



# INSTRUCTIONS

-J01422

REV. 7-13-2004

Kit Number 77184-01A

## CD CHANGER KIT

### General

This kit is designed for installation on 2000 and later FLHT, FLHTC, FLHTCI, FLHTCUI, FLTR, FLTRI and FLTRSEI Models equipped with rigid or detachable Tour-Pak Racks. (Tour-Paks with 5 mounting bolts). **NOTE:** Will not fit Chopped Tour-Paks equipped with Light Kit (Part Number 54302-98)

See Service Parts Page Illustration for kit contents.

#### NOTE

*FLTR/I models require a Tour-Pak and one of the following:*

*Rigid Tour-Pak Rack Kit Part Number 53118-98 with Antenna Relocation Kit Part Number 76329-98.*

*Detachable Tour-Pak Rack Kit Part Number 53107-96 with Antenna Relocation Kit Part Number 76326-00.*

*FLHT models equipped with Detachable Tour-Pak Rack Kit Part Number 53107-96 require Antenna Relocation Kit Part Number 76326-00.*

### WARNING

The rider's safety depends upon the correct installation of this kit. Use the appropriate service manual procedures. If the procedure is not within your capabilities or you do not have the correct tools, have a Harley-Davidson dealer perform the installation. Improper installation of this kit could result in death or serious injury. (00333a)

#### NOTE

*A Service Manual for your motorcycle is available from any Harley-Davidson dealer.*

### WARNING

To prevent accidental vehicle start-up, which could cause death or serious injury, disconnect battery cables (negative (-) cable first) before proceeding. (00307a)

### WARNING

Disconnect negative (-) battery cable first. If positive (+) cable should contact ground with negative (-) cable connected, the resulting sparks can cause a battery explosion, which could result in death or serious injury. (00049a)

### Installation

Installation of this kit involves performing the following steps:

- Mount CD Changer in Tour-Pak.
- Route and Connect CD Changer Wiring Harness.
- Assemble Left and Right Switches.
- Route and Connect Handlebar Switches.

1. Remove seat.
2. Disconnect battery cables, negative cable first.

### Mount CD Changer in Tour-Pak

3. Remove the Tour-Pak liner or rubber mat. Refer to instructions in applicable Service Manual and remove the Tour-Pak. Save all mounting hardware.
4. Lay the Tour-Pak on a bench or other suitable surface and open the lid. Remove the antenna ground wire screw and ground near the center of the plate. Save hardware. Remove two screws securing small leather pouch and remove pouch. Re-install pouch hardware.
5. FLHTCUI models: Holding Phillips screw inside Tour-Pak (right rear corner), remove flange nut at bottom to release CB loading coil bracket. Remove Phillips screw with external tooth lockwasher. Save hardware.
6. Close Tour-Pak. Turn Tour-Pak over and remove the seven flange nuts (remaining six if FLHTCUI) at the bottom. Save nuts.
7. Place Tour-Pak topside up and open lid. Reach inside and remove the metal plate pulling threaded studs from holes in bottom. Mark the plate with an arrow signifying the front (as installed).
8. Obtain the template provided with this Instruction Sheet (92099-04). Secure the metal plate in a vice or other suitable holding device. Place template over the metal plate, noting the following:
  - a. Orient template so *existing* rigid Tour-Pak (rack) mounting holes are aligned with those marked in template.
  - b. Be sure to correctly identify and mark the template drill holes specified for your Tour-Pak (i.e. King vs. Shorty Tour-Pak).
  - c. Use a punch and indent the center of the cross-hairs, then use a 1/8 inch bit to drill guide holes.
9. Using a 5/16 inch bit, drill four CD bracket mounting holes (marked and punched in previous step).

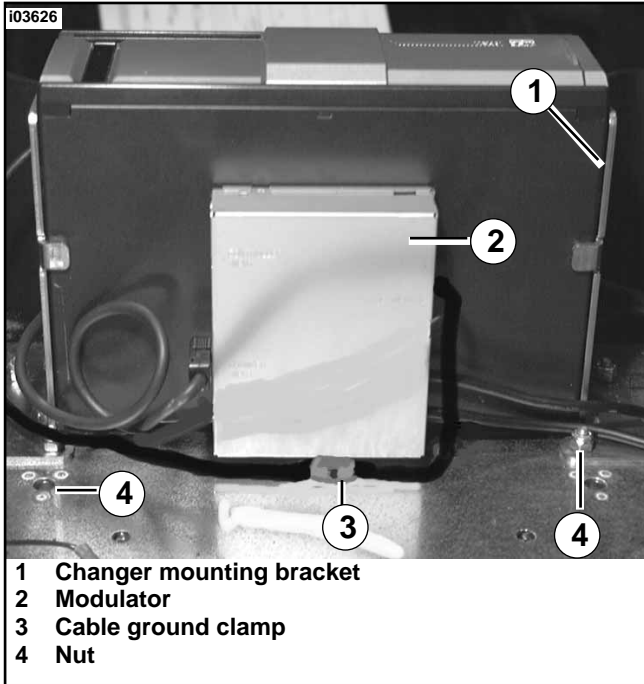
#### NOTE

*Make mark and indent hole for drilling, but do not drill antenna ground hole at this time.*

#### NOTE

*Be sure to perform Step 10 prior to installing CD changer. You will not be able to access the Front Tour-Pak mounting holes once changer has been installed.*

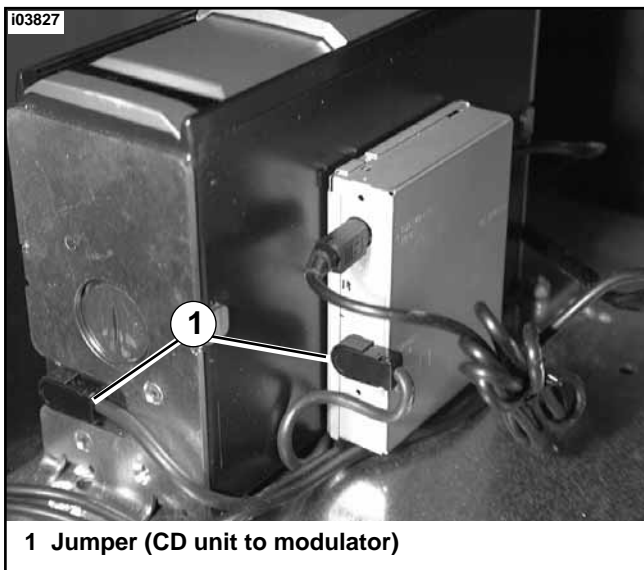
10. Obtain two of the mounting screws (removed in Step 3) and install into Front Tour-Pak Mounting Holes in plate.



- 1 Changer mounting bracket
- 2 Modulator
- 3 Cable ground clamp
- 4 Nut

**Figure 1. CD Changer Installed to Plate**

11. See Figure 1. Position the CD changer (with bracket) on the plate with modulator facing toward rear and CD connector sockets oriented to the right side of Tour-Pak.
12. See Service Parts Page Illustration. Obtain four screws (17) and locknuts (16) from kit. Align the brackets over the holes just drilled and install four screws from back of metal plate through changer mounting brackets. Install locknuts and tighten to 96-144 in-lbs (11-16 Nm).
13. See Figure 2. Disconnect and remove the Jumper from the modulator (Changer Input) to the CD Changer.
14. Remove the three buttonhead screws and lockwashers on each bracket securing CD changer to left and right changer brackets. Pull the changer up and out of the brackets. Save hardware for re-installation.
15. On all except FLTR and FLTR/I, proceed to Step 16.



- 1 Jumper (CD unit to modulator)

**Figure 2. Remove CD Changer From Brackets**

### **Install Antenna Relocation Kit (FLTR/FLTRI Only)**

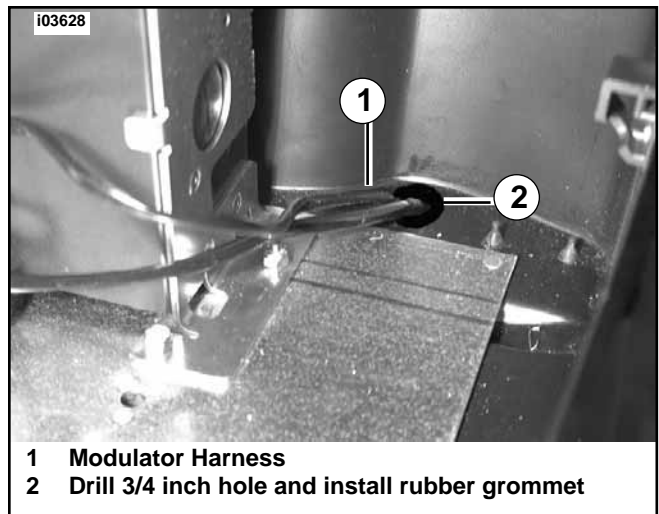
If this kit is being installed to FLTR/FLTRI, at this point, you will want to relocate the antenna. These models require that existing antenna be removed from left rear fender mount and mounted to back of Tour-Pak. Depending on whether you have a rigid or detachable Tour-Pak, the purchase of one of the following kits will be necessary.

*Antenna Relocation Kit Part Number 76329-98. (for Rigid Tour-Pak Mounting).*

*Antenna Relocation Kit Part Number 76326-00 (for Detachable Tour-Pak Mounting).*

**FLTR and FLTR/I Models:** Follow directions on Instruction Sheet packaged with Antenna Relocation Kit and relocate antenna. Proceed to Step 16.

16. Place metal plate in Tour-Pak. Re-install the seven flange nuts (six, if FLHTCU) securing the metal plate to the Tour-Pak. Re-install CB loading coil, if present, using screw and lockwasher. Follow instructions in applicable Service Manual and re-install Tour-Pak to Tour-Pak mount.
17. Obtain a #29 (.136 inch) bit. Note antenna hole location marked (but not drilled) in earlier Step. Drill hole for antenna ground wire. NOTE: You will need to drill through both the plate and Tour-Pak.
18. Position the changer within the mounting brackets and re-install the six buttonhead screws with lockwashers (3 per side) removed in Step 14. Tighten securely.
19. Refer to Figure 1. Align cable ground clamp with shielded area of antenna cable and install self-tapping screw (26) from kit to secure ground to plate. Tighten securely.
20. Follow instructions in applicable Service Manual under Deutsch Connectors (Removing/Installing Pin Terminals) and remove the three pin terminals from the Modulator Wiring Harness Connector. Save connector components for reinstallation.
21. See Figure 3 and Service Parts Illustration. Locate the "punch out" circle near the right front of the Tour-Pak. Using a 3/4 inch bit, drill a hole to be used for wire harness routing. Lightly sand to remove burrs or sharp edges. Obtain grommet (25) from kit and install to hole. Route modulator harness down through grommet and out of Tour-Pak.



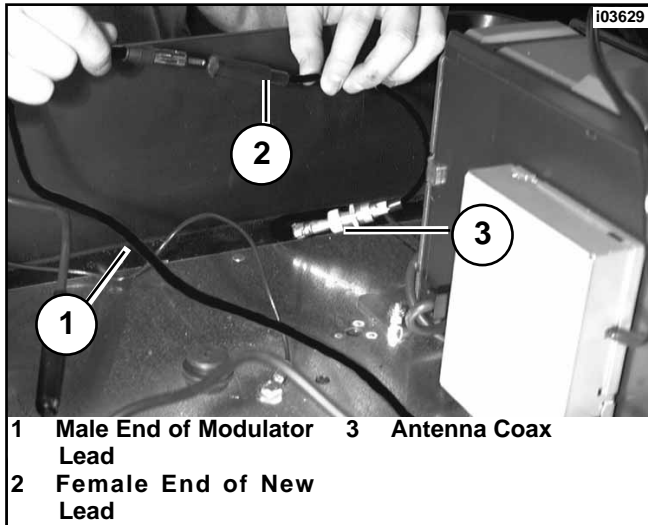
- 1 Modulator Harness
- 2 Drill 3/4 inch hole and install rubber grommet

**Figure 3. Drill Harness Routing Hole**

22. See Service Parts Page Illustration and Figure 4. Disconnect the antenna lead from the antenna base (if not already disconnected). Obtain new lead (18) from kit. Attach female end of new antenna lead to male end of lead exiting modulator box. Attach threaded (large coax) end of new lead to original antenna lead coming from radio.

