Installation Manual

EDACS®

Monogram ***Series***

MOBILE RADIO 800 MHz

ERICSSON

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NOTICE!

This manual covers Ericsson and General Electric products manufactured for and sold by Ericsson Inc.

NOTICE!

Repairs to this equipment should be made only by an authorized service technician or facility designated by the supplier. Any repairs, alterations or substitution of recommended parts made by the user to this equipment not approved by the manufacturer could void the user's authority to operate the equipment in addition to the manufacturer's warranty.

INTRODUCTION

This manual contains installation instructions for the EDACS MONOGRAM SERIES Mobile Radio, Desktop Station, and associated accessories. These instructions cover the mounting and cabling of the mobile radio and station setup. Interconnection diagrams are located at the back of the manual for your reference. Before installation, the radio should be programmed using an IBM compatible personal computer and the following items:

Programming Cable	RPM 113 2510/1
Programming Software	AE/LZY 213 766

UNPACKING AND CHECKING EQUIPMENT

The EDACS MONOGRAM SERIES Radio may be provided for either station or mobile applications. When ready for installation, carefully unpack the radio and identify each item in the shipping container. If damage has occurred to the equipment during shipment, file a claim with the carrier immediately. The available options for the Mobile Radio are identified in Table 1.

MOBILE EQUIPMENT

- EDACS MONOGRAM SERIES Mobile Radio . . KRD 103 123/2
- Microphone MGMC5X
- Microphone Hangar and Mounting Hardware . . . TBD
- PowerCable,8 feet . . . . . RPM 113 2509/1
- Mobile Mounting Bracket and Associated Hardware . . . . . SXA 120 4253/1
- Operator's Manual.. . . . . AE/LZT 123 1920
- Installation Manual . . . . . AE/LZT 123 1921

STATION EQUIPMENT (In addition to Radio)

- Power supply MGPS5V
- Station Microphone MGMG7A

Table 1 - OPTIONAL EQUIPMENT

Option	Description
MGAN1D	Antenna
MGPD1A	Noise Suppression Kit
MGZM9F	External Speaker, MIL-STD-810C & D, 5” x 5”
	External Speaker Cable, 9 inches
MGSU1C	Alarm Power Relay Kit
MGMC5Z	DTMF Microphone
MGMC5X	Microphone

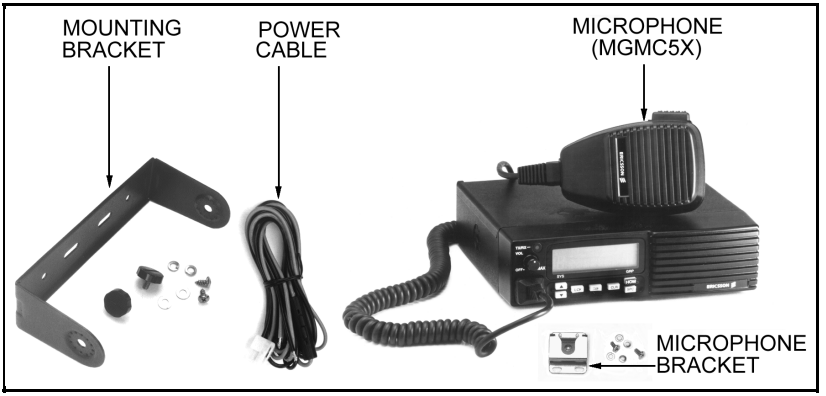

Figure 1 - Radio Components and Mounting Hardware

PLANNING THE INSTALLATION

Before starting, plan the radio installation carefully so that it will be:

- safe for the operator and passengers.
- convenient for the operator to use.
- neat.
- protected from water damage.
- easy to service.
- out of the way of auto mechanics.

It is suggested that the radio be installed by one of the many Authorized Service Centers located throughout the United States. These experienced service centers can provide a proper radio installation and make any final adjustments that may be needed.

WARNING

Interference with Vehicular Electronics - Electronic fuel injection systems, electronic anti-skid braking systems, electronic cruise controls systems, etc., are typical of the types of electronic devices which may be prone to malfunction due to the lack of protection from radio frequency energy present when transmitting. If the vehicle contains such equipment, consult the dealer for the make of vehicle and enlist his aid in determining if such electronic circuits will perform normally when the radio is transmitting.

