

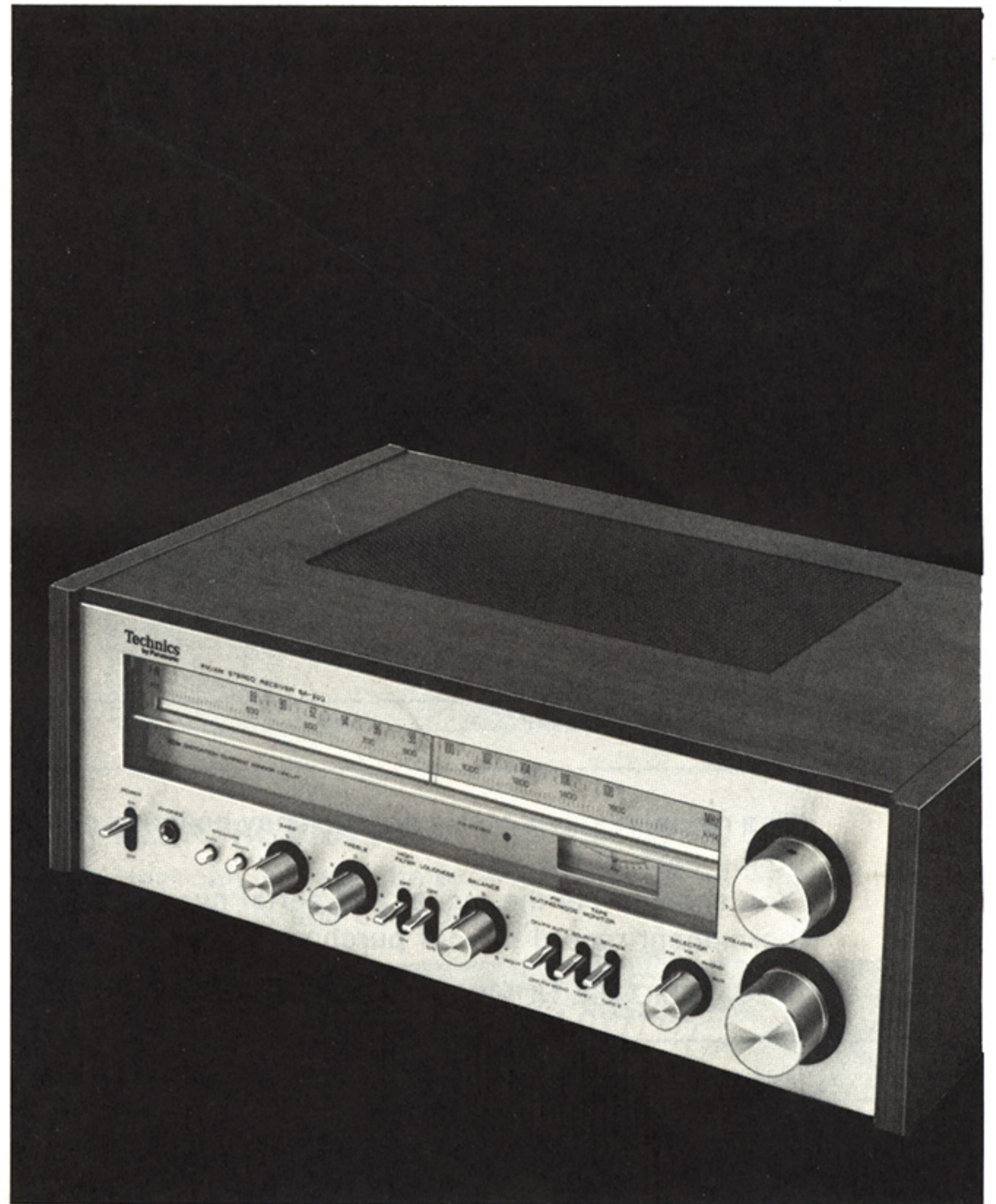
# Technics

by Panasonic

FM/AM STEREO RECEIVER

## SA-300

### OPERATING INSTRUCTIONS



Simulated wood cabinet

[REVINTAGES.COM](http://REVINTAGES.COM)

Before operating this unit, please read these instructions completely.



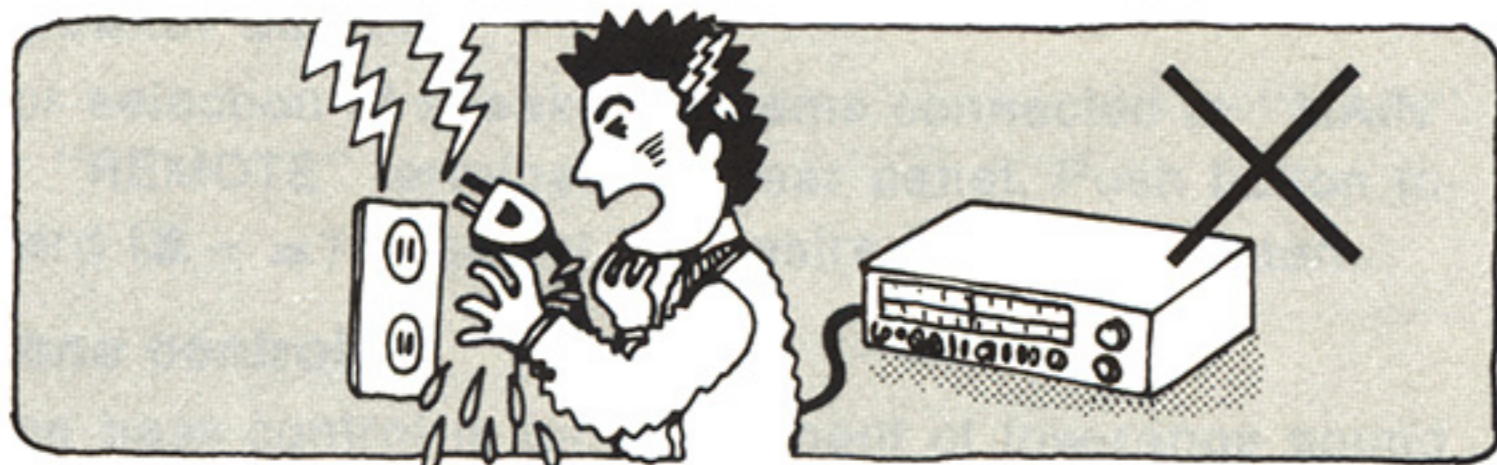
## 2) CONNECTION AND DISCONNECTION OF THE POWER CORD PLUG

### 1. Wet hands are dangerous.

A dangerous electric shock may result if the plug is touched by wet hands.

### 2. Don't pull the power cord.

Always grasp the plug; never pull the cord itself.



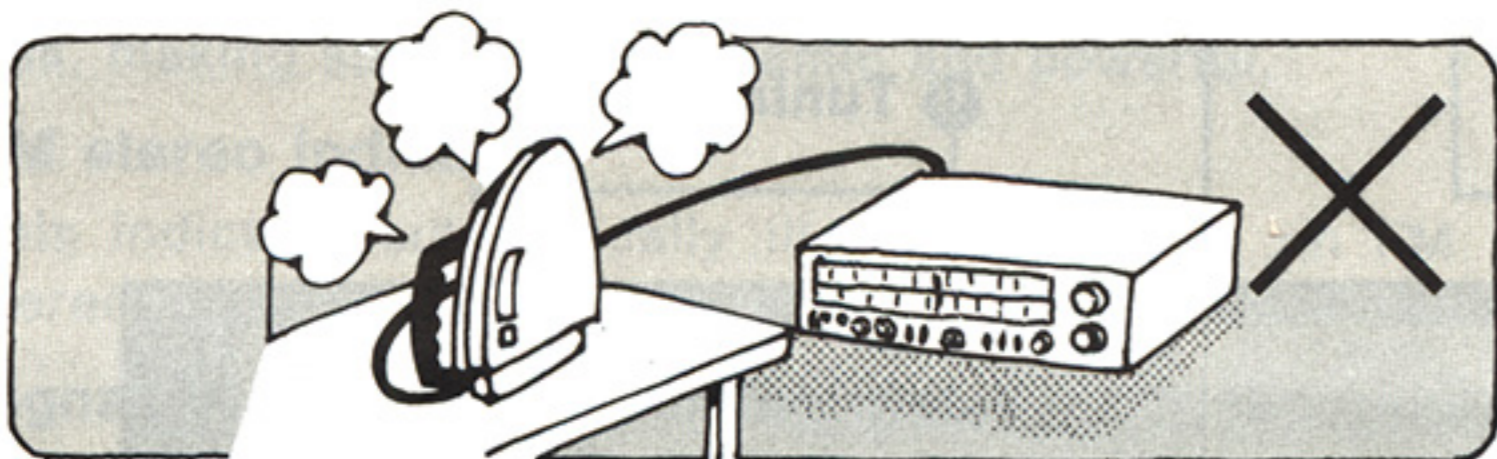
## 3) AC OUTLET ON REAR PANEL

### 1. Any equipment connected here should have specified power consumption or less.

This outlet is exclusively for the connection of other audio equipment, such as a tape deck. Be sure the power consumption does not exceed wattage specified near the AC outlet.

### 2. Never connect other electrical appliances such as an iron or toaster.

If appliances with a large power consumption are connected, an unexpected accident might occur as a result of overheating.



## 4) NEVER ATTEMPT TO REPAIR OR RECONSTRUCT THIS UNIT

A serious electric shock might occur if this unit is repaired, disassembled or reconstructed by unauthorized persons, or if the internal parts are accidentally touched.



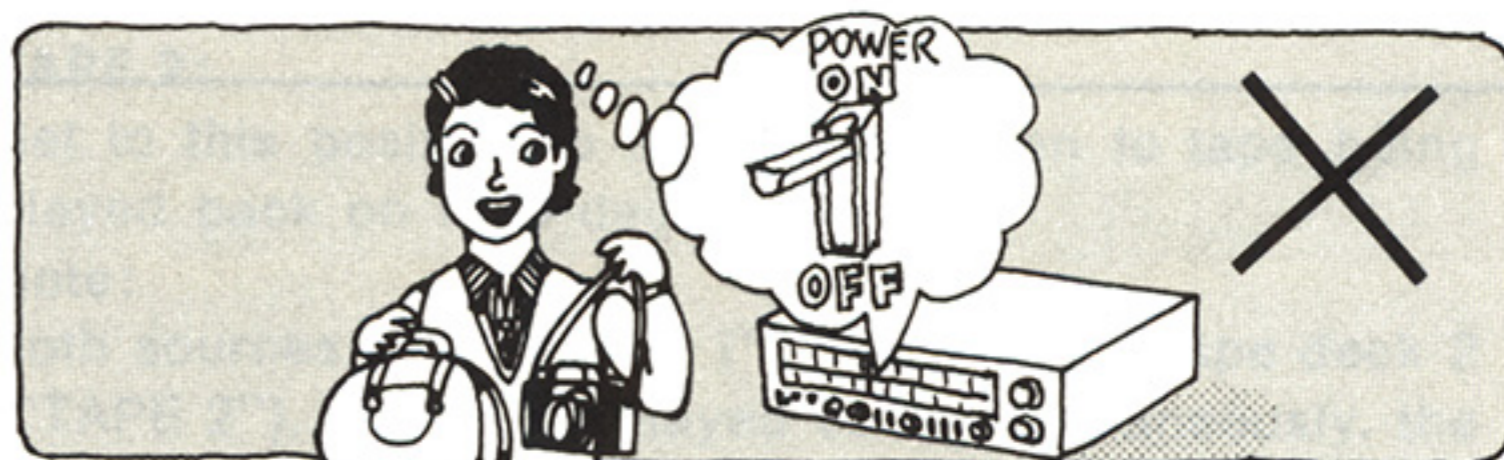
## 5) FOR FAMILIES WITH CHILDREN:

Never permit children to put anything, especially metal, inside this unit. A serious electric shock or malfunction could occur if articles such as coins, needles, screwdrivers, etc. are inserted through the ventilation holes, etc. of this unit.



## 6) TURN OFF AFTER USE

If the unit is left for a long time with the power on, this will not only shorten its useful operation life, but may also cause other unexpected trouble.



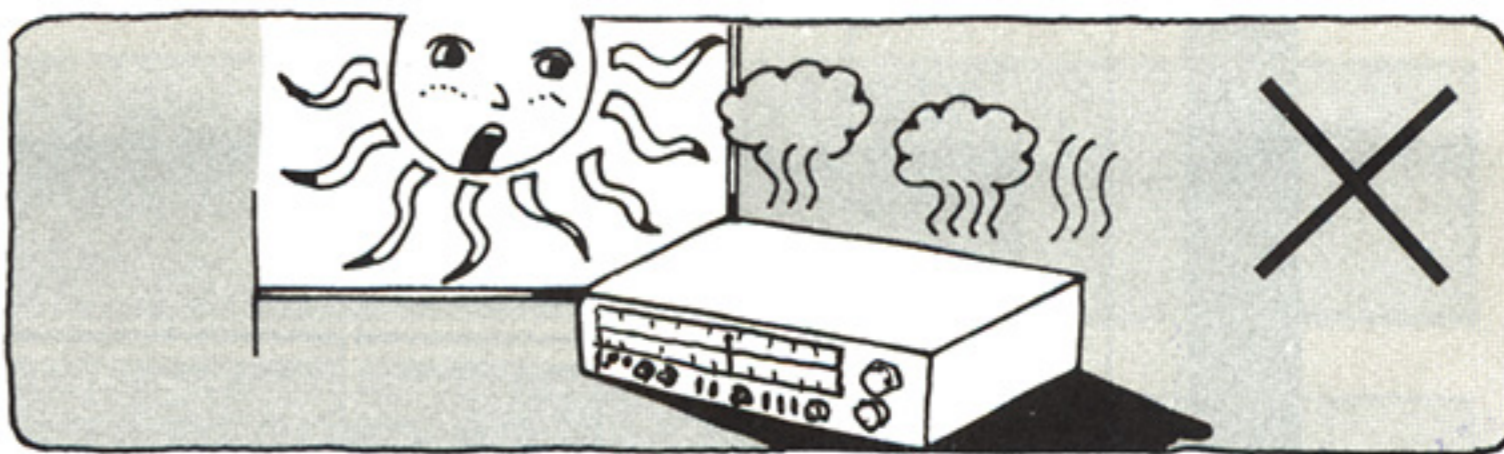
## 7) IF WATER IS SPILLED ON THE UNIT:

Be extremely careful if water is spilled on the unit, because a fire or serious electric shock might occur. Immediately disconnect the power cord plug, and consult with your dealer.



