

INSTRUCTIONS FOR USE OF WIRELESS MICROPHONE

1. Connect antenna (27' black wire) to red screw terminal on back of receiver. Extend wire so that it has no loops in it.
2. Take transmitter away from receiver and turn to on position. Make sure battery is in transmitter and make sure battery is not dead.
3. Turn on receiver.
4. Turn AFC switch on front of receiver to off position.
5. Tune receiver to transmitter frequency which will be determined when "Eye" of receiver closes (33 to 34 mc.).
6. If "Eye" on receiver does not close, check battery in transmitter.
7. Turn AFC switch to on position. This will lock the receiver on frequency.
8. Volume control on front of receiver controls only the monitor speaker in the receiver.
9. Hush Control: The Hush control is a "squelch" and will be preset at the factory. This should not be touched unless absolutely necessary.
10. Level control: This control determines the output of the receiver to the house amplifier system. This is also preset at the factory but may require some adjustment depending upon the output level required by the existing sound system of the house.
11. Patch cords and connecting diagram will be included on a separate sheet.
12. The volume of the wireless microphone will be controlled by the microphone dial on the house amplifier, the same as a regular microphone.
13. A 13½ foot whip antenna will in most cases give additional range.
14. In areas of high interference a piece of coax should be used to connect the antenna to the receiver. A short antenna such as 1/8th wave should be placed as near as possible to the position where the transmitter is to be used.
15. Fluorescent lights which are blinking or which have bad starters can cause considerable interference. In such cases the tuning eye will show the interference over the entire dial. If the hush circuit is tuned to minimum the transmitter will usually override the interference.

INSTRUCTIONS FOR USE OF WIRELESS MICROPHONE

1. Lower base of antenna through hole in top of receiver and screw firmly into socket.
2. Make certain that black wire from antenna socket is connected to red terminal at rear of the receiver.
3. Check that battery is in the transmitter, and that it is inserted in the proper direction. Turn transmitter ON.
4. Turn receiver volume control one half turn clockwise.
5. Move AFC switch on front of receiver to OFF position.
6. Tune receiver to transmitter frequency, which will be indicated by the closing of the eye on the face of the receiver.
7. If the eye does not close, check battery in transmitter.
8. Move AFC switch to ON position. This locks the receiver on frequency until receiver is retuned.
9. Volume control on front of receiver controls only the monitor speaker in the receiver.
10. The HUSH control is a "squench" and will be preset at the factory. This should not be touched unless absolutely necessary.
11. The LEVEL control determines the high impedance output to the house amplifier system. This is also preset at the factory but may require some adjustment depending upon the output level required by the existing sound system. Do not turn the level control completely counter clockwise.
12. Connecting cords and diagram are illustrated on a separate sheet.
13. If the receiver is connected to a house amplifier system, output will be regulated by the controls on the house amplifier.
14. If maximum operating range is desired, the 13 foot antenna should be extended to maximum length. The antenna may be installed at a location different from the receiver, in which case it should be connected to the antenna terminal of the receiver by no more than 50 feet of RG59U cable.
15. Fluorescent lights which are intermittent or which have bad starters can cause considerable interference, as can some vacuum sweepers, fans, and electric drills if used too near the receiver. In such cases the tuning eye will show the interference over the entire dial. If the hush control is tuned to minimum, the transmitter will usually override the interference.

**ALTEC**
LANSING CORPORATION**686A "Lavalier"
Dynamic Microphone**

OPERATING INSTRUCTIONS

procedure outlined in the following illustration, Fig. 1, select the proper connections.

Note: — The microphone is shipped with leads connected for 150/250 ohms.

*INCLUDES SINTERED BRONZE FILTER

SPECIFICATIONS

Type: Moving Coil Dynamic "Lavalier" Microphone

Frequency Response: 70 to 20,000 cycles used as a "Lavalier".

Output Impedance: 30/50 and 150/250 ohms. (selection by connections in plug at end of microphone cable)

Output Level: -55 dbm/10 dynes/cm²

Pickup Pattern: Omnidirectional Pickup Pattern

Hum: -120 db (Ref.: 10⁻⁸ Gauss)

Dimensions: 1 1/8" diameter at top tapered to 3/8" at cable entrance, 3 1/2" long

Weight: 3 ozs. (not including cable and plug)

Finish: Baked enamel, non-glare dark green

Mounting: "Snap-on" Lavalier neck cord No. 13356 including spring type tie or lapel clip No. 13322. Microphone complete with 20 foot, 3 conductor shielded cable and plug

DESCRIPTION

Model 686A ALTEC Microphone is a moving coil dynamic type employing the "new" ALTEC "Golden" diaphragm and the famous ALTEC Sintered Bronze Filter for protection against humidity, moisture, dirt, dust and ferrous filings. This "lavalier" microphone is small in size and light in weight — being especially designed for use where freedom of movement of hands and body are essential. This microphone is recommended for use by legislative bodies, public speakers, home demonstrators, news and weather broadcasters, and because of its small size can be hidden from sight by a necktie, corsage or other items of wearing apparel. It is finished in TV dark green and will not reflect television or stage lighting.