EQUIPMENT REQUIRED

The equipment required for installing the mobile radio is listed below:

- Electric drill for drilling mounting holes.
- Drills and circle cutters as follows:
    - No.25 (0.149 inch) drill for No.10 self-tapping screws.
    - 5/8-inch Drill or circle cutter for power cable.
    - 3/4-inch circle cutter, hole saw or socket punch for antenna (optional).
- Phillips and flat-blade screwdrivers, and 1/4-inch and 5/16-inch hex-head drivers for mounting screws.

CAUTION

Be careful to avoid damaging some vital part of the vehicle (fuel tank, transmission housing, etc.) when drilling mounting holes. Always check to see how far the mounting screws will extend below the mounting surface before installing. If pilot holes must be drilled, remove all metal shavings from drilling holes before installing screws.

INSTALLATION IN VEHICLES POWERED BY LIQUEFIED (LP) GAS

WARNING

Radio installations in vehicles powered by liquefied petroleum gas must conform to the following requirements.

Radio installation in vehicles powered by liquefied petroleum gas with the LP-gas container in the trunk or other sealed-off space within the interior of the vehicle must conform to the National Fire Protection Association Standard NFPA 58 which requires that:

- Space containing radio equipment shall be isolated by a seal from the space containing the LP-gas container and its fittings.
- Outside filling connections shall be used for the LP-gas container.
- The LP-gas container space shall be vented to the outside of the vehicle.

WARNING

For passenger safety, mount the radio securely so that the unit will not break loose in the event of a collision. This is especially important in station wagons, vans and similar type installations where a loose radio could be extremely dangerous to the vehicle occupants.

INSTALLATION

RUNNING CABLES

To assure the feasibility of cable routes you plan to use, it is suggested that you run these cables before installing the radio. Be sure to leave some slack in each cable so that the radio may be pulled out for servicing with the power applied.

Route the cables away from locations where they will be exposed to heat (exhaust pipes, mufflers, tailpipes, etc.), battery acid, sharp edges, or mechanical damage, or where they will be a nuisance to automobile mechanics, the driver, or passengers. Keep wiring away from ignition circuits to help prevent noise pickup on the radio equipment.

In addition, try to utilize existing holes in the fire wall and trunk wall and the channels above or beneath the doors. You may also use the channels through door and window columns, where they are convenient, unless you plan to install rigid or flexible conduit in which to run the cables.

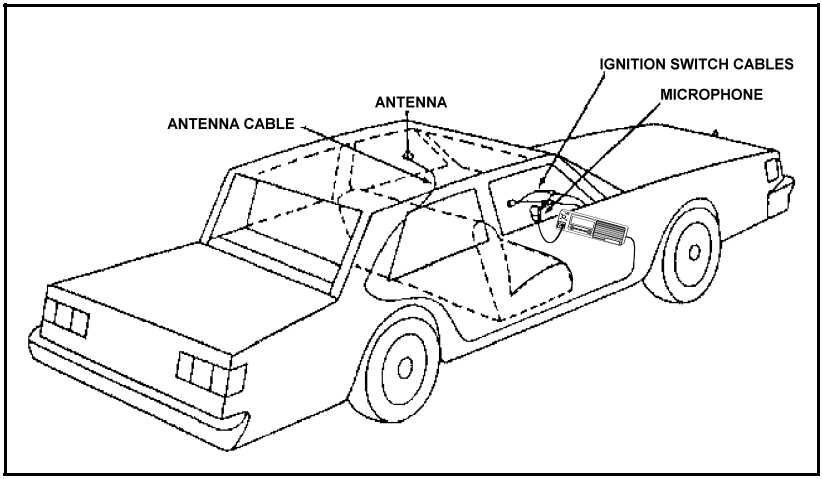

Figure 2 - Typical Cable Routing

RUNNING THE POWER CABLE

The power cable consists of a red lead, and a black lead, a 2 pin systems plug, and an in-line fuseholder. A 10 ampere 32 volt fuse is included.

To install the power cable, start with the plug end of the cable at the location of the radio and run the two leads to the fire wall drill 1/2 inch hole

(or preferably use an existing hole) and insert the cable through the hole. Coil any surplus cable and tie it out of the way. Be sure to leave some slack in the cable so the radio may be pulled out for servicing with power applied and the antenna connected.

Connect the red fused lead to the positive (+) battery terminal, and the black to the negative (-) battery terminal.

NOTE

In some installations an additional noise filter such as Option MGPD1A may be needed for satisfactory performance.