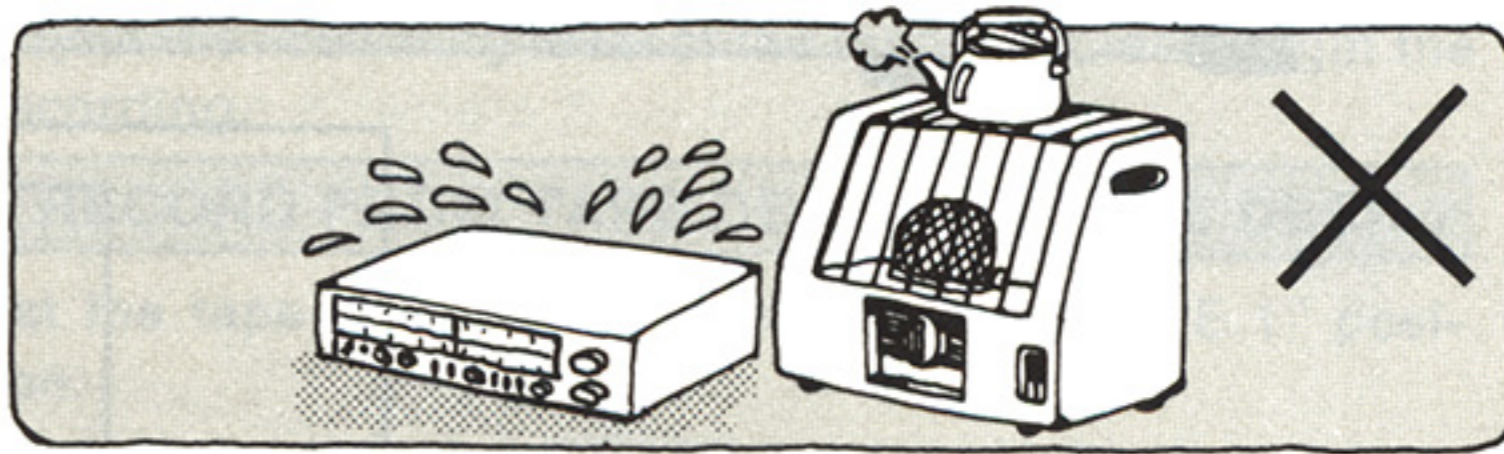
## 8) PLACE THE UNIT WHERE IT WILL BE WELL VENTILATED, AND AWAY FROM DIRECT SUNLIGHT

Place this unit at least 10 cm (4") away from wall surfaces, etc., and away from direct sunlight. Be careful that curtains and similar materials do not obstruct the ventilation holes.



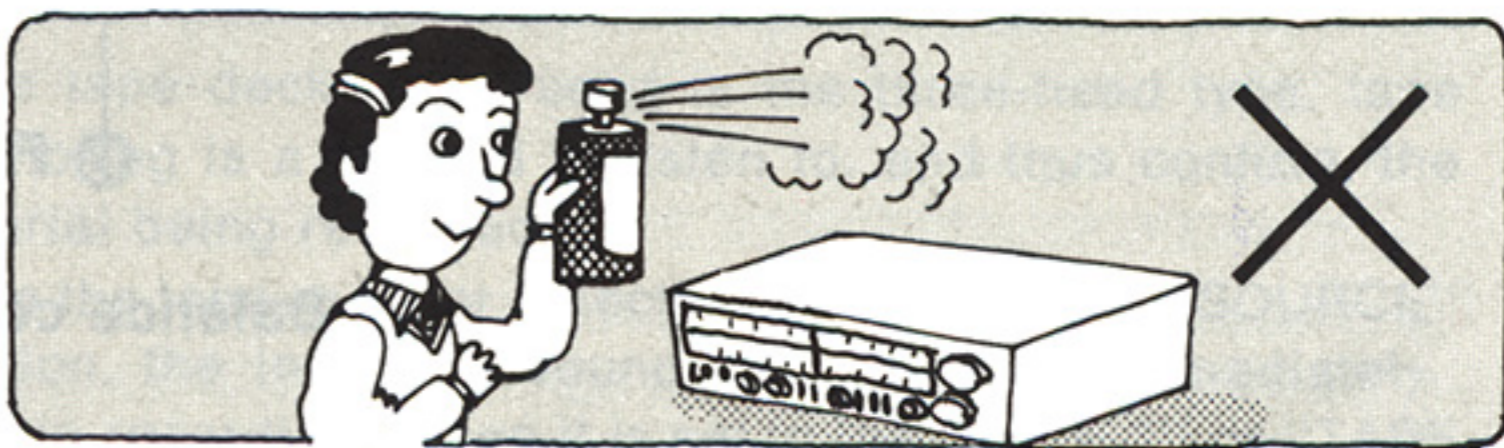
## 9) KEEP THE UNIT AWAY FROM STOVES, ETC.

Heat can damage the external surfaces as well as internal circuits and components.



## 10) AVOID SPRAY-TYPE INSECTICIDES

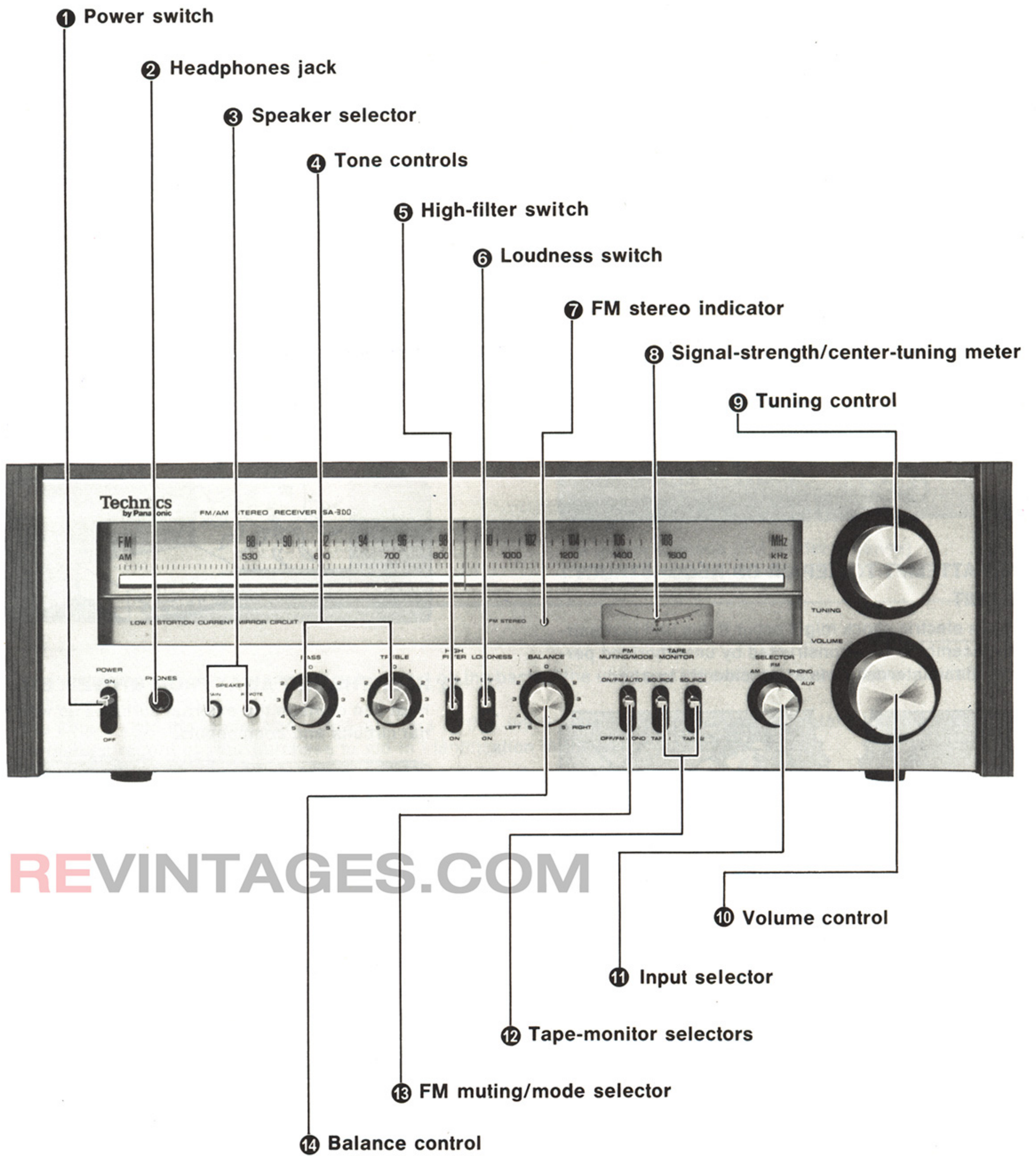
Insecticides might cause cracks or "cloudiness" in the cabinet and plastic parts of this unit. The gas used in such sprays might, moreover, be ignited suddenly.



## IF TROUBLE OCCURS

If, during operation, the sound is interrupted or indication lamps no longer illuminate, or if abnormal odor or smoke is detected, immediately disconnect the power cord plug, and contact your dealer or an Authorized Service Center.

# FRONT PANEL CONTROLS AND THEIR FUNCTIONS



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## ① Power switch

### Note:

Speakers may be damaged if connection cords to a record player, tuner, etc. are connected or disconnected with power switch on.

## ② Headphones jack

Use headphones with an impedance of 4~16Ω.

## ③ Speaker selector

For selection of speaker systems connected to "MAIN" or "REMOTE" terminals on rear panel. Push button inward (■ ← ■) to select the desired speaker system.

## ④ Tone controls

The bass control is for adjustment of low-range sound and the treble control for high-range sound.

## ⑤ High-filter switch

### ON:

Set to this position to eliminate high-frequency noise such as tape "hiss" noise, a scratched disc, etc.

### OFF:

Set to this position for ordinary use.

## ⑥ Loudness switch

It is usually difficult for human ears to clearly hear low-range sound when the volume level is low.

When listening at a low volume level, therefore, this switch can be set to the "ON" position to compensate for this, making sound more dynamic and powerful.

## ⑦ FM stereo indicator

This indicator automatically illuminates when an FM stereo broadcast is being received.

## ⑧ Signal-strength/center-tuning meter

This meter functions as a signal-strength meter for AM broadcasts, and as a center-tuning meter for FM broadcasts.

For AM broadcast reception:

The best-tuned position is where the indication needle moves as far as possible to the right.

For FM broadcast reception:

Disregarding signal strength, the meter indicates the point of least distortion and best tone quality. During tuning, the indication will fluctuate to the left and right, and then move to the center at the best-tuned position. When the tuning control⑨ is moved farther, the indication needle will again fluctuate to the left and right, and, when the broadcast signal is completely detuned, will return to the center.

## ⑨ Tuning control

This is the control for tuning AM and FM broadcasts.

## ⑩ Volume control

This control is used to adjust the volume level.

## ⑪ Input selector

### AM:

Set to this position for reception of AM broadcasts.

### FM:

Set to this position for reception of FM broadcasts.

### PHONO:

Set to this position to listen to phono discs.

### AUX:

Set to this position to use equipment connected to the auxiliary input terminals ("AUX") on the rear panel of this unit.

## ⑫ Tape-monitor selectors

### SOURCE:

Set to this position to listen to a disc or radio broadcast,

or to listen to equipment connected to the auxiliary-input terminals ("AUX") on the rear panel of this unit.

### TAPE 1:

Set to this position to monitor or listen to tape being played back on tape deck 1.

### TAPE 2:

Set to this position to monitor or listen to tape being played back on tape deck 2.

### Note:

Both sources, tape deck 1 ("TAPE 1") and tape deck 2 ("TAPE 2"), cannot be played back simultaneously, the unit being designed so that tape deck 2 will have priority.

## ⑬ FM muting/mode selector

### ON/FM AUTO:

Set to this position for ordinary use. FM stereo and monaural broadcasts can be received, and between-station noise is eliminated.

### OFF/FM MONO:

All broadcasts will be received monaurally.

Use at this position if there is excessive noise in stereo broadcasts or if signals are weak because of reception far from the broadcasting station or in a mountainous region, when the broadcast cannot be heard at the "ON/FM AUTO" position.

