### AM LOOP ANTENNA

- Connect the cord of the accessory AM loop antenna to the AM LOOP 300 Ohm terminals. When tuning in AM stations, move the antenna to the left or right and set in the direction which yields the optimum reception.
- Do not place the power cord or speaker cords near the loop antenna. Interference or noise may be generated.

## Multi path reflections

FM waves, like light waves, travel in a straight direction unless reflected off objects in their path. Because of this, two sets of waves reach your antenna from the FM station; those that have traveled directly to the antenna, and those that have been reflected off buildings or mountains. When the antenna receives both kinds of signals, the two interfere with each other and result in distorted sound and poor separation. This phenomenon is called "multi path reflection". To reduce this problem, select an antenna with good directivity and place it in the best location with strong reception.

### PROGRAMMING PRESETS

Select the AM or FM band you wish to program (AM, or FM). Using the TUNING +, or TUNING - buttons to select the station you wish to program. To store that station in a preset (1 - 10), press the MEMORY button followed by the Preset Number button you want that station stored to. Then press the memory button once again to store the preset. (+5 must be used for accessing presets 6-10)

You may repeat this process for all 10 FM presets, and 10 AM presets.

# **SCHEMATIC**

To view the HR78 schematic, visit our web site at www.rolls.com. Find the HR78 page, and download the online Owners Manual.



Rolls Corporation Salt Lake City, UT 2/13





	SPECIFICATION:
Intermediate Frequency:	10.7 MHz +/- 0.3
Tuning Range:	87.5 - 108 MHz
30 dB quieting sensitivity:	28 dB
IF Rejection 87.9 MHz:	50 - 56 dB
Image Rejection 105.9 MHz:	20 - 26 dB
3dB Limiting Sensitivity:	28 - 35 dB
THD 1 mV Input:	0.5 - 2 %
Auto Tuning Sensitivity 97.9 MHz:	25 - 30 dB
AM Suppression:	26 - 32 dB
AM	
Intermediate Frequency:	450 kHz +/- 5
Tuning Range: US:	520 - 1710 kHz
20 dB quieting sensitivity:	58 dB
IF Rejection 603 kHz:	25 - 32 dB
Image Rejection 1404 kHz:	32 - 38 dB
Auto Tuning Sensitivity 999 kHz:	28 - 35 dB
Max Output @ 1 kHz:	0.5V +/- 0.05V
Supply Voltage:	VDC
Dimensions:	(190w x 185d x 42.5h) mm
Weight:	3 lbs

**OUICK START OPERATION GUIDE** 

Thank you for your purchase of the Rolls HR78 AM/FM Digital Tuner. This unit has been carefully designed and assembled to provide years of reliable AM/FM reception. Please read this manual carefully as it contains important information regarding the proper setup and operation of the HR78.

## **FEATURES:**

- 10 FM and 10 AM presets
- Large LCD digital display
- Output Level control
- Retains presets when power is off
- 1 space EIA 1/2 rack chassis
- RCA and 1/8" (3.5mm) Outputs

# INSPECTION

Unpack and Inspect the HR78 package Your HR78 was carefully packed at the factory in a protective carton. Nonetheless, be sure to examine the unit and the carton for any signs of damage that may have occurred during shipping. If obvious physical damage is noticed, contact the carrier immediately to make a damage claim. We suggest saving the shipping carton and packing materials for safely transporting the unit in the future.

### WARRANTY

For complete Warranty information and registration, please visit our web site; www.rolls. com. Click on the REGISTER YOUR WARRANTY HERE line. Or, complete the Warranty Registration Card and return it to the factory.

# DESCRIPTION FRONT PANEL



- POWER: When pressed in, applies power to the HR78.
- FREQUENCY DISPLAY: LCD display showing the active information relevant to the current operation of the HR78.
- 1 10 PRESET STATIONS: Selects and Stores the Preset stations. (+5 must be used for accessing presets 6-10)
- FM ST: Selects between Stereo and Mono FM operation.
- BAND: Selects between the FM preset, and the AM preset band.
- MEMORY: When the desired station is selected, this button is pressed, followed by the desired Preset Station number to Store the preset.
- LEVEL: Adjusts the output level of both the RCA and 1/8" (3.5mm) outputs. PLEASE NOTE: FOR A LINE LEVEL OUTPUT, SET THE LEVEL CONTROL AT APPROXIMATE-LY 3 O'CLOCK.
- TUNING (- and +): Selects the stations that the HR78 is receiving. Pressing and holding the + or buttons will auto search for the next station.

## HR78 DISPLAY

- -Band indicator and number.
- -Stereo / Mono indicators. Indicates whether the HR78 FM Mode is operating in Stereo or Mono.
- -Mhz/Khz indicates Megahertz (FM), or Kilohertz (AM) reception.
- -Preset number indicates which preset has been selected within the selected band.
- -Station frequency indicator

# **REAR PANEL**

- VDC USE ROLLS SUPPLIED ADAPTER ONLY!!!
- Stereo Outputs RCA: Unbalanced RCA outputs.

  1/8" (3.5mm): Stereo Line/Headphone Output
- FM ANT. 75 Ohm: Connects to the included 75 ohm FM antenna.
- AM LOOP ANT. 300 Ohm Connects to the included 300 ohm AM Loop antenna.

### CONNECTION

- Connect the Rolls supplied adapter to the VDC power jack of the HR78, and to an AC outlet with the proper voltage.
- Connect the HR78 Left and Right outputs to a mixer, amplifier, or other audio device. FM Antenna

## INDOOR T SHAPED ANTENNA

- Connect the antenna to its corresponding input on the rear panel of the HR78. While listening to a broadcast, hold the stretched ends and move around until the antenna is facing a direction where the signal comes in the strongest. Secure the antenna in this position.

#### **OUTDOOR FM ANTENNA**

- Installation of an outdoor FM antenna is recommended for a very high quality FM reception.
- The lead-in antenna cable should be of the 75-ohm coaxial type as it suppresses intrusion of noise more effectively than the 300 ohm twin lead type.
- The cable should be straight and as far away from power lines as possible. Cut off any extra length.