MOUNTING THE RADIO

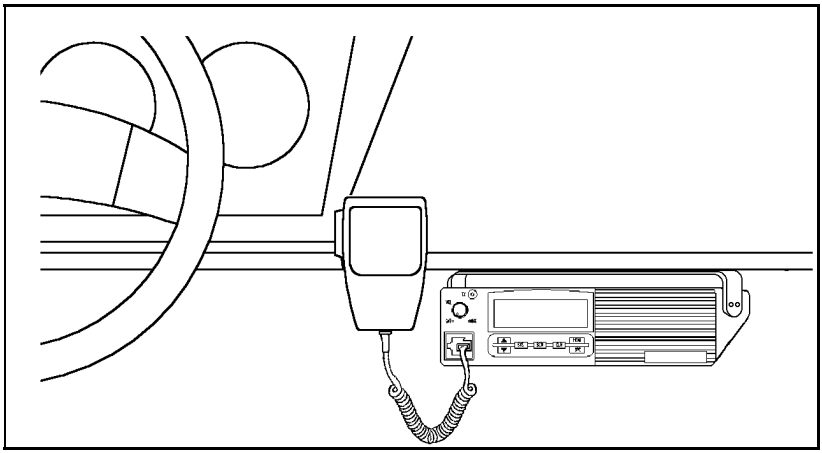

Figure 3 - Typical Installation

Use the supplied mounting bracket as a template to locate the positions for each of the drill holes. After drilling the mounting holes, install the mounting bracket using the two sheet metal screws provided. Mount the radio as shown in Figure 3. Be sure to leave enough room at the read of the radio for the power cable connection.

MICROPHONE

Mount the microphone hangar to the side of the radio using the two screws provided (or where it will be within easy reach of the operator but will not interfere with safe operation of the vehicle). Connect the microphone plug into the microphone connector on the radio and tighten the retaining screws in the plug.

NOTE

The microphone hangar must be connected to the radio chassis (ground) for proper hookswitch operation. If an alternate location is preferred (other than to the radio chassis), a separate ground wire must be connected from the microphone hangar to battery (-) or to the radio chassis.

OPTION INSTALLATION

ANTENNA - OPTION MGAN1D

Installation instructions for the antenna are packaged with the antenna. The antenna must be installed in accordance with good engineering practice for optimum results.

The most effective mounting position is usually in the center of the roof of the vehicle or the center of the rear deck. The antenna cable will normally run from the radio, behind sections of the interior trim to a door or window post. Then run up between the roof and headliner in the passenger compartment to the antenna base.

Try to route the cable away from locations where it will be exposed to heat, sharp edges or mechanical damage, and where it will be out of the way of the driver, passengers or mechanics. Wherever possible, use existing holes in the trunk wall, and the channels above or beneath doors and window columns.

Avoid routing the antenna cable near any electronic modules or along side any vehicle wiring.

Once the antenna is installed, connect it to the antenna connector on the rear of the radio.

CAUTION

In station applications, the radio may not operate properly with the antenna mounted near the radio. Always mount the antenna at least 5 feet away from the radio.

NOISE SUPPRESSION KIT - OPTION MGPD1A

Refer to the noise suppression kit option installation manual that is included with this option.

EXTERNAL SPEAKER KIT - OPTION MGZM9F

The external speaker kit includes a speaker (option MGLS1F) and an external speaker adapter cable (option MGCE3F).

1. Select a speaker location that directs the speaker toward the operator but does not cause interference with his vision. It also should not present a hazard in the event of an accident The speaker may be mounted on the lower edge of the instrument panel, the fire wall, or above the windshield in some trucks. Use the mounting bracket as a template for locating the mounting holes, and mount the speaker as shown in Figure 4.

