

RS79b

Digital Quartz AM/FM Tuner



Rolls Corporation
Salt Lake City, UT
7/02

OWNERS MANUAL

Thank you for your purchase of the Rolls RS79b Quartz PLL Synthesized AM/FM 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 RS79b.

FEATURES:

- 18 FM and 12 AM presets
- Retains presets when power is off
- Large LCD digital display
- SCAN and SEEK functions
- Standard 1 space EIA rack chassis
- Headphone output, XLR outputs, and Signal Strength meter
- Remote included

INSPECTION

1. Unpack and Inspect the RS79b package

Your RS79b 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.

2. Please complete the Warranty Registration Card and return it to the factory.

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This product is warranted to the original consumer purchaser to be free from defects in materials and workmanship under normal installation, use and service for a period of one (1) year from the date of purchase as shown on the purchaser's receipt.

The obligation of Rolls Corporation under this warranty shall be limited to repair or replacement (at our option), during the warranty period of any part which proves defective in material or workmanship under normal installation, use and service, provided the product is returned to Rolls Corporation, **TRANSPORTATION CHARGES PRE-PAID**. Products returned to us or to an authorized Service Center must be accompanied by a copy of the purchase receipt. In the absence of such purchase receipt, the warranty period shall be one (1) year from the date of manufacture.

This warranty shall be invalid if the product is damaged as a result of defacement, misuse, abuse, neglect, accident, destruction or alteration of the serial number, improper electrical voltages or currents, repair, alteration or maintenance by any person or party other than our own service facility or an authorized Service Center, or any use violative of instructions furnished by us.

This one-year warranty is in lieu of all expressed warranties, obligations or liabilities. **ANY IMPLIED WARRANTIES, OBLIGATIONS, OR LIABILITIES, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, SHALL BE LIMITED IN DURATION TO THE ONE YEAR DURATION OF THIS WRITTEN LIMITED WARRANTY.** Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

IN NO EVENT SHALL WE BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR BREACH OF THIS OR ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, WHATSOEVER. Some states do not allow the exclusion or limitation of special, incidental or consequential damages so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

SPECIFICATIONS

FM SECTION

Tuning Range:	87.5-108MHz
3 dB Limiting:	12dB
Image Rejection:	53dB
Usable sensitivity mono IHF :	9dB
Selectivity:	(-70KHz : +90KHz)
S/N Ratio at 1 mV Mono :	52dB
Stereo:	50dB
THD at 1 mV 40 kHz deviation:	0.18%
Stereo Separation:	28dB
Auto Scan Sensitivity:	23dB
AM Suppression Mod. :	52dB
Frequency Response:	3dB
Antenna Input Impedance:	75 Ohms

AM SECTION

Tuning Range:	522 - 1710 kHz (10 kHz increm.) 522 - 1611 kHz (9 kHz increm.)
IF Frequency:	450KHz
Usable Sensitivity:	28dB
Auto Scan Sensitivity:	41dB
S/N Ratio at 5 mV/M:	46dB
6 dB Bandwidth:	7KHz
Image Rejection:	42dB
A.C.A. +/- 9 kHz:	46dB
AGC Action:	43dB
THD at 5mV/M:	0.40%
Antenna Input Impedance:	300 Ohms
Size:	19" x 1.75" x 5" (48.3 x 4.5 x 12 cm)
Weight:	7.1 lbs. (3.2 kg)

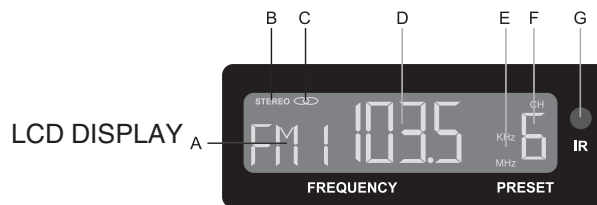
DESCRIPTION

FRONT PANEL



Station Call

- M1 - M6: Directly accesses the preprogrammed station within the selected frequency band.
- Band: Advances through the 2 AM and 3 FM bands.
- A/PS: Advances through the station presets within the selected frequency band.
- Ster/Mon: Selects between Stereo and Mono operation.
- MUTE: Mutes all outputs.
- Scan/Up: Increases the frequencies until a station strong enough to lock onto is reached. That station is played for approximately five seconds then scanning begins again. Scanning is continuous until a front panel button is pressed. The station the RS79 stops at will remain.
- Seek/Up: Increases the frequencies until a station strong enough to lock onto is reached. That station will remain.
- Tune +: Increases the tuner frequency by .1 MHz each time it is pressed.
- Tune -: Decreases the tuner frequency by .1 MHz each time it is pressed.



