



P-30FA

PUBLIC ADDRESS AMPLIFIER

WITH FM/AM TUNER

Unpacking and Installation

Although it is neither complicated to install nor difficult to operate your amplifier or receiver, a few minutes of your time is required to read this manual for properly wired installation and becoming familiar with its many features and how to use them. Please take great care in unpacking your set and do not discard the carton and other packing materials. They may be needed when moving your set and are required if it ever becomes necessary to return your set for service. Never place the unit near a radiator, in front of heating vents, in direct sun light, or in excessive humid or dusty locations to avoid damage and for years of quality use. Connect your complementary components as illustrated in the following pages.

Features

M/AM TUNER WITH MEMORY.

The memory stores up to 30 memories (18 FM Stations & 12 AM Stations).

VERSATILE AND CONVENIENT

3 inputs from Mic 1, Mic 2, Aux/CD are provided and mixed. Mic inputs for both XLR and 1/4" phone plugs.

MUTING FOR PRIORITY

Input to Mic 1 will automatically activate the priority circuit which temporarily mutes signals from other inputs, tuner or tape.

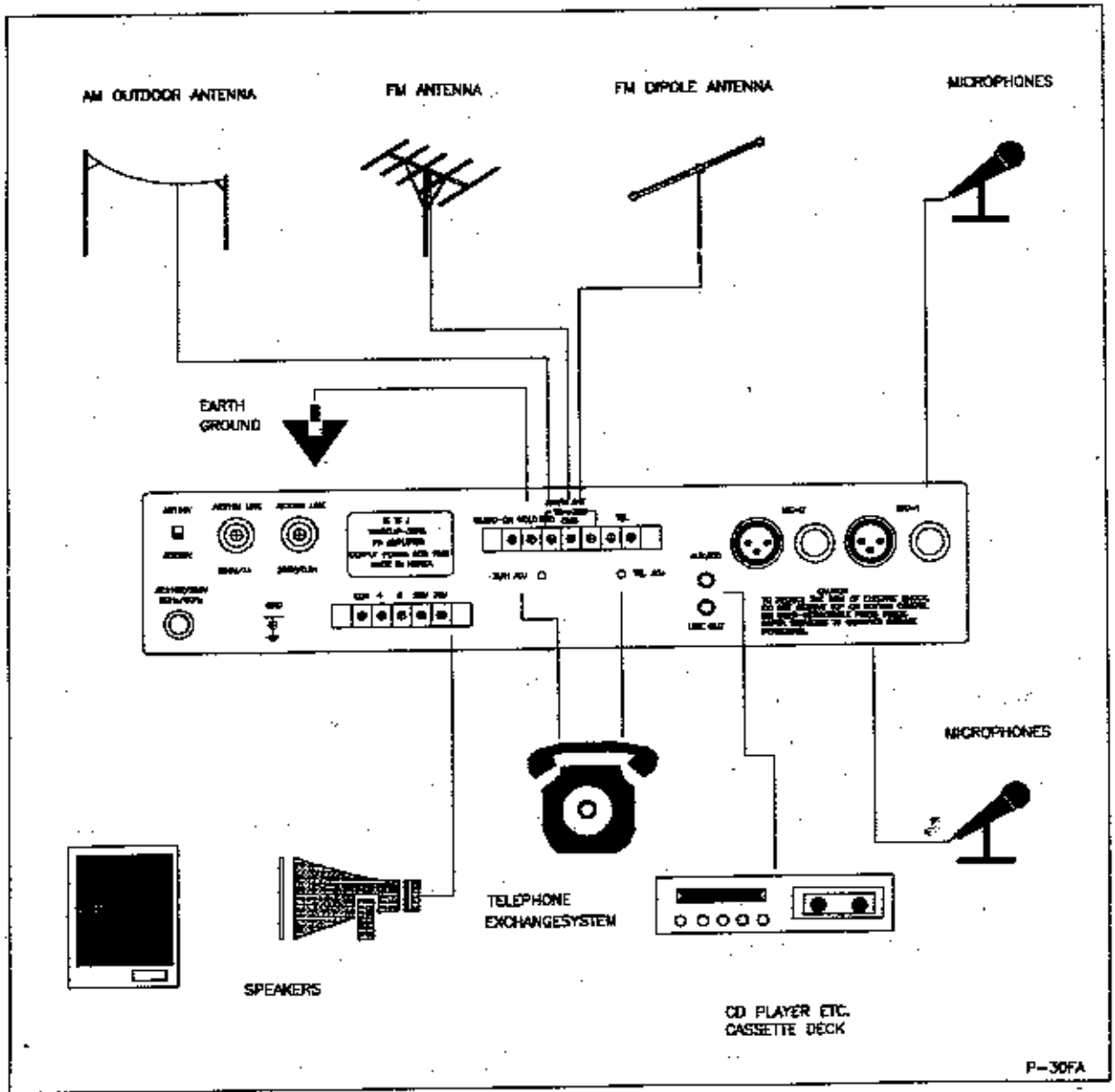
TELEPHONE INPUT & MUSIC-ON HOLD

This model has the function of telephone input and music-on hold to connect with telephone system.

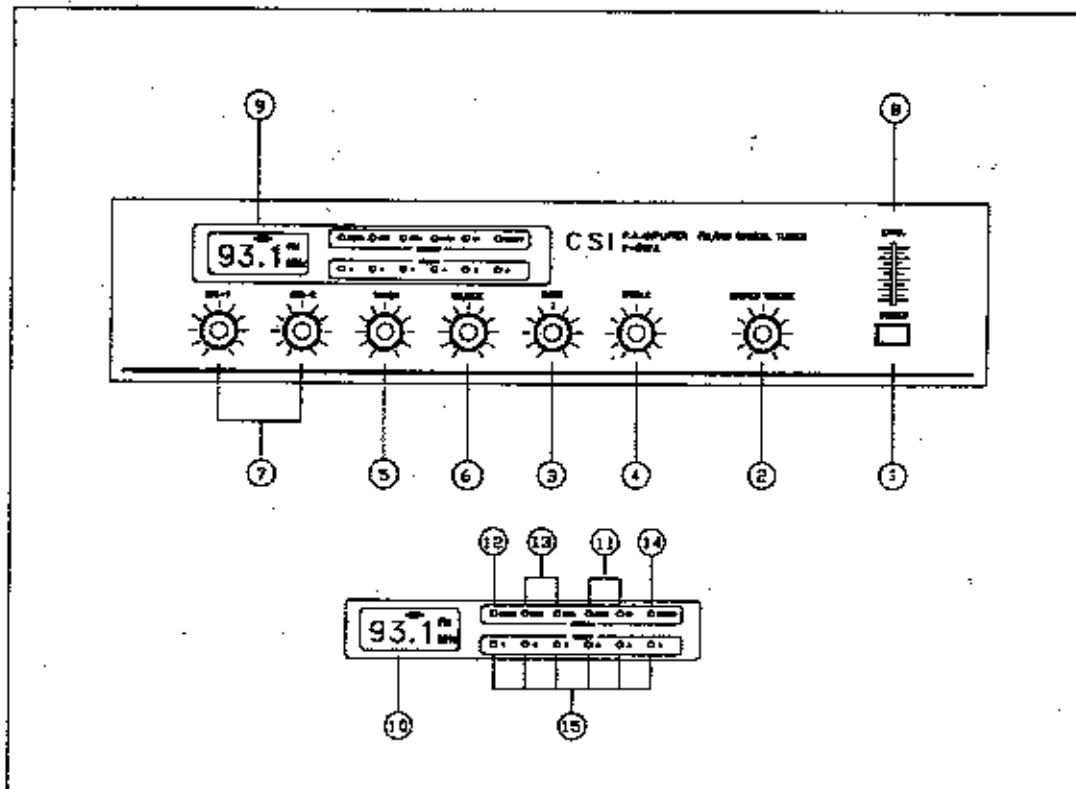
This device complies with part 15 of the FCC Rules. Operation is subject to the condition that this device does not cause harmful interference.

