

Advisory Circular

Subject: FAA Specification for L-823	Date: Draft	AC No: 150/5345-26E
Plug and Receptacle, Cable Connectors	Initiated By: AAS-100	Change:

1 1 **Purpose.**

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This advisory circular (AC) contains the specification for plug and receptacle (cable connectors) used with underground power cables, isolation transformer leads, and light fixture leads for airport lighting systems.

5 2 **Effective Date.**

6 Effective six months after the issue date of this AC, only that equipment qualified per 7 the specifications herein will be listed per <u>AC 150/5345-53</u>, *Airport Lighting Equipment* 8 *Certification Program*.

9 3 **Cancellation.**

10AC 150/5345-26D, FAA Specification for L-823 Plug and Receptacle, Cable11Connectors, dated September 30, 2008, is canceled.

12 4 Application.

The Federal Aviation Administration (FAA) recommends the guidance and specifications in this Advisory Circular for Plug and Receptacle, Cable Connectors. In general, use of this AC is not mandatory. However, use of this AC is mandatory for all projects funded with federal grant monies through the Airport Improvement Program (AIP) and with revenue from the Passenger Facility Charges (PFC) Program. See Grant Assistance No. 34, *Policies, Standards, and Specifications*, and PFC Assurance No.9, *Standards and Specifications*.

20 5 Principal Changes.

The AC incorporates the following principal changes:
Removed and reworded references to "shall" from Figure A-2.
Reformatted figures in <u>Appendix A</u>.
Updated reference documents to current revisions.

- 4. The format of the document has been updated in this version, and minor editorial changes have been made throughout.
- Hyperlinks (allowing the reader to access documents located on the internet and to maneuver within this document) are provided throughout this document and are identified with underlined text. When navigating within this document, return to the previously viewed page by pressing the "ALT" and " \leftarrow " keys simultaneously.
- 31 Figures in this document are schematic representations and are not to scale.

32 6 Use of Metrics.

Throughout this AC, U.S. customary units are used followed with "soft" (rounded) conversion to metric units. The U.S. customary units govern.

35 7 Where to Find this AC.

36 You can view a list of all ACs at

37http://www.faa.gov/regulations_policies/advisory_circulars/. You can view the Federal38Aviation Regulations at http://www.faa.gov/regulations_policies/faa_regulations/.

39 8 Feedback on this AC.

If you have suggestions for improving this AC, you may use the <u>Advisory Circular</u>
 <u>Feedback</u> form at the end of this AC.

John R. Dermody Director of Airport Safety and Standards

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TABLES

79	Table A-1.	Class A and B,	Plugs and Re	ceptacles –	Dimensions.	A	\- 2	2
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80		CHAPTER 1. SCOPE AND CLASSIFICATION
81 82 83 84	1.1	Scope. This specification contains requirements for plugs and receptacles (cable connectors) to be used for underground cable connections, for power cables, isolation transformer leads, and light fixture leads for airport systems.
85 86 87 88 89	1.2	Classification. Cable connectors are classified by this specification into two types, two classes, and six styles of plugs and two types, two classes, and six styles of receptacles. Formerly, cable connectors were classified only by a figure number. Figures in this specification are now numbered consecutively.
90 91 92 93	1.2.1	Type.Plugs and receptacles with the following electrical characteristics are covered by the specification:Type I1 conductor, 25 ampere, 5000 volt
94 95 96 97	1.2.2	Type II2 conductor, 20 ampere, 600 volt <u>Class.</u> Plugs and receptacles with the following attachment methods are covered by this specification:
98 99		Class A Factory molded to conductor(s) Class B Field attached to conductor(s)
100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116	1.2.3	Style.Plugs and receptacles with following styles of housing are covered by this specification:Style 1Plug, Figure A-1 (detail A)Style 2Plug, Figure A-2 (detail A)Style 3Plug, Figure A-2 (detail A and detail C)Style 4Plug, Figure A-3 (detail A, detail B, and detail C)Style 5Plug, Dimensions are defined in Table A-1.Figure A-7 (detail A, detail B, and detail C)Style 6Plug, Dimensions are defined in Table A-1.Figure A-8Style 7Receptacle, Figure A-1 (detail B)Style 8Receptacle, Figure A-2 (detail B)Style 9Receptacle, Figure A-2 (detail B)Style 10Receptacle, Figure A-3 (detail B and detail D)Style 11Receptacle, Dimensions are defined in Table A-1.Figure A-5 (detail A, detail B, and detail C)Style 12Receptacle, Dimensions are defined in Table A-1.
110		Style 12 Receptacie, <u>Dimensions are</u> defined in <u>Table A-1</u> .