A: Band indicator and number. There are three banks of FM and two banks of AM presets. *NOTE: If the rear panel Frequency Select switch is set for 9kHz, the band will indicate MW 1 and MW2 instead of AM1 and AM2.*

B: Stereo indicator. Indicates a locked signal and stereo operation. If this light is out, the unit is operating in mono or the station is weak.

C: Lock indicator - if lit the RS79b is locked onto a station.

D: Station frequency indicator

E: Indicates whether the station frequency is AM (KHz), or FM (MHz)

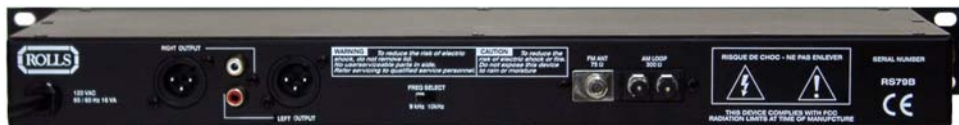
F: Preset number - 1 - 6.

G: IR - Infrared Remote sensor.

- Power Switch: Applies power to the RS79b.

IMPORTANT NOTICE: IF THE POWER IS TURNED OFF BY THE REMOTE, THIS FRONT PANEL POWER SWITCH IS INOPERABLE UNTIL THE REMOTE IS USED TO TURN THE POWER BACK ON.

REAR PANEL



- AC: Three connector power cord. Please connect to a properly grounded AC outlet.
- Right and Left Outputs: Balanced XLR and unbalanced RCA outputs.
- FREQ SELECT: This switch selects between 9 and 10KHz frequency centers for the AM section, and 50 and 100 kHz centers for the FM section.
- FM ANT. 75 ω : Connects to the included 75 ohm FM antenna.
- AM LOOP ANT. 300 ω : Connects to the included 300 ohm AM Loop antenna.

CONNECTION

Connect the RS79b to a properly grounded AC outlet.

Connect the Left and Right outputs to a mixer, amplifier, or other audio device.

FM Antenna

Indoor T-shaped FM antenna

Connect the T-shaped FM 300 ohm antenna to its corresponding input on the rear panel of the RS79b. Open the ends of the antenna to form a "T" shape. 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.

AM Loop antenna connection

Connect the cord of the accessory AM loop antenna to the AM LOOP 300 ω terminals. When tuning in AM stations, move the antenna to the left or right and set in the direction which yields the optimum reception.

- AM reception may not be possible without the loop antenna attached. Even if an outdoor antenna is connected, keep this loop antenna in place.
- Do not bring the power cord or speaker cords near the loop antenna. Interference or noise will be generated.

Multipath 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 "multipath reflection". To reduce this problem, select an antenna with good directivity and place it in the best location with strong reception.

OPERATION

SET THE FREQUENCY SELECT

AM radio stations in the United States operate on 10kHz channel centers. In other parts of the world, stations are on 9kHz centers. The RS79b provides a rear panel switch to select the frequency centers for proper reception.

If you are not sure where this switch should be set, contact your local station for their operating information.

PROGRAMMING PRESETS

Select the AM (MW) or FM band you wish to program (AM (MW)1, 2, or FM 1, 2 or 3). Using either the SCAN/UP, SEEK/UP, TUNE +, or TUNE - buttons - select the station you wish to program. To store that station in a preset (M1 - M6), press and hold the desired preset button until the CH # appears in the display. For example, once you've selected the desired station, to store that in preset M3, press and hold M3 until a CH 3 appears in the display.

REMOTE OPERATION

The included Infrared Remote provides a way to control the RS79b at a distance from the unit. It must be located in the "line-of-sight". The remote functions include all front panel buttons except the A/PS advance preset button, and the headphone functions. NOTE: USING THE POWER BUTTON ON THE REMOTE DISABLES THE FRONT PANEL POWER BUTTON. YOU MUST USE THE REMOTE POWER TO TURN THE UNIT ON AGAIN.

