



INSTRUCTIONS

-J02787

REV. 11-18-2003

Kit Number 70395-01A, 70400-02A, 70411-02A

ENHANCED SOUND SYSTEM SERVICE HARNESS

General

Kit 70395-01A is designed for installation on 1998 and later FLHTCU/I (Ultra Classic) model motorcycle, equipped with the (ESS) Enhanced Sound System part number 77176-01A.

Kit 70400-02A is designed for installation on 1998 and later FLHT (Standard), FLHTC (Classic) and FLTR (Road Glide) model motorcycles equipped with the (ESS) Enhanced Sound System part number 77192-02A.

Kit 70411-02A is designed for installation on 1998 and later FLHT (Standard), FLHTC (Classic) and FLTR (Road Glide) model motorcycles equipped with the (ESS) Enhanced Sound System part number 77194-02A.

NOTE

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

Installation

1. Refer to the Service Manual and follow the instructions given to remove the seat and disconnect the battery cables, negative cable first.

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)

2. Remove the battery from the vehicle.

ESS Service Harness for FLHTCU/I

3. Refer to the Service Manual and follow the instructions given to loosen the fuel tank and remove the outer fairing.
4. See Figures 5. Obtain Wire Harness from kit. Connect the ESS harness main connector to the amplifier and route the harness along the main wiring harness on the right side of the vehicle.
5. Route the left side rear speaker wires (Brown with White/Brown) across to left side of frame near battery following original equipment harness as closely as possible.
6. Gently pull on the left side wire harness going into the speaker box and draw the 6 pin mini-Duestch connector out, then separate the connector halves.

7. Mate the male connector half from left side of vehicle harness to female connector half from ESS harness with corresponding wire colors. Mate male connector half from ESS harness to female connector half of the passenger control switch. Note: Left Harness-Brown and White/Brown wires.
8. Gently pull on the right side wire harness going into the speaker box and draw the 6 pin mini-Duestch connector out, then separate the connector halves.
9. Mate the male connector half from right side of vehicle harness to female connector half from ESS harness with corresponding wire colors. Note: Right Harness-Green and Light Green/Brown wires. Push connectors back into into speaker box.
10. **2004 and Later:** Locate the B+ connector and remove the blank connector. Connect the Orange/violet wire from the ESS harness to the red wire from the connector. Locate the Black wire with ring terminal and connect it to the ground stud either left or right under the seat on the frame.

2003 and Earlier: Locate the Orange/violet wire on the ESS harness with the gray connector. Cut off the gray connector (close to the body) and crimp with new ring terminal, included in the kit. Connect terminal to the load side (silver terminal) of the circuit breaker (under seat). Locate the Black wire with ring terminal and connect it to the ground stud next to the circuit breaker on the frame.

11. See Figure 1. Continue to route the harness under the fuel tank and into the fairing. Disconnect the power connector to the lighter. Connect the Orange/white wire with piggyback terminal from the ESS harness between the power lead and lighter, then connect to the lighter.
12. Connect to the front speakers according to the following:
 - a. Match the colors of the ESS wires to the wire colors of the original speaker inputs.
 - b. Plug the female spade terminals that were connected to the speakers into the corresponding male spade terminals of the ESS harness.
 - c. Connect the female spade terminals from the ESS harness into the corresponding male terminals of the speakers.
13. Use tie straps and carefully secure harness wiring in place.
14. Follow instructions in applicable Service Manual and install fairing in place.
15. Tighten fuel tank mounts.

ESS Service Harness for FLHT, FLHTC and FLTR.

1. Connect the ESS harness left- and right-rear-speaker connectors to the speakers, if applicable.
2. Refer to the Service Manual and follow the instructions given to loosen the fuel tank and remove the outer fairing.
3. See Figures 3, and 4. Connect the ESS harness main connector to the radio connection [27].
4. Route the ESS harness along the main wire harness on the right side of the vehicle.
5. **2004 and Later:** Locate the B⁺ connector and remove the blank connector. Connect the Orange/violet wire from the ESS harness to the red wire from the connector. Locate the Black wire with the ring terminal and connect it to the ground stud either side on the frame.

2003 and Earlier: Locate the Orange/violet wire on the ESS harness with the gray connector. Cut off the gray connector (close to the body) and crimp with new ring terminal, included in the kit. Connect terminal to the load side (silver terminal) of the circuit breaker (under seat). Locate the Black wire with ring terminal and connect it to the ground stud next to circuit breaker on the frame.

