



AEROSPACE RECOMMENDED PRACTICE

ARP6807™**REV. A**

Issued 2017-11
Revised 2021-05
Reaffirmed 2025-10

Superseding ARP6807

Guide for Identification of Terminal Lugs in Electrical Wiring Interconnect Systems (EWIS)

RATIONALE

Revision required to include flag terminals and add color identification marking for nickel and tin whisker resistant finishes. ARP6807A has been reaffirmed to comply with the SAE Five-Year Review policy.

1. SCOPE

The intent of the SAE Aerospace Recommended Practice (ARP) is to provide a process for users to identify the part number of AS7928 terminal lugs installed in civilian or military applications, although it can also be used to identify terminals that have been stored incorrectly. This ARP is subject to change to keep pace with experience and technical advances of AS7928 terminals. A current set of tables are provided to list and identify current AS7928 terminal lug configurations per the associated specification detail sheet and terminal lug configuration. Specific configuration details, graphic, size, and marking information for each individual terminal lug is provided to assist the product user with accurate selection for replacement or identification.

1.1 Purpose

Failure to select a suitable terminal lug replacement, may negatively impact reliability (service life) or performance of individual EWIS components and the entire system in which it is installed. This ARP provides a process for users to identify the correct AS7928 installed terminal part number. The ARP is not intended to provide information on what terminal to be used in a specific environment or application.

2. APPLICABLE DOCUMENTS

The following publications form a part of this document to the extent specified herein. The latest issue of SAE publications shall apply. The applicable issue of other publications shall be the issue in effect on the date of the purchase order. In the event of conflict between the text of this document and references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

2.1 SAE Publications

Available from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001, Tel: 877-606-7323 (inside USA and Canada) or +1 724-776-4970 (outside USA), www.sae.org.

AIR1351	Manufacturers' Identification of Aerospace Electrical and Electronic Wiring Devices and Accessories
AS7928	Terminals, Lug: Splices, Conductor: Crimp Style, Copper, General Specification for
AS7928/1	Terminals, Lug and Splices, Conductor, Crimp Style, Copper Terminal, Lug, Crimp Style, Copper, Insulated, Ring Tongue, for Thin Wall Wire, Type II Class 1 for 105 °C Total Conductor Temperature

