

2002 BUELL S3T

SERVICE MANUAL

Part Number 99489-02Y

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GENERAL

The following table provides a brief description of the connectors found on the S3T Thunderbolt.

Connector numbers are listed in [brackets] in this manual.

Table B-1. Electrical Connectors

Connector	Component(s)	Description
[10]	Electronic Control Module (Black)	12-place Deutsch
[11]	Electronic Control Module (Gray)	12-place Deutsch
[14]	Cam Position Sensor	3-place Deutsch
[21]	Front Brake Switch	2-place Amp Multilock
[21]	Indicator Lamps	12-place Amp Multilock
[22]	Right Handlebar Switch Housing-Ignition Power, Module and Starter	4-place connector
[24]	Left Handlebar Switch Housing-Horn, Turn Signals, Lights	9-place connector
[30]	Flasher Relay	3-place relay connector
[33]	Ignition/Headlamp Switch	4-place Packard
[38]	Headlamp	4-place Amp Multilock
[39]	Speedometer and Tachometer	10-place connector
[46]	Voltage Regulator/Stator	2-place plug
[60]	Side Stand Switch	2-place Amp Multilock
[61]	Four 15 Amp Fuses for Clock/Odometer, Instruments, Lights and Accessories and One 20 Amp Fuse for Ignition	5-slot fuse block
[65]	Speed Sensor	3-place Deutsch
[83]	Ignition Coil	3-place Packard
[84]	Front Fuel Injector	2-place connector
[85]	Rear Fuel Injector	2-place connector
[86]	Fuel Pump	4-place connector
[88]	Throttle Position Sensor	3-place connector
[89]	Intake Air Temperature Sensor	2-place connector
[90]	Engine Temperature Sensor	1-place connector
[91A]	Data Link	4-place Deutsch
[95]	Clutch Switch	2-place Amp Multilock
[96]	Clock	4-place plug
[134]	Bank Angle Sensor	3-place connector

GENERAL

The Deutsch Connector features a superior seal to protect electrical contacts from dirt and moisture in harsh environments.

Three and eight pin connectors are of similar construction with one exception: eight pin connectors use two external latches on the socket side.

NOTE

Use the *DEUTSCH Terminal Crimp Tool* (Part No. HD-39965) to install Deutsch pin and socket terminals on wires. If **new** terminals must be installed, follow the instructions included with the crimping tool or see [CRIMPING INSTRUCTIONS](#).

REMOVING/INSTALLING SOCKETS

1. See [Figure B-1](#). Remove the secondary locking wedge (6). Insert the blade of a small screwdriver between the socket housing and locking wedge inline with the groove (inline with the pin holes if the groove is absent). Turn the screwdriver 90° to pop the wedge up.
2. Gently depress terminal latches inside socket housing (3) and back out socket terminals (1) through holes in rear wire seal (2).
3. Fit rear wire seal (2) into back of socket housing, if removed. Grasp socket terminal approximately 1.0 in. (25.4 mm) behind the contact barrel. Gently push sockets through holes in wire seal into their respective chambers. Feed socket into chamber until it “clicks” in place. Verify that socket will not back out of chamber; a slight tug on the wire will confirm that it is properly locked in place.
4. Install internal seal (5) on lip of socket housing, if removed. Insert tapered end of secondary locking wedge (6) into socket housing and press down until it snaps in place. The wedge fits into the center groove within the socket housing and holds the terminal latches tightly closed.

NOTE

- The conical secondary locking wedge of the 3-pin connector must be installed with the arrow pointing toward the external latch. See [Figure B-2](#).
- If the secondary locking wedge does not slide into the installed position easily, verify that all terminals are fully installed in the socket housing. The lock indicates when terminals are not properly installed by not entering its fully installed position.

REMOVING/INSTALLING PINS

1. See [Figure B-1](#). Remove the secondary locking wedge (7). Use the hooked end of a stiff piece of mechanic's wire or a needle nose pliers, whichever is most suitable.

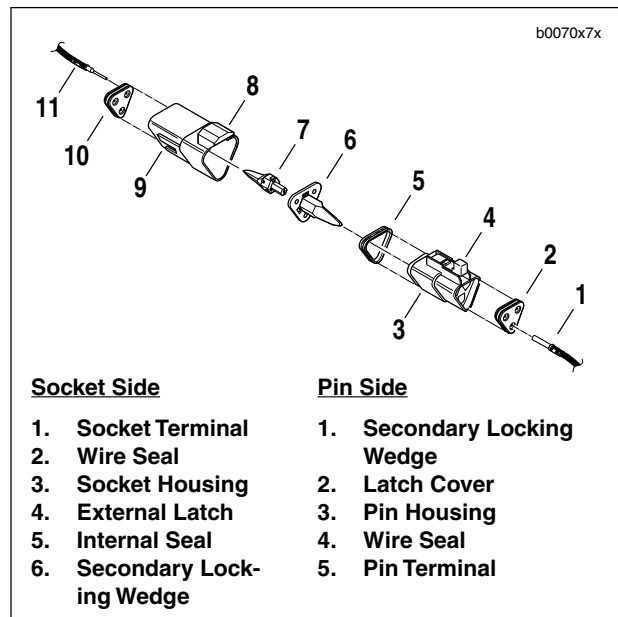


Figure B-1. 3-Pin Connector

2. Gently depress terminal latches inside pin housing (9) and back out pin terminals (11) through holes in wire seal (10).
3. Fit wire seal (10) into back of pin housing (9). Grasp crimped pin approximately 1.0 in. (25.4 mm) behind the contact barrel. Gently push pins through holes in wire seal into their respective numbered locations. Feed pin into chamber until it “clicks” in place. Verify that pin will not back out of chamber; a slight tug on the wire will confirm that it is properly locked in place.
4. Insert tapered end of secondary locking wedge (7) into pin housing (9) and press down until it snaps in place. The wedge fits in the center groove within the pin housing and holds the terminal latches tightly closed.

ASSEMBLY/INSTALLATION

Insert socket housing (3) into pin housing (9) until it snaps in place. To fit the halves of the connector together, the latch (4) on the socket side must be aligned with the latch cover (8) on the pin side.

CRIMPING INSTRUCTIONS

1. See [Figure B-3](#). Squeeze the handles to cycle the DEUTSCH TERMINAL CRIMP TOOL (Part No. HD-39965) to the fully open position.
2. Raise locking bar by pushing up on bottom flange. With the crimp tails facing upward and the rounded side of the contact barrel resting on the concave split level area of the crimp tool, insert contact (socket/pin) through middle hole of locking bar.
3. Release locking bar to lock position of contact. If the crimp tails are slightly out of vertical alignment, the crimp tool automatically rotates the contact so that the tails

face straight upward. When correctly positioned, the locking bar fits snugly in the space between the contact band and the core crimp tails.

4. Strip lead removing 5/32 in. (4.0 mm) of insulation. Insert wires between crimp tails until ends make contact with locking bar. Verify that wire is positioned so that short pair of crimp tails squeeze bare wire strands, while long pair folds over insulation material.
5. Squeeze handle of crimp tool until tightly closed. Tool automatically opens when the crimping sequence is complete. Raise up locking bar and remove contact.

NOTE

Inspect the quality of the core and insulation crimps. Distortion should be minimal.

