03A		**A**	**-**	**-**	(O) If more than one is required by 14 CFR, only one of the required first aid kits may be incomplete, missing, or inoperative provided: a) FAK is resealed in a manner that will identify it as a unit that cannot be mistaken for a fully serviceable unit, and b) Repairs or replacements are made within one flight.	
60-01-02-03B		**D**	**-**	**-**	Any in excess of those required by 14 CFR may be incomplete, missing, or inoperative.	
60-02	FASTEN SEAT BELT WHILE SEATED Placards	**C**	**-**	**-**	One or more placards may be illegible or missing provided a legible placard is visible from each occupied supernumerary/passenger seat.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

25. EQUIPMENT/FURNISHINGS

Sequence No.	Item	1	2	3	4	Change Bar
60-03	Flashlight Holder Assemblies (Including Flashlight)					
60-03-01	747-8F	**C**	**-**	**0**	May be inoperative or missing provided affected flight crewmember has a flashlight of equivalent characteristics readily available.	
60-03-02	747-8I					
60-03-02A		**C**	**-**	**0**	May be inoperative or missing provided affected crewmember has a flashlight of equivalent characteristics readily available.	
60-03-02B		**C**	**-**	**0**	(O) May be inoperative or missing provided: a) Affected flight crewmember has a flashlight of equivalent characteristics readily available, b) No passengers are carried, c) A maximum of 19 persons authorized by 14 CFR for non-passenger carrying operations are carried, and d) Alternate procedures are established and used.	
60-04 ***	Survival Kit	**D**	**-**	**-**	Any in excess of those required by 14 CFR may be incomplete, missing, or inoperative.	
60-05	Crash Axes	**D**	**-**	**-**	Any in excess of those required by 14 CFR may be inoperative or missing.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

25. EQUIPMENT/FURNISHINGS

Sequence No.	Item	1	2	3	4	Change Bar
61-01	Emergency Escape Devices					
61-01-01	747-8F					
61-01-01-01	Escape Reels	**C**	**8**	**2**	(M) May be inoperative or missing provided: a) Inoperative escape reel is removed from installed location, and b) Number of flight crewmembers plus supernumeraries is limited to number of operative escape reels.	
61-01-01-02	Escape Harnesses	**C**	**8**	**0**	(M) May be inoperative or missing provided: a) Inoperative escape harness is removed from installed location, and b) Number of supernumeraries is limited to number of operative escape harnesses.	
61-01-02	747-8I					
61-01-02-01	Escape Reels	**C**	**4**	**2**	(M) May be inoperative or missing provided: a) Inoperative escape reel is removed from installed location, and b) Number of flight crewmembers, including official observers, is limited to number of operative escape reels.	
61-01-02-02	Escape Harness	**C**	**1**	**0**	(M) May be inoperative or missing provided escape harness is removed from installed location.	
62-01	Flotation Equipment	**D**	**-**	**-**	Any in excess of those required by 14 CFR may be inoperative or missing provided required distribution is maintained.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

25. EQUIPMENT/FURNISHINGS

Sequence No.	Item	1	2	3	4	Change Bar
63-01	Portable Emergency Locator Transmitters (ELT)	**D**	**-**	**-**	Any in excess of those required by 14 CFR may be inoperative or missing.	
63-02	Megaphones (747-8I)					
63-02A		**D**	**-**	**2**	Any in excess of those required by 14 CFR may be inoperative or missing provided: a) Inoperative megaphone is removed from passenger cabin, b) Associated location placarding is removed or obscured, and c) Required distribution is maintained.	
63-02B		**C**	**-**	**0**	(O) May be inoperative or missing provided: a) No passengers are carried, b) A maximum of 19 persons authorized by 14 CFR for non-passenger carrying operations are carried, and c) Alternate procedures are established and used.	
63-03 ***	Emergency Evacuation Signal System (747-8I)	**C**	**1**	**0**	(O) May be inoperative provided alternate procedures are established and used to initiate an emergency evacuation.	
63-04 ***	Cockpit Smoke Vision System	**D**	**-**	**0**	May be inoperative or missing.	
64-01	Smoke Barrier (747-8I)	**C**	**1**	**0**		
68-01 ***	Floor-Mounted Escape Slide (747-8F)	**C**	**1**	**0**	May be inoperative or missing provided upper deck crew service door is considered inoperative.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

25. EQUIPMENT/FURNISHINGS

Sequence No.	Item	1	2	3	4	Change Bar
76-01	Door 5 Overhead Crew Rest (747-8I)					
76-01A		**C**	**1**	**0**	(M)(O) May be inoperative provided: a) Crew rest is deactivated closed. b) Appropriate adjustments to flight crew FDP times are applied. NOTE: This proviso is not intended to prohibit inspections by crewmembers.	
76-01B		**C**	**1**	**0**	May be inoperative provided operations do not require its use.	
76-01-01	Door Lock	**C**	**1**	**0**	(M) May be inoperative provided: a) Door lock is deactivated in the unlocked position, and b) Associated door is verified to open and close normally.	
76-01-02	Bunks	**C**	**10**	**0**	(M)(O) May be inoperative provided: a) Inoperative bunk is blocked and placarded, DO NOT OCCUPY. b) Appropriate adjustments to flight crew FDP times are applied.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

26. FIRE PROTECTION

Sequence No.	Item	1	2	3	4	Change Bar
11-01	Engine Fire Detection System					
11-01-01	Detection Loops	**C**	**8**	**4**	One per engine may be inoperative.	
11-01-02	Flight Deck Test System	**C**	**1**	**0**	(M) May be inoperative provided an alternate procedure is used to verify system integrity.	
11-02	Engine Overheat Detection System					
11-02-01	Detection Loops	**C**	**8**	**4**	One per engine may be inoperative.	
11-02-02	Flight Deck Test System	**C**	**1**	**0**	(M) May be inoperative provided an alternate procedure is used to verify system integrity.	
11-03	Fuel Control Switch Fire Light	**A**	**4**	**3**	One may be inoperative provided repairs are made within three flight days.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

26. FIRE PROTECTION

Sequence No.	Item	1	2	3	4	Change Bar
13-01	Lavatory Smoke Detection Systems					
13-01-01	747-8F	**D**	**1**	**0**		
13-01-02	747-8I	**C**	**-**	**0**	(M)(O) May be inoperative for each lavatory provided: a) Associated waste container is empty, b) Associated lavatory door is locked closed and placarded, INOPERATIVE - DO NOT ENTER, and c) Associated lavatory is used only by crewmembers. NOTE: These provisos are not intended to prohibit lavatory use or inspections by crewmembers.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

26. FIRE PROTECTION

Sequence No.	Item	1	2	3	4	Change Bar
14-01	Main Deck Cargo Smoke Detection System (747-8F)					
14-01-01	Flight Deck Test System					
14-01-01A		**C**	**1**	**0**	(M) May be inoperative provided an alternate procedure is used to verify system integrity.	
14-01-01B		**C**	**1**	**0**	(O) May be inoperative provided main deck cargo compartment remains empty, except for ballast, empty cargo containers (ballast may be loaded in ULDs), fly away kits, pallets, and cargo restraint components. NOTE: Operator MELs must define items which are approved for inclusion in the fly away kits and which materials can be used as ballast.	
14-01-02	Controller Channels					
14-01-02A		**C**	**2**	**1**	(O) One may be inoperative provided associated smoke zones remain empty, except for ballast, empty cargo containers (ballast may be loaded in ULDs), fly away kits, pallets, and cargo restraint components. NOTE: Operator MELs must define items which are approved for inclusion in the fly away kits and which materials can be used as ballast.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

26. FIRE PROTECTION

Sequence No.	Item	1	2	3	4	Change Bar
14-01	Main Deck Cargo Smoke Detection System (747-8F) (Cont'd)					
14-01-02	Controller Channels (Cont'd)					
14-01-02B		**C**	**2**	**0**	(O) May be inoperative provided main deck cargo compartment remains empty, except for ballast, empty cargo containers (ballast may be loaded in ULDs), fly away kits, pallets, and cargo restraint components. NOTE: Operator MELs must define items which are approved for inclusion in the fly away kits and which materials can be used as ballast.	
14-01-03	Controller to EIU ARINC Data Busses	**C**	**2**	**1**		
14-01-04	Smoke Detectors					
14-01-04A		**C**	**67**	**64**	One per smoke zone may be inoperative provided all smoke detectors in adjacent smoke zones operate normally.	
14-01-04B		**C**	**67**	**0**	(O) May be inoperative provided associated smoke zone remains empty, except for ballast, empty cargo containers (ballast may be loaded in ULDs), fly away kits, pallets, and cargo restraint components. NOTE: Operator MELs must define items which are approved for inclusion in the fly away kits and which materials can be used as ballast.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

26. FIRE PROTECTION

Sequence No.	Item	1	2	3	4	Change Bar
14-02	Flight Crew Rest Smoke Detection System	**C**	**1**	**0**	(M) May be inoperative provided: a) Flight crew rest smoke detection system is deactivated, and b) Flight crew rest is considered inoperative.	
14-02-01	Bunk Smoke Detectors	**C**	**-**	**0**	May be inoperative provided associated bunk is considered inoperative.	
14-03	Door 5 Overhead Crew Rest Smoke Detection System (747-8I)	**C**	**1**	**0**	(M) May be inoperative provided: a) Door 5 overhead crew rest smoke detection system is deactivated, and b) Door 5 overhead crew rest is considered inoperative.	
14-03-01	Bunk Smoke Detectors	**C**	**10**	**0**	(M) May be inoperative provided associated bunk privacy curtain is secured open or removed.	
15-01	APU Fire Detection System					
15-01-01	Detection Loops					
15-01-01A		**C**	**2**	**1**		
15-01-01B		**C**	**2**	**0**	(M)(O) May be inoperative provided: a) APU is used for ground operations only, b) APU is continuously monitored by ground personnel when operating, c) APU ground control fire protection panel operates normally, and d) APU is not used during taxi.	
15-01-01C		**C**	**2**	**0**	May be inoperative provided APU is not used.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

26. FIRE PROTECTION

Sequence No.	Item	1	2	3	4	Change Bar
15-01	APU Fire Detection System (Cont'd)					
15-01-02	Flight Deck Test System	**C**	**1**	**0**	(M) May be inoperative provided an alternate procedure is used to verify system integrity.	
15-02	APU Ground Control Fire Protection Panel	**C**	**1**	**0**		
16-01	Lower Cargo Smoke Detection System					
16-01-01	Flight Deck Test System					
16-01-01A		**C**	**1**	**0**	(M) May be inoperative provided an alternate procedure is used to verify system integrity.	
16-01-01B		**C**	**1**	**0**	(O) May be inoperative provided associated lower cargo compartment remains empty, except for ballast, empty cargo containers (ballast may be loaded in ULDs), fly away kits, pallets, and cargo restraint components. NOTE: Operator MELs must define items which are approved for inclusion in the fly away kits and which materials can be used as ballast.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

26. FIRE PROTECTION

Sequence No.	Item	1	2	3	4	Change Bar
16-01	Lower Cargo Smoke Detection System (Cont'd)					
16-01-02	Controller Channels					
16-01-02A		**C**	**2**	**1**	(O) One may be inoperative provided associated smoke zones remain empty, except for ballast, empty cargo containers (ballast may be loaded in ULDs), fly away kits, pallets, and cargo restraint components. NOTE: Operator MELs must define items which are approved for inclusion in the fly away kits and which materials can be used as ballast.	
16-01-02B		**C**	**2**	**0**	(O) May be inoperative provided forward and aft lower cargo compartments remain empty, except for ballast, empty cargo containers (ballast may be loaded in ULDs), fly away kits, pallets, and cargo restraint components. NOTE: Operator MELs must define items which are approved for inclusion in the fly away kits and which materials can be used as ballast.	
16-01-03	Controller to EIU ARINC Data Busses	**C**	**2**	**1**		

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

26. FIRE PROTECTION

Sequence No.	Item	1	2	3	4	Change Bar
16-01	Lower Cargo Smoke Detection System (Cont'd)					
16-01-04	Smoke Detectors					
16-01-04A		**C**	**-**	**-**	One per lower cargo compartment may be inoperative.	
16-01-04B		**C**	**-**	**0**	(O) May be inoperative provided associated smoke zone remains empty, except for ballast, empty cargo containers (ballast may be loaded in ULDs), fly away kits, pallets, and cargo restraint components. NOTE: Operator MELs must define items which are approved for inclusion in the fly away kits and which materials can be used as ballast.	
17-01	Wheel Well Fire Detection System					
17-01A		**C**	**1**	**0**	(M) May be inoperative provided: a) Wheel well fire detection system is deactivated, and b) Brake temperature indication system operates normally.	
17-01B		**C**	**1**	**0**	(M)(O) May be inoperative provided: a) Wheel well fire detection system is deactivated, b) Brakes are verified cool before each departure, c) Appropriate performance adjustments are applied, and d) After takeoff, gear remains down for ten minutes before retraction.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

26. FIRE PROTECTION

Sequence No.	Item	1	2	3	4	Change Bar
17-01	Wheel Well Fire Detection System (Cont'd)					
17-01-01	Flight Deck Test System	**C**	**1**	**0**	(M) May be inoperative provided an alternate procedure is used to verify system integrity.	
18-01	Wing Leading Edge Overheat Detection System					
18-01-01	Detection Loops	**C**	**4**	**2**	One per wing may be inoperative.	
18-01-02	Flight Deck Test System	**C**	**1**	**0**	(M) May be inoperative provided an alternate procedure is used to verify system integrity.	
18-02	Center Duct Leak Detection System					
18-02-01	Detection Loops	**C**	**2**	**1**		
18-02-02	Flight Deck Test System	**C**	**1**	**0**	(M) May be inoperative provided an alternate procedure is used to verify system integrity.	
18-03	Engine Fan Case Overheat Detection Systems	**C**	**4**	**3**	One may be inoperative provided: a) Airplane is not operated in known or forecast icing conditions, and b) Associated ENGINE ANTI-ICE switch remains OFF.	
19-01	APU Duct Leak Detection System	**C**	**1**	**0**	May be inoperative provided APU is not used.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

26. FIRE PROTECTION

Sequence No.	Item	1	2	3	4	Change Bar
20-01	Fire Bottle Pressure Indication Systems (Engine, Lower Cargo, APU)	**C**	**-**	**0**	(M) May be inoperative provided: a) Associated bottle is verified full, and b) Associated bottle squib integrity is verified before each departure.	
20-01-01	Lower Cargo Fire Bottle Pressure Indication Systems	**C**	**-**	**0**	(O) May be inoperative provided forward and aft lower cargo compartments remain empty, except for ballast, empty cargo containers (ballast may be loaded in ULDs), fly away kits, pallets, and cargo restraint components. NOTE: Operator MELs must define items which are approved for inclusion in the fly away kits and which materials can be used as ballast.	
20-01-02	APU Fire Bottle Pressure Indication System	**C**	**1**	**0**	May be inoperative provided APU is not used.	
20-01-03	Fire BTL DISCH Lights	**C**	**6**	**0**		

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

26. FIRE PROTECTION

Sequence No.	Item	1	2	3	4	Change Bar
20-02	Fire Extinguisher Squib Test System	**C**	**1**	**0**	(M) May be inoperative provided an alternate procedure is used to verify squib integrity.	
20-02-01	Lower Cargo Squib Test System	**C**	**1**	**0**	(O) May be inoperative provided forward and aft lower cargo compartments remain empty, except for ballast, empty cargo containers (ballast may be loaded in ULDs), fly away kits, pallets, and cargo restraint components. NOTE: Operator MELs must define items which are approved for inclusion in the fly away kits and which materials can be used as ballast.	
20-02-02	APU Squib Test System	**C**	**1**	**0**	May be inoperative provided APU is not used.	
22-01	APU Fire Extinguishing System	**C**	**1**	**0**	May be inoperative provided APU is not used.	
22-01-01	APU Auto Discharge	**C**	**1**	**0**	(M) May be inoperative provided APU is monitored during ground operations for fire warning.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

26. FIRE PROTECTION

Sequence No.	Item	1	2	3	4	Change Bar
23-01	Lower Cargo Fire Extinguishing System	**C**	**1**	**0**	(O) May be inoperative provided forward and aft lower cargo compartments remain empty, except for ballast, empty cargo containers (ballast may be loaded in ULDs), fly away kits, pallets, and cargo restraint components. NOTE: Operator MELs must define items which are approved for inclusion in the fly away kits and which materials can be used as ballast.	
23-01-01	Fire Extinguisher Bottles	**C**	**-**	**3**	(M)(O) May be inoperative provided: a) Inoperative fire extinguisher bottle is deactivated, b) Fire extinguisher bottles A and B operate normally, and c) Maximum diversion time to a suitable airport is less than or equal to total fire extinguisher bottle capability.	
23-01-02	Flow Valves	**C**	**2**	**1**	(M)(O) One may be inoperative provided: a) Inoperative flow valve is deactivated closed, and b) Associated lower cargo compartment remains empty, except for ballast, empty cargo containers (ballast may be loaded in ULDs), fly away kits, pallets, and cargo restraint components. NOTE: Operator MELs must define items which are approved for inclusion in the fly away kits and which materials can be used as ballast.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

26. FIRE PROTECTION

Sequence No.	Item	1	2	3	4	Change Bar
26-01	Portable Fire Extinguishers	**D**	**-**	**-**	(M) Any in excess of the those required by 14 CFR may be inoperative or missing provided: a) Inoperative fire extinguisher is tagged inoperative, removed from installed location, and placed out of sight so it cannot be mistaken for a functional unit, and b) Required distribution is maintained.	
27-01	Lavatory Fire Extinguishing Systems					
27-01-01	747-8F	**D**	**1**	**0**		
27-01-02	747-8I					
27-01-02A		**C**	**-**	**0**	May be inoperative for each lavatory provided associated lavatory smoke detection system operates normally.	
27-01-02B		**C**	**-**	**0**	(M)(O) May be inoperative for each lavatory provided: a) Associated waste container is empty, b) Associated lavatory door is locked closed and placarded, INOPERATIVE - DO NOT ENTER, and c) Associated lavatory is used only by crewmembers. NOTE: These provisos are not intended to prohibit lavatory use or inspections by crewmembers.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

27. FLIGHT CONTROLS

Sequence No.	Item	1	2	3	4	Change Bar
00-01	Flight Controls (FCTL) Synoptic Display	**C**	**1**	**0**	(O) May be inoperative provided alternate procedures are established and used.	
09-01	Lateral Control Electronics (LCE) Interface	**C**	**1**	**0**	May be dispatched with LCE INTERFACE faults.	
11-01	Aileron Trim System					
11-01A		**C**	**1**	**0**	(M) May be inoperative provided: a) Aileron trim is verified centered, and b) Aileron trim system is deactivated.	
11-01B		**C**	**1**	**0**	(M) May be inoperative provided: a) Aileron trim actuator is removed, and b) Aileron trim system is deactivated centered.	
11-02	Outboard Aileron Power Control Units (PCUs)					
11-02-01	747-8F without SB 747-27-2504					
11-02-01-01	Left Outboard Aileron Inboard PCU	**B**	**1**	**0**	(M) May be inoperative provided: a) Left outboard aileron inboard PCU is deactivated, b) Remaining outboard aileron PCUs operate normally, c) Engine driven pump (EDP) hydraulic system 1 operates normally, d) Demand hydraulic pump 1 operates normally, and e) Demand hydraulic pump 1 selector AUTO position operates normally.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

27. FLIGHT CONTROLS

Sequence No.	Item	1	2	3	4	Change Bar
11-02	Outboard Aileron Power Control Units (PCUs) (Cont'd)					
11-02-01	747-8F without SB 747-27-2504 (Cont'd)					
11-02-01-02	Right Outboard Aileron Inboard PCU	**B**	**1**	**0**	(M) May be inoperative provided: a) Right outboard aileron inboard PCU is deactivated, b) Remaining outboard aileron PCUs operate normally, c) Demand hydraulic pump 3 operates normally, and d) Demand hydraulic pump 3 selector AUTO position operates normally.	
11-02-02	747-8F with SB 747-27-2504 or Production Equivalent (PRR 86614)					
11-02-02-01	Left Outboard Aileron Inboard PCU	**B**	**1**	**0**	(M) May be inoperative provided: a) Left outboard aileron inboard PCU is deactivated, b) Remaining outboard aileron PCUs operate normally, c) Engine driven pump (EDP) hydraulic system 1 operates normally, d) Demand hydraulic pump 1 operates normally, and e) Demand hydraulic pump 1 selector AUTO position operates normally.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

27. FLIGHT CONTROLS

Sequence No.	Item	1	2	3	4	Change Bar
11-02	Outboard Aileron Power Control Units (PCUs) (Cont'd)					
11-02-02	747-8F with SB 747-27-2504 or Production Equivalent (PRR 86614) (Cont'd)					
11-02-02-02	Left Outboard Aileron Outboard PCU	**B**	**1**	**0**	(M) May be inoperative provided: a) Left outboard aileron outboard PCU is deactivated, b) Remaining outboard aileron PCUs operate normally, c) Demand hydraulic pump 2 operates normally, and d) Demand hydraulic pump 2 selector AUTO position operates normally.	
11-02-02-03	Right Outboard Aileron Inboard PCU	**B**	**1**	**0**	(M) May be inoperative provided: a) Right outboard aileron inboard PCU is deactivated, b) Remaining outboard aileron PCUs operate normally, c) Demand hydraulic pump 3 operates normally, and d) Demand hydraulic pump 3 selector AUTO position operates normally.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

