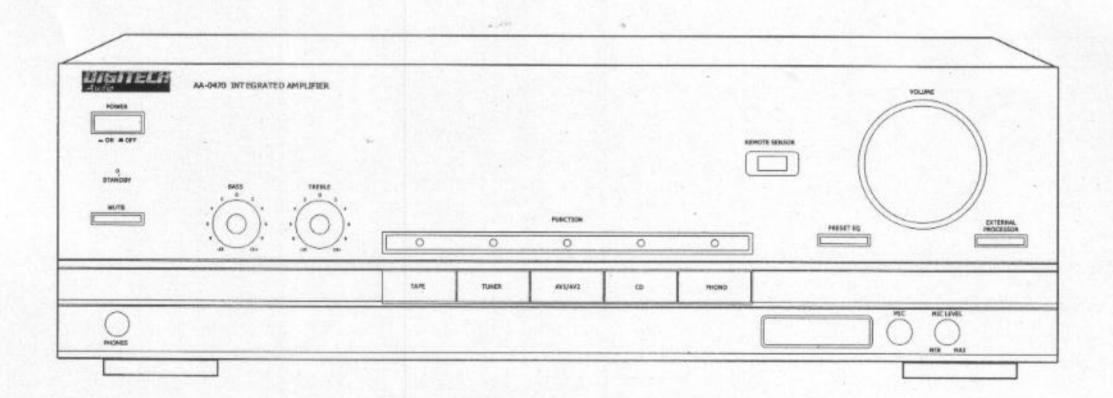


# Operator's manual

# INTEGRATED AMPLIFIER AA-0470



# Safety precautions



A triangle with a lightning symbol draws the user's attention to "dangerous voltage" without insulation in the cabinet which may be high enough to entail a risk of electric shock.



A triangle with an exclamation mark draws the user's attention to important instructions for use and maintenance in the accompanying manual, which should be studied.



A symbol for CLASS II (double insulation)

WARNING:

TO MINIMISE THE RISK OF FIRE OR ELECTRICAL SHOCK, DO NOT EXPOSE THE UNIT TO RAIN OR MOISTURE. DO NOT OPEN THE CABINET AS IT CONTAINS DANGEROUS VOLTAGE. ONLY QUALIFIED TECHNICIANS ARE ALLOWED TO CARRY OUT REPAIR AND SERVICE.

CAUTION:

If the plug of the power cord needs to be replaced, it is important that the replacement is identical to the plug to be replaced, or that the new plug has been recommended by the manufacturer. TO AVOID ELECTRICAL SHOCK, IT IS IMPORTANT TO INSERT THE PLUG CORRECTLY INTO THE

SOCKET.

# Important safety instructions

WARNING: IT IS IMPORTANT THAT YOU READ AND OBSERVE BOTH THE INSTRUCTIONS IN THIS MANUAL AND THE INSTRUCTIONS ON THE UNIT. KEEP THIS MANUAL FOR FUTURE REFERENCE.

This unit was designed and manufactured with a view to providing maximum safety for the user. Incorrect use of the unit may cause electrical shock or fire. The protection devices built into this unit will protect the user if the procedures below are observed in connection with installation, use and repair. This unit is fully electronic and contains no parts that can be repaired by the user.

DO NOT REMOVE THE CABINET. RISK OF DANGEROUS VOLTAGE. ONLY QUALIFIED TECHNICIANS ARE ALLOWED TO REPAIR THE UNIT.

### Read the manual

Upon unpacking the unit, please read the manual carefully and observe all the instructions given.

### Power supply

Only the power supply indicated on the rating plate must be used for this unit. If you are not sure which power supply you have, please contact the distributor or the local electricity supplier.

### Earthing or polarisation

If the plug cannot be inserted properly into the socket, or if the plug does not fit, the unit must not be used in your country.

### Ventilation

The cabinet is provided with slots and openings to ensure ventilation and reliable operation and to protect the unit against overheating. Do not block or cover these openings. The openings must never be blocked, for instance by placing the unit on a bed, a sofa, a carpet or similar surface.

### Heat

Do not place the unit near sources of heat such as radiators, heat registers, ovens or other units that produce heat.

### Water and moisture

The unit must not be placed close to water, such as bathtub, wash basin, kitchen sink or laundry tub, in a damp cellar or close to a swimming pool, etc.

### Cleaning

Unplug the unit before cleaning. Do not use liquid detergents and aerosol cleaning agents. Use a dry cloth.

### Power cords

Wiring must be organised to prevent people from stepping on the cables and to avoid pinching by objects placed on or beside them. Take special care around sockets and plug boxes and where the power cords leave the unit.

### Overloading

Make sure that wall sockets, extension cords and plug boxes are not overloaded as this may lead to fire or electrical shock.

# Important safety instructions

### Lightning

Unplug the unit for additional protection during thunder or when the unit is not used for prolonged periods. This will prevent damage to the unit from lightning and power surges.

### Penetration of objects and liquid

Never push any foreign objects through the openings into the unit, as they may touch dangerous voltage points or short-circuit parts and thus cause fire or electric shock. Do not spill liquid on the unit.

### Accessories

Do not place the unit on unstable surfaces such as a trolley, stand, tripod, shelf or table. The unit may fall and injure children or adults or be seriously damaged. Use only trolley, stand, tripod, shelf or table that is very stable or provided with the Unit. The unit must be installed in accordance with the manufacturer's instructions and by means of installation equipment recommended by the manufacturer. If the unit is placed on a trolley, the trolley must be moved very carefully. Sudden stops, unnecessary force and uneven surfaces may cause the trolley to turn over.

### Loads

Do not place heavy loads on the unit and do not step on it. The load may fall and cause serious injury to persons or damage to the unit.

### Damage

Unplug the unit and contact qualified technicians in the following cases:

- A) If the power cord or the plug is damaged.
- B) If liquid has been spilled on the unit or objects have fallen into the unit.
- C) If the unit has been exposed to rain or water.
- D) If the unit does not work properly after adhering to the instructions in the operation manual. Only the settings described in the operation manual must be made as incorrect setting may result in damage and often will make it difficult for a qualified technician to make the unit work properly again.
- E) If the unit has been dropped or damaged in any other way.
- When the operation of the unit changes drastically, the unit requires service.

### Service

Do not attempt to carry out any service work yourself. By opening or removing the cabinet, you will be exposed to dangerous voltage or other hazards. Any service work should be carried out by qualified technicians.

### Spare parts

If spare parts are required, make sure that the service technician uses spare parts specified by the manufacturer or spare parts with the same characteristics as the original. Unauthorised spare parts may cause fire, electrical shock, etc.

## Safety check

After service or repairs on the unit, ask the service technician to carry out a safety check to ensure that the unit is ready for use.

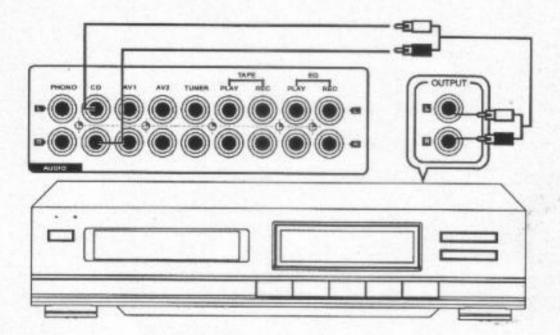
# Connections

### Connection precautions

- When connecting, either disconnect the power plug from the power outlet or turn off the unit's power using the POWER switch.
- Check the left and right channels and connect properly (Left to L and Right to R).
- Insert the plugs securely. Improper connection can lead to the generation of noise.

### Compact disc player

Connect the CD terminals on the amplifier rear panel to the OUTPUT terminals on the compact disc player using the pin-plug cord.