- 6 See Figure 1. Continue to route the ESS harness under the fuel tank and into the fairing, following existing wire-harness routes. Disconnect the power connector to the lighter. Connect the Orange/white wire with piggyback terminal from the ESS harness between the power lead and lighter, then connect to the lighter.
7. Connect to the front speakers according to the following:
 - a. Match the colors of the ESS wires to the wire colors of the original speaker inputs.
 - b. Connect the stock-wiring female-spade connectors to the corresponding male spade terminals on the ESS harness.
 - c. Connect the female spade terminals from the ESS harness into the corresponding male terminals on the new speakers.
8. Use cable ties to secure the ESS harness wiring throughout the frame and inside the fairing.
9. Follow instructions in applicable Service Manual and install fairing in place.
10. Tighten the fuel-tank mounts.
11. Install the battery.

⚠ 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)

12. Connect the battery cables, positive cable first.
13. Test the sound system and troubleshoot as needed.
14. Install the seat.

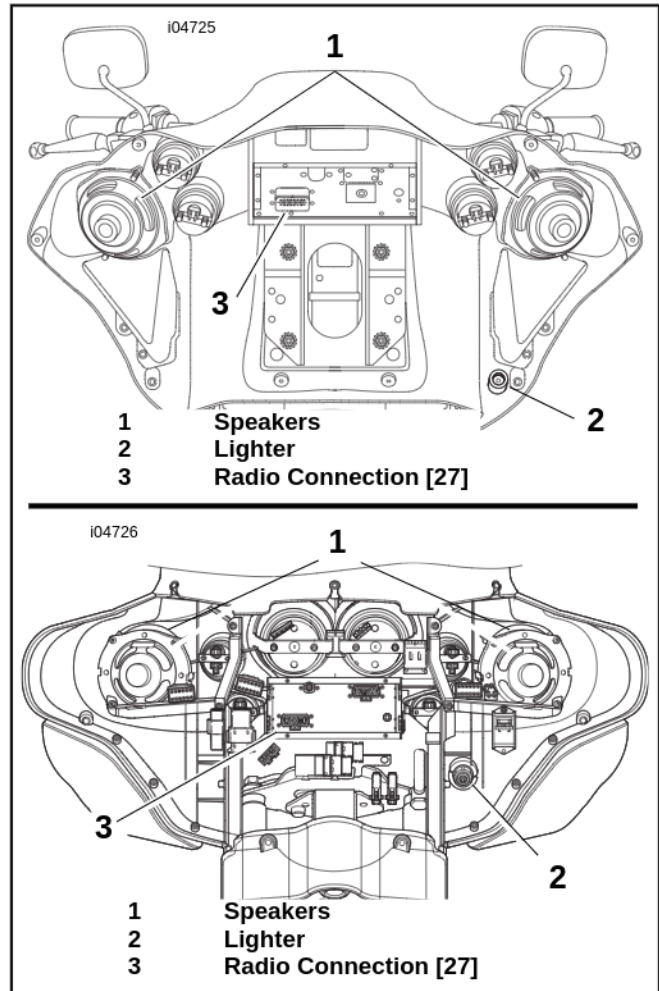
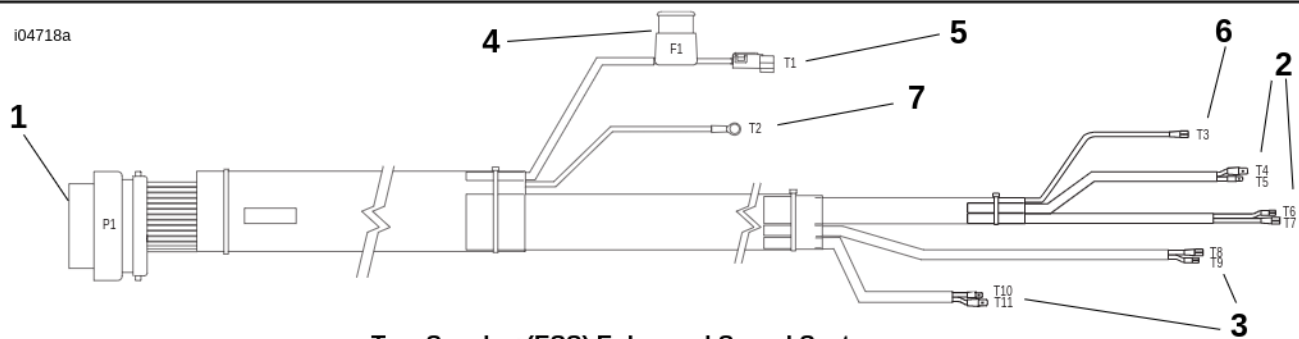