27. FLIGHT CONTROLS

Sequence No.	Item	1	2	3	4	Change Bar
11-02	Outboard Aileron Power Control Units (PCUs) (Cont'd)					
11-02-02	747-8F with SB 747-27-2504 or Production Equivalent (PRR 86614) (Cont'd)					
11-02-02-04	Right Outboard Aileron Outboard PCU	**B**	**1**	**0**	(M) May be inoperative provided: a) Right outboard aileron outboard PCU is deactivated, b) Remaining outboard aileron PCUs operate normally, c) Engine driven pump (EDP) hydraulic system 4 operates normally, d) Demand hydraulic pump 4 operates normally, and e) Demand hydraulic pump 4 selector AUTO position operates normally.	
11-02-03	747-8I					
11-02-03-01	Left Outboard Aileron Inboard PCU	**B**	**1**	**0**	(M) May be inoperative provided: a) Left outboard aileron inboard PCU is deactivated, b) Remaining outboard aileron PCUs operate normally, c) Engine driven pump (EDP) hydraulic system 1 operates normally, d) Demand hydraulic pump 1 operates normally, and e) Demand hydraulic pump 1 selector AUTO position operates normally.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

27. FLIGHT CONTROLS

Sequence No.	Item	1	2	3	4	Change Bar
11-02	Outboard Aileron Power Control Units (PCUs) (Cont'd)					
11-02-03	747-8I (Cont'd)					
11-02-03-02	Left Outboard Aileron Outboard PCU	**B**	**1**	**0**	(M) May be inoperative provided: a) Left outboard aileron outboard PCU is deactivated, b) Remaining outboard aileron PCUs operate normally, c) Demand hydraulic pump 2 operates normally, and d) Demand hydraulic pump 2 selector AUTO position operates normally.	
11-02-03-03	Right Outboard Aileron Inboard PCU	**B**	**1**	**0**	(M) May be inoperative provided: a) Right outboard aileron inboard PCU is deactivated, b) Remaining outboard aileron PCUs operate normally, c) Demand hydraulic pump 3 operates normally, and d) Demand hydraulic pump 3 selector AUTO position operates normally.	
11-02-03-04	Right Outboard Aileron Outboard PCU	**B**	**1**	**0**	(M) May be inoperative provided: a) Right outboard aileron outboard PCU is deactivated, b) Remaining outboard aileron PCUs operate normally, c) Engine driven pump (EDP) hydraulic system 4 operates normally, d) Demand hydraulic pump 4 operates normally, and e) Demand hydraulic pump 4 selector AUTO position operates normally.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

27. FLIGHT CONTROLS

Sequence No.	Item	1	2	3	4	Change Bar
18-01	Inboard Aileron Position Indicating System	**C**	**1**	**0**	(M) May be inoperative provided visual confirmation of proper aileron movement is made before each departure.	
18-02	Control Wheel Position Transducers	**C**	**6**	**5**		
21-01	Rudder Trim Center Switch	**C**	**1**	**0**		
23-01	Hydraulic Shutoff VALVE CLOSED Lights	**C**	**8**	**0**	May be inoperative provided associated hydraulic shutoff valve is considered inoperative.	
23-02	Hydraulic Shutoff Valves (Wing and Tail)	**C**	**8**	**0**	(M) May be inoperative secured open.	
28-01	Rudder Position Indicating System	**C**	**1**	**0**	(M) May be inoperative provided visual confirmation of proper rudder movement is made before each departure.	
28-02	Rudder Trim Indicator	**C**	**1**	**0**	(O) May be inoperative provided rudder trim is verified centered before each departure.	
28-03	Rudder Pedal Position Transducer	**C**	**1**	**0**	(O) May be inoperative provided appropriate performance adjustments are applied.	
31-01	Pitch Augmentation Control System (PACS) Force Fight Fatigue Monitor (FFFM)	**B**	**1**	**0**		
32-01	Stall Warning Systems	**C**	**2**	**1**	(M) One may be inoperative provided remaining system is verified to operate normally before each departure.	
32-01-01	Stick Shakers	**C**	**2**	**1**	(M) One may be inoperative deactivated.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

27. FLIGHT CONTROLS

Sequence No.	Item	1	2	3	4	Change Bar
38-01	Elevator Position indicating System	**C**	**1**	**0**	(M) May be inoperative provided visual confirmation of proper elevator movement is made before each departure.	
41-01	Stabilizer Trim Functions	**C**	**2**	**1**	(M)(O) One may be inoperative provided horizontal stabilizer is verified to operate normally with the alternate stabilizer trim switches.	
41-02	Control Wheel Stabilizer Trim Switches	**C**	**2**	**1**	(O) One may be inoperative provided alternate stabilizer trim system is verified to operate normally before each departure.	
48-01	Nose Gear Pressure Switch	**C**	**1**	**0**	(O) May be inoperative provided stabilizer trim position is properly set before each departure for the actual airplane weight, center of gravity, and takeoff thrust setting.	
51-01	Flap Control Units (FCUs)					
51-01-01	Left FCU	**C**	**1**	**0**	(M) May be inoperative or removed provided: a) Flap position rotary variable differential transducer (RVDT) sensors are verified to operate normally before each departure, b) Right and center FCUs operate normally, c) Demand hydraulic pump 4 selector AUTO position is considered inoperative, and d) Leading edge failure indication (LEFI) damage detection circuit L1 on left wing and LEFI damage detection circuit R1 on right wing are considered inoperative.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

27. FLIGHT CONTROLS

Sequence No.	Item	1	2	3	4	Change Bar
51-01	Flap Control Units (FCUs) (Cont'd)					
51-01-02	Right FCU	**C**	**1**	**0**	(M) May be inoperative or removed provided: a) Flap position rotary variable differential transducer (RVDT) sensors are verified to operate normally before each departure, b) Left and center FCUs operate normally, and c) Demand hydraulic pump 1 selector AUTO position is considered inoperative.	
51-01-03	Center FCU	**C**	**1**	**0**	(M) May be inoperative or removed provided: a) Flap position rotary variable differential transducer (RVDT) sensors are verified to operate normally before each departure, b) Left and right FCUs operate normally, and c) Leading edge failure indication (LEFI) damage detection circuit L2 on left wing and LEFI damage detection circuit R2 on right wing are considered inoperative.	
62-01	Auto Spoilers System	**C**	**1**	**0**	(M)(O) May be inoperative provided: a) Auto spoilers system is deactivated, and b) Appropriate performance adjustments are applied.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

27. FLIGHT CONTROLS

Sequence No.	Item	1	2	3	4	Change Bar
62-02	Spoiler Power Control Units (PCUs)	**A**	**12**	**10**	(M)(O) One symmetrical spoiler pair may be inoperative provided: a) Symmetrical pair is deactivated in the retracted position, b) Remaining spoilers are verified to operate normally, c) Appropriate performance adjustments are applied, d) Flight remains at or below appropriate altitude, and e) Repairs are made within three flight days.	
62-03	Speed Brake Lever Position Transducers	**C**	**4**	**3**		
81-01	Leading Edge Flaps Drives (Pneumatic Mode)	**C**	**8**	**7**	(M)(O) One may be inoperative provided: a) All electric drives are verified to operate normally, b) Appropriate performance adjustments are applied, and c) Flaps remain in takeoff position until obstacle clearance is assured.	
81-02	Leading Edge Flaps Drives (Electric Mode)	**C**	**8**	**7**	(M) One may be inoperative provided: a) Inoperative electric drive is deactivated, and b) All pneumatic drives operate normally.	
81-03	Leading Edge Flaps Retraction System (Reverser Actuated)	**C**	**1**	**0**		

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SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

27. FLIGHT CONTROLS

Sequence No.	Item	1	2	3	4	Change Bar
89-01	Leading Edge Failure Indication (LEFI) Damage Detection Circuits					
89-01A		**C**	**4**	**2**	May be dispatched with LE flap panel trace faults affecting only one LEFI damage detection circuit per wing.	
89-01B		**A**	**4**	**2**	(M) May be dispatched with LE flap panel trace faults affecting only one LEFI damage detection circuit per wing provided: a) Associated LE flap panel spare traces are connected as necessary to maintain integrity in all LEFI damage detection circuits, and b) Repairs are made within 90 calendar days.	
89-01C		**C**	**4**	**0**	(M) May be dispatched with LE flap panel trace faults provided associated LE flap panel spare traces are connected as necessary to maintain integrity in all LEFI damage detection circuits.	
89-01D		**B**	**4**	**0**	(M) May be dispatched with LE flap panel trace faults provided associated LE flap panel spare traces are connected as necessary to maintain integrity in at least one LEFI damage detection circuit per wing.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

28. FUEL

Sequence No.	Item	1	2	3	4	Change Bar
00-01	Fuel System (FUEL) Synoptic Display	**C**	**1**	**0**	May be inoperative provided individual fuel quantity indications required for dispatch operate normally.	
11-01	Fuel Sump Drain Valves	**C**	**10**	**0**	(M) May be inoperative provided: a) There is no evidence of leakage, and b) Alternate procedures are used to prevent water accumulation in associated tank.	
15-01	Fuel Scavenge Systems					
15-01A		**C**	**2**	**1**		
15-01B		**C**	**2**	**0**	(M) May be inoperative provided center wing tank remains empty.	
15-01C		**C**	**2**	**0**	(O) May be inoperative provided: a) Maximum zero fuel weight is reduced by the weight of the center tank fuel, and b) Appropriate amount of center tank fuel is considered unusable.	
16-01	Reserve Tanks 1 and 4 Transfer Valves					
16-01A		**C**	**4**	**2**	(M) One per tank may be inoperative (with reserve tanks fueled) provided: a) Inoperative transfer valve is secured closed, and b) Zero fuel weight CG limit is 2.2% MAC forward of the aft limit.	
16-01B		**C**	**4**	**0**	(O) May be inoperative provided: a) Reserve tanks 1 and 4 remain empty, b) Maximum zero fuel weight is reduced by the weight of the center tank fuel, and c) Appropriate performance adjustments are applied.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

28. FUEL

Sequence No.	Item	1	2	3	4	Change Bar
16-02	Main Tanks 1 and 4 Transfer Valves					
16-02-01	747-8F	**C**	**2**	**0**	(M)(O) May be inoperative provided: a) Main tanks 1 and 4 transfer valves are secured closed, b) All main tanks 1 and 4 boost pumps operate normally, c) Maximum fuel quantity loaded in the center wing tank is limited by the appropriate amount. And d) Required fuel to be jettisoned does not deplete inboard main tanks below the quantity in the outboard main tanks.	
16-02-02	747-8I	**C**	**2**	**0**	(M)(O) May be inoperative provided: a) Main tanks 1 and 4 transfer valves are secured closed, b) All main tanks 1 and 4 boost pumps operate normally, c) Maximum fuel quantity loaded in the center wing tank and horizontal stabilizer tank is limited by the appropriate amount, and d) Required fuel to be jettisoned does not deplete inboard main tanks below the quantity in the outboard main tanks.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

28. FUEL

Sequence No.	Item	1	2	3	4	Change Bar
16-03	Reserve Tanks Transfer Single Point Sensor Systems					
16-03A		**C**	**2**	**1**	One may be inoperative provided main tanks 1 and 4 fuel quantity indicating systems operate normally.	
16-03B		**C**	**2**	**0**	(O) May be inoperative (with reserve tanks fueled) provided: a) Main tanks 1 and 4 fuel quantity indicating systems operate normally, and b) Alternate procedures are established and used.	
16-03C		**C**	**2**	**0**	(O) May be inoperative provided: a) Reserve tanks 1 and 4 remain empty, b) Maximum zero fuel weight is reduced by the weight of the center tank fuel, and c) Appropriate performance adjustments are applied.	
17-01	Horizontal Stabilizer Tank Fuel Isolation Valves (747-8I)	**C**	**4**	**0**	(M) May be inoperative provided: a) Inoperative isolation valve is secured closed, and b) Horizontal stabilizer tank remains empty.	
17-02	Horizontal Stabilizer Tank Fuel Pumps (747-8I)	**C**	**2**	**0**	(M) May be inoperative provided: a) Inoperative fuel pump is deactivated, and b) Horizontal stabilizer tank remains empty.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

28. FUEL

Sequence No.	Item	1	2	3	4	Change Bar
17-03	Horizontal Stabilizer Tank Single Point Sensor Systems (747-8I)					
17-03A		**C**	**2**	**1**	One may be inoperative provided center wing tank fuel quantity indicating system operates normally.	
17-03B		**C**	**2**	**0**	May be inoperative provided horizontal stabilizer tank remains empty.	
17-04	Horizontal Stabilizer Tank Fuel Transfer Signals (747-8I)	**C**	**2**	**0**		
21-01	Pressure Fueling System					
21-01-01	747-8F					
21-01-01-01	Refuel Valves					
21-01-01-01A		**C**	**10**	**0**	(M)(O) May be inoperative open provided: a) Alternate procedures are used for refueling, b) Fuel jettison system is considered inoperative, and c) Appropriate performance adjustments are applied.	
21-01-01-01B		**C**	**10**	**0**	(M) May be inoperative closed provided alternate procedures are used for refueling.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

28. FUEL

Sequence No.	Item	1	2	3	4	Change Bar
21-01	Pressure Fueling System (Cont'd)					
21-01-01	747-8F (Cont'd)					
21-01-01-02	Refuel Power Select Switch					
21-01-01-02A		**C**	**1**	**0**	(M) May be inoperative provided fueling control panel is deactivated before each departure.	
21-01-01-02B		**C**	**1**	**0**	(M) NORM position may be inoperative provided BATT position is verified to operate normally.	
21-01-01-03	Refuel Valve Lights	**C**	**10**	**0**	(M) May be inoperative provided associated refuel valve is verified closed after each refueling.	
21-01-01-04	Volumetric Top-Off (VTO) Function	**C**	**1**	**0**	(M) May be inoperative provided alternate refueling procedures are established and used.	
21-01-01-05	Preselect Function	**C**	**1**	**0**	(M) May be inoperative provided alternate refueling procedures are established and used. NOTE: Any function that operates normally may be used.	
21-01-01-06	Overfill Light	**C**	**1**	**0**	(M) May be inoperative provided: a) Refuel valves are verified closed when appropriate during refueling, and b) Refuel valve lights operate normally.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

28. FUEL

Sequence No.	Item	1	2	3	4	Change Bar
21-01	Pressure Fueling System (Cont'd)					
21-01-01	747-8F (Cont'd)					
21-01-01-07	Test Functions (Gauges and System)	**C**	**2**	**0**		
21-01-02	747-8I					
21-01-02-01	Refuel Valves					
21-01-02-01A		**C**	**11**	**0**	(M)(O) May be inoperative open provided: a) Alternate procedures are used for refueling, b) Fuel jettison system is considered inoperative, c) Horizontal stabilizer tank remains empty, and d) Appropriate performance adjustments are applied.	
21-01-02-01B		**C**	**11**	**0**	(M) May be inoperative closed provided: a) Alternate procedures are used for refueling, and b) For any center wing tank refuel valve inoperative closed, horizontal stabilizer tank remains empty.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

28. FUEL

Sequence No.	Item	1	2	3	4	Change Bar
21-01	Pressure Fueling System (Cont'd)					
21-01-02	747-8I (Cont'd)					
21-01-02-02	Refuel Power Select Switch					
21-01-02-02A		**C**	**1**	**0**	(M) May be inoperative provided fueling control panel is deactivated before each departure.	
21-01-02-02B		**C**	**1**	**0**	(M) NORM position may be inoperative provided BATT position is verified to operate normally.	
21-01-02-03	Refuel Valve Lights	**C**	**11**	**0**	(M) May be inoperative provided associated refuel valve is verified closed after each refueling.	
21-01-02-04	Volumetric Top-Off (VTO) Function	**C**	**1**	**0**	(M) May be inoperative provided alternate refueling procedures are established and used.	
21-01-02-05	Preselect Function	**C**	**1**	**0**	(M) May be inoperative provided alternate refueling procedures are established and used. NOTE: Any function that operates normally may be used.	
21-01-02-06	Overfill Light	**C**	**1**	**0**	(M) May be inoperative provided: a) Refuel valves are verified closed when appropriate during refueling, and b) Refuel valve lights operate normally.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

28. FUEL

Sequence No.	Item	1	2	3	4	Change Bar
21-01	Pressure Fueling System (Cont'd)					
21-01-02	747-8I (Cont'd)					
21-01-02-07	Test Functions (Gauges and System)	**C**	**2**	**0**		
21-01-02-08	Horizontal Stabilizer Tank Fuel Isolation Valves Control Switch	**C**	**1**	**0**	May be inoperative provided horizontal stabilizer tank remains empty.	
21-01-02-09	Horizontal Stabilizer Tank Fuel Isolation Valves Light	**C**	**1**	**0**	(M) May be inoperative provided horizontal stabilizer tank fuel isolation valves are verified closed after each refueling.	
21-02 ***	Fueling Receptacle Caps	**C**	**4**	**0**	(M) May be inoperative or missing provided associated refuel manual shutoff valve is verified closed after refueling.	
21-03 ***	Refuel Manual Shutoff Valve Handle Extensions/Stop Assemblies	**C**	**4**	**0**	(M) May be inoperative or missing provided associated refuel manual shutoff valve is verified closed after refueling.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

28. FUEL

Sequence No.	Item	1	2	3	4	Change Bar
22-01	Main Tanks Boost Pumps					
22-01-01	Main Tanks 1 and 4 Boost Pumps					
22-01-01A		**C**	**4**	**3**	(M)(O) One may be inoperative provided: a) Inoperative boost pump is deactivated, b) Main tanks 1 and 4 transfer valves are verified to operate normally, c) All main tanks 2 and 3 boost pumps operate normally, d) Associated main tank fuel quantity indicating system operates normally, and e) Appropriate minimum fuel quantities are retained in the main tanks.	
22-01-01B		**C**	**4**	**3**	(M)(O) One may be inoperative provided: a) Inoperative boost pump is deactivated, b) Main tanks 1 and 4 transfer valves are verified to operate normally, c) All main tanks 2 and 3 boost pumps operate normally, d) Both center wing tank override/jettison pumps operate normally, e) Associated main tank fuel quantity indicating system operates normally, f) Appropriate minimum fuel quantity is loaded in the center wing tank, g) Maximum zero fuel weight is reduced by the weight of the center tank fuel, h) For takeoff, engines 1 and 4 are manifolded to the center wing tank, and i) Appropriate minimum fuel quantities are retained in the main tanks.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

28. FUEL

Sequence No.	Item	1	2	3	4	Change Bar
22-01	Main Tanks Boost Pumps (Cont'd)					
22-01-02	Main Tanks 2 and 3 Boost Pumps	**C**	**4**	**3**	(M)(O) One may be inoperative provided: a) Inoperative boost pump is deactivated, b) Associated fuel crossfeed valve is considered inoperative, c) All main tanks 1 and 4 boost pumps operate normally, d) Associated main tank override/jettison pumps remain ON for takeoff, and e) Appropriate minimum fuel quantities are retained in the main tanks.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

28. FUEL

Sequence No.	Item	1	2	3	4	Change Bar
22-01	Main Tanks Boost Pumps (Cont'd)					
22-01-02	Main Tanks 2 and 3 Boost Pumps (Cont'd)					
22-01-02-01	Aft Boost Pumps					
22-01-02-01A		**C**	**2**	**1**	(M)(O) One may be inoperative provided: a) Inoperative boost pump is deactivated, b) All main tanks 1 and 4 boost pumps operate normally, c) Main tanks 2 and 3 forward boost pumps operate normally, d) Associated main tank aft override/jettison pump operates normally, e) Associated main tank fuel quantity indicating system operates normally, and f) Appropriate minimum fuel quantities are retained in the main tanks.	
22-01-02-01B		**C**	**2**	**1**	(M)(O) One may be inoperative provided: a) Inoperative boost pump is deactivated, b) All main tanks 1 and 4 boost pumps operate normally, c) Main tanks 2 and 3 forward boost pumps operate normally, d) Associated main tank fuel quantity indicating system operates normally, e) All engine driven generator systems operate normally, and f) Appropriate minimum fuel quantities are retained in the main tanks.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

28. FUEL

Sequence No.	Item	1	2	3	4	Change Bar
22-01	Main Tanks Boost Pumps (Cont'd)					
22-01-02	Main Tanks 2 and 3 Boost Pumps (Cont'd)					
22-01-02-02	Forward Boost Pumps	**C**	**2**	**1**	(M)(O) One may be inoperative provided: a) Inoperative boost pump is deactivated, b) All main tanks 1 and 4 boost pumps operate normally, c) Main tanks 2 and 3 aft boost pumps operate normally, d) Associated main tank fuel quantity indicating system operates normally, and e) Appropriate minimum fuel quantities are retained in the main tanks.	
22-02	Fuel Crossfeed VALVE Lights	**C**	**4**	**0**		

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

28. FUEL

Sequence No.	Item	1	2	3	4	Change Bar
22-03	Fuel Crossfeed Valves					
22-03-01	747-8F					
22-03-01-01	Fuel Crossfeed Valves 1 and 4	**C**	**2**	**1**	(M)(O) One may be inoperative provided: a) Inoperative fuel crossfeed valve is secured open, b) Fuel crossfeed valves 2 and 3 operate normally, c) All main tanks fuel quantity indicating systems operate normally, and d) Alternate procedures are established and used.	
22-03-01-02	Fuel Crossfeed Valves 2 and 3	**C**	**2**	**1**	(M)(O) One may be inoperative provided: a) Inoperative fuel crossfeed valve is secured open, b) Fuel crossfeed valves 1 and 4 operate normally, c) All main tanks fuel quantity indicating systems operate normally, and d) Maximum zero fuel weight is reduced by the weight of the center tank fuel.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

