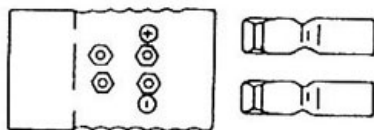


# SBX® CONNECTORS



Assembly instructions for SBX® 175 and SBX® 350 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.

## 1. CONNECTOR RATINGS:

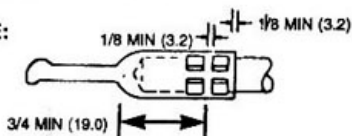
SBX® 350 Series: 350 AMPS with max cable size 300MCM

SBX® 175 Series: 175 AMPS with max cable size 1/0

## 2. RECOMMENDED CONTACT CRIMPING:

CONNECTOR SIZE	CONTACT AWG SIZES	PORTABLE HYDRAULIC TOOL	PNEUMATIC TOOL
SBX 350 SERIES	2/0 3/0 4/0 300MCM	1368	1387G1
SBX 175 SERIES	1/0		

## RECOMMENDED CRIMP OUTLINE:



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

CONNECTOR SIZE	BUSHING SIZE (AWG)	CAT. NO.
SBX® 350 SERIES	2/0 to 1/0	5918
	2/0 to 1	5922
	2/0 to 2	5923
SBX® 175 SERIES	1/0 to 1	5687
	1/0 to 2	5690
	1/0 to 4	5693
	1/0 to 6	5663
	1/0 to 10	5648

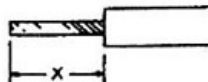
**CAUTION:** When using cable with jacket diameter less than .423 inches (11mm) on the SBX175 and less than .709 inches (18mm) on the SBX350 thin wall heat shrink insulation should be evenly applied across the cable and contact barrel junction to insure finger protection.

## HEAT SHRINK INSULATION SPECIFICATIONS

CONNECTOR SIZE	NOMINAL TUBING SIZE	MINIMUM LENGTH	MAXIMUM WALL THICKNESS
SBX 350 SERIES	.75 in (19mm)	2.0 in (51mm)	.030 in (.76mm)
SBX 175 SERIES	.50 in (12.7mm)	2.0 in (51mm)	.025 in (.63mm)

## 4. CABLE STRIPPING DIMENSIONS:

CONNECTOR SIZE	STRIP "X" TO	
	INCH	mm
SBX® 350 SERIES	1 3/8	35
SBX® 175 SERIES	1 1/8	29



## 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.

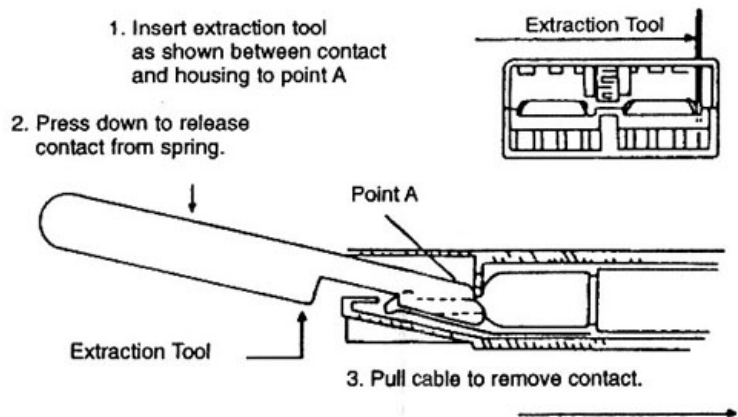
## 6. CABLE/CONTACT & HOUSING ASSEMBLY

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 SBX® CONNECTORS (see illus.)

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

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



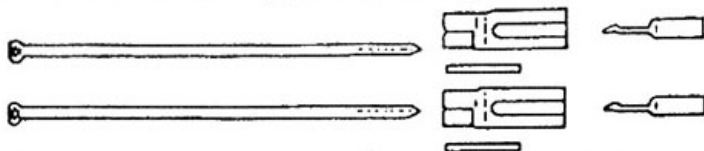
### CABLE CLAMP CATALOG NUMBERS

CONNECTOR AMPERE RATING	FOR TWO SINGLE CONDUCTOR CABLES
350	911G2
175	945G2

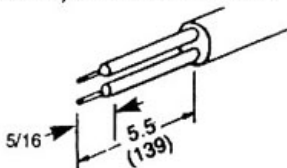
# SBX® AUXILIARY CONTACTS Assembling Instructions

CAT. NO	APPLICATION	CONTACT	WIRE SIZE	PIN LENGTH
6344	SBE80,160,SBO60,SBX175	1331	#12/16	.85
6305G1	SBE320, SBX350	1331	#12/16	1.00
6310G1	SBE320, SBX350	1332	#16/20	1.00

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



1. Single conductors use #12 to #18 AWG wire only. Strip to 5/16 inch (7.9mm) off end of insulation.



2. Twin conductor cable #12 to #18. Strip back outer jacket 5.50 in. (139.7mm). (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

#### CAT. NO.

Manual - cycle controlled

1309G2

Pneumatic - cycle controlled

1367G1

- 3b. To Solder: Not recommended.

4. Thread or push one or two auxiliary contacts and wires through the rear of the SBX® 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 SBX® housing. The rear of the POWERPOLE® housings must be flush.
6. Drop stacked auxiliaries back into SBX® 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 B insert tubular pins. Hammer pins in holes from top, as shown in figure 1.

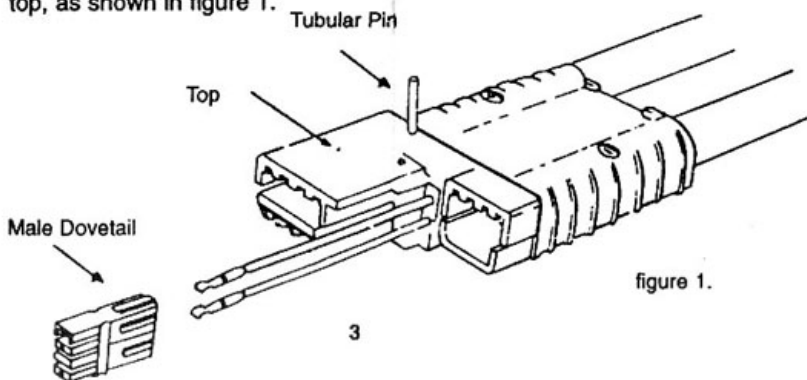
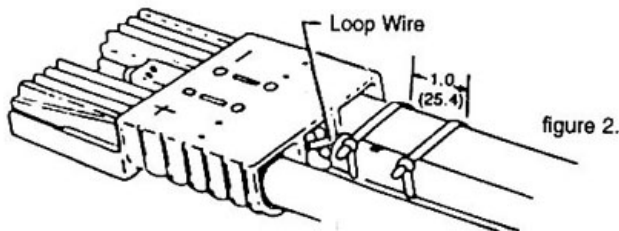


figure 1.

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

**UL and CSA Reference - These connectors are recognized under the component program of Underwriters' Laboratories, File E26226, as well as Canadian Standards Association, Report LR25154.**

#### 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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