2. Connect the plug end of the external speaker cable to the speaker.

3. Plug the other end of the speaker cable into the external speaker jack on the rear of the radio.

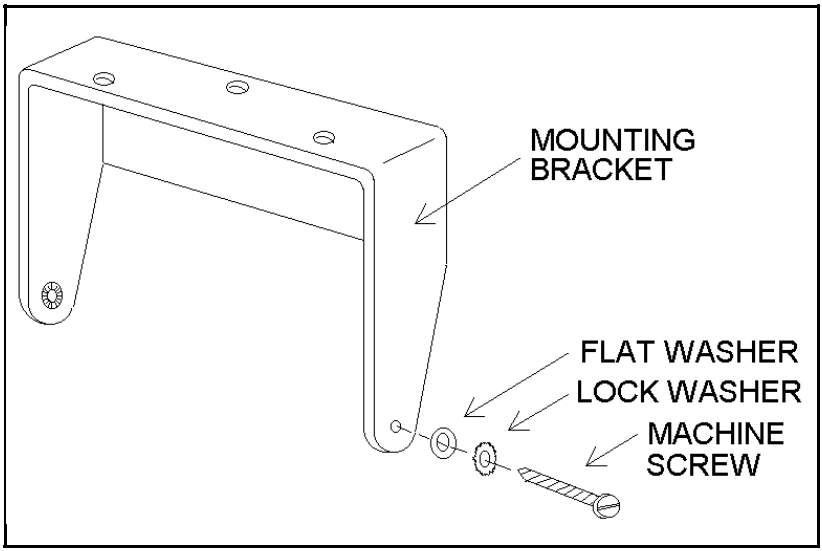

Figure 4 - Mounting The Speaker

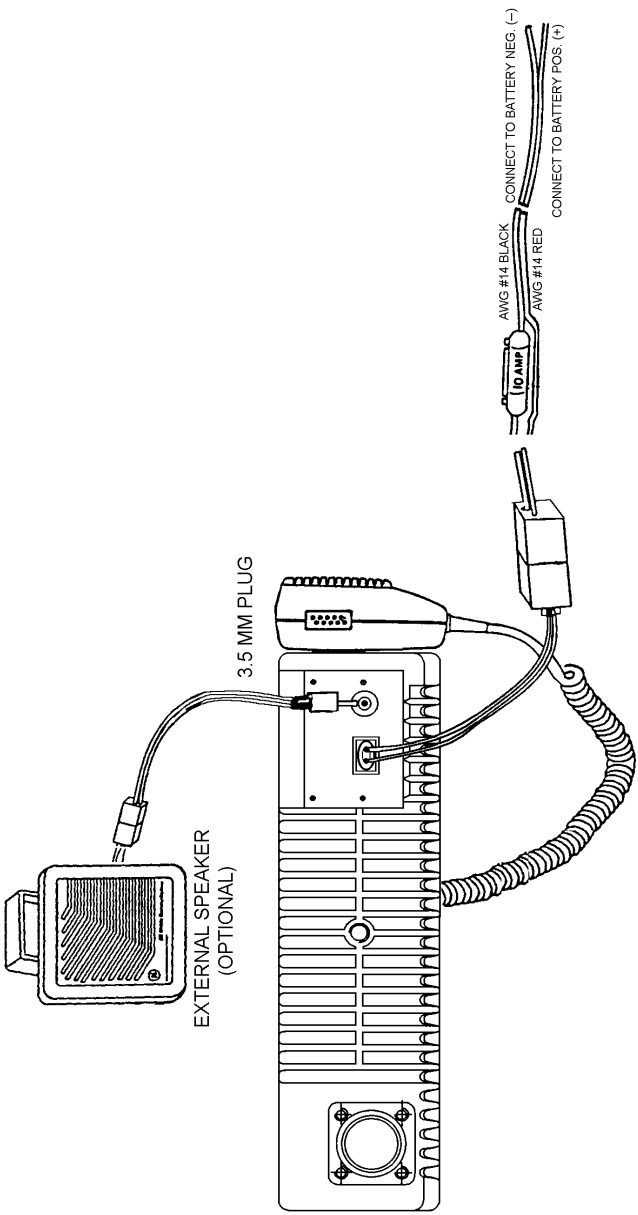

Figure 5 - Interconnection Diagram

ALARM POWER RELAY - OPTION MGSU1C

Refer to LBI-38434 for installation instructions.

DESKTOP STATION INSTALLATION

The Desktop Station consists of the appropriate mobile radio and Station Power Supply. Refer to Figure 6 below for a typical desktop station setup.

Figure 6 - Typical Desktop Station Setup

CAUTION

Before using the adapter as illustrated in Figure 7, be certain that the center screw of the outlet plate is grounded. The green-colored rigid ear or plug extending from the adapter must be connected to a properly grounded outlet. **Make certain it is grounded**. If necessary replace the original outlet cover plate and make ground connection to outlet ground terminal.