28. FUEL

Sequence No.	Item	1	2	3	4	Change Bar
22-03	Fuel Crossfeed Valves (Cont'd)					
22-03-02	747-8I					
22-03-02-01	Fuel Crossfeed Valves 1 and 4	**C**	**2**	**1**	(M)(O) One may be inoperative provided: a) Inoperative fuel crossfeed valve is secured open, b) Fuel crossfeed valves 2 and 3 operate normally, c) All main tanks fuel quantity indicating systems operate normally, and d) Alternate procedures are established and used.	
22-03-02-02	Fuel Crossfeed Valves 2 and 3	**C**	**2**	**1**	(M)(O) One may be inoperative provided: a) Inoperative fuel crossfeed valve is secured open, b) Fuel crossfeed valves 1 and 4 operate normally, c) All main tanks fuel quantity indicating systems operate normally, d) Maximum zero fuel weight is reduced by the weight of the center tank fuel, and e) Horizontal stabilizer tank remains empty.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

28. FUEL

Sequence No.	Item	1	2	3	4	Change Bar
22-04	Fuel System Flap Signals					
22-04-01	747-8F	**C**	**2**	**1**	(O) One may be inoperative provided alternate procedures are established and used.	
22-04-02	747-8I	**C**	**2**	**1**	(O) One may be inoperative provided: a) Horizontal stabilizer tank remains empty, and b) Alternate procedures are established and used.	
22-05	Fuel System In-Air Signals					
22-05-01	747-8F					
22-05-01A		**C**	**2**	**1**	(O) One may be inoperative (with reserve tanks fueled) provided: a) Main tanks 1 and 4 fuel quantity indicating systems operate normally, and b) Alternate procedures are established and used.	
22-05-01B		**C**	**2**	**1**	(O) One may be inoperative provided: a) Reserve tanks 1 and 4 remain empty, b) Maximum zero fuel weight is reduced by the weight of the center tank fuel, c) Appropriate performance adjustments are applied, and d) Alternate procedures are established and used.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

28. FUEL

Sequence No.	Item	1	2	3	4	Change Bar
22-05	Fuel System In-Air Signals (Cont'd)					
22-05-02	747-8I					
22-05-02A		**C**	**2**	**1**	(O) One may be inoperative (with reserve tanks fueled) provided: a) Main tanks 1 and 4 fuel quantity indicating systems operate normally, b) Horizontal stabilizer tank remains empty, and c) Alternate procedures are established and used.	
22-05-02B		**C**	**2**	**1**	(O) One may be inoperative provided: a) Reserve tanks 1 and 4 remain empty, b) Maximum zero fuel weight is reduced by the weight of the center tank fuel, c) Horizontal stabilizer tank remains empty, d) Appropriate performance adjustments are applied, and e) Alternate procedures are established and used.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

28. FUEL

Sequence No.	Item	1	2	3	4	Change Bar
22-06	Fuel System Management Cards (FSMCs)					
22-06-01	747-8F					
22-06-01A		**C**	**2**	**1**	(M)(O) One may be inoperative (with reserve tanks fueled) provided: a) Inoperative FSMC is deactivated, b) Main tanks 1 and 4 fuel quantity indicating systems operate normally, and c) Alternate procedures are established and used.	
22-06-01B		**C**	**2**	**1**	(M)(O) One may be inoperative provided: a) Inoperative FSMC is deactivated, b) Reserve tanks 1 and 4 remain empty, c) Maximum zero fuel weight is reduced by the weight of the center tank fuel, d) Appropriate performance adjustments are applied, and e) Alternate procedures are established and used.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

28. FUEL

Sequence No.	Item	1	2	3	4	Change Bar
22-06	Fuel System Management Cards (FSMCs) (Cont'd)					
22-06-02	747-8I					
22-06-02A		**C**	**2**	**1**	(M)(O) One may be inoperative (with reserve tanks fueled) provided: a) Inoperative FSMC is deactivated, b) Main tanks 1 and 4 fuel quantity indicating systems operate normally, c) Horizontal stabilizer tank remains empty, and d) Alternate procedures are established and used.	
22-06-02B		**C**	**2**	**1**	(M)(O) One may be inoperative provided: a) Inoperative FSMC is deactivated, b) Reserve tanks 1 and 4 remain empty, c) Maximum zero fuel weight is reduced by the weight of the center tank fuel, d) Horizontal stabilizer tank remains empty, e) Appropriate performance adjustments are applied, and f) Alternate procedures are established and used.	
25-01	APU Fuel (DC) Pump	**C**	**1**	**0**	(M) May be inoperative deactivated.	
25-02	APU Fuel Valve	**C**	**1**	**0**	(M) May be inoperative provided: a) APU fuel valve is deactivated closed, and b) APU is considered inoperative.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

28. FUEL

Sequence No.	Item	1	2	3	4	Change Bar
26-01	Manually Operated Defuel Valves					
26-01A		**C**	**2**	**0**	(M) May be inoperative secured closed.	
26-01B		**C**	**2**	**0**	(M) May be inoperative provided: a) Associated refuel adapter valve is verified closed, b) Associated refuel adapter valve is not used for refueling, and c) Associated fueling receptacle cap operates normally.	
31-01	Fuel Jettison System					
31-01-01	747-8F	**C**	**1**	**0**	(M)(O) May be inoperative provided: a) Both jettison nozzle valves are secured closed, b) Main tanks 1 and 4 transfer valves are considered inoperative, and c) Appropriate performance adjustments are applied.	
31-01-01-01	Center Wing Tank Jettison/Transfer Valves					
31-01-01-01A		**C**	**2**	**0**	(M) May be inoperative provided: a) Inoperative jettison/transfer valve is secured closed, and b) Associated inboard main tank jettison/transfer valve operates normally.	
31-01-01-01B		**C**	**2**	**0**	(M) May be inoperative provided: a) Inoperative jettison/transfer valve is secured open, and b) Both jettison nozzle valves operate normally.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

28. FUEL

Sequence No.	Item	1	2	3	4	Change Bar
31-01	Fuel Jettison System (Cont'd)					
31-01-01	747-8F (Cont'd)					
31-01-01-02	Main Tanks 2 and 3 Jettison/Transfer Valves					
31-01-01-02A		**C**	**2**	**0**	(M) May be inoperative provided: a) Inoperative jettison/transfer valve is secured closed, and b) Associated center wing tank jettison/transfer valve operates normally.	
31-01-01-02B		**C**	**2**	**0**	(M) May be inoperative provided: a) Inoperative jettison/transfer valve is secured open, and b) Both jettison nozzle valves operate normally.	
31-01-01-03	Fuel Jettison Control Cards (FJCCs)	**C**	**2**	**1**	(M) One may be inoperative provided remaining FJCC is verified to operate normally.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

28. FUEL

Sequence No.	Item	1	2	3	4	Change Bar
31-01	Fuel Jettison System (Cont'd)					
31-01-02	747-8I	**C**	**1**	**0**	(M)(O) May be inoperative provided: a) Both jettison nozzle valves are secured closed, b) Main tanks 1 and 4 transfer valves are considered inoperative, and c) Appropriate performance adjustments are applied.	
31-01-02-01	Center Wing Tank Jettison/Transfer Valves					
31-01-02-01A		**C**	**2**	**0**	(M) May be inoperative provided: a) Inoperative jettison/transfer valve is secured closed, and b) Associated inboard main tank jettison/transfer valve operates normally	
31-01-02-01B		**C**	**2**	**0**	(M) May be inoperative provided: a) Inoperative jettison/transfer valve is secured open, b) Both jettison nozzle valves operate normally, and c) Horizontal stabilizer tank remains empty	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

28. FUEL

Sequence No.	Item	1	2	3	4	Change Bar
31-01	Fuel Jettison System (Cont'd)					
31-01-02	747-8I (Cont'd)					
31-01-02-02	Main Tanks 2 and 3 Jettison/Transfer Valves					
31-01-02-02A		**C**	**2**	**0**	M) May be inoperative provided: a) Inoperative jettison/transfer valve is secured closed, and b) Associated center wing tank jettison/transfer valve operates normally.	
31-01-02-02B		**C**	**2**	**0**	(M) May be inoperative provided: a) Inoperative jettison/transfer valve is secured open, b) Both jettison nozzle valves operate normally, and c) Horizontal stabilizer tank remains empty.	
31-01-02-03	Fuel Jettison Control Cards (FJCCs)	**C**	**2**	**1**	(M) One may be inoperative provided remaining FJCC is verified to operate normally.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

28. FUEL

Sequence No.	Item	1	2	3	4	Change Bar
31-02	Main Tanks 2 and 3 Override/Jettison Pumps					
31-02-01	Forward Override/ Jettison Pumps					
31-02-01A		**C**	**2**	**1**	(M) One may be inoperative provided: a) Inoperative override/jettison pump is deactivated, and b) Main tanks 2 and 3 aft override/jettison pumps operate normally.	
31-02-01B		**C**	**2**	**0**	(M) May be inoperative provided: a) Inoperative override/jettison pump is deactivated, b) Associated main tank aft override/jettison pump operates normally, and c) All main tanks 2 and 3 boost pumps operate normally.	
31-02-02	Aft Override/ Jettison Pumps					
31-02-02A		**C**	**2**	**1**	(M) One may be inoperative provided: a) Inoperative override/jettison pump is deactivated, b) Main tanks 2 and 3 forward override/jettison pumps operate normally, and c) All engine driven generator systems operate normally.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

28. FUEL

Sequence No.	Item	1	2	3	4	Change Bar
31-02	Main Tanks 2 and 3 Override/Jettison Pumps (Cont'd)					
31-02-02	Aft Override/ Jettison Pumps (Cont'd)					
31-02-02B		**C**	**2**	**1**	(M) One may be inoperative provided: a) Inoperative override/jettison pump is deactivated, b) Main tanks 2 and 3 forward override/jettison pumps operate normally, and c) Associated main tank boost pumps operate normally.	
31-02-02C		**C**	**2**	**0**	(M) May be inoperative provided: a) Inoperative override/jettison pump is deactivated, b) Associated main tank forward override/jettison pump operates normally, c) All main tanks 2 and 3 boost pumps operate normally, and d) All engine driven generator systems operate normally.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

28. FUEL

Sequence No.	Item	1	2	3	4	Change Bar
31-03	Center Wing Tank Override/Jettison Pumps					
31-03-01	747-8F					
31-03-01A		**C**	**2**	**1**	(M)(O) One may be inoperative provided: a) Inoperative override/jettison pump is deactivated, b) Center wing tank fuel quantity indicating system operates normally, c) Maximum zero fuel weight is reduced by the weight of the center tank fuel, and d) With center wing tank fueled, fuel quantity remaining in main tanks is adequate to reach a suitable airport if remaining center pump fails at any time.	
31-03-01B		**C**	**2**	**0**	(M)(O) May be inoperative provided: a) Inoperative override/jettison pump is deactivated, b) Maximum zero fuel weight is reduced by the weight of the center tank fuel, and c) Center tank fuel is considered unusable.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

28. FUEL

Sequence No.	Item	1	2	3	4	Change Bar
31-03	Center Wing Tank Override/Jettison Pumps (Cont'd)					
31-03-02	747-8I					
31-03-02A		**C**	**2**	**1**	(M)(O) One may be inoperative provided: a) Inoperative override/jettison pump is deactivated, b) Center wing tank fuel quantity indicating system operates normally, c) Maximum zero fuel weight is reduced by the weight of the center tank fuel, d) With center wing tank fueled, fuel quantity remaining in main tanks is adequate to reach a suitable airport if remaining center pump fails at any time, and e) Horizontal stabilizer tank remains empty.	
31-03-02B		**C**	**2**	**0**	(M)(O) May be inoperative provided: a) Inoperative override/jettison pump is deactivated, b) Maximum zero fuel weight is reduced by the weight of the center tank fuel, c) Center tank fuel is considered unusable, and d) Horizontal stabilizer tank remains empty.	
31-04	Fuel Jettison Single Point Sensor Systems	**C**	**2**	**1**	One may be inoperative provided main tanks 2 and 3 fuel quantity indicating systems operate normally.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

28. FUEL

Sequence No.	Item	1	2	3	4	Change Bar
41-01	Main Tanks Fuel Quantity Indicating Systems (Flight Deck)					
41-01-01	Main Tanks 1 and 4 Fuel Quantity Indicating Systems	**C**	**2**	**1**	(M)(O) Except for ER operations, one may be inoperative provided: a) Fuel quantity in associated tank is verified by an alternate procedure, b) Remaining individual tank fuel quantity indicating systems operate normally, c) Both boost pumps for associated tank operate normally, d) All fuel crossfeed valves operate normally, e) Total fuel quantity indication is considered inoperative, and f) Appropriate procedures are used enroute to identify engine fuel leaks if suspected or confirmed.	
41-01-02	Main Tanks 2 and 3 Fuel Quantity Indicating Systems	**C**	**2**	**1**	(M)(O) Except for ER operations, one may be inoperative provided: a) Fuel quantity in associated tank is verified by an alternate procedure, b) Remaining individual tank fuel quantity indicating systems operate normally, c) Both boost pumps for associated tank operate normally, d) All fuel crossfeed valves operate normally, e) Both fuel jettison single point sensor systems operate normally, f) Total fuel quantity indication is considered inoperative, and g) Appropriate procedures are used enroute to identify engine fuel leaks if suspected or confirmed.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

28. FUEL

Sequence No.	Item	1	2	3	4	Change Bar
41-02	Wing Fueling Station Quantity Indicating System	**C**	**1**	**0**	(M) May be inoperative provided alternate procedures are used for refueling. NOTE: Any portion of the system that operates normally may be used.	
41-03	Total Fuel Quantity Indication	**C**	**1**	**0**	(O) Except for ER operations, may be inoperative provided: a) Engine fuel flow indication systems operate normally, b) Both flight management computer systems (FMCSs) operate normally, and c) FMC is initialized with the known total fuel quantity.	
41-04	Center Wing Tank Fuel Quantity Indicating System (Flight Deck)					
41-04-01	747-8F	**C**	**1**	**0**	May be inoperative provided: a) Total fuel quantity indication is considered inoperative, and b) Center wing tank remains empty.	
41-04-02	747-8I	**C**	**1**	**0**	Except for ER operations, may be inoperative provided: a) Total fuel quantity indication is considered inoperative, b) Center wing tank remains empty, and c) Horizontal stabilizer tank remains empty.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

28. FUEL

Sequence No.	Item	1	2	3	4	Change Bar
41-05	Reserve Tanks Fuel Quantity Indicating Systems (Flight Deck)					
41-05A		**C**	**2**	**0**	(M) Except for ER operations, may be inoperative (with reserve tanks fueled) provided: a) Fuel quantity in associated tank is verified by an alternate procedure, b) Remaining individual tank fuel quantity indicating systems operate normally, and c) Total fuel quantity indication is considered inoperative.	
41-05B		**C**	**2**	**0**	(O) Except for ER operations, may be inoperative provided: a) Remaining individual tank fuel quantity indicating systems operate normally, b) Total fuel quantity indication is considered inoperative, c) Reserve tanks 1 and 4 remain empty, d) Maximum zero fuel weight is reduced by the weight of the center tank fuel, and e) Appropriate performance adjustments are applied.	
41-06	Fuel Quantity Indicating System (FQIS) Circuits	**C**	**7**	**6**	Except for ER operations, one may be inoperative.	
41-07	Horizontal Stabilizer Tank Fuel Quantity Indicating System (Flight Deck) (747-8I)	**C**	**1**	**0**	(M) Except for ER operations, may be inoperative provided: a) Horizontal stabilizer remote electronics unit is deactivated or removed, b) Remaining individual tank fuel quantity indicating systems operate normally, c) Total fuel quantity indication is considered inoperative, and d) Horizontal stabilizer tank remains empty.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

28. FUEL

Sequence No.	Item	1	2	3	4	Change Bar
42-01	Fuel Pump Low PRESS Lights	**C**	**14**	**0**		
43-01	Fuel Temperature Indication	**C**	**1**	**0**	(O) May be inoperative provided total air temperature (TAT) is used as an indication of fuel temperature.	
44-01	Measuring Sticks	**C**	**19**	**0**	May be inoperative provided fuel quantity is verified by other means.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

29. HYDRAULIC POWER

Sequence No.	Item	1	2	3	4	Change Bar
00-01	Hydraulic System (HYD) Synoptic Display	**C**	**1**	**0**		
11-01	Engine Driven Pump (EDP) Hydraulic Systems					
11-01-01	EDP Hydraulic System 1					
11-01-01A		**C**	**1**	**0**	(M) May be inoperative provided: a) EDP 1 shutoff valve is verified to operate normally, b) Associated fluid supply and pump case return are verified to operate normally, c) EDP hydraulic system 4 operates normally, d) All demand hydraulic pumps operate normally, e) Left outboard aileron inboard power control unit (PCU) operates normally, f) ENGINE HYD PUMP 1 switch remains Off, and g) DEMAND HYD PUMP 1 selector remains ON.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

29. HYDRAULIC POWER

Sequence No.	Item	1	2	3	4	Change Bar
11-01	Engine Driven Pump (EDP) Hydraulic Systems (Cont'd)					
11-01-01	EDP Hydraulic System 1 (Cont'd)					
11-01-01B		**C**	**1**	**0**	(M) May be inoperative provided: a) EDP 1 shutoff valve is deactivated closed, b) EDP 1 is removed and cover plate installed, c) EDP hydraulic system 4 operates normally, d) All demand hydraulic pumps operate normally, e) Left outboard aileron inboard power control unit (PCU) operates normally, and f) DEMAND HYD PUMP 1 selector remains ON.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

29. HYDRAULIC POWER

Sequence No.	Item	1	2	3	4	Change Bar
11-01	Engine Driven Pump (EDP) Hydraulic Systems (Cont'd)					
11-01-02	EDP Hydraulic System 4					
11-01-02A		**C**	**1**	**0**	(M) May be inoperative provided: a) EDP 4 shutoff valve is verified to operate normally, b) Associated fluid supply and pump case return are verified to operate normally, c) EDP hydraulic system 1 operates normally, d) All demand hydraulic pumps operate normally, e) Right outboard aileron outboard power control unit (PCU) operates normally, f) ENGINE HYD PUMP 4 switch remains Off, and g) DEMAND HYD PUMP 4 selector remains ON.	
11-01-02B		**C**	**1**	**0**	(M) May be inoperative provided: a) EDP 4 shutoff valve is deactivated closed, b) EDP 4 is removed and cover plate installed, c) EDP hydraulic system 1 operates normally, d) All demand hydraulic pumps operate normally, e) Right outboard aileron outboard power control unit (PCU) operates normally, and f) DEMAND HYD PUMP 4 selector remains ON.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

29. HYDRAULIC POWER

Sequence No.	Item	1	2	3	4	Change Bar
11-01	Engine Driven Pump (EDP) Hydraulic Systems (Cont'd)					
11-01-03	Pump Depressurization Function	**C**	**4**	**3**		
11-02	Demand Hydraulic Pumps					
11-02-01	Demand Hydraulic Pump 1	**C**	**1**	**0**	(M)(O) May be inoperative provided: a) Demand hydraulic pump 1 is deactivated, b) Demand hydraulic pumps 2, 3, and 4 operate normally, c) For ground operations below -18 degrees C OAT, associated hydraulic temperature indication operates normally, d) Left outboard aileron inboard power control unit (PCU) operates normally, and e) Appropriate performance adjustments are applied.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

29. HYDRAULIC POWER

Sequence No.	Item	1	2	3	4	Change Bar
11-02	Demand Hydraulic Pumps (Cont'd)					
11-02-02	Demand Hydraulic Pump 2	**C**	**1**	**0**	(M) May be inoperative provided: a) Demand hydraulic pump 2 is deactivated, b) Demand hydraulic pumps 1, 3, and 4 operate normally, c) For ground operations below -18 degrees C OAT, associated hydraulic temperature indication operates normally, and d) Left outboard aileron outboard power control unit (PCU) operates normally.	
11-02-03	Demand Hydraulic Pump 3	**C**	**1**	**0**	(M) May be inoperative provided: a) Demand hydraulic pump 3 is deactivated, b) Demand hydraulic pumps 1, 2, and 4 operate normally, c) For ground operations below -18 degrees C OAT, associated hydraulic temperature indication operates normally, and d) Right outboard aileron inboard power control unit (PCU) operates normally.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

29. HYDRAULIC POWER

Sequence No.	Item	1	2	3	4	Change Bar
11-02	Demand Hydraulic Pumps (Cont'd)					
11-02-04	Demand Hydraulic Pump 4	**C**	**1**	**0**	(M)(O) May be inoperative provided: a) Demand hydraulic pump 4 is deactivated, b) Demand hydraulic pumps 1, 2, and 3 operate normally, c) For ground operations below -18 degrees C OAT, associated hydraulic temperature indication operates normally, d) Right outboard aileron outboard power control unit (PCU) operates normally, and e) Appropriate performance adjustments are applied.	
11-03	Demand Hydraulic Pumps Selectors	**C**	**4**	**3**	One may be inoperative provided associated demand hydraulic pump is considered inoperative.	
11-03-01	Demand Hydraulic Pump 1 Selector					
11-03-01-01	AUTO Position	**C**	**1**	**0**	(M)(O) May be inoperative provided: a) Demand hydraulic pump 1 selector ON and OFF positions are verified to operate normally, b) Left outboard aileron inboard power control unit (PCU) operates normally, and c) DEMAND HYD PUMP 1 selector remains ON for takeoff and landing.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