Figure 1. FLTR (above) and FLHT/C (below)

⚠ WARNING

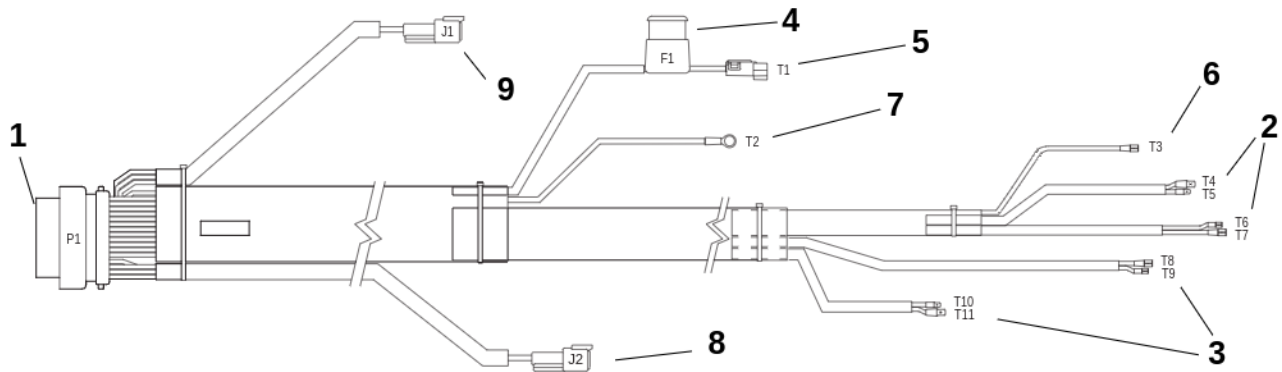
After installing seat, pull upward on front of seat to be sure it is in locked position. While riding, a loose seat can shift causing loss of control, which could result in death or serious injury. (00070a)

i04718a



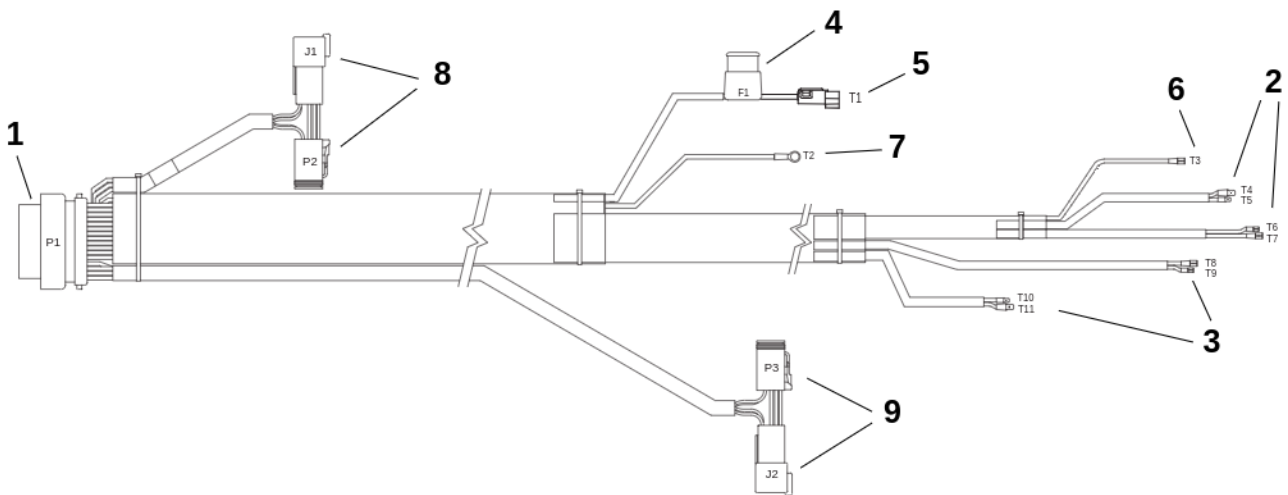
Two Speaker (ESS) Enhanced Sound System

- | | |
|--|---|
| 1 ESS main connector to amplifier | 5 Gray Terminal Connector to Accessory B+ Connector |
| 2 Left-front speaker Lt. green/white, orange/white | 6 Piggyback terminal on orange/white to cigarette lighter |
| 3 Right-front speaker Lt. green/black, gray/red | 7 Ring Terminal black to ground |
| 4 Fuse, orange/violet | |



Four Speaker (ESS) Enhanced Sound System

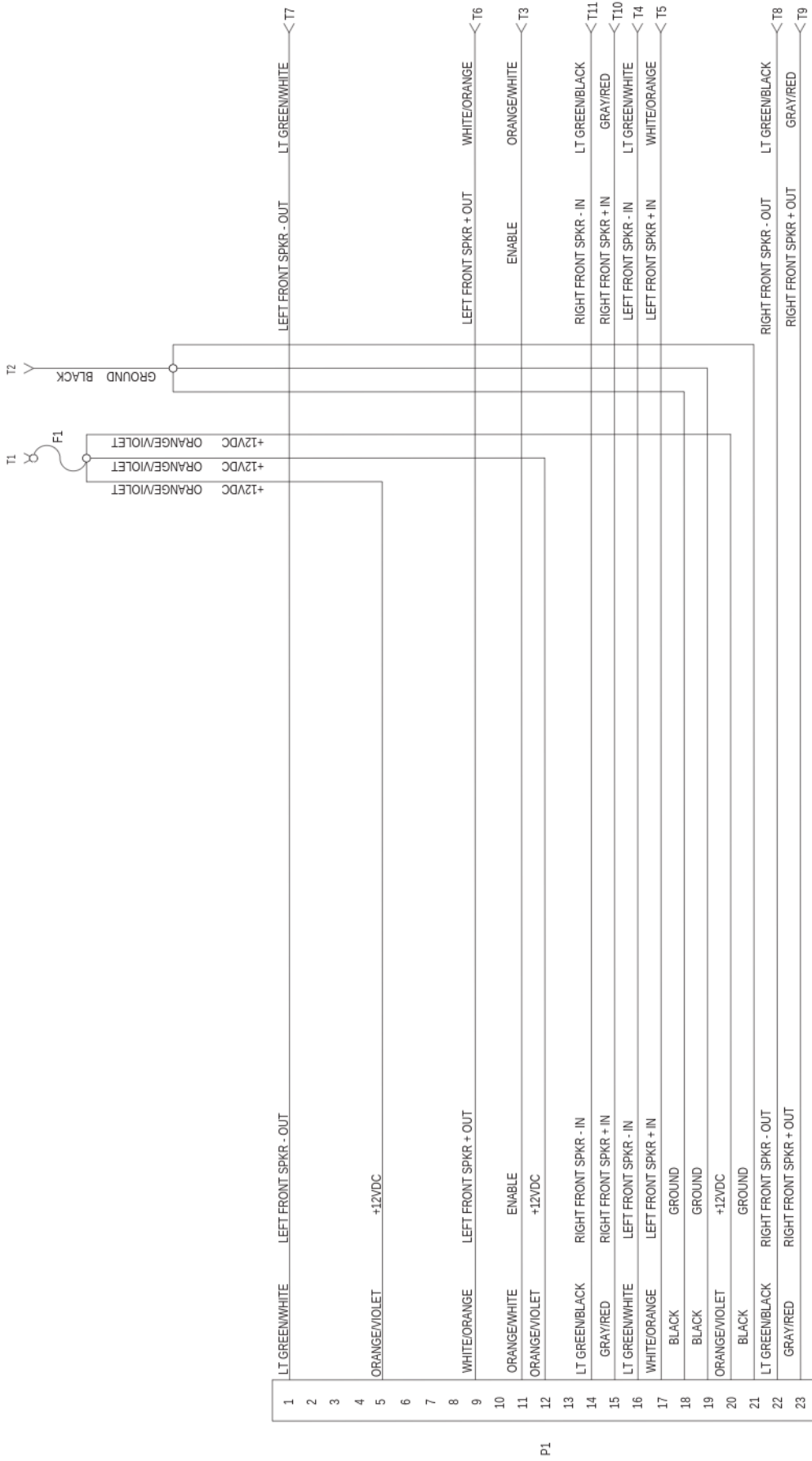
- | | |
|---|---|
| 1 ESS main connector to amplifier | 6 Piggyback terminal on orange/white to cigarette lighter |
| 2 Left-front speaker Lt. green/white, white/orange | 7 Ring Terminal black to ground |
| 3 Right-front speaker Lt. green/black, grey/red | 8 Left-rear speaker brown, white/brown |
| 4 Fuse, orange/violet | 9 Right-rear speaker green, Lt. green/brown |
| 5 Gray Terminal Connector to Accessory B+ Connector | |