IMPEDANCE SELECTIONS

Before placing the microphone in service determine the impedance requirements of the input system into which the microphone will connect, then following the

Do not remove front screw or screen

13356 Lavalier Assembly 686A microphone inserted in spring clip

FIG. 1

Do not loosen or remove knurled cable clamp ring

13322 "Tie clip" for lavalier use

Cable clamp screws "A"

Plug Assy. Screw "B"

XLR-3-12C cannon plug on microphone cable

Pin No. 1 — Ground (shield)
Pin No. 2 — Common (black)
Pin No. 3 — 30/50 ohms (white)
150/250 ohms (red)

Microphone is shipped with all connections made for 150/250 ohms operation. To select other available impedance perform the following in the XLR-3-12C plug.
(1) Loosen two cable clamp screws "A".
(2) Remove Plug Assembly Screw "B" and side plug housing along cable.

(3) For 150/250 ohms red lead is connected to Pin No. 3 and protective sleeving is on white lead.

(a) To select 30/50 ohms, remove red lead from Pin No. 3 and connect white lead to Pin No. 3. Place protective sleeving on red lead to guard against shorts and grounds.

Note: No connection changes should be attempted inside the microphone.

Note: For unbalanced systems connect black lead (common) Pin No. 2 and shield (ground) together on Pin No. 1.

MICROPHONE POSITIONING IMPORTANT:

Model 686A is a "lavalier" type unit and is designed for use with the "neck cord" No. 13356 and "tie clip" No. 13322 as furnished.

Should your microphone, through accidental damage, become inoperative it may be replaced by your ALTEC Distributor under an exchange plan or may be returned, transportation charges prepaid, for exchange:

Service Manager
ALTEC LANSING CORPORATION
1515 South Manchester Avenue
Anaheim, California

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ALTEC
LANSING CORPORATION

**686A "Lavalier"
Dynamic Microphone**

OPERATING INSTRUCTIONS

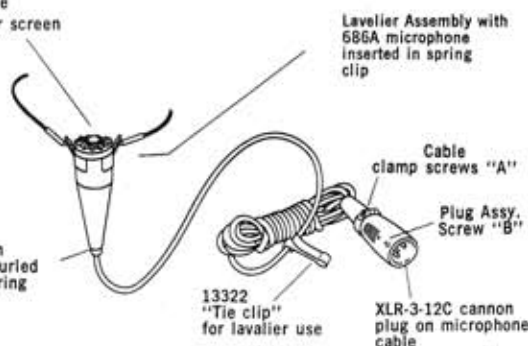
procedure outlined in the following illustration, Fig. 1, select the proper connections.

Note: — The microphone is shipped with leads connected for 150/250 ohms.

Do not remove front screw or screen

FIG. 1

Do not loosen or remove knurled cable clamp ring



Pin No. 1 — Ground (shield)
Pin No. 2 — Common (black)
Pin No. 3 — 30/50 ohms (white)
 150/250 ohms (red)

Microphone is shipped with all connections made for 150/250 ohms operation. To select other available impedance perform the following in the XLR-3-12C plug.
(1) Loosen two cable clamp screws "A".
(2) Remove Plug Assembly Screw "B" and side plug housing along cable.

(3) For 150/250 ohms red lead is connected to Pin No. 3 and protective sleeving is on white lead.

(a) To select 30/50 ohms, remove red lead from Pin No. 3 and connect white lead to Pin No. 3. Place protective sleeving on red lead to guard against shorts and grounds.

Note: No connection changes should be attempted inside the microphone.

Note: For unbalanced systems strap Pin No. 1 to Pin No. 2 at amplifier end of microphone cable.

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Weight: 3 ozs. (not including cable and plug)

Finish: Baked enamel, non-glare dark green

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ATTENTION

If apparent dead spots appear within the area you wish to work the wireless microphone, or if there is not a satisfactory range of operation, first try reorienting the antenna supplied with the receiver. If this does not solve the problem try a long whip antenna using RG 59/U lead in wire. Whip antenna may then be located up to several hundred feet from the receiver. (Minatronics Corporation will furnish army surplus 13' not collapsable whip antennas - see price sheet.)

If the antenna on the transmitter is held tight against the bare skin of the wearer no physical harm will come to him or her, but quite a bit of the signal strength will be absorbed with resultant shorter range of operation. Likewise rolling the antenna up in a ball, or wrapping antenna around transmitter, will decrease efficiency