GENERAL
Attachment clips are attached to the pin housings of some connectors. The clips are then attached to T-studs on the motorcycle frame. T-studs give positive location to electrical connectors and wire harnesses. Consistent location reduces electrical problems and improves serviceability.

To become familiar with the Deutsch connector, read the parts description below while referencing the 12-place connector illustrated in Figure B-3.

Socket housing: alignment tabs and/or external latch, secondary locking wedge, internal seal, wire seal, seal pin.

NOTE
Seal pins or plugs are installed in the wire seals of unused chambers. If removed, seal pins must be replaced to maintain the integrity of the environmental seal.

Pin housing: alignment grooves and/or external latch cover, secondary locking wedge, wire seal, seal pin.

REMOVING/DISASSEMBLING
1. Push the connector to disengage small end of slot on attachment clip from T-stud. Lift connector off T-stud.
2. Depress the external latch(es) on the socket housing side and use a rocking motion to separate the pin and socket halves. Two-, three-, four- and six-place Deutsch connectors have one external latch, while eight- and twelve-place connectors have two, both of which must be pressed simultaneously to separate the connector halves.

NOTE
With few exceptions, the socket housing can always be found on the accessory side, while the pin side of the connector is plumbed to the wiring harness.

REMOVING/INSTALLING SOCKETS
1. See Figure B-1. Remove the secondary locking wedge. 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 degrees to pop the wedge up.
2. Gently depress terminal latches inside socket housing and back out sockets through holes in rear wire seal. See Figure B-2.
3. Fit rear wire seal into back of socket housing, if removed. Grasp socket approximately 1 inch (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 on lip of socket housing, if removed. Insert tapered end of secondary locking wedge 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
If new terminals must be installed, see CRIMPING INSTRUCTIONS in this section.
While rectangular wedges do not require a special orientation, the conical secondary locking wedge of the 3-place connector must be installed with the arrow pointing toward the external latch. See Figure B-4.

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. Remove the secondary locking wedge. Use the hooked end of a stiff piece of mechanics wire, a needle nose pliers or a suitable pick tool (HD-41475-100). See Figure B-6.
Figure B-5. 2-Place, 3-Place and 4-Place Deutsch Connectors

Socket Side
1. Socket Terminal
2. Wire Seal
3. Socket Housing
4. External Latch
5. Internal Seal
6. Locking Wedge

Pin Side
7. Locking Wedge
8. Latch Cover
9. Pin Housing
10. Wire Seal
11. Pin Terminal
2. Gently depress terminal latches inside pin housing and back out pins through holes in wire seal.

   NOTE
   If new terminals must be installed, see CRIMPING INSTRUCTIONS on this page.

3. Fit wire seal into back of pin housing. Grasp crimped pin approximately 1 inch (25.4 mm) behind the contact bar-rel. 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 into pin housing 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.

   NOTE
   While rectangular wedges do not require a special orientation, the conical secondary locking wedge of the 3-place connector must be installed with the arrow pointing toward the external latch. See Figure B-4.

   NOTE
   If the secondary locking wedge does not slide into the installed position easily, verify that all terminals are fully installed in the pin housing. The lock indicates when terminals are not properly installed by not entering its fully installed position.

ASSEMBLING/INSTALLING

1. Insert socket housing into pin housing until it snaps in place. Two-, three-, four- and six-place Deutsch connectors have one external latch on the socket half of the connector. To fit the halves of the connector together, the latch on the socket side must be aligned with the latch cover on the pin side.

   For those connectors with two external latches (8-place and 12-place), a different system is used to prevent improper assembly. Align the tabs on the socket housing with the grooves on the pin housing. Push the connector halves together until the latches “click.” If latches do not click (latch), press on one side of the connector until that latch engages, then press on the opposite side to engage the other latch.

   NOTES
   ● Deutsch connectors are colored coded for location purposes. Those connectors associated with left side accessories, such as the front and rear left turn signals, are gray. All other connectors, including those associated with right side accessories, are black.

   ● If it should become necessary to replace a plug or receptacle, please note that the 8-place and 12-place gray and black connectors are not interchangeable. Since location of the alignment tabs differ between the black and gray connectors, plugs or receptacles must be replaced by those of the same color. If replacing both the socket and pin halves, then the black may be substituted for the gray, and vice versa. The socket and pin halves of all other connectors are interchangeable, that is, the black may be mated with the gray, since the alignment tabs are absent and the orientation of the external latch is the same.

2. Fit the attachment clip to the pin housing, if removed. Place large end of slot on attachment clip over T-stud on frame. Push assembly forward to engage small end of slot.

CRIMPING INSTRUCTIONS

Use the Deutsch Terminal Crimp Tool (HD-39965) to install standard size terminals with crimp tails, as described under STANDARD TERMINALS below. To install the mini-Deutsch terminals with crimp tails, see MINI TERMINALS, which follows. To install those terminals without crimp tails, both standard and mini-Deutsch, use the Deutsch Solid Barrel Contact Crimp Tool (HD-42879) as described under SOLID BARREL CONTACTS.

   NOTE
   A Deutsch Connector Service Kit (HD-41475) contains a selection of wire seals, internal seals, seal plugs, secondary locking wedges, attachment clips and socket/pin terminals. Also included is a compartmented storage box, carrying case and pick tool (HD-41475-100) used for the removal of all types of locking wedges.

STANDARD TERMINALS

1. Obtain the DEUTSCH TERMINAL CRIMP TOOL (HD-39965).

2. Squeeze the handles to cycle the crimp tool to the fully open position. See Figure B-7.
Appendix B B-5

Figure B-7. Deutsch Crimping Procedure

1. Insert contact through hole of locking bar so that barrel rests on nest of crimp tool.

2. Insert stripped lead until it contacts locking bar.

3. Close and squeeze crimp tool.

4. Raise locking bar and remove contact.

5. Inspect quality of core and insulation crimps.

Figure B-7. Deutsch Crimping Procedure
3. Raise the locking bar by pushing up on bottom flange. With the crimp tails facing upward, insert contact (socket/pin) through hole of locking bar, so that the rounded side of the contact barrel rests on the nest (concave split level area) of the crimp tool. Use the middle hole in the locking bar for 16-18 gauge wire, the front hole for 20 gauge wire.

4. 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.

5. Strip lead removing 5/32 inch (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.

6. Squeeze handle of crimp tool until tightly closed. Tool automatically opens when the crimping sequence is complete. Raise up locking bar and remove contact.

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

MINI TERMINALS

1. Obtain the PACKARD TERMINAL CRIMP TOOL (HD-38125-7).
2. Strip wire lead removing 5/32 inch (4.0 mm) of insulation.
3. Compress handles until ratchet automatically opens.

NOTE

Always perform core crimp before insulation crimp.

4. Position the core crimp on nest E of the crimping tool. Be sure the core crimp tails are facing the forming jaws.
5. Gently apply pressure to handles of tool until crimpers just secure the core crimp tails.
6. Insert stripped wire between crimp tails. Verify that wire is positioned so that short pair of crimp tails squeeze bare wire strands, while long pair is positioned over the insulation material.
7. Squeeze handle of crimp tool until tightly closed. Tool automatically opens when the crimping sequence is complete.
8. Position the insulation crimp on nest C of the crimping tool. Be sure the insulation crimp tails are facing the forming jaws.
9. Squeeze handle of crimp tool until tightly closed. Tool automatically opens when the crimping sequence is complete.
10. Inspect the quality of the core and insulation crimps. Distortion should be minimal.

SOLID BARREL CONTACTS

For Size 20, 16 and 12 Contacts

Wire Range 26-12 AWG

1. Obtain the DEUTSCH SOLID BARREL CONTACT CRIMP TOOL (HD-42879).
2. Squeeze the handles to cycle the crimp tool to the fully open position.
3. Remove locking pin from selector knob. See Figure B-8.
4. Raise selector knob and rotate until selected wire size stamped on wheel is aligned with “SEL. NO.” arrow. See upper frame of Figure B-9.
5. Loosen knurled locknut and turn adjusting screw counterclockwise (out) until it stops.
6. Turn tool over and drop contact into indentor cover hole with the wire end out.
7. Turn adjusting screw counterclockwise (out) until contact is flush with bottom of depression in indentor cover. Tighten knurled locknut.
8. Slowly squeeze handles of crimp tool until contact is centered between indentor points. See middle frame of Figure B-9.
9. Strip wire lead removing 1/4 inch (6.4 mm) of insulation.
10. Insert bare wire strands into contact barrel. See lower frame of Figure B-9.
11. Squeeze handle of crimp tool until tightly closed. Tool automatically opens when the crimping sequence is complete.
12. Remove crimped contact from indentor.
13. Inspect the quality of the crimp. Verify that all wire strands are in crimp barrel.

Figure B-8. Deutsch Solid Barrel Contact Crimp Tool (Part No. HD-42879)
NOTE
Tool must be readjusted when changing contact size/type.

14. Install pin to lock position of selector knob.

Rotate selector knob to align wire size on wheel with arrow stamped in tool.

Turn adjusting screw as described in text. When contact is flush with bottom of depression in Indentor cover, squeeze handles to center contact between Indentor points.

Insert bare wire strands into contact barrel. Squeeze handle of crimp tool until tightly closed.

Figure B-9. Deutsch Solid Barrel Contact Crimping Procedure
1-PLACE CABLE CONNECTOR

General
Use the following instructions to service the voltage regulator cable connector.

Removal
1. Depress external latch and separate pin and socket halves of connector.
2. Pull rear wire seal from back of housing and slide voltage regulator cable to move out of the way.
3. Obtain terminal pick tool (Deutsch® 114008) like that shown in A of Figure B-10.

CAUTION
Rough handling or careless storage can result in tool damage. Exercise care to avoid cracking or breaking the thin plastic construction.
4. Install terminal pick tool onto voltage regulator cable so that the tapered end is in the wire end of the housing. See B of Figure B-10.
5. Push tool into wire end of housing until it bottoms. Gently tug on housing to pull from terminal. See C of Figure B-10.
6. Remove tool from voltage regulator cable.

Installation
1. Insert terminal into wire end of housing until it “clicks” in place. Verify that terminal will not back out of housing. A slight tug on the voltage regulator cable will confirm that it is properly locked in place.
2. Fit rear wire seal into back of housing.
3. Mate pin and socket halves of connector.