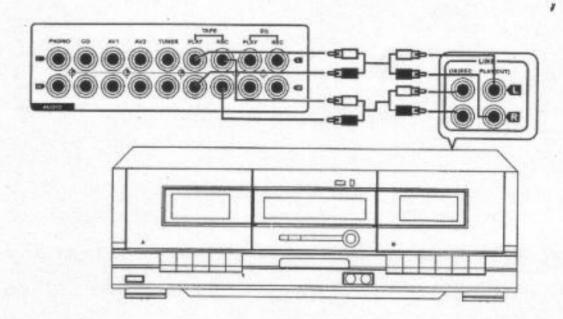


### AV1/AV2 terminals

These terminals have an electrical performance which is equivalent to that of the CD terminals and the TUNER terminals which means that they can be used as audio input terminals for a video disc player or TV tuner. Connect these terminals to the OUTPUT terminals on the unit you wish to connect using the pin-plug cord.

### **TAPE Deck**

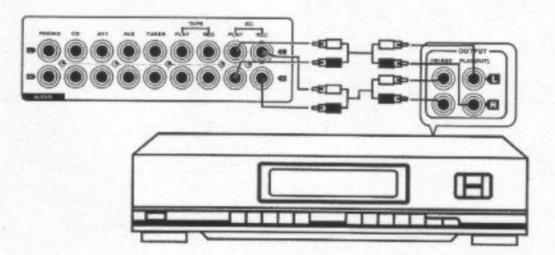
Recording connections: Connect the TAPE REC terminals to the input (REC IN) terminals on the tape deck using the pin-plug cord. Playback connections: Connect the TAPE PLAY terminals on the amplifier rear panel to the output (PLAY OUT) terminals on the cassette deck using the pin-plug cord.



### **PROCESSOR** terminals

These terminals are used to connect a graphic equalizer or sound processor. They also come in handy for connecting an AV (audio/video) selector unit.

Use pin-plug cords to connect the REC terminals on the amplifier rear panel to the REC IN terminals on the unit you wish to connect and also to connect the PLAY terminals on the amplifier rear panel to its PLAY OUT terminals on the unit you wish to connect.



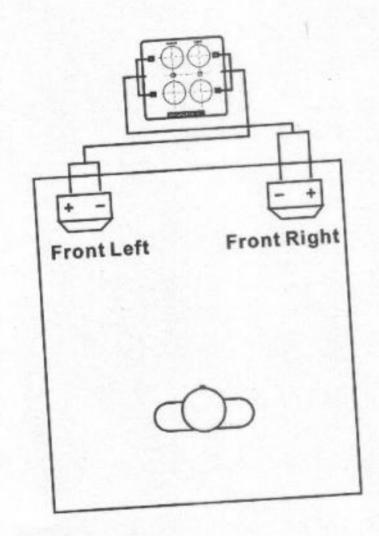
# Connections

# Speaker systems

Connect the speakers to the SPEAKER terminals on the rear panel of the amplifier with speaker cords.

When viewed from the front (listening position), the speaker placed to the left should be connected to the L terminals, and the speaker placed to the right should be connected to the R terminals. Be sure to connect the polarities of the speakers and the SPEAKER terminals correct (+ to +, - to -). If the polarity of one of the speakers are connected improperly, sound in the central area between the speakers will appear to be missing, and the position of the instruments will not be clear, resulting in a loss of stereo directionality; so take care when connecting.

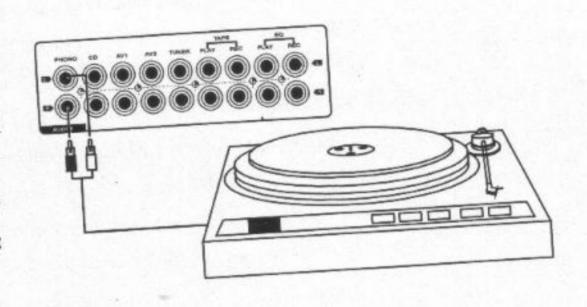
\* When connecting, do not allow the conductor of the speaker cords to be exposed from the terminals and come into contact with other terminals.