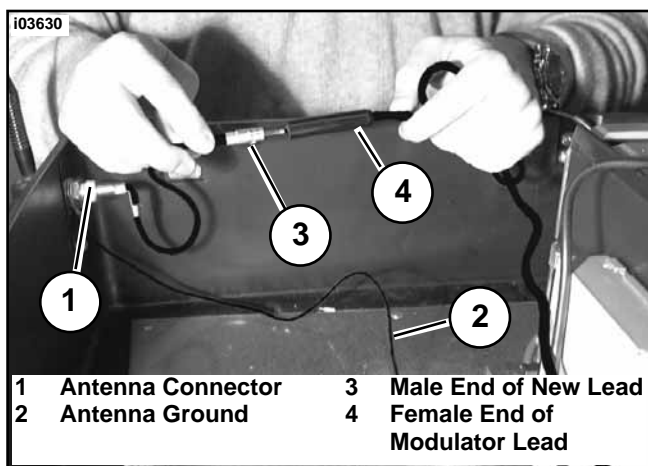
**NOTE**

On models in which Antenna Relocation Kit has been installed, it may be possible to attach coax from new lead directly to coax adapter installed to left rear fender support.



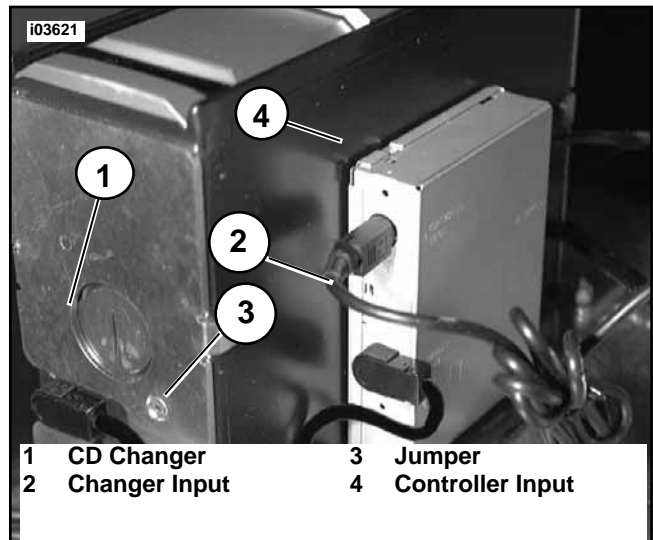
**Figure 4. Attach (Radio) Antenna and Modulator Leads**

23. See Figure 5. Obtain new Antenna Lead (19) from kit. Attach Female end of antenna lead from Modulator Box to Male end of new lead. Connect opposite end (with nut) of new lead directly to threaded antenna connector and tighten nut. Re-install antenna ground to metal plate with screw and lockwasher.



**Figure 5. Attach Antenna and Modulator Leads**

24. See Figure 6. Install Jumper connecting CD Changer to Modulator (Removed in Step 14). Connect one end of jumper to female plug-in marked "Changer Input" on modulator box. Connect other end to Female connector on lower left side of CD changer.



**Figure 6. Connect Modulator to CD Changer**

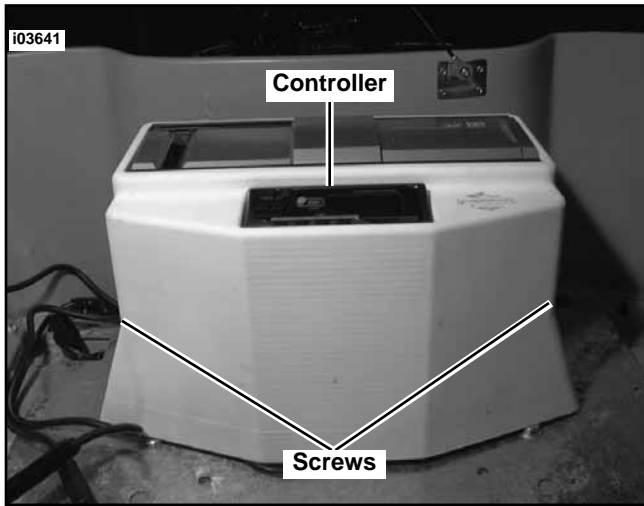
25. If Tour-Pak is equipped with liner, perform the following:
- Obtain Liner Template from kit. Note Liner Template is part of Bracket Template (used to mark holes for CD Changer Bracket) and marked with non-continuous lines.
  - Using a sharp knife, cut opening for CD changer.

**ESD Safety Precautions for CD Changer Control Unit Controller Static Discharge Procedure:**

*Prior to removing the controller from the static bag, hold the bag in one hand (barehanded) while touching a grounding point on the motorcycle with your other hand. Use any of the following ground points (negative battery post, brake disc, grounding plate in Tour-Pak, or main ground stud on frame). This will eliminate any charge that you or the bag may have developed. Be sure to ground yourself again prior to pinning out the controller connector.*

26. Refer to Figure 6 and Service Parts Page Illustration. Obtain the Tour-Pak Liner (Cut in Step 25) if applicable, the Unit Controller (21) and Changer Cover (20). Route the unit controller cables through cover and liner and connect the Male plug Controller to Female connector marked Controller Input on modulator box.
27. Route Controller 6-Pin Harness down through grommet and out of Tour-Pak.
28. Prepare and Install Tour-Pak liner by performing the following:
- Gather excess cabling and wiring together and position at corner of rear left side of Tour-Pak. Use cable ties and bundle the cables/wires as small as possible into rear left corner of Tour-Pak.
  - Position Tour-Pak Liner in Tour-Pak and align corners and sides as close to original installation as possible. Push liner down and work cutout in around CD changer.
  - Press edges of liner against original Velcro on sides to secure in place.
  - Obtain the Tour-Pak leather pouch removed in earlier Step. Attach the second Velcro Strip to pouch and to back wall of Tour-Pak (liner, if applicable). Install leather pouch.

29. See Figure 7. Slide cover over changer and align screw holes in changer cover with holes in changer brackets. Obtain screws (23) from kit and secure changer cover to changer brackets. Tighten carefully.
30. Remove Velcro Strip and adhesive protector attached to controller. Install one of the Velcro strips to secure controller in recessed area of cover (sleeve) as shown.



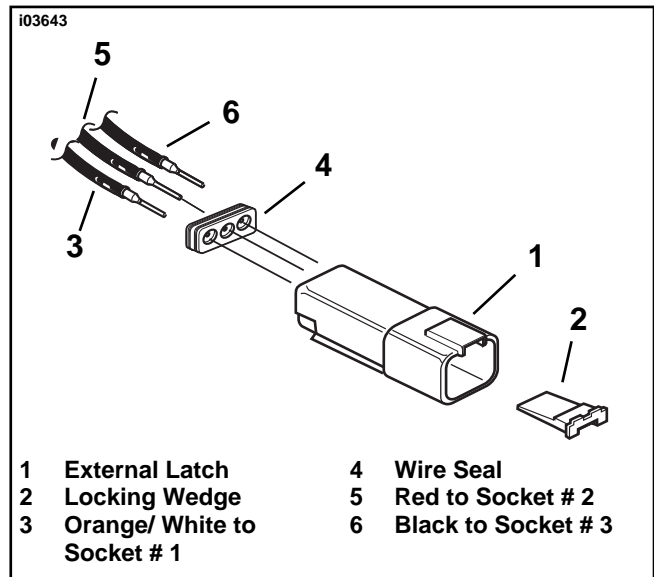
**Figure 7. Install CD Changer Cover**

### Install Modulator Harness Wiring to 3-Place Connector

31. See Figure 8. Install 3-Place Connector to 3-Pin Modulator Harness wiring by performing the following.
  - a. See Service Parts Page Illustration. Obtain 3-Place Receptacle (8) and Wedge Lock (11) from kit.
  - b. Locate the three wires (with pin terminals) on harness exiting the Tour-Pak (from Modulator). The wires will be Orange/White, Red and Black.
  - c. See Figure 8. If installed, remove the rubber wire seal from the connector.
  - d. Orient the connector with external latch facing to the right as shown and install the wire terminal pins (oriented as shown) through the wire seal.
  - e. Install the terminal pins into the connector aligning the pins with the holes and press each pin inward until a "click" is heard.
  - f. Orient the locking wedge and press until it "clicks" into place. Look down into connector to verify wedge is seated properly.
  - g. Slide wire seal up to connector and press into connector creating a seal around wiring and connector.

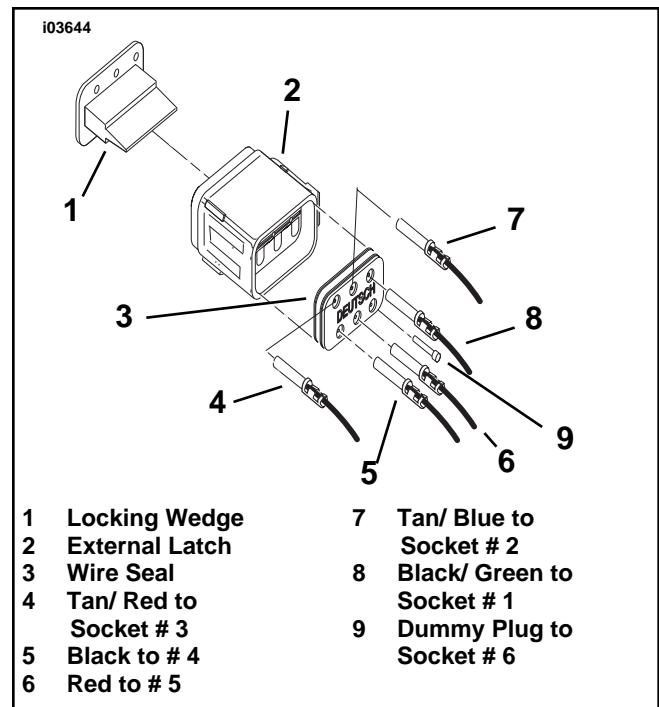
### Install Controller Harness Wiring to 6-Place Connector

32. See Figure 9. Install 6-Place Connectors to 6-Pin Controller Harness wiring by performing the following.
  - a. See Service Parts Page Illustration. Obtain the 6-Place Receptacle (10)), Wedge Lock (13) and Dummy Plug (14) from kit.
  - b. Locate the five wires (with pin terminals) on harness exiting Tour-Pak (from CD Controller). Wires will be Tan/Red, Black, Red, Black/Green and Tan/Blue.



**Figure 8. Install 3-Place Modulator Connector**

- c. See Figure 9. If installed, remove the rubber wire seal from the connector.
- d. Orient the connector with external latch facing to the right as shown and install the wire terminal pins (oriented as shown) through the wire seal.
- e. Install the terminal pins into the connector aligning the pins with the holes and press each pin inward until a "click" is heard.
- f. Orient the locking wedge and press until it "clicks" into place. Look down into connector to verify wedge is seated properly.
- g. Slide wire seal up to connector and press into connector creating a seal around wiring and connector.
- h. Install dummy plug (14) into remaining pin receptacle hole (Socket #6).



**Figure 9. Install 6-Place Controller Connector**

## Route and Connect Wiring Harness

33. Follow instructions in applicable Service Manual and partially remove fuel tank to gain access to main harness.
34. Follow instructions in applicable Service Manual and remove battery.
35. See Service Parts Page Illustration. Obtain Wiring Harness (2) from kit. Locate the end with 3 Pin and 6 Pin Deutsch connectors installed. Locate the bikes main harness running along the upper right frame tube.
36. See Figure 10. At area under the seat, connect the controller 6 Pin and Modulator 3 Pin connectors to the new wiring harness supplied with kit (Connectors installed in Steps 31 and 32) for locating purposes. Lay the CD Changer (new) harness against the frame following upper right frame tube.