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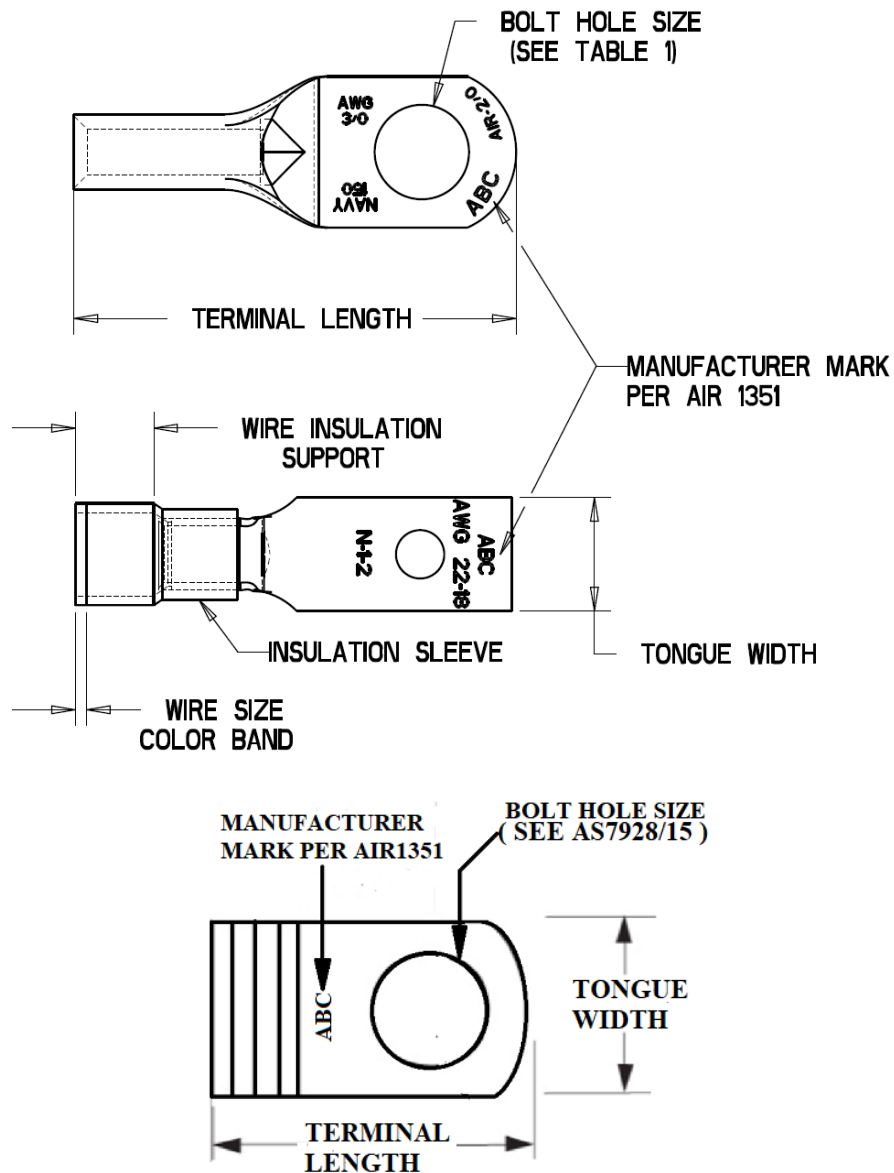
AS7928/2	Terminals, Lug and Splices, Conductor, Crimp Style, Copper, Insulated, Rectangular Tongue, for Thin Wall Wire, Type II, Class 1 for 105 °C Total Conductor Temperature
AS7928/4	Terminals, Lug and Splices, Conductor, Crimp Style, Copper Terminal, Lug, Insulated, Ring Tongue, Bell-Mouthed, Type II, Class 1 (for 150 °C Total Conductor Temperature)
AS7928/7	Terminal Lug and Splices, Conductor, Crimp Style, Copper, Terminal Lug, Crimp Style, Copper, Uninsulated, Ring Tongue Type I, Class 1 for 175 °C Total Conductor Temperature
AS7928/8	Terminals, Lug and Splices, Conductor, Crimp Style, Copper Terminal, Lug, Crimp Style, Copper, Insulated, Ring Tongue, For Thin Wall Wire, Tin Whisker Resistant, Type II Class 1 For 105 °C Total Conductor Temperature
AS7928/9	Terminals, Lug and Splices, Conductor, Crimp Style, Copper Terminal, Lug, Crimp Style, Copper, Insulated, Rectangular Tongue, For Thin Wall Wire, Tin Whisker Resistant, Type II Class 1 For 105 °C Total Conductor Temperature
AS7928/11	Terminals, Lug, Crimp Style, Copper, Uninsulated, Ring Tongue, Tin Whisker Resistant, Type I Class I, For 175 °C Total Conductor Temperature
AS7928/12	Terminals, Lug, Crimp Style, Copper, Insulated, Ring Tongue Bell-Mouthed, Electric, Tin Whisker Resistant (Permanent, Type II, Class 1) For 105 °C Total Conductor Temperature
AS7928/13	Terminals, Lug and Splices, Conductor, Crimp Style, Copper Terminal, Lug, Insulated, Tin Whisker Resistant, Ring Tongue Bell-Mouthed, (Permanent, Type II, Class 1) For 105 °C Total Conductor Temperature
AS7928/14	Terminal, Electric, Permanent, Crimp Style, Tin-Coated Copper, Insulated, Environment Resistant, Class 1 150 °C, Heatless Sealing
AS7928/15	Terminal, Lug, Crimp Style, Copper, Uninsulated, Flag Tongue, Sizes 22-10, Type I, Class I, For 150°C Total Conductor Temperature
AS17143	Terminal, Lug, Crimp Style, Copper, Insulated, Rectangular Tongue, Type II, Class 1 For 105 °C Total Conductor Temperature
AS20659	Terminal, Lug, Crimp Style, Copper, Uninsulated, Ring Tongue, Type I, Class 1, For 175 °C or 260 °C Total Conductor Temperature
AS21004	Terminal, Lug, Uninsulated, Rectangular Tongue, Crimp Style, Copper, Type I, Class 1 For 175 °C Total Conductor Temperature)
AS25036	Terminal, Lug, Crimp Style, Copper, Insulated, Ring Tongue, Bell-Mouthed, Type II, Class 1 (For 105 °C Total Conductor Temperature)
AS25189	Terminal, Lug, Crimp Style, Copper, Uninsulated, Flag Tongue, Sizes 8-0000, Type I, Class I, For 150 °C Total Conductor Temperature

3. TERMINAL LUG IDENTIFICATION LIMITATIONS

AS7928 includes Class 1 and Class 2 insulated and uninsulated crimp-style copper terminal lugs for stranded conductors. This ARP only addresses identification of Class 1 terminals. If terminal identification cannot be determined from this process, the terminal is either a Class 2 component or a non-standard component. An engineering analysis is required to identify these types of terminals.

3.1 Terminal Lug Identification

The specified characteristics of the AS7928 terminals allow each terminal to be uniquely identified. Those characteristics are listed in 3.2.1. By understanding and identifying these features, a user can identify the specific SAE part number and supplier of a given terminal. Figure 1 shows the characteristic features necessary for identification. Marking on the tongue is typical of what is shown, but not all marking is required by AS7928. The wire sizes marked on terminal may or may not be shown depending on the AS7928 detail specification for terminal. The manufacturer's mark in accordance with AIR1353 is required. Figure 2 shows the process steps to be followed.



Representative terminal lugs and features

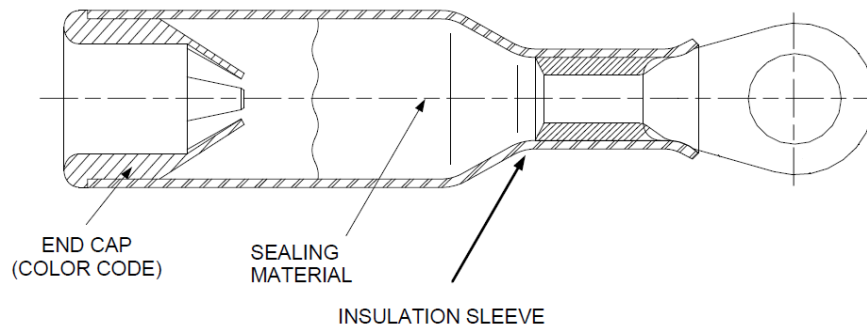


Figure 1 - Representation of heatless sealed terminal (The Environmentally Sealed, Type II terminal lug is defined in AS7928/14. It is cold applied and is filled with a silicone gel material).

Table 1 - Clearance hole sizes

MOUNTED STUD SIZE		CLEARANCE HOLE DIAMETER ^{1/}	
STUD	DIA	MINIMUM	MAXIMUM
2	.086	.090	.098
4	.112	.114	.122
5	.125	.129	.137
6	.138	.142	.152
8	.164	.168	.178
10	.190	.193	.203
12	.216	.220	.236
1/4	.250	.260	.275
5/16	.312	.323	.338
3/8	.375	.385	.400
7/16	.437	.448	.463
1/2	.500	.510	.525
5/8	.625	.651	.666
3/4	.750	.770	.785
7/8	.875	.895	.910

^{1/} Flag terminal stud holes clearance are slightly different; refer to AS7928/15.

3.2 Configuration Breakdown

Once the above features are understood (see specification sheets for additional details), one can use this document to identify the part number for the terminal in question. The part number along with the manufacturer marking can fully identify the terminal lug. To accomplish this, follow the steps below on the unidentified installed terminal:

3.2.1 Identify the following as applicable:

- Round or rectangular tongue
- Insulated or non-insulated
- Color of insulation sleeve
- Presence and color of a wire size color band

- e. Presence of a colored end cap
- f. Presence of a wire support
- g. Wire size on the terminal as printed on the wire (i.e., M22759/1-22-9 the 22 is the wire size)
- h. Stud size on which the terminal is mounted
- i. Terminal length
- j. Tongue width

3.2.2 Using Figure 2, identify the appropriate specification detail sheet and table for the terminal lug.

3.2.3 Use the corresponding table to identify the dash number (configuration) of the terminal lug.

3.2.4 If a table contains multiple terminal lugs with the same wire size, and stud size, an additional column for either the terminal lug or tongue width is included to complete the terminal lug identification.