29. HYDRAULIC POWER

Sequence No.	Item	1	2	3	4	Change Bar
11-03	Demand Hydraulic Pumps Selectors (Cont'd)					
11-03-01	Demand Hydraulic Pump 1 Selector (Cont'd)					
11-03-01-02	ON Position	**C**	**1**	**0**	(M) May be inoperative provided: a) Demand hydraulic pump 1 selector AUTO and OFF positions are verified to operate normally, and b) Engine driven pump (EDP) hydraulic system 1 operates normally.	
11-03-02	Demand Hydraulic Pump 2 Selector					
11-03-02-01	AUTO Position	**C**	**1**	**0**	(M)(O) May be inoperative provided: a) Demand hydraulic pump 2 selector ON and OFF positions are verified to operate normally, b) Left outboard aileron outboard power control unit (PCU) operates normally, and c) DEMAND HYD PUMP 2 selector remains ON for takeoff and landing.	
11-03-02-02	ON Position	**C**	**1**	**0**	(M) May be inoperative provided: a) Demand hydraulic pump 2 selector AUTO and OFF positions are verified to operate normally, and b) Engine driven pump (EDP) hydraulic system 2 operates normally.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

29. HYDRAULIC POWER

Sequence No.	Item	1	2	3	4	Change Bar
11-03	Demand Hydraulic Pumps Selectors (Cont'd)					
11-03-03	Demand Hydraulic Pump 3 Selector					
11-03-03-01	AUTO Position	**C**	**1**	**0**	(M)(O) May be inoperative provided: a) Demand hydraulic pump 3 selector ON and OFF positions are verified to operate normally, b) Right outboard aileron inboard power control unit (PCU) operates normally, and c) DEMAND HYD PUMP 3 selector remains ON for takeoff and landing.	
11-03-03-02	ON Position	**C**	**1**	**0**	(M) May be inoperative provided: a) Demand hydraulic pump 3 selector AUTO and OFF positions are verified to operate normally, and b) Engine driven pump (EDP) hydraulic system 3 operates normally.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

29. HYDRAULIC POWER

Sequence No.	Item	1	2	3	4	Change Bar
11-03	Demand Hydraulic Pumps Selectors (Cont'd)					
11-03-04	Demand Hydraulic Pump 4 Selector					
11-03-04-01	AUTO Position	**C**	**1**	**0**	(M)(O) May be inoperative provided: a) Demand hydraulic pump 4 selector ON and OFF positions are verified to operate normally, b) Right outboard aileron outboard power control unit (PCU) operates normally, and c) DEMAND HYD PUMP 4 selector remains ON for takeoff and landing.	
11-03-04-02	ON Position	**C**	**1**	**0**	(M) May be inoperative provided: a) Demand hydraulic pump 4 selector AUTO and OFF positions are verified to operate normally, and b) Engine driven pump (EDP) hydraulic system 4 operates normally.	
11-04	Hydraulic Accumulator Systems	**C**	**4**	**0**	NOTE: Any portion of the system that operates normally may be used.	
17-01	Hydraulic Reservoir Low Pressure Warning Systems	**C**	**4**	**0**	(M) May be inoperative provided associated reservoir pressurization is verified to operate normally once each flight day.	
18-01	Reservoir Quantity Fill Indicator	**D**	**1**	**0**		

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

29. HYDRAULIC POWER

Sequence No.	Item	1	2	3	4	Change Bar
21-01	Ram Air Turbine (RAT) System					
21-01-01	UNLKD Light	**C**	**1**	**0**		
21-01-02	Pressure Indication System	**C**	**1**	**0**		
21-01-03	Ground Test/Flight Valve Indication System	**C**	**1**	**0**	(M) May be inoperative provided: a) Flight deck RAM AIR TURBINE switch is verified to operate normally, and b) Ground test/flight valve is secured in the flight position.	
21-01-04	Transfer Valve Indication System	**C**	**1**	**0**	(M) May be inoperative provided: a) Transfer valve is verified to operate normally, and b) Transfer valve is verified in the normal position before each departure.	
22-01	Auxiliary Hydraulic Pump Systems	**C**	**2**	**0**	(O) May be inoperative provided alternate procedures are established and used.	
30-01	Hydraulic SYS FAULT Lights					
30-01A		**C**	**4**	**3**	One may be inoperative provided associated hydraulic quantity indication operates normally.	
30-01B		**C**	**4**	**3**	One may be inoperative provided associated hydraulic temperature indication operates normally.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

29. HYDRAULIC POWER

Sequence No.	Item	1	2	3	4	Change Bar
32-01	Hydraulic Temperature Indications					
32-01A		**C**	**4**	**3**	One may be inoperative provided: a) Associated hydraulic quantity indication operates normally, and b) For ground operations below -18 degrees C OAT, associated demand hydraulic pump operates normally.	
32-01B		**C**	**4**	**3**	(M) One may be inoperative provided: a) Associated hydraulic SYS FAULT light is verified to operate normally, and b) For ground operations below -18 degrees C OAT, associated demand hydraulic pump operates normally.	
33-01	Hydraulic Quantity Indications					
33-01A		**C**	**4**	**0**	(M) May be inoperative provided: a) Associated reservoir level is verified normal before each departure, and b) Associated hydraulic temperature indication operates normally.	
33-01B		**C**	**4**	**0**	(M) May be inoperative provided: a) Associated reservoir level is verified normal before each departure, and b) Associated hydraulic SYS FAULT light is verified to operate normally.	
34-01	Hydraulic Pump PRESS Lights	**C**	**8**	**4**	(M) One per hydraulic system may be inoperative provided associated pump is verified to operate normally before each departure.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

30. ICE AND RAIN PROTECTION

Sequence No.	Item	1	2	3	4	Change Bar
11-01	Wing Anti-Ice (WAI) Valves	**C**	**4**	**0**	(M) May be inoperative provided: a) Inoperative WAI valve is locked closed, b) Airplane is not operated in known or forecast icing conditions, and c) WING ANTI-ICE switch remains OFF.	
11-02	Wing Anti-Ice (WAI) Indications (Primary EICAS Display)	**C**	**2**	**0**		
21-01	Engine Anti-Ice (EAI) Valves					
21-01A		**C**	**4**	**3**	(M) One may be inoperative provided: a) Inoperative EAI valve is locked closed, b) Associated engine ignition systems operate normally, c) Airplane is not operated in known or forecast icing conditions, and d) Associated ENGINE ANTI-ICE switch remains OFF.	
21-01B		**C**	**4**	**3**	(M)(O) One may be inoperative provided: a) Inoperative EAI valve is locked open, b) Associated high pressure shutoff valve (HPSOV) is considered inoperative, c) Maximum operating temperature is limited to 37 degrees C OAT, and d) Appropriate performance adjustments are applied.	
21-02	Engine Anti-Ice (EAI) Indications (Primary EICAS Display)	**C**	**4**	**0**		

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

30. ICE AND RAIN PROTECTION

Sequence No.	Item	1	2	3	4	Change Bar
31-01	Pitot-Static Probe Heater Systems	**B**	**4**	**3**	One may be inoperative provided: a) Airplane is not operated in visible moisture, and b) Airplane is not operated in known or forecast icing conditions.	
31-01-01	Left Main Pitot-Static Probe Heater	**C**	**1**	**0**	May be inoperative provided: a) Left auxiliary, right main, and right auxiliary pitot-static probe heaters operate normally, and b) Left air data computer (ADC) function is considered inoperative.	
31-01-02	Right Main Pitot-Static Probe Heater	**C**	**1**	**0**	May be inoperative provided: a) Left main, left auxiliary, and right auxiliary pitot-static probe heaters operate normally, and b) Right air data computer (ADC) function is considered inoperative.	
31-01-03	Right Auxiliary Pitot-Static Probe Heater	**C**	**1**	**0**	May be inoperative provided: a) Left main, left auxiliary, and right main pitot-static probe heaters operate normally, and b) Center air data computer (ADC) function is considered inoperative.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

30. ICE AND RAIN PROTECTION

Sequence No.	Item	1	2	3	4	Change Bar
31-02	Total Air Temperature (TAT) Probe Heater Systems					
31-02A		**C**	**2**	**1**	One may be inoperative provided associated air data computer (ADC) function is considered inoperative.	
31-02B		**C**	**2**	**0**	May be inoperative provided: a) Airplane is not operated in visible moisture, and b) Airplane is not operated in known or forecast icing conditions.	
41-01	Window Heat INOP Lights	**C**	**2**	**0**		
41-02	Flight Deck Forward Window Heater Systems	**C**	**2**	**1**	One may be inoperative provided: a) Associated forward window backup heater system operates normally, b) Both No. 2 side window heater systems operate normally, c) Airplane is not operated in known or forecast icing conditions, and d) Associated WINDOW HEAT switch remains OFF.	
41-03	Flight Deck Side Window Heater Systems					
41-03-01	No. 2 Windows	**C**	**2**	**1**	One may be inoperative provided: a) Associated SIDE WINDOW HEAT ANTI-FOG PWR switch remains OFF, b) Both forward window heater systems operate normally, and c) Both forward window backup heater systems operate normally.	
41-03-02	No. 3 Windows	**D**	**2**	**0**		

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

30. ICE AND RAIN PROTECTION

Sequence No.	Item	1	2	3	4	Change Bar
41-04	Flight Deck Forward Window Backup Heater Systems	**C**	**2**	**1**	One may be inoperative provided: a) Associated FWD WINDOW HEAT ANTI-FOG PWR switch remains OFF, b) Associated forward window heater system operates normally, and c) Both No. 2 side window heater systems operate normally.	
42-01	Windshield Wipers	**C**	**2**	**0**	May be inoperative provided: a) Airplane is not operated in known or forecast precipitation within five statute miles of the airport of departure or intended landing, and b) Approach minimums do not require their use.	
42-01-01	Low Speed Functions	**C**	**2**	**0**	May be inoperative provided associated high speed function operates normally.	
42-01-02	High Speed Functions					
42-01-02A		**C**	**2**	**1**	One may be inoperative provided associated low speed function operates normally.	
42-01-02B		**C**	**2**	**0**	May be inoperative provided: a) Both low speed functions operate normally, and b) Airplane is not operated in known or forecast precipitation of moderate or greater intensity within five statute miles of the airport of departure or intended landing.	
42-01-03	Intermittent Functions	**C**	**2**	**0**		
44-01	Windshield Washer Systems	**D**	**2**	**0**		

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

30. ICE AND RAIN PROTECTION

Sequence No.	Item	1	2	3	4	Change Bar
71-01	Drain Mast Heaters (747-8I)	**C**	**2**	**0**	(M) May be inoperative provided: a) Associated galley and lavatory sink water supply shutoff valves are closed, and b) Associated galley and lavatory sinks are not used.	
81-01	Ice Detectors	**C**	**2**	**0**	(M)(O) May be inoperative provided: a) Ice detectors are deactivated, b) Flight remains at or below FL 390, and c) Engine and wing anti-ice systems are operated manually.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

31. INDICATING/RECORDING SYSTEMS

Sequence No.	Item	1	2	3	4	Change Bar
25-01	Clock Switches	**C**	**2**	**1**		
31-01	Flight Data Recorder (FDR) System	**A**	**1**	**0**	May be inoperative provided: a) Cockpit voice recorder (CVR) system operates normally, b) Airplane is not dispatched from a designated airport as listed in operator's MEL unless: 1) FDR failure occurs after pushback but prior to takeoff, or 2) FDR repair was attempted but was not successful. c) In those cases where repair is attempted but not successful, the aircraft may be dispatched on a flight or series of flights until the next designated airport where repair must be accomplished prior to dispatch, and d) Repairs are made within three flight days.	
31-01-01	FDR Recording Parameters Required by 14 CFR	**A**	**-**	**-**	Up to three recording parameters may be inoperative provided: a) Cockpit voice recorder (CVR) system operates normally, and b) Repairs are made within 20 calendar days.	
31-01-02	FDR Recording Parameters Not Required by 14 CFR	**A**	**-**	**-**	May be inoperative provided repairs are made prior to completion of the next heavy maintenance visit.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

31. INDICATING/RECORDING SYSTEMS

Sequence No.	Item	1	2	3	4	Change Bar
35-01	Aircraft Condition Monitoring System (ACMS)					
35-01A		**C**	**1**	**0**	(M) May be inoperative provided alternate procedures are established and used.	
35-01B		**D**	**1**	**0**	May be inoperative provided procedures do not require its use.	
35-02 ***	Quick Access Recorder (QAR) System	**D**	**1**	**0**		
41-01	Weight and Balance System (WBS)					
41-01-01	747-8F	**D**	**1**	**0**		
41-01-02 ***	747-8I	**D**	**1**	**0**		
51-01	Master Caution/ Warning Systems					
51-01-01	Master Warning Lights (Glareshield)	**C**	**2**	**1**	One may be inoperative provided both aural warning speakers operate normally.	
51-01-02	Master Caution Lights (Glareshield)	**C**	**2**	**1**	One may be inoperative provided both aural warning speakers operate normally.	
51-02-03	Aural Warning Speaker Systems	**C**	**2**	**1**	One may be inoperative provided master warning and master caution lights operate normally.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

31. INDICATING/RECORDING SYSTEMS

Sequence No.	Item	1	2	3	4	Change Bar
51-02	Modularized Avionics Warning Electronics Assembly (MAWEA) ID Card	**C**	**1**	**0**	May be inoperative provided aircraft communication addressing and reporting system (ACARS) is considered inoperative.	
52-01	Mach/Airspeed Warning Systems	**C**	**2**	**1**		
61-01	Lower Center Display Unit (DU)	**C**	**1**	**0**	(M) May be inoperative provided: a) EICAS is verified capable of switching to an alternate DU, and b) Inboard display selector positions operate normally.	
61-02	Electronic Flight Instrument System (EFIS) Control Panels	**C**	**2**	**1**	(M)(O) One may be inoperative provided alternate EFIS control is verified to operate normally on associated control display unit (CDU). NOTE: Any function that operates normally may be used.	
61-03	Display Select Panel (DSP)	**C**	**1**	**0**	(M)(O) May be inoperative provided alternate DSP control is verified to operate normally on left and right control display units (CDUs). NOTE: Any function that operates normally may be used.	
61-04	Engine Indicating and Crew Alerting System (EICAS) Status Messages					
61-04A		**C**	**-**	**0**	(M)(O) May be inoperative provided associated equipment is verified to operate normally before each departure.	
61-04B		**C**	**-**	**0**	May be inoperative provided associated equipment is considered inoperative.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

31. INDICATING/RECORDING SYSTEMS

Sequence No.	Item	1	2	3	4	Change Bar
61-05	Left and Right Instrument Source Selectors (FLT DIR, NAV, EIU, IRS, and AIR DATA)	**C**	**10**	**0**	(M) May be inoperative provided: a) Associated instruments are verified to operate from isolated sources, and b) Inoperative selectors are not moved in flight.	
61-05-01	EIU Source Selector AUTO Function	**C**	**2**	**0**	(M) May be inoperative provided source is verified.	
61-05-02	IRS Source Selector AUTO Function	**C**	**2**	**0**	(M) May be inoperative provided source is verified.	
61-05-03	AIR DATA Source Selector AUTO Function	**C**	**2**	**0**	(M) May be inoperative provided source is verified.	
61-06	EFIS/EICAS Interface Units (EIUs)	**B**	**3**	**2**	(M) Center or right EIU may be inoperative provided: a) Inoperative EIU is deactivated, b) EIU source selectors are verified to operate normally, and c) EIU selector is verified to operate normally.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

31. INDICATING/RECORDING SYSTEMS

Sequence No.	Item	1	2	3	4	Change Bar
61-07	Cursor Control Panels (CCPs)					
61-07-01	747-8F without SB 747-34-2967	**C**	**2**	**1**		
61-07-02	747-8F with SB 747-34-2967 or Production Equivalent (PRR 86529)					
61-07-02A		**C**	**2**	**1**		
61-07-02B		**C**	**2**	**0**	May be inoperative provided electronic checklist (ECL) system is considered inoperative.	
61-07-03	747-8I					
61-07-03A		**C**	**2**	**1**		
61-07-03B		**C**	**2**	**0**	May be inoperative provided electronic checklist (ECL) system is considered inoperative.	
61-08 ***	Airport Map Function					
61-08A		**C**	**1**	**0**	(O) May be inoperative or database may be out of currency provided alternate procedures are established and used.	
61-08B		**C**	**1**	**0**	May be inoperative or database may be out of currency provided procedures do not require its use.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

31. INDICATING/RECORDING SYSTEMS

Sequence No.	Item	1	2	3	4	Change Bar
61-09	Inboard Display Selector Positions	**B**	**8**	**7**	(M)(O) One may be inoperative provided: a) Remaining positions are verified to operate normally on associated selector, b) Lower center display unit (DU) operates normally, and c) Alternate procedures are used when required.	
61-10	Electronic Checklist (ECL) System					
61-10-01	747-8F without SB 747-34-2967					
61-10-01-01	ECL Closed Loop Switch Indications	**C**	**-**	**1**	(O) May be inoperative provided: a) Flap position closed loop switch indication operates normally, and b) ECL line item override procedures are used when required to complete checklists.	
61-10-02	747-8F with SB 747-34-2967 or Production Equivalent (PRR 86529)	**C**	**1**	**0**	(M)(O) May be inoperative provided: a) ECL system is deactivated, and b) Alternate procedures are established and used.	
61-10-02-01	ECL Closed Loop Switch Indications	**C**	**-**	**0**	(O) May be inoperative provided ECL line item override procedures are used when required to complete checklists.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

31. INDICATING/RECORDING SYSTEMS

Sequence No.	Item	1	2	3	4	Change Bar
61-10	Electronic Checklist (ECL) System (Cont'd)					
61-10-03	747-8I	**C**	**1**	**0**	(M)(O) May be inoperative provided: a) ECL system is deactivated, and b) Alternate procedures are established and used.	
61-10-03-01	ECL Closed Loop Switch Indications	**C**	**-**	**0**	(O) May be inoperative provided ECL line item override procedures are used when required to complete checklists.	
61-11	Heading Reference (HDG) Switch					
61-11A		**C**	**1**	**0**	(O) TRUE function may be inoperative provided alternate procedures are established and used.	
61-11B		**D**	**1**	**0**	TRUE function may be inoperative provided enroute procedures do not require its use.	
61-12	EIU Selector (Center Forward Panel)	**C**	**1**	**0**	(M) AUTO position may be inoperative provided L, R, and C positions are verified to operate normally.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

32. LANDING GEAR

Sequence No.	Item	1	2	3	4	Change Bar
00-01	Landing Gear (GEAR) Synoptic Display	**C**	**1**	**0**		
11-01	Landing Gear Strut Pressure Indicators	**D**	**5**	**0**	(M) May be inoperative provided alternate procedures are used to check strut pressure.	
30-01	Landing Gear Control System	**B**	**1**	**0**	(M)(O) May be partially or completely inoperative provided: a) Inoperative components are properly secured, b) Landing gear to be left extended are secured in the down position, and c) Airplane is dispatched in accordance with the Landing Gear Extended AFM Appendix.	
31-01	Landing Gear Lever Lock Solenoid	**C**	**1**	**0**	(M)(O) May be inoperative provided: a) Lock solenoid is verified latched, b) Override mechanism is verified to operate normally, and c) Alternate procedures are used to retract landing gear.	
31-02	Landing Gear Selector Valve Electrical Control Circuits	**C**	**2**	**1**	(M) One up/down electrical control circuit may be inoperative provided remaining up/down circuit is verified to operate normally once each flight day.	
32-01	Wing Gear Uplock Bungee Springs	**B**	**4**	**3**	(M) One may be missing provided 270 KIAS/.82 Mach is not exceeded.	
33-01	Body Gear Uplock Bungee Springs	**B**	**4**	**3**	(M) One may be missing provided 270 KIAS/.82 Mach is not exceeded.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

32. LANDING GEAR

Sequence No.	Item	1	2	3	4	Change Bar
41-01	Wheel Brakes					
41-01A		**C**	**16**	**14**	(M)(O) May be inoperative provided: a) Inoperative brake is deactivated with deactivation tool, and b) Appropriate performance adjustments for two brakes deactivated are applied.	
41-01B		**C**	**16**	**14**	(M)(O) May be inoperative provided: a) Inoperative brake is deactivated by capping associated brake line, b) Appropriate performance adjustments for two brakes deactivated are applied, c) Takeoff performance is based on landing gear extended, and d) After takeoff, gear remains down for two minutes before retraction.	
41-01C		**C**	**16**	**14**	(M)(O) May be inoperative provided: a) Inoperative brake is removed and associated brake line capped, b) Appropriate truck balance is maintained, c) Appropriate performance adjustments for two brakes deactivated are applied, d) Takeoff performance is based on landing gear extended, and e) After takeoff, gear remains down for two minutes before retraction.	
41-02	Brake Accumulator Pressure Indicator (Wheel Well)	**C**	**1**	**0**	May be inoperative provided brake accumulator pressure indicator (flight deck) operates normally.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

32. LANDING GEAR

Sequence No.	Item	1	2	3	4	Change Bar
41-03	Brake Accumulator Pressure Indicator (Flight Deck)	**C**	**1**	**0**	(M) May be inoperative provided: a) BRAKE SOURCE caution message is verified to operate normally, b) Brake accumulator charge is verified normal once each flight day, and c) Brake accumulator pressure indicator (wheel well) operates normally.	
41-04	Gear Retraction Braking System	**C**	**1**	**0**	(O) May be inoperative provided: a) Takeoff performance is based on landing gear extended, and b) After takeoff, gear remains down for two minutes before retraction.	
41-05	BRAKE SOURCE Indication System	**A**	**1**	**0**	(M)(O) May be inoperative provided: a) Normal and alternate brake systems are verified to operate normally, b) Brake accumulator isolation valve is verified to operate normally, c) Brake accumulator pressure indicator (flight deck) operates normally, d) Alternate procedures are established and used, and e) Repairs are made within three flight days.	
41-05-01	BRAKE SOURCE Light	**C**	**1**	**0**	(M) May be inoperative provided BRAKE SOURCE caution message is verified to operate normally.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

