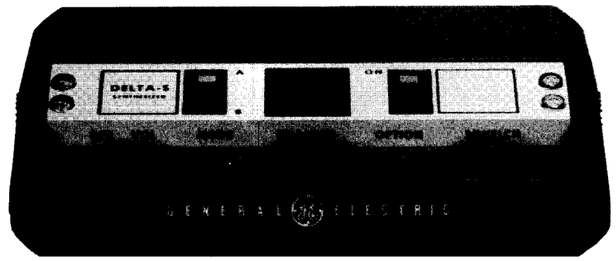
LBI30774B
DF4105

INSTALLATION MANUAL
FOR
S-500/C-500 SERIES CONTROL UNITS



(S-500 CONTROL UNIT)

(C-500 CONTROL UNIT)

INSTALLATION EQUIPMENT

The equipment required for installing the Control Unit includes:

- An electric drill for drilling mounting holes
- No. 31 (1/8-inch) Drill for No. 8 Self-Tapping Screws
- No. 27 (9/64-inch) Drill for No. 10 Self-Tapping Screws
- Phillips and flat-blade screwdriver and a 5/16-inch hex head driver for mounting screws

GENERAL ELECTRIC

UNPACKING AND CHECKING EQUIPMENT

Carefully unpack the Control Unit. It is recommended that you identify the items in the packing case and check them off in the appropriate column below before discarding the packing material. If any damage has occurred to the equipment during shipment, file a claim with the carrier immediately.

Control Unit . . . . . ☐

Control Unit Mounting Kit . . . . . ☐

Speaker & Mounting Bracket . . . . . ☐

Microphone Hanger Standard Bracket . . . . . ☐

Channel Guard Hookswitch Handset w/Hookswitch . . . . . ☐

Power/Control Cable . . . . . ☐

Ignition Switch Cable Assembly . . . . . ☐

PLANNING THE INSTALLATION

Before starting, plan your installation carefully—so that it will be:

- Convenient for the operator to use
  Neat
  Protected from damage from water
  Easy for the serviceman to service
  Out of the way of auto mechanics
- Out of the way of passengers

It is suggested that you take advantage of the experience of one of the many authorized General Electric Service Stations located throughout the United States by having them install your equipment and make the final adjustments.

RUNNING CABLES

Refer to the Installation Manual provided with your Two-Way Radio equipment for details of suggested cable installation.

IGNITION SWITCH CABLE ASSEMBLY

In 12-volt vehicle systems, the Ignition Switch Assembly consists of a Yellow "Y" fused lead, a black "Y" lead, and a 19-pin Vehicle Systems Plug. For 12-volt ignition switch connections, refer to Figures 1 and 2.

In-line connectors are provided for shortening the fused leads, if desired. If the in-line connectors are used, install the connectors between the fuse and the Vehicle Systems Plug.

NOTE

The speaker connections and other option connections (hookswitches, etc.) are also made to the Systems Plug. Do not connect the Systems Plug to the Control Unit until all connections have been made.

12-VOLT NEGATIVE GROUND SYSTEMS

The Ignition Switch Assembly is shipped from the factory connected for negative ground systems as shown in Figure 1.

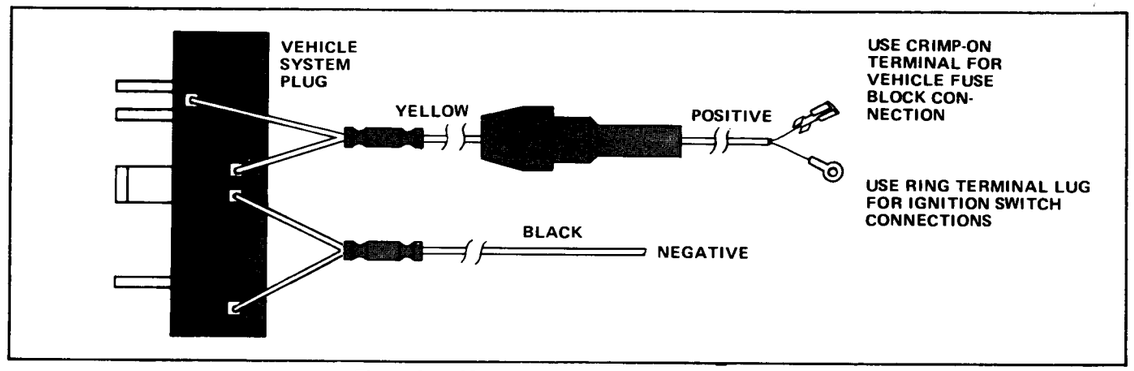


Figure 1. 12-Volt, Negative Ground Connections

Power to the radio can be controlled by one of two methods shown here. Select the type of control desired, and connect the Ignition Switch cables as directed.

