OPERATION

- Before commencing operation, check to see if all connections are properly made.
- Always be sure to set the volume control to the minimum position before turning on power.

Listening from turntable
1. Set Tape Monitor selector to SOURCE.
2. Select PHONO on the function selector.
3. Start playing turntable, and raise the volume to the desired level.

Listening from compact disc player or tuner
1. Set Tape Monitor selector to source.
2. To listen to a compact disc, set the input selector to the CD position; set it to the TUNER position to listen to radio broadcasts.
3. Play the compact disc or tune in to the desired station, according to instructions given for the equipment.
4. Raise the volume to the desired level.

Playing back tape deck
1. Set Tape Monitor selector to TAPE position according to the tape deck you are going to play back.
2. Start playback.
3. Raise the volume to the desired level.

Recording program source
Play the desired program source according to the procedures mentioned above. The signal from the source will be sent through TAPE MONITOR OUT terminals on unit's rear panel. Put the tape deck in the record mode to record the signal. During recording, operation of Volume control, and Tone Control will have no effect on the signal being sent through TAPE MONITOR OUT terminals.

Playback With AV/AUX Equipment
The RA-820A permits connection of one audio-visual or auxiliary components.

There are one set of audio inputs for a stereo AV component such as a video disc player or a TV.
This system allows high performance operation for optimal sound quality such as digital sound from a Hi-Fi video disc player. Alternatively the inputs can be used for connection with an audio equipment such as another compact disc player.

HUM AND NOISE

In any high fidelity installation, hum may be caused by the interconnection of a turntable, tuner and amplifier, and speakers as the result of wiring, different grounding or locations of components.
If hum is experienced with your unit, disconnect everything but the speakers from the unit. Plug in the turntable and if hum or howling appears, move the turntable away from the speakers as much as possible.
Note hum may also be induced by defective cable connections or by running the cables too close to strong AC field.
When your unit picks up noise during the reception of broad-casts, causes are mostly due to external objects such as fluorescent lamps and house appliances using motor or thermostat, or others that may induce the noise.
Either relocating the unit away from the noise sources or using an improved outdoor antenna may readily solve the problem. In the event you cannot find the cause consult your dealer or a qualified electrician.

VOLTAGE SELECTION

Not available for U.K., Canada and Scandinavia
The unit is a variable voltage equipment that can run on 120V, 220V or 240V power supply. Your unit should already be preset at the proper voltage for use in your area. However, if you move to an area where the power supply voltage is different, consult your dealer.

SPECIFICATIONS

Continuous Power Output...30 watts* per channel, min.
RMS both channels driven into 8 ohms from 20 to 20,000 Hz with no more than 0.08% total harmonic distortion.
DIN Output.................50 watts per channel (1 kHz, 4 ohms, 1% THD)
Music Power.................110 watts
Total Harmonic Distortion...No more than 0.08% (contin-
(30 to 20,000 Hz, from AUX)uous rated power output)
No more than 0.08% (contin-
uous 1/2 rated power output)
No more than 0.08% (1 watt
per channel power output, 8
ohms)
Intermodulation Distortion...No more than 0.08% (contin-
(60 Hz : 7 kHz = 4 : 1)uous rated power output)
No more than 0.08% (contin-
uous 1/2 rated power output)
No more than 0.08% (1 watt
per channel power output, 8
ohms)

Output: Speaker..............8-16 ohms
Headphone..................4-16 ohms
Damping Factor..............180 (20 to 20,000 Hz, 8 ohms)
Input Sensitivity/Impedance:
PHONO.......................2.5 mV/47 kohms
CD...........................150 mV/20kohms
TUNER.......................150 mV/20kohms
TAPE.........................150 mV/20kohms
AV/AUX......................150 mV/20kohms
Overload Level (T.H.D. 0.5%, 1k Hz):
PHONO.......................200 mV
CD, TUNER, TAPE............5V
AV/AUX......................5V
Frequency Response:
PHONO.......................20 to 15,000 Hz, ± 0.3 dB
(RIAA STD)
CD, TUNER, TAPE............10 to 40,000 Hz, ± 1.0 dB
AV/AUX......................10 to 40,000 Hz, ± 1.0 dB
Tone Control:
BASS.........................+3.5 dB, -3.5 dB, (100 Hz)
TREBLE......................+3.5 dB, -3.5 dB, (10 kHz)
Signal to Noise Ratio (IHF, A network):
PHONO.......................80 dB
CD, TUNER,_TAPE............100 dB
TAPE.........................100 dB
AV/AUX......................100 dB

MISCELLANEOUS

Power Requirement........120V/60 Hz, 220V/50 Hz,
240V/50 Hz, or 120, 220,
240V/50-60 Hz (switchable)
(depending on destinations)
Power Consumption...........170 watts
Dimensions (overall)........444(W) x 80(H) x 303(D) mm
17¾" x 31½" x 11¾"
Weight (net)................6 kg/13.2 lbs

* Specifications and design subject to possible modification without notice.
* "Measured pursuant to the Federal Trade Commission's Trade Regulation Rule or, Power Claims for Amplifiers (applicable to the U.S.A. only)."