CAUTION : Any changes or modifications in construction of this device with are not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Connections



Front Panel Controls



1. POWER SWITCH

Pressing this switch to ON will light LED indicator and supply power to the unit.

2. MASTER VOLUME CONTROL

This control is used for adjusting the volume of all inputs simultaneously

3. TREBLE CONTROL

This control is used for adjusting high frequency sound.

4. BASS CONTROL

This control is used for adjusting low frequency sound.

5. TUNER VOLUME CONTROL

You can adjust the volume level of AM/FM tuner control with this control.

6. AUX/CD VOLUME CONTROL

You can adjust the volume level of AUX/CD with this control.

7. MIC 1, MIC 2 VOLUME CONTROLS

You can adjust the volume level of Mic 1 and Mic 2 respectively.

8. OUTPUT LEVEL DISPLAY

This LED display indicates the output level in 3dB increments.

9. TUNER DISPLAY

Indicates frequency of station selected.

10. UP/DOWN SWITCH

These buttons are used to manually tune stations.

11. BAND SELECTOR AM OR FM

This switch is used for selecting AM 1, or 2, or FM 1, 2, or 3.

12. SEEK SWITCH (UP/DOWN)

When using tuner if the Δ button is pressed, the next higher broadcasting station will be turned automatically. If the ∇ button is pressed, the next lower broadcasting station will be turned automatically.

13. MEMORY SWITCH

This switch is for storing a broadcasting frequency in memory.

(a) Select the frequency which you want to store by the (16)UP/DOWN or (18)SEEK UP/DOWN buttons.

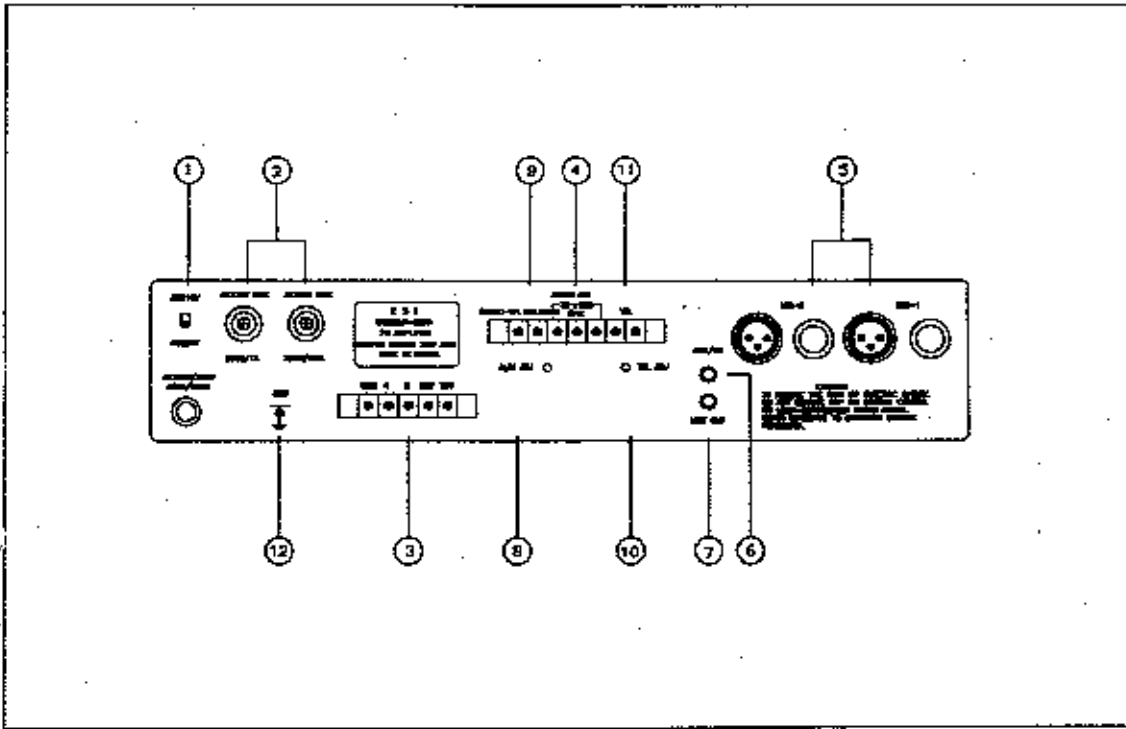
(b) Press (19)MEMORY button and then select the desired position with (20)MEMORY 1 to MEMORY

(c) Present status of tuner will be stored in selected position.