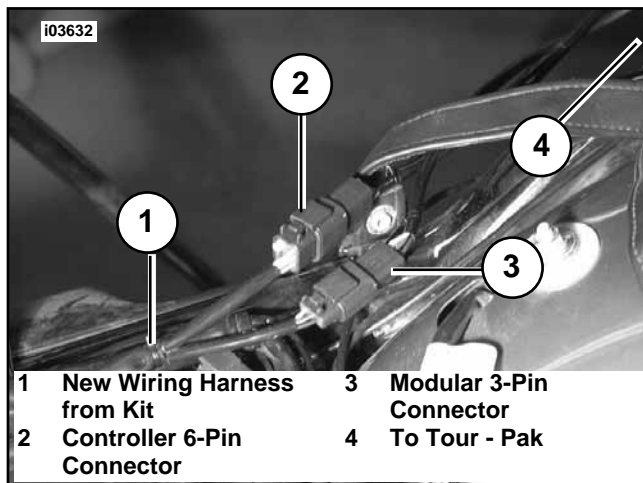


Figure 10. Connect New Wiring Harness (Under Seat) As observed from Left Side of Bike

37. See Figure 11. **2003 and Earlier.** Looking toward the front and left of battery box, locate the circuit breaker. Obtain the RED power lead (with in-line fuse) from the CD harness, cut off terminal and crimp on ring terminal. Remove nut from SILVER terminal post and connect RED power ring terminal lead to circuit breaker to SILVER terminal post. Re-install nut.

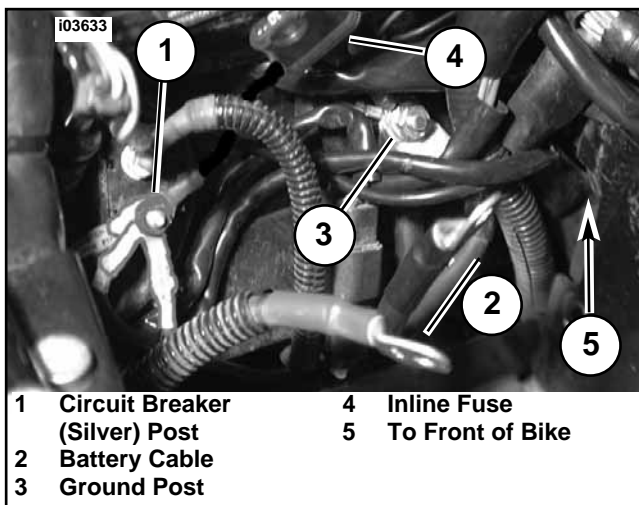


Figure 11. 2003 and Earlier Connect Power and Ground Wiring

38. Locate the ground post on the right side and remove nut. Connect the Black wire ring terminal from CD harness to ground post. Re-install nut.
39. See Figure 12. **2004 and Later.** Looking toward right front and right of battery box, locate B+ connector. Obtain the RED power lead (with fuse in-line) from the CD harness, attach the electrical terminal and crimp to end of Red power lead. Insert terminal end into blank B+ connector end.
40. Locate the ground post on the right side in front of battery. Look thru square hole in frame backbone and remove ground post nut. Connect the Black wire ring terminal from CD harness to ground post. Re-install nut.

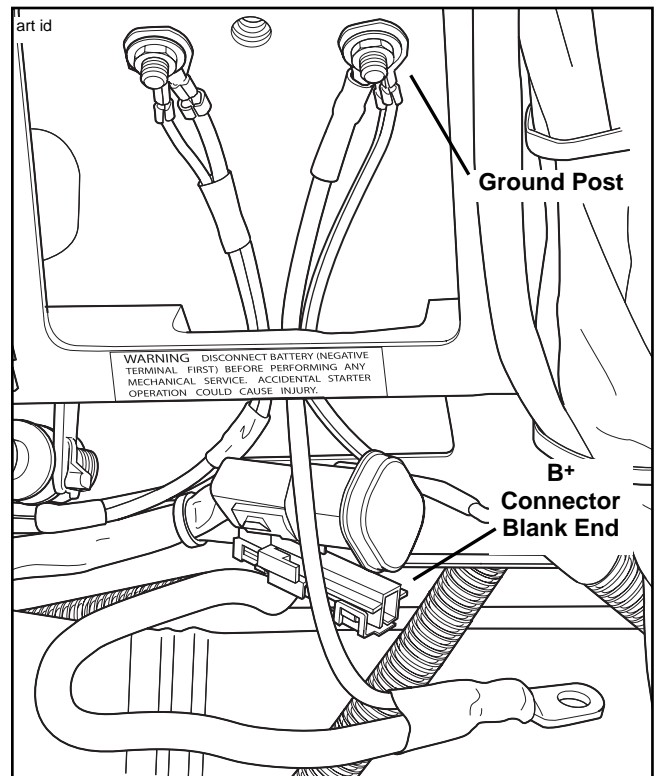


Figure 12. 2004 and Later Power B+ Connector and Ground Wire location

41. See Figure 13. Continue routing harness up under fuel tank toward forks.

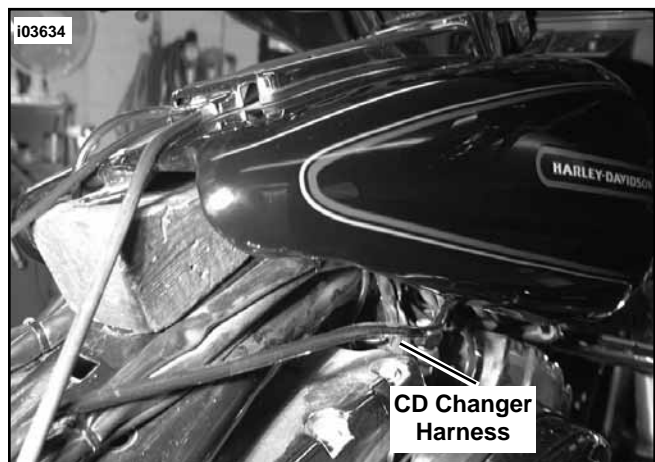


Figure 13. Harness Routing

42. Follow instructions in applicable Service Manual and remove the outer fairing.
43. Locate the cigarette lighter and disconnect the orange/white wire socket terminal from the spade contact on the lighter.

**NOTE**

When routing the orange/white wire in the following steps, follow the main harness as closely as possible and use the existing harness wire ties and frame clamps (slip orange/white wire through) wherever possible to secure next to harness conduit.

44. Route the orange/white wire along main harness and:
  - On **FLTR models**, continue through fairing mounting bracket tunnel, and around to cigarette lighter.
  - On **FLHT models**, continue under inner fairing, behind instruments, and around to cigarette lighter.
45. Connect the orange/white wire socket terminal to the cigarette lighter spade contact. Connect the original orange cigarette lighter socket terminal to the “piggyback” spade terminal (attached to red wire terminal).

**Assemble Left and Right Switches**

**NOTE**

Keep in mind during the following Steps, that the switch consisting of two leads is for controlling the Power ON/OFF and will be attached to the right handlebar. The switch consisting of three leads is used for controlling the CD Track and Disc Advance and will be installed to the left handlebar.

46. See Figure 14 and Service Parts Page Illustration. Obtain one of the Switch Assembly Packages and one of the handlebar clamps (3) from kit.
47. Insert switch (4 or 5) into handlebar clamp with tabbed side oriented as shown.
48. See Figure 14. Insert the escutcheon into the handlebar clamp lining it up with the switch. Push inward, while holding switch in place, until tabs snap cleanly to switch securing switch in place.
49. Install speednut (center tabs facing upward) over switch pin collar and simultaneously press on ears until the speednut seats over switch pin collar.
50. See Figure 14 Position actuator so it will read correctly when installed. Align the two small pins on the actuator with the two small holes in actuator tabs and gently press until the actuator snaps into place.
51. Perform Steps 46 through 50 for the opposite switch assembly.

**NOTE**

In Steps 52 through 59 you will be removing the left and right handlebar clamps and replacing them with the new Switch Assemblies.

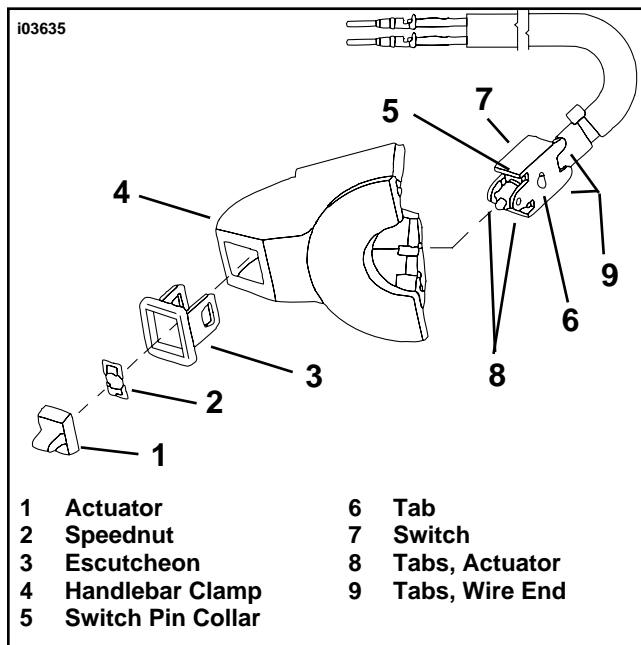


Figure 14. Switch Assembly Components

**Remove Right Handlebar Clamp**

**CAUTION**

Do not remove the switch housing assembly without first placing a 5/32 inch (4 mm) thick cardboard insert between the brake lever and lever bracket. Removing the assembly without the insert in place may result in damage to the rubber boot and plunger of the front stoplight switch.

52. See Figure 15. Place the cardboard insert between the brake lever and brake lever bracket.

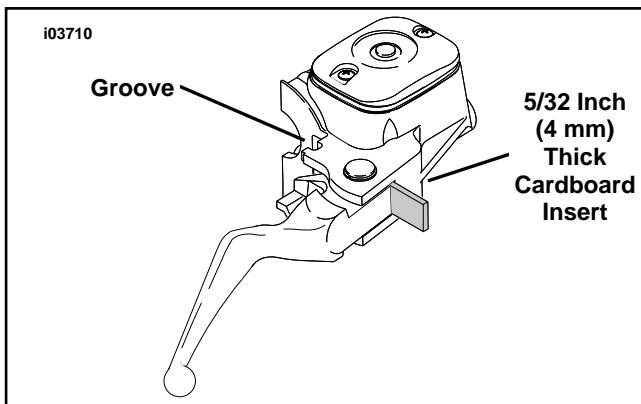


Figure 15. Install Cardboard Insert

53. Using a T27 TORX® drive head, remove the two screws with flat washers securing the handlebar clamp to the master cylinder housing and remove the clamp. Discard the clamp and two screws but save the flatwashers for re-installation. Leave master cylinder housing in place on handlebar for now.

## Remove Left Handlebar Clamp

54. Using a T27 TORX drive head, remove the two screws with flat washers securing the left handlebar clamp to the clutch lever bracket and remove the clamp. Discard the clamp and two screws but save the flatwashers for re-installation. Leave the clutch lever bracket in place on handlebar for now.

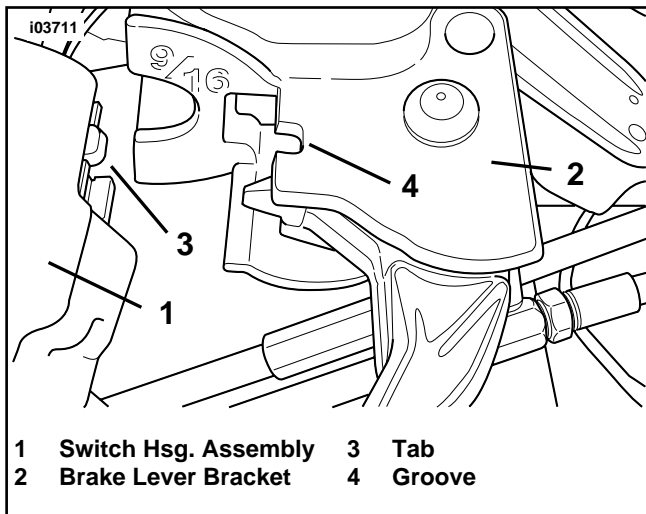
## Install Right Handlebar Switch Housing

55. See Parts Illustration. Obtain the right switch assembly (marked ON/OFF), chrome housing clamp (3) and two 1-5/8 inch long button head screws (17) from kit. Also obtain the flatwasher saved from Step 53.