Figure B-10. Remove Socket/Pin Housing
REMOVING SOCKET/PIN TERMINALS

1. Remove connector from the retaining device, either attachment or roselbud clip.
2. Depress the button on the socket terminal side of the connector (plug) and pull apart the pin and socket halves. See Figure B-11.
3. Bend back the latch slightly and free one side of secondary lock, then repeat the step to release the other side. Rotate the secondary lock outward on hinge to access terminals in chambers of connector housing.
4. Looking in the terminal side of the connector (opposite the secondary lock), take note of the cavity next to each terminal.
5. See Figure B-12. With the flat edge against the terminal, insert the pick (Snap-On TT600-3) into the cavity until it stops. Pivot the end of the pick away from the terminal and gently tug on wire to pull terminal from chamber. Do not tug on the wire until the tang is released or the terminal will be difficult to remove. A "click" is heard if the tang is engaged but then inadvertently released. Repeat the step without releasing the tang.

NOTE
An Electrical Terminal Crimp Tool (Part No. HD-41609) is used to install Amp Multilock pin and socket terminals on wires. If new terminals must be installed, see CRIMPING INSTRUCTIONS in this section.

INSTALLING SOCKET/PIN TERMINALS

NOTE
For wire location purposes, numbers are stamped into the secondary locks of both the socket and pin housings. See Figure B-14.

1. From the secondary lock side of the connector, insert the terminal into its respective numbered chamber until it snaps in place. For proper fit, the slot in the terminal must face the tang in the chamber.

NOTE
For exploded views of 3-place and 6-place Amp Multilock connectors, see Figure B-15.
NOTE
The tang in the chamber engages the slot to lock the terminal in position. On the pin side of the connector, tangs are positioned at the bottom of each chamber, so the slot in the pin terminal (on the side opposite the crimp tails) must face downward. On the socket side, tangs are at the top of each chamber, so the socket terminal slot (on the same side as the crimp tails) must face upward. Up and down can be determined by the position of the release button (used to separate the pin and socket halves), the button always being the top of the connector. See Figure B-13.

2. Gently tug on wire end to verify that the terminal is locked in place and will not back out of chamber.

Figure B-12. Release Tang and Back Out Terminals

Figure B-13. Tang Location (Cross Sectional View)
Figure B-14. Numbers Stamped on Secondary Locks for Wire Color Locations (Socket Housings Shown)

- 3-Place Connector
- 6-Place Connector
- 10-Place Connector

Figure B-15. 3-Place and 6-Place Amp Multilock Connectors

- 3-Place Connector
- 6-Place Connector

Socket Side
12. Socket Terminal
13. Secondary Lock (Open)
14. Latch
15. Socket Housing
16. Button

Pin Side
17. Pin Housing
18. Latch
19. Secondary Lock (Open)
20. Pin Terminal
1. Raise locking bar and seat contact on nest of crimp tool. Release locking bar.

2. Insert stripped lead until it contacts locking bar.

3. Close and squeeze crimp tool.

4. Raise locking bar and remove contact.

Figure B-16. Amp Multilock Crimping Procedure
3. Rotate the hinged secondary lock inward until tabs fully engage latches on both sides of connector.

4. Insert the socket housing (plug) into the pin housing (receptacle) until it snaps in place.

5. Install connector on retaining device, either attachment or rosebud clip.

---

**CRIMPING INSTRUCTIONS**

1. Squeeze the handles to cycle the crimp tool (Part No. HD-41609) to the fully open position.

2. Raise locking bar by pushing up on bottom flange. With the crimp tails facing upward, insert contact (socket/pin) through locking bar, so that the closed side of the contact rests on the nest (concave split level area) of the crimp tool. Use the front nest for 20 gauge wire, the middle for 16 gauge and the rear for 18 gauge. See Figure B-16.

3. Release locking bar to lock position of contact. When correctly positioned, the locking bar fits snugly in the space at the front of the core crimp tails.

4. Strip lead removing 5/32 inch (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.

6. Inspect the quality of the core and insulation crimps. Distortion should be minimal.
150 METRI-PACK SERIES

General
Use these instructions to service the following connectors:

- MAP Sensor [80B]
- Ignition Coil [83B/130B]
- IAC Actuator [87B]
- TP Sensor [88B]
- ET Sensor [90B]
- IAT Sensor [89B]

Disassembly
1. Remove the connector from the retaining device, if present.
2. Bend back the external latch(es) slightly and separate the pin and socket halves of the connector.
3. To free a pull-to-seat terminal from the connector housing, first look into the mating end of the connector to find the locking tang. See A in Figure B-18. The tangs are always positioned in the middle of the chamber and are on the same side as the external latch. On those connectors with locking ears, the tang is on the side opposite the ear. See Figure B-19.
4. At a slight angle, gently insert the point of a one inch safety pin down the middle of the chamber about 1/8 inch (3.2 mm), and pivot the end of the pin toward the terminal body. When a click is heard, remove the pin and repeat the procedure. See B in Figure B-18. The click is the sound of the tang returning to the locked position as it slips from the point of the pin. Pick at the tang in this manner until the clicking stops and the pin seems to slide in at a slightly greater depth than it had previously. This is an indication that the tang has been depressed.

NOTE
On those terminals that have been extracted on a previous occasion, no clicking sound may be heard when the pin is pivoted to depress the tang, but proceed as if the clicking is audible and then push on the wire end of the lead to check if the terminal is free.

NOTE
When picking multiple terminals, the end of the pin may become malleable. For best results, continue the procedure with a new safety pin.

5. Remove the pin and push on the wire end of the lead to extract the terminal from the mating end of the connector. See C in Figure B-18. If necessary, pull back the conduit and remove the wire seal at the back of the connector to introduce some slack in the wires.
6. If necessary, crimp new terminals on wires. See Crimping Instructions at the end of this section.

Assembly

NOTE
For wire location purposes, alpha characters are stamped into the socket housings.

1. Using a thin flat blade, like that on an X-Acto knife, carefully bend the tang outward away from the terminal body. See D in Figure B-18.

2. Gently pull on the lead at the wire end of the connector to draw the terminal back into the chamber. A click is heard when the terminal is properly seated.

3. Push on the lead to verify that the terminal is locked in place.

4. Push the pin and socket halves of the connector together until the latches "click."

280 METRI-PACK SERIES

General
Use these instructions to service the following:
- Front/Rear Fuel Injectors [84B/85B]
- System Fuse Block [64B]

Fuel Injectors

Disassembly
1. Depress the wireform and use a rocking motion to detach the electrical connector.

2. Pry rubber seal from wire end of connector and move seal down wires toward conduit.
3. Hold the connector so that the wireform is facing down, and looking into the wire end of the connector, insert the point of a safety pin between the top of the terminal and the inside chamber wall.

4. Push safety pin completely into chamber while watching terminal on mating end of connector. When terminal is observed moving forward slightly, then tang is depressed. See A in Figure B-20. Remove safety pin.

   NOTE

   Repeat steps 3 and 4 as necessary until the desired result is achieved.

5. Push on wire end of the lead to extract the terminal from the mating end of the connector. See B in Figure B-20.

6. If necessary, crimp new terminals on wires. See Crimping Instructions at the end of this section.

Assembly

   NOTE

   For wire color locations, see Section B.8 WIRING DIAGRAMS and then refer to Figure B-21.

1. Using a thin flat blade, like that on an X-Acto knife, carefully bend the tang outward away from the terminal body. See C in Figure B-20.

2. Gently pull on the lead at the wire end of the connector to draw the terminal back into the chamber. Be sure that the tang faces opposite the wireform as it enters the chamber. A “click” is heard when the terminal is properly seated. See D in Figure B-20.

3. Push on lead to verify that terminal is locked in place.

4. Fit rubber wire seal back into wire end of connector.

5. Push the pin and socket halves of the connector together until the latch “clicks.” The groove in the socket housing must be aligned with the tab in the pin housing.

Figure B-20. Extract/Install Socket Terminal at Mating End of Connector

Figure B-21. Fuel Injector Connector [84B/85B]
HOME

System Fuse Block

Disassembly
1. Remove system fuses and relay(s) from fuse block. See Section 8.3 SYSTEM FUSES, SYSTEM FUSES/RELAYS, REMOVAL.
2. Remove secondary locks as follows:
   a. Insert end of small flat blade screwdriver under lip of locking wedge and gently pry up secondary lock.
   
   NOTE
   For best results, start with locking wedge on outboard side of secondary lock. See Figure B-22.
3. Remove socket terminals as follows:
   a. Looking into chamber at top of fuse block, note the tang next to each socket terminal.
   b. Using a thin flat blade, like that on an X-Acto knife, gently push tang away from terminal, and then tug on wire to back terminal out wire end of chamber.
4. If necessary, crimp new terminals on wires. See Crimping Instructions at the end of this section.

Assembly
1. Install socket terminals as follows:
   
   NOTE
   See Section B.8 WIRING DIAGRAMS, MAIN HARNESS, for wire colors and locations.
   a. With the open side of the socket terminal facing the tang, push lead into chamber at the wire end of the fuse block. A click is heard when the terminal is properly engaged.
   b. Gently tug on the wire to verify that the terminal is locked in place and will not back out of the chamber.
2. Install secondary locks as follows:
   a. With the locking wedges positioned above the tangs in each chamber, slide flat side of secondary lock into slot (between rows), and push down until it bottoms. See Figure B-22.
3. Install system fuses and relay(s) in fuse block. See Section 8.3 SYSTEM FUSES, SYSTEM FUSES/RELAYS, INSTALLATION.

480 METRI-PACK SERIES

General
Use the following instructions to service the B+ connector.

WARNING
Always disconnect the negative battery cable first. If the positive cable should contact ground with the negative cable installed, the resulting sparks may cause a battery explosion, which could result in death or serious injury.

2. Unthread bolt and remove battery negative cable (black) from battery negative (-) terminal.
3. Unthread bolt and remove battery positive cable (red) from battery positive (+) terminal.
4. Using a T40 TORX drive head, loosen bolt to move lip of hold-down clamp off edge of battery. Remove battery from battery box.
5. Cut anchored cable strap to release accessory connector and B+ connector from left side of frame crossmember (in front of battery box). See Figure B-24.
6. Using small flat blade screwdriver, depress button on pin housing (red wire) side of the connector and pull apart the pin and socket halves. See A of Figure B-25.
7. Bend back the latch slightly and free one side of secondary lock, then repeat the step to release the other side. Rotate the secondary lock outward on hinge to access terminal in chamber of connector housing. See B of Figure B-25.
8. On the mating end of the connector, note the tang in the square shaped opening centered next to the terminal. Gently insert the point of a stick pin or large safety pin into the opening between the tang and the chamber wall until it stops. Pivot the end of the pin toward the terminal body to depress the tang. Remove the pin and then pull terminal out wire end of connector housing. See C of Figure B-25.
9. If necessary, crimp new terminals on wires. See Crimping Instructions at the end of this section.

Assembly
1. Carefully bend the tang outward away from the terminal body.
Always connect the positive battery cable first. If the positive cable should contact ground with the negative cable installed, the resulting sparks may cause a battery explosion, which could result in death or serious injury.

8. Insert bolt through battery positive cable (red) into threaded hole of battery positive (+) terminal. Tighten bolt to 60-96 in-lbs (6.8-10.9 Nm).

9. Insert bolt through battery negative cable (black) into threaded hole of battery negative (-) terminal. Tighten bolt to 60-96 in-lbs (6.8-10.9 Nm).

10. Rotate hold-down clamp so that the lip (with rubber pad) rests on the edge of the battery. Using a T40 TORX drive head, tighten the clamp bolt to 15-20 ft-lbs (20-27 Nm).

11. Install seat. See Section 2.24 SEAT, INSTALLATION.

**630 METRI-PACK SERIES**

**General**

Use these instructions to service the following connectors:
- Main to Interconnect Harness [15]
- Ignition Light/Key Switch [33]

**Disassembly**

1. Remove connector from barbed anchor or other retaining device, if present.

2. Bend back the external latch slightly and separate pin and socket halves of the connector.

3. Bend back the latch slightly and free one side of the secondary lock. Repeat the step to unlatch the other side.

4. Rotate the secondary lock outward on hinge to view the terminals in the chambers of the connector housing. The locking tang is on the side opposite the crimp tails and engages a rib in the chamber wall to lock the terminal in place.

5. Moving to the mating end of the connector, take note of the small opening on the chamber wall side of each terminal.

6. Insert pick (Snap-on® TT600-3) into opening until it stops. Pivot the end of the pick toward the terminal to depress the locking tang.

7. Remove the pick and gently tug on the wire to pull the terminal from the wire end of the connector. Repeat steps if the terminal is still locked in place.

8. If necessary, crimp new terminals on wires. See Crimping Instructions at the end of this section.

**Assembly**

**NOTE**

For wire location purposes, alpha characters are molded into the secondary locks of each connector housing.

1. Using a thin flat blade, like that on an X-Acto knife, carefully bend the tang outward away from the terminal body.

2. With the tang facing the chamber wall, push the lead into the chamber at the wire end of the connector. A click is heard when the terminal is properly seated.

3. Gently tug on the wire end to verify that the terminal is locked in place and will not back out of the chamber.

4. Rotate the hinged secondary lock inward until tabs fully engage latches on both sides of connector.

5. Push the pin and socket halves of the connector together until the latches “click.”

6. Install connector on barbed anchor or other retaining device, if present.

**800 METRI-PACK SERIES**

**General**

Use the following instructions to service the maxi-fuse holder.

**Disassembly**

1. Remove maxi-fuse. See Section 8.3 SYSTEM FUSES, MAXI-FUSE, REMOVAL.

2. Remove socket terminals as follows:
   a. Gently pull sides of secondary lock away from socket housing to disengage slots from tabs on socket housing. See A of Figure B-26. Free secondary lock from cables and set aside.
   b. Take note of the opening on one side of the socket terminal. Gently insert flat blade of pick (Snap-On TT600-5) or small screwdriver into opening until it stops. Pivot the pick toward the terminal body and hold in position. See B of Figure B-26.
   c. Tug on cable to pull socket from wire end of socket housing. A firm tug is necessary to overcome the resistance of the rubber seal.
   d. Repeat steps 2(b) and 2(c) to remove remaining socket terminal.

3. If necessary, crimp new terminals on wires. See Crimping Instructions at the end of this section.
1. Install socket terminals as follows:
   a. Carefully bend tang outward away from the terminal body. See C of Figure B-26.
   b. Feed socket into wire end of socket housing until it “clicks” into place. Verify that socket will not back out of chamber. A slight tug on the cable will confirm that it is locked.
   c. Push rubber seal into wire end of socket housing.
   d. Repeat steps 1(a) thru 1(c) to install remaining socket terminal.
   e. Install secondary lock onto cables and then push onto wire end of socket housing until slots engage tabs on sides of socket housing.

2. Install maxi-fuse. See Section 8.3 SYSTEM FUSES. MAXI-FUSE, INSTALLATION.

PACKARD MICRO 64

General
Use the following instructions to service the speedometer and tachometer connectors.

Disassembly
1. Bend back the external latches slightly and separate the pin and socket halves of the connector.
   
   NOTE
To differentiate between the speedometer and tachometer connectors, note that the speedometer connector has a second length of conduit leading to the odometer reset switch.

2. Locate the head of the secondary lockpin on one side of the connector housing. See Figure B-28.

3. Insert the blade of a small screwdriver between the center ear of the lockpin and the connector housing and gently pry out lockpin. When partially removed, pull lockpin from connector housing.

4. Obtain the Packard Micro 64 Terminal Remover (HD-45928). See Figure B-27. Proceed as follows:
   a. Locate small hole between terminals on mating end of connector. See Figure B-29.
   b. Push the adjacent terminals all the way into the connector housing and then insert tool into hole until it bottoms. See upper frame of Figure B-29.
HOME

Appendix B B-21

5. If necessary, crimp new terminals on wires. See Crimping Instructions on this page.

NOTE

For wire location purposes, the corners of the socket housing are stamped with the numbers 1, 6, 7, and 12, representing terminals 1-6 on one side, and 7-12 on the other. See Figure B-28.

2. Bottom the terminal in the chamber and then gently tug on the wire to verify that it is locked in place.

NOTE

Once the terminal is removed it may not lock in place when first reinstalled. Until the lock engages, move the terminal back and forth slightly while wiggling the lead.

3. Since the terminal remover tool releases two terminals simultaneously, repeat step 2 on the adjacent terminal even if it was not pulled from the connector housing.

4. With the center ear on the head of the secondary lockpin facing the mating end of the connector, push lockpin in until head is flush with the connector housing.

5. Push the pin and socket halves of the connector together until the latches “click.”

Crimping Instructions

1. Strip lead removing 1/8 inch (3.0 mm) of insulation.

2. Obtain the Packard Micro 64 Terminal Crimper (HD-45929). See Figure B-30.

3. Squeeze the handles to cycle the tool to the fully open position.

4. Obtain new contact (socket terminal). Verify that contact and crimp tails are not bent or deformed.

5. Raise locking bar and barrel holder by pushing up on bottom tab with index finger. See Figure B-31.

6. With the crimp tails facing upward, insert contact through locking bar into front hole in barrel holder (20-22 gauge wire).

7. Release locking bar to lock position of contact. When correctly positioned, the locking bar fits snugly in the space at the front of the core crimp tails and the closed side of the terminal rests on the outer nest of the crimp tool. See Figure B-32.

Assembly

1. Insert terminal into its respective numbered chamber on wire end of connector. No special orientation of the terminal is necessary.
8. Insert wires between crimp tails until ends make contact with locking bar. Verify that wire is positioned so that wide pair of crimp tails squeeze bare wire strands, while the narrow pair folds over the insulation material.

9. Squeeze handle of crimp tool until tightly closed. Tool automatically opens when the crimping sequence is complete. See Figure B-33.

10. Raise locking bar and barrel holder to remove contact.

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

PACKARD 100W

General

Use the following instructions to service the ECM connector.

Disassembly

1. Gently depress latch on each side of the clear plastic secondary lock and remove. For best results, release one side at a time. See Figure B-34.

2. Carefully cut cable strap to free strain relief collar from conduit.

3. Using a thin blade, gently pry at seam at back of socket housing to release three plastic pins from slots in housing. Separate and spread halves of socket housing. See Figure B-35.

4. Push on selected wire to free terminal from chamber. See Figure B-36.

5. If necessary, crimp new terminals on wires. See Crimping Instructions on the next page.
Assembly

1. From inside socket housing, gently pull on wire to draw terminal into chamber. See Figure B-36.
2. Exercising caution to avoid pinching wires, press halves of socket housing together until three plastic pins fully engage slots in housing. See Figure B-35.
3. Install new cable strap in groove of strain relief collar capturing cable conduit. See Figure B-34.
4. With the two ribs on the secondary lock on the same side as the external latch, install over terminals until latches lock in place.

Crimping Instructions

1. Strip wire lead removing 5/32 inch (4.0 mm) of insulation.
2. Compress handles until ratchet automatically opens. 

**NOTE**

Always perform core crimp before insulation/seal crimp.

3. See Figure B-37. Determine the correct dye or nest for the core crimp.
4. Position the core crimp on the appropriate nest. Be sure the core crimp tails are facing the forming jaws.
5. Gently apply pressure to handles of tool until crimpers just secure the core crimp tails.
6. Insert stripped wire between crimp tails. Verify that wire is positioned so that short pair of crimp tails squeeze bare wire strands, while long pair is positioned over the insulation or seal material.
7. Squeeze handle of crimp tool until tightly closed. Tool automatically opens when the crimping sequence is complete.
8. See Figure B-37. Determine the correct dye or nest for the insulation/seal crimp.

Packard Terminal Crimp Dyes (Nests)

<table>
<thead>
<tr>
<th>Packard 270  (HD-38125-6)</th>
<th>Packard 271  (HD-38125-7)</th>
<th>Packard 115  (HD-38125-8)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sealed Terminals</td>
<td>Non-Sealed Terminals</td>
<td>Non-Sealed Terminals</td>
</tr>
<tr>
<td>1-5</td>
<td>A-E</td>
<td>F-G</td>
</tr>
<tr>
<td>Butt Splices*</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*See Appendix B.5 SEALED BUTT SPLICE CONNECTORS.