14. MEMORY POSITION BUTTONS

This tuner has 5 bands - 3FM/2AM, and 6 selections per band, 30 memories total.

Rear Panel Controls



1. Select 117V AC or 220V AC operation with this switch. Then plug AC cord into AC outlet.

2. FUSE HOLDER(AC)

This fuse holder contains the AC power fuse. Replace only with same type fuse when it is blown. If it continuously blows, stop replacing fuse and refer servicing to qualified personnel.

VOLTAGE	AC100V/120V	AC220V/240V
FUSE RATING	1A/250V	0.5A/250V

3. SPEAKER OUTPUT TERMINALS

These terminals are for speaker connection. You can select 4ohm or 8ohm or higher impedance lines 25V (21ohms) and 70V (163ohms). Be sure not to make the total impedance less than rated impedance on 25V or 70V. 4 ohm and 8 ohm must be matched exactly.

4. ANTENNA TERMINALS

FM Terminal : You can connect 75 ohm coaxial cable or 300 ohm TV cable according to the antenna system you have.

AM Terminal : Connect to the AM terminal in case of using an outdoor or indoor antenna.

GND Terminal : Ground this terminal if noise or hum is present and when using an outdoor antenna.

5. MIC 1 and 2 INPUT JACK

These jacks are for Mic 1 and 2 inputs. Input sensitivity and impedance is 0.5mV/600 ohm PL-55 jack (low impedance) and XLR jack.

6. AUX/CD INPUT JACK

You can connect a CD player etc. to this input. Right and left inputs are combined to serve as a " Y " connector (stereo to mono).

7. LINE OUT JACK

Permits auxiliary equipment to be patched from the output of preamplifier.

8. MUSIC-ON HOLD CONTROL

This control is used for adjusting the volume of music-on hold output signal.

9. MUSIC-ON HOLD TERMINALS

These terminals are for connecting to the telephone system.

NOTE: When the tuner is turned on, the tuner output signal is always supplied to these terminals and is not affected by master volume or tuner volume.

10. TELEPHONE IN CONTROL

This control is used to adjust the level of the telephone input signal.

NOTE: If the output of your telephone system is higher than 1V/600 ohm, you must use a line matching transformer. (Model TLT-1)

11. TELEPHONE IN TERMINALS

These terminals are for connection to telephone system for paging.

NOTE: When there is a paging signal through this terminal, all other input signals except AMP IN are muted.

12. GND TERMINAL

This ground terminal is to be connected with chassis or ground of a turntable etc, to reduce hum to a minimum. To further minimize hum, it may be necessary to connect this terminal with a suitable wire to the nearest cold water pipe or ground rod which goes directly to real ground.

Connection of the Antenna and the Ground Cable

FM RECEIVING ANTENNA

FM broadcasting is weakened by hills and valleys, around tall buildings and in iron-reinforced buildings.

INSTALLATION OF FM ANTENNA USING 300 OHM TWIN LEAD

Connect the leads from the antenna of the terminals marked 300 ohm. Rotate antenna to direction of strongest reception. (Fig. 1-1)