### CAUTION

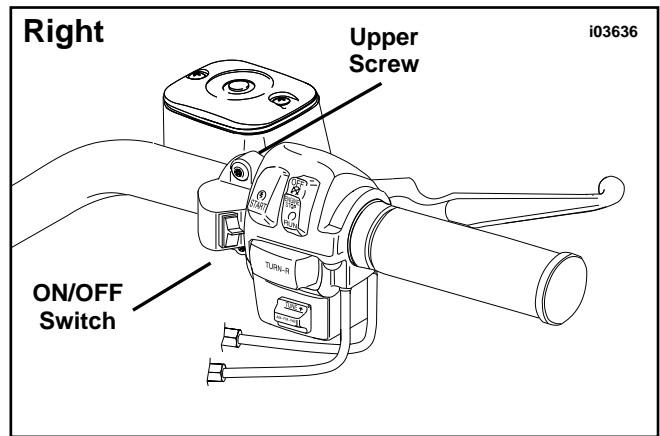
**Do not remove the switch housing assembly without first placing a 5/32 inch (4 mm) thick cardboard insert between the brake lever and lever bracket. Removing the assembly without the insert in place may result in damage to the rubber boot and plunger of the front stoplight switch.**

56. See Figure 16. Position the brake lever/master cylinder assembly inboard of the switch housing assembly, engaging the tab on the lower switch housing in the groove at the top of the brake lever bracket.



**Figure 16. Fit Brake Lever/Master Cylinder to Right Handlebar Switch Housings**

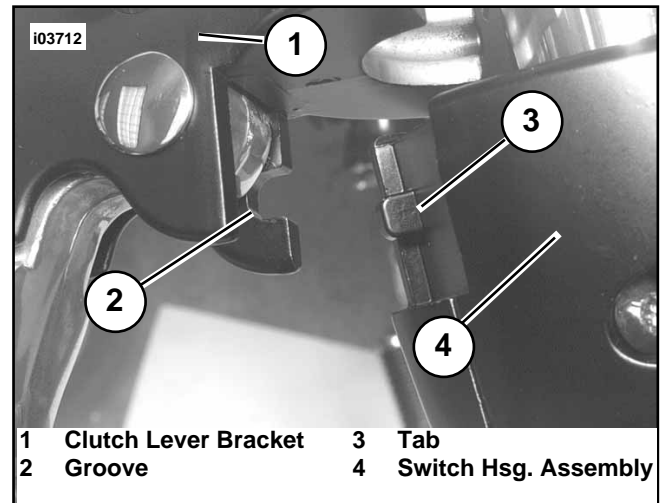
57. See Figure 17. Align the holes in the switch housing clamp with those in the master cylinder housing and start the two screws (with flatwashers). Beginning with top screw, tighten the screws to 60-80 in-lbs (7-9 Nm), using a T27 TORX drive head.



**Figure 17. Install Right Switch Assembly**

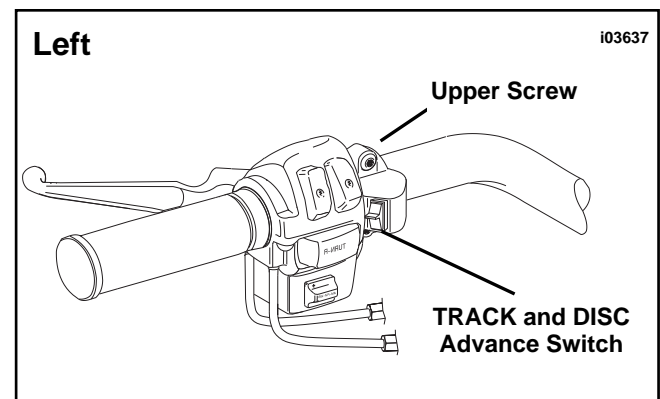
## Install Left Handlebar Switch Housing

58. See Figure 18. On the left side, position the clutch hand lever assembly inboard of the switch housing assembly, engaging the tab on the lower switch housing in the groove at the bottom of the clutch lever bracket.



**Figure 18. Fit Clutch Lever Bracket to Left Handlebar Switch Housings**

59. See Figure 19 and Service Parts Illustration. Obtain chrome housing clamp (3) screws (17) and flatwasher saved in Step 54. Align holes in switch housing clamp with those in the clutch lever bracket and start the two screws (with flatwashers). Beginning with the upper screw, tighten the screws to 60-80 in-lbs (7-9 Nm) using a T27 TORX drive head.



**Figure 19. Install Left Switch Assembly**

## Route/Connect Handlebar Switch Wiring

### NOTE

Wire Routing and connection is different for FLTR models than FLHT. Follow instructions for your particular model.

60. Route and connect switch wiring as follows:

### FLTR Models:

- See Figure 20. Using a T25 TORX® drive head, remove the screws on left and right of side of instrument bezel.
- Use thumbs to push tab at rear of bezel from slot above ignition switch. Gently raise free side of bezel until tabs at front of instrument nacelle become disengaged from slot at front of bezel (concealed behind decorative adhesive strip).
- Support instrument cluster and temporarily lay to the side.
- Route the ON/OFF switch down along right handlebar and up to instrument area.
- Locate and pull up the changer harness wiring routed in earlier step through the fairing mounting bracket tunnel.
- See Service Parts Illustration. Follow instructions under "Installing 2-Place Switch Deutsch Connector" on the following page and install the 2 ON/OFF switch wire pins to the male connector (9). Install Wedgelock (12)
- Repeat Steps a through f for the Track and Disc Advance Switch and three pin connector (8). Install Wedgelock (11)
- Connect the male and female halves of the ON/OFF and Track and Disc Advance connectors and tuck wiring up under instruments. Use wire ties (22) to secure wiring in place.
- Insert tab at rear of bezel into slot of instrument nacelle. Holding left and right sides of nacelle together, place bezel over instrument nacelle flange. When properly mated, tabs at front of instrument nacelle engage lip in slot at front of bezel (behind decorative adhesive strip). Install two bezel screws and tighten securely.

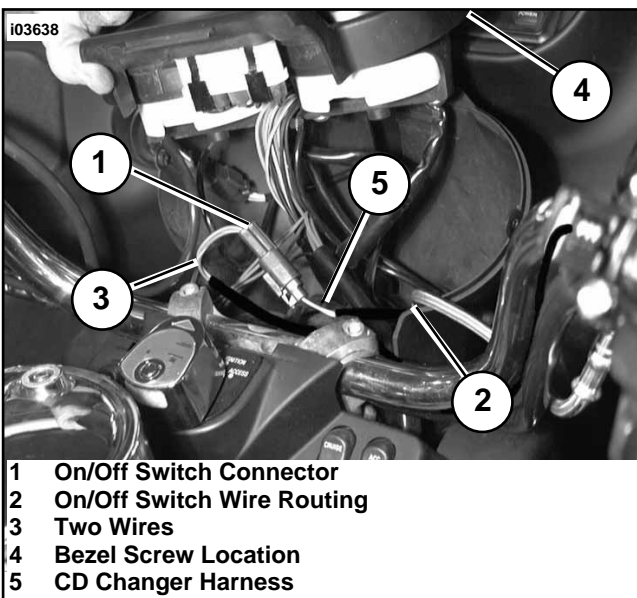


Figure 20. FLTR Wire Routing

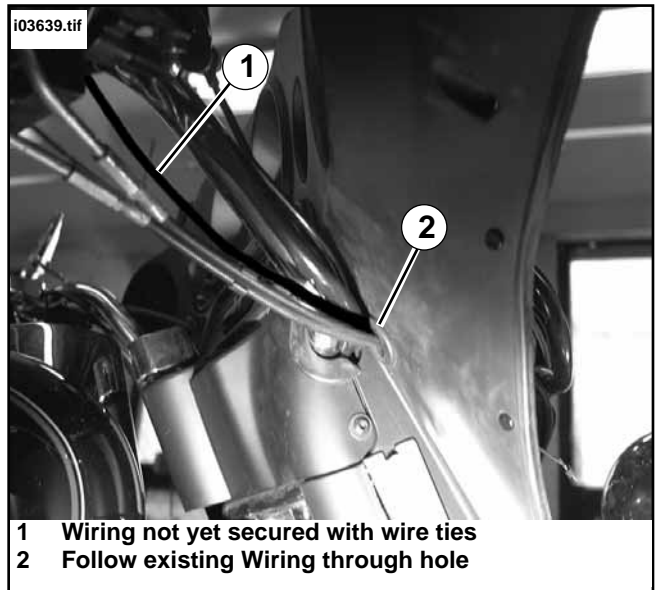


Figure 21. FLHT Wire Routing

### FLHT Models:

- See Figure 21. Route the ON/OFF switch wiring following right handlebar, existing switch wiring and brake line down through hole near fork tube, then out through front of inner fairing.
- From front of fairing, locate changer harness routed under fairing in earlier Step.
- See Figure 22. Follow instructions under "Installing 3-Place Switch Deutsch Connector" on the following page and install the TRACK/DISC switch 3-wire pins to the connector (9). Install Wedgelock (12).
- Repeat Steps a through c for the Track and Disc Advance Switch and three pin connector (8). Install wedge lock (11).
- See Figure 22. Connect the male and female halves of the ON/OFF and Track and Disc Advance connectors. Use wire ties (22) to secure wires in place and tuck in around instrument wiring.

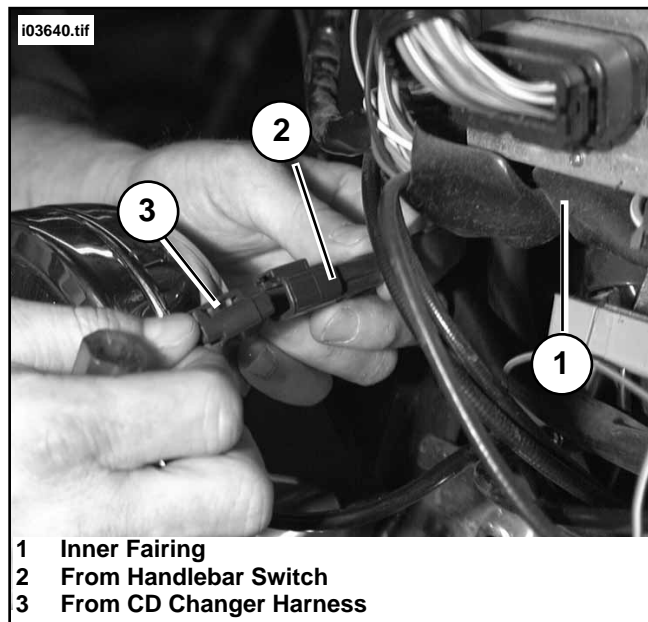


Figure 22. Connect Switch to Harness



**WARNING**

Connect positive (+) battery cable first. If positive (+) cable should contact ground with negative (-) cable connected, the resulting sparks can cause a battery explosion, which could result in death or serious injury. (00068a)

- 61. Reconnect battery, positive cable first.
- 62. Install seat.

**WARNING**

After installing seat, pull upward on front of seat to be sure it is in locked position. While riding, a loose seat can shift causing loss of control, which could result in death or serious injury. (00070a)

- 63. See Service Parts Illustration. Obtain remaining wire ties (22) from kit. Following complete path of CD changer harness, install tie straps to cleanly secure harness to frame. Install tie straps to secure switch wires routed along handlebars.
- 64. Follow instructions in applicable Service Manual and re-install outer fairing.
- 65. Follow instructions in applicable Service Manual and re-install fuel tank.