(1) IGNITION SWITCH CONTROL

Transmitter and receiver will operate only with ignition switch in ACCESSORY or ON position. Turning ignition switch OFF removes all power to the radio.

(2) IGNITION SWITCH BYPASS

Transmitter and receiver operate independently of ignition switch. Unit can be turned ON

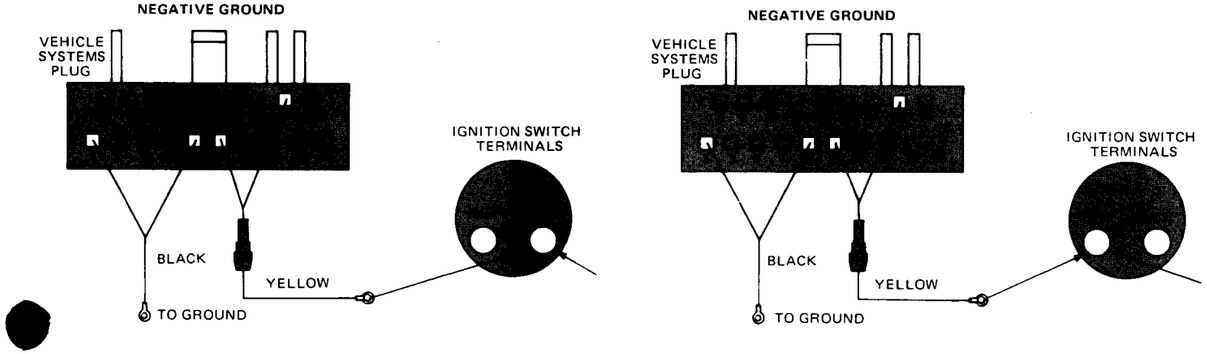


Figure 2. Connections for 12-Volt Ignition Switch Cables

CONTROL UNIT

The Control Unit should be mounted within convenient reach of the operator, and where it will not interfere with the safe operation of the vehicle or provide a hazard to the vehicle passengers in case of an accident. *Use the Safety Release mounting brackets for passenger safety whenever the mounting location requires, or where the swivel action is desired.*

Use the mounting bracket as a template for locating the mounting holes, and mount the Control Unit as shown in Figure 3. After mounting the unit, connect the control cable plug(s). Do not attach the Vehicle Systems Plug until the speaker connections and other optional connections (hookswitches, etc.) have been made.

After making all connections to the Vehicle Systems Plug, connect the Control Cable and the Vehicle Systems Plug to the control unit as shown in Figure 4. Attach the retaining strap as shown to provide strain relief for connections to the Vehicle Systems Plug.