# PHONO

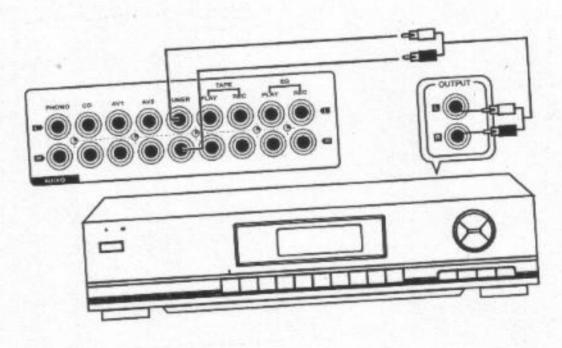
Connect the turntable's output cord L (white) plug to the L PHONO terminal on the rear panel of the amplifier and the R (red) plug on the to the R terminal.

If your turntable is equipped with a grounding cable, connect it to the unit's GND screw on the rear panel of the amplifier. But disconnect it if you notice increased hum.

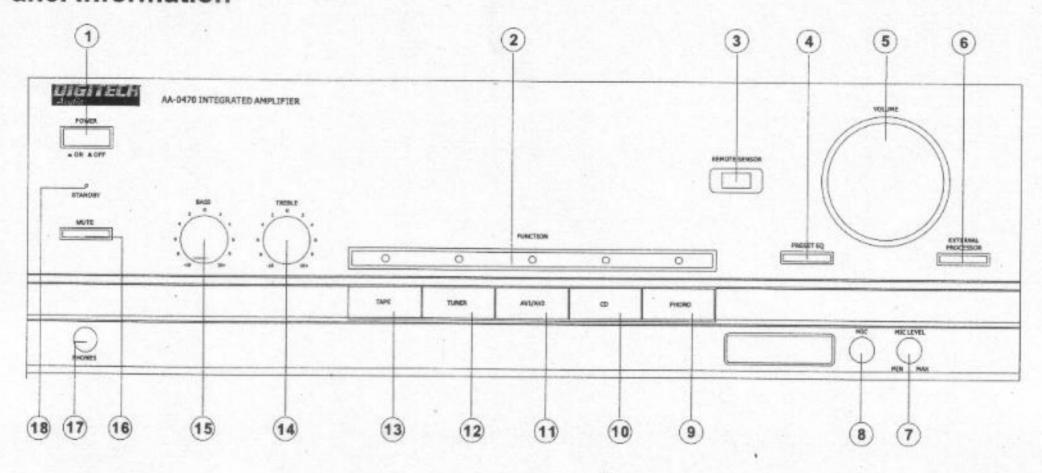


### Tuner

Connect the TUNER terminals on the rear panel of the amplifier to the OUTPUT terminals on the tuner using a pin-plug cord.



# **Panel Information**



### 1. POWER SWITCH

Power is supplied to the amplifier when this switch is depressed and the power is switched off when the switch is released.

### 2. FUNCTION

Press either TAPE, TUNER, AV1/AV2, CD, PHONO, the relative indicator will be lit up.

### 3. REMOTE SENSOR

Work with the remote control.

### 4. PRESET EQ

Press this switch to preset one of the following kinds of music: POP (green color), ROCK(red color), CLASSIC (orange color) and FLAT (no color).

### 5. VOLUME CONTROL

This is used to control the sound heard from the speakers or through the headphones. Turn it clockwise or counter clockwise, the volume will be increased or decreased.

### 6. EXTERNAL PROCESSOR

When this unit is connected to an external graphic equalizer or sound processor, press this switch to activate or deactivate the external unit.

### 7. MIC LEVEL VOLUME

Adjust the MIC LEVEL by turning MIC LEVEL VOLUME knob.

### 8. MIC JACK

For connecting a microphone.

### 9. PHONO

This button is pressed when you wish to listen to records on the turntable (PHONO) connected to the PHONO terminals.

### 10. CD

This button is pressed when you wish to listen to the compact disc player connected to the CD terminals.

### 11. AV1/AV2

This button is pressed once to activate the AV1 input on the rear panel. Press it once more to activate the AV2 input on the rear panel of the amplifier.

### 12. TUNER

This button is pressed when you wish to listen to the radio broadcasts from the tuner connected to the TUNER terminals.

### 13.TAPE

This button is pressed when you wish to listen to the cassette deck connected to the tape terminal.

### 14.TONE CONTROL TREBLE VOLUME

The treble sound is emphasized when the TREBLE knob is turned clockwise from its "0" position while it is attenuated when the knob is turned counterclockwise.