Figure B-35. Separate Halves of Socket Housing

Figure B-36. Push Wire to Extract Terminal

Figure B-37. Packard Terminal Crimp Tools
9. Position the insulation/seal crimp on the appropriate nest. Be sure the insulation/seal crimp tails are facing the forming jaws.

10. Squeeze handle of crimp tool until tightly closed. Tool automatically opens when the crimping sequence is complete.

11. Inspect the quality of the core and insulation/seal crimps. Distortion should be minimal. See Figure B-38.

Figure B-38. Inspect Core and Insulation/Seal Crimps
General
Use these instructions to service the following connector:
● HDI Ignition Light/Key Switch Jumper Harness [33D]

Disassembly
1. Obtain terminal pick (Snap-on® GA500A) like that shown Figure B-39.
2. Insert smallest pair of pins into chamber on mating end of socket housing to depress tangs on each side of terminal simultaneously.
3. Gently pull on wire to remove terminal from wire end of socket housing.
4. If necessary, crimp new terminals on wires.

Assembly
1. Using a thin flat blade, like that on an X-Acto knife, carefully bend tang on each side of terminal outward away from terminal body.
2. With the open side of the terminal facing rib on wire end of socket housing, insert terminal into chamber until it locks in place.

Figure B-39. Depress Tangs and Remove Terminal
PROCEDURE

Butt splicing may be a necessary procedure for the replacement of some components. Proceed as follows:

1. Strip 3/8 inch (9.5 mm) of insulation off the ends of the wires.
2. Compress the handles of the Packard Crimp Tool (HD-38125-8) until the ratchet automatically opens.
3. Since the size of the connectors vary with the gauge of the wire, reference the following table to ensure properly sealed splices are used.

<table>
<thead>
<tr>
<th>Gauge Wire</th>
<th>Connector Color</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-20</td>
<td>Red</td>
<td>P/N 70585-93</td>
</tr>
<tr>
<td>14-16</td>
<td>Blue</td>
<td>P/N 70586-93</td>
</tr>
<tr>
<td>10-12</td>
<td>Yellow</td>
<td>P/N 70587-93</td>
</tr>
</tbody>
</table>

4. Determine the correct dye or nest for the crimping operation. Match the color or gauge wire marked on the butt splice connector with the corresponding crimp cavity on the crimp tool. See Figure B-40.
5. Gently apply pressure until the crimper lightly secures one side of the metal insert inside the butt splice connector. The connector must be crimped in two stages, one side and then the other.
6. See Figure B-41. Feed the wire into the butt splice connector until the stripped end contacts the wire stop inside the metal insert.
7. Squeeze the handles of the crimper tool until tightly closed. The tool automatically opens when the crimping sequence is complete.
8. Repeat steps 5-7 on the other side of the butt splice connector.

NOTE

If adjacent wires are being spliced, stagger the splices so that the butt splice connectors are spaced at different positions along the length of the wires.

9. Using the UltraTorch UT-100 (HD-39969), Robinair Heat Gun (HD-25070) with heatshrink attachment (HD-41183) or other suitable radiant heating device, heat the crimped splice to encapsulate the butt splice connection. Apply heat from the center of the crimp out to each end until the meltable sealant exudes out both ends of the connector. See Figure B-41.
WARNING
Use extreme caution when operating the UltraTorch UT-100 or any other radiant heating device. Read the manufacturer's instructions carefully before use. Always keep hands away from tool tip area and heat shrink attachment. Avoid directing the heat toward any fuel system component. Extreme heat can cause fuel ignition/explosion. Avoid directing heat toward any electrical system component other than the connectors on which heat shrink work is being performed. Be sure to turn the “ON/OFF” switch to the “OFF” position after use. Inadequate safety precautions could result in death or serious injury.

NOTE
It is acceptable for the splice to rest against the heat shrink tool attachment.

10. Heat the center of the splice until the crimp indentations disappear and the tubing assumes a smooth cylindrical appearance.
1-PLACE CONNECTOR

The 1-place Amp MATE-N-LOK connector can be found on some Touring models.

SOCKET TERMINAL

Removal

1. Bend back the ears on the pin housing slightly and separate the pin and socket halves of the connector.
2. Grasp the lead on the wire end of the socket housing and push the terminal forward toward the mating end of the connector until it stops. This will disengage the locking tang from the groove in the connector.
3. Fit the barrel of the Amp Socket Terminal Remover (HD-39621-27) over the socket, and while rotating the tool slightly, push until it bottoms in the housing. Allow the plunger to "back out" of the handle. See Figure B-42.
4. Holding the socket housing while keeping the tool firmly bottomed, depress the plunger. The terminal pops out the wire end of the connector.

NOTE
If the terminal is not released from the socket housing, then the terminal was not pushed forward far enough before placement of the tool or the tool was not bottomed in the connector housing.

Installation

1. Note the lip at the middle of the socket housing. One side of the lip is flat while the other side is tapered. Insert the wire terminal into the socket housing on the flat lip side.
2. Push the lead into the socket housing until it stops. A click is heard when the terminal is properly seated.
3. Gently tug on the lead to verify that the terminal is locked in place.
4. Push the pin and socket halves of the connector together until the latches "click."

PIN TERMINAL

Removal

1. Bend back the ears on the pin housing slightly and separate the pin and socket halves of the connector.
2. Grasp the lead on the wire end of the pin housing and push the terminal forward toward the mating end of the connector until it stops. This will disengage the locking tang from the groove in the connector.
3. Fit the barrel of the Amp Pin Terminal Remover (HD-39621-28) over the pin, and while rotating the tool slightly, push until it bottoms in the housing. Allow the plunger to "back out" of the handle. See Figure B-43.
4. Holding the pin housing while keeping the tool firmly bottomed, depress the plunger. The terminal pops out the wire end of the connector.

NOTE
If the terminal is not released from the pin housing, then the terminal was not pushed forward far enough before placement of the tool or the tool was not bottomed in the connector housing.
Installation
1. Push the lead into the pin housing until it stops. A click is heard when the terminal is properly seated.
2. Gently tug on the lead to verify that the terminal is locked in place.
3. Push the pin and socket halves of the connector together until the latches "click."

Figure B-43. Remove Terminal from Amp Pin Housing
**FLHT/C/U Wire Harness Connectors**