32. LANDING GEAR

Sequence No.	Item	1	2	3	4	Change Bar
42-01	Antiskid System	**C**	**1**	**0**	(M)(O) May be inoperative provided: a) Antiskid is deactivated on associated wheels, b) Antiskid fault is verified before each departure, c) Autobrake system is deactivated, and d) Appropriate performance adjustments are applied.	
42-01-01	Control Channels	**C**	**16**	**14**	(O) May be inoperative provided: a) Associated wheel brake is considered inoperative, and b) ANTISKID indication is not displayed on EICAS.	
42-01-02	Wheelspeed Transducers					
42-01-02A		**C**	**16**	**14**	(M)(O) May be inoperative provided: a) Antiskid fault is verified before each departure, b) Adjacent transducer on a fore-aft locked wheel protection pair operates normally, c) Autobrake system is deactivated, and d) Appropriate performance adjustments for two brakes deactivated are applied.	
42-01-02B		**C**	**16**	**14**	(O) May be inoperative provided: a) Associated wheel brake is considered inoperative, and b) ANTISKID indication is not displayed on EICAS.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

32. LANDING GEAR

Sequence No.	Item	1	2	3	4	Change Bar
42-02	Alternate Antiskid Valves	**C**	**8**	**7**	(M)(O) One may be inoperative provided: a) Associated brakes are deactivated by capping associated brake lines, b) Remaining brakes operate normally, c) Appropriate performance adjustments for two brakes deactivated are applied, d) Takeoff performance is based on landing gear extended, e) ANTISKID indication is not displayed on EICAS, and f) After takeoff, gear remains down for two minutes before retraction.	
42-03	Autobrake System					
42-03A		**C**	**1**	**0**	(M) May be inoperative provided: a) Autobrake solenoid valve is verified closed, b) Approach minimums do not require its use, and c) AUTOBRAKE selector remains OFF.	
42-03B		**C**	**1**	**0**	(M) May be inoperative provided: a) Autobrake pressure control module is deactivated, b) Approach minimums do not require its use, and c) AUTOBRAKE selector remains OFF.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

32. LANDING GEAR

Sequence No.	Item	1	2	3	4	Change Bar
42-04	Brake Torque Limiters					
42-04A		**C**	**16**	**14**	(O) May be inoperative provided: a) Associated wheel brake is considered inoperative, and b) BRAKE LIMITER indication is not displayed on EICAS.	
42-04B		**C**	**16**	**10**	(M)(O) May be inoperative provided: a) Torque limiter fault is verified before each departure, b) Two torque limiters and associated brakes per truck operate normally, c) For two torque limiters inoperative on the same truck, at least one associated wheel brake is considered inoperative, and d) Appropriate performance adjustments are applied.	
44-01	PARK BRAKE SET Indication System	**C**	**1**	**0**	(M)(O) May be inoperative provided: a) Parking brake takeoff configuration warning system is verified to operate normally, b) Parking brake valve is verified to operate normally once each flight day, c) Parking brake/antiskid interface indication is verified to operate normally once each flight day, and d) Alternate procedures are established and used.	
44-02	Brake Status Lights (Nose Gear)					
44-02A		**C**	**3**	**0**	(O) May be inoperative provided alternate procedures are established and used.	
44-02B		**D**	**3**	**0**	May be inoperative provided procedures do not require their use.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

32. LANDING GEAR

Sequence No.	Item	1	2	3	4	Change Bar
45-01	Nose Wheel Snubber Pads	**C**	**2**	**0**		
45-02	Wheel Tie Bolts	**A**	**356**	**338**	(M) One per wheel may be broken or missing provided: a) Affected wheel is checked for broken parts or damage, and replaced if broken parts or damage is found, b) Associated brake is checked for broken parts or damage, and replaced or deactivated if broken parts or damage is found, c) Wheel is inspected for additional broken or missing tie bolts before each departure, and d) Repairs are made within five flights.	
45-03	Tire Pressure Indication System					
45-03A		**C**	**1**	**0**	(M) May be inoperative provided alternate procedures are used to check tire pressure. NOTE: Any portion of the system that operates normally may be used.	
45-03B		**D**	**1**	**0**	May be inoperative provided procedures do not require its use.	
46-01	Brake Temperature Indication System	**C**	**1**	**0**	(O) May be inoperative provided AFM Maximum Quick Turnaround Weight limitations are observed. NOTE: Any portion of the system that operates normally may be used.	
51-01	Rudder Pedal Nose Wheel Steering System	**C**	**1**	**0**	(M)(O) May be inoperative provided: a) Tiller nose wheel steering is verified to operate normally, and b) Approach minimums do not require automatic rollout control.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

32. LANDING GEAR

Sequence No.	Item	1	2	3	4	Change Bar
53-01	Body Gear Steering System	**C**	**1**	**0**	(M)(O) May be inoperative provided: a) Body gear steering actuators are verified locked, b) Body gear steering is deactivated, and c) Alternate procedures are established and used.	
53-02	Body Gear Steering Indication System	**C**	**1**	**0**	(M)(O) May be inoperative provided: a) Body gear steering is deactivated, b) Body gear steering indication system is deactivated, c) Body gear steering actuators are verified locked before each departure, and d) Alternate procedures are established and used.	
61-01	Body and Wing Landing Gear Uplock Position Sensors					
61-01A		**B**	**8**	**7**	(M) One may be inoperative provided associated landing gear door warning sensors are verified to operate normally.	
61-01B		**B**	**8**	**0**	(M)(O) May be inoperative provided: a) Associated landing gear and its symmetric gear are secured in the down position, and b) Airplane is dispatched in accordance with the Landing Gear Extended AFM Appendix.	
61-02	Landing Gear Door Warning Sensors	**C**	**10**	**5**	(M) One per door may be inoperative provided remaining sensor is verified to operate normally.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

32. LANDING GEAR

Sequence No.	Item	1	2	3	4	Change Bar
61-03	Wing Landing Gear Downlock Position Sensors	**B**	**4**	**0**	(M)(O) May be inoperative provided: a) Both wing landing gear are secured in the down position, and b) Airplane is dispatched in accordance with the Landing Gear Extended AFM Appendix.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

33. LIGHTS

Sequence No.	Item	1	2	3	4	Change Bar
11-01	Flight Compartment and Instrument Lighting System	**C**	**-**	**-**	Individual lights or light controls may be inoperative provided: a) Remaining lighting system lights are sufficient to clearly illuminate all required instruments, controls, and other devices for which they are provided, b) Remaining lighting system lights are positioned so that direct rays are shielded from flight crew eyes, c) Flight deck emergency light operates normally, and d) Lighting configuration and intensity is acceptable to flight crew. NOTE: Individual button/switch lights and/or annunciations/indications are excluded from this relief.	
11-02	STORM Switch	**C**	**1**	**0**	May be inoperative provided associated lights operate normally.	
12-01	Master Dim and Test System					
12-01-01	Dim Function	**B**	**1**	**0**	May be inoperative provided light intensity is acceptable to flight crew.	
12-01-02	Test Function					
12-01-02A		**C**	**1**	**0**	(M) May be inoperative provided alternate procedures are established and used to verify associated light operates normally.	
12-01-02B		**C**	**1**	**0**	May be inoperative provided associated light is considered inoperative.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

33. LIGHTS

Sequence No.	Item	1	2	3	4	Change Bar
21-01	Cabin Interior Lights					
21-01-01	747-8F	**D**	**-**	**-**	Individual lights may be inoperative provided: a) Sufficient lighting remains for couriers/supernumeraries to perform their duties, and b) Inoperative lights are not part of the interior emergency lighting.	
21-01-02	747-8I with LED Floor Proximity Lights	**C**	**-**	**-**	Individual lights may be inoperative provided: a) Sufficient lighting remains for crewmembers to perform their duties, and b) Inoperative lights are not part of the interior emergency lighting.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

33. LIGHTS

Sequence No.	Item	1	2	3	4	Change Bar
21-01	Cabin Interior Lights (Cont'd)					
21-01-03	747-8I with Photoluminescent Floor Proximity Lights	**C**	**-**	**-**	Individual lights may be inoperative provided: a) No more than 12 indirect lighting LED boards are inoperative in each cabin zone aisle, b) No more than four inoperative indirect lighting LED boards are adjacent, c) At least four indirect lighting LED boards operate normally between inoperative LED board sets, d) Inoperative indirect lighting LED boards are not directly opposite of each other in an aisle, e) No more than two non-adjacent door 2 enclosure accent lights are inoperative, f) No more than two non-adjacent stairway tread lights are inoperative, g) Direct down lights on the upper deck operate normally, h) Sufficient lighting remains for crewmembers to perform their duties, and i) Inoperative lights are not part of the interior emergency lighting. NOTE: The six cabin zones are the passenger area on the upper deck, the passenger area forward of door 1, and the passenger areas between two main entry door pairs.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

33. LIGHTS

Sequence No.	Item	1	2	3	4	Change Bar
24-01	Lighted Information Signs					
24-01-01	747-8F	**C**	**-**	**0**	(O) May be inoperative provided alternate procedures are established and used to notify crewmembers/supernumeraries when associated signs are placed on or off.	
24-01-01-01	Flight Deck Automatic Function	**C**	**1**	**0**	(O) May be inoperative provided alternate procedures are established and used.	
24-01-02	747-8I					
24-01-02A		**C**	**-**	**-**	(M) May be inoperative provided: a) Associated passenger seat or lavatory is not occupied from which a lighted information sign is not readily legible, and b) Associated seat or lavatory must be blocked and placarded, DO NOT OCCUPY. NOTE: These provisos are not intended to prohibit lavatory use or inspections by crewmembers.	
24-01-02B		**C**	**-**	**-**	(O) May be inoperative and associated passenger seat or lavatory may be occupied provided: a) Passenger address system operates normally, and b) Passenger address system is used to notify passengers and cabin crew when associated signs are placed on or off.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

33. LIGHTS

Sequence No.	Item	1	2	3	4	Change Bar
24-01	Lighted Information Signs (Cont'd)					
24-01-02	747-8I (Cont'd)					
24-01-02C		**C**	**-**	**0**	(O) May be inoperative provided: a) No passengers are carried, b) A maximum of 19 persons authorized by 14 CFR for non-passenger carrying operations are carried, and c) Alternate procedures are established and used.	
24-01-02-01	Flight Deck Automatic Function	**C**	**1**	**0**	(O) May be inoperative provided alternate procedures are established and used.	
31-01	Service Compartment Lights	**D**	**34**	**0**		
35-01	Main Deck Alert System (747-8F)					
35-01A		**C**	**1**	**0**	(O) May be inoperative provided alternate procedures are established and used. NOTE: Any function that operates normally may be used.	
35-01B		**D**	**1**	**0**	May be inoperative provided procedures do not require its use.	
35-02	Main Deck Cargo Handling Lights (747-8F)	**D**	**-**	**-**	Individual lights may be inoperative provided sufficient lighting remains for ground personnel and couriers to perform their duties.	
35-03	Nose Cargo Door Ramp Lights (747-8F)	**D**	**2**	**0**		

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

33. LIGHTS

Sequence No.	Item	1	2	3	4	Change Bar
37-01	Lower Cargo Compartment Lights	**D**	**-**	**-**	Individual lights may be inoperative provided sufficient lighting remains for ground personnel to perform their duties.	
41-01	Wing Illumination Lights	**C**	**2**	**0**	(O) May be inoperative provided ground deicing procedures do not require their use.	
42-01	Taxi Lights	**C**	**2**	**0**		
42-02	Landing Lights					
42-02A		**C**	**4**	**2**	One per side may be inoperative.	
42-02B		**C**	**4**	**0**	May be inoperative provided operations are not conducted during night.	
42-02-01	Dim Function	**C**	**4**	**0**		
42-03	Runway Turnoff Lights	**C**	**2**	**0**		
43-01	Position Lights					
43-01A		**C**	**6**	**3**	May be inoperative provided: a) One stationary red wing tip light operates normally, b) One stationary green wing tip light operates normally, and c) One stationary white tail light operates normally.	
43-01B		**C**	**6**	**0**	May be inoperative provided operations are not conducted during the period from sunset to sunrise.	
43-02	Wing Tip Marker Lights	**D**	**2**	**0**		

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

33. LIGHTS

Sequence No.	Item	1	2	3	4	Change Bar
44-01	Anti-Collision Lights	**C**	**5**	**0**		
44-01-01	Red Upper and Lower Fuselage Beacon Lights	**C**	**2**	**0**	May be inoperative provided white tail and wing tip strobe lights operate normally.	
44-01-02	White Tail and Wing Tip Strobe Lights	**C**	**3**	**0**	May be inoperative provided red upper and lower fuselage beacon lights operate normally.	
45-01	LOGO Lights	**D**	**4**	**0**		
46-01	Exterior Lower Cargo Handling Area Lights	**D**	**3**	**0**		
46-02	Main Deck Side Cargo Door Ramp Lights (747-8F)	**D**	**4**	**0**		

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

33. LIGHTS

Sequence No.	Item	1	2	3	4	Change Bar
51-01	Interior Emergency Lights					
51-01-01	747-8F					
51-01-01A		**C**	**-**	**-**	May be inoperative provided: a) Inoperative area lights are not adjacent, b) One upper deck crew service door exit sign operates normally, c) One upper deck crew service door sill light operates normally, and d) Flight deck emergency light operates normally.	
51-01-01B		**B**	**-**	**1**	(O) May be inoperative provided: a) Flight deck emergency light operates normally, b) Occupancy is limited to essential flight crewmembers, including official observers, and c) Crewmembers are appropriately briefed before each departure.	|

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

33. LIGHTS

Sequence No.	Item	1	2	3	4	Change Bar
51-01	Interior Emergency Lights (Cont'd)					
51-01-02	747-8I					
51-01-02A		**C**	**-**	**-**	A random 25% of lights/signs may be inoperative provided: a) Inoperative area lights are not adjacent, b) Stairway area light operates normally, c) Area light or exit sign above each door operates normally, d) One door sill light at each main entry door operates normally, e) Cross-aisle exit signs operate normally, and f) Flight deck emergency light operates normally. NOTE: Lights associated with an inoperative door/slide are not required.	
51-01-02B		**C**	**-**	**0**	(O) May be inoperative provided: a) Flight deck emergency light operates normally, b) No passengers are carried, c) A maximum of 19 persons authorized by 14 CFR for non-passenger carrying operations are carried, and d) Alternate procedures are established and used.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

33. LIGHTS

Sequence No.	Item	1	2	3	4	Change Bar
51-01	Interior Emergency Lights (Cont'd)					
51-01-02	747-8I (Cont'd)					
51-01-02-01	Upper Deck Emergency Lights	**B**	**-**	**1**	(O) May be inoperative provided: a) Flight deck emergency light operates normally, b) Upper deck occupancy is limited to essential flight crewmembers, including official observers, during takeoff and landing, and c) Crewmembers/passengers are appropriately briefed before each departure.	
51-01-02-02	Door 5 Overhead Crew Rest Emergency Lights	**C**	**-**	**0**	May be inoperative provide door 5 overhead crew rest is considered inoperative.	
51-02	Exterior Emergency Lights					
51-02-01	747-8F					
51-02-01A		**B**	**1**	**0**	(O) May be inoperative provided crewmembers/ supernumeraries are appropriately briefed before each departure.	
51-02-01B		**C**	**1**	**0**	May be inoperative provided operations are not conducted during night.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

33. LIGHTS

Sequence No.	Item	1	2	3	4	Change Bar
51-02	Exterior Emergency Lights (Cont'd)					
51-02-02	747-8I					
51-02-02A		**C**	**-**	**0**	May be inoperative provided operations are not conducted during night.	
51-02-02B		**C**	**-**	**0**	(O) May be inoperative provided: a) No passengers are carried, b) A maximum of 19 persons authorized by 14 CFR for non-passenger carrying operations are carried, and c) Alternate procedures are established and used.	
51-02-02-01	Overwing Lights	**C**	**8**	**6**	One per side may be inoperative.	
51-02-02-02	Main Entry Doors Slide Lights	**A**	**10**	**9**	One may be inoperative provided: a) Associated main entry door/slide is considered inoperative, and b) Repairs are made within one flight day.	
51-02-02-03	Upper Deck Doors Slide Lights					
51-02-02-03A		**C**	**4**	**2**	One per door may be inoperative.	
51-02-02-03B		**C**	**4**	**0**	May be inoperative provided associated upper deck door/slide is considered inoperative.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

33. LIGHTS

Sequence No.	Item	1	2	3	4	Change Bar
51-03	Emergency Escape Path Floor Proximity Lighting System (747 8I)	**C**	**-**	**0**	(O) May be inoperative provided: a) No passengers are carried, b) A maximum of 19 persons authorized by 14 CFR for non-passenger carrying operations are carried, and c) Alternate procedures are established and used.	
51-03-01	LED Floor Proximity Lights (Passenger Cabin)	**C**	**-**	**-**	May be inoperative provided: a) Inoperative proximity lights are not adjacent, b) Inoperative proximity lights are not directly opposite of each other in an aisle, c) Proximity lights marking right angle intersections operate normally, d) Aisle proximity lights within 39 inches (100 cm) of a right angle intersection operate normally. NOTE: Lights associated with an inoperative door/slide are not required.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

33. LIGHTS

Sequence No.	Item	1	2	3	4	Change Bar
51-03	Emergency Escape Path Floor Proximity Lighting System (747-8I) (Cont'd)					
51-03-02	Photoluminescent Floor Proximity Lights (Passenger Cabin)	**C**	**-**	**-**	May be inoperative or missing provided: a) No more than two 10-inch (25.4-cm) segments of photoluminescent strip are inoperative or missing in each cabin zone aisle, b) At least 72 inches (182.9 cm) of photoluminescent strip operates normally between inoperative or missing segments, c) Inoperative or missing segments of photoluminescent strip are not directly opposite of each other in an aisle, d) Stairway photoluminescent strips operate normally, e) Photoluminescent strips marking right angle intersections operate normally, and f) Aisle photoluminescent strips within 39 inches (100 cm) of a right angle intersection operate normally. NOTE 1: The six cabin zones are the passenger area on the upper deck, the passenger area forward of door 1, and the passenger areas between two main entry door pairs. NOTE 2: Lights associated with an inoperative door/slide are not required.	

(Continued)

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SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

33. LIGHTS

Sequence No.	Item	1	2	3	4	Change Bar
51-03	Emergency Escape Path Floor Proximity Lighting System (747 8I) (Cont'd)					
54-03-03	Exit Identifiers	**C**	**24**	**18**	One exit identifier floodlight per exit door pair may be inoperative provided associated exit identifier backlight operates normally. NOTE: Lights associated with an inoperative door/slide are not required.	
51-03-04	Door 5 Overhead Crew Rest Floor Proximity Lights					
51-03-04A		**C**	**-**	**-**	May be inoperative provided inoperative proximity lights are not adjacent.	
51-03-04B		**C**	**-**	**0**	May be inoperative provide door 5 overhead crew rest is considered inoperative.	
51-04 ***	Exterior Passenger Door Viewing Lights (747-8I)					
51-04A		**C**	**10**	**4**	May be inoperative provided: a) At least one light at upper deck door L, door 1L, or door 2L operates normally, b) At least one light at upper deck door R, door 1R, or door 2R operates normally, c) At least one light at door 4L or 5L operates normally, and d) At least one light at door 4R or 5R operates normally.	
51-04B		**C**	**10**	**0**	May be inoperative provided operations are not conducted during night.	

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Sequence No.	Item	1	2	3	4	Change Bar
16-01	Altitude Alerting System	**A**	**1**	**0**	(O) May be inoperative provided: a) Autopilot with altitude hold and altitude capture operates normally, b) Enroute operations do not require its use, c) Airplane does not depart from a designated airport (as listed in operator's MEL) where repair or replacement can be made, and d) Repairs are made within three flight days.	
16-01-01	Aural Alert	**C**	**1**	**0**	May be inoperative provided: a) Visual alert operates normally, and b) Autopilot with altitude hold and altitude capture operates normally.	
16-01-02	Visual Alert	**C**	**1**	**0**	May be inoperative provided: a) Aural alert operates normally, and b) Autopilot with altitude hold and altitude capture operates normally.	
22-01	Standby Magnetic Compass	**B**	**1**	**0**	May be inoperative provided integrated standby flight display (ISFD) heading display operates normally.	