To avoid between-station noise, reduce the setting of the volume control before tuning.

## ⑭ Balance control

While listening to an AM broadcast or a monaural FM broadcast, balance the sound so that it seems to be heard from the center, between the speakers.

## TAPE RECORDING AND TAPE MONITORING

### TAPE RECORDING

The signal source selected by the input selector⑪ is emitted from the tape deck 1 and 2 recording output terminals ("REC OUT").

- 1) Set the input selector⑪ to the position corresponding to the program source to be recorded.
- 2) Adjust the recording level of the tape deck, and begin the recording.

### TO RECORD FROM TAPE DECK 1 TO TAPE DECK 2

- 1) Set the tape monitor selectors⑫ to the "TAPE 1" position.
- 2) Prepare tape deck 1 ("TAPE 1") for playback and tape deck 2 ("TAPE 2") for recording.

This unit cannot be used for recording from tape deck 2 to tape deck 1.

### TAPE MONITORING

If the tape deck to be used is the three-head type, tape monitoring is a method to listen to, and thus confirm, the material being recorded.

When the tape-monitor selectors⑫ is set to the "SOURCE" position, the incoming sound can be heard immediately prior to recording. When it is set to the "TAPE 1" or "TAPE 2" position, the sound can be heard immediately after it is recorded.

Use the tape-monitor selectors⑫, therefore, to confirm that the source sound is being recorded correctly, by switching back and forth between the "SOURCE" position and the "TAPE 1" or "TAPE 2" position.

# CONNECTION NOTES

For additional information, refer to the separate instruction sheet.

## CONNECTION OF AN FM ANTENNA

For best reception of FM broadcasts, select an FM antenna with the best characteristics for the area in which the unit is to be used.

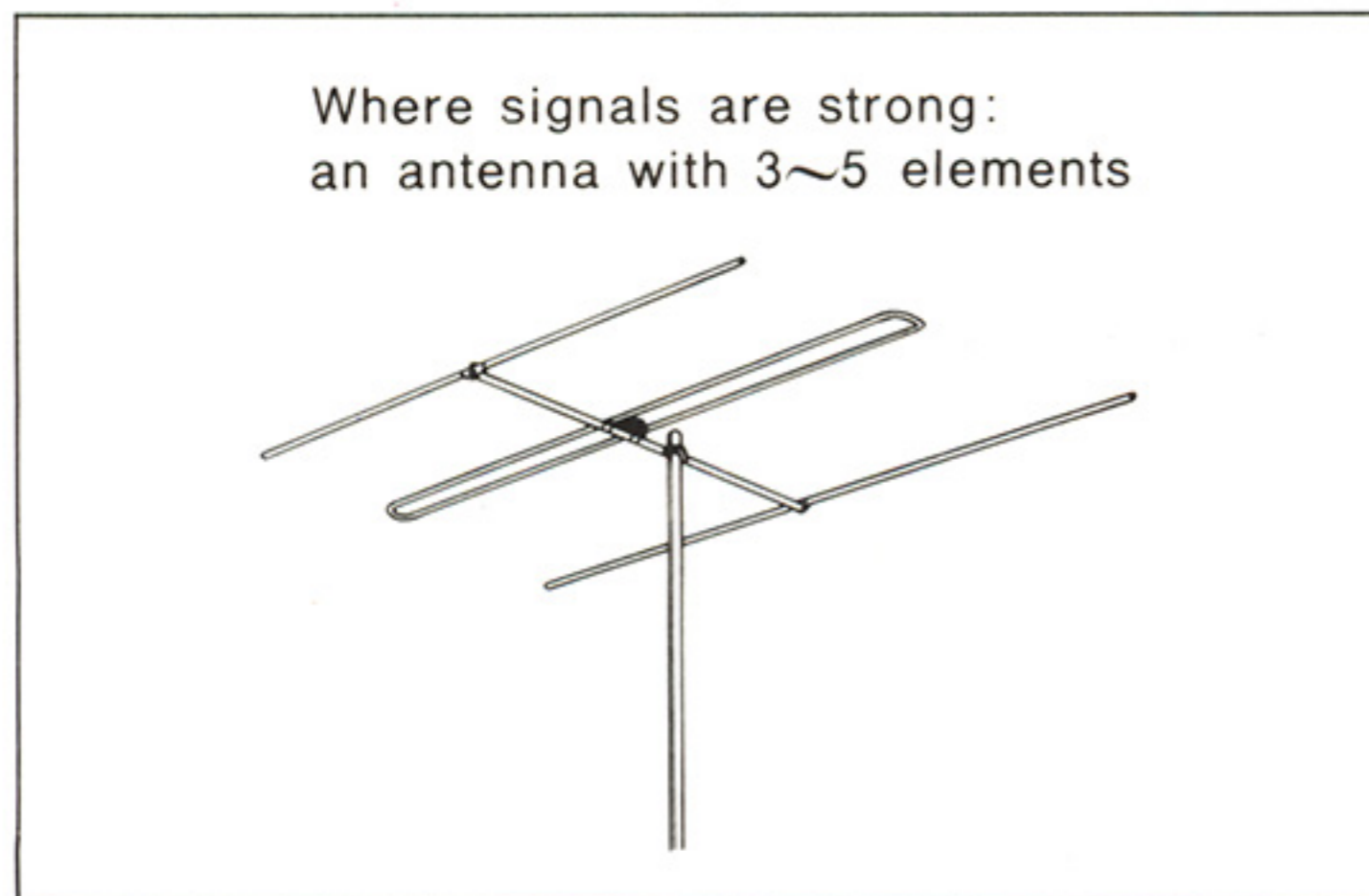
### Included antenna

The included antenna is easy to install and is suggested for use until a permanent antenna is installed especially for FM. An antenna especially for FM should be installed in order to obtain the best reception characteristics of which this unit is capable.

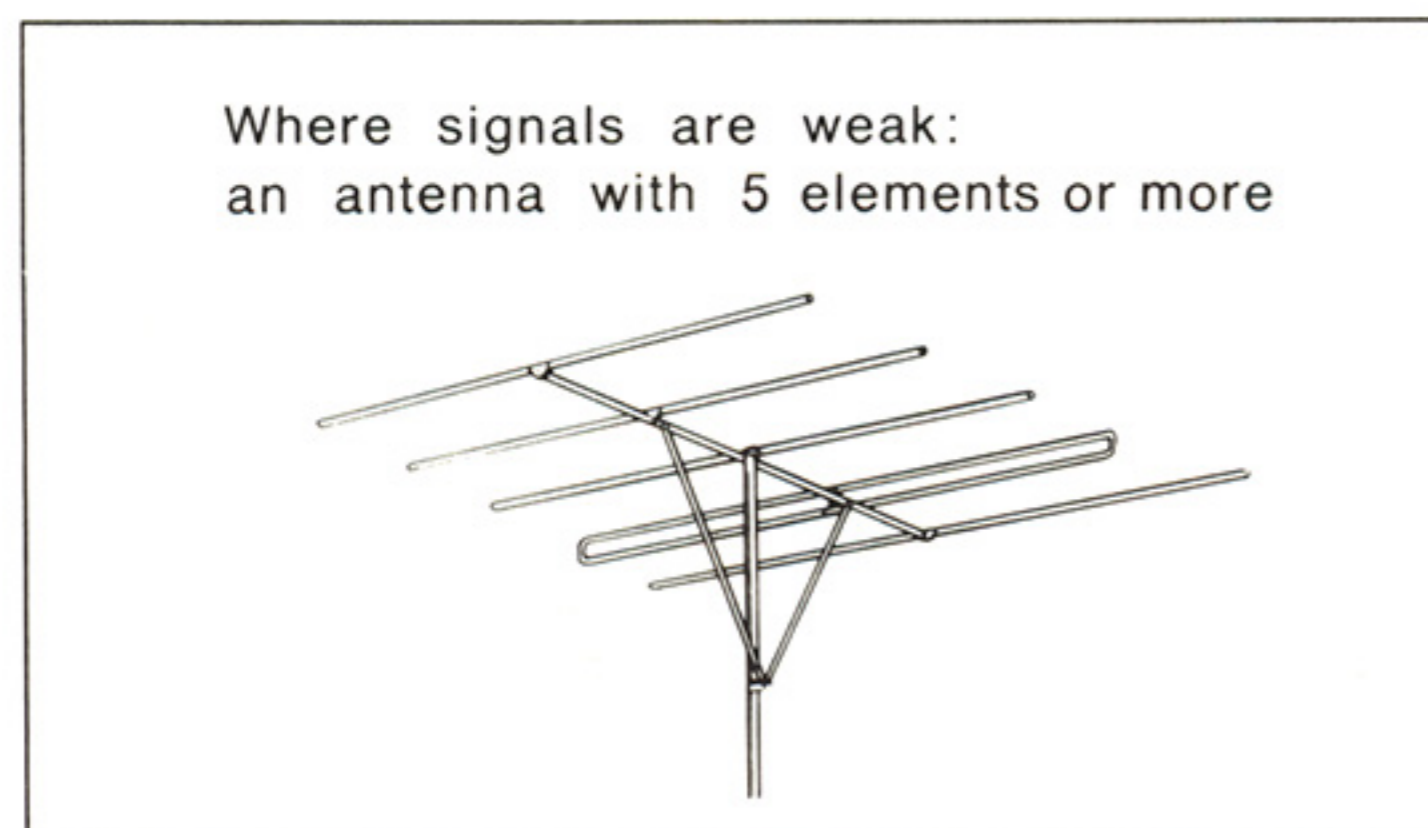
### Antenna exclusively for FM reception

#### 1) Selection

1. In areas where very strong broadcast signals are received (where the transmitting antenna can be seen), use an outside antenna with 3~5 elements.



2. In areas where weak broadcast signals are received (in mountainous regions or between tall buildings), use an outside antenna with 5 elements or more.



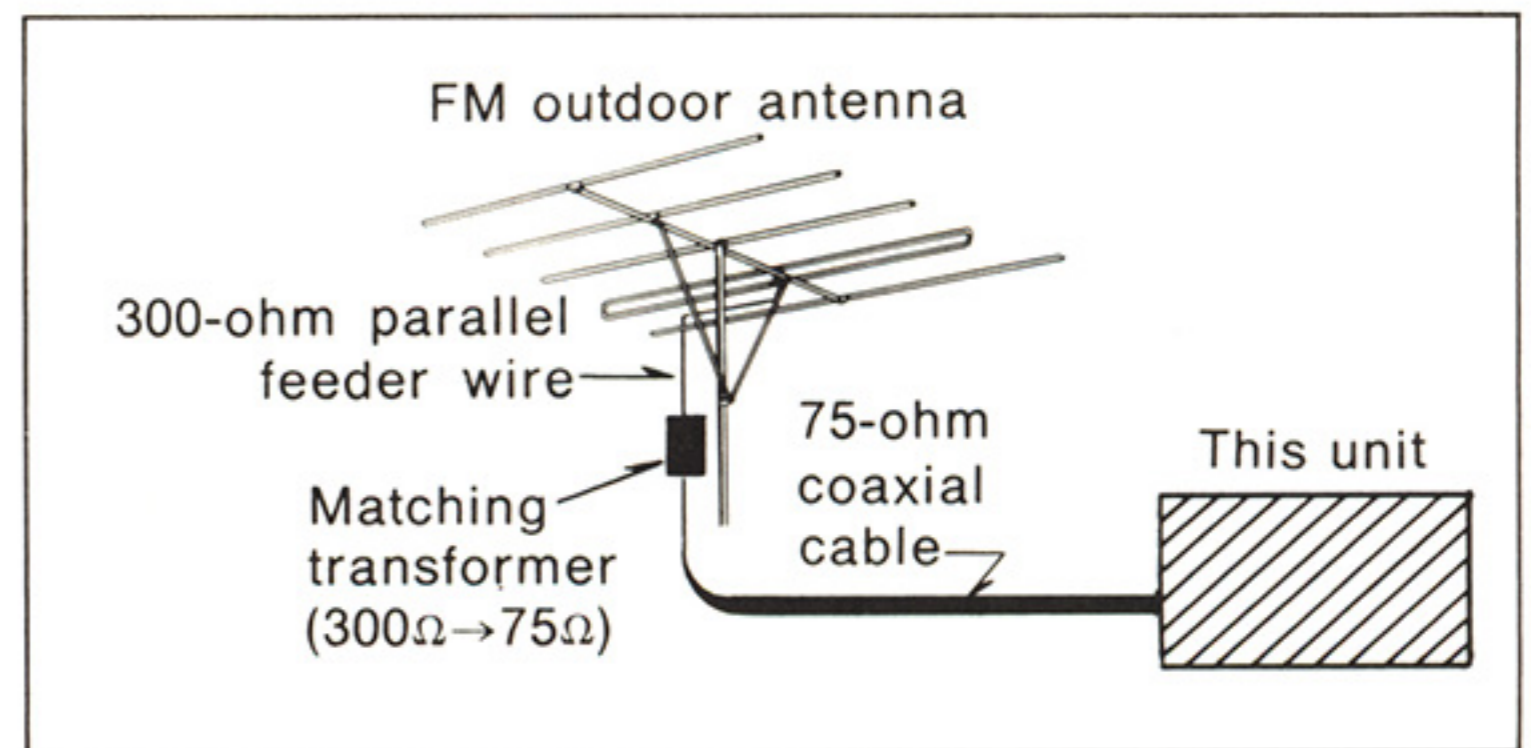
Consult with your dealer for detailed advice concerning the number of elements the antenna should have.

#### 2) Connection wire from the antenna

Two types of wire are most commonly used for connection from the antenna: 300 $\Omega$  parallel feeder wire and 75 $\Omega$  coaxial cable (type 3C-2V or 5C-2V). For best resistance to external interference noise, the use of 75 $\Omega$  coaxial cable is suggested.

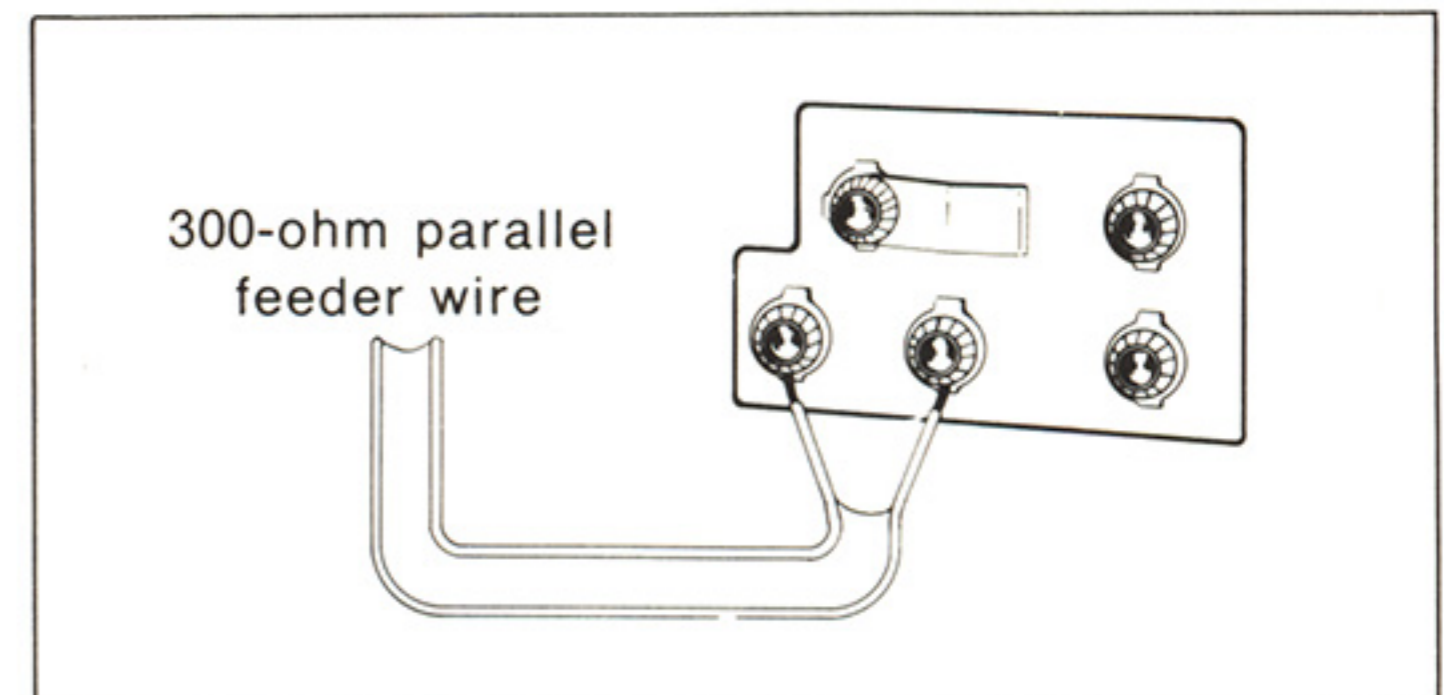
#### 3) Impedance matching

If it is impossible to make a direct connection with 75 $\Omega$  coaxial cable from the antenna, a matching transformer should be installed, as close to the antenna itself as possible.

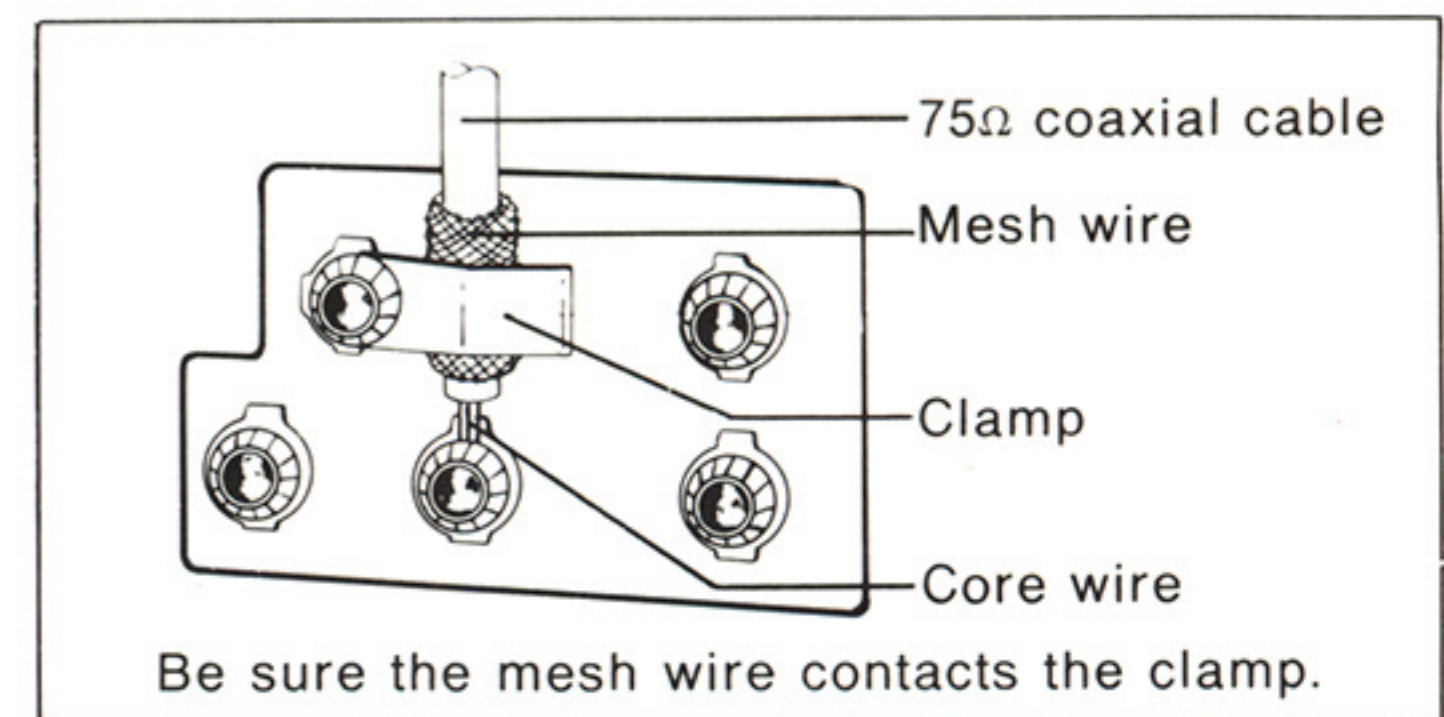


#### 4) Connection

1. If 300 $\Omega$  parallel feeder wire is used.



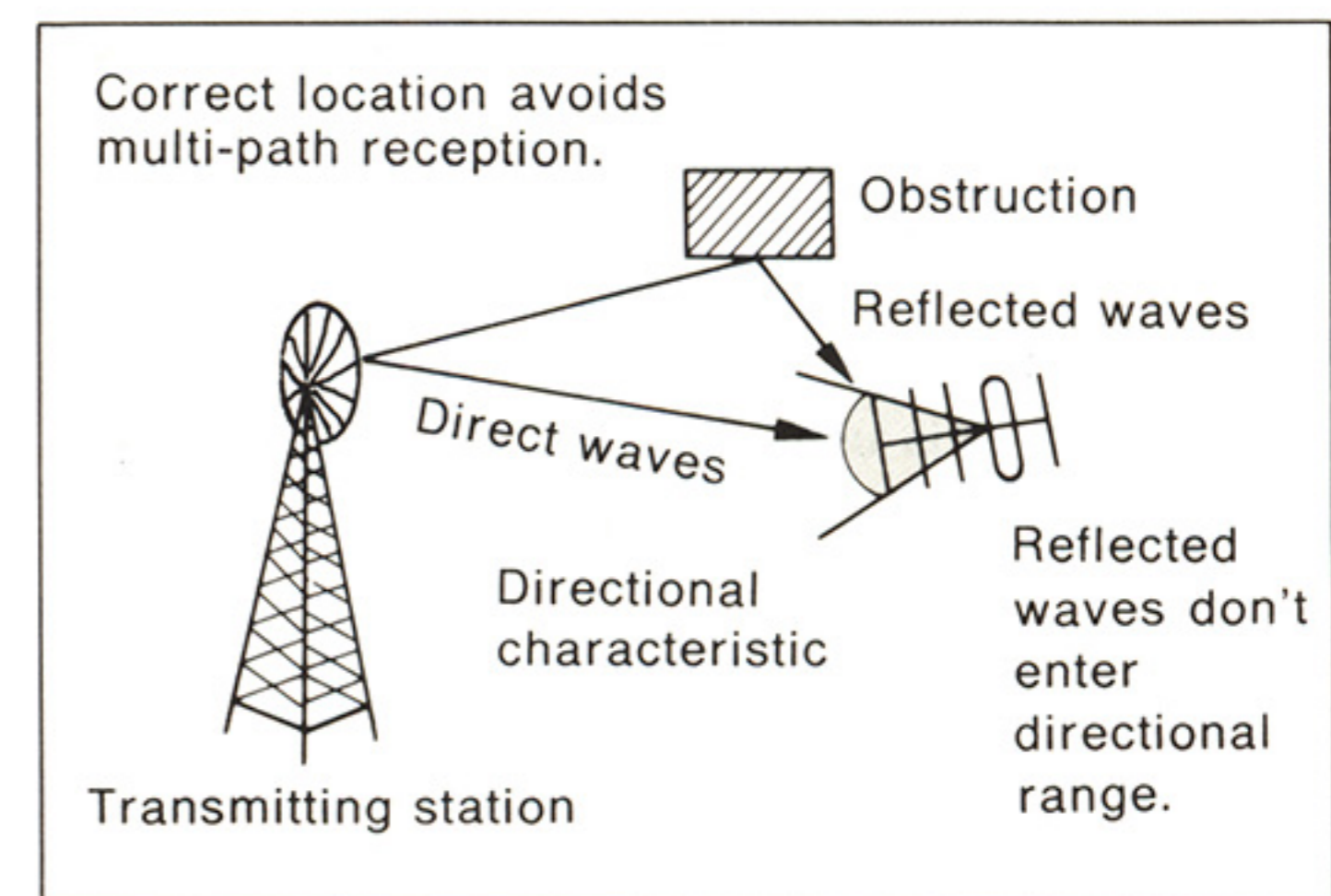
2. If 75 $\Omega$  coaxial cable is used.



#### (5) Location of antenna

Install the antenna:

1. Where it will receive FM broadcast signals directly, not in the "shadow" of a building.



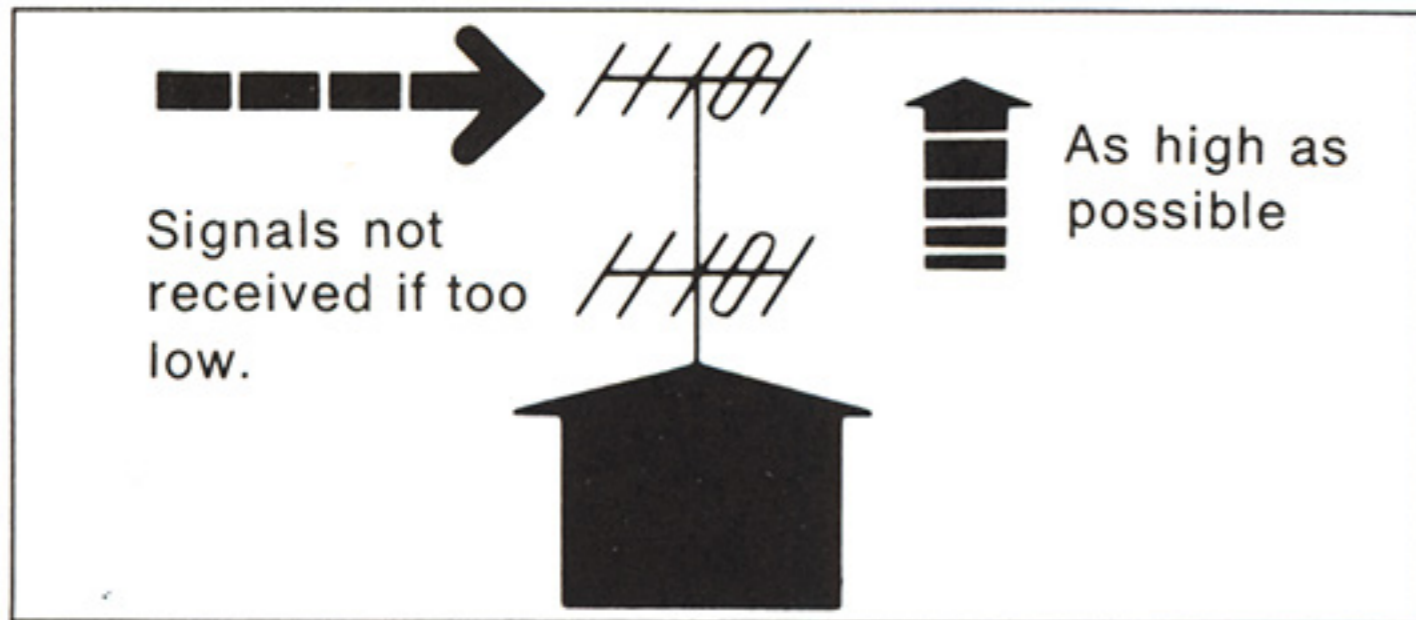
#### Note:

Multi-path reception is the distortion which results from the reception of two types of signals: those reflected from nearby buildings, mountains, etc., and those received directly from the broadcasting station.