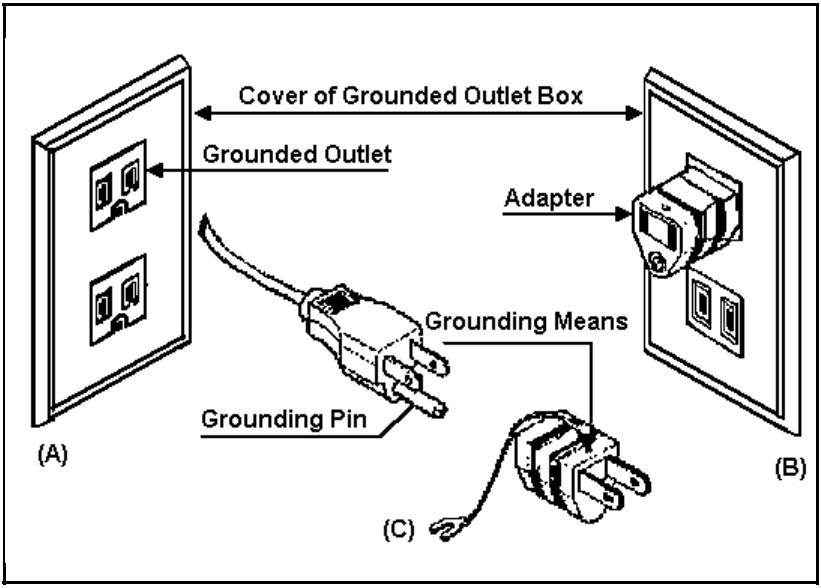

Figure 7 - Grounding Methods

The Power Supply is supplied with the following accessory items:

1. Interconnecting cable with positive and negative conductors installed

2. Two 3-15/16 inch (10cm) wires with connector pins installed for permanent installations.

3. One 3-15/16 inch (10cm) coaxial audio cable with connector pins and 3.5 mm audio plug installed.

4. Four rubber anti-abrasion pads for protection of the power supply and radio paint surfaces.

5. Two mounting brackets for securing the radio to the power supply.

6. One spare 3 amp 125 volt 3AG fuse. (**NOTE**: Replace fuse only with the same type and style specified.)

INSTALLATION OF THE POWER SUPPLY

1. Place the four self adhesive protective rubber pads on the bottom of the radio unit Space evenly, as shown in Figure 8.

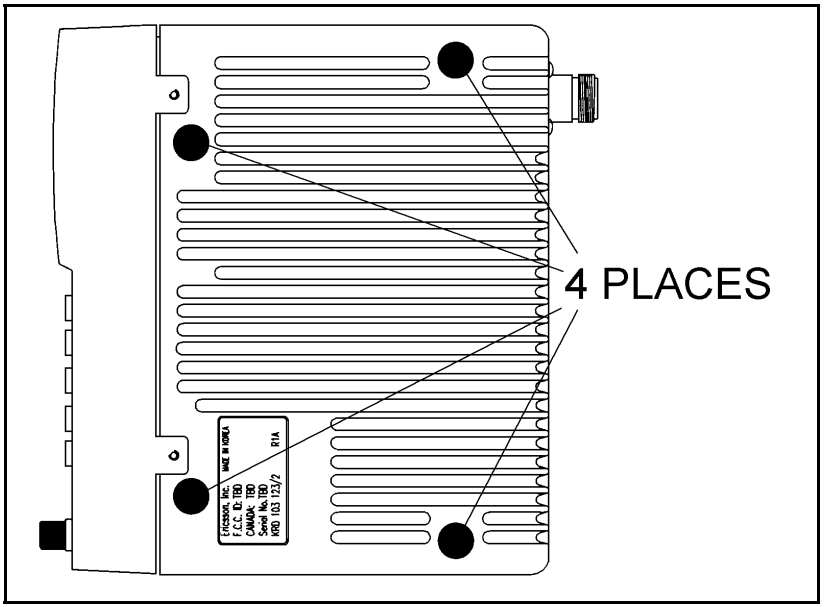

Figure 8 - Anti-Abrasion Pad Placement

2. Remove the two screws installed in the upper right and left hand corners of the power supply and install the two retainer brackets. Re-tighten screws securely. (Refer to Figure 9.)