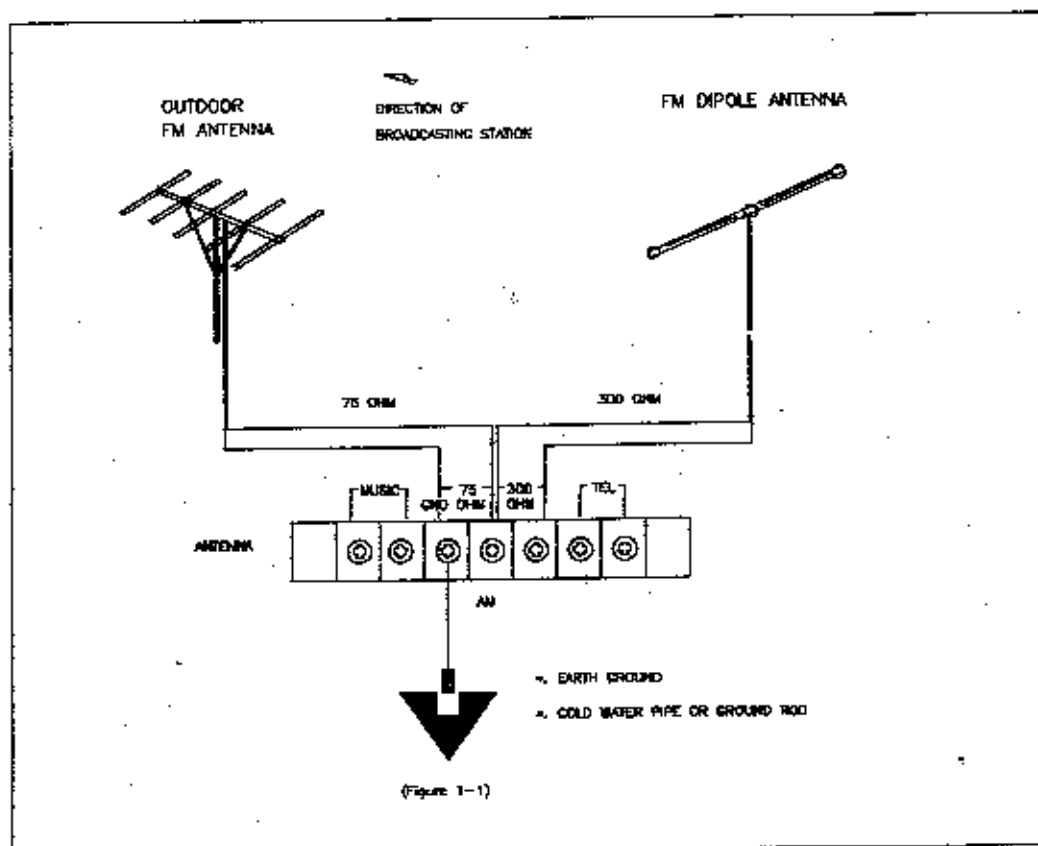
INSTALLATION OF FM ANTENNA USING COAXIAL CABLE (75 OHM)

Connect center conductor to 75 ohm terminal and shield to GND.

INDOOR ANTENNA

In regions where FM broadcasting is heard comparatively well due to the near distance of stations, you can receive broadcasting of good quality by using a T-type (FM dipole) antenna.

Mount the antenna at the best location for reception after connecting it to the terminals marked 300 ohm. (Fig. 1-1)