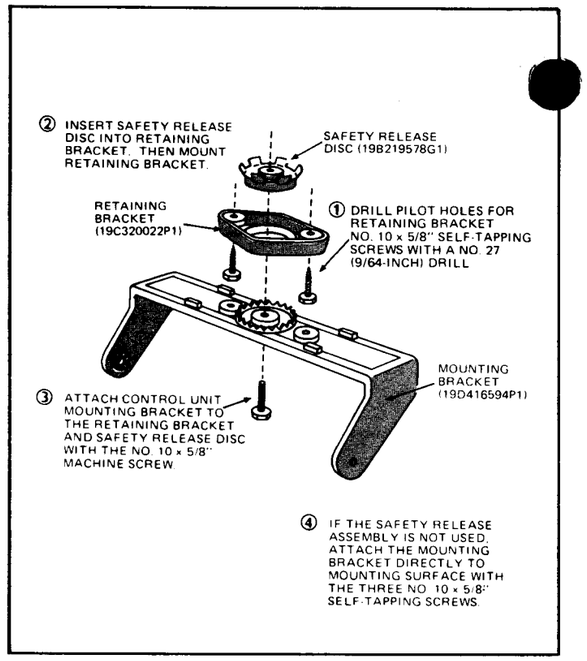


Figure 3. Mounting the Control Unit

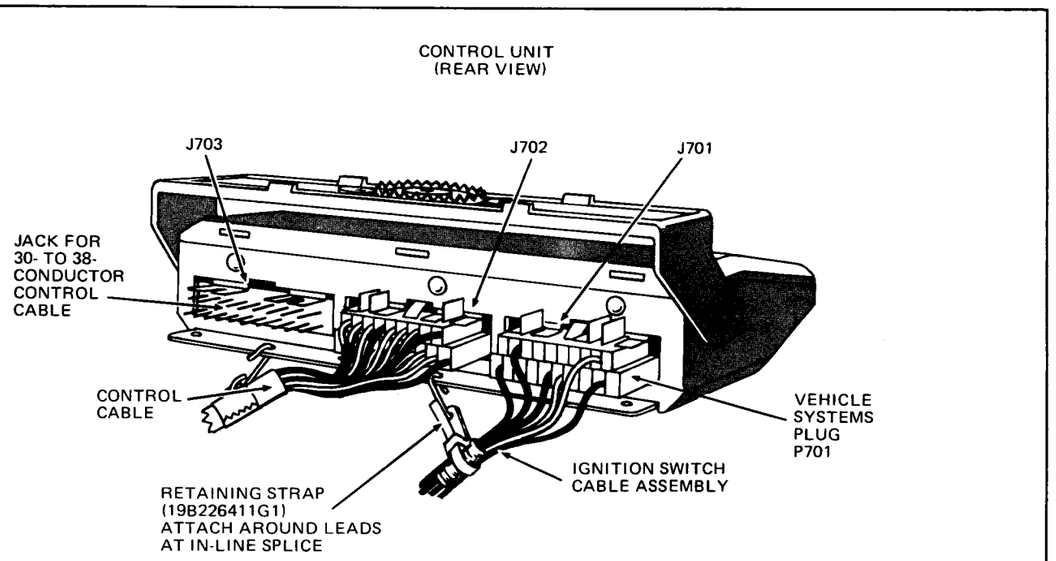


Figure 4. Installing Retaining Strap

MICROPHONE

Mount the microphone where it will be within easy reach of the operator, but will not interfere with safe operation of the vehicle. Two mounting holes are provided in the bottom of the Control Unit for mounting the standard microphone bracket if desired. After the microphone bracket is mounted, connect the microphone plug into the microphone jack on the bottom of the Control Unit, and tighten the retaining screw in the plug.

If the bracket is not mounted on the Control Unit, refer to Figure 5 for mounting instructions.

Two bosses are provided on the inside of the top cover of the Control Unit that can be drilled out (No. 31 drill) for mounting the standard bracket on the top. To remove the Control Unit cover, remove the two screws on the bottom of the front edge. Use the two No. 7 x 5/16-inch screws for mounting the microphone bracket on the Control Unit.

