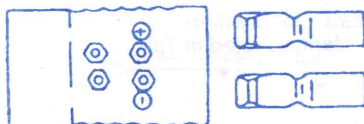


SBE® CONNECTORS



Assembly instructions for SBE® 160 and SBE® 320 series two pole battery connector with option for two auxiliary contacts.

Contains one (1) housing and two (2) contacts.



FOR INSTALLATION BY A QUALIFIED ELECTRICIAN IN ACCORDANCE WITH NATIONAL AND LOCAL ELECTRICAL CODES AND THE FOLLOWING INSTRUCTIONS. THE SUITABILITY OF THIS TYPE OF TERMINATION MUST BE EVALUATED BY UNDERWRITERS' LABORATORIES, INC. AND CANADIAN STANDARDS ASSOCIATION FOR THE END USE APPLICATION.

Assemble contacts to the cables according to the equipment manufacturer's assembly instructions. The following instructions are supplied as a reference. Please note: instructions are included with each crimp tool for terminating specific contacts.

a1. CONNECTOR RATINGS:

SBE® 320 Series: 320 AMPS, 150V with max cable size 95mm²
SBE® 160 Series: 160 AMPS, 150v with max cable size 35mm²

2. RECOMMENDED CONTACT CRIMPING:

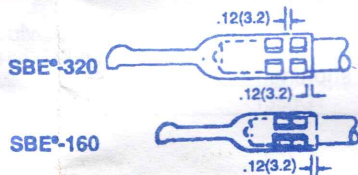
CONNECTOR SIZE	CONTACT AWG SIZES	PORTABLE HYDRAULIC TOOL	BATTERY HYDRAULIC TOOL	PNEUMATIC TOOL
SBE® 320 SERIES	50, 65, 70, 85, 95mm ²	1368	59006-00*	1387G1*
SBE® 160 SERIES	35mm ²			

* Use for all contacts except 300MCM. See catalog for die set part No's.

CRIMP OUTLINE:



Locate two crimps
Approx. as shown



3. REDUCING BUSHINGS: recommended for fitting small cables to STD contacts assuring proper crimp connection

CONNECTOR SIZE	BUSHING SIZE (MM ²)	CAT. NO.
SBE® 320 SERIES	65 to 50	5918
	65 to 40	5922
	65 to 35	5923
SBE® 160 SERIES	35 to 25	5950
	35 to 18	5951

CAUTION: When using cable with jacket diameter less than .423 inches (11mm) on the SBE® 160 and less than .709 inches (18mm) on the SBE® 320 thin wall heat shrink insulation should be evenly applied across the cable and contact barrel junction to insure finger protection.

HEAT SHRINK INSULATION SPECIFICATIONS

CONNECTOR SIZE	NOMINAL TUBING SIZE	MINIMUM LENGTH	MAXIMUM WALL THICKNESS
SBE® 320 SERIES	.75 in (19mm)	2.0 in (51mm)	.030 in (.76mm)
SBE® 160 SERIES	.50 in (12.7mm)	2.0 in (51mm)	.025 in (.63mm)

4. CABLE STRIPPING DIMENSIONS:

CONNECTOR SIZE	STRIP "X" TO	
	INCH	mm
SBE® 320 SERIES	1.38	35
SBE® 160 SERIES	.90	23



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5. RECOMMENDED SOLDERING TECHNIQUES

(Use rosin flux solder only). Wrap cable strands, melt solder into well; heat and insert stripped cable. Continue heating well until solder flows into wire being careful not to over flow onto contact surfaces. DO NOT SOLDER DIP CONTACTS. When contacts are soldered to unsupported lead. Underwriters' Laboratories, Inc. requires use of cable clamps, listed in Table.

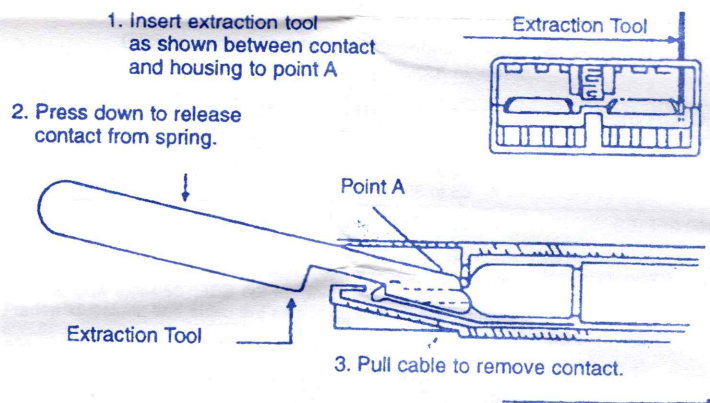
6. CABLE/CONTACT & HOUSING ASSEMBLY

Observing polarity of markings, push each contact into rear of housing until notched side snaps over spring; tug on cable to make sure contact is locked into place.

DISASSEMBLING SBE® CONNECTORS (see illus.)