• **AM INDOOR ANTENNA**

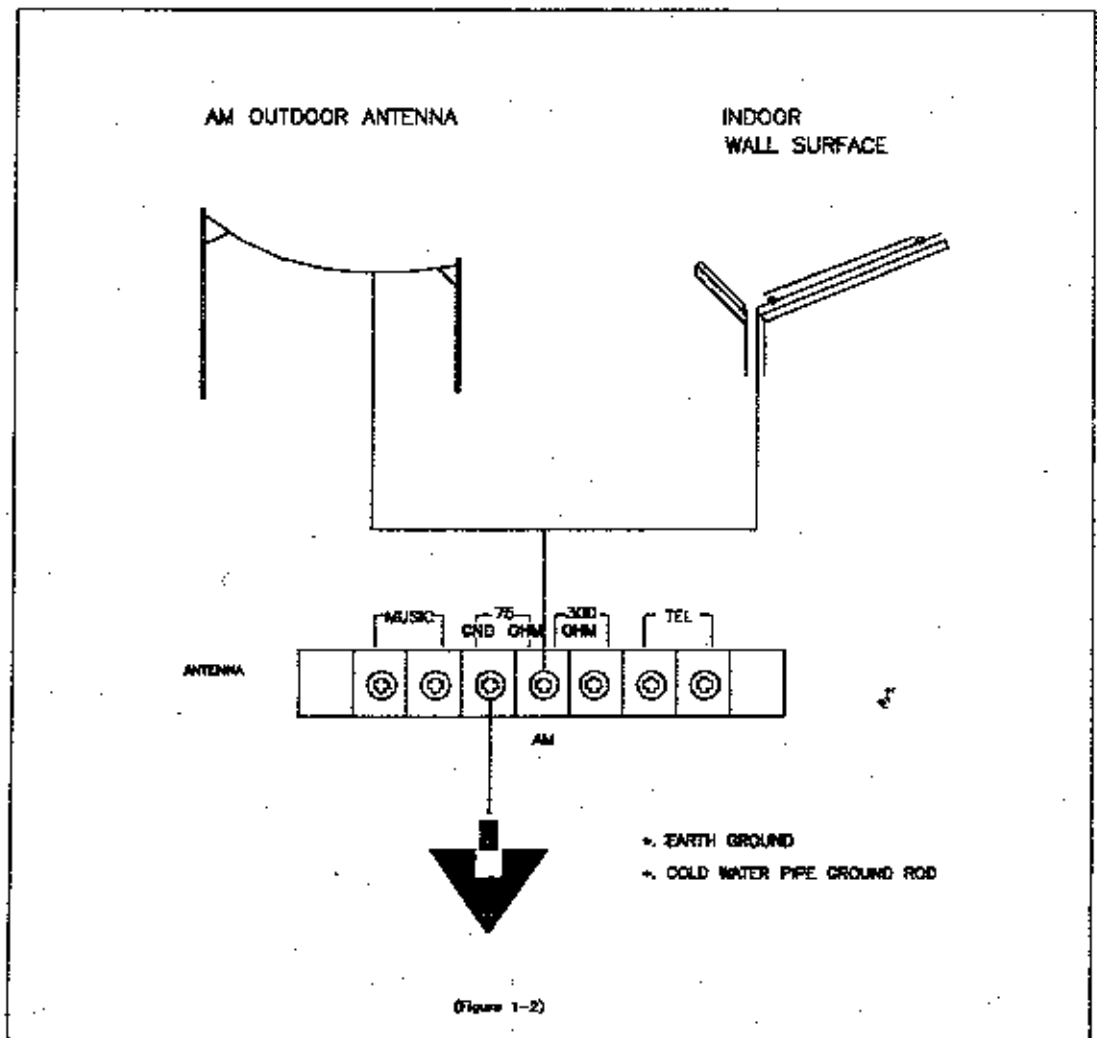
Connect one side to AM ANT. terminal and the other to high place like a wall using a vinyl-coated cable of a single conductor about 6-8M (15 feet) long. Strip insulation from end of cable to be connected to antenna terminal.(Fig. 1-2)

• **AM OUTDOOR ANTENNA**

Install a vinyl-coated cable at an outdoor location if an indoor antenna does not provide satisfactory reception. (Fig. 1-2)