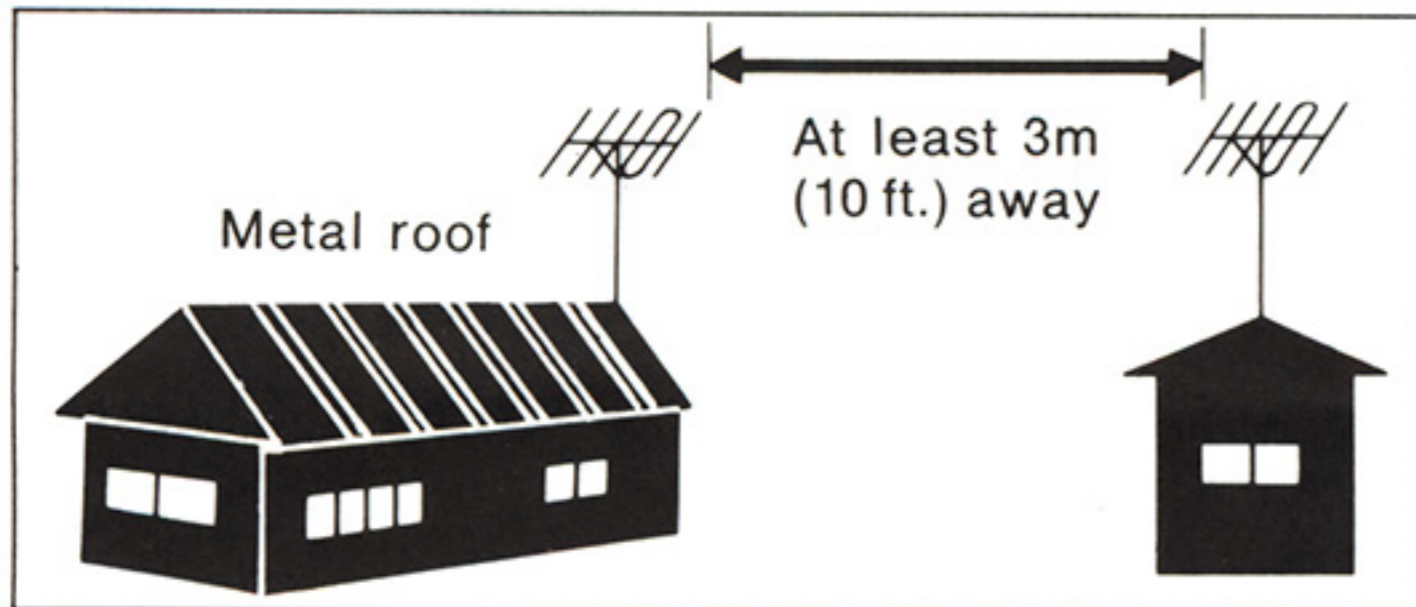
2. Away from busy roads, and away from neon signs.



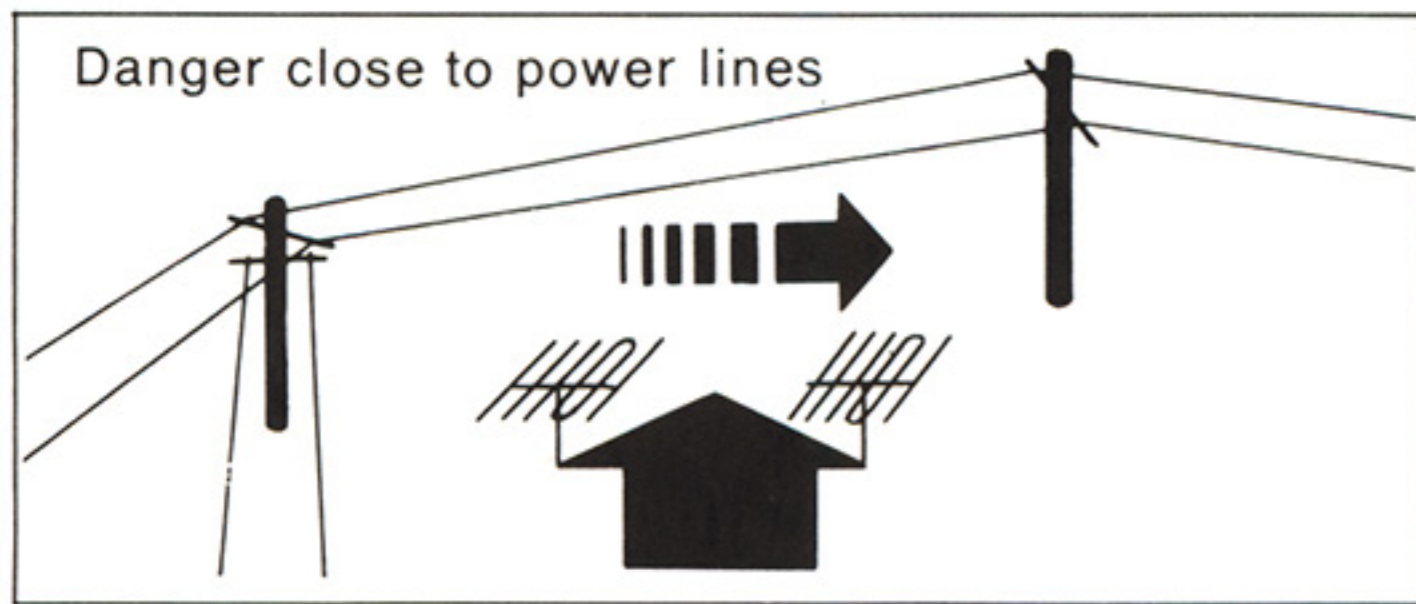
3. At least 4m (13 ft.) above the ground (except in mountainous regions, etc.).



4. At least 3m (10 ft.) away from a metal roof or other antennas.

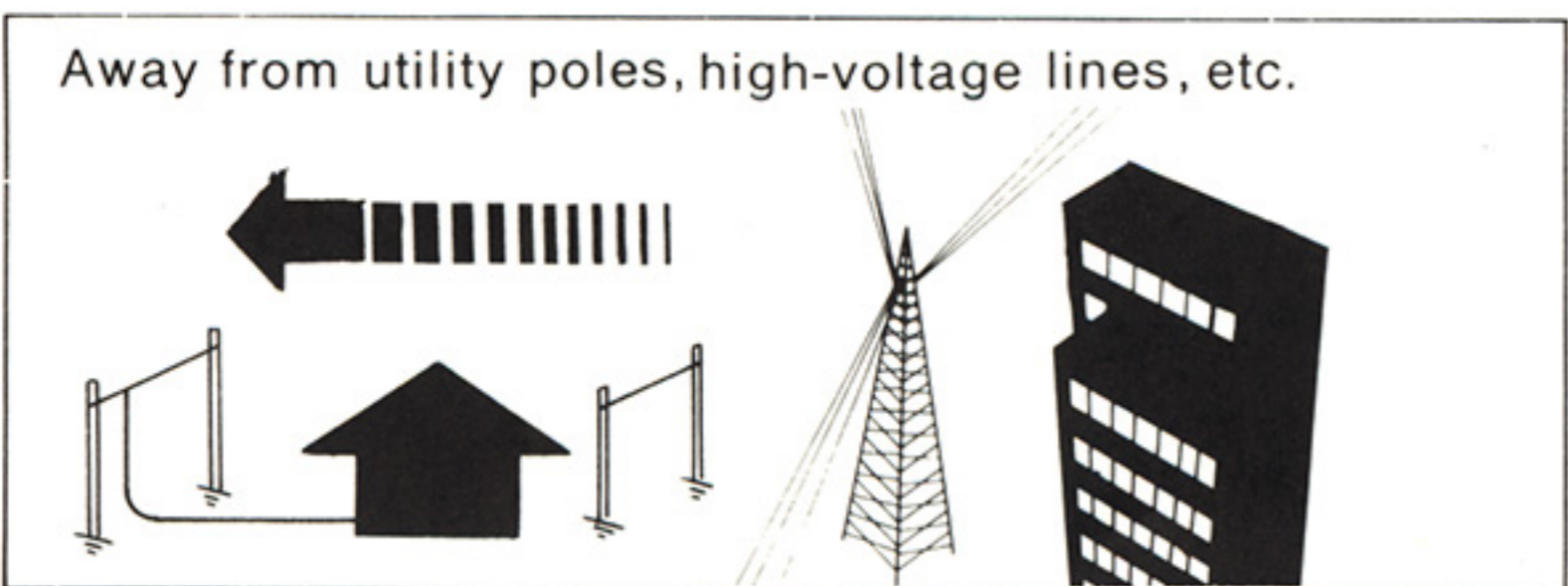


5. To avoid danger, away from electric power lines.



### CONNECTION OF AN AM ANTENNA

If an outside AM antenna is installed (in mountainous regions or between reinforced-concrete buildings), install it in a location away from utility poles, high-voltage power lines, high buildings and busy roads.



## ABOUT THE CIRCUITRY-PROTECTION FUSES

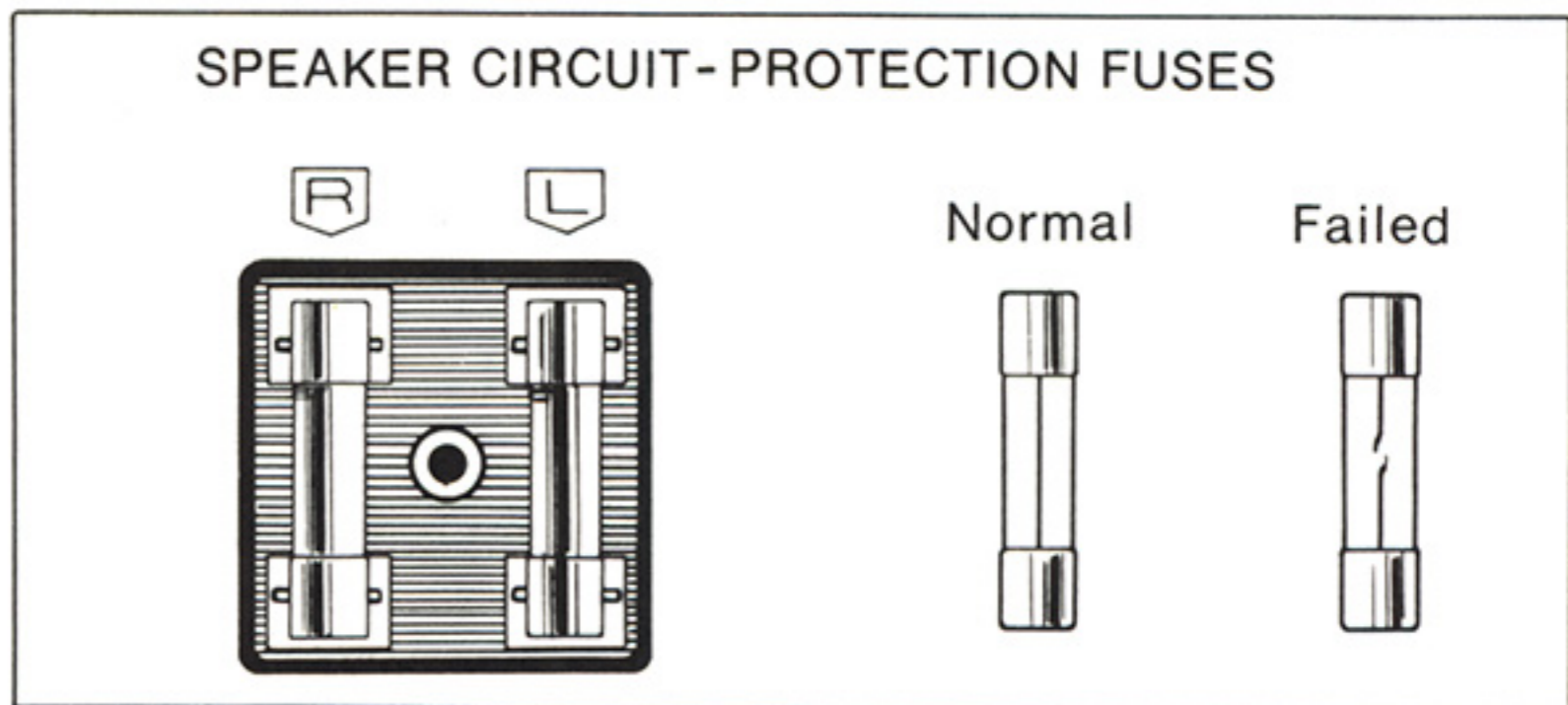
Circuitry damage may result if—with the power on and the volume control ⑩ set to any position except “0”—the plus (⊕) and minus (⊖) speaker terminals are accidentally “shorted” or if speaker impedance is not correct. These fuses are to prevent such circuitry damage.