Switch off power. Remove contacts by inserting extraction tool (cat. nos. SBE® 160 - 969P1, SBE® 320 - 970P1) as shown below (steps 1, 2, & 3).

CAUTION: Replace contacts individually on battery leads to reduce potential danger of shorting.

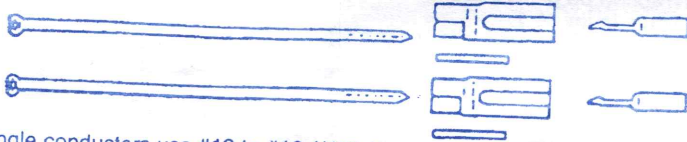


CABLE CLAMP CATALOG NUMBERS	
CONNECTOR AMPERE RATING	FOR TWO SINGLE CONDUCTOR CABLES
320	911G2
160	945G2

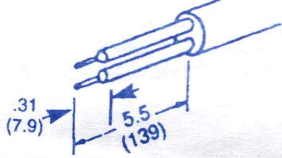
SBE® AUXILIARY CONTACTS Assembling Instructions

Two POWERPOLE® 20 ampere, 150 volt modular connectors.

Contains two each of: housings, contacts, retaining pins, cable ties.



1. Single conductors use #12 to #18 AWG (3 - 1mm²) wire only. Strip to .31 inch (7.9mm) off end of insulation.



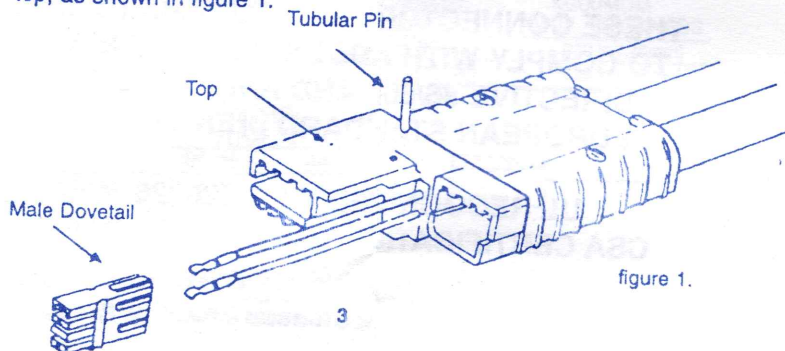
2. Twin conductor cable #12 to #18 (3 - 1mm)
Strip back outer jacket 5.50 in. (139mm). (See illus.) Then strip conductor insulation as in 1.

- 3a. To crimp: Use the recommended tool. Crimping by other means may disturb contact position in housing and or produce high resistance joints.

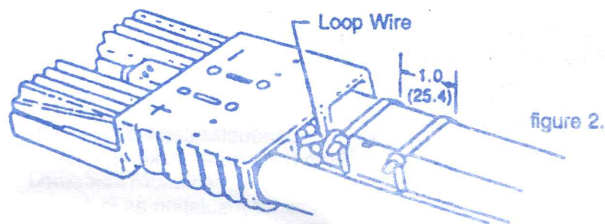
CRIMP	TOOL	TYPE	CAT. NO.
Manual -	cycle control		1351G1
Pneumatic			1353G1

- 3b. To Solder: Not recommended.

4. Thread or push one or two auxiliary contacts and wires through the rear of the SBE® connector before inserting into auxiliary housings. Push into auxiliary housings through rear until notched side of contact tip snaps over spring. Tug wires to make sure wires are secure.
5. Slide two auxiliary POWERPOLE® housings together by dovetails to stack vertically. They cannot be inserted separately into SBE® housing. The rear of the POWERPOLE® housings must be flush.
6. Drop stacked auxiliaries back into SBE® connector housing until seated. The male dovetail should be on top as shown in figure 1. Make sure side grooves of auxiliaries are aligned for retaining pins. Insert tubular pins in holes from top, as shown in figure 1.



7. Cable ties are supplied to secure the auxiliary leads or cable to one of the main connect cables. Leave slack or loop in leads to Powerpole® contacts when applying cable ties, figure 1. Wraps to be placed approximately 1 inch (25.4mm) apart as shown in figure 1.



8. To remove auxiliaries, punch out pins from bottom with .06 inch (1.5mm) diameter steel rod or pin driver. Also available: Contact Insertion-Extraction Tool Kit (cat. #111038G2).

WARNING

UTMOST CAUTION SHOULD BE USED WHEN
WORKING ON LIVE CONNECTOR CONTACTS

PATENTS AND TRADEMARKS

This product is covered by the following patents: U.S. 3,794,957; U.K. 1,443,819; France 73,44153; Italy 1,000,442; Japan 885,802; South Africa 74/0939; Canada 990,821. Other U.S. and foreign patents pending.

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**THESE CONNECTORS ARE TUV LICENSED
TO COMPLY WITH ADDENDUM C OF EEC
DIRECTIVE 86/663 AND ANNEX C OF
EUROPEAN STANDARD prEN 1175-1**

**UL RECOGNIZED FILE E26226
CSA CERTIFICATION REPORT LR25154**