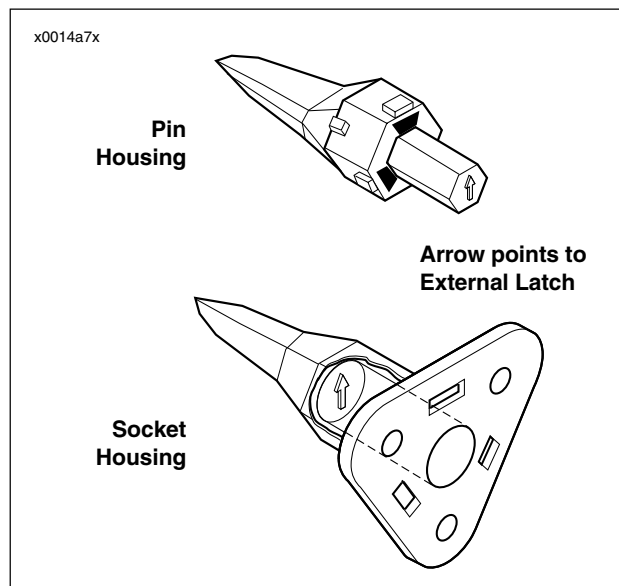


Figure B-2. 3-pin Locking Wedge Orientation

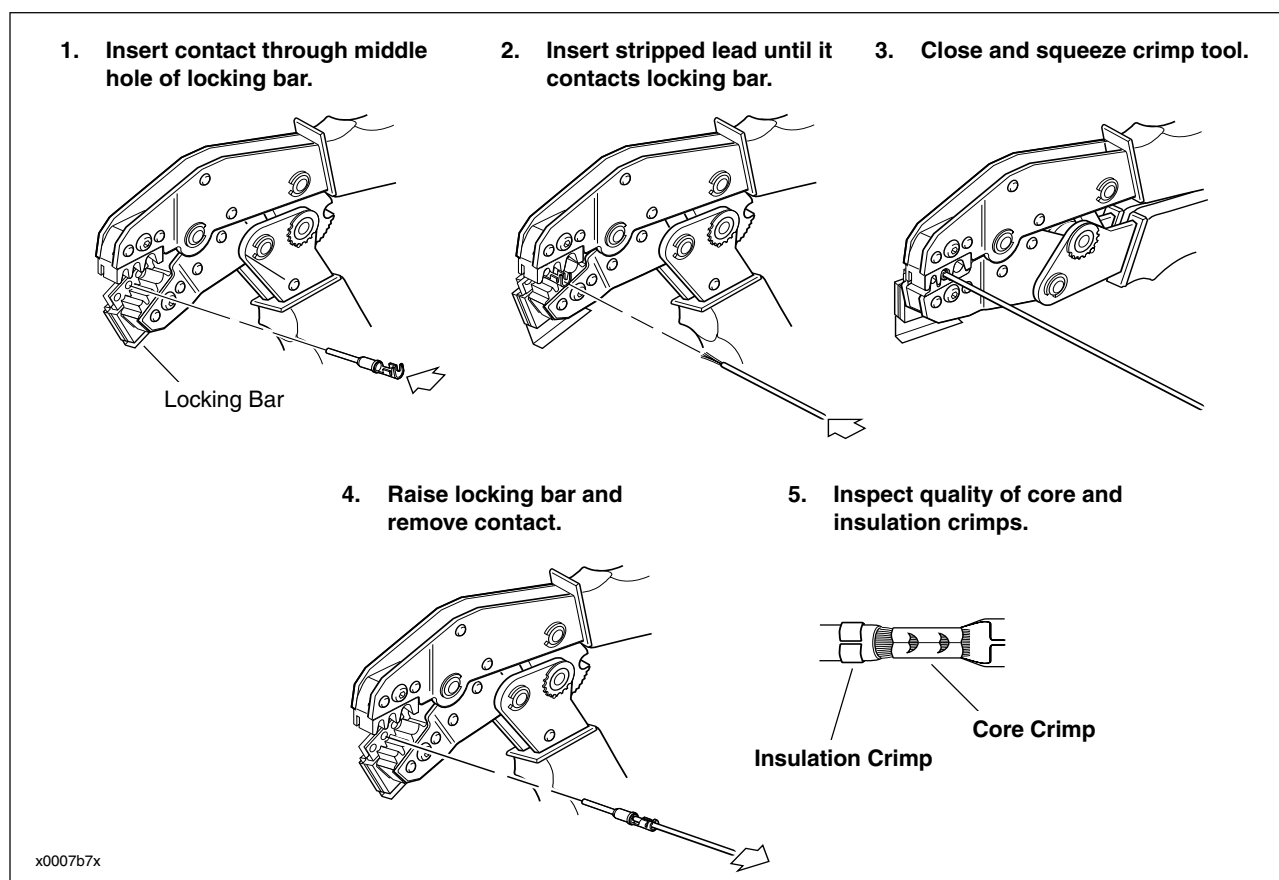


Figure B-3. Deutsch Crimping Procedure

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download the complete
manual instantly.**

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