MMEL TABLE KEY

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Sequence No.	Item	1	2	3	4	Change Bar
24-01	Integrated Standby Flight Display (ISFD)					
24-01-01	Attitude Indication	**B**	**1**	**0**	May be inoperative provided: a) Operations are conducted in day VMC only, and b) Operations are not conducted into known or forecast over-the-top conditions.	
24-01-02	Approach Mode	**C**	**1**	**0**		
24-01-03	Heading Display	**C**	**1**	**0**	May be inoperative provided standby magnetic compass operates normally.	
24-01-04	Dedicated Battery/Charger System	**C**	**1**	**0**		

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Sequence No.	Item	1	2	3	4	Change Bar
25-01	Air Data Inertial Reference Unit (ADIRU) Systems					
25-01-01	Air Data Computer (ADC) Functions					
25-01-01-01	Left ADC Function	**C**	**1**	**0**	(O) May be inoperative provided: a) Right and center ADC functions operate normally, b) Left and right AIR DATA instrument source selectors operate normally, and c) Alternate procedures are established and used.	
25-01-01-02	Right ADC Function	**C**	**1**	**0**	(O) May be inoperative provided: a) Left and center ADC functions operate normally, b) Center secondary static air data module (ADM) operates normally, c) Left and right AIR DATA instrument source selectors operate normally, and d) Alternate procedures are established and used.	
25-01-01-03	Center ADC Function	**C**	**1**	**0**	(O) May be inoperative provided: a) Left and right ADC functions operate normally, b) Left and right AIR DATA instrument source selectors operate normally, and c) Alternate procedures are established and used.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

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Sequence No.	Item	1	2	3	4	Change Bar
25-01	Air Data Inertial Reference Unit (ADIRU) Systems (Cont'd)					
25-01-02	Inertial Reference Unit (IRU) Functions					
25-01-02-01	Left IRU Function	**C**	**1**	**0**	(O) May be inoperative provided: a) Right and center IRU functions operate normally, b) Left and right IRS instrument source selectors operate normally, c) Center control display unit (CDU) operates normally, d) Integrated standby flight display (ISFD) heading display is considered inoperative, and e) Approach minimums do not require its use.	
25-01-02-02	Right IRU Function	**C**	**1**	**0**	(O) May be inoperative provided: a) Left and center IRU functions operate normally, b) Left and right IRS instrument source selectors operate normally, c) Center control display unit (CDU) operates normally, and d) Approach minimums do not require its use.	
25-01-02-03	Center IRU Function	**C**	**1**	**0**	(O) May be inoperative provided: a) Left and right IRU functions operate normally, b) Left and right IRS instrument source selectors operate normally, and c) Approach minimums do not require its use.	

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Sequence No.	Item	1	2	3	4	Change Bar
25-02	Pitot Air Data Modules (ADMs)	**C**	**3**	**2**	One may be inoperative provided associated air data computer (ADC) function is considered inoperative.	
25-03	Static Air Data Modules (ADMs)					
25-03-01	Left Static ADM	**C**	**1**	**0**	May be inoperative provided left air data computer (ADC) function is considered inoperative.	
25-03-02	Right Static ADM	**C**	**1**	**0**	May be inoperative provided right air data computer (ADC) function is considered inoperative.	
25-03-03	Center Static ADMs					
25-03-03A		**C**	**2**	**1**	(O) Center secondary static ADM may be inoperative provided: a) Right air data computer (ADC) function operates normally, and b) Left and right AIR DATA instrument source selectors operate normally.	
25-03-03B		**C**	**2**	**0**	May be inoperative provided center air data computer (ADC) function is considered inoperative.	
25-04	Static Air Temperature (SAT) Indication System	**C**	**1**	**0**		

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Sequence No.	Item	1	2	3	4	Change Bar
25-05	Mach Indications					
25-05A		**C**	**2**	**1**	One may be inoperative provided flight descends to FL 290 or below if failure of second indication occurs in flight.	
25-05B		**C**	**2**	**0**	May be inoperative provided flight remains at or below FL 290.	
25-06	True Airspeed Indications	**C**	**2**	**0**		
25-07	Total Air Temperature (TAT) Probe Systems	**C**	**2**	**1**	One may be inoperative provided associated air data computer (ADC) function is considered inoperative.	

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Sequence No.	Item	1	2	3	4	Change Bar
31-01	Instrument Landing Systems (ILSs)					
31-01-01	Left ILS	**C**	**1**	**0**	May be inoperative provided: a) Integrated standby flight display (ISFD) approach mode is considered inoperative, and b) Approach minimums do not require its use.	
31-01-02	Right ILS					
31-01-02A		**D**	**1**	**0**	May be inoperative provided: a) Left and center ILSs operate normally, and b) Approach minimums do not require its use.	
31-01-02B		**C**	**1**	**0**	May be inoperative provided approach minimums do not require its use.	
31-01-03	Center ILS					
31-01-03A		**D**	**1**	**0**	May be inoperative provided: a) Left and right ILSs operate normally, and b) Approach minimums do not require its use.	
31-01-03B		**C**	**1**	**0**	May be inoperative provided approach minimums do not require its use.	

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Sequence No.	Item	1	2	3	4	Change Bar
31-02	Instrument Landing System (ILS) Antenna Switching					
31-02-01	Glide Slope					
31-02-01A		**D**	**3**	**2**	One may be inoperative provided approach minimums do not require use of associated ILS receiver.	
31-02-01B		**C**	**3**	**0**	May be inoperative provided approach minimums do not require use of associated ILS receivers.	
31-02-02	Localizer					
31-02-02A		**D**	**3**	**2**	One may be inoperative provided approach minimums do not require use of associated ILS receiver.	
31-02-02B		**C**	**3**	**0**	May be inoperative provided approach minimums do not require use of associated ILS receivers.	
32-01	Marker Beacon System	**C**	**1**	**0**	May be inoperative provided approach minimums do not require its use.	|
33-01	Radio Altimeter Systems	**C**	**3**	**2**	One may be inoperative provided approach minimums or operating procedures do not require its use.	

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Sequence No.	Item	1	2	3	4	Change Bar
43-01	Weather Radar Systems					
43-01A		**D**	**2**	**1**		
43-01B		**C**	**2**	**0**	(O) May be inoperative provided: a) Weather radar is not required by 14 CFR, b) Enhanced ground proximity warning system (EGPWS) reactive windshear alert mode (mode 7) operates normally, and c) Alternate procedures are established and used.	
43-01C		**B**	**2**	**0**	(O) May be inoperative provided: a) Weather radar is not required by 14 CFR, and b) Alternate procedures are established and used. NOTE: Operator's alternate procedures should include reviewing windshear avoidance and windshear recovery procedures.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

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Sequence No.	Item	1	2	3	4	Change Bar
43-01	Weather Radar Systems (Cont'd)					
43-01-01	Predictive Windshear Alert Mode					
43-01-01A		**C**	**2**	**0**	(O) May be inoperative provided: a) Enhanced ground proximity warning system (EGPWS) reactive windshear alert mode (mode 7) operates normally, and b) Alternate procedures are established and used.	
43-01-01B		**B**	**2**	**0**	(O) May be inoperative provided alternate procedures are established and used. NOTE: Operator's alternate procedures should include reviewing windshear avoidance and windshear recovery procedures.	
43-01-02	Auto Tilt Function	**C**	**1**	**0**		

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Sequence No.	Item	1	2	3	4	Change Bar
45-01	Traffic Collision and Avoidance System (TCAS)	**B**	**1**	**0**	(M) May be inoperative provided: a) TCAS is deactivated, and b) Enroute or approach procedures do not require its use.	
45-01-01	Resolution Advisory (RA) Display Systems					
45-01-01A		**C**	**2**	**1**	May be inoperative on pilot monitoring side.	
45-01-01B		**C**	**2**	**0**	(O) May be inoperative provided: a) Traffic alert (TA) display systems operate normally, b) TCAS audio functions operate normally, c) Enroute or approach procedures do not require their use, and d) Transponder Mode selector is set to TA ONLY.	
45-01-02	Traffic Alert (TA) Display Systems	**C**	**2**	**0**	(O) May be inoperative provided: a) Resolution advisory (RA) display systems operate normally, b) TCAS audio functions operate normally, and c) Enroute or approach procedures do not require their use.	
45-01-03	Audio Functions	**B**	**1**	**0**	May be inoperative provided enroute or approach procedures do not require use of TCAS.	
45-01-04	Airspace Selection Function	**C**	**1**	**0**		

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Sequence No.	Item	1	2	3	4	Change Bar
46-01	Enhanced Ground Proximity Warning System (EGPWS)					
46-01-01	GPWS Function	**A**	**1**	**0**	(O) May be inoperative provided: a) Alternate procedures are established and used, and b) Repairs are made within two flight days.	
46-01-01-01	Modes 1 - 4	**A**	**4**	**0**	(O) May be inoperative provided: a) Alternate procedures are established and used, and b) Repairs are made within two flight days.	
46-01-01-02	Glideslope Deviation (Mode 5)	**B**	**1**	**0**		
46-01-01-03	Advisory Callouts (Mode 6)					
46-01-01-03A		**C**	**-**	**0**	(O) May be inoperative provided: a) Advisory callout is not required by 14 CFR, and b) Alternate procedures are established and used.	
46-01-01-03B		**B**	**-**	**0**	(O) May be inoperative provided alternate procedures are established and used.	

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Sequence No.	Item	1	2	3	4	Change Bar
46-01	Enhanced Ground Proximity Warning System (EGPWS) (Cont'd)					
46-01-01	GPWS Function (Cont'd)					
46-01-01-04	Reactive Windshear Alert Mode (Mode 7)					
46-01-01-04A		**C**	**1**	**0**	(O) May be inoperative provided: a) Weather radar system predictive windshear alert mode operates normally, and b) Alternate procedures are established and used.	
46-01-01-04B		**B**	**1**	**0**	(O) May be inoperative provided alternate procedures are established and used. NOTE: Operator's alternate procedures should include reviewing windshear avoidance and windshear recovery procedures.	
46-01-02	Terrain Awareness Function	**B**	**1**	**0**	(O) May be inoperative provided alternate procedures are established and used.	
46-01-02-01	Terrain Displays					
46-01-02-01A		**C**	**2**	**1**		
46-01-02-01B		**B**	**2**	**0**		

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SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

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Sequence No.	Item	1	2	3	4	Change Bar
46-01	Enhanced Ground Proximity Warning System (EGPWS) (Cont'd)					
46-01-03 ***	Runway Awareness and Advisory System (RAAS)	**C**	**1**	**0**		
51-01	VHF Omnidirectional Range (VOR) Navigation Systems	**D**	**2**	**-**	Any in excess of those required by 14 CFR may be inoperative.	
53-01	ATC Transponder/ Automatic Altitude Reporting Systems					
53-01A		**D**	**2**	**1**	Any in excess of those required by 14 CFR may be inoperative.	
53-01B		**B**	**2**	**0**	May be inoperative provided: a) Operations do not require their use, and b) Prior to flight, approval is obtained from ATC facilities having jurisdiction over planned route of flight.	
53-01-01	Elementary and Enhanced Downlink Aircraft Reportable Parameters Not Required by 14 CFR	**A**	**-**	**0**	May be inoperative provided: a) Operations do not require their use, and b) Repairs are made prior to completion of the next heavy maintenance visit.	

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SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

34. NAVIGATION

Sequence No.	Item	1	2	3	4	Change Bar
53-01	ATC Transponder/ Automatic Altitude Reporting Systems (Cont'd)					
53-01-02	Extended Squitter ADS-B Transmissions					
53-01-02A		**D**	**2**	**0**	May be inoperative provided operations do not require their use.	
53-01-02B		**C**	**2**	**0**	(O) May be inoperative provided alternate procedures are established and used. NOTE: Any function that operates normally may be used.	
53-02 ***	Automatic Dependent Surveillance-Broadcast (ADS-B) System	**D**	**-**	**0**	May be inoperative provided it is not required by 14 CFR. NOTE: If ADS-B is installed in lieu of or as a replacement for 14 CFR required equipment, the repair category in the operator's MEL will be the same as that of the 14 CFR required equipment.	
53-02-01	Cockpit Display and Traffic Information (CDTI)	**D**	**-**	**0**	NOTE: CDTI display of data from other aircraft systems may be used.	
53-02-02	Cockpit Display and Traffic Information (CDTI) Control Panel	**D**	**-**	**0**	May be inoperative provided: a) Flight ID can be set, and b) Screen display is acceptable to flight crew.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

34. NAVIGATION

Sequence No.	Item	1	2	3	4	Change Bar
53-02 ***	Automatic Dependent Surveillance-Broadcast (ADS-B) System (Cont'd)					
53-02-03	Datalink Transmitters	**D**	**-**	**0**	NOTE: In some aircraft the datalink transmission is an integral part of the transponder and relief is provided in that section.	
53-02-04	Datalink Receivers	**D**	**-**	**0**		
53-02-05	ADS-B Applications	**D**	**-**	**0**		
55-01	Distance Measuring Equipment (DME)	**D**	**2**	**-**	Any in excess of those required by 14 CFR may be inoperative.	
57-01 ***	Automatic Direction Finder (ADF) Systems	**D**	**2**	**-**	Any in excess of those required by 14 CFR may be inoperative.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

34. NAVIGATION

Sequence No.	Item	1	2	3	4	Change Bar
58-01	Global Positioning Systems (GPSs)					
58-01-01	Left and Right GPSs					
58-01-01A		**D**	**2**	**1**	One may be inoperative provided: a) Associated global navigation satellite system (GNSS) landing system (GLS) is considered inoperative, and b) Enroute operations do not require its use.	
58-01-01B		**C**	**2**	**0**	May be inoperative provided: a) Associated global navigation satellite system (GNSS) landing systems (GLSs) are considered inoperative, and b) Enroute operations do not require their use.	
58-01-02	Center GPS	**D**	**1**	**0**	May be inoperative provided associated global navigation satellite system (GNSS) landing system (GLS) is considered inoperative.	
58-02	Global Navigation Satellite System (GNSS) Landing Systems (GLSs)					
58-02A		**D**	**3**	**2**	One may be inoperative provided approach minimums do not require its use.	
58-02B		**C**	**3**	**0**	May be inoperative provided approach minimums do not require their use.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

34. NAVIGATION

Sequence No.	Item	1	2	3	4	Change Bar
61-01	Flight Management Computer Systems (FMCSs)					
61-01-01	Left FMCS					
61-01-01A		**C**	**1**	**0**	(M) May be inoperative provided: a) Enhanced ground proximity warning system (EGPWS) is verified to operate normally before each departure, b) Right FMCS operates normally, and c) Enroute operations do not require its use.	
61-01-01B		**A**	**1**	**0**	May be inoperative provided: a) Enhanced ground proximity warning system (EGPWS) GPWS function is considered inoperative, b) Right FMCS operates normally, c) Enroute operations do not require its use, and d) Repairs are made within two flight days.	
61-01-02	Right FMCS	**C**	**1**	**0**	May be inoperative provided: a) Left FMCS operates normally, and b) Enroute operations do not require its use.	
61-01-03	Navigation Databases	**C**	**2**	**0**	(O) May be out of currency provided: a) Procedures are established and used to verify status and suitability of navigation facilities used to define route of flight, b) Current aeronautical charts are used to verify navigation fixes prior to dispatch, and c) Approach navigation radios are manually tuned and identified.	
61-02	Center Control Display Unit (CDU)	**C**	**1**	**0**	May be inoperative provided left and right inertial reference unit (IRU) functions operate normally.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

35. OXYGEN

Sequence No.	Item	1	2	3	4	Change Bar
11-01	Crew Oxygen Pressure Indication System	**C**	**1**	**0**	(M) May be inoperative provided: a) Crew oxygen shutoff valves are verified open, and b) Crew oxygen supply is verified to be above the minimum required before each departure.	
21-01	Supernumerary/Crew Rest/Lavatory Oxygen System (747-8F)					
21-01A		**B**	**1**	**0**	(M)(O) May be inoperative provided: a) Each supernumerary seat and crew rest bunk without an adequate portable oxygen dispensing unit (bottle and mask) is blocked and placarded, DO NOT OCCUPY, b) Personnel address system operates normally, c) An adequate portable oxygen dispensing unit (bottle and mask) is available in the lavatory, and d) Crewmembers/supernumeraries are appropriately briefed before each departure.	
21-01B		**B**	**1**	**0**	May be inoperative provided flight remains at or below 10,000 feet.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

35. OXYGEN

Sequence No.	Item	1	2	3	4	Change Bar
21-01	Supernumerary/Crew Rest/Lavatory Oxygen System (747-8F) (Cont'd)					
21-01-01	Supernumerary Oxygen Service Units	**B**	**6**	**0**	(M)(O) May be inoperative provided: a) Inoperative service unit is secured closed, b) Each associated supernumerary seat without an adequate portable oxygen dispensing unit (bottle and mask) is blocked and placarded, DO NOT OCCUPY, c) For associated supernumerary seat used, personnel address system operates normally, and d) Crewmembers/supernumeraries are appropriately briefed before each departure.	
21-01-02	Crew Rest Oxygen Service Units	**B**	**2**	**0**	(M)(O) May be inoperative provided: a) Inoperative service unit is secured closed, b) Each associated crew rest bunk without an adequate portable oxygen dispensing unit (bottle and mask) is blocked and placarded, DO NOT OCCUPY, c) For associated crew rest bunk used, personnel address system operates normally, and d) Crewmembers are appropriately briefed before each departure.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

35. OXYGEN

Sequence No.	Item	1	2	3	4	Change Bar
21-01	Supernumerary/Crew Rest/Lavatory Oxygen System (747-8F) (Cont'd)					
21-01-03	Lavatory Oxygen Service Unit	**B**	**1**	**0**	(M)(O) May be inoperative provided: a) Inoperative service unit is secured closed, b) Personnel address system operates normally, c) An adequate portable oxygen dispensing unit (bottle and mask) is available in the lavatory, and d) Crewmembers/supernumeraries are appropriately briefed before each departure.	
21-02	Supernumerary/ Passenger Oxygen Automatic Presentation System	**C**	**1**	**0**	(O) May be inoperative provided flight remains at or below FL 300.	
21-03	Supernumerary/ Passenger Oxygen Pressure Indication System	**C**	**1**	**0**	(M) May be inoperative provided: a) Supernumerary/passenger oxygen shutoff valves are verified open before each departure, and b) Supernumerary/passenger oxygen supply is verified to be above the minimum required before each departure.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

35. OXYGEN

Sequence No.	Item	1	2	3	4	Change Bar
21-04	Passenger Oxygen System (747-8I)					
21-04A		**B**	**1**	**0**	(O) May be inoperative provided: a) All packs operate normally, b) All air cycle machines operate normally, c) All pack temperature control valves operate normally, d) Both outflow valves operate normally, e) Both automatic cabin pressure controllers operate normally, f) Cabin rate of climb indication operates normally, g) Cabin altitude indication operates normally, h) Appropriate altitude limitations are applied, i) Appropriate portable oxygen supplies are available, and j) Passengers are appropriately briefed.	
21-04B		**B**	**1**	**0**	May be inoperative provided flight remains at or below 10,000 feet.	
21-04C		**B**	**1**	**0**	May be inoperative provided occupancy is limited to essential flight crewmembers, including official observers.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

35. OXYGEN

Sequence No.	Item	1	2	3	4	Change Bar
21-04	Passenger Oxygen System (747-8I) (Cont'd)					
21-04-01	Lavatory Oxygen Service Units	**B**	**-**	**0**	(M) May be inoperative without flight altitude restriction provided: a) Associated lavatory door is locked closed and placarded, INOPERATIVE - DO NOT ENTER, and b) For all upper deck lavatory oxygen service units inoperative, flight duration is acceptable to the pilot-in-command. NOTE: These provisos are not intended to prohibit inspections by crewmembers.	
21-04-02	Passenger Seat Oxygen Service Units	**B**	**-**	**0**	May be inoperative without flight altitude restriction provided associated passenger seat is considered inoperative.	
21-04-03	Flight Attendant Seat Assembly Oxygen Service Units	**B**	**-**	**-**	May be inoperative without flight altitude restriction provided associated flight attendant seat assembly is considered inoperative.	
21-04-04	Crew Rest Seat Oxygen Service Units	**B**	**-**	**0**	May be inoperative without flight altitude restriction provided associated crew rest seat is considered inoperative.	
21-04-05	Crew Rest Bunk Oxygen Service Units	**B**	**-**	**0**	May be inoperative without flight altitude restriction provided associated crew rest bunk is considered inoperative.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

35. OXYGEN

Sequence No.	Item	1	2	3	4	Change Bar
31-01	Portable Oxygen Dispensing Units (Bottle and Mask)	**D**	**-**	**-**	(M) Any in excess of those required by 14 CFR may be unserviceable or missing provided: a) Associated location placarding is removed or obscured, b) Required distribution of serviceable bottles is maintained throughout the airplane, and c) Bottles not properly serviced are replaced, serviced, or removed at the next available maintenance facility.	
31-02	Protective Breathing Equipment (PBE)	**D**	**-**	**-**	Any in excess of those required by 14 CFR may be inoperative or removed provided associated location placarding is removed or obscured.	
41-01	Overboard Discharge Indicator Disc	**C**	**1**	**0**	May be damaged or missing.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

36. PNEUMATIC

Sequence No.	Item	1	2	3	4	Change Bar
00-01	Air (ECS) Synoptic Display	**C**	**1**	**0**		
11-01	Pressure Regulating Shutoff Valves (PRSOVs)	**C**	**4**	**3**	(M)(O) One may be inoperative provided: a) Inoperative PRSOV is locked closed, b) Bleed systems on remaining engines operate normally, and c) APU-to-Pack Takeoff Supplementary Procedure is not used.	
11-02	Intermediate Pressure Check Valves (IPCVs)	**C**	**4**	**3**	One may be inoperative open provided: a) Associated pressure regulating shutoff valve (PRSOV) is considered inoperative, and b) Associated high pressure shutoff valve (HPSOV) is considered inoperative.	
11-03	High Pressure Shutoff Valves (HPSOVs)	**C**	**4**	**3**	(M)(O) One may be inoperative provided: a) Inoperative HPSOV is locked closed, b) Bleed systems on remaining engines operate normally, c) APU-to-Pack Takeoff Supplementary Procedure is not used, d) Associated engine anti-ice system is operated manually, and e) Appropriate minimum N1 is maintained on associated engine while in icing conditions.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