117 Figure A-6 (detail A, detail B, and detail C)

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118		СНА	PTER 2. REFERENCED DOCUMENTS
119 120 121	2.1	General. The following docume qualification, are appl	ents, of the issue in effect on the date of application for icable to the extent specified in this AC.
122 123 124	2.2	FAA Advisory Circu Copies of FAA Advise www.faa.gov/airports/	lars. ory Circulars may be obtained from <u>(resources/advisory_circulars/</u> .
125 126		<u>AC 150/5345-7</u>	Specification for L-824 Underground Electrical Cable for Airport Lighting Circuits
127		<u>AC 150/5345-53</u>	Airport Lighting Equipment Certification Program
128 129	2.3	American Society for Copies of ASTM Star	r Testing and Materials (ASTM) Standards. Indards may be obtained from https://www.astm.org/index.html.
130 131		B 33	Tinned Soft or Annealed Copper Wire for Electrical Purposes, Specification for
132 133		B 189-05(2015)	Lead-Coated and Lead Alloy Coated Soft Copper Wire for Electrical Purposes, Specification for
134 135		D 1149- <mark>16</mark>	Rubber Deterioration-Surface Ozone Cracking in a Chamber (Flat Specimens), Test for
136	2.4	Underwriters Labora	atories (UL) <mark>Standard</mark> s.
137		Copies of UL standard	ls may be obtained from <u>http://ulstandards.ul.com/</u> .
138 139		UL 1581 4 th edition	Reference Standard for Electrical Wires, Cables, and Flexible Cords
140	2.5	American National S	Standards Institute.
141		Copies of ANSI Stand	lards may be obtained from <u>https://webstore.ansi.org/</u> .
142		ANSI/ASQC Z1.4	Sampling Procedures and Tables for Inspection by Attributes
143		ANSI/EIA557B	Statistical Process Control Systems

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CHAPTER 3. EQUIPMENT REQUIREMENTS

145 3.1 **General.**

Plugs and receptacles (cable connectors) must be fabricated per all specification requirements.

148 3.2 Environmental Requirements.

The plugs and receptacles (cable connectors) must be designed for continuous use within a temperature range of -67° Fahrenheit (F) (-55° Celsius (C)) to +149°F (+65°C) while exposed to weather, submerged in water, or buried in the earth.

152 3.3 **Performance Requirements.**

- 153 3.3.1 <u>Electrical Connection.</u>
- The electrical rating of each connector must not be less than 5000 Volts (V) for type I connectors, or 600 V for type II connectors. The voltage drop across the contacts of a connected plug and receptacle must not exceed 7.5 millivolts (mV) for the Type I connectors and must not exceed 6.0 mV for the Type II connectors.
- 158 3.3.2 Bonding Strength.
- The completed Class A connector assembly must withstand a longitudinal pull of at least 30,000 pounds per square inch (psi) (207 Megapascals (MPa)), 75 percent of an average tensile strength of 40,000 psi, (276 MPa) for all wire sizes. Calculation of tensile strength should be done by considering the cross-sectional area of the conductor only. Separation between the molded-on connector and the cable must not exceed 0.03 inches (0.8 mm). The wires must be per with ASTM Specification B 33 and B 189-05(2015).
- 166 3.3.3 <u>Mechanical Connection.</u>
- Each connected plug and receptacle must withstand a static pull load of 10 pounds (44 N) without showing evidence of separation. No damage must occur to the mating components when the connected plug and receptacle are separated by a greater static pull load.
- 171 3.3.4 <u>Seal.</u>
- A watertight seal must be provided between the mated plug and receptacle and between the rubber and metal parts of the plug and receptacle.

Fabrication and Materials.

175 3.4.1 <u>General.</u>

Each plug and receptacle (cable connector), type, class, and style must be per the dimensions and construction requirements shown on the applicable figures in <u>Appendix A</u> of this specification.