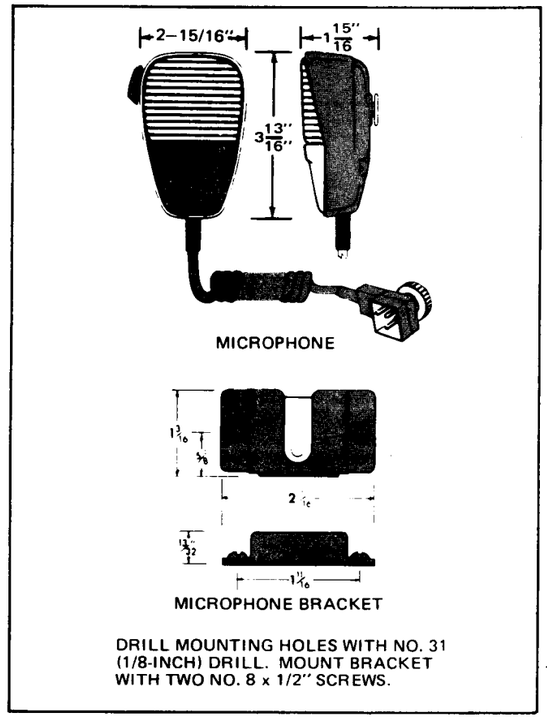


Figure 5. Microphone Bracket Mounting

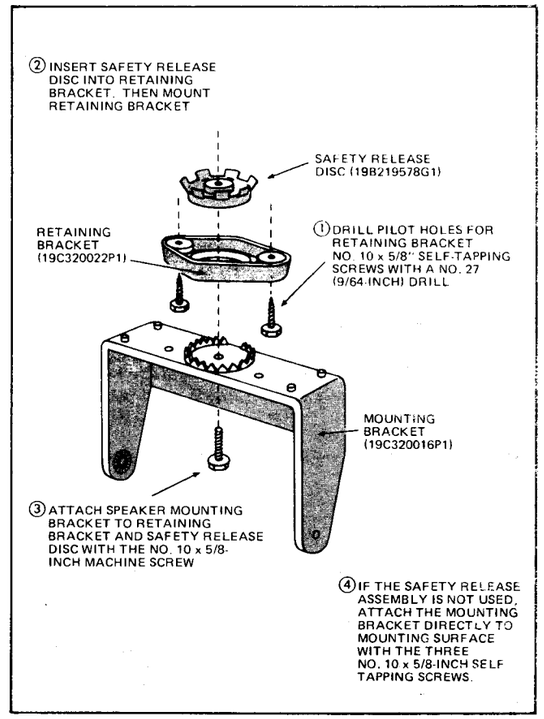


Figure 6. Mounting the Speaker

SPEAKER

The speaker should be mounted where it will direct sound to the operator, but not interfere with his vision or provide a hazard to passengers in case of an accident. *Use the Safety Release mounting brackets for passenger safety whenever the mounting location requires, or where the swivel action is desired.*

The speaker may be mounted on the lower edge of the instrument panel, on the firewall, above the windshield in some trucks, or behind the built-in speaker grille in some vehicles. Use the mounting bracket as a template for locating the mounting holes, and mount the speaker as shown in Figure 6. If the speaker has been disconnected, connect the two pins to holes 4 and 17 on the Vehicle Systems Plug.

CHANNEL GUARD HOOKSWITCH

For Channel Guard with Automatic Monitoring applications a hookswitch is used in place of the microphone bracket. Mount the hookswitch as shown in Figure 7. After mounting the hookswitch, connect the two pins to holes 10 and 14 on the Vehicle Systems Plug if the hookswitch has been disconnected.

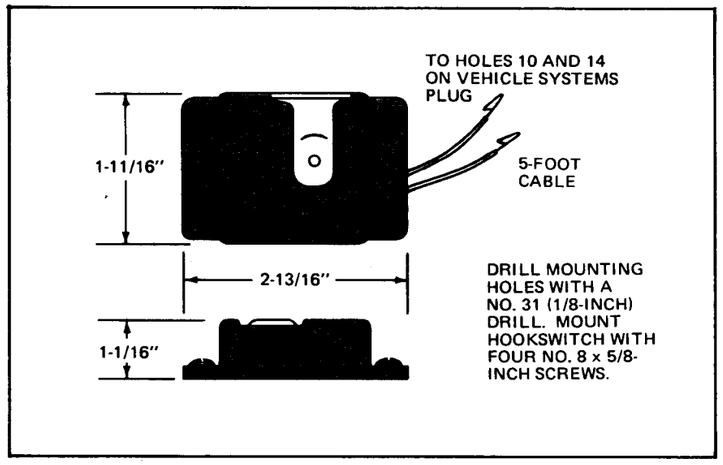


Figure 7. Hookswitch Mounting

NOTE

The Channel Guard Microphone hookswitch cannot be mounted in the holes provided on the Control Unit.

HANDSET AND HANDSET HOOKSWITCH

Mount the handset hookswitch as shown in Figure 8. After mounting the handset hookswitch, connect the handset plug to the microphone jack on the bottom of the Control Unit. If the hookswitch has been disconnected, connect the hookswitch cable to the Vehicle Systems Plug as shown in Figure 8.