36. PNEUMATIC

Sequence No.	Item	1	2	3	4	Change Bar
11-04	Wing Isolation Valves					
11-04-01	Left Wing Isolation Valve	**C**	**1**	**0**	(M)(O) May be inoperative provided: a) Left wing isolation valve is deactivated open, b) Right wing isolation valve operates normally, c) Pack 3 operates normally, d) Air cycle machine (ACM) 3 operates normally, e) Pack temperature control valve (TCV) 3 operates normally, and f) Alternate procedures are established and used.	
11-04-02	Right Wing Isolation Valve	**C**	**1**	**0**	(M)(O) May be inoperative provided: a) Right wing isolation valve is deactivated open, b) Left wing isolation valve operates normally, c) Pack 1 operates normally, d) Air cycle machine (ACM) 1 operates normally, e) Pack temperature control valve (TCV) 1 operates normally, and f) Alternate procedures are established and used.	
11-05	APU Bleed Air Check Valve	**C**	**1**	**0**	(O) May be inoperative provided APU bleed air isolation valve remains closed after the first engine starts.	
11-06	APU Bleed Air Isolation Valve	**C**	**1**	**0**	(M) May be inoperative provided APU bleed air isolation valve is deactivated closed after engines are started.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

36. PNEUMATIC

Sequence No.	Item	1	2	3	4	Change Bar
11-07	Overpressure Valves (OPVs)	**C**	**4**	**3**	(M) One may be inoperative provided: a) Inoperative OPV is locked open, and b) Associated pressure regulating shutoff valve (PRSOV) is considered inoperative.	
12-01	Fan Air Modulating Valves (FAMVs)					
12-01A		**C**	**4**	**3**	(M)(O) One may be inoperative provided: a) Inoperative FAMV is locked open, b) Bleed systems on remaining engines operate normally, c) APU-to-Pack Takeoff Supplementary Procedure is not used in known or forecast icing conditions, d) Appropriate performance adjustments are applied, and e) Alternate procedures are used for wing anti-ice.	
12-01B		**C**	**4**	**0**	(M)(O) May be inoperative provided: a) Inoperative FAMV is locked open, b) Airplane is not operated in known or forecast icing conditions, and c) Appropriate performance adjustments are applied.	
12-02	Precoolers	**C**	**4**	**3**	(M) One may be inoperative provided: a) Inoperative precooler is verified to have no visible damage, and b) Associated pressure regulating shutoff valve (PRSOV) is considered inoperative.	
20-01	Engine Bleed OFF Lights	**C**	**4**	**0**		
20-02	Wing Isolation VALVE Lights	**C**	**2**	**0**		

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

36. PNEUMATIC

Sequence No.	Item	1	2	3	4	Change Bar
20-03	APU Bleed Air Isolation VALVE Light	**C**	**1**	**0**		
21-01	DUCT PRESS Indications	**C**	**3**	**0**		
21-02	Precooler Differential Pressure (DPS) Sensing Systems	**C**	**4**	**3**	(O) One may be inoperative provided: a) Bleed systems on remaining engines operate normally, and b) APU-to-Pack Takeoff Supplementary Procedure is not used.	
21-03	Bleed Manifold Pressure (PMB) Sensing Systems	**C**	**4**	**3**	(O) One may be inoperative provided: a) Bleed systems on remaining engines operate normally, and b) APU-to-Pack Takeoff Supplementary Procedure is not used.	
21-04	Intermediate Pressure (PI) Sensing Systems	**C**	**4**	**3**	(O) One may be inoperative provided: a) Bleed systems on remaining engines operate normally, b) APU-to-Pack Takeoff Supplementary Procedure is not used, and c) Appropriate minimum N1 is maintained on associated engine while in icing conditions.	
22-01	Manifold Temperature (TM) Sensing Systems	**C**	**4**	**3**	(O) One may be inoperative provided: a) Bleed systems on remaining engines operate normally, and b) APU-to-Pack Takeoff Supplementary Procedure is not used.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

38. WATER/WASTE

Sequence No.	Item	1	2	3	4	Change Bar
10-01	Potable Water Systems					
10-01A		**C**	**-**	**-**	(M) Individual components may be inoperative provided: a) Associated components are deactivated or isolated, and b) Associated system components are verified not to have leaks. NOTE: Any portion of the system that operates normally may be used.	
10-01B		**C**	**-**	**-**	(M) May be inoperative provided: a) System is drained, and b) Procedures are established to ensure that system is not serviced.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

38. WATER/WASTE

Sequence No.	Item	1	2	3	4	Change Bar
30-01	Lavatory Waste Systems					
30-01-01	747-8F					
30-01-01A		**C**	**1**	**0**	(M) Individual components may be inoperative provided: a) Associated components are deactivated or isolated, and b) Associated system components are verified not to have leaks NOTE: Any portion of the system that operates normally may be used.	
30-01-01B		**C**	**1**	**0**	(M) Lavatory system may be inoperative provided: a) Associated components are deactivated or isolated to prevent leaks, and b) Lavatory door is locked closed and placarded, INOPERATIVE - DO NOT ENTER. NOTE: These provisos are not intended to prohibit inspections by crewmembers.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

38. WATER/WASTE

Sequence No.	Item	1	2	3	4	Change Bar
30-01	Lavatory Waste Systems (Cont'd)					
30-01-02	747-8I					
30-01-02A		**C**	**-**	**-**	(M) Individual components may be inoperative provided: a) Associated components are deactivated or isolated, and b) Associated system components are verified not to have leaks. NOTE: Any portion of the system that operates normally may be used.	
30-01-02B		**C**	**-**	**-**	(M) Associated lavatory system may be inoperative provided: a) Associated components are deactivated or isolated to prevent leaks, and b) Lavatory door is locked closed and placarded, INOPERATIVE - DO NOT ENTER. NOTE: These provisos are not intended to prohibit inspections by crewmembers.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

44. CABIN SYSTEMS

Sequence No.	Item	1	2	3	4	Change Bar
11-01	Cabin Attendant Panels (747-8I)	**C**	**5**	**1**	NOTE: Any function that operates normally may be used.	
12-01	Passenger Address (PA) System (747-8I)	**B**	**1**	**0**	(O) May be inoperative provided: a) Flight attendant chime and call lights operate normally, and b) Alternate, normal and emergency procedures, and/or operating restrictions are established and used. NOTE: Any function that operates normally may be used.	
12-01-01	Lavatory Speakers	**C**	**-**	**0**	(O) May be inoperative provided alternate procedures are established and used.	
12-01-02	Cabin Speakers	**C**	**-**	**-**	May be inoperative provided no adjacent cabin speaker pairs (forward to aft) are inoperative.	
12-02 ***	Prerecorded Passenger Announcement System (747-8I)					
12-02A		**C**	**1**	**0**	(O) May be inoperative provided alternate procedures are established and used.	
12-02B		**D**	**1**	**0**	May be inoperative provided procedures do not require its use.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

44. CABIN SYSTEMS

Sequence No.	Item	1	2	3	4	Change Bar
14-01	Cabin Interphone System (747-8I)					
14-01-01	Flight Deck to Cabin, Cabin to Flight Deck Functions					
14-01-01A		**B**	**-**	**-**	(O) May be inoperative provided: a) Flight deck to cabin and cabin to flight deck interphone functions operate normally on at least fifty percent of cabin handsets, b) Flight deck to cabin and cabin to flight deck interphone functions operate normally on at least one handset per exit door pair, c) For upper deck, flight deck to cabin and cabin to flight deck interphone function operates normally at either exit door pair or attendant seat, and d) Alternate communications procedures between affected flight attendant station(s) and flight deck are established and used. NOTE: Any function that operates normally may be used.	
14-01-01B		**C**	**1**	**0**	(O) May be inoperative provided: a) Crewmember interphone system not required by 14 CFR, and b) Alternate, normal and emergency procedures, and/or operating restrictions are established and used. NOTE: Any function that operates normally may be used.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

44. CABIN SYSTEMS

Sequence No.	Item	1	2	3	4	Change Bar
14-01	Cabin Interphone System (747-8I) (Cont'd)					
14-01-02	Cabin to Cabin Functions	**B**	**-**	**-**	(O) May be inoperative provided: a) Cabin to cabin interphone functions operate normally on at least fifty percent of cabin handsets, b) Cabin to cabin interphone functions operate normally on at least one handset per exit door pair, c) For upper deck, cabin to cabin interphone function operates normally at either exit door pair or attendant seat, and d) Alternate communications procedures between affected flight attendant station(s) are established and used. NOTE: Any function that operates normally may be used.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

44. CABIN SYSTEMS

Sequence No.	Item	1	2	3	4	Change Bar
14-02	Cabin Interphone Alerting Systems (747-8I)					
14-02-01	Flight Deck Call System					
14-02-01-01	Flight Deck Call Lights and EICAS Messages	**B**	**-**	**0**	May be inoperative provided: a) Flight deck chime operates normally, and b) Alternate procedures are established and used to differentiate between normal and emergency calls.	
14-02-01-02	Flight Deck Chime	**B**	**1**	**0**	May be inoperative provided flight deck call lights and EICAS messages operate normally.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

44. CABIN SYSTEMS

Sequence No.	Item	1	2	3	4	Change Bar
14-02	Cabin Interphone Alerting Systems (747-8I) (Cont'd)					
14-02-02	Flight Attendant Call Lights					
14-02-02A		**B**	**-**	**0**	(O) May be inoperative provided: a) Passenger address (PA) system operates normally, b) Lavatory smoke detection systems operate normally, and c) Alternate procedures for contacting flight attendants are established and used. NOTE 1: Passenger to attendant call system is considered Non-Essential Equipment and Furnishing (NEF). NOTE 2: Any flight attendant call light function that operates normally may be used.	
14-02-02B		**B**	**-**	**0**	(O) May be inoperative provided: a) Flight attendant chime operates normally. b) Lavatory smoke detection systems operate normally, and c) Alternate procedures for contacting flight attendants are established and used. NOTE 1: Passenger to attendant call system is considered Non-Essential Equipment and Furnishing (NEF). NOTE 2: Any flight attendant call light function that operates normally may be used. (Continued)	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

44. CABIN SYSTEMS

Sequence No.	Item	1	2	3	4	Change Bar
14-02	Cabin Interphone Alerting Systems (747-8I) (Cont'd)					
14-02-03	Flight Attendant Chime					
14-02-03A		**B**	**-**	**0**	(O) May be inoperative provided: a) Passenger address (PA) system operates normally, b) Lavatory smoke detection systems operate normally, and c) Alternate procedures for contacting flight attendants are established and used. NOTE 1: Passenger to attendant call system is considered Non-Essential Equipment and Furnishing (NEF). NOTE 2: Any flight attendant chime that operates normally may be used.	
14-02-03B		**B**	**-**	**0**	(O) May be inoperative provided: a) Flight attendant call lights operate normally, b) Lavatory smoke detection systems operate normally, and c) Alternate procedures for contacting flight attendants are established and used. NOTE 1: Passenger to attendant call system is considered Non-Essential Equipment and Furnishing (NEF). NOTE 2: Any flight attendant chime that operates normally may be used.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

44. CABIN SYSTEMS

Sequence No.	Item	1	2	3	4	Change Bar
14-03	Cabin Interphone Handset System (747-8I)					
14-03-01	Flight Deck Handset					
14-03-01A		**C**	**1**	**0**	(O) May be inoperative provided: a) Flight deck to cabin communication operates normally, and b) Alternate procedures are established and used.	
14-03-01B		**D**	**1**	**0**	May be inoperative provided procedures do not require its use.	
14-03-02	Cabin Handsets	**B**	**-**	**-**	(O) May be inoperative provided: a) Fifty percent of cabin handsets operate normally, b) One handset per exit door pair operates normally, and c) Alternate communications procedures between affected flight attendant station(s) are established and used. NOTE 1: An operative handset at an inoperative flight attendant seat shall not be counted to satisfy the fifty percent requirement. NOTE 2: Any function that operates normally may be used.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

45. CENTRAL MAINTENANCE SYSTEM

Sequence No.	Item	1	2	3	4	Change Bar
10-01	Central Maintenance Computers (CMCs)	**C**	**2**	**1**		
10-02	Ground Test (GND TESTS) Switches	**C**	**2**	**0**	(M) May be inoperative provided switches are deactivated.	
10-03	Flight Deck Printer					
10-03A		**C**	**1**	**0**	(O) May be inoperative provided alternate procedures are established and used.	
10-03B		**D**	**1**	**0**	May be inoperative provided procedures do not require its use.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

46. INFORMATION SYSTEMS

Sequence No.	Item	1	2	3	4	Change Bar
11-01 ***	Electronic Flight Bag (EFB) Systems					
11-01-01 ***	Class 3					
11-01-01A		**C**	**2**	**1**	NOTE: Any function, program, or document which operates normally may be used.	
11-01-01B		**C**	**2**	**0**	(O) May be inoperative provided alternate procedures are established and used. NOTE: Any function, program, or document which operates normally may be used.	
11-01-01C		**D**	**2**	**0**	May be inoperative provided procedures do not require their use.	
11-01-02 ***	Class 2					
11-01-02-01	Data Connectivity					
11-01-02-01A		**C**	**-**	**-**	(O) May be inoperative provided alternate procedures are established and used.	
11-01-02-01B		**D**	**-**	**0**	May be inoperative provided procedures do not require its use.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

46. INFORMATION SYSTEMS

Sequence No.	Item	1	2	3	4	Change Bar
11-01 ***	Electronic Flight Bag (EFB) Systems (Cont'd)					
11-01-02 ***	Class 2 (Cont'd)					
11-01-02-02	Power Connection					
11-01-02-02A		**C**	**-**	**-**	(O) May be inoperative provided alternate procedures are established and used.	
11-01-02-02B		**D**	**-**	**0**	May be inoperative provided procedures do not require its use.	
11-01-02-03	Mounting Device					
11-01-02-03A		**C**	**-**	**0**	(M)(O) May be inoperative provided: a) Associated EFB and hardware is secured by an alternate means or removed from airplane, and b) Alternate procedures are established and used.	
11-01-02-03B		**D**	**-**	**0**	(M) May be inoperative provided: a) Associated EFB and hardware is secured by an alternate means or removed from airplane, and b) Procedures do not require its use.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

46. INFORMATION SYSTEMS

Sequence No.	Item	1	2	3	4	Change Bar
11-01 ***	Electronic Flight Bag (EFB) Systems (Cont'd)					
11-01-03 ***	Class 1					
11-01-03-01	Power Connection					
11-01-03-01A		**C**	**-**	**-**	(O) May be inoperative provided alternate procedures are established and used.	
11-01-03-01B		**D**	**-**	**0**	May be inoperative provided procedures do not require its use.	
11-02	Terminal Wireless LAN Unit (TWLU)					
11-02A		**C**	**1**	**0**	(O) May be inoperative provided alternate procedures are established and used.	
11-02B		**D**	**1**	**0**	May be inoperative provided procedures do not require its use.	
13-01	Onboard Network System (ONS)					
13-01A		**C**	**1**	**0**	(O) May be inoperative provided alternate procedures are established and used. NOTE: Any function that operates normally may be used.	
13-01B		**D**	**1**	**0**	May be inoperative provided procedures do not require its use.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

47. INERT GAS SYSTEM

Sequence No.	Item	1	2	3	4	Change Bar
11-01	Nitrogen Generation System (NGS)	**A**	**1**	**0**	(M) May be inoperative provided: a) NGS shutoff valve is locked closed, and b) Repairs are made within ten flight days.	
11-01-01	Nitrogen Generation Performance	**C**	**1**	**0**		

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

49. AIRBORNE AUXILIARY POWER

Sequence No.	Item	1	2	3	4	Change Bar
11-01	Auxiliary Power Unit (APU)	**C**	**1**	**0**	(O) May be inoperative provided alternate procedures are established and used.	
11-01-01	Pneumatic Function	**C**	**1**	**0**	May be inoperative provided procedures do not require its use.	
15-01	APU Inlet Door	**C**	**1**	**0**		
15-01A		**C**	**1**	**0**	(M) May be inoperative provided: a) Inlet door is secured closed, and b) APU is considered inoperative.	
15-01B		**C**	**1**	**0**	(O) May be inoperative open or partially open provided appropriate performance adjustments are applied.	
61-01	APU RPM Indications (N1, N2)	**C**	**2**	**0**		
71-01	APU EGT Indication	**C**	**1**	**0**		
94-01	APU Oil Quantity Indication	**C**	**1**	**0**	(M) May be inoperative provided: a) There is no evidence of above normal oil consumption or leakage, b) APU oil quantity is verified adequate, and c) APU oil quantity is verified adequate each five flight days.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

52. DOORS

Sequence No.	Item	1	2	3	4	Change Bar
00-01	Doors (DRS) Synoptic Display	**C**	**1**	**0**		
11-01	Main Entry Door (747-8F)	**C**	**1**	**0**	(M)(O) May be inoperative provided: a) Inoperative door is closed and latched, b) Inoperative door is blocked with a conspicuous barrier strap or rope and placarded, INOPERATIVE, and c) Crewmembers/supernumeraries are appropriately briefed before each departure.	
11-02	Main Entry Doors Pressure Stop Assemblies					
11-02-01	747-8F					
11-02-01A		**C**	**20**	**18**	(M)(O) One forward and/or one aft pressure stop assembly may be missing or inoperative provided: a) Remaining pressure stop assemblies on the main entry door are verified to have no damage, b) Both automatic cabin pressure controllers operate normally, and c) Maximum cabin differential pressure is limited to 5.2 psi.	
11-02-01B		**C**	**20**	**18**	One forward and/or one aft pressure stop assembly may be missing or inoperative provided both outflow valves are considered inoperative.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

52. DOORS

Sequence No.	Item	1	2	3	4	Change Bar
11-02	Main Entry Doors Pressure Stop Assemblies (Cont'd)					
11-02-02	747-8I					
11-02-02A		**C**	**200**	**190**	(M)(O) One forward and/or one aft pressure stop assembly per door (maximum of 10 per airplane) may be missing or inoperative provided: a) Remaining pressure stop assemblies on associated main entry door are verified to have no damage, b) Both automatic cabin pressure controllers operate normally, and c) Maximum cabin differential pressure is limited to 5.2 psi.	
11-02-02B		**C**	**200**	**190**	One forward and/or one aft pressure stop assembly per door (maximum of 10 per airplane) may be missing or inoperative provided both outflow valves are considered inoperative.	
11-03	Main Entry Doors Hold-Open Mechanisms	**C**	**-**	**0**		
11-04	Main Entry Doors Hold-Open Release Handles	**C**	**-**	**0**	(O) May be inoperative provided alternate procedures are established and used.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

52. DOORS

Sequence No.	Item	1	2	3	4	Change Bar
11-05	Main Entry Doors/Slides (747-8I)					
11-05A		**A**	**10**	**9**	(M)(O) One may be inoperative or slide missing provided: a) Inoperative door is closed and latched, b) Inoperative door is blocked with a conspicuous barrier strap or rope and placarded, INOPERATIVE, c) Associated emergency exit sign, exit identifiers, and floor proximity lights are obscured, d) All passenger seats halfway to the next exit in each direction from the inoperative door, across the entire width of the airplane, are blocked off with conspicuous tapes or ropes that contrast with the airplane interior before loading passengers. Only the seats in these areas shall be blocked; main passenger aisles, cross-aisles, and exit areas must not be blocked. (For an inoperative forward door/slide, the blocked seating area shall extend rearward from the forward cabin end to a line halfway between the inoperative forward door and the next set of doors aft of the inoperative one. For an inoperative rear door/slide, the blocked seating area shall extend forward from the aft cabin end to a line halfway between the inoperative aft door and the next set of doors forward of the inoperative one), e) Conspicuous signs and placards are placed in appropriate locations indicating which seats are not to be occupied by passengers, f) Blocked seating layouts and evacuation procedures must be developed and approved by the FAA certificate holding office for inclusion in the operator's manual, (Continued)	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

52. DOORS

Sequence No.	Item	1	2	3	4	Change Bar
11-05	Main Entry Doors/Slides (747-8I) (Cont'd)					
11-05A	(Cont'd)				g) Seated capacity does not exceed rated capacity of remaining pairs of exits, h) For extended overwater operations, occupancy does not exceed the normal rated capacity of the slide/rafts, or the remaining slide/rafts, or the rated overload capacity of the slide/rafts remaining after loss of one additional slide/raft of greatest capacity, whichever is least, i) Inoperative door is not used for passenger loading, j) Crewmembers/passengers are appropriately briefed before each departure, and k) Repairs are made within one flight day. NOTE 1: Flight attendants may be stationed in the vicinity of each door within blocked areas. NOTE 2: Weight and balance manifest must be revised as necessary to ensure proper loading limits are observed.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

52. DOORS

Sequence No.	Item	1	2	3	4	Change Bar
11-05	Main Entry Doors/Slides (747-8I) (Cont'd)					
11-05B		**C**	**10**	**1**	(M)(O) May be inoperative or slide missing provided: a) Inoperative door is closed and latched, b) Inoperative door is blocked with a conspicuous barrier strap or rope and placarded, INOPERATIVE, c) Associated emergency exit sign, exit identifiers, and floor proximity lights are obscured, d) No passengers are carried, e) A maximum of 19 persons authorized by 14 CFR for non-passenger carrying operations are carried, f) Each person has unobstructed access from their seat to an operative exit, g) Crewmembers/authorized persons are appropriately briefed before each departure, and h) Alternate procedures are established and used.	
13-01	Upper Deck Crew Service Door (747-8F)	**C**	**1**	**0**	(M)(O) May be inoperative provided: a) Inoperative door is closed and latched, b) Inoperative door is blocked with a conspicuous barrier strap or rope and placarded, INOPERATIVE, c) Associated emergency exit sign is obscured, d) Occupancy is limited to essential flight crewmembers, including official observers, and e) Crewmembers are appropriately briefed before each departure.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

