

SURFACE VEHICLE PRACTICE

SAE J2651 FEB2011

2005-03 Issued Stabilized 2011-02

Superseding J2651 MAR2005

Jump Start Connections for 42 Volt Electrical Systems

RATIONALE

The technical report covers technology, products, or processes which are mature and not likely to change in the foreseeable future.

STABILIZED NOTICE

This document has been declared "Stabilized" by the SAE Connector Systems Standards Committee and will no longer be subjected to periodic reviews for currency. Users are responsible for verifying references and continued suitability of technical requirements. Newer technology may exist.

SAE Technical Standards Board Rules provide that: "This report is published by SAE to advance the state of technical and engineering sciences. The use of this report is entirely voluntary, and its applicability and suitability for any particular use, including any patent infringement arising therefrom, is the sole responsibility of the user."

SAE reviews each technical report at least every five years at which time it may be reaffirmed, revised, or cancelled. SAE invites your written comments and suggestions. Copyright © 2011 SAE International

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of SAE.

TO PLACE A DOCUMENT ORDER:

SAE WEB ADDRESS:

Tel: 877-606-7323 (inside USA and Canada) +1 724-776-4970 (outside USA) Tel:

724-776-0790 Fax:

Email: CustomerService@sae.org

http://www.sae.org

SAE values your input. To provide feedback on this Technical Report, please visit

http://www.sae.org/technical/standards/J2651_201102

TABLE OF CONTENTS

1.	Scope	2
2.	References	
3.	Definitions	2
4.	Abbreviations	4
5.	Test and Acceptance Requirements	5
Appendix A	Fluid Source List	31
Appendix B	Connector Drawing	32
Appendix C	Revision Record	36

1. Scope

This SAE Recommended Practice defines test methods and general requirements at all phases of development, production, and field analysis of electrical terminals (including sense pins), connectors, and components that constitute the jump-start connection for road vehicles having 42 V (nominal) electrical systems. The 42 V jump start connector is always remote from the vehicle battery and may take the form of an in-line or Header Connection, either of which is in an accessible location for attachment of a jumper cable from an assist vehicle or battery charger.

WARNING—The Jump Start Connector requires environmental protection. This specification assumes that such protection is in place and remains effective for the life of the vehicle. The level of protection depends on the vehicle packaging environment and duty cycle.

Appendix B of this document contains the physical specification for the Jump Start Connector.

2. References

2.1 Related Publications

The following publications are for information purposes only and are not a required part of this document.

2.1.1 SAE PUBLICATIONS

Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001.

SAE J1127—Battery Cable

SAE J1128—Low Tension Primary Cable

SAE J2622—Battery Connections for 42 Volt Electrical Systems, Tests and General Performance Requirements

2.1.2 ISO Publications

Available at http://www.iso.ch/iso/en/prods-services/ISOstore/store.html

ISO 8092-2 Road Vehicles—Connections for On-board Electrical Wiring Harnesses
ISO 16750-4 Road Vehicles—Environmental Conditions and Testing for Electrical and Electronic Equipment—Part 4: Climatic Loads

3. Definitions

Terms defined in the definitions or abbreviations sections are capitalized (i.e., Room Temperature, PLR, etc.).

3.1 Acceptance Criteria

Generally the final section in each test description. It specifies the requirements that all test samples must meet during or at the conclusion of that test.