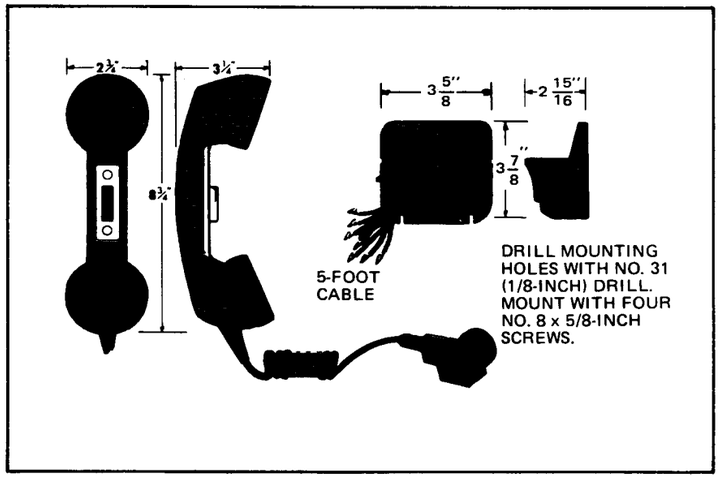


Figure 8. Handset Hookswitch Mounting

WIRE COLOR	CONNECT TO SYSTEMS PLUG
Blue	J701 - 13
Green	J701 - 2
Orange	J701 - 15
Black	J701 - 14
Brown	J701 - 18
Red	J701 - 10

Connections for Handset Hookswitch

3-WIRE IGNITION SWITCH CABLE ASSEMBLY (OPTIONAL)

The optional ±12-Volt, 3-Wire Ignition Switch Assembly consists of a Red and a Yellow fused lead, a "Y" black ground lead, and a 19-pin Vehicle Systems Plug. For ignition switch connections, refer to Figure 10.

12-VOLT NEGATIVE GROUND SYSTEMS

The Ignition Switch Assembly is shipped from the factory connected for negative ground systems as shown in Figure 9. In-line connectors are provided for shortening the fused leads, if desired. If the in-line connectors are used, install the connectors between the fuse and the Vehicle Systems Plug.

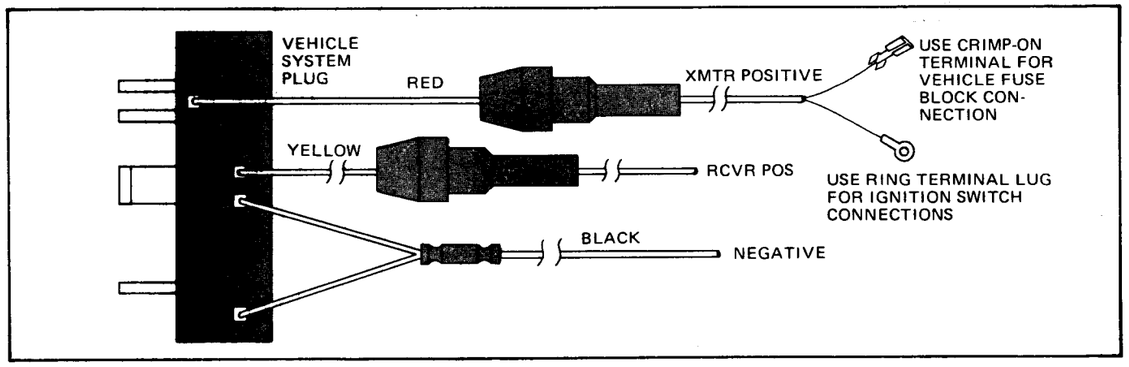


Figure 9. 12-Volt, Negative Ground Connections

12-VOLT POSITIVE GROUND SYSTEMS

For 12-volt, positive ground systems, the connections to the vehicle Systems Plug must be changed as shown in Figure 10. Use the extractor tool for changing the connections. In-line connectors are provided for shortening the fused leads, if desired. If the in-line connectors are used, install the connectors between the fuse and the Vehicle Systems Plug.