If no sound is heard from one or both speakers although the dial is illuminated and there are no mistakes with connections or operation, a fuse may have failed.

Replace the fuse in the following way.

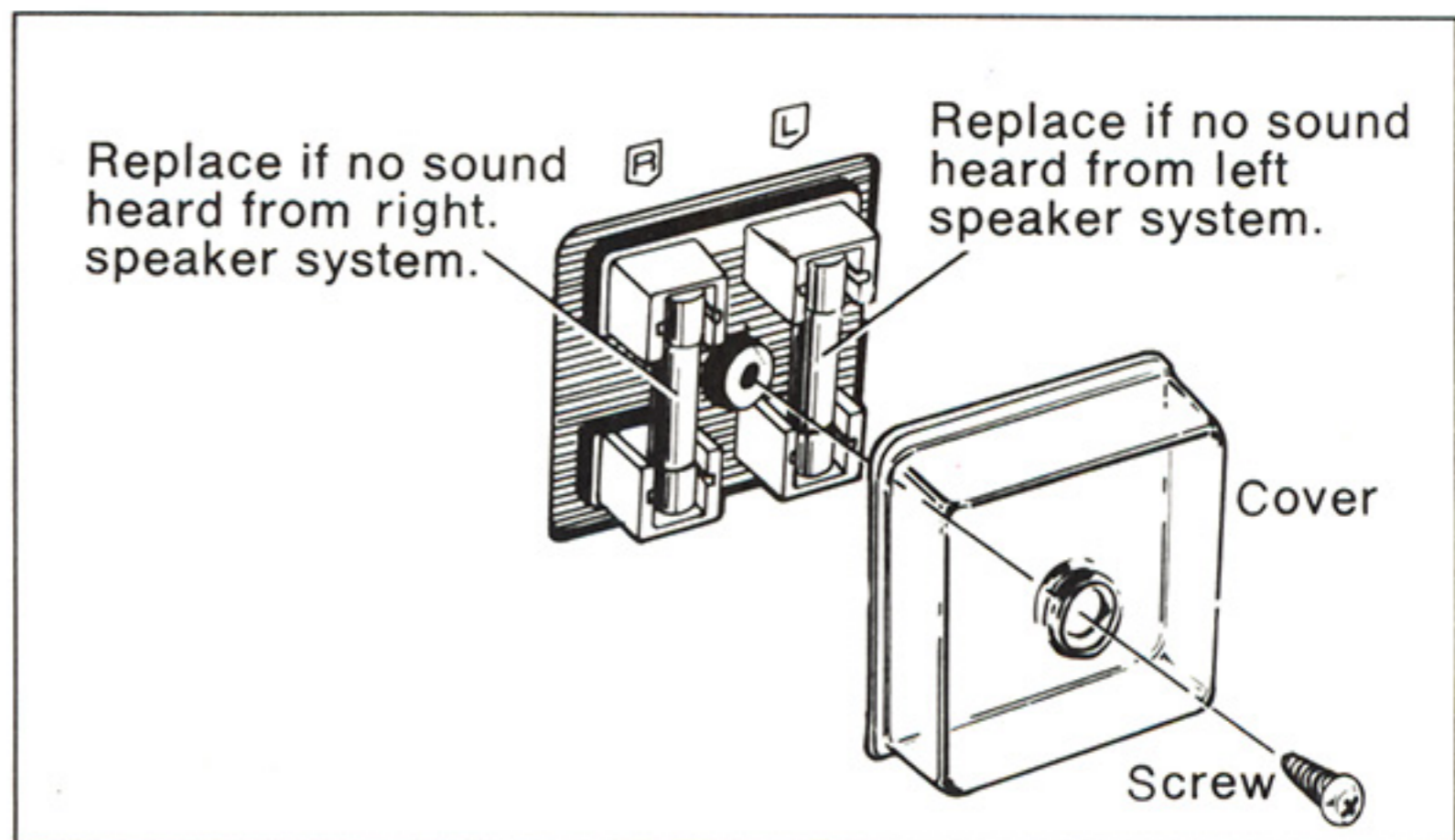
Note concerning speaker impedance:

- 1) When two pairs of speaker systems (“MAIN” and “REMOTE”) are used, use speaker systems with an impedance of 8Ω or more each.
- 2) When “MAIN” or “REMOTE” speaker systems are used separately, use speaker systems with an impedance of 4Ω or more.



### FUSE REPLACEMENT

- 1) Loosen the screw and remove the cover.



- 2) After fuse replacement, close the cover.

**Note:**

Replacement fuses are included with the operation instructions.

## MAINTENANCE OF EXTERNAL SURFACES

To clean, use a soft, dry cloth. If the surfaces are extremely dirty, use a soft cloth soaked in a detergent (such as used for washing dishes; diluted to 1/5 or 1/6 strength), and then wring the cloth well. Wipe once again with a soft, dry cloth. Never use chemicals such as alcohol, paint thinner and benzene, nor a chemically-treated cloth, to clean this unit because the finish may be damaged or lose its luster.

# TECHNICAL SPECIFICATIONS

## POWER AMPLIFIER SECTION

**Rated minimum sine wave RMS power output**  
20 Hz~20 kHz  
both channels driven  
0.04% total harmonic distortion  
35W per channel (8 ohms)

**1 kHz continuous power output**  
both channels driven  
0.04% total harmonic distortion  
38W per channel (8 ohms)  
40W per channel (4 ohms)

**Total harmonic distortion at 8 ohms**  
rated power 0.04% (20 Hz~20 kHz)  
half power 0.025% (20 Hz~20 kHz)  
0.009% (1 kHz)

**Inter modulation distortion** 0.04%  
**Residual hum & noise** 0.6 mV  
**Damping factor** 32 (8 ohms)  
16 (4 ohms)

**Load impedance**  
MAIN or REMOTE 4~16 ohms  
MAIN + REMOTE 8~16 ohms

## PRE-AMPLIFIER SECTION

**Input sensitivity & impedance**  
PHONO 2.5 mV, 47 kilohms  
AUX 150 mV, 33 kilohms  
PLAYBACK TAPE 1 150 mV, 33 kilohms  
TAPE 2 150 mV, 33 kilohms  
Phono max. input voltage 130 mV (1 kHz RMS)

**S/N (IHF, A)**  
PHONO 78 dB  
AUX 95 dB

**Frequency response**  
PHONO RIAA standard curve  $\pm 0.5$  dB  
AUX 20 Hz~20 kHz  $\pm 0.5$  dB  
10 Hz~30 kHz -1 dB

**Tone controls**  
BASS 50 Hz, +10 dB~ -10 dB  
TREBLE 10 kHz, +10 dB~ -10 dB

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**High filter** 7 kHz, -6 dB/oct.  
**Loudness control (-30 dB)** 50 Hz, +9 dB  
**Output voltage**  
REC OUT TAPE 1 150 mV  
TAPE 2 150 mV

## FM TUNER SECTION

**Frequency range** 88~108 MHz  
**Sensitivity** 10.8 dBf (1.9  $\mu$ V IHF '58)  
**50 dB quieting sensitivity**  
MONO 13.7 dBf (2.7  $\mu$ V IHF '58)  
STEREO 37.2 dBf (39.7  $\mu$ V IHF '58)  
**Total harmonic distortion**  
100 Hz 0.15% (MONO), 0.35% (STEREO)  
1 kHz 0.15% (MONO), 0.3% (STEREO)  
6 kHz 0.3% (MONO), 0.4% (STEREO)  
**S/N** 75 dB (MONO), 70 dB (STEREO)  
**Frequency response** 20 Hz~15 kHz, +1, -2dB  
**Alternate channel selectivity** 70 dB  
**Capture ratio** 1.2 dB  
**Image rejection at 98 MHz** 70 dB  
**IF rejection at 98 MHz** 90 dB  
**Spurious response rejection at 98 MHz** 80 dB  
**AM suppression** 55 dB  
**Stereo separation** 45 dB (1 kHz), 35 dB (10 kHz)  
**Leak carrier** -40 dB (19 kHz), -50 dB (38 kHz)  
**Antenna terminals** 300 $\Omega$ , 75 $\Omega$

## AM TUNER SECTION

**Frequency range** 525~1605 kHz  
**Sensitivity** 30 $\mu$ V, 300 $\mu$ V/m  
**Selectivity** 35 dB  
**Image rejection at 1000 kHz** 50 dB  
**IF rejection at 1000 kHz** 45 dB

## GENERAL

**Power consumption** 190 W  
**Power supply** 60 Hz AC 120V  
**Dimensions (W x H x D)** 460 x 150 x 300 mm  
(18 $\frac{1}{8}$ " x 5 $\frac{9}{16}$ " x 11 $\frac{13}{16}$ " )  
**Weight** 8 kg  
(17.6 lb.)

Panasonic Company  
Division of Matsushita Electric  
Corporation of America  
One Panasonic Way, Secaucus,  
New Jersey 07094

Matsushita Electric of Hawaii, Inc.  
320 Waiakamilo Road, Honolulu,  
Hawaii 96817

Matsushita Electric of Canada Ltd.  
40 Ronson Drive, Rexdale,  
Ontario



**Technics**  
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**SA-300**  
FM/AM Stereo Receiver



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**35 watts per channel**  
minimum continuous "RMS" into 8 ohms,  
both channels driven, from 20–20,000 Hz, with  
no more than **0.04%** total harmonic distortion.

# SA-300 FM/AM Stereo Receiver

At Technics, we believe that advanced engineering should be applied to all our components, not just the most expensive ones. And that attitude is reflected in the SA-300 receiver. With moderately efficient speakers, this receiver can provide astonishingly clean, accurate sound, and for a very reasonable price.

## Solid Power Output

Measured in compliance with FTC standards, the SA-300 puts out 35 watts per channel, continuous "RMS" power into 8 ohms, from 20-20,000 Hz, with no more than 0.04% total harmonic distortion. At less than full power, and throughout most of the audible frequency bandwidth, this THD figure is even lower.

## Low-Distortion Power Amplifier Design

A current-mirror loaded differential amplifier in the first stage, which employs a single-packaged, low-noise transistor pair, contributes to stability with high gain and low distortion. For example, at half power, total harmonic distortion is a scant 0.025%, measured from 20-20,000 Hz. And like all Technics receivers ever made, the output stage is direct-coupled OCL (output capacitor-less), which contributes to tight, solid bass response right down to the very low frequencies.

## Rugged Power Supply

An amplifier's power supply has a considerable effect on its sound quality. To satisfy the high-current demands sometimes created by dynamic music, the SA-300 uses a large transformer, with a bridged rectifier for stability. Two 6,800  $\mu$ F filter capacitors are used to keep hum and noise low, and to provide reserve power for handling sudden musical peaks. This receiver can briefly exceed its rated "RMS" power to faithfully render such peaks.

## 90 dB Phono S/N Ratio at 10 mV

The 3-stage, direct-coupled phono equalizer

achieves a S/N ratio of 90 dB referenced to 10 mV, 78 dB referenced to 2.5 mV—astonishingly good figures. This means that the phono stage circuit noise will not hamper even the softest musical passages. The phono stage will also accept up to 130 mV (at 1 kHz) without overload, and adheres to the RIAA standard curve within  $\pm 0.5$  dB.

## Two Tape Monitors with Dubbing

The SA-300 provides complete facilities for two tape decks (or external processors such as a graphic equalizer). In addition, you can use this receiver's "dubbing" capability to record directly from the "tape 1" position to the "tape 2" position.

## MOS FET FM Front End

The SA-300's FM "front end" achieves excellent sensitivity, quieting and interference rejection with a dual-gate MOS FET and a 3-gang linearly variable tuning capacitor. "50 dB quieting sensitivity, a recently established IHF standard for tuners, is achieved with 13.7 dBf signal-strength in mono, and 37.2 dBf in stereo—both excellent figures. With stronger signals, tuner S/N ratio will reach 75 dB in mono and 70 dB in stereo.

## FM IF Stage with "FGD" Ceramic Filters

The SA-300's five-stage IF section includes two FGD (Flat Group Delay) ceramic filters. These filters help achieve high selectivity (70 dB in the SA-300) for isolating the desired broadcast signal from nearby signals on the FM band. At the same time, they do not introduce significant phase non-linearities into the signal, which is a problem with some types of ceramic filters. Minimizing phase-related problems contributes to the very clean sound of the SA-300's tuner section.

## Quadrature Detector

A high-linearity quadrature detector is used to extract the audio signal (which you hear) from the IF signal. This detector helps achieve flat frequency response and low distortion. It will

also tolerate highly overmodulated signals (3 times the level allowed by the DOC) without causing significant distortion or loss of high frequencies.

## Phase Locked Loop FM Stereo Decoding

For demodulating FM Stereo signals, the SA-300 employs phase-locked-loop circuitry, incorporated into an IC chip. The PLL circuit maintains wide stereo separation not only in the midrange but well into the high frequencies, for a stable, well-defined stereo image. And because the PLL circuit is all contained in an IC, it will not need adjustment as would be the case if discrete parts were used.

## Quality AM Section with IC

Although we expect most listeners will prefer FM for serious listening, we have also included a well-designed AM section in the SA-300. Most of the important circuitry is incorporated into a reliable IC. And in the IF strip, Jaumann-type ceramic filters are used to achieve good selectivity. While AM doesn't match FM in terms of clarity and frequency response, the SA-300's AM section will nonetheless provide very good performance.