Four Speaker ESS Enhanced Sound System for FLHTCU/I

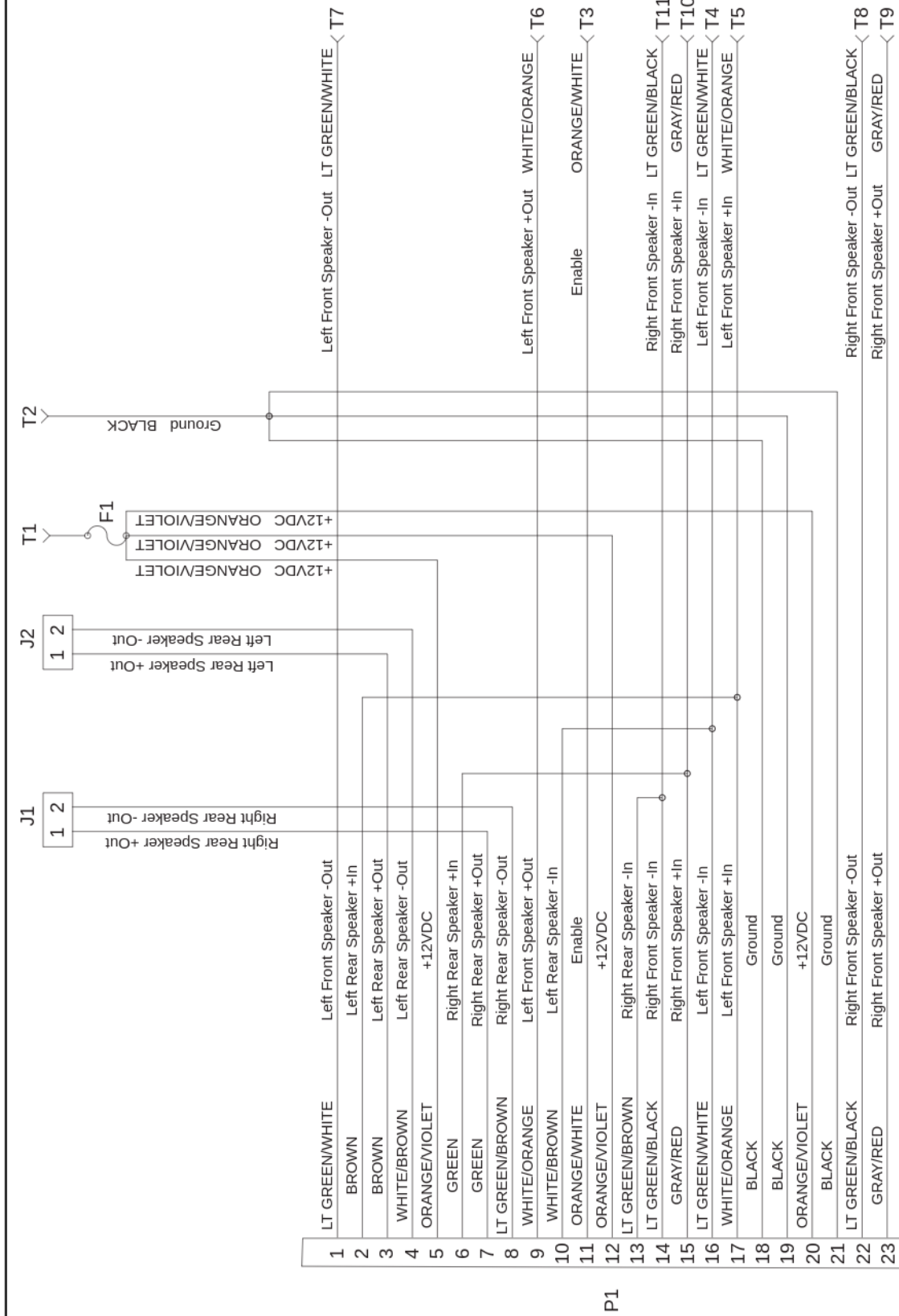
- | | |
|---|---|
| 1 ESS main connector to amplifier | 6 Piggyback terminal on orange/white to cigarette lighter |
| 2 Left-front speaker Lt. green/white, white/orange | 7 Ring Terminal black to ground |
| 3 Right-front speaker Lt. green/black, grey/red | 8 Left-rear speaker brown, white/brown |
| 4 Fuse, orange/violet | 9 Right-rear speaker green, Lt. green/brown |
| 5 Gray Terminal Connector to Accessory B+ Connector | |