### 15. TONE CONTROL BASS VOLUME

The bass sound is emphasized when the BASS knob is turned clockwise from its "0" position while it is attenuated when the knob is turned counterclockwise.

### 16. MUTE

Press this button to mute the sound, to resume, press it again.

### 17. PHONES JACK

This is the jack for headphones. Connect the plug on the stereo headphones for private listening.

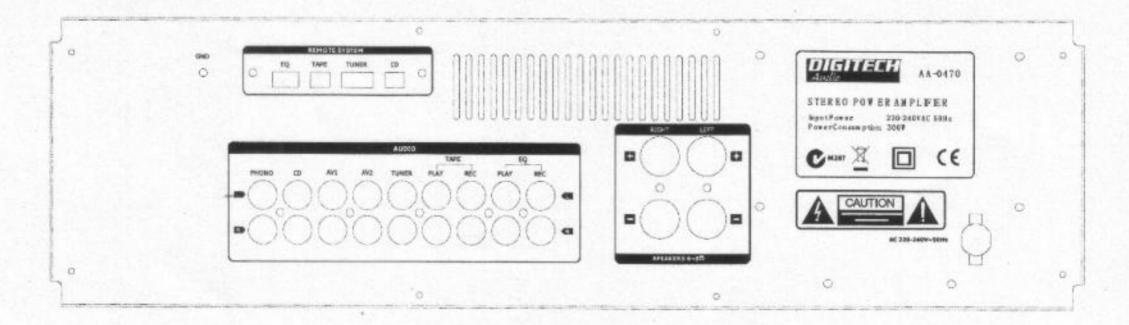
Adjust the volume so that it does not hurt your ears when using the headphones.

 If you do not intend to use your headphones, always ensure that you unplug them.

### 18. REMOTE STANDBY INDICATOR

This LED will glow when the system is in standby.

# **Operating Procedures**



### Before starting operation

Check that the controls have been set to the following positions before commencing operation

- Turn the VOLUME control counterclockwise as far as it will go and set it at the "0" minimum volume position.
- Set the BASS and TREBLE tone controls to the "0" (center) position.

After these checks, press the POWER switch to turn on the power.

If standby indicator is lighted, the amplifier is in standby.

- Press the power switch on.
- Use the power button on the remote control to switch on the power.

### Playing a program source

 Press the desired input selector button to select the source you wish to listen to.

To listen to record: press the PHONO button.

To listen to radio broadcast: Press the TUNER button.

To listen to a compact disc: Press the CD button.

To listen to a component connected to VIDEO

terminals: Press the AV1/AV2 button.

To listen to a tape: Press the TAPE button.

- 2. Operate the unit connected to the selected source.
- Gradually turn the VOLUME control clockwise until the desired volume level is obtained.
- To adjust the tone quality, adjust the BASS and TREBLE control.
- \* When you wish to use headphones, insert the plug of the headphones into the PHONES jack.

### **RECORDING TAPE**

It is possible to record the sound from a connected source if a tape recorder is connected to the recording (REC) terminals on the rear panel of the amplifier.

- Select the source you wish to record by pressing the corresponding input button (PHONO, CD, TUNER, AV1/AV2).
- Make sure ther is sound from the selected source. Press play if that is an option.
- 3. Operate the tape deck and press the "REC" button.

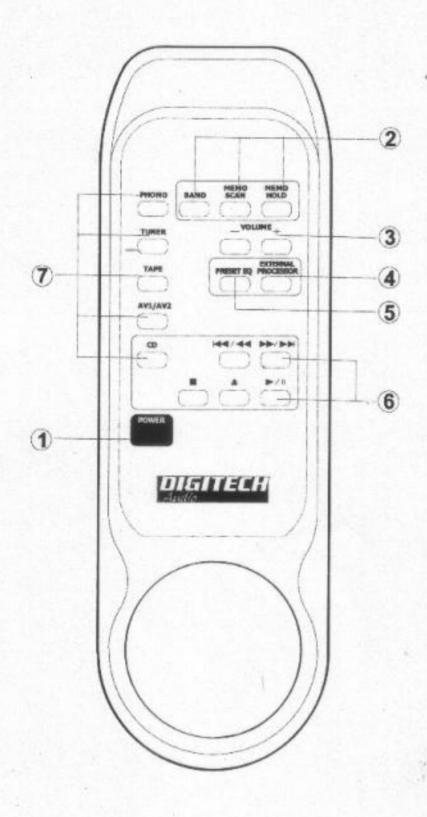
\*The volume, Tone and other controls (including graphic equalizer) have no effect on the recording level or sound quality of the signals being recorded.

### **REMOTE SYSTEM**

This amplifier is equipped with a remote system control, that makes you able to do basic operations on the other units in the Eltax Acura-70 series, like power on/off, changing preset on the tuner, stepping in tracks on the CD player.

To use the remote system control, connect the system control wire (included with the TUN-70, DCD-70, EQL-70 and CDP-70) from the connecter "REMOTE SYSTEM TO AMP" on the TUN-70, DCD-70, EQL-70 or CDP-70, to the corresponding input on REMOTE SYSTEM on the AMP-70.

# Operation



- 1. Power Switch
- 2. AM/FM Selector/Memory Scan/Hold
- 3. Volume Control Key (+ -)
- 4. Equalizer Sound preset
- 5. Equalizer User Preset
- 6. CD Control Key
- STOP
- CLOSE/OPEN
- PLAY/PAUSE
- SKIP/FAST BACKWARD
- SKIP/FAST FORWARD
- 7. Function Keys:
- PHONO
- TUNER
- TAPE
- AV1/AV2
- CD



### Remote Control Instructions

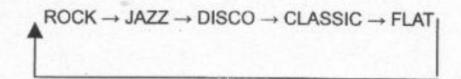
The remote control can directly control the majority of system functions of the Acura 70 system. The functions include power control of the system, Volume control, sound field control, CD operation control, Tuner operation control and also source control function. This remote control may not function properly if a block is located between it and the receiving unit, or if the remote control is held in an improper angle to the receiving unit.

### **Battery Installation**

Remove the rear cover of the remote control by sliding it backward. Install two AA (1.5 V) size batteries, while observing the correct polarity (match the (+) and (-)signs).

## Sound Field Control Operation

- Press the preset EQ button to select the sound mode decided.
- Each time the button is pressed, the mode changes as follows:



### **TUNER OPERATION BUTTONS**

Press the tuner button to activate the tuner input.

- Press BAND keys for selecting AM/FM band.
- Memo Scan: Press to scan the stations (0-9) stored in the station memory.
- Memory Hold: After pressing Memory Scan key, Tuner.
   will scan through station (0-9). When your desired station is reached, press MEMORY HOLD to keep listening to it.

### **OTHER**

- Sound source can be changed directly by pressing TUNER, PHONO, TAPE, CD or AV1/AV2 key.
- Volume level can be adjusted by pressing VOL "-" or "+" keys.

Note: Exhausted batteries may reduce the level of sensitivity of the controller.

# **Specifications**

Power output

100 watts per channel into 6 ohms.

Load Impedance

4-8 ohms

**Total Harmonic Distortion** 

less than 0.05% at 1/2 rated RMS power output.

Frequency response (at 1 watt)

20 to 20 kHz, + 1 dB, -2dB

RIAA curve deviation

(PHONO 20 Hz to 20 kHz)

+0.5 dB, -0.5 dB

Input sensitivity and impedance

(at 1 kHz for rated power output)

PHONO

2.5mV/47 kohms (Max. input capability: mV at 1 kHz, less than 0.1% total harmonic

distortion)

TUNER, TAPE PLAY

250 mV/47 kohms

Output level (1 kHz)

TAPE REC

250 mV into 47kohms

Signal to noise ratio (short-circuit, A-network)

**PHONO** 

60dB

TUNER, TAPE PLAY

.70 dB

Power requirements

Power Voltage

220-240V ~ 50Hz

Power Consumption..... 300Watts maximum

Dimensions.......420 x 135 x 215mm (W x H x D)

Weight..................6.2 KG

Design and specifications for subject to changes without notice for improvements.