52. DOORS

Sequence No.	Item	1	2	3	4	Change Bar
13-02	Upper Deck Crew Service Door Pressure Stop Assemblies (747-8F)					
13-02A		**C**	**10**	**8**	(M)(O) One forward and/or one aft pressure stop assembly may be missing or inoperative provided: a) Remaining pressure stop assemblies on the upper deck crew service door are verified to have no damage, b) Both automatic cabin pressure controllers operate normally, and c) Maximum cabin differential pressure is limited to 6.1 psi.	
13-02B		**C**	**10**	**8**	One forward and/or one aft pressure stop assembly may be missing or inoperative provided both outflow valves are considered inoperative.	
21-01	Crew Compartment Overhead Hatch Latch Pins	**C**	**4**	**3**	(M) One may be removed provided hatch is verified to operate normally.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

52. DOORS

Sequence No.	Item	1	2	3	4	Change Bar
23-01	Upper Deck Doors/Slides (747-8I)					
23-01A		**C**	**2**	**1**	(M)(O) One may be inoperative or slide missing provided: a) Inoperative door is closed and locked, b) Inoperative door is blocked with a conspicuous barrier strap or rope and placarded, INOPERATIVE, c) Associated emergency exit sign and exit identifiers are obscured, d) Main entry doors/slides 2L and 2R operate normally, e) A maximum of 24 passengers occupy the upper deck during takeoff and landing, f) A maximum of 495 passengers occupy the airplane, and g) Crewmembers/passengers are appropriately briefed before each departure.	
23-01B		**C**	**2**	**0**	(M)(O) May be inoperative or slides missing provided: a) Inoperative doors are closed and locked, b) Inoperative doors are blocked with conspicuous barrier straps or ropes and placarded, INOPERATIVE, c) Associated emergency exit signs and exit identifiers are obscured, d) Upper deck occupancy is limited to essential flight crewmembers, including official observers, during takeoff and landing, and e) Crewmembers/passengers are appropriately briefed before each departure.	
23-02	Upper Deck Doors Lift System (Electrical Function) (747-8I)	**C**	**2**	**0**	(O) May be inoperative provided alternate procedures are established and used.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

52. DOORS

Sequence No.	Item	1	2	3	4	Change Bar
23-03	Upper Deck Doors Flight Lock Systems (747-8I)	**C**	**2**	**0**	(M)(O) May be inoperative provided: a) Associated upper deck door is verified capable of being unlatched before each departure, and b) Flight attendant monitors the associated upper deck door handle when cabin differential pressure is less than 3.0 psi.	
23-03-01	DOOR U/D GND MODE Lights	**C**	**2**	**0**	(M) May be inoperative provided: a) DOOR U/D FLT LK indication is verified to operate normally, and b) Associated upper deck door is verified capable of being unlatched before each departure.	
23-03-02	DOOR U/D FLT LK Indication	**C**	**1**	**0**	(M) May be inoperative provided: a) Both DOOR U/D GND MODE lights are verified to operate normally, and b) Both upper deck doors are verified capable of being unlatched before each departure.	
23-04	Upper Deck Doors BATTERY OK Lights (747-8I)	**C**	**2**	**1**	(M) One press-to-test system may be inoperative provided associated battery is verified to be adequately charged once each flight day.	
31-01	Nose Cargo Door Indication System (747-8F)	**A**	**1**	**0**	(M)(O) May be inoperative provided: a) Nose cargo door is verified closed and flush with the fuselage before each departure, b) Nose cargo door latches are verified fully extended before each departure, c) Nose cargo door control system is deactivated before each departure, and d) Repairs are made within 30 flight hours.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

52. DOORS

Sequence No.	Item	1	2	3	4	Change Bar
31-02	Nose Cargo Door Lift System (Electrical Function) (747-8F)	**C**	**1**	**0**	(M) May be inoperative provided: a) Nose cargo door lift system (electrical function) is deactivated, and b) Nose cargo door lift actuators are operated manually.	
31-03	Nose Cargo Door Cam System (Electrical Function) (747-8F)	**C**	**1**	**0**	(M) May be inoperative provided: a) Nose cargo door cam system (electrical function) is deactivated, and c) Nose cargo door push-pull cam actuator is operated manually.	
31-04	Nose Cargo Door Retractable Latches (747-8F)	**C**	**16**	**15**	(M)(O) One may be inoperative unlatched or missing provided: a) Remaining nose cargo door latches are verified fully extended before each departure, and b) Nose cargo door control system is deactivated before each departure.	
31-04-01	Latch Actuators (Electrical Function)	**C**	**16**	**0**	(M)(O) May be inoperative provided: a) Associated nose cargo door latch actuator is operated manually, and b) Nose cargo door latches are verified fully extended before each departure.	
31-05	Nose Cargo Door Control System (747-8F)	**A**	**1**	**0**	(M)(O) May be inoperative provided: a) Nose cargo door control system is deactivated, b) Nose cargo door is operated manually, c) Nose cargo door is verified closed and flush with the fuselage before each departure, d) Nose cargo door latches are verified fully extended before each departure, and e) Repairs are made within 30 flight hours.	
31-06	Nose Cargo Door Latch Actuator Test System (747-8F)	**C**	**1**	**0**		

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

52. DOORS

Sequence No.	Item	1	2	3	4	Change Bar
31-07	Nose Cargo Door Latch Annunciator System (747-8F)	**C**	**1**	**0**	(M)(O) May be inoperative provided nose cargo door latches are verified fully extended before each departure.	
31-08	Nose Cargo Door Closed Annunciator System (747-8F)	**C**	**1**	**0**	(M)(O) May be inoperative provided nose cargo door is verified closed and flush with the fuselage before each departure.	
32-01	Main Deck Side Cargo Door Latches and Hinge Sections (747-8F)	**C**	**25**	**24**	(M) One latch or hinge section may be missing or inoperative provided: a) Remaining latches and hinge sections on the main deck side cargo door are verified to have no damage before each departure, and b) Both outflow valves are considered inoperative.	
32-02	Main Deck Side Cargo Door Latch System (Electrical Function) (747-8F)	**C**	**1**	**0**	(M) May be inoperative provided: a) Main deck side cargo door latch mechanism is verified to have no damage, b) Main deck side cargo door master latch lock mechanism is verified to have no damage, c) Main deck side cargo door latch mechanism is operated manually, and d) Main deck side cargo door latch cams are verified closed before each departure.	
32-03	Main Deck Side Cargo Door Interior Master Latch Handle Shear Pin (747-8F)	**C**	**1**	**0**	(M) May be inoperative or missing provided: a) Main deck side cargo door master latch lock mechanism is verified to have no damage, and b) Main deck side cargo door is locked and unlocked using the exterior master latch lock handle.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

52. DOORS

Sequence No.	Item	1	2	3	4	Change Bar
32-04	Main Deck Side Cargo Door Lift System (747-8F)	**C**	**1**	**0**	(M) May be inoperative provided: a) Main deck side cargo door latch mechanism is verified to have no damage, b) Main deck side cargo door master latch lock mechanism is verified to have no damage, and c) Main deck side cargo door lift mechanism is operated manually.	
32-05	Main Deck Side Cargo Door Hook System (Electrical Function) (747-8F)	**C**	**1**	**0**	(M) May be inoperative provided: a) Main deck side cargo door hook mechanisms are verified to have no damage, and b) Main deck side cargo door hook mechanisms are operated manually.	
34-01	Forward/Aft Cargo Doors Latches and Hinge Sections	**C**	**48**	**46**	(M) One latch or hinge section per door may be missing or inoperative provided: a) Remaining latches and hinge sections on associated cargo door are verified to have no damage before each departure, and b) Both outflow valves are considered inoperative.	
34-02	Forward/Aft Cargo Doors Latch Systems (Electrical Function)	**C**	**2**	**0**	(M) May be inoperative provided: a) Associated cargo door latch mechanism is verified to have no damage, b) Associated cargo door master latch lock mechanism is verified to have no damage, c) Associated cargo door latch mechanism is operated manually, and d) Associated cargo door lower latch cams are verified closed before each departure.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

52. DOORS

Sequence No.	Item	1	2	3	4	Change Bar
34-03	Forward/Aft Cargo Doors Hook Systems (Electrical Function)	**C**	**2**	**0**	(M) May be inoperative provided: a) Associated cargo door hook mechanism is verified to have no damage, and b) Associated cargo door hook mechanism is operated manually.	
34-04	Forward/Aft Cargo Doors Lift Systems	**C**	**2**	**0**	(M) May be inoperative provided: a) Associated cargo door latch mechanism is verified to have no damage, b) Associated cargo door master latch lock mechanism is verified to have no damage, and c) Associated cargo door lift mechanism is operated manually.	
36-01	Bulk Cargo Door Balance Mechanism	**C**	**1**	**0**	(M) May be inoperative provided a safety hold open device is used when door is in the open position.	
36-02	Bulk Cargo Door Pressure Stop Assemblies					
36-02A		**C**	**16**	**15**	(M)(O) One forward or aft pressure stop assembly may be missing or inoperative provided: a) Remaining pressure stop assemblies on the bulk cargo door are verified to have no damage, b) Both automatic cabin pressure controllers operate normally, and c) Maximum cabin pressure differential is limited to 5.2 psi.	
36-02B		**C**	**16**	**15**	One forward or aft pressure stop assembly may be missing or inoperative provided both outflow valves are considered inoperative.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

52. DOORS

Sequence No.	Item	1	2	3	4	Change Bar
48-01	Main Equipment Center Access Door Latch Pins	**C**	**4**	**3**	(M) One may be inoperative or removed provided: a) Remaining latch pins are verified to have no damage, b) Remaining latch pins are verified fully engaged, and c) Verification procedures are repeated each time door is opened and closed.	
48-02 ***	Main Equipment Center Inflight Access Hatch Lock Screw/Nut Plate Assembly	**D**	**1**	**0**	May be inoperative or missing.	
51-01	Flight Deck Door Automatic Locking System (747-8I)	**A**	**1**	**0**	(M)(O) May be inoperative provided: a) Automatic locking system is deactivated, b) Flight deck door dead bolt operates normally and is used to lock the door, c) Alternate procedures are established and used for locking and unlocking the door using the dead bolt, and d) Repairs are made within two flight days.	
51-01-01	Flight Deck Access System (Keypad, Door Chime)	**B**	**1**	**0**	(M)(O) May be inoperative provided: a) Keypad is deactivated, and b) Alternate procedures are established and used.	
51-01-01-01	LEDs	**C**	**3**	**0**	(O) May be inoperative provided alternate procedures are established and used.	
51-01-01-02 ***	Door Bell Mode	**C**	**1**	**0**	(O) May be inoperative provided alternate procedures are established and used.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

52. DOORS

Sequence No.	Item	1	2	3	4	Change Bar
51-01	Flight Deck Door Automatic Locking System (747-8I) (Cont'd)					
51-01-02	Flight Deck Door LOCK FAIL Light	**B**	**1**	**0**	(M) May be inoperative provided automatic lock controls are verified to operate normally.	
51-01-03	Flight Deck Door AUTO UNLK Light	**B**	**1**	**0**	(M) May be inoperative provided: a) Automatic lock controls are verified to operate normally, and b) Door chime operates normally.	
51-01-04	Flight Deck Door Lock Selector	**B**	**1**	**0**	(M)(O) May be inoperative provided: a) Keypad is deactivated, b) Automatic lock is verified to operate normally, and c) Alternate procedures are established and used.	
51-01-05	Pressure Sensor	**A**	**1**	**0**	(M) May be inoperative provided: a) Pressure sensor is deactivated, and b) Repairs are made within two flight days.	
51-02	Flight Deck Door Dead Bolt (747-8I)	**C**	**1**	**0**	May be inoperative provided flight deck door automatic locking system operates normally.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

52. DOORS

Sequence No.	Item	1	2	3	4	Change Bar
71-01	Door Indication Systems					
71-01-01	747-8F	**C**	**9**	**0**	(M) May be inoperative provided associated door is verified closed, latched, and locked before each departure.	
71-01-02	747-8I	**C**	**18**	**0**	(M) May be inoperative provided associated door is verified closed, latched, and locked before each departure.	
71-01-02-01	Auto/Man EICAS Indications					
71-01-02-01A		**C**	**12**	**0**	(O) May be inoperative provided an alternate procedure is used to verify associated door is in Auto or Man mode as appropriate.	
71-01-02-01B		**D**	**12**	**0**	May be inoperative provided procedures do not require their use.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

73. ENGINE AND FUEL CONTROL

Sequence No.	Item	1	2	3	4	Change Bar
11-01	Engine Main Fuel Pump Strainer Sensors	**C**	**4**	**3**		
11-02	Engine Fuel Filter Bypass Warning Systems					
11-02-01	Without Main Fuel/Oil Heat Exchanger Sensors Installed	**C**	**4**	**3**		
11-02-02	With Main Fuel/Oil Heat Exchanger Sensors Installed	**C**	**4**	**3**	One may be inoperative provided associated main fuel/oil heat exchanger sensor operates normally.	
11-03	Engine Fuel Cooled Oil Cooler (FCOC) Heat Exchanger Sensors				Moved to 79-21-02, Revision 3.	
21-01	Engine Fuel Shutoff Valve Indication Systems	**C**	**4**	**3**	(M) One may be inoperative provided associated engine fuel shutoff valve is verified to operate normally once each flight day.	
21-02	Electronic Engine Controls (EECs)	**C**	**4**	**0**	(O) Normal (NORM) mode may be inoperative provided: a) All turbine case cooling air flow systems operate normally, b) Maximum operating temperature is limited to 48 degrees C OAT, c) All EECs are operated in alternate (ALTN) mode, and d) Appropriate performance adjustments are applied.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

73. ENGINE AND FUEL CONTROL

Sequence No.	Item	1	2	3	4	Change Bar
21-03	Electronic Engine Controls (EECs) NORM/ALTN Mode Lights	**C**	**4**	**0**	(M) May be inoperative provided associated EEC mode switch is verified to operate normally.	
21-04	Electronic Engine Controls (EECs) C1 Faults	**A**	**4**	**0**	May be dispatched with EEC C1 faults provided repairs are made in accordance with time established by engine manufacturer.	
31-01	Engine Fuel Flow Indication Systems	**C**	**4**	**3**	Except for ER operations, one may be inoperative provided total fuel quantity indication operates normally.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

74. IGNITION

Sequence No.	Item	1	2	3	4	Change Bar
00-01	Ignition Systems	**C**	**8**	**4**	One per engine may be inoperative provided: a) Associated engine anti-ice (EAI) valve is not locked closed, and b) For GEnx-2B67/P (PIP) ignition system inoperative, associated engine booster anti-ice (BAI) valve operates normally.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

75. ENGINE BLEED AIR

Sequence No.	Item	1	2	3	4	Change Bar
10-01	Booster Anti-Ice (BAI) Valves					
10-01-01	Four GEnx-2B67B (non-PIP) Engines Installed	**C**	**4**	**0**	(M)(O) May be inoperative provided: a) Inoperative BAI valve is locked closed, b) Ground operations at or below 3 degrees C OAT in icing conditions are limited to 30 minutes, and c) Alternate procedures are established and used.	
10-01-02	One GEnx-2B67/P (PIP) Engine Installed					
10-01-02A		**C**	**4**	**1**	(M)(O) May be inoperative provided: a) Inoperative BAI valve is locked closed, b) GEnx-2B67/P (PIP) BAI valve operates normally, c) Ground operations at or below 3 degrees C OAT in icing conditions are limited to 30 minutes, and d) Alternate procedures are established and used.	
10-01-02B		**C**	**4**	**0**	(M) May be inoperative provided: a) Inoperative BAI valve is locked closed, b) Associated engine ignition systems operate normally, and c) Airplane is not operated in known or forecast icing conditions.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

75. ENGINE BLEED AIR

Sequence No.	Item	1	2	3	4	Change Bar
10-01	Booster Anti-Ice (BAI) Valves (Cont'd)					
10-01-03	Two GEnx-2B67/P (PIP) Engines Installed					
10-01-03A		**C**	**4**	**2**	(M)(O) May be inoperative provided: a) Inoperative BAI valve is locked closed, b) Both GEnx-2B67/P (PIP) BAI valves operate normally, c) Ground operations at or below 3 degrees C OAT in icing conditions are limited to 30 minutes, and d) Alternate procedures are established and used.	
10-01-03B		**C**	**4**	**1**	(M) May be inoperative provided: a) Inoperative BAI valve is locked closed, b) One GEnx-2B67/P (PIP) BAI valve operate normally, c) Associated engine ignition systems operate normally, and d) Airplane is not operated in known or forecast icing conditions.	

(Continued)

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

75. ENGINE BLEED AIR

Sequence No.	Item	1	2	3	4	Change Bar
10-01	Booster Anti-Ice (BAI) Valves (Cont'd)					
10-01-04	Three GEnx-2B67/P (PIP) Engines Installed					
10-01-04A		**C**	**4**	**3**	(M)(O) One may be inoperative provided: a) Inoperative BAI valve is locked closed, b) All GEnx-2B67/P (PIP) BAI valves operate normally, c) Ground operations at or below 3 degrees C OAT in icing conditions are limited to 30 minutes, and d) Alternate procedures are established and used.	
10-01-04B		**C**	**4**	**2**	(M) May be inoperative provided: a) Inoperative BAI valve is locked closed, b) Two GEnx-2B67/P (PIP) BAI valves operate normally, c) Associated engine ignition systems operate normally, and d) Airplane is not operated in known or forecast icing conditions.	
10-01-05	Four GEnx-2B67/P (PIP) Engines Installed	**C**	**4**	**3**	(M) One may be inoperative provided: a) Inoperative BAI valve is locked closed, b) Associated engine ignition systems operate normally, and c) Airplane is not operated in known or forecast icing conditions.	
23-01	Core Compartment Cooling (CCC) Valves	**D**	**4**	**0**	(M) May be inoperative locked open.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

75. ENGINE BLEED AIR

Sequence No.	Item	1	2	3	4	Change Bar
24-01	Turbine Case Cooling Air Flow Systems					
24-01-01	High Pressure Turbine Active Clearance Cooling (HPTACC) Valves	**C**	**4**	**0**	(M)(O) May be inoperative provided: a) Inoperative HPTACC valve is locked closed, b) Appropriate performance adjustments are applied, and c) All electronic engine controls (EECs) are operated in normal (NORM) mode.	
24-01-02	Low Pressure Turbine Active Clearance Cooling (LPTACC) Valves	**C**	**4**	**0**	(M)(O) May be inoperative provided: a) Inoperative LPTACC valve is locked closed, b) Appropriate performance adjustments are applied, and c) All electronic engine controls (EECs) are operated in normal (NORM) mode.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

77. ENGINE INDICATING

Sequence No.	Item	1	2	3	4	Change Bar
31-01	Engine Vibration Monitoring Systems	**C**	**4**	**2**	May be inoperative provided procedures do not require their use.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

78. ENGINE EXHAUST

Sequence No.	Item	1	2	3	4	Change Bar
31-01	Thrust Reverser Systems					
31-01A		**C**	**4**	**3**	(M)(O) One may be inoperative provided: a) Inoperative reverser is secured in the forward thrust position, and b) Appropriate performance adjustments are applied.	
31-01B		**A**	**4**	**2**	(M)(O) May be inoperative provided: a) Inoperative reversers are on symmetrical engines only, b) Inoperative reversers are secured in the forward thrust position, c) Antiskid system operates normally, d) Auto spoilers system operates normally, e) Appropriate performance adjustments are applied, and f) Repairs are made within three flight days.	
34-01	Reverse Thrust Lever Interlocks					
34-01A		**C**	**4**	**3**	(O) One may be inoperative released.	
34-01B		**C**	**4**	**3**	(O) One may be inoperative retracted provided appropriate performance adjustments are applied.	
36-01	Thrust Reverser Proximity Sensors	**C**	**24**	**20**	(M) One per engine may be inoperative provided associated auto re-stow proximity sensors are verified to operate normally.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

79. ENGINE OIL

Sequence No.	Item	1	2	3	4	Change Bar
21-01	Engine Oil Debris Monitoring Systems (DMSs)	**C**	**4**	**2**	(M) One per side may be inoperative provided: a) Associated DMS sensor is checked for contaminants, and b) Associated engine oil filter bypass warning system operates normally.	
21-02 ***	Main Fuel/Oil Heat Exchanger Sensors	**C**	**-**	**-**	One may be inoperative provided associated engine fuel filter bypass warning system operates normally.	
31-01	Engine Oil Quantity Indicating Systems	**B**	**4**	**3**	(M) One may be inoperative provided: a) There is no evidence of above normal oil consumption or leakage, and b) Associated oil tank is verified full before each departure.	
35-01	Engine Oil Filter Bypass Warning Systems	**C**	**4**	**2**	One per side may be inoperative provided associated engine oil debris monitoring system (DMS) sensor operates normally.	

MMEL TABLE KEY

SYSTEM & SEQUENCE NO.	ITEM	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS

80. STARTING

Sequence No.	Item	1	2	3	4	Change Bar
11-01	Engine Starter Air Valves (SAVs)	**C**	**4**	**3**	(M)(O) One may be inoperative closed provided alternate procedures are used for engine start.	
11-02	Start Switch Holding/Cutout Systems	**C**	**4**	**0**	(O) May be inoperative provided alternate procedures are used for engine start.	