179 3.4.2 <u>Housing.</u>

The connector housing must be molded from natural and/or synthetic elastomeric 180 materials serving both as insulation and sheath to fully enclose the pins of the plug and 181 sockets of the receptacle. The housing material must be suitable for direct earth burial, 182 submergence in water, and capable of withstanding limited attack from chemicals, 183 typically present on the airfield, including but not limited to, oil, de-icing fluids and/or 184 gasoline. Material compounds used in connector housings must not contain more than 185 25 pounds (11 kilograms (kg)) of carbon black per 100 pounds (45 kg) of elastomer. 186 Housings for Class A connectors must be fabricated from materials capable of bonding 187 to cable sheaths or conductor insulation, during the manufacturing process, to provide a 188 watertight bond. 189

190 3.4.3 <u>Pins and Sockets.</u>

The pins and sockets must conform to all dimensions and construction requirements per 191 the applicable figures in Appendix A of this specification. Pins and sockets must be 192 made of materials that contain at least 98 percent copper, or free cutting brass alloy 360 193 (AMS C36000) and in either case must be made of material at least "half hard". The 194 contact portion of the pin and socket must be left "stock hard" and the crimping section, 195 when necessary, fully annealed. The hardness transition must be limited to the locking 196 section of the pin and socket. The pin and socket must be electroplated with tin or other 197 suitable material to provide good electrical contact per paragraph 3.3.1. The sockets 198 must be spring loaded or slotted and spring loaded to insure good electrical contact per 199 paragraph 3.3.1, and Class A sockets must have a means that protects the sockets slots 200 from filling with insulating compound during molding. The pin for the Style 3 201 connector must be provided with a visual indication that verifies proper assembly 202 position. Pins and sockets provided for Class B connectors must have provisions for 203 crimping to the cable conductor(s), and must not exhibit damage after crimping. 204

205 3.4.4 <u>Connector Assemblies.</u>

Pins and sockets must be held perpendicular to the face of the block. 207 Suitable electrical conductors must be mechanically and electrically 208 connected to the pin(s) or socket(s). The connector housing must be 209 molded per paragraph <u>3.4.2</u>. Primary connectors must be molded to an 210 electrical conductor having a voltage rating equal to or less than the 211 specified voltage rating of the connector. Secondary connectors must be 212 molded to an electrical conductor having a voltage rating equal to or less 213 than the specified voltage rating of the connector with the preferred being 214

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equal to the connector rating. A connector must never be molded to an electrical conductor or cable having a higher voltage rating than the specification requirements for the connector. After molding, the space between the pins of Type II plugs must not be less than 1/8 inch (3 mm) when the pins are pinched together with a force of 6 pounds (27 N) applied 1/2 inch (12.7 millimeters (mm)) out from the face of the plug. Also, the space between the ends of the pin of the Type II plugs must not be greater than 9/16 inch (14.3 mm) when the pins are pulled apart with a force of 6 pounds (27 N) applied 1/2 inch (12.7 millimeters (12.7 mm) out from the face of the plug. The force is applied to the pins only. During testing for the above-mentioned requirements, the plug is to be held only to keep it from turning.

- 227 3.4.4.2 **Class B.**
- 228 3.4.4.2.1 <u>Type I.</u>

Each receptacle must be equipped with a disposable sleeve fitted into the receptacle's water seal to catch surplus silicone compound upon assembly. Each socket must be equipped with a disposable pin fitted tightly into the pin end of the socket to prevent entry of silicone compound on assembly and to provide a visual indication of proper socket position after assembly. The pin design must be such that proper internal dispersion of silicone compound in the assembly is assured. An adequate amount of silicone insulating compound must be furnished with each connector to ensure filling all internal voids when the connector is assembled. Each housing must be capped with a disposable shipping cap on the cable entrance end.

AC. When assembled the plug and receptacle assemblies must provide a

239 3.4.4.2.2 <u>Type II.</u>

Connector assemblies must be composed of two parts, an insert assembly and a housing. Pins or sockets must be held perpendicular to the face of each end of the molded insert assembly and fastened. After proper assembly, the space between the pins of the plug must not be less than 1/8inch (3 mm) when the pins are pinched together with a force of 6 pounds (27 N) applied 1/2 inch (12.7 mm) out from the face of the plug. Also, the space between the ends of the pin must not be greater than 9/16 inch (14.3 mm) when the pins are pulled apart with a force of 6 pounds applied 1/2inch (12.7 mm) out from the face of the plug. Inserts and housing must be molded as specified in paragraph <u>3.4.2</u>, and must comply with the dimensions and styles per the applicable figures in <u>Appendix A</u> of this

watertight seal to prevent moisture from entering the housing.

- 253 3.4.5 Marking.
- Each plug and receptacle must be marked with manufacturer's identification and L-823 designation with style number, e.g., L-823, Style 3.

256 3.4.6 <u>Caps.</u>

Caps must be supplied with Class A connectors (unless requested otherwise by the buyer) to protect plugs and receptacles prior to final connection. Caps must be made of a plastic material compatible with the housing materials per paragraph <u>3.4.2</u>. When a series short circuiting plug type cap with internal jumpers is required for Type II receptacles, jumpers must be connected to the proper pins. The mating dimensions must be the same as the corresponding plug. The short-circuiting cap must be permanently marked with an "S".

264 3.4.7 Instructions.

Installation instructions must be furnished by the manufacturer with each Class B connector.

CHAPTER 4. EQUIPMENT QUALIFICATION REQUIREMENTS.

- 268 4.1 **Qualification Procedures.**
- Procedures for qualifying equipment to be furnished under the Federal grant assistance
 program for airports are contained in <u>AC 150/5345-53</u>, *Airport Lighting Equipment Certification Program*.

272 4.2 **Qualification Tests.**

The following tests must be performed on each unit submitted for qualification to demonstrate compliance with all specifications in this AC. Should a conflict exist between this AC and referenced documents, the specification in this AC must apply.

276 4.2.1 <u>General.</u>

Assembled connectors, with conductors attached, must be subjected to electrical and 277 physical tests. Class B connectors must be assembled per the manufacturer's 278 instructions to lengths of wire or cable, as appropriate, of at least 24 inches (0.6 m) for 279 all tests. Six pairs of mated connectors must be selected at random from a production 280 run for each type of connector to be tested for approval. Each tested connector must 281 pass all qualification tests. Failure of any one of the connectors in any one of the 282 qualification tests causes rejection and indicates failure to comply with this 283 specification. 284

285 4.2.2 <u>Dielectric Tests.</u>

4.2.2.1 **Plugs and Receptacles.**

Six test insert plugs made of nylon or equal material of suitable dielectric 287 strength must be provided for the test. The test plugs must meet the 288 mating dimensions of the corresponding standard plug intended for use 289 with the receptacle being tested. Each plug must be checked with "go" 290 and "no go" ring gauges to insure compliance with specified dimensions. 291 Each connector receptacle under test must be mated with one of the test 292 plugs and allowed to soak for 24 hours in a tap water bath at room 293 temperature, (68-77°F (20-25°C)). At the end of the soaking period, with 294 the receptacle still immersed, apply a test voltage of 4.7 kilovolts (kV) dc 295 for 5 minutes to Type II connectors and 15 kV dc to Type I connectors. 296 One minute after the test voltage has been applied the minimum insulation 297 resistance between the conductors and water, and between conductors 298 measured with a 500-volt source must be 25,000 megohms minimum. 299 Receptacles that have passed this test will then be used for testing the 300 corresponding plugs in a like test. 301

3024.2.2.2Connector Assembly.

303After the conclusion of the test in paragraph 4.2.2.1, each plug and304receptacle being tested must be mated and immersed in a tap water bath at

room temperature, (68-77°F (20-25°C)). Immerse not more than 2 feet 305 (0.6 m) of cable, 1 foot (0.3 m) of the plug, and 1 foot (0.3 m) of the 306 receptacle. While immersed, each connector assembly must be manually 307 flexed for 2 minutes and then left immersed for a minimum of 24 hours 308 with its cable leads flexed and maintained 180° from its longitudinal axis. 309 Measure the insulation resistance between conductors of each connected 310 assembly after the 24-hour soaking period. The resistance measurements 311 must be taken 1 minute after a test voltage of 4.7 kV dc has been applied 312 for 5 minutes to Type II connectors and 15 kV dc to Type I connectors. 313 The minimum resistance between conductors must be 25,000 megohms. 314 Heat the tap water to 149°F (65°C) without removing the assemblies and 315 maintain this temperature for at least 1 hour. Again measure the resistance 316 between the conductor(s) and water, and between conductors with a 500-317 volt source. The minimum acceptable resistance after the heated soaking 318 period must be 10,000 megohms. 319

320 4.2.3 <u>Bond Test.</u>

The molded bond between cable and Class A connector must be subjected to a static 321 longitudinal pull load of the magnitude per paragraph 3.3.2. When testing Class A, 322 Type II, connectors of any Style the two conductors must be pulled as a single cable, 323 not as individual conductors. The connector must be held in a manner that does not 324 impart a crimping or clamping action to the connector that would affect the pull test. 325 The connector molding cavity, or a similarly shaped fixture, is acceptable for holding 326 the connector. Separation between the molded on connector and the cable jacket or 327 conductor insulation exceeding .03 inches must be cause for rejection. 328

329 4.2.4 <u>Mechanical Connection Test.</u>

Each plug and receptacle intended for mating must be connected together and subjected to the static pull load per paragraph <u>3.3.3</u>. Any evidence of separation of the connection must be cause for rejection. An increasing load must be applied to the connector assembly until separation occurs. No damage must occur to the mating components when the connected plug and receptacle are separated by the greater static pull load. Any evidence of damage to plugs, receptacles, conductors, and/or the connector bond will be cause for rejection.

- 337 4.2.5 <u>Electrical Connection Test.</u>
- Voltage drop measurements must be made across mated connectors while conducting their rated current. Voltage drops in excess of those in paragraph <u>3.3.1</u> must be cause for rejection. This test may be performed using unmolded contacts conducting rated current. This would permit the measurement to be made without damaging the molded connectors. This test must be performed on the equivalent of six connectors (six contact pairs for Type I connectors and twelve contact pairs for Type II connectors).
- 344 4.2.6 <u>Weathering Test.</u>
- A slab of connector housing material and sample pairs of connectors must be subjected to simulated sunlight by conditioning with carbon-arc or xenon-arc radiation for 720

347		hours as described in Section 1200.15 of UL-1581 4 th Edition. The conditioned and
348		unconditioned slabs of connector housing material must then be evaluated to Section
349		1200.9 of UL-1581 4 th Edition. Failure of the test slab samples and/or the connectors to
350		meet the ratio requirements of Section 1200.9 of UL-1581 4 th Edition must be cause for
351		rejection.
352		Additionally, a slab of connector housing material and sample pairs of connectors must
353		be exposed to ozone per ASTM D1149-16, with 50 parts per million (ppm) ozone,
354		100.4°F (38°C), 20 percent sample extension, and 100 hours exposure. Cracking of the
355		connectors, or test slab, as a result of weathering test will be cause for rejection.
356	4.2.7	Metal Bond Test.
357		Class A assemblies must have their connector plug and receptacle placed in water, with
358		20 psi air pressure applied from the free end of the cable, for 10 minutes. There must be
359		no air bubbles emanating from the assembly observed in the water.

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CHAPTER 5. PRODUCTION TEST REQUIREMENTS

361 5.1 **Production Tests.**

Each connector must be visually inspected and interface dimensions checked per the 362 process control below. Each plug and receptacle, cable connector (Class A) must be 363 subjected to a dielectric and continuity test during the validation of a production run. 364 The test voltage must be 4.7 kV dc for Type II connectors and 15 kV dc for Type I 365 connectors. The minimum insulation resistance between the conductors must be 23,500 366 megohms for Type II connectors and 75,000 megohms for Type I connectors (0.2 micro 367 amps leakage current). The application of the test voltage may be reduced to 1 second. 368 For conventional testing, sampling is defined by ANSI/ASQC Z1.4-1993, Inspection 369 Level II, AQL 2.5. For SPC systems, sample per ANSI/EIA557B 2015 and show 370 statistical capability with a Cpk \geq 1.0 and $\sigma \geq$ 3.0. 371

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APPENDIX A. CABLE CONNECTOR FIGURES





