



## CD/USB Player/ FM-RDS Receiver

**A 4346**

JD Media model CDR-100RDSU



## Installation & Operation

Distributed by Altronic Distributors Pty. Ltd. Perth. Western Australia.

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# JDM® CD/USB/FM-RDS Receiver Module

## FEATURES:

### Receiver Section:

- Digital electronic analogue tuner AM/FM bands
- Radio Data System (RDS) function for FM radio
- 24 station preset memories (FM:18; AM:6)
- Manual or Scan (Seek) tuning, up and down

### CD Section:

- Play/Pause button.
- Repeat and Random playback.
- Intro Scan play.
- Cue/Review function.
- Track skip and seek function.
- USB socket for USB stick.

### IN THE BOX:

- CDR-100RDSU includes CD Player / AM and FM RDS Radio Tuner / USB module.
- Antenna Terminal module – to insert into the PA Amplifier rear panel and allow AM and FM antenna wiring to be connected.
- 300Ω balanced FM cable.
- Screws to attach module to PA system.

### SUITABLE FOR:

This module is designed to be used as an accessory to the JDM PA amplifier products:

JDM ZA-6120 (Altronics code: A 4330)

JDM ZA-6240 (Altronics code: A 4332)

JDM ZA-6480 (Altronics code: A 4336)

JDM TA-1060 (Altronics code: A 4320)

JDM TA-1120 (Altronics code: A 4322)

JDM TA-1240 (Altronics code: A 4324)

### INTERNAL CONNECTIONS:

Before commencing installation, familiarise yourself with the location of the Antenna and Power/Signal headers as shown in Figure 1.



Figure 1: Location of antenna and power/signal headers.

## INSTALLATION INSTRUCTION FOR A 4330 - A 4336 JDM 'ZA' SERIES AMPLIFIERS

**Warning:** Before commencing installation ensure amplifier is disconnected from power socket.

**Step 1:** Open the cover of the amplifier and unscrew the blank panel located on the front of the amplifier.

**Step 2:** Locate the punchout panel marked "FM 75Ω" on the rear panel and remove it. You may need to cut the panel supports with some heavy duty cutters or a small saw.

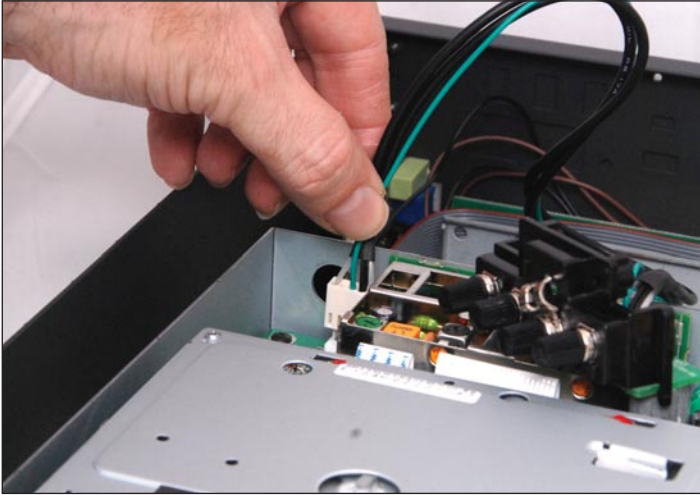
**Step 3:** A fly lead and header will be taped to the back of the front blank panel. Remove the tape and connect this lead to the Power/Signal header on the tuner module. See photo:



**Step 4:** Insert module into amplifier and screw to front panel. Ensure the plastic locating pegs on the module panel fit into the amplifier front panel correctly. See photo:



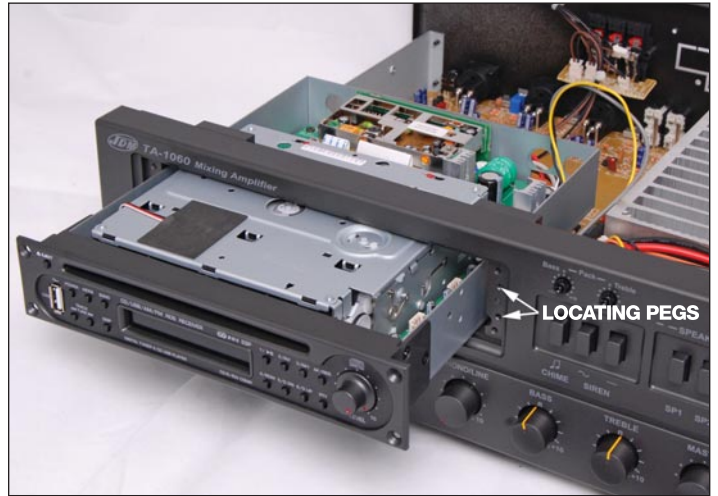
**Step 5:** Connect antenna module to the antenna header in the main tuner module. See photo:



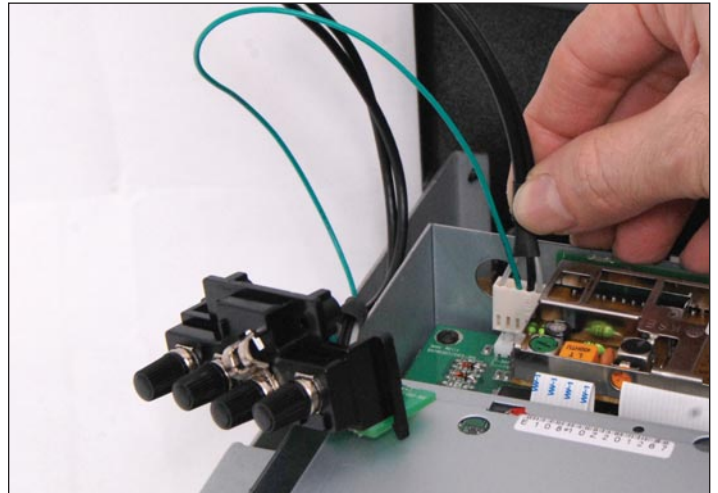
**Step 6:** Attach the antenna module to the rear panel using the self tapping screws provided.