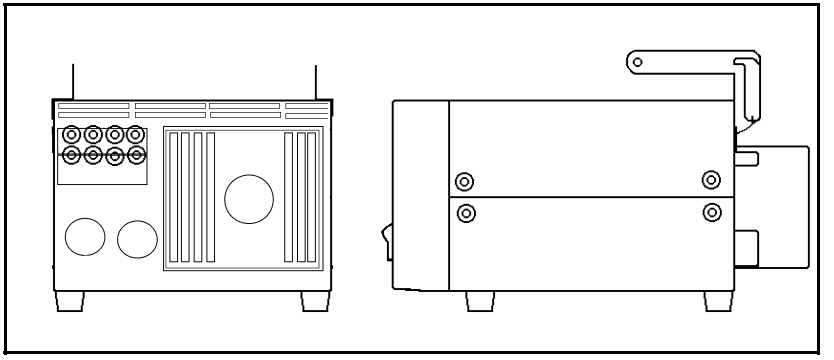

Figure 9 - Retainer Bracket Installation

3. Slide the radio unit to the rear of the power supply, as indicated in Figure 10. Attach with mounting bracket screws (2).

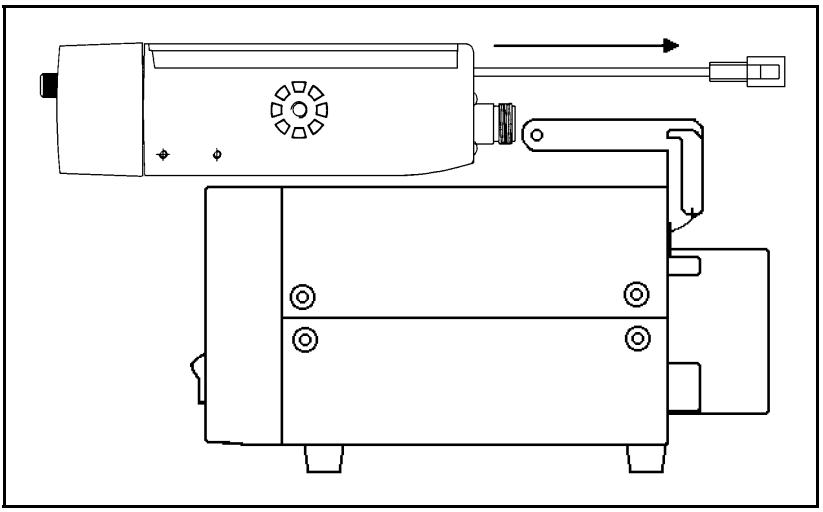

Figure 10 - Mounting the Radio Unit

Align the sides and front of the radio unit with the power supply the re-tighten the rear cover mounting screw as illustrated in Figure 10.

4. Locate the power supply interconnect cable and assemble as shown.

Install the pigtail lead for speaker connection by pushing the shield (braided) wire pin through the power supply connector body next to the red wire, complete this step for the center conductor install in the remaining connector body socket.

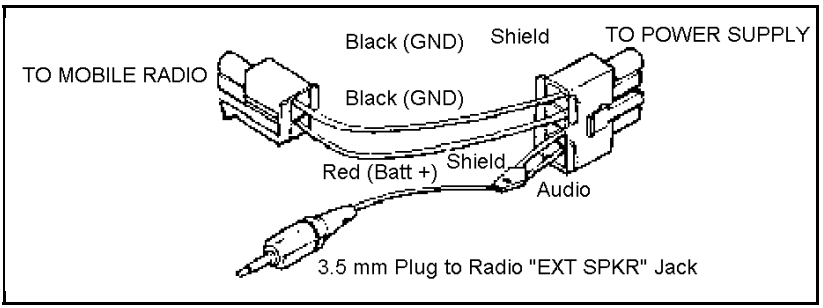

Figure 11 - Interconnect Cable Assembly (Temporary)

Once assembly is completed, install the interconnect cable between the power supply and your radio unit (the separation of the DC power cable plug). Insert the 3.5 mm audio plug into the jack marked "EXT".

Connect the AC cord only to a standard 120 VAC grounded outlet. Refer to figure 7 for grounding warning.

Connect the Microphone cable to the Mic jack on the side of the radio. Position the antenna at least 5 feet away from the radio in an elevated location. Connect the antenna cable to the antenna jack on the radio.

Turn power switch ON, the switch will illuminate. Then turn radio power to ON. Set controls as outlined in Operator's Manual AE/LZT 123 1920.

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AE/LZT 123 3201 R1A
Printed in U.S.A.