Dimension	Inches	Millimeters	References
А	.155 ± .001	3.937 ± .025	Connector
В	.124 ± .001	3.150 ± .025	Connector
С	.625 ± .015	15.875 ± .381	Plug, pin
D	.343 + .031,000	8.712 + .787,000	Plug
E	.435 ± .010	11.049 ± .254	Plug, receptacle
F	.725 + .020,000	18.415 + .508,000	Plug
G	1.000 + .000,031	25.40 + .000,787	Plug, receptacle
н	.1570 + .0010,0007	3.988 + .0254,018	Socket, diameter before splitting
J	.1260 + .0010,0007	3.2004 + 0254,018	Receptacle
К	.641 Minimum	16.28 Minumum	Depth of socket includes .125" [3.18 mm] recess below inside face of receptacle
L	.358 + .000,015	9.093 + .000,381	Receptacle
М	.694 ± .010	17.628 ± .254	Receptacle
Ν	1.125 ± .031	28.575 ± .787	Receptacle
0	1.500 ± .031	38.10 ± .787	Receptacle
P	1.750 ± .031	44.45 ± .787	Receptacle

Table A 1	Close A and D	Dlugg and	Decenterlag	Dimonsions
I able A-L	. Class A aliu d	, riugs and	Receptacies -	- Dimensions.
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Figure A-2. Class A, Type I, Plugs and Receptacles – Single Conductor, 25 Ampere, 5000 Volts to Ground.





Optional locking Optional locking С design design в D С E DIA н G (A) Pin-Style 3, Plug (B) Socket-Style 10, Receptacle Grease pressure relief slot Grease pressure relief slot Ν . I κ Ν Т M Optional Optional internal compound chamber internal compound chamber & locking design & locking design (C) Plug-Class B, Type I, Style 3 (D) Receptacle-Class B, Type I, Style 10

			5.4	
Dimension	Inches	Millimeters	References	
A, B, C	Dimensi	oned to provide a compression	on fitting for the specified cable size	
D	1.062 ± .015	26.975 ± .381	Pin	
E	.186 ± .001	4.7244 ± .0254	Pin	
F	1.080 Minimum	27.432 Minimum	Depth of socket includes .125" [3.175 mm] recess below inside face of receptacle	
G	.188 + .001,0007	4.7752 + .0254,0178	Socket (before splitting)	
н	.025 ±.010	.635 ± .254	Socket (2 saw slots minimum) if required	
I	.593 + .015,000	15.062 + .381,000	Plug	
J	.604 + .010,000	15.342 + .254,000	Plug	
к	.937 + .000,031	23.800 + .000,787	Plug, receptacle (Note : K dimension may vary except within 1" [25.4 mm] of the mating ends measured from the connector tip)	
L	.573 ± .010	14.554 ± .254	Receptacle	
М	.608 + .000,015	15.443 + .000,381	Receptacle	
N	Dime	Dimensioned to provide a waterproof seal with the cable insulation		

Figure A-3. Class B. Type I, Style 3, Plugs and Class B, Style 10, Receptacle – Single Conductor, 5000 Volts, 25 Ampere.







Figure A-5. Class B, Type II, Style 11, Receptacle – Two Conductor, 20 Ampere, 600 Volts Between Contacts, 1500 Volts to Ground.



Dimensions are defined in Table A-1.

Figure A-6. Class B, Type II, Style 12, Receptacle – Single Conductor, 20 Ampere, 600 Volts Between Contacts, 1500 Volts to Ground.



Dimensions are defined in Table A-1.



Figure A-7. Class B, Type II, Style 5, Plug – Single Conductor, 20 Ampere, 600 Volts Between Contacts, 1500 Volts to Ground.





Figure A-8. Class A, Type II, Style 6, Plug – Two Conductor, 20 Ampere, 600 Volts Between Contacts, 1500 Volts to Ground.



Dimensions are defined in Table A-1.

Advisory Circular Feedback

If you find an error in this AC, have recommendations for improving it, or have suggestions for new items/subjects to be added, you may let us know by (1) mailing this form to Manager, Airport Engineering Division, Federal Aviation Administration ATTN: AAS-100, 800 Independence Avenue SW, Washington DC 20591 or (2) faxing it to the attention of the Office of Airport Safety and Standards at (202) 267-5383.

Subject: AC 150/5345-26E		5345-26E	Date:		
Plea	se check all a	ppropriate line items:			
	An error (pr	ocedural or typographical)	has been noted in paragraph		on page
	Recommend	paragraph	on page	be changed	as follows:
	In a future c (Briefly desc	hange to this AC, please c ribe what you want added.)	over the following subject:		
	Other comm	ents:			
	I would like	to discuss the above. Plea	use contact me at (phone num	ber, email ad	ddress).
Subr	nitted by:		Date:		