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Type</th>
<th>Location</th>
<th>Fig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Main to Interconnect Harness</td>
<td>12 - Place Deutsch (Black)</td>
<td>Inner Fairing - Right Fairing Bracket</td>
<td>44</td>
</tr>
<tr>
<td>2.</td>
<td>Main to Interconnect Harness</td>
<td>12 - Place Deutsch (Gray)</td>
<td>Inner Fairing - Right Fairing Support Brace</td>
<td>44</td>
</tr>
<tr>
<td>3.</td>
<td>Fuel</td>
<td>4 - Place Deutsch</td>
<td>Lower Fuel Tank (Left Side)</td>
<td>46</td>
</tr>
<tr>
<td>4.</td>
<td>Main Fuel</td>
<td>2 - Place Deutsch</td>
<td>Lower Left Side Cover</td>
<td>46</td>
</tr>
<tr>
<td>5.</td>
<td>Audio to Interconnect Harness</td>
<td>2 - Place Deutsch (Black)</td>
<td>Inner Fairing - Back of Radio</td>
<td>44</td>
</tr>
<tr>
<td>6.</td>
<td>Rear Fender Lights Harness</td>
<td>4 - Place Deutsch</td>
<td>Top of Rear Fender (Under Seat)</td>
<td>52</td>
</tr>
<tr>
<td>7.</td>
<td>Ignition Harness (6) ( Integrated on Fuel Injected Models)</td>
<td>12 - Place Deutsch (Gray)</td>
<td>Under Right Side Cover</td>
<td>44, 45</td>
</tr>
<tr>
<td>8.</td>
<td>Ignition Control Module</td>
<td>12 - Place Deutsch (Black)</td>
<td>Under Right Side Cover</td>
<td>51</td>
</tr>
<tr>
<td>9.</td>
<td>Tour Pak Lights</td>
<td>2 - Place Deutsch</td>
<td>Inside Tour Pak</td>
<td>46</td>
</tr>
<tr>
<td>10.</td>
<td>Turn Signal</td>
<td>2 - Place Deutsch</td>
<td>Under Right Side Cover</td>
<td>46</td>
</tr>
<tr>
<td>11.</td>
<td>Main to Interconnect Harness</td>
<td>12 - Place Deutsch (Black)</td>
<td>Inner Fairing - Right Fairing Support Brace</td>
<td>44</td>
</tr>
<tr>
<td>12.</td>
<td>Cruise Control Module</td>
<td>12 - Place Deutsch</td>
<td>Under Right Side Cover</td>
<td>46</td>
</tr>
<tr>
<td>13.</td>
<td>Left Rear Turn Signal</td>
<td>2 - Place Deutsch</td>
<td>Circuit Board/Back Left Fender Assembly</td>
<td>53</td>
</tr>
<tr>
<td>14.</td>
<td>Right Rear Turn Signal</td>
<td>3 - Place Deutsch</td>
<td>Circuit Board/Back Left Fender Assembly</td>
<td>53</td>
</tr>
<tr>
<td>15.</td>
<td>Visor Lens</td>
<td>12 - Place Deutsch (Black)</td>
<td>Inner Fairing - Right Side</td>
<td>44</td>
</tr>
<tr>
<td>16.</td>
<td>Ignition Control Switch/Control</td>
<td>12 - Place Deutsch (Black)</td>
<td>Under Right Side Cover</td>
<td>44</td>
</tr>
<tr>
<td>17.</td>
<td>Ignition Control Switch/Control</td>
<td>12 - Place Deutsch (Gray)</td>
<td>Under Right Side Cover</td>
<td>44</td>
</tr>
<tr>
<td>18.</td>
<td>Tour Pak Warning System</td>
<td>2 - Place Deutsch (Black)</td>
<td>Inner Fairing - Back of Right Side</td>
<td>44</td>
</tr>
<tr>
<td>19.</td>
<td>Ignition/Light Switch</td>
<td>2 - Place Deutsch (Black)</td>
<td>Inner Fairing - Below Front Fender (Left Side)</td>
<td>44</td>
</tr>
<tr>
<td>20.</td>
<td>Fuel Switches</td>
<td>4 - Place Deutsch</td>
<td>Inner Fairing - Back of Right Side</td>
<td>44</td>
</tr>
<tr>
<td>21.</td>
<td>Headlamp</td>
<td>Headlamp Connector</td>
<td>Inner Fairing</td>
<td>-</td>
</tr>
<tr>
<td>22.</td>
<td>Speedometer</td>
<td>12 - Place Deutsch</td>
<td>Under Right Side Cover</td>
<td>46</td>
</tr>
<tr>
<td>23.</td>
<td>Rear Right Speaker Passenger Controls</td>
<td>6 - Place Deutsch</td>
<td>Inside Rear Right Speaker Box</td>
<td>46</td>
</tr>
<tr>
<td>24.</td>
<td>Rear Left Speaker Passenger Controls</td>
<td>6 - Place Deutsch</td>
<td>Inside Rear Left Speaker Box</td>
<td>46</td>
</tr>
<tr>
<td>25.</td>
<td>Rear Fender Tip Lamp (COM)</td>
<td>3 - Place Deutsch</td>
<td>Circuit Board/Back Left Fender Assembly</td>
<td>53</td>
</tr>
<tr>
<td>26.</td>
<td>Stator</td>
<td>2 - Place Deutsch</td>
<td>Bottom of Voltage Regulator</td>
<td>53</td>
</tr>
<tr>
<td>27.</td>
<td>O/B Antenna Cable</td>
<td>4 - Place Deutsch</td>
<td>Bottom of Voltage Regulator</td>
<td>44, 45</td>
</tr>
<tr>
<td>28.</td>
<td>Right Antenna Cable</td>
<td>4 - Place Deutsch</td>
<td>Bottom of Voltage Regulator</td>
<td>44, 45</td>
</tr>
<tr>
<td>29.</td>
<td>Console Pod</td>
<td>12 - Place Deutsch</td>
<td>Bottom of Voltage Regulator</td>
<td>53</td>
</tr>
<tr>
<td>30.</td>
<td>Fuel Switches</td>
<td>12 - Place Deutsch (Black)</td>
<td>Under Right Side Cover</td>
<td>46</td>
</tr>
<tr>
<td>31.</td>
<td>Vehicle Speed Sensor</td>
<td>2 - Place Deutsch</td>
<td>Under Right Side Cover</td>
<td>46</td>
</tr>
<tr>
<td>32.</td>
<td>Parking Lens</td>
<td>2 - Place Deutsch (White)</td>
<td>Under Right Side Cover</td>
<td>46</td>
</tr>
<tr>
<td>33.</td>
<td>Cruise Roll Off Switch</td>
<td>2 - Place Deutsch (White)</td>
<td>Right Side of Steering Head</td>
<td>46</td>
</tr>
<tr>
<td>34.</td>
<td>Stator</td>
<td>12 - Place Deutsch</td>
<td>Bottom of Voltage Regulator</td>
<td>53</td>
</tr>
<tr>
<td>35.</td>
<td>Ignition Coil</td>
<td>4 - Place Deutsch</td>
<td>Bottom of Voltage Regulator</td>
<td>53</td>
</tr>
<tr>
<td>36.</td>
<td>Master Air Control (A/C) (Sensor)</td>
<td>4 - Place Deutsch</td>
<td>Bottom of Voltage Regulator</td>
<td>53</td>
</tr>
<tr>
<td>37.</td>
<td>Throttle Position Sensor (TP Sensor)</td>
<td>2 - Place Deutsch</td>
<td>Bottom of Voltage Regulator</td>
<td>53</td>
</tr>
<tr>
<td>38.</td>
<td>Intake Air Temperature Sensor (47 Sensor)</td>
<td>2 - Place Deutsch</td>
<td>Bottom of Voltage Regulator</td>
<td>53</td>
</tr>
</tbody>
</table>

Continued...
Figure B-44. Inner Fairing Connectors (FLHT/C/U)
**FLHT/C/U WIRE HARNESS CONNECTORS (Continued)**

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Type</th>
<th>Location</th>
<th>Fig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>196</td>
<td>Engine Temperature Sensor (ET Sensor)</td>
<td>***</td>
<td>2 - Place Packard Back of Front Cylinder (Left Side)</td>
<td>-</td>
</tr>
<tr>
<td>197</td>
<td>Data Link</td>
<td>4 - Place Deutsch</td>
<td>Under Right Side Cover</td>
<td>46</td>
</tr>
<tr>
<td>198</td>
<td>Tail Lamp</td>
<td>4 - Place Multilock</td>
<td>Circuit Board Under Tail Lamp Assembly</td>
<td>53</td>
</tr>
<tr>
<td>199</td>
<td>Rear Fender Light Harness to Circuit Board</td>
<td>4 - Place Multilock</td>
<td>Circuit Board under Tail Lamp Assembly</td>
<td>53</td>
</tr>
<tr>
<td>200</td>
<td>Fairing Cap Switches</td>
<td>12 - Place Multilock</td>
<td>Inner Fairing: Above Upper Fork Brace (Right Side)</td>
<td>41</td>
</tr>
<tr>
<td>201</td>
<td>Ambient Air Temperature Sensor **</td>
<td>3 - Place Multilock</td>
<td>Inner Fairing: Left Faring Bracket (Outboard Side)</td>
<td>41</td>
</tr>
<tr>
<td>202</td>
<td>Tail Lamp</td>
<td>12 - Place Packard</td>
<td>Inner Fairing: Back of Trunk/Seat</td>
<td>46</td>
</tr>
<tr>
<td>203</td>
<td>Windshield Lamp</td>
<td>Spark Connector</td>
<td>Inner Fairing</td>
<td>-</td>
</tr>
<tr>
<td>204</td>
<td>Voltage Regulator</td>
<td>Spark Connector</td>
<td>Inner Fairing</td>
<td>-</td>
</tr>
<tr>
<td>205</td>
<td>Oil Pressure Gauge Lamp</td>
<td>Spark Connector</td>
<td>Inner Fairing</td>
<td>-</td>
</tr>
<tr>
<td>206</td>
<td>Oil Pressure Gauge</td>
<td>Spark Connector</td>
<td>Inner Fairing</td>
<td>-</td>
</tr>
<tr>
<td>207</td>
<td>Air Temperature Gauge</td>
<td>Spark Connector</td>
<td>Inner Fairing</td>
<td>-</td>
</tr>
<tr>
<td>208</td>
<td>Air Temperature Gauge</td>
<td>Spark Connector</td>
<td>Inner Fairing</td>
<td>-</td>
</tr>
<tr>
<td>209</td>
<td>Fuel Gauge Lamp</td>
<td>Spark Connector</td>
<td>Inner Fairing</td>
<td>-</td>
</tr>
<tr>
<td>210</td>
<td>Fuel Gauge</td>
<td>Spark Connector</td>
<td>Inner Fairing</td>
<td>-</td>
</tr>
<tr>
<td>211</td>
<td>EFI Fuses ***</td>
<td>Fuse Terminals</td>
<td>Fuse Block: Under Right Side Cover</td>
<td>46</td>
</tr>
<tr>
<td>212</td>
<td>Rear Brake Light Switch</td>
<td>Spark Terminals</td>
<td>Brakes Transmission: Right Side</td>
<td>-</td>
</tr>
<tr>
<td>213</td>
<td>Horn</td>
<td>Spark Terminals</td>
<td>Brakes Transmission: Left Side</td>
<td>-</td>
</tr>
<tr>
<td>214</td>
<td>Starter Relay</td>
<td>Relay Connector</td>
<td>Rear of Battery Tray: Right Side</td>
<td>50</td>
</tr>
<tr>
<td>215</td>
<td>Brake Light Relay</td>
<td>Relay Connector</td>
<td>Fuse Block: Under Left Side Cover</td>
<td>47</td>
</tr>
<tr>
<td>216</td>
<td>Ignition Key Switch Relay</td>
<td>Relay Connector</td>
<td>Rear of Battery Tray: Left Side</td>
<td>50</td>
</tr>
<tr>
<td>217</td>
<td>Starter Switch</td>
<td>Spark Terminals</td>
<td>Top of Starter</td>
<td>-</td>
</tr>
<tr>
<td>218</td>
<td>Harness Gounds</td>
<td>Ring Terminals</td>
<td>Top of Frame: Cross Member (Left Side)</td>
<td>46</td>
</tr>
<tr>
<td>219</td>
<td>Neutral Switch</td>
<td>Foot Terminals</td>
<td>Transmission Top Cover</td>
<td>-</td>
</tr>
<tr>
<td>220</td>
<td>Cigarette lighter **</td>
<td>Spark Terminals</td>
<td>Inner Fairing</td>
<td>-</td>
</tr>
<tr>
<td>221</td>
<td>EFI System Relay ***</td>
<td>Relay Connector</td>
<td>Fuse Block: Under Right Side Cover</td>
<td>46</td>
</tr>
<tr>
<td>222</td>
<td>Oil Pressure Sensor</td>
<td>6 - Place Packard</td>
<td>Front Right Cylinder</td>
<td>-</td>
</tr>
<tr>
<td>223</td>
<td>Fast Lever Switch (and Fulf Pump on EFI models)</td>
<td>3 - Place Mini Deutsch</td>
<td>Top of Case: (Under Cover)</td>
<td>-</td>
</tr>
<tr>
<td>224</td>
<td>Security Beam (Optional)</td>
<td>3 - Place Packard</td>
<td>Under Right Side Cover: Behind Electrical Bracer</td>
<td>41</td>
</tr>
<tr>
<td>225</td>
<td>Main to Instrument Harness</td>
<td>6 - Place Deutsch</td>
<td>Inner Fairing: Right Faring Support Brace</td>
<td>41</td>
</tr>
<tr>
<td>226</td>
<td>Ti - Throttle</td>
<td>1 - Place Packard</td>
<td>Top of Frame: Cross Member (Right Side)</td>
<td>46</td>
</tr>
</tbody>
</table>

*Classic and Ultra Only*  **Ultra Only**  ***Fast Injected Models***  ****Conchoised Models***

---

Figure B-45. Tour-Pak Connectors

- **Tour-Pak Lights Connector (12)**
  - **LEFT SIDE**
  - **RIGHT SIDE**

- **CB Antenna Cable Connector (50C/D)**

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B-32 Appendix B
Figure B-49. Electrical Connectors - Upper Frame Cross Member (Under Seat)

- Main Harness Ground Ring Terminals (2)
- Fuel Tank Harness Connector [13]
  - Not Present on FLHR/C/S
- Battery Negative Cable
- Battery Positive Cable
- Starter Relay [123]
- Console Pod [53]
- Ignition Control Module Connector [10]
- Console Pod [53]
- Turn Signal/Security Module [30]
- Under Crossmember

Figure B-50. Electrical Connectors/Relays (Under Seat)

- Console Pod [53]

Figure B-51. Ignition Control Module - Carbureted Models (Under Right Side Cover)
Figure B-52. Rear Fender (Under Seat)

Figure B-54. Voltage Regulator (Left Side View)

Figure B-55. Rear of Fuel Tank (Under Seat)
### FLHR/C/S Wire Harness Connectors

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Type</th>
<th>Location</th>
<th>Fig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Accessory</td>
<td>4 - Place Deutsch</td>
<td>Under Left Side Cover</td>
<td>48</td>
</tr>
<tr>
<td>2</td>
<td>Maxi-Fuse</td>
<td>3 - Place Deutsch</td>
<td>Under Left Side Cover</td>
<td>46</td>
</tr>
<tr>
<td>3</td>
<td>Rear Fender Lights Harness</td>
<td>6 - Place Deutsch</td>
<td>Tip of Rear Fender (Under Seat)</td>
<td>52</td>
</tr>
<tr>
<td>4</td>
<td>Ignition Harness (220伏特电控制器或燃油喷射模型)</td>
<td>10 - Place Deutsch (Gray)</td>
<td>Under Right Side Cover</td>
<td>98,91</td>
</tr>
<tr>
<td>5</td>
<td>Ignition Control Module</td>
<td>10 - Place Deutsch (Black)</td>
<td>Under Right Side Cover</td>
<td>93</td>
</tr>
<tr>
<td>6</td>
<td>Left Rear Turn Signal</td>
<td>2 - Place Deutsch</td>
<td>Circuit Board Under Tail Lamp Assembly</td>
<td>93</td>
</tr>
<tr>
<td>7</td>
<td>Right Rear Turn Signal</td>
<td>2 - Place Deutsch</td>
<td>Circuit Board Under Tail Lamp Assembly</td>
<td>93</td>
</tr>
<tr>
<td>8</td>
<td>Indicator Lamp</td>
<td>4 - Place Mini Deutsch</td>
<td>Under Console</td>
<td>97</td>
</tr>
<tr>
<td>9</td>
<td>Right Handlebar Control</td>
<td>4 - Place Deutsch</td>
<td>Inside Headlamp Nacelle - Fork Blem Nut Lock Plate (Right Side)</td>
<td>64</td>
</tr>
<tr>
<td>10</td>
<td>Turn Signal/Safety Switch</td>
<td>6 - Place Deutsch</td>
<td>Outside of Battery Box (Under Seat)</td>
<td>90</td>
</tr>
<tr>
<td>11</td>
<td>Front Turn Signals</td>
<td>6 - Place Deutsch</td>
<td>Inside Headlamp Nacelle - Fork Blem Nut Lock Plate (Left Side)</td>
<td>56</td>
</tr>
<tr>
<td>12</td>
<td>Front Fender Tip Lamp (DOM)</td>
<td>2 - Place Deutsch (Black)</td>
<td>Inside Headlamp Nacelle</td>
<td>56</td>
</tr>
<tr>
<td>13</td>
<td>Ignition/Light Switch</td>
<td>3 - Place Deutsch</td>
<td>Under Console</td>
<td>97</td>
</tr>
<tr>
<td>14</td>
<td>Headlamp</td>
<td>Headlamp Connector</td>
<td>Inside Headlamp Nacelle</td>
<td>96</td>
</tr>
<tr>
<td>15</td>
<td>Speedometer</td>
<td>12 - Place Deutsch</td>
<td>Back of Speedometer (Under Console)</td>
<td>97</td>
</tr>
<tr>
<td>16</td>
<td>Rear Fender Tip Lamp (DOM)</td>
<td>2 - Place Deutsch</td>
<td>Circuit Board Under Tail Lamp Assembly</td>
<td>93</td>
</tr>
<tr>
<td>17</td>
<td>Stator</td>
<td>3 - Place Deutsch</td>
<td>Bottom of Voltage Regulator</td>
<td>94</td>
</tr>
<tr>
<td>18</td>
<td>Fuse Block</td>
<td>Packard</td>
<td>Under Left Side Cover</td>
<td>46,47</td>
</tr>
<tr>
<td>19</td>
<td>Vehicle Speed Sensor</td>
<td>3 - Place Deutsch</td>
<td>Under Right Side Cover (Almact/Tab/Tabs/Bracket)</td>
<td>46</td>
</tr>
<tr>
<td>20</td>
<td>Accessory Switch</td>
<td>4 - Place Deutsch</td>
<td>Under Headlamp Nacelle</td>
<td>96</td>
</tr>
<tr>
<td>21</td>
<td>Parking Lamps</td>
<td>2 - Place Deutsch (Black)</td>
<td>Under Headlamp Nacelle</td>
<td>95</td>
</tr>
<tr>
<td>22</td>
<td>Cruise Roll-Off Switch</td>
<td>1 - Place Deutsch</td>
<td>Right Side of Staying House</td>
<td>-</td>
</tr>
<tr>
<td>23</td>
<td>Voltage Regulator</td>
<td>1 - Place Deutsch</td>
<td>Right Lower Frame Tube (Below Transmission Brackets)</td>
<td>-</td>
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**Continued...**

---

**Figure B-56. Headlamp Nacelle Connectors (FLHR/C/S)**
## FLHR/C/S Wire Harness Connectors (Continued)

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<thead>
<tr>
<th>No.</th>
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<th>Type</th>
<th>Location</th>
<th>Fig.</th>
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<td>00</td>
<td>Electronic Control Module (ECM) ***</td>
<td>36</td>
<td>Place Packard Under Right Side Cover</td>
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</tr>
<tr>
<td>01</td>
<td>Crankshaft Position (CKP) Sensor</td>
<td>2</td>
<td>Place Mini Deutsch</td>
<td>48</td>
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<tr>
<td>02</td>
<td>Manifold Absolute Pressure (MAP) Sensor</td>
<td>9</td>
<td>Place Packard Top of Intake Manifold/Intake Manifold Housing</td>
<td>48</td>
</tr>
<tr>
<td>03</td>
<td>Ignition Coil</td>
<td>4</td>
<td>Place Packard Below Fuel Tank (Left Side)</td>
<td>-</td>
</tr>
<tr>
<td>04</td>
<td>Front Switch ***</td>
<td>2</td>
<td>Place Packard Below Fuel Tank (Left Side)</td>
<td>-</td>
</tr>
<tr>
<td>05</td>
<td>Rear Switches ***</td>
<td>2</td>
<td>Place Packard Below Fuel Tank (Right Side)</td>
<td>-</td>
</tr>
<tr>
<td>06</td>
<td>Idle Air Control (IAC) ***</td>
<td>4</td>
<td>Place Packard Below Fuel Tank (Right Side)</td>
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</tr>
<tr>
<td>07</td>
<td>Throttle Position Sensor (TPS) Sensor ***</td>
<td>3</td>
<td>Place Packard Below Fuel Tank (Right Side)</td>
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</tr>
<tr>
<td>08</td>
<td>Intake Air Temperature Sensor (IAT) Sensor ***</td>
<td>2</td>
<td>Place Packard Below Fuel Tank (Right Side)</td>
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<tr>
<td>09</td>
<td>Single Temperature Sensor (ST Sensor) ***</td>
<td>2</td>
<td>Place Packard Below Fuel Tank (Right Side)</td>
<td>-</td>
</tr>
<tr>
<td>10</td>
<td>Tail Lamp</td>
<td>4</td>
<td>Place Deutsch (Black) Under Right Side Cover</td>
<td>48</td>
</tr>
<tr>
<td>11</td>
<td>Taillight Harness to Circuit Board</td>
<td>4</td>
<td>Place Deutsch Micro to Circuit Board Under Tail Lamp Assembly</td>
<td>53</td>
</tr>
<tr>
<td>12</td>
<td>Rear Fender Lights Harness to Circuit Board</td>
<td>4</td>
<td>Place Deutsch Micro to Circuit Board Under Tail Lamp Assembly</td>
<td>53</td>
</tr>
<tr>
<td>13</td>
<td>Optional Tachometer</td>
<td>4</td>
<td>Place Deutsch (Black) Inside Headlamp Nacelle</td>
<td>56</td>
</tr>
<tr>
<td>14</td>
<td>Parking Lamp Switch</td>
<td>4</td>
<td>Place Deutsch (Black) Inside Headlamp Nacelle</td>
<td>56</td>
</tr>
<tr>
<td>15</td>
<td>Fuel Gauge</td>
<td>4</td>
<td>Place Deutsch Micro Under Right Side Cover</td>
<td>53</td>
</tr>
<tr>
<td>16</td>
<td>GTI Fuse **</td>
<td>4</td>
<td>Fuse Block (Under Right Side Cover)</td>
<td>48</td>
</tr>
<tr>
<td>17</td>
<td>Fuel Pressure Switch</td>
<td>4</td>
<td>Fuse Block Under Left Side Cover</td>
<td>47</td>
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<tr>
<td>18</td>
<td>Rear Brake Light Switch</td>
<td>6</td>
<td>Brake Light Switch Center Terminal</td>
<td>47</td>
</tr>
<tr>
<td>19</td>
<td>Horn</td>
<td>6</td>
<td>Brake Light Switch Center Terminal</td>
<td>47</td>
</tr>
<tr>
<td>20</td>
<td>Starter Relay</td>
<td>6</td>
<td>Relay Connector (Under Left Side Cover)</td>
<td>47</td>
</tr>
<tr>
<td>21</td>
<td>Brake Light Relay</td>
<td>6</td>
<td>Relay Connector (Under Left Side Cover)</td>
<td>47</td>
</tr>
<tr>
<td>22</td>
<td>Ignition Key On/Off Switch</td>
<td>6</td>
<td>Relay Connector Rear of Battery Box (Under Seat) - Left Side</td>
<td>48</td>
</tr>
<tr>
<td>23</td>
<td>Starter Switch</td>
<td>6</td>
<td>Starter Switch Center Terminal</td>
<td>-</td>
</tr>
<tr>
<td>24</td>
<td>Harness Grounds</td>
<td>6</td>
<td>Harness Grounds Center Terminal</td>
<td>48</td>
</tr>
<tr>
<td>25</td>
<td>Headlight Switch</td>
<td>6</td>
<td>Headlight Switch Center Terminal</td>
<td>48</td>
</tr>
<tr>
<td>26</td>
<td>GTI System Relay **</td>
<td>6</td>
<td>Relay Connector Fuse Block (Under Right Side Cover)</td>
<td>48</td>
</tr>
<tr>
<td>27</td>
<td>Fuel Level Sensor and Fuel Filter on MRI ending</td>
<td>2</td>
<td>Place Deutsch Micro Top of Intake Manifold/Intake Manifold Housing</td>
<td>-</td>
</tr>
<tr>
<td>28</td>
<td>Security Trim (Optional)</td>
<td>3</td>
<td>Place Packard Under Right Side Cover (Below Electrical Bracket)</td>
<td>48</td>
</tr>
<tr>
<td>29</td>
<td>Left Handbrake Controls (Crude Switches) ***</td>
<td>2</td>
<td>Place Deutsch Micro Inside Headlamp Nacelle</td>
<td>48</td>
</tr>
<tr>
<td>30</td>
<td>Right Handbrake Controls (Crude Switches) ***</td>
<td>2</td>
<td>Place Deutsch Micro Inside Headlamp Nacelle</td>
<td>48</td>
</tr>
<tr>
<td>31</td>
<td>B+</td>
<td>1</td>
<td>Place Deutsch Micro Inside Headlamp Nacelle</td>
<td>48</td>
</tr>
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</table>