• **GROUNDING (EARTH GND)**

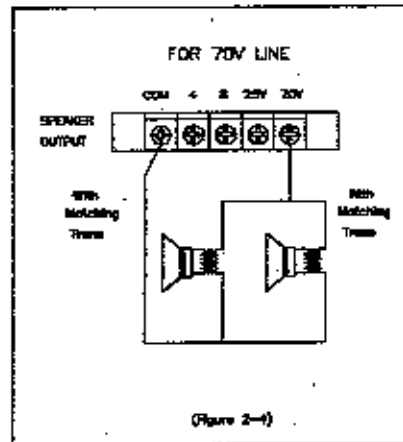
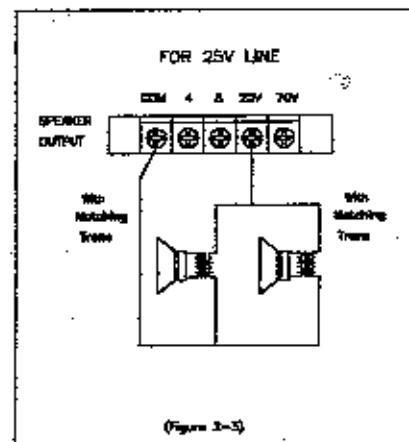
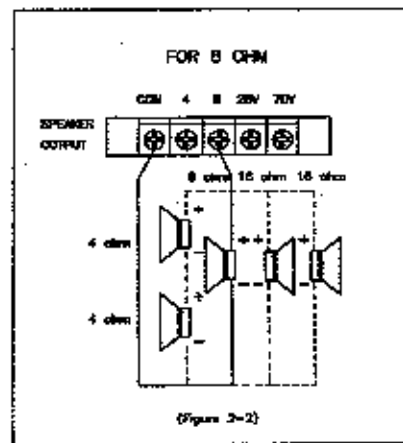
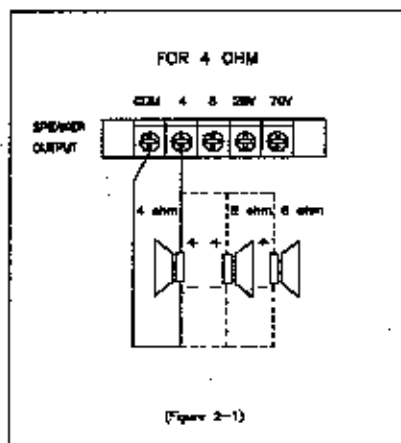
Broadcasting may be heard well without the GND connection. You should GND for safety and prevention of noise when using an outdoor antenna.(Fig. 1-2)



Installation of the Speakers

When you connect the speakers, remove the power cord from AC outlet, and use the appropriate terminals as below. Be sure that total impedance is not less than rated impedance. 4 ohm and 8 ohm must be properly impedance matched.

VOLTAGE	11V	15.5V	25V	70V
IMPEDANCE	4 OHM	8 OHM	21 OHM	163 OHM



NOTE : Do not exceed the power rating of the amplifier by connecting more speakers than the unit is rated for. If you are in doubt, please consult a professional installer.

Specifications

* AMPLIFIER SECTION

Rated Output.....	30W(RMS)
Frequency Response.....	30Hz to 20KHz
Signal to Noise Ratio	
Mic 1-2.....	60dB
Aux.....	80dB
Total Harmonic Distortion (at 1KHz Rated Output).....	Less than 0.1%
Tone Controls.....	Bass +/-10dB at 100Hz Treble +/-10dB at 10KHz

Input Sensitivity/Impedance

Mic 1-2.....	Unbalanced 0.5mV/600 ohms
Aux.....	100mV/10K ohms
Telephone.....	200mv/600 ohms
Line output.....	500mV/10K ohms
Speaker Output/Impedance.....	4 ohms/11 V, 8 ohms/15.5V, 25V(21 ohms), 70V(163 ohms)

* TUNER SECTION

Tuning Range.....	U.S.A; FM 87.5MHz-107.9MHz AM 530KHz-1710KHz
Antenna Input.....	FM: 300 ohms Twin Lead or 75 ohms Coax AM: Single Conductor Lead Wire
Usable Sensitivity.....	FM 3 μ V, AM 30 μ V
Signal to Noise Ratio.....	FM 60dB, AM 50dB

* Protection

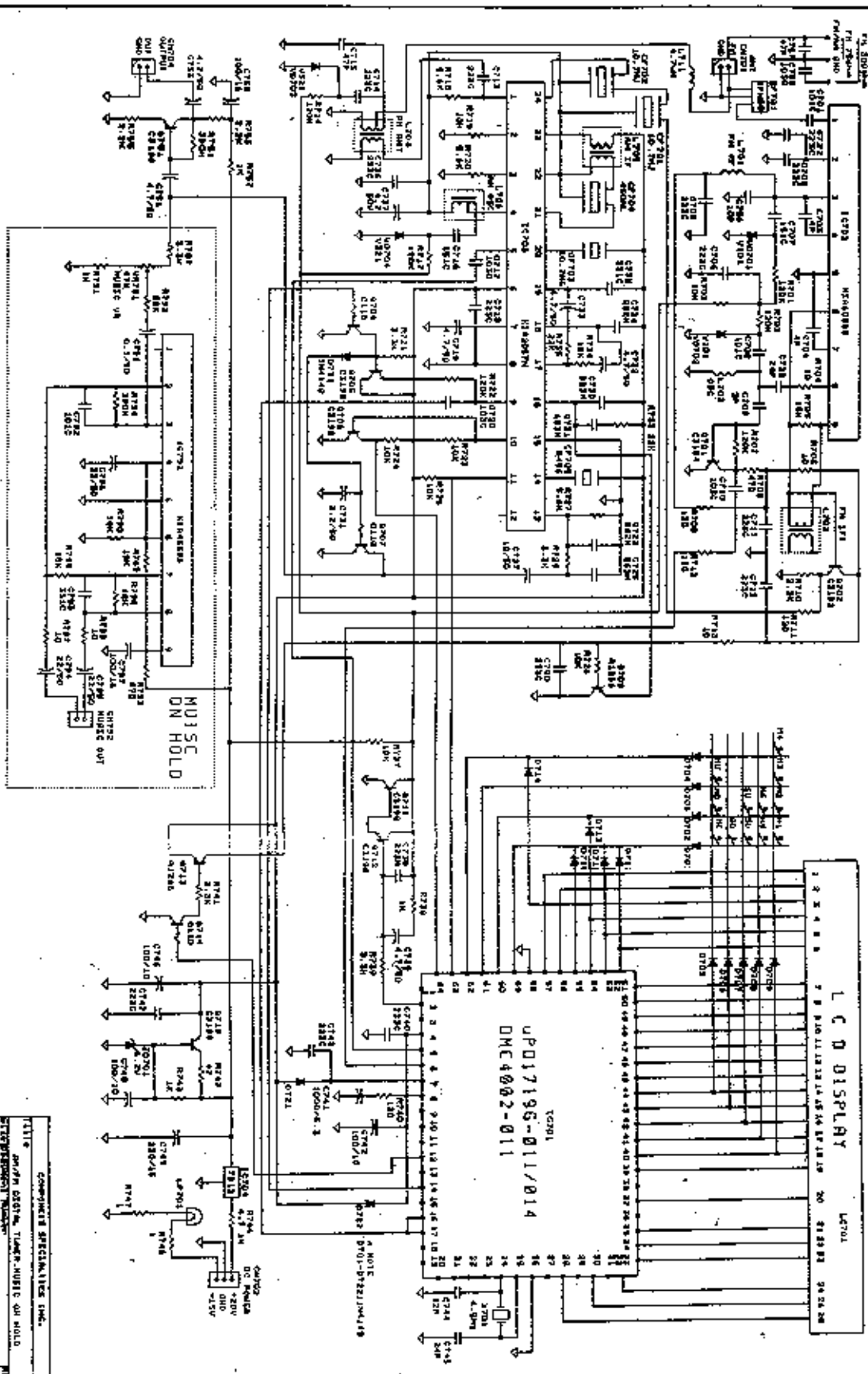
- (1) Amplifier : Short-Circuit Current Limiter Thermal Cut-Out
- (2) Load : DC Offset, Turn-On/Turn-Off Transients (Delay), Output Fuse
- (3) Mainframe : AC Line Fuse.

* General

Power Source.....	AC 110/120V or 220/240V 50/60Hz
Power Consumption.....	80W
Dimensions.....	420(W) \times 88(H) \times 280(D)mm 16 $\frac{1}{2}$ (W) \times 3 $\frac{1}{2}$ (H) \times 11(D)
Weight(Net).....	14LBS(6.5Kg)

NOTE: Specifications and design subject to change without notice.

TUNER & MUIISC ON HOLD



LCD DISPLAY L101

U101 7195-011/014
DMC4002-011

COMPONENT SPECIFICATIONS INC.
TITLE: MUIISC ON HOLD, TUNER, MUSIC ON HOLD
DATE: 11/11/88
REV: 1

FOR ASSISTANCE OR REPAIR SERVICE CONTACT

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