3.3 To identify the manufacturer, locate the manufacturers mark on the tongue of the terminal. This will be a letter, group of letters, or symbol that will be unique to each manufacturer. Once this has been located, find the associated mark in AIR1351.

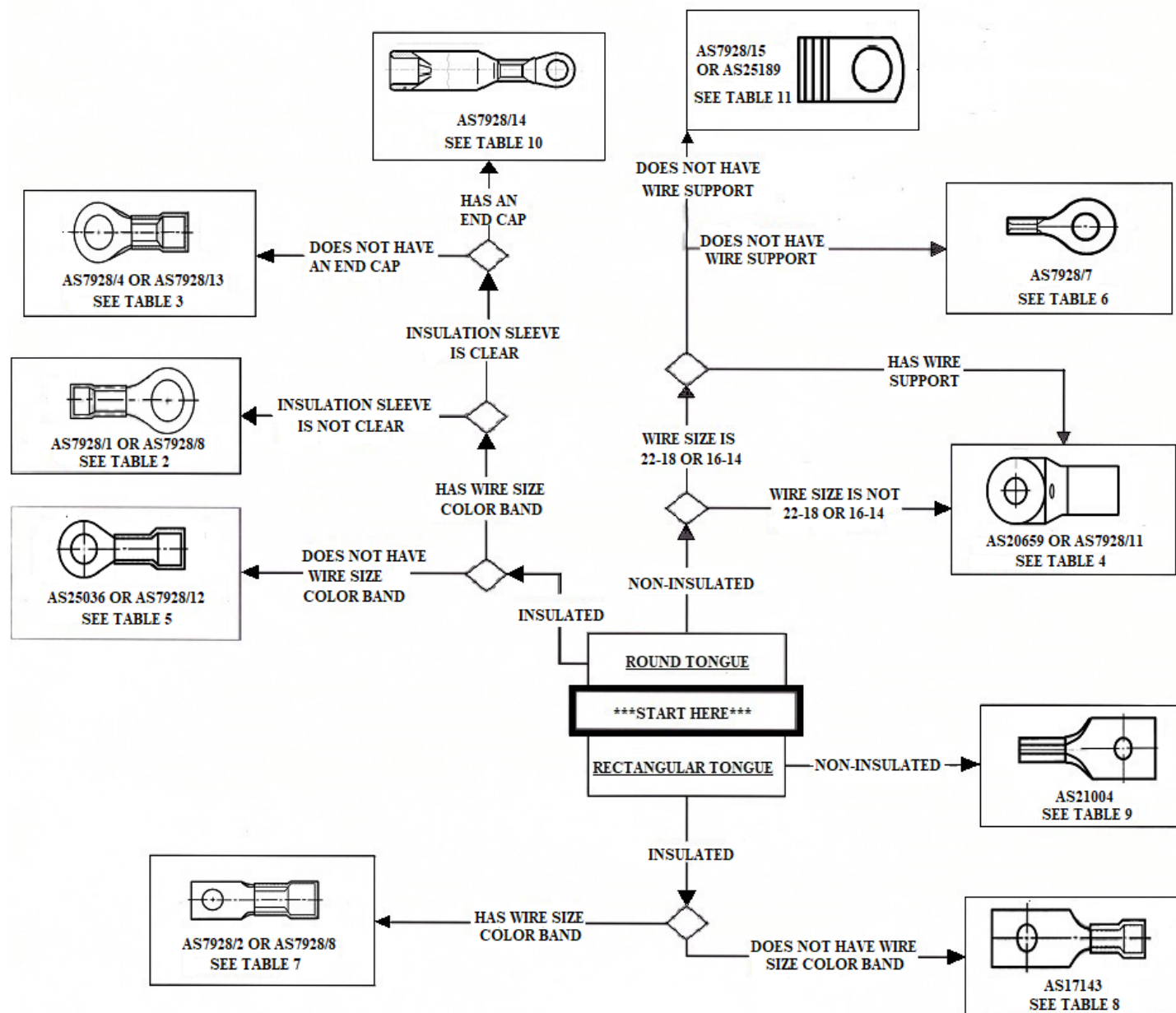


Figure 2 - Decision tree for terminal identification