** FLHR/C Only
*** Fuel Injected Models
**** Carbureted Models

---

** Figure B-57. Instrument Console Connectors (FLHRC)**

![Figure B-57. Instrument Console Connectors (FLHRC)](image-url)
### FLTR Wire Harness Connectors

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Type</th>
<th>Location</th>
<th>Fig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>[1]</td>
<td>Main to Interconnect Harness</td>
<td>12 - Place Deutsch (Black)</td>
<td>Inner Fairing - Below Radio (Right Side)</td>
<td>59</td>
</tr>
<tr>
<td>[2]</td>
<td>Main to Interconnect Harness</td>
<td>12 - Place Deutsch (Gray)</td>
<td>Inner Fairing - Below Radio (Right Side)</td>
<td>99</td>
</tr>
<tr>
<td>[3]</td>
<td>Accelerator</td>
<td>4 - Place Deutsch</td>
<td>Upper Fairing Cowl (Under Seat)</td>
<td>49</td>
</tr>
<tr>
<td>[5]</td>
<td>Rear Fender Light Harness</td>
<td>8 - Place Multilock</td>
<td>Top of Rear Fender (Under Seat)</td>
<td>52</td>
</tr>
<tr>
<td>[6]</td>
<td>Ignition Harness (EFI harness on Fuel Injected Models)</td>
<td>12 - Place Deutsch (Gray)</td>
<td>Under Right Side Cover</td>
<td>48.57</td>
</tr>
<tr>
<td>[7]</td>
<td>Ignition Control Module ***</td>
<td>12 - Place Deutsch (Black)</td>
<td>Under Right Side Cover</td>
<td>51</td>
</tr>
<tr>
<td>[8]</td>
<td>Fuel Tank Harness</td>
<td>3 - Place Multilock</td>
<td>Behind Fuel Tank (Under Seat)</td>
<td>55</td>
</tr>
<tr>
<td>[9]</td>
<td>Main to Interconnect Harness</td>
<td>12 - Place Packard</td>
<td>Inner Fairing - Below Radio (Right Side)</td>
<td>59</td>
</tr>
<tr>
<td>[10]</td>
<td>Onboard Control Module</td>
<td>12 - Place Deutsch (Black)</td>
<td>Under Left Side Cover</td>
<td>59</td>
</tr>
<tr>
<td>[11]</td>
<td>Left Rear Turn Signal</td>
<td>2 - Place Multilock</td>
<td>Circuit Board Under Tail Lamp Assembly</td>
<td>53</td>
</tr>
<tr>
<td>[12]</td>
<td>Right Rear Turn Signal</td>
<td>2 - Place Multilock</td>
<td>Circuit Board Under Tail Lamp Assembly</td>
<td>53</td>
</tr>
<tr>
<td>[13]</td>
<td>Indicator Lamps</td>
<td>12 - Place Multilock</td>
<td>Inside Instrument Nacelle (Under Seat)</td>
<td>59</td>
</tr>
<tr>
<td>[14]</td>
<td>GPIO to Right Handlebar Switch Control</td>
<td>12 - Place Deutsch (Black)</td>
<td>Inner Fairing - Left Side of Radio-Bracket</td>
<td>93</td>
</tr>
<tr>
<td>[15]</td>
<td>GPIO to Left Handlebar Switch Control</td>
<td>12 - Place Deutsch (Gray)</td>
<td>Inner Fairing - Left Side of Radio-Bracket</td>
<td>93</td>
</tr>
<tr>
<td>[16]</td>
<td>Radio</td>
<td>2 - Place Deutsch (Black)</td>
<td>Inner Fairing - Back of Radio (Right Side)</td>
<td>59</td>
</tr>
<tr>
<td>[17]</td>
<td>Turn Signal/Lighting Module</td>
<td>12 - Place Deutsch (Gray)</td>
<td>Cavity at Rear of Battery Box (Under Seat)</td>
<td>59</td>
</tr>
<tr>
<td>[18]</td>
<td>Fuel Turn Signals Left Side</td>
<td>3 - Place Multilock</td>
<td>Inner Fairing - Left Side</td>
<td>59</td>
</tr>
<tr>
<td>[19]</td>
<td>Fuel Turn Signals Right Side</td>
<td>3 - Place Multilock</td>
<td>Inner Fairing - Right Side</td>
<td>59</td>
</tr>
<tr>
<td>[20]</td>
<td>Ignition/Light Switch</td>
<td>4 - Place Packard</td>
<td>Inner Fairing - Inside Fairing Blocker (Right Side)</td>
<td>59</td>
</tr>
<tr>
<td>[21]</td>
<td>Headlamp</td>
<td>12 - Place Deutsch (Black)</td>
<td>Inside Instrument Nacelle (Back of Speedometer)</td>
<td>59</td>
</tr>
<tr>
<td>[22]</td>
<td>Speedometer</td>
<td>12 - Place Deutsch (Black)</td>
<td>Inside Instrument Nacelle (Back of Speedometer)</td>
<td>59</td>
</tr>
<tr>
<td>[23]</td>
<td>Rear Fender Tip Lamp (DOM)</td>
<td>2 - Place Deutsch (Black)</td>
<td>Circuit Board Under Tail Lamp Assembly</td>
<td>53</td>
</tr>
<tr>
<td>[24]</td>
<td>Stator</td>
<td>2 - Place Packard</td>
<td>Bottom of Voltage Regulator</td>
<td>44</td>
</tr>
<tr>
<td>[25]</td>
<td>AM Radio Antenna Cable</td>
<td>12 - Place Deutsch (Black)</td>
<td>Inside Fairing - Back of Radio (Left Side)</td>
<td>59</td>
</tr>
<tr>
<td>[26]</td>
<td>Fuel Block</td>
<td>Packard</td>
<td>Under Left Side Cover</td>
<td>48.57</td>
</tr>
<tr>
<td>[27]</td>
<td>Vehicle Speed Sensor</td>
<td>2 - Place Deutsch</td>
<td>Under Right Side Cover (Behind Electrical Bullets)</td>
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**Figure B-58. Instrument Nacelle Connectors (FLTR)**

![Diagram of Instrument Nacelle Connectors](image-url)
<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Type</th>
<th>Location</th>
<th>Fig</th>
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<tbody>
<tr>
<td>73</td>
<td>Cruise Roll-Off Switch</td>
<td>Spade Contacts</td>
<td>Right Side of Steering Head</td>
<td>-</td>
</tr>
<tr>
<td>77</td>
<td>Voltage Regulator</td>
<td>1-Pole Deutsch</td>
<td>Right Lower Frame Tube (Below Transmission Bracket)</td>
<td>-</td>
</tr>
<tr>
<td>74</td>
<td>Electronic Control Module (ECM)</td>
<td>30-Pole Deutsch</td>
<td>Under Right Side Cover</td>
<td>46</td>
</tr>
<tr>
<td>76</td>
<td>Coarse Throttle Position (CPT) Sensor</td>
<td>30-Pole Deutsch</td>
<td>Bottom of Voltage Regulator</td>
<td>54</td>
</tr>
<tr>
<td>90</td>
<td>Main Air Filter Pressure (MAP) Sensor</td>
<td>2-Pole Packard</td>
<td>Top of Main Air Filter Pressure Module</td>
<td>-</td>
</tr>
<tr>
<td>91</td>
<td>Ignition Coil</td>
<td>4-Pole Packard</td>
<td>Below Fuel Tank (Left Side)</td>
<td>-</td>
</tr>
<tr>
<td>94</td>
<td>Front Ignition ***</td>
<td>2-Pole Packard</td>
<td>Below Fuel Tank (Left Side)</td>
<td>-</td>
</tr>
<tr>
<td>95</td>
<td>Rear Ignition ***</td>
<td>2-Pole Packard</td>
<td>Below Fuel Tank (Left Side)</td>
<td>-</td>
</tr>
<tr>
<td>96</td>
<td>Main Air Control (AC) ***</td>
<td>4-Pole Packard</td>
<td>Below Fuel Tank (Right Side)</td>
<td>-</td>
</tr>
<tr>
<td>98</td>
<td>Throttle Position Sensor (TP Sensor) ***</td>
<td>2-Pole Packard</td>
<td>Below Fuel Tank (Right Side)</td>
<td>-</td>
</tr>
<tr>
<td>103</td>
<td>Intake Air Temperature Sensor (IAT Sensor)***</td>
<td>2-Pole Packard</td>
<td>Below Fuel Tank (Right Side)</td>
<td>-</td>
</tr>
<tr>
<td>105</td>
<td>Engine Temperature Sensor (ET Sensor) ***</td>
<td>2-Pole Packard</td>
<td>Back of Front Cylinder (Left Side)</td>
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</table>