## Convenience and Operation Features

- 41-step "click-stop" volume control.
- Low-distortion bass and treble controls.
- High filter switch.
- Loudness compensation switch.
- Connections for "main" and "remote" speaker pairs. A switch selects either or both pairs.
- Auxiliary input jacks.
- Dual-function tuning meter. Reads centre-of-channel on FM, signal-strength on AM.
- FM muting/mode selector. Muting is engaged in the "stereo" position, out in "mono" position. AND circuit suppresses transitional noises in muting.
- Fuse protection for both amplifier and connected speakers.

## Technical Specifications

### AMPLIFIER SECTION

Rated minimum sine wave  
 RMS power output  
 20 Hz ~ 20 kHz  
 both channels driven  
 0.04% total harmonic distortion  
 35W per channel (8 ohms)  
 1 kHz continuous power output  
 both channels driven  
 0.04% total harmonic distortion  
 38W per channel (8 ohms)  
 40W per channel (4 ohms)  
 Total harmonic distortion at 8 ohms  
 0.04% at rated power (20 Hz ~ 20 kHz)  
 0.025% at half power (20 Hz ~ 20 kHz)  
 0.009% at half power (1 kHz)  
 Intermodulation distortion 0.04%  
 Residual hum & noise 0.6mV  
 Damping factor 32 (8 ohms) 16 (4 ohms)  
 Input sensitivity and impedance  
 PHONO 2.5mV/47 kilohms  
 AUX 150mV/33 kilohms  
 TAPE 1, 2 PLAYBACK 150mV/33 kilohms

PHONO maximum input voltage  
 (1 kHz RMS) 130mV  
 S/N (IHF, A)  
 PHONO 90 dB (at 10mV)  
 78 dB (at 2.5mV)  
 AUX 95 dB  
 Frequency response  
 PHONO RIAA standard curve  $\pm 0.5$  dB  
 AUX 20 Hz ~ 20 kHz  $\pm 0.5$  dB  
 10 Hz ~ 30 kHz -1 dB  
 Tone controls  
 BASS 50 Hz, +10 dB ~ -10 dB  
 TREBLE 10 kHz, +10 dB ~ -10 dB  
 Loudness control (volume at -30 dB)  
 50 Hz, +9 dB  
 High filter 7 kHz, -6 dB/oct.  
 Output voltage  
 TAPE 1, 2 REC OUT 150mV  
 Load impedance  
 MAIN or REMOTE 4 ~ 16 ohms  
 MAIN + REMOTE 8 ~ 16 ohms  
**FM TUNER SECTION**  
 Frequency range 88 ~ 108 MHz

Sensitivity 10.8 dBf (1.9  $\mu$ V IHF '58)  
 50 dB quieting sensitivity  
 MONO 13.7dBf (2.7  $\mu$ V IHF '58)  
 STEREO 37.2 dBf (39.7  $\mu$ V IHF '58)  
 Total harmonic distortion  
 100 Hz .015% (mono), 0.35% (stereo)  
 1 kHz 0.15% (mono), 0.3% (stereo)  
 6 kHz 0.3% (mono), 0.4% (stereo)  
 S/N  
 MONO 75 dB  
 STEREO 70 dB  
 Frequency response 20 Hz ~ 15 kHz,  
 +1, -2 dB  
 Alternate channel selectivity 70 dB  
 Capture ratio 1.2 dB  
 Image rejection at 98 MHz 70 dB  
 IF rejection at 98 MHz 90 dB  
 Spurious response rejection at 98 MHz 80 dB  
 AM suppression 55 dB  
 Stereo separation  
 1 kHz 45 dB  
 10 kHz 35 dB

Carrier leak -40 dB (19 kHz)  
 -50 dB (38 kHz)  
 Antenna terminals 300 ohms (balanced)  
 75 ohms (unbalanced)

### AM TUNER SECTION

Frequency range 525 ~ 1605 kHz  
 Sensitivity 30  $\mu$ V, 300  $\mu$ V/m  
 Selectivity 35 dB  
 Image rejection at 1000 kHz 50 dB  
 IF rejection at 1000 kHz 45 dB

### GENERAL

Power consumption 190W  
 Power supply AC 120V 60 Hz  
 Dimensions (H x W x D) 15 x 46 x 30 cm  
 (5  $\frac{3}{8}$ " x 18  $\frac{1}{8}$ " x 11  $\frac{1}{8}$ " )  
 Weight 8 kg (17.6 lb.)  
 Walnut grain cabinet finish

# Technics

by Panasonic

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 M9W 1B5.  
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"Panasonic and Technics by Panasonic are two of the most trusted brand names in electronics. Matsushita Electric (makers of Panasonic and Technics products), celebrated its 60th anniversary in 1978 and currently employs more than 100,000 people around the world, who are responsible for better than 10,000 products sold in over 130 countries. These products are the achievements of 17 research laboratories and the additional research and development facilities of each manufacturing department in the Matsushita Consolidated Group, having a technical team of about 10,000 research engineers and scientists. Actual production is accomplished at some 150 factory complexes in various countries, including Canada. Our multi-national organization holds over 49,000 patent rights and is very proud to have earned a global reputation for product quality."

Dimensions and weight shown are approximate.  
 Specifications subject to change without notice.

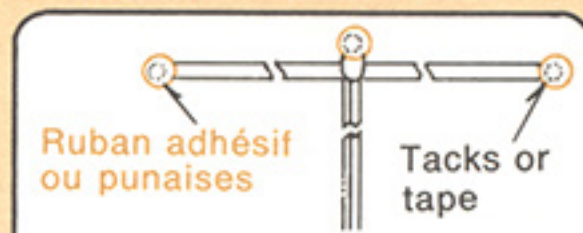
Printed in Japan

# SA-300 : Raccordement à d'autres appareils

## SA-300 : Connection to other equipment

FRANÇAIS

ENGLISH



- Étendre l'antenne en forme de "T" et la fixer au mur (au moyen de ruban adhésif ou de punaises) dans la direction qui offre la meilleure réception.
- Empêcher les punaises d'entrer en contact avec les fils d'antenne.
- Pour une meilleure qualité, une antenne extérieure spécialement conçue pour la réception FM est recommandée.
- Unfold to T-shape, and attach to a wall (using cellophane tape or tacks) facing in direction of best reception.
- Tacks should not contact internal antenna wire.
- For best reception sound quality, an exclusive antenna especially for FM is recommended.

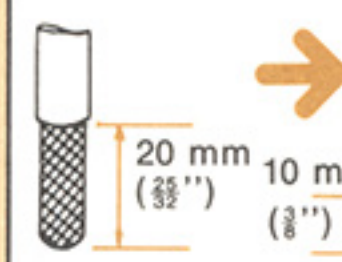
- Enlever cette antenne lorsqu'une antenne extérieure est utilisée.
- Disconnect this antenna if special antenna for FM is installed.

Enceinte acoustique à distance (droite)  
Remote speaker (right)

Antenne FM intérieure (incluse)  
FM indoor antenna (included)

- Niveau de sortie de la cellule de lecture: 1~10 mV.
- Types de cellule de lecture acceptables: Aimant mobile, aimant induit, bobine mobile à niveau de sortie élevé.
- Cartridge output voltage: 1~10 mV.
- Applicable cartridge types: Moving-magnet, induced-magnet and high-output moving-coil cartridges.

Raccordement :  
Connected :



S'assurer du contact entre le blindage tressé et le serre-fils.  
Be sure the shield braid contacts the clamp.

Serre-fils  
Clamp  
Conducteur central  
Centre conductor

Antenne extérieure pour la réception FM  
Special antenna for FM reception  
(requis dans les régions montagneuses et dans les édifices en béton armé, etc.)

Fil coaxial 75Ω  
75Ω coaxial cable  
Blindage tressé  
Shield braid

(Necessary in mountainous region, inside reinforced-concrete building, etc.)

Antenne AM  
AM antenna

Installer horizontalement un fil de 5~12 m (16~40 pi) recouvert de vinyle.  
Use 5~12 m (16~40 ft.) of vinyl-covered wire horizontally at the window.

(requis dans les régions montagneuses et dans les édifices en béton armé, etc.)

(Necessary in mountainous region, inside reinforced-concrete building, etc.)

Prise de courant c.a. :

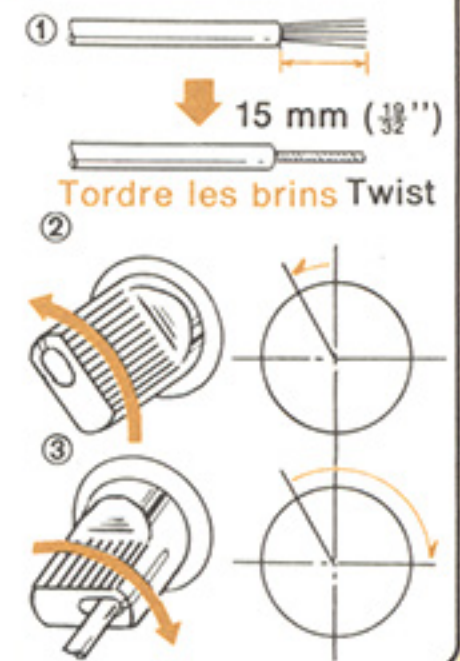
L'alimentation de l'appareil branché dans cette prise provient directement du secteur.  
Cet appareil ne doit pas consommer plus de 150W.

AC outlet:

Power is available regardless of power switch of this unit; connect equipment with power consumption of 150W or less.

Raccordement des fils de haut-parleur  
Speaker cord connections

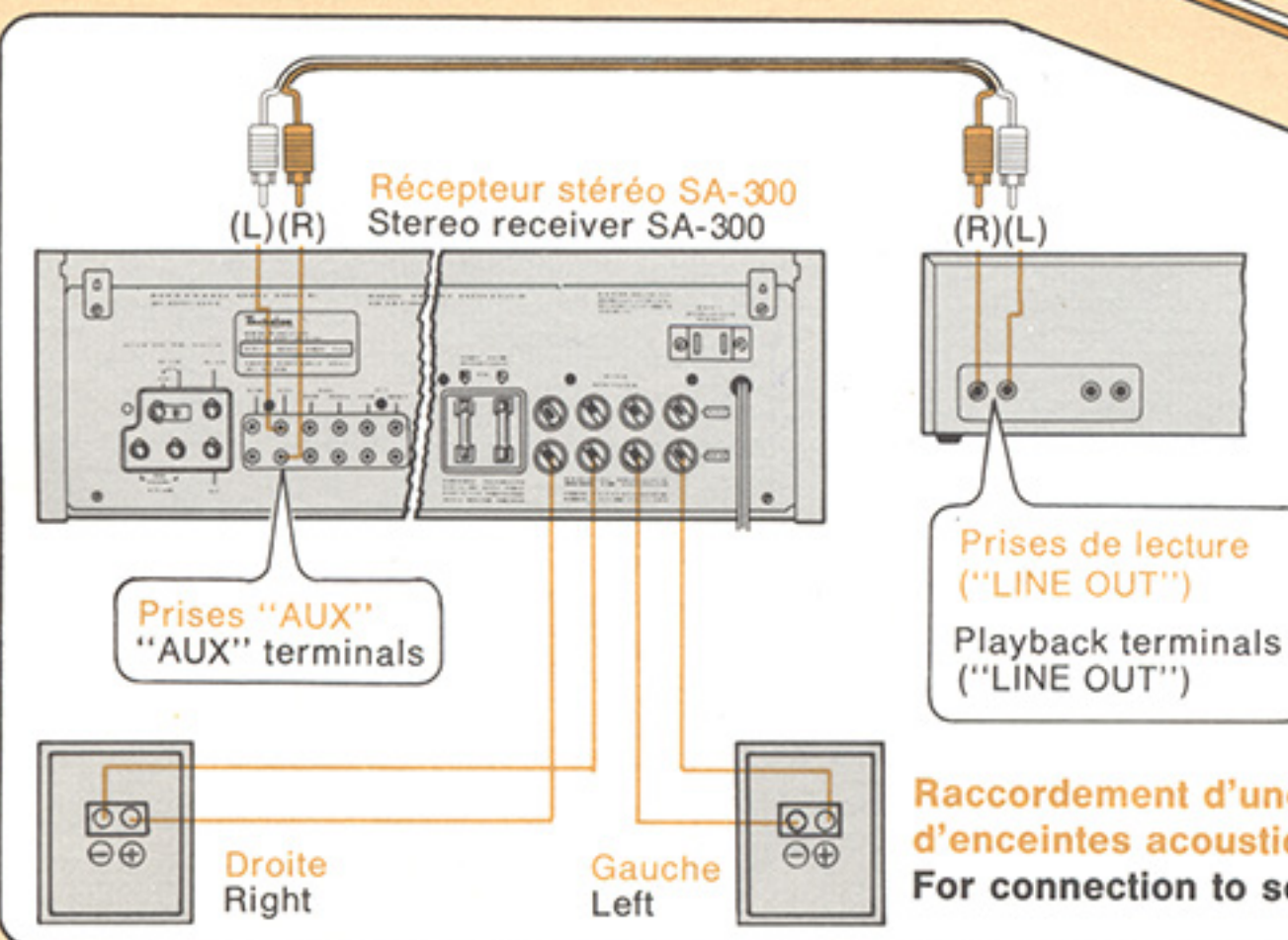
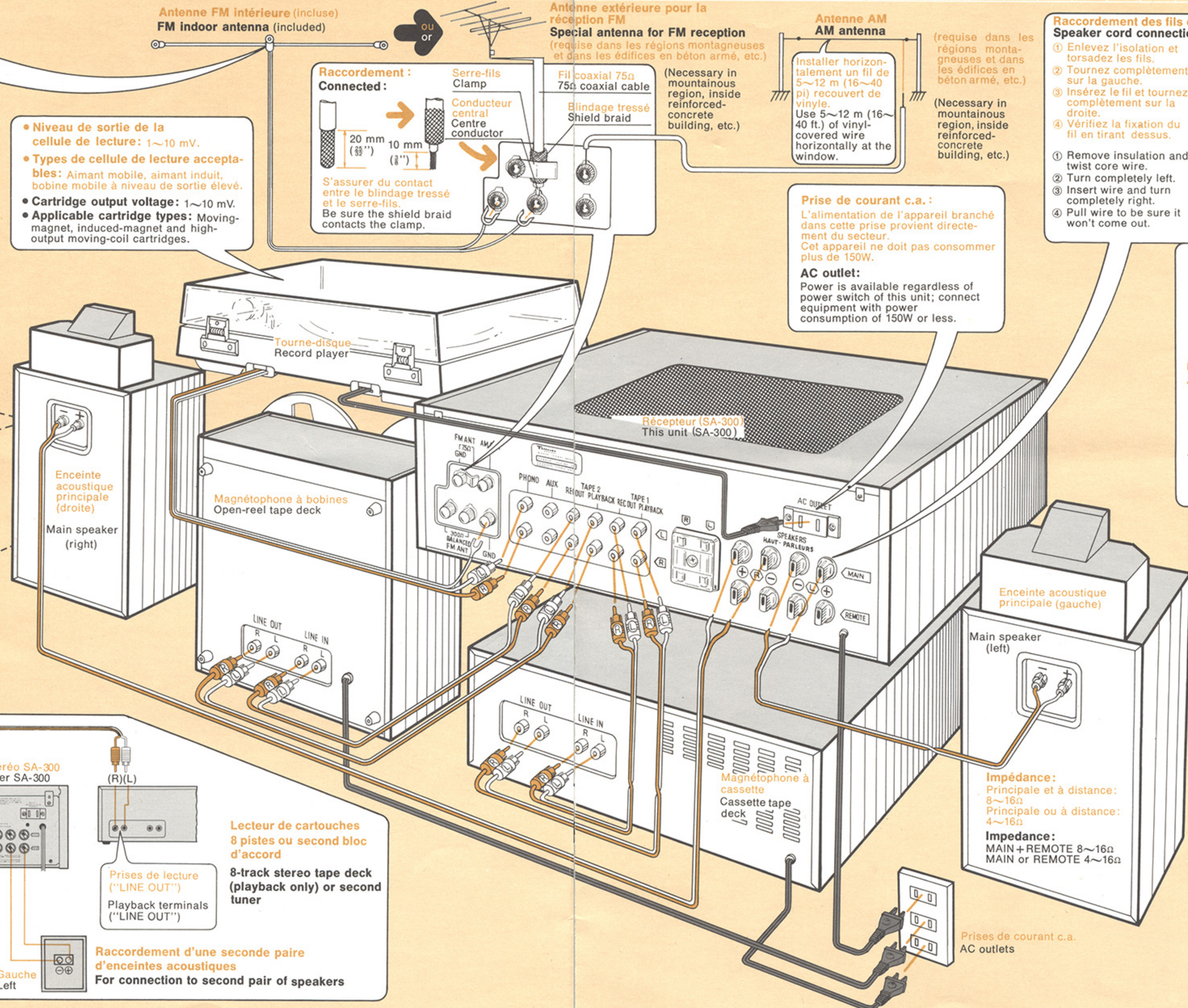
- 1 Enlevez l'isolation et torsadez les fils.
- 2 Tournez complètement sur la gauche.
- 3 Insérez le fil et tournez complètement sur la droite.
- 4 Vérifiez la fixation du fil en tirant dessus.



- 1 Remove insulation and twist core wire.
- 2 Turn completely left.
- 3 Insert wire and turn completely right.
- 4 Pull wire to be sure it won't come out.



Note:  
• To prevent damage to circuitry, never short-circuit plus ⊕ and minus ⊖ speakers terminals.



Impédance:  
Principale et à distance:  
8~16Ω  
Principale ou à distance:  
4~16Ω  
Impédance:  
MAIN + REMOTE 8~16Ω  
MAIN or REMOTE 4~16Ω

Prises de courant c.a.  
AC outlets

### Ecoute de disques To listen to phono discs

**5 POWER: "ON"**

**4 SPEAKERS:** (voir remarque 1) (Refer to note 1.)

**3 TAPE MONITOR: "SOURCE"**

**2 SELECTOR: "PHONO"**

**1 VOLUME:** (✓) "0"

**6 Interrupteur: "ON"**  
Power switch: "ON"

**7 Disque:**  
Placer un disque sur le plateau.  
Phono disc:  
Place disc on turntable.

**8 Sélecteur de vitesses:**  
pour choisir la vitesse appropriée  
Speed selector:  
Select speed.

**9 Cellule de lecture:**  
Déposer le bras de lecture sur le disque pour débuter la lecture.  
Cartridge: Place pick-up on disc surface; performance will begin.

**10 VOLUME:**  
Régler le volume (✓).  
Adjust volume level (✓).

Tourne-disque (existe en option)  
Record player (optional)

(Les points 6 ~ 9 peuvent être modifiés selon le type de tourne-disque utilisé.)  
(Steps 6 ~ 9 may differ depending upon type of record player.)

- Utilisation des appareils raccordés aux prises "AUX"
- To use equipment connected to "AUX" terminals
- Utilisation d'un casque d'écoute
- When listening through headphones

**1 SELECTOR: "AUX"**

**2 TAPE MONITOR: "SOURCE"**

**3**

Placer les sélecteurs d'enceintes acoustiques en position "OFF" (voir remarque 1) pour couper le contact sur les haut-parleurs.  
Release speaker selectors (see note 1) to "OFF" position when speaker sound is not wanted.

Utilisation d'un casque d'écoute  
When listening through headphones

Utilisation des appareils raccordés aux prises "AUX".  
To use equipment connected to "AUX" terminals

• Pour l'écoute des signaux d'un bloc d'accord raccordé aux prises "AUX.", procéder de la manière indiquée au paragraphe "Ecoute des émissions radio".

• Pour l'écoute des signaux d'un magnétophone raccordé aux prises "AUX.", procéder de la manière indiquée au paragraphe "Ecoute de rubans magnétiques".

• If a stereo tuner is connected to "AUX" terminals on rear panel, operate in same way as described in the section "To listen to radio broadcasts".

• If a tape deck is connected to "AUX" terminals on rear panel, operate in same way as described in the section "To listen to tape".

### Ecoute des émissions radio To listen to radio broadcasts

**5 SPEAKERS:** (voir remarque 1) (Refer to note 1.)

**2 SELECTOR:**  
• Régler à la position "FM" pour les émissions FM.  
• Régler à la position "AM" pour les émissions AM.  
• Set to "FM" for FM broadcasts.  
• Set to "AM" for AM broadcasts.

**4 FM MUTING/MODE: "ON/FM AUTO"**

**3 TAPE MONITOR: "SOURCE"**

**1 VOLUME:**  
Placer le volume à bas niveau pour faciliter l'accord.  
Set volume control to low position (0 → 1) for easier tuning.

**6 POWER: "ON"**

**8 VOLUME:**  
Régler le volume (✓).  
Adjust volume level (✓).

**7 TUNING:**  
Syntoniser la station désirée (✓).  
• Pour le meilleur accord AM, l'aiguille doit se déplacer vers la droite.  
• Sur FM, la distorsion est à son plus faible lorsque l'aiguille est au centre.  
Tune to radio broadcasts (✓).  
• For AM broadcasts:  
Best-tuned point is where indication needle moves farthest to right.  
• For FM broadcasts:  
Distortion is minimized when indication needle is at center.

**9 FM MUTING/MODE:**  
Placer en position "OFF/FM MONO" si les émissions FM sont difficiles à capter (régions montagneuses, etc.).  
Set to "OFF/FM MONO" if FM signals are difficult to receive (mountainous region, etc.).

### Etapes à suivre pour tout mode de fonctionnement Steps required for all operations

Réglage de l'équilibre gauche/droite.  
Adjust left/right volume balance.

Régler ces commandes pour obtenir la tonalité désirée des basses et des aigus.  
Adjust tone quality as desired. Low-range sound is adjusted with bass control ("BASS"), and high-range sound with treble control ("TREBLE").

- Après usage, couper le contact sur chacun des appareils utilisés.
- After listening is finished, power switches of all equipment should be turned "off".

### Ecoute de rubans magnétiques To listen to tape

**4 POWER "ON"**

**3 SPEAKERS:** (voir remarque 1) (Refer to note 1.)

**2 TAPE MONITOR: "TAPE 1" OU "TAPE 2"**  
(voir remarque 2) (Refer to note 2.)

**1 VOLUME:** (✓) "0"

**6 Magnétophone à cassette (existe en option)**  
Cassette tape deck (optional)

**9 VOLUME:**  
Régler le volume (✓).  
Adjust volume level (✓).

**8 Commande de lecture:**  
presser pour amorcer la lecture.  
Play button:  
Push playback button down; performance will begin.

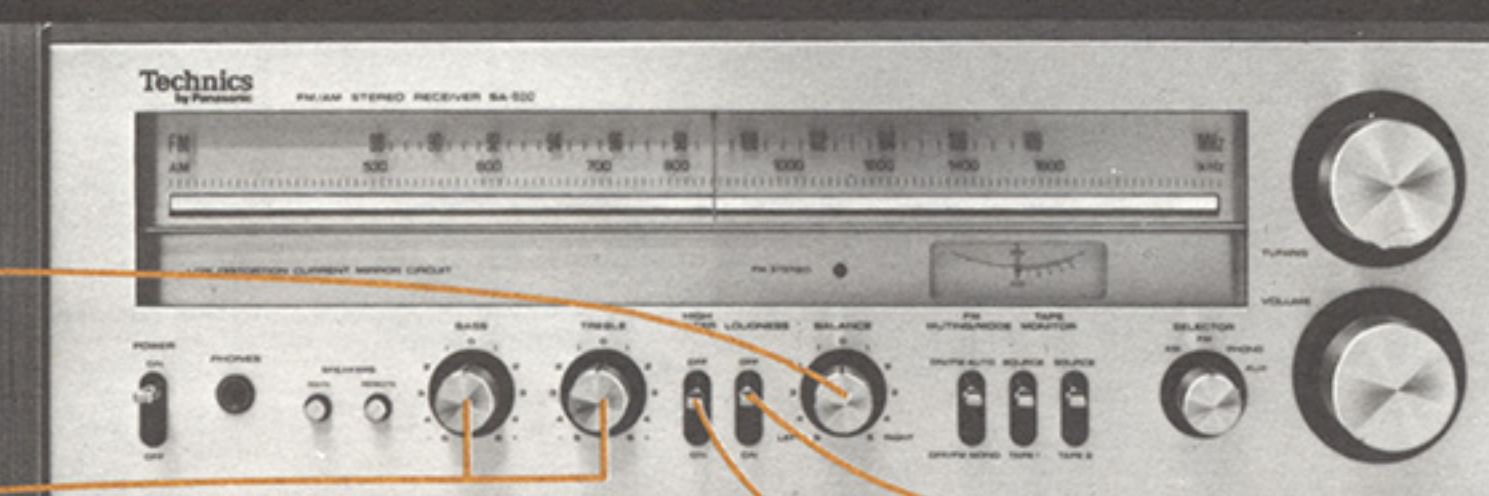
**7 Sélecteur de rubans:**  
Placer à la position appropriée du ruban utilisé.  
Tape selector:  
Set tape selector to type of tape being used.

**5 Interrupteur: "ON"**  
Power switch: "ON"

**6 Insérer une cassette**  
(le côté à lire sur le dessus.)  
Insert cassette  
(with side to be played (A or B) upward.)

(Les points 5 ~ 8 peuvent être modifiés selon le type de magnétophone à cassette utilisé.)  
(Steps 5 ~ 8 may differ depending upon type of cassette tape deck.)

(Au besoin, suivre ces étapes après le réglage du volume.)  
(Follow these steps, as necessary, for all operations after adjustment of volume level.)



Utiliser la position "ON" pour l'écoute à niveau sonore réduit.  
Set to "ON" when listening at low volume level.

Placer cette commande à la position "ON" pour éliminer les bruits en haute fréquence que peuvent produire les disques usés ou rayés, etc.  
Set to the "ON" position to eliminate high-frequency noise (to eliminate high-frequency FM broadcast noise, phono disc "scratch" noise, etc.).

- Remarques:**
- 1) Presser sur le bouton "MAIN" (voir remarque 1) pour l'écoute avec les enceintes acoustiques raccordées aux bornes marquées "MAIN" sur le panneau arrière.
  - 2) Placer en position "TAPE 1" pour la lecture de ruban par le magnétophone raccordé aux prises "TAPE 1" à l'arrière de l'appareil.
- Notes:**
- 1) Push "MAIN" button (see note 1) to listen through speakers connected to "MAIN" terminals on rear panel.
  - 2) Set to "TAPE 1" position to playback sound from tape deck connected to "TAPE 1" terminals on rear panel.