Figure 2. (ESS) Enhanced Sound System Wire-Harnesses



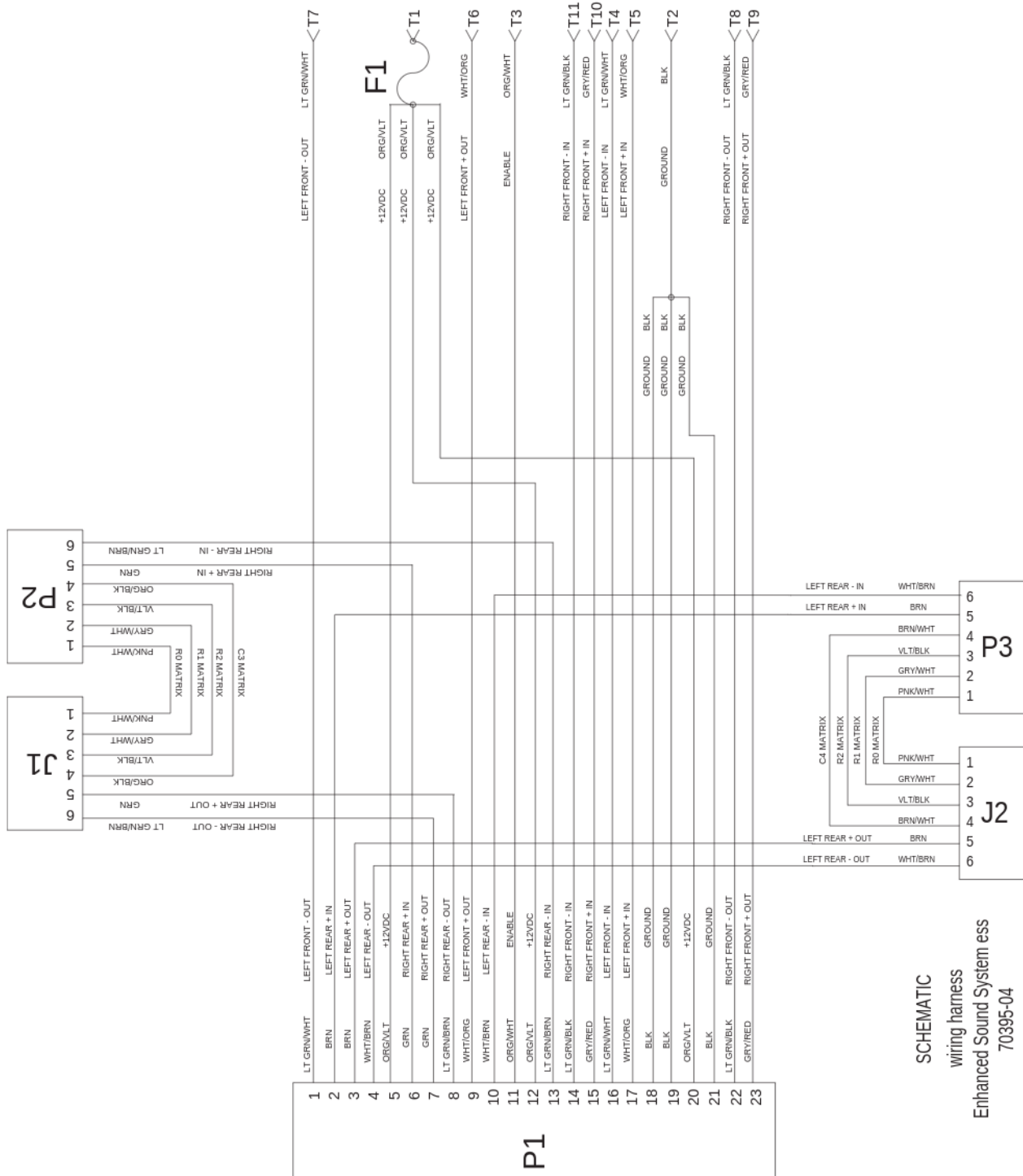
SCHEMATIC
wiring harness
2 channel ess
70400-04

Figure 3. 2 Channel ESS Wire-Harness Schematic



SCHEMATIC
wiring harness
4 channel ess
70411-04

Figure 4. 4 Channel ESS Wire-Harness Schematic



SCHMATIC
wiring harness
Enhanced Sound System ess
70395-04

Figure 5. Ultra ESS Wire-Harness Schematic