Figure B-59. Inner Fairing Connectors (FLTR)
<table>
<thead>
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<th>No.</th>
<th>Description</th>
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<th>Location</th>
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<td>Data Link</td>
<td>4 - Place Deutsch</td>
<td>Under Right Side Cover</td>
<td>48</td>
</tr>
<tr>
<td>92</td>
<td>Tail Lamp</td>
<td>9 - Place Multilock</td>
<td>Circuit Board Under Tail Lamp Assembly</td>
<td>53</td>
</tr>
<tr>
<td>93</td>
<td>Rear Fender light harness to Circuit Board</td>
<td>9 - Place Multilock</td>
<td>Circuit Board Under Tail Lamp Assembly</td>
<td>53</td>
</tr>
<tr>
<td></td>
<td>Instrument Nacelle Switches</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>94</td>
<td>1994, 1995</td>
<td>Disconnect to Nacelle Switch Harness</td>
<td>12 - Place Multilock</td>
<td>Inside Instrument Nacelle (Under Dash)</td>
</tr>
<tr>
<td>95</td>
<td>1996, 1997</td>
<td>Nacelle Switch Harness to Speaker Switch</td>
<td>9 - Place Multilock</td>
<td>Inside Instrument Nacelle (Under Dash)</td>
</tr>
<tr>
<td>96</td>
<td>Ambient Air Temperature Sensor</td>
<td>9 - Place Multilock</td>
<td>Inside Instrument Nacelle (Under Dash)</td>
<td>54</td>
</tr>
<tr>
<td>97</td>
<td>Tech sensors</td>
<td>10 - Place Packard</td>
<td>Inside Instrument Nacelle (Back of Top Housing)</td>
<td>94</td>
</tr>
<tr>
<td>98</td>
<td>Voltmeter Lamp</td>
<td>Spade Connector</td>
<td>Inner Facia</td>
<td>-</td>
</tr>
<tr>
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<td>Voltmeter</td>
<td>Spade Connector</td>
<td>Inner Facia</td>
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<tr>
<td>100</td>
<td>Oil Pressure Gauge Lamp</td>
<td>Spade Connector</td>
<td>Inner Facia</td>
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<td>Oil Pressure Gauge</td>
<td>Spade Connector</td>
<td>Inner Facia</td>
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</tr>
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<td>Air Temperature Gauge Lamp</td>
<td>Spade Connector</td>
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<tr>
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<td>Air Temperature Gauge</td>
<td>Spade Connector</td>
<td>Inner Facia</td>
<td>-</td>
</tr>
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<td>Fuel Gauge Lamp</td>
<td>Spade Connector</td>
<td>Inner Facia</td>
<td>-</td>
</tr>
<tr>
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<td>Fuel Gauge</td>
<td>Spade Connector</td>
<td>Inner Facia</td>
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<tr>
<td>106</td>
<td>EFI 3 harness</td>
<td>Fuel Terminals</td>
<td>Fuel Block (Under Rear Side Cover)</td>
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<tr>
<td>107</td>
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<td>Fuel Terminals</td>
<td>Beneath Transmission (Right Side)</td>
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<td>Beneath Transmission (Left Side)</td>
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<td>109</td>
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<td>Relay Connector</td>
<td>Rear of Battery Box (Under Seat)</td>
<td>47</td>
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<tr>
<td>110</td>
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<td>Relay Connector</td>
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<td>111</td>
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<td>112</td>
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<tr>
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<td>Relay Connector</td>
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<td>117</td>
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<td>6 - Place Packard</td>
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<td>66</td>
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<td>119</td>
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<td>9 - Place Packard</td>
<td>Under Right Side Cover (Behind Electrical Block)</td>
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<td>9 - Place Deutsch</td>
<td>Inner Facia - Below Radio (Right Side)</td>
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</tr>
<tr>
<td>121</td>
<td>Sh</td>
<td>1 - Place Packard</td>
<td>Upper Frame Cross Member (Under Seat)</td>
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**Fuel Injected Models**

**Carbureted Models**
## Appendix B-8

### Wiring Diagrams

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<td>Handlebar Controls, Speedometer, Indicator Lamps, Tail Lamp, Passing Lamps, Directional Lamps, Fender Tip Lamps and Spot/Accessory Switches</td>
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**NOTE**

Harness Part No.'s may be included on some wiring diagrams. Use these numbers for reference only. **ALWAYS REFER TO THE PARTS CATALOG WHEN ORDERING WIRING HARNESSES.**
2004 FLHT, FLHTC, FLHTCU and FLTR, DOMESTIC and INTERNATIONAL Models, Ignition Switch, Tail Lamp, Passing Lamps, Fender Tip Lamps, Directional Lamps and Tour-Pak Lights

IGNITION SWITCH LEGEND (DOM)

SWITCH POSITION

"X" INDICATES CONTINUITY BETWEEN LEAD WIRES IN POSITION INDICATED

RED RED/GRAY
RED/BLACK

LOCK X
OFF X
IGN XXX
ACC X X

IGNITION SWITCH LEGEND (HDI)

SWITCH POSITION

"X" INDICATES CONTINUITY BETWEEN LEAD WIRES IN POSITION INDICATED

RED RED/GRAY
RED/BLACK

LOCK X
OFF X
IGN X X X
ACC X X

BLUE WIRES (RUNNING) ARE ONLY AVAILABLE ON DOMESTIC MODELS

FROM MAIN HARNESS (7A)

68772-99

FROM INTERCONNECT HARNESS (73A)

FENDER TIP LAMP (DOMESTIC ONLY)

RIGHT PURSUIT LAMP (BLUE)
POLICE ONLY

LEFT PURSUIT LAMP (RED)
POLICE ONLY

FROM INTERCONNECT HARNESS (32A)

RIGHT DIRECTIONAL AND DOM RUNNING LAMPS

LEFT DIRECTIONAL AND DOM RUNNING LAMPS

TO MAIN HARNESS (12A)

FROM MAIN HARNESS (13A)

TO MAIN HARNESS (12A)

DOM TOUR-PAK HARNESS:
FLHTC P/N 70446-00
FLHTCU P/N 70446-00

TOUR-PAK RIGHT SIDE MARKER LIGHTS

TOUR-PAK LEFT SIDE MARKER LIGHTS

HDX FLHTC AND FLHTCU MODELS DO NOT HAVE TOUR-PAK LIGHTING
TOUR-PAK NOT INCLUDED ON FLHT OR FLHTP

NOTE:
DOM FLHTC DOES NOT INCLUDE REAR MARKER/STOP LIGHTS AND ASSOCIATED WIRING

RIGHT REAR DIRECTIONAL LAMP

TAIL LAMP

RUNNING LIGHT (DOM)

RUNNING LIGHT (HDI)

LICENSE PLATE LAMP (HDI ONLY)

FENDER TIP LAMP (DOMESTIC ONLY)

LEFT REAR DIRECTIONAL LAMP

LEFT PURSUIT LAMP (RED)
POLICE ONLY

RIGHT PURSUIT LAMP (BLUE)
POLICE ONLY

FROM INTERCONNECT HARNESS (31A)

BLUE WIRES (RUNNING) ARE ONLY AVAILABLE ON DOMESTIC MODELS

1212

123456

68772-99

IGNITION SWITCH, DOM A B C D

IGNITION SWITCH, HDI A B C D

NOTE:
DOM FLHTC DOES NOT INCLUDE REAR MARKER/STOP LIGHTS AND ASSOCIATED WIRING

TOUR-PAK LEFT SIDE MARKER LIGHTS

TOUR-PAK RIGHT SIDE MARKER LIGHTS

FROM MAIN HARNESS (33A)

FROM MAIN HARNESS (33B)

FROM MAIN HARNESS (32B)

FROM MAIN HARNESS (31B)

FROM MAIN HARNESS (33A)

FROM MAIN HARNESS (33B)

FROM MAIN HARNESS (33A)

FROM MAIN HARNESS (33B)

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FROM MAIN HARNESS (33B)
2004 FLHT, FLHTC, FLHTCU and FLTR, DOMESTIC and INTERNATIONAL Models, Handlebar Controls, Indicator Lamps and Fairing Cap/Instrument Nacelle Switches
2004 FLHTC, FLHTCU and FLTR, DOMESTIC and INTERNATIONAL Models, Radio, CB/Intercom and Rear Speakers
2004 FLHR, FLHRC and FLHRS, DOMESTIC and INTERNATIONAL Models, Ignition Harness (Carbureted), Electronic Fuel Injection (EFI) Harness
2004 FLHR, FLHRC and FLHRS, DOMESTIC and INTERNATIONAL Models,
Handlebar Controls, Speedometer, Indicator Lamps, Tail Lamp, Passing Lamps, Directional Lamps, Fender Tip Lamps and Spot/Accessory Switches
NOTE: RIGHT REAR DIRECTIONAL LAMP BULB MUST BE REMOVED FROM MOTORCYCLE WHEN SIDE CAR IS INSTALLED.

SIDE CAR FRONT FENDER/TPF LAMP

SIDE CAR HARNESS P/N 70221-99

SIDE CAR DIRECTIONAL LAMP P/N 88403-98

SIDE CAR DIRECTIONAL LAMPS

SIDE CAR AMPLIFIER

SIDE CAR SPEAKER TO MOTORCYCLE AUDIO HARNES

SIDE CAR HARNESS P/N 88401-98

SIDE CAR HARNESS CONNECTOR (TS)

SIDECAR HARNESS P/N 70221-99

SIDECAR HARNESS CONNECTOR (TS)

2004 TLE, TLE-U SIDE CARS, DOMESTIC AND INTERNATIONAL Models,
Chassis and Audio Harness

B-54