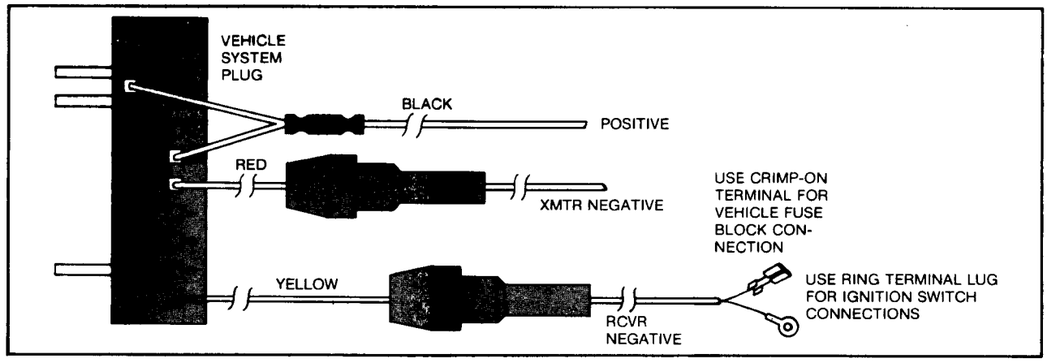
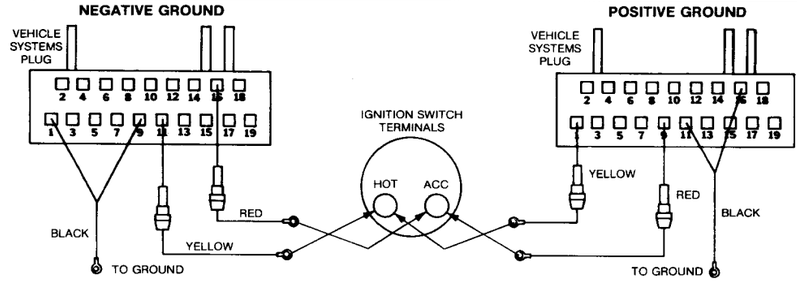


Figure 10. 12-Volt, Position Ground Connection

Power to the radio can be controlled by one of the three methods described below. Select the type of control desired, and connect the Ignition Switch cables as directed.

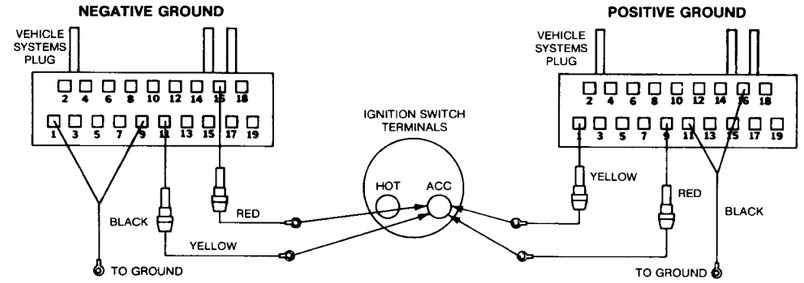
1 **IGNITION SWITCH STANDBY**

Receiver will operate independently of ignition switch. Transmitter will operate only with ignition switch in ACCESSORY or ON position.



2 **IGNITION SWITCH CONTROL**

Transmitter and receiver will operate only with ignition switch in ACCESSORY or ON position. Turning ignition switch OFF removes all power to the radio.



3 **IGNITION SWITCH BYPASS**

Transmitter and receiver operate independently of ignition switch. Unit can be turned ON and OFF only by Control Unit switch.

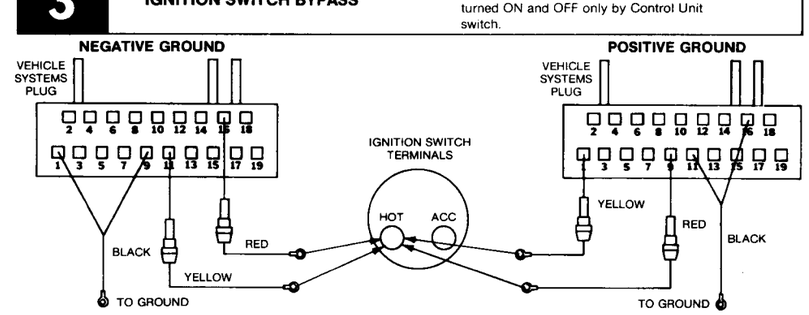


Figure 11. Connection for 12-Volt Ignition Switch Cables

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