### Installing Handlebar Switch Connectors

#### Install Two-Place Connector (ON/OFF Switch)

- 1. See Service Parts Illustration. Obtain the 2-Place Receptacle (9) and Wedge Lock (12) from kit.
- 2. Locate CD ON/OFF Switch wires (with pins). Wire colors will be Black and Red.
- 3. See Figure 23. Remove the rubber wire seal from the connector.

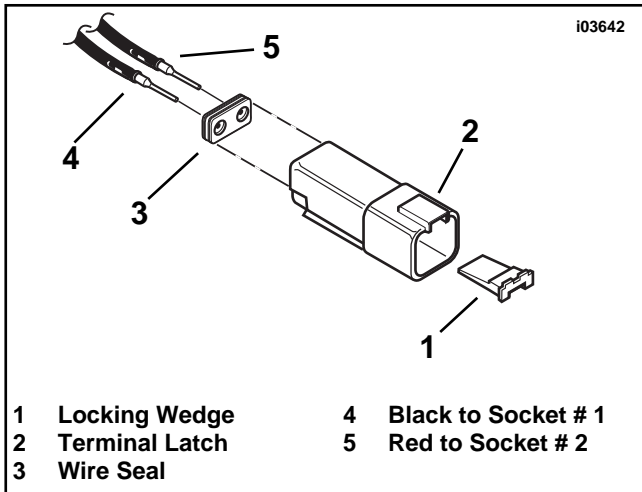


Figure 23. Install 2-Pin ON/OFF Switch Connector

- 4. Orient the connector with external latch facing upward as shown and install the pin terminals (oriented as shown) through the wire seal.
- 5. Install the pins into the connector aligning the pins with holes and press each until a "click" is heard.
- 6. Orient the locking wedge and press until it "clicks" inside connector.
- 7. Slide wire seal up to connector and press into connector creating a seal around wiring and connector.

#### Install Three-Place Connector (TRACK/DISC Switch)

- 1. See Service Parts Page Illustration. Obtain the 3-Place Receptacle (8) and Wedge Lock (11) from kit.
- 2. Locate the Track and Disc Advance Switch wires (three with pins). Wire colors will be Blk/Grn, Tan/Blu and Tan/Red.
- 3. See Figure 24. Remove the rubber wire seal from the connector.
- 4. Orient the connector with external latch facing upward as shown and install the pin terminals (oriented as shown) through the wire seal.

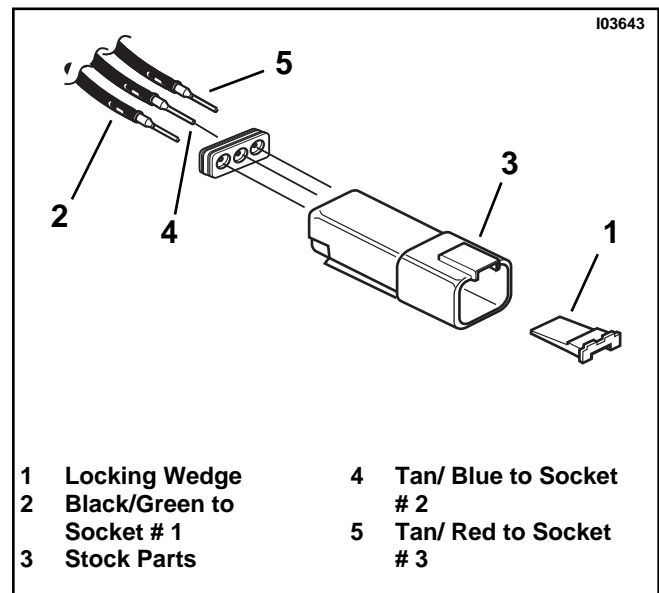


Figure 24. Install 3-Pin TRACK/DISC Advance Connector

- 5. Install the pins into the connector aligning the pins with the holes and press each until a "click" is heard.
- 6. Orient the locking wedge and press until it "clicks" into place. Look down into connector to verify wedge is seated.
- 7. Slide wire seal up to connector and press into connector creating a seal around wiring and connector.

**IMPORTANT**  
**PRIOR TO OPERATING THE UNIT, CAREFULLY READ THE SECTIONS COVERING BASIC OPERATION AND GENERAL INFORMATION AND SPECIFICATIONS**



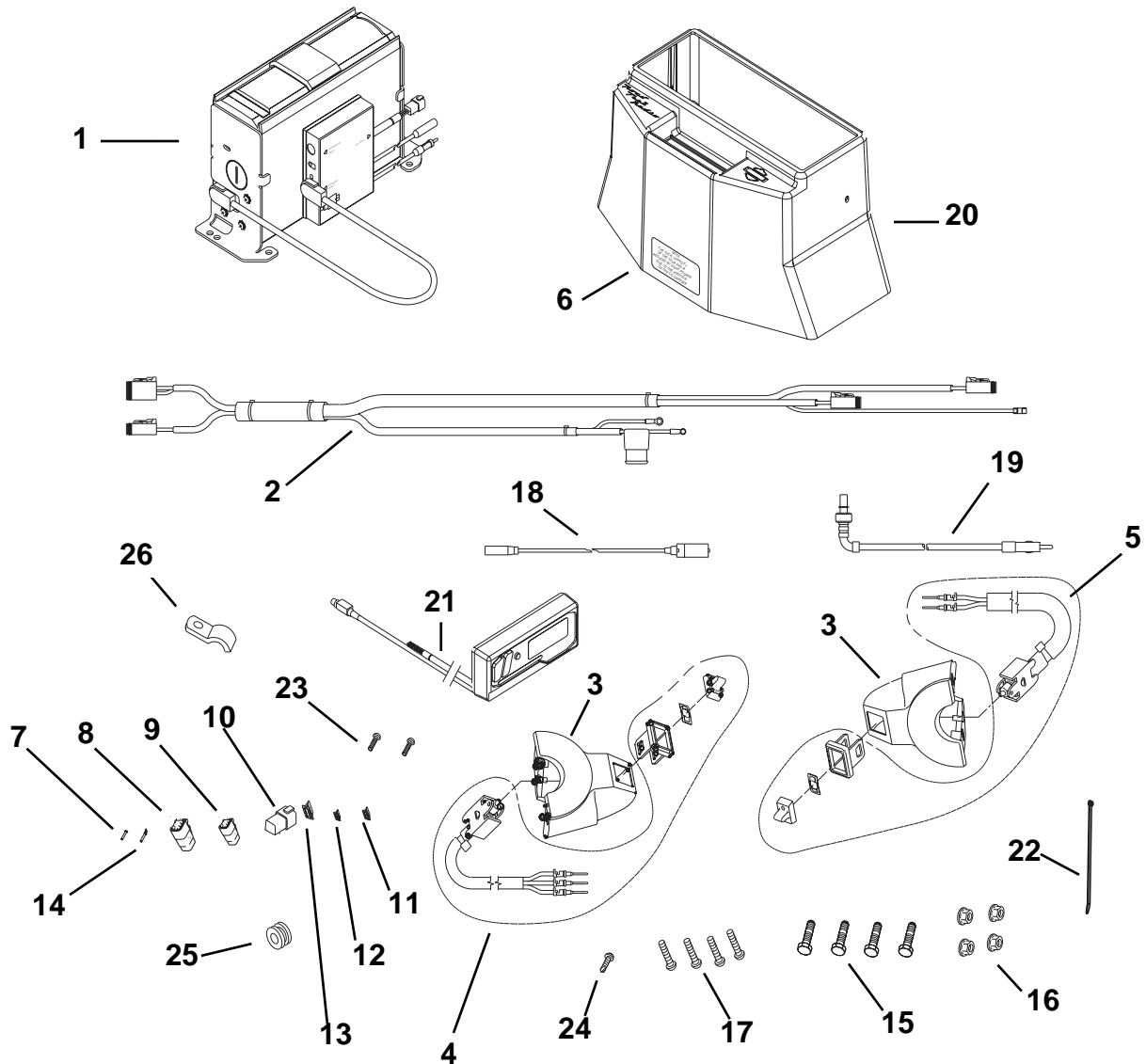
# Service Parts

Part No. 77184-01

Date 7/04

CD Changer Kit

i03645a



Item	Description	Part Number	Item	Description	Part Number
1	Changer, assy and modulator, brackets, 6 screws and jumper	See NOTE	14	Plug, receptacle dummy	74195-98
2	Harness, cd w/in-line fuse	77012-04	15	Bolt, hex head 1/4-20x1 inch (4)	3483
3	Housing, switch, chrome (2)	45048-95	16	Nut, lock hex 1/4-20 (4)	7686
4	Assy, switch, 2-way (left)	77185-01	17	Screw, TORX® 1/4-20x5/8 inch (4)	4033
5	Assy, switch, 1-way (right)	77186-01	18	Cable, (female end, coax end)	77006-01
6	Decal, load capacity	90001-01	19	Cable, antenna (pin end, ant plug)	77005-01
7	Terminal, pin	74190-98	20	Assy, sleeve, cd changer	77187-01
8	Connector, receptacle (3-pin) (2)	74103-98BK	21	Controller assembly, cd changer	77008-01
9	Connector, receptacle (2-pin)	74102-98BK	22	Tie, wire (10)	10065
10	Connector, receptacle (6-pin)	74106-98BK	23	Screw, changer sleeve (2)	77011-01
11	Wedge lock (3-pin) (2)	74143-98	24	Screw, self tapping ground	3529
12	Wedge lock (2-pin)	74142-98	25	Grommet	11507
13	Wedge lock (6-pin)	74146-98	26	Clamp, cable ground	77014-01
				Velcro, 3" 3/4 width (2) (not shown)	
				Template (not shown)	92099-04

**NOTE:** Service to Changer and/or Modulator must be performed by RSI.  
 Radio Sound Inc. 1713 Cobalt Drive  
 Louisville, Kentucky 40299  
 Phone (502) 267-6768 or 800-367-4506 Fax (502) 267-6794

# BASIC OPERATION

## TO LOAD MAGAZINE

CD Magazine holds twelve 5 inch (12 cm) CD discs.

1. See Figure 1. Slide the disc tray partly out from the magazine until it stops.
2. Place a CD on the disc tray with the label side UP.

### NOTE

Don't touch the recorded surface of the CD (shiny side opposite to the label) when handling CD's.

3. Align the disc tray with the grooves in the magazine, and push the disc tray all the way in, until the tray "clicks". Repeat Steps 1 through 3 for the remaining 11 disc trays.

### NOTE

Check that disc tray is securely inserted into the magazine. If the CD becomes disengaged from the disc tray, reposition it on the tray.

### NOTE

When there is no disc in the disc magazine of the CD automatic changer or when the disc is inserted into the tray upside down, "NO DISC" will be shown in controller display. In such case, remove the disc magazine from the CD changer and reload the discs correctly.

## TO INSERT MAGAZINE

1. Slide the CD Changer cover toward the left side of the motorcycle to open.
2. See Figure 1. Insert the CD Magazine into the CD Changer loading slot with the disc tray tabs facing the right side of the motorcycle and the Turquoise Arrowhead on the CD Magazine facing DOWN (toward bottom of Tour-Pak) and forward.
3. Slide the CD Changer access cover toward the right side of the motorcycle to close.

### NOTE

The CD Changer access door covering the loading slot must be kept closed except when changing the magazine.

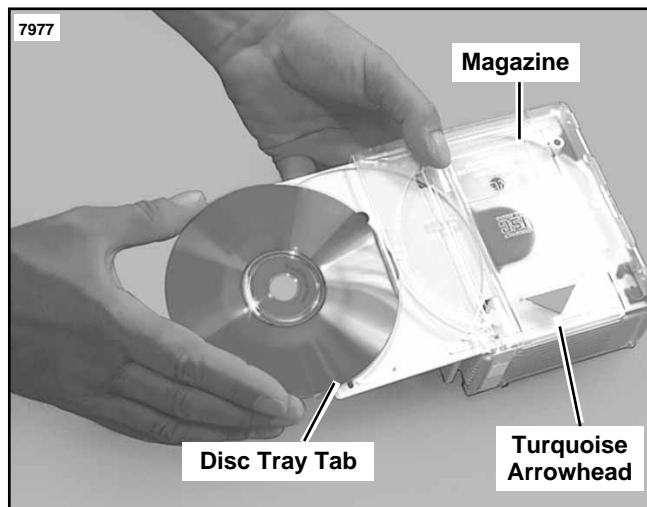


Figure 1. Loading Magazine

## MAGAZINE REMOVAL

1. Open the Tour-Pak lid.
2. Slide the CD Changer cover toward the left side of the motorcycle to expose the EJECT pushbutton.
3. Push the EJECT button and the magazine ejects from the loading slot. Remove the CD Magazine.

### NOTE

Holding in the EJECT button for a few seconds will reset the CD changer Memory Program. This is generally not desired.

## CAUTION

The CD changer uses invisible laser radiation and is equipped with safety switches which prevent laser radiation emission when unloading the CD magazine and the safety interlocks have failed or are defeated. Avoid direct exposure to the laser beam. Do not open the top cover to the CD changer. There are no user Service-able parts inside. Have the CD changer serviced by a qualified technician. Failure to have the CD changer serviced by a qualified service technician could result in death or serious injury.

## DISC SELECTION TO CD CHANGER MEMORY

There are openings in the bottom of the disc trays through which the CD changer senses if a disc is in a particular way.

When the magazine has been inserted into the CD changer, the CD memory will be erased. The CD changer will search all twelve trays (starting with #1) for a tray containing a disc. If a disc is found in a tray, the CD changer will play the disc, and "remember" which numbered tray the disc is in.

When the disc is finished playing or the CD button is pushed on the left handlebar, the CD changer will then search for the next tray containing a disc (after a slight pause on trays not containing discs). Upon finding a disc in a tray, the CD changer will play and again, "remember" the tray. This process will continue until all twelve trays are searched.

After the CD changer searches the twelfth tray for a disc or the compact disc in the twelfth tray has finished playing, the CD changer returns to the beginning of the magazine and starts playing the first CD disc "remembered" from the first pass through the trays containing discs.

### NOTE

The CD changer will "remember" trays which contain discs, even when the IGNITION switch or CD controller has been turned OFF.

When the magazine is removed, the CD changer memory is lost. When the magazine is re-installed, the first pass search for trays with discs will be repeated. The CD changer will "remember" which trays have discs and which trays are empty and will only access those with discs in them.

## TO START CD PLAYBACK

### NOTE

Refer to the Illustrations on the following page.

### WARNING

**Do not attempt to operate the CD controller or remove the CD Magazine from CD changer (both located in Tour-Pak) while riding. Attempting to operate either the CD controller or removing the CD magazine while riding can lead to loss of control of vehicle resulting in death or serious injury.**

### NOTE

Refer to Premium Sound System or Operators Manual for Radio Operation

**TURN THE MAIN UNIT (in Tour-Pak) POWER ON.**

**PRESS THE RIGHT HANDLEBAR OR CONTROLLER (in Tour-Pak) ON/OFF SWITCH TO ON.**

The display window lights (on controller).

### NOTE

The CD changer will select the first tray in the magazine which contains a disc and start playing after approximately 10-15 seconds.

CD play starts when the disc number and track number indicators light (on main unit).

### NOTE

When the CD Magazine is initially installed into the changer, the changer will cycle through the stack until the first disc is recognized. Once the changer recognizes a slot without a CD, the changer will not cycle through that slot until the magazine is ejected and re-installed.

**TUNE THE FM RECEIVER TO PRE-SET FREQUENCY (For Domestic Models, this will be 88.1 MHz).**

If an FM station happens to be broadcasting at this frequency, refer to "Changing the RF Level Output and Frequency" under General Information and Specifications.

## ADJUSTING THE VOLUME

Adjust the volume of the bikes receiver (radio) with the Audio Control Switch on the left handlebar switch assembly. Push the Audio Control Switch UP (+) to raise the volume, DOWN (-) to lower the volume. Volume level will be displayed on the receiver display.

If the volume when playing CD's is different than the volume when playing the radio with the CD off, refer to "Changing the RF Level Output and Frequency" under General Information and Specification.

## TO STOP CD PLAYBACK.

Press the right handlebar ON/OFF switch.

## TO SELECT TRACK OR DISC

### NOTE

When all tunes on the first disc have been played, the second disc starts automatically from the first tuned.

During playback, press the TRK select button on the left handlebar down to advance to the next track.

During playback, press the DSC select button on the left handlebar up to advance to the next available disc.

During disc selection, the disc number and track number indicators blink (on the controller unit).

## REPEAT PLAYBACK

### NOTE

To set changer for Repeat Playback, Random Playback, Intro-scan or to turn the BBE on/off, the controller must be accessed.

Press the RPT button before playback. It is possible to perform the repeat playback of single tune or all tunes of one disc in the magazine. Each time the RPT button is pressed, the repeat mode changes as follows:

### Single tune repeat

The current or specified tune will be played back repeatedly.

### All turn repeat

All tunes on the current or specified CD will be played back repeatedly.

## INTRO SCAN OPERATIONS

Use these functions to play back the first 15 seconds of tracks. With intro scan operations, either the first 15 seconds of all tracks of all discs in the magazine are intro-scanned, or just the first track of all discs in the magazine. Each time the INT button is pressed, the mode changes from TRACK scan (for all tracks) to DISC scan (for the first tracks of each disc) to clear.

### Track Scan: (Track number blinks)

All tracks on all discs in the magazine are intro-scanned. When the required track is located, press the INT button two times to enter normal mode.

### Disc Scan: (Disc number blinks)

Only the first tracks on all discs in the magazine are intro-scanned. When the required disc is located, press the INT button once to enter normal play mode.

## BBE

Press the BBE button to turn BBE circuit ON/OFF (Refer to BBE Circuit under General Information and Specifications for more information).

## RANDOM PLAYBACK

Each time the RND button is pressed, the mode is changed from the RND mode to the \RND/ mode to the clear mode, in this order.

### RND:

Plays all tunes on the disc currently being played back in random order.

### \RND/:

Randomly play all the tunes on all the discs in the magazine.

**TO LISTEN TO THE RADIO (OR TAPE) AFTER PLAYING COMPACT DISC:**

Press the ON/OFF button on the right handlebar to switch the power OFF.

Tune to the desired radio station (or play cassette tape).

**NOTE**

*Lower the volume level before stopping disc playback, otherwise noise may be generated.*

**Magazine and Disc Handling**

Do not carry the magazine with its inserting slot facing down. The CD's can drop out and be damaged.

Always keep the twelve disc trays loaded in the magazine.

When sliding the disc trays out or in to place CD's, hold the magazine horizontally so as not to drop the CD's.

Do not try to insert CD's without first pulling out the disc tray from the magazine. Never place CD's directly into the magazine.

Do not disassemble the magazine.

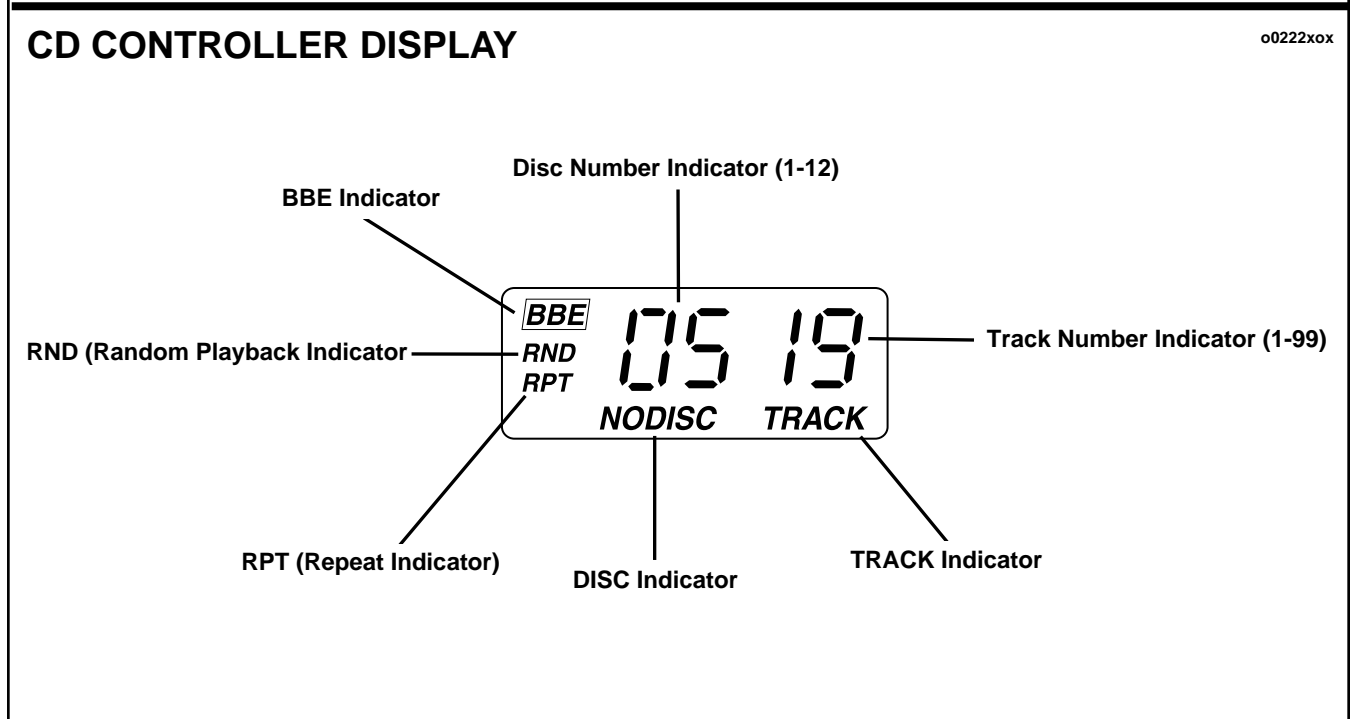
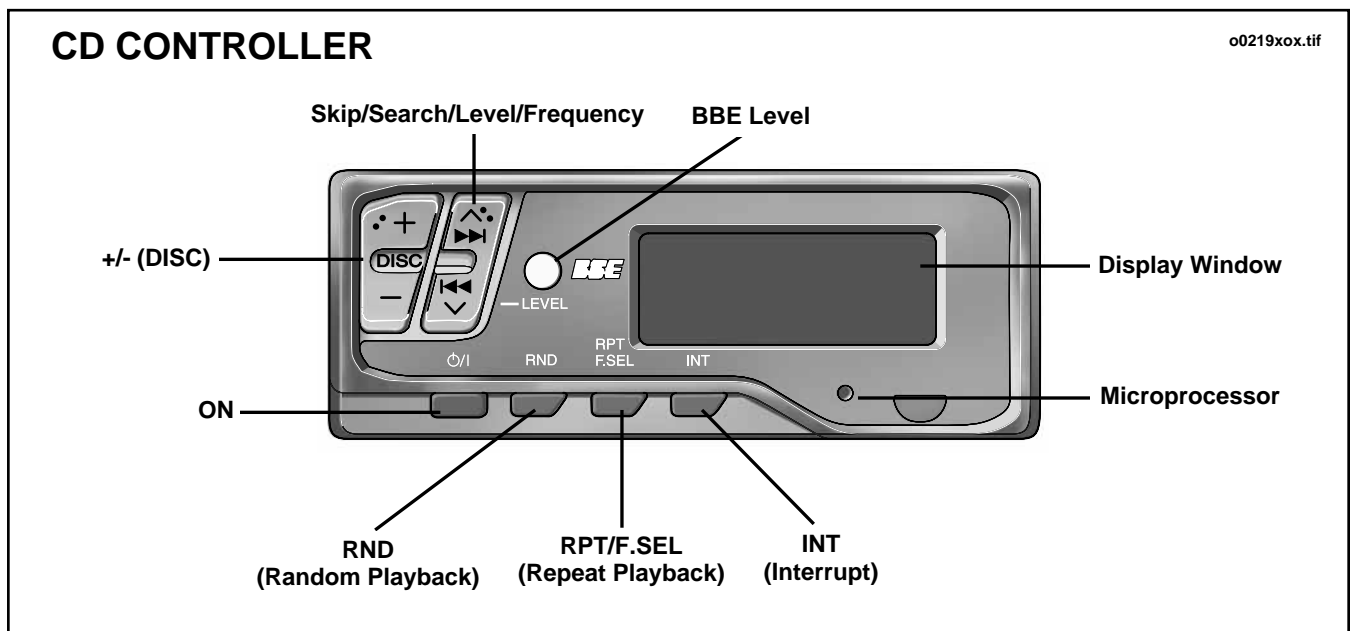
Take care not to drop or hit the magazines. Do not apply excessive pressure to the disc trays which have been removed from the magazines.

Never apply solvents such as benzene or thinner to the magazine or trays. These solvents may erode their surfaces.

**CD Storage**

Make sure to keep CD's in their cases.

Do not put CD's where they will be exposed to sunlight or in a place subject to high temperatures and humidity. Avoid leaving CD's in your motorcycle.



# GENERAL INFORMATION AND SPECIFICATIONS

## ELECTRICAL REQUIREMENTS

This unit is designed to operate with 12 volts DC, negative ground electrical system.

## PRECAUTIONS

Always disconnect the negative battery cable prior to making connections to prevent short circuits from occurring.

## FUNCTIONS

### CD Changer

The CD Changer accepts serial data from the CD Controller via the RF Modulator to execute the changer functions, which include Track, Disc and Power.

The CD Changer is a player/changer that holds the CD Magazine. The magazine capacity is 12 CD's.

The EJECT button will eject the CD magazine from the changer.

The CD Changer outputs a low-level audio that is routed via the RF Modulator to the radio for amplification.

The CD Changer also contains the low-level audio buffer that helps the CD player to avoid skipping.

### Full Floating Isolation

The CD Changer is mounted to absorb normal vibration when riding. Mistracking may occur when riding on an extremely rough road. The CD Changer will not be damaged by mistracking, however since it is offensive to the ear, stop playback and restart the CD Changer when you reach a road in good condition.

### Auto CD Acknowledge

When the CD Magazine is initially installed into the changer, the changer will cycle through the stack until the first CD disc is recognized. Once the changer recognizes a slot without a CD, the changer will not cycle through that slot until the magazine is ejected and reinstalled.

### BBE Circuit

Press the BBE button to turn BBE circuit ON/OFF.

The BBE system restores the brilliance and clarity of the original live sound in recordings, broadcasts, etc.

When a speaker reproduces sound, it introduces frequency-dependent phase shifting, causing high-frequency sounds to take longer to reach the ear than low frequency sounds. The BBE circuit adjusts the phase relationship between the low, mid and high frequencies so they reach the listener's ears at the proper time.

In addition, using dynamic, program-driven augmentation, the BBE circuit boosts low and high frequencies which loudspeakers tend to be less efficient in reproducing. When combined with the phase compensation feature, the resulting sound has cleaner, more finely detailed "live" presence.

## Handlebar Controls

Allows rider input to the Controller for CD ON/OFF and Track and Disc advance.

## DIN Cable

Short cable between the CD changer and Modulator that transfers power, serial data and audio.

## Controller

Converts signal from handlebar control to serial data for controlling Track, Disc and Power.

Displays Disc and Track Information as well as other CD functions only executable from the the controller.

## FM Modulator

The modulator converts the line out from the CD changer to FM signals. The FM signals (supplied to the receiver's antenna) are received and CD sound is reproduced.

Selectable Output Frequency: 88.1 MHz-89.9 MHz  
(Frequency changed in 0.2 MHz intervals)

## Frequencies:

### Domestic-88.1-107.9

*The RF output frequency of the FM modulator box is set to 88.1 MHz at the factory. NOTE: If an FM station happens to be broadcasting at the same frequency, follow the steps below to change the RF output.*

### HDI-87.5-108

### Japan-76.1-89.9

## CHANGING THE RF LEVEL OUTPUT AND FREQUENCY

In areas where the RF output frequency will need to be changed, perform the following steps:

Be sure to turn the main unit **ON**. Press both the microcomputer reset button of the CD changer and that of the main unit to reset the microcomputer.

### NOTE

*If the reset button is pressed after RF and frequency has been adjusted, the level and frequency will return to the preset level of L5 and frequency of 88.1 MHz.*

- Press the **RPT/F.SEL** button on the controller for more than 2 seconds.
- With the **>>I^** button (or the **I<<^** button), set to a frequency where no signal is being broadcast. The frequency will be changed in 0.2 MHz intervals and is settable between 88.1 and 89.9MHz.
- Press the **RPT/F.SEL** button to return to the original display.

### NOTE

*If the sound of the FM receiver is distorted or different than CD playback, perform the following:*

- Press the BBE button for more than two seconds.
- Adjust the RF output level by pressing the **>>I^/I<<V** button on the controller

# TROUBLESHOOTING PROCEDURES

## CD CHANGER RESET BUTTON

You may need to reset the CD changer when power is interrupted from the CD Changer (i.e. Battery removal, disconnection from motorcycle), or the CD changer is functioning erratically. Press the reset Button on the CD changer, with the Ignition/Light Key Switch in the IGNITION or ACCESS position, and the CD changer ON.

When the display show "R-1 to R-8", confirm that the cord is connected correctly and press the microcomputer reset button of the controller and CD changer.

When the display shows "R-8" confirm that the unit is connected to the CD automatic changer.

## MAGAZINE CANNOT BE EJECTED

1. When the magazine cannot be ejected, push in the magazine and play the 12th compact disc once more.
2. When play has ended, remove the CD Changer access toward the right to expose the EJECT button.

If the above procedures fail to work, see Figure 1 and perform the following:

- a. Peel off the protective seal over the compulsory eject hole.
- b. Put a blunt instrument (i.e. screwdriver) into the hole to release magazine.
- c. If you are still unable to eject magazine, replace the protective seal and consult your Harley-Davidson Dealer.

## FLOATING ISOLATOR SELECTOR

See Figure 1. The CD changer is mounted to absorb normal vibration when riding. There are two floating isolation selectors at each end of the CD changer and are factory set. Both selector switches should be set to the 12 o'clock position, as shown.

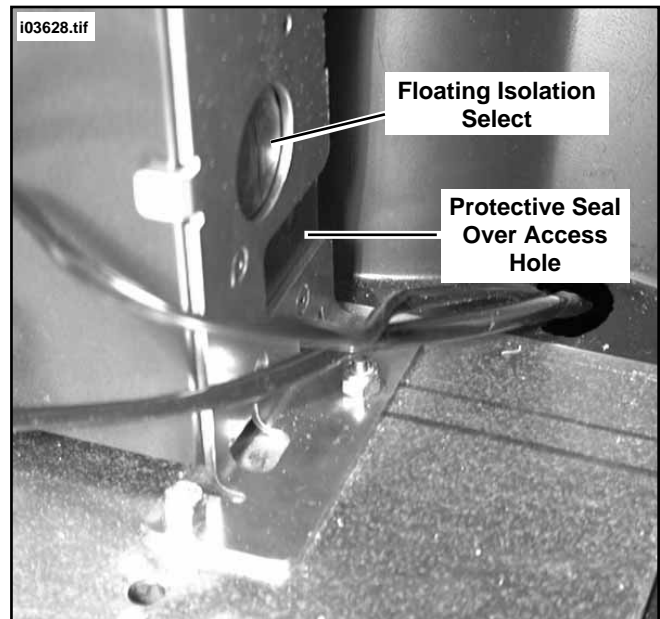


Figure 1. Compulsory Eject Hole

## TROUBLESHOOTING CHARTS

The following pages consist of troubleshooting charts designed to assist in diagnosing CD Changer operation problems.

### CD Inoperative

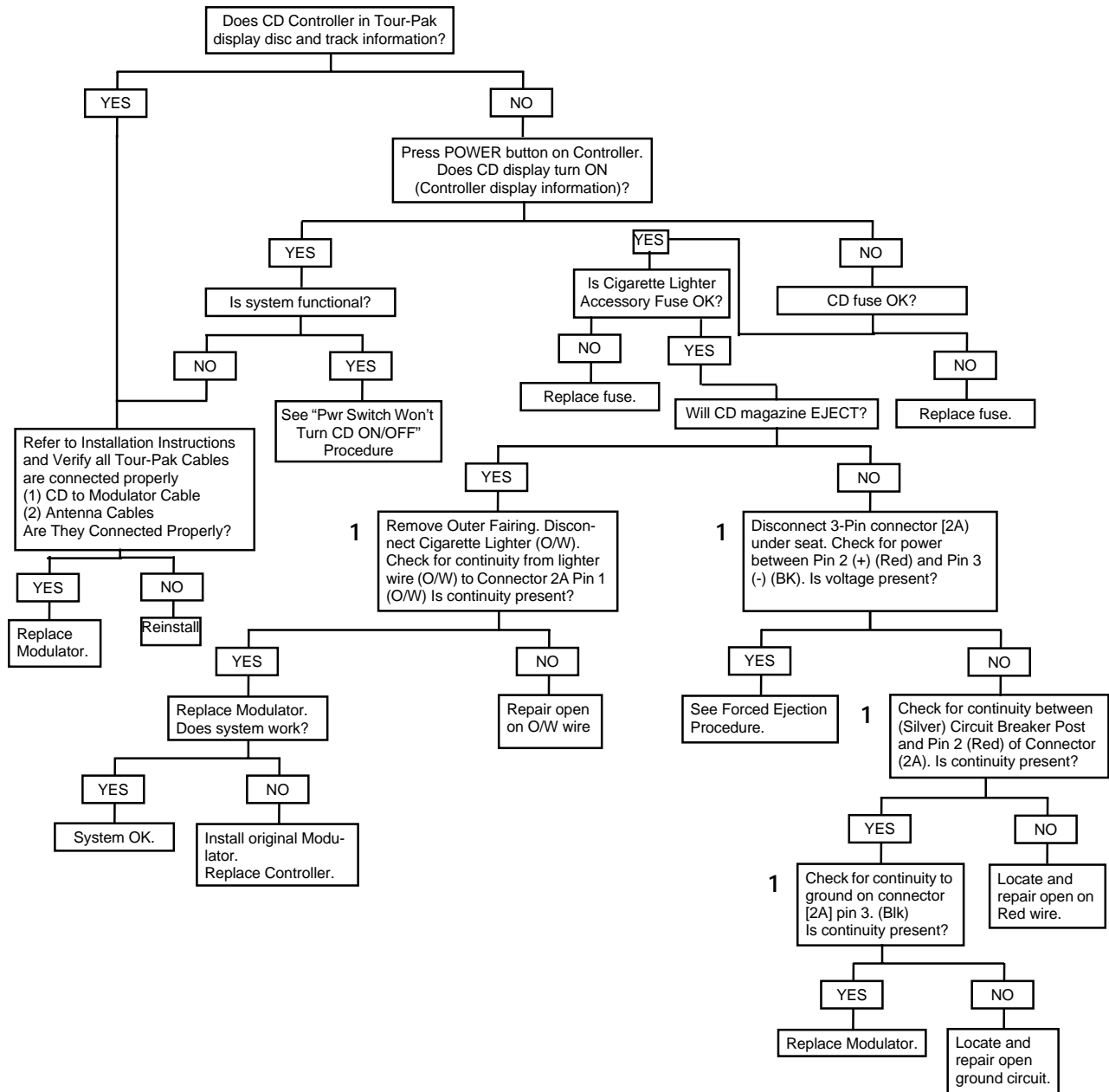
### Power Switch Won't Turn Changer Off

### Disc/Track Won't Advance

### Forced (Manual) Eject Procedures

# CD Inoperative

SETUP: Bike ON, Radio ON, Tuned to CD Frequency, Volume set to Nominal Level



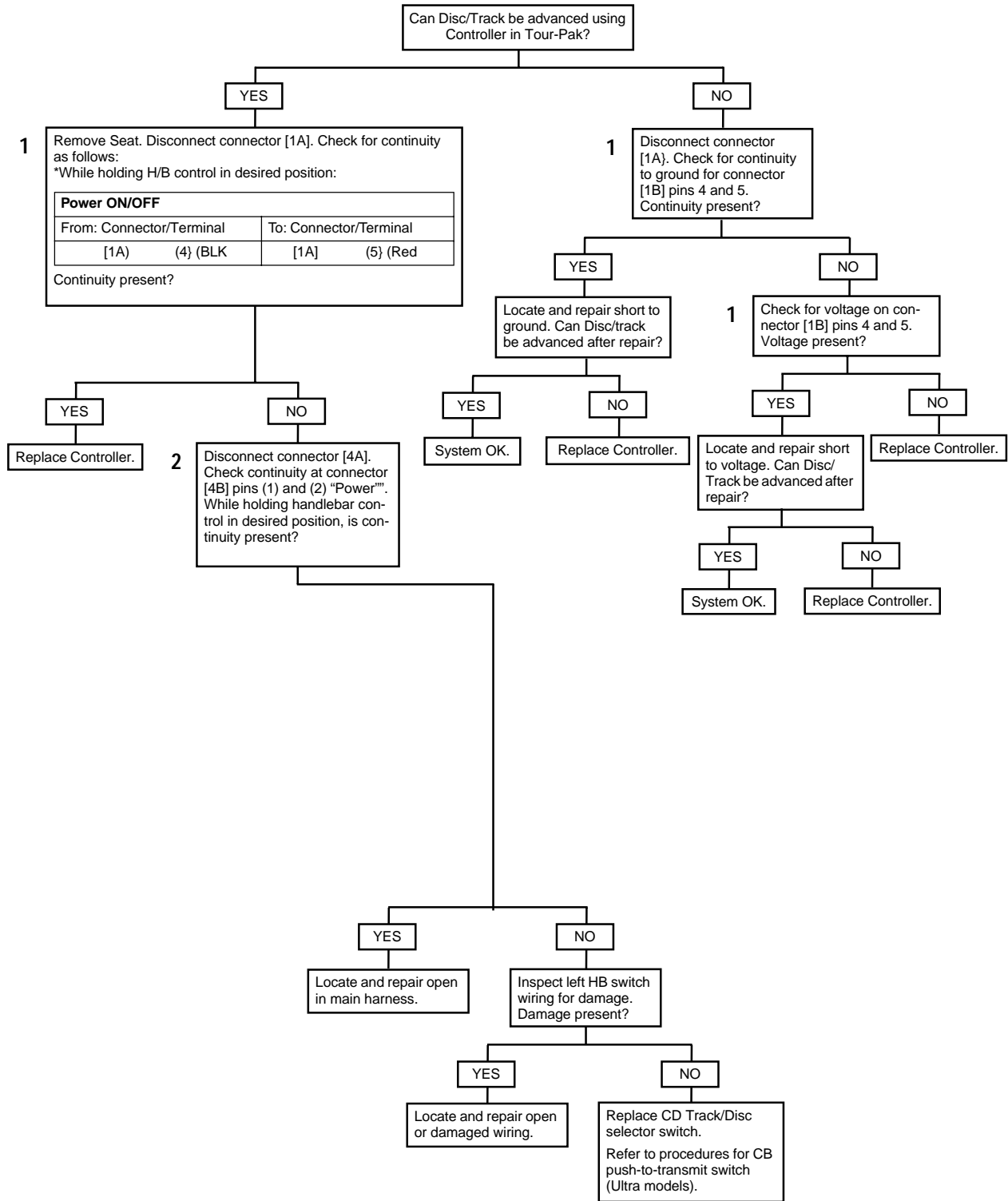
- 1 Use Harness Connector Test Kit (HD-41404), Black Pin Probes and Patch Cords
- 2 Use Harness Connector Test Kit (41404), Black Socket Probes and Patch Cords.



# Power Switch Won't Turn Changer Off

SETUP: Radio ON, Tuned to CD Frequency, CD Audio Present

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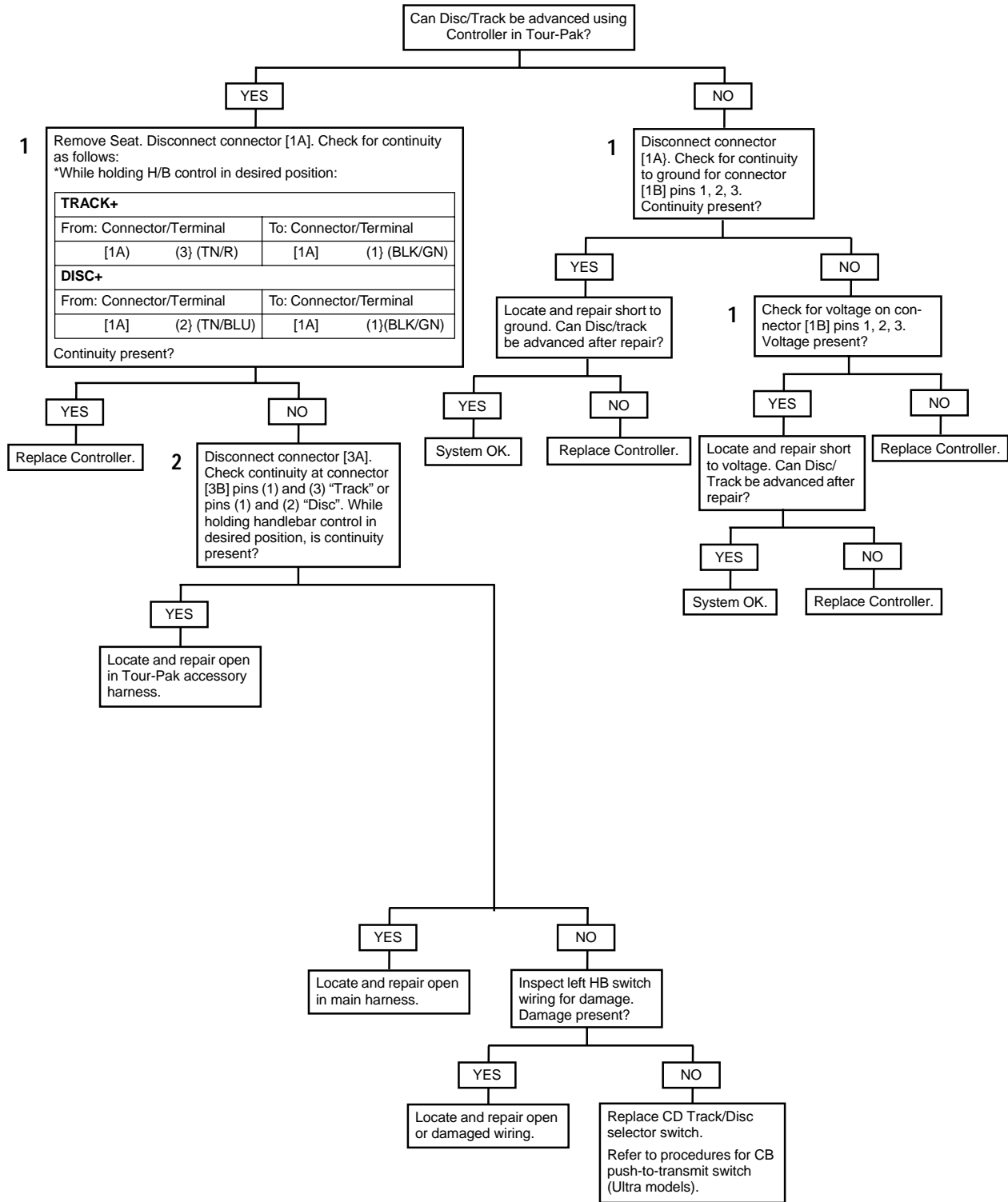


- 1 Use Harness Connector Test Kit (HD-41404), Black Pin Probes and Patch Cords
- 2 Use Harness Connector Test Kit (41404), Black Socket Probes and Patch Cords.

# Disc/Track Won't Advance

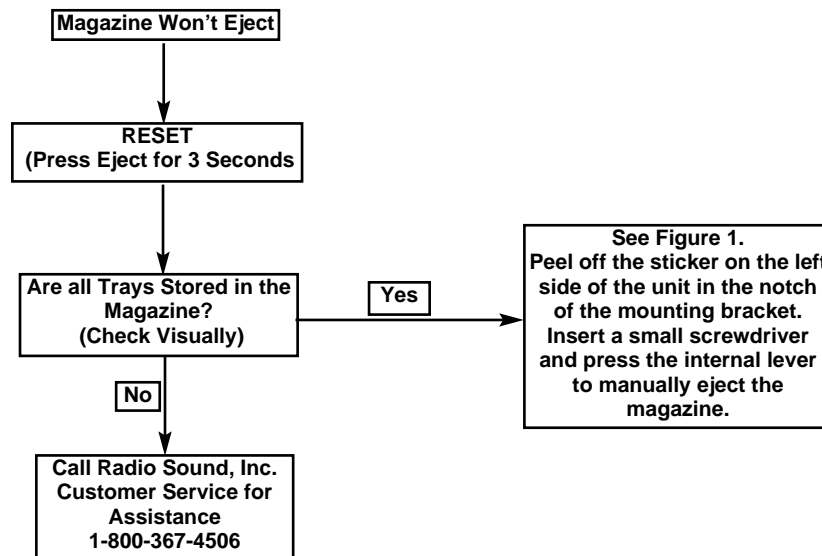
103950

SETUP: Radio ON, Tuned to CD Frequency, CD Audio Present



- 1 Use Harness Connector Test Kit (HD-41404), Black Pin Probes and Patch Cords
- 2 Use Harness Connector Test Kit (41404), Black Socket Probes and Patch Cords.

## Manual Eject Procedures



### CAUTION

DO NOT Pry a Screwdriver under the Eject Button Located on the Top of the CD Changer Under the Sliding door. This Will Result in Damage To the Unit

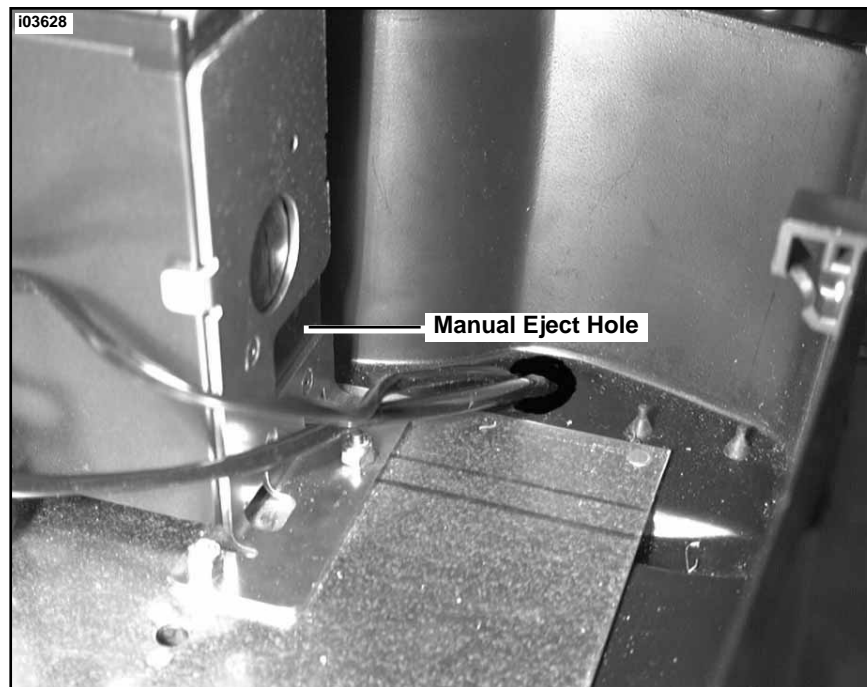


Figure 1. Manual Eject Hole Location

# WIRING SCHEMATIC