**Step 7:** Connect antenna to antenna module on rear panel. See figure 3 and 4 for examples of FM and AM antenna wiring.

**Step 4:** Insert module into amplifier and screw to front panel. Ensure the plastic locating pegs on the module panel fit into the amplifier front panel correctly. See photo:



**Step 5:** Connect antenna module to the antenna header in the main tuner module. See photo:



**INSTALLATION INSTRUCTIONS A 4320 - A 4324  
JDM 'TA' SERIES AMPLIFIERS**

**Warning:** Before commencing installation ensure amplifier is disconnected from power socket.

**Step 1:** Open the cover of the amplifier and unscrew the blank panel located on the front of the amplifier.

**Step 2:** Locate the punchout panel marked "FM 75Ω" on the rear panel and remove it. You may need to cut the panel supports with some heavy duty cutters or a small saw.

**Step 3:** A fly lead and header will be taped to the back of the front blank panel. Remove the tape and connect this lead to the Power/Signal header on the tuner module. See photo:



**Step 6:** Attach the antenna module to the rear panel using the self tapping screws provided.

**Step 7:** Connect antenna to antenna module on rear panel. See figure 3 and 4 for examples of FM and AM antenna wiring.

## FRONT PANEL: (Figure 2.)

### 1. POWER:

Press this to turn the power on to the unit. Press again to switch it off.

### 2. DISC SLOT:

When a CD is inserted into the slot, it is loaded automatically, and will show 'LOAD' then 'PLAY' then disc information ('Total Tracks', 'Total Time') on the LCD, and then start playback.

### 3.VOLUME LEVEL:

Turn this knob clockwise to increase the volume, anti-clockwise to decrease.

### 4 & 5. TUNE / TRACK I<< >>I:

**Radio Mode:** Press these buttons to adjust the frequency, moving through the available frequencies. Press and hold for manual tuning. The unit will display 'Manual'. Release button and use I<< or >>I to tune manually. After a few seconds of no activity the tuning will revert back to auto (Search) tuning. Press briefly to activate SEEK tuning mode, and the tuner will stop on the next frequency with a signal.

**CD Mode:** Press these buttons to skip to the next or previous track on the disc or USB. Press and hold to rewind / review or cue / fast forward through the track that is playing.

### 6. EJECT:

Press this button to eject the inserted CD from the unit and return to radio mode operation. If the disc is not removed from the unit within 10 seconds, it will again be reinserted into the CD slot and commence playing.

### 7.BUTTONS NUMBERED 1 TO 6:

**Radio Mode:** These buttons provide preset memories for radio station frequencies (Station Presets). A total of 24 frequencies can be stored in the preset memory buttons – 18 for FM band (FM1, FM2, FM3 x 6 each) and 6 for AM band frequencies. Simply chose the band (FM or AM – button 11), tune the frequency (see above) and press and hold a memory button to store that favourite frequency in that memory number.

**CD / USB Mode:** Each button has a different function relating to playback, as indicated on the button labels, which are described below.

(1) **PLAY/PAUSE** – start or pause playback of track.

(2) **INT (Intro Scan)** – when pressed, the Intro Scan function will play the first 10 seconds of a track and then skip to do the same on the next track. A convenient method to find a track you like on a CD or USB stick. Just press the button again to turn the function off.

(3) **RPT (Repeat)** – Press this button to repeat the single track

currently playing ['S-RPT' appears on the LCD] Press again to switch repeat off. Press and hold for a few seconds to activate **DIRECTORY REPEAT** ['D-RPT' appears on the LCD] which will repeat all tracks in a selected USB / CD directory. Press button again to turn off.

(4) **RDM (Random)** – Press this button to RANDOMISE (Shuffle) the playback order of tracks on the CD or USB. LCD will show 'RDM' when the function is active.

(5) **D-DN (Directory Down)** – press to return to previous directory.

(6) **D-UP (Directory Up)** – press to advance to the next directory.

### 8. DISP (Display):

**Radio Mode** – Press this button to display either clock time or RDS information on the LCD. Clock time is obtained from the RDS code transmissions when available.

**CD Mode** – Press this button to display the track name or album name and/or file list on the CD / USB.

### 9. ST:

Indicates 'ST' on the LCD if an FM stereo signal is being received. Default status is to receive in stereo. If the FM signal is too weak then the unit automatically reverts to mono.

**Note:** Some low-power FM stations operating in Australia on 88 MHz and below may be transmitting in mono. AM analogue radio in Australia is currently broadcasting only in mono.

### 10. MODE:

Press this button to select the playback mode - Radio, CD or USB. For CD / USB modes to function, the CD / USB Stick must be inserted into their respective slots.

### 11. BAND (also provides loudness function):

Press this button to switch between FM and AM band frequencies for the tuner. The tuner will display FM1, FM2, FM3 for the FM frequencies and MW for AM frequencies.

Press and hold the band button to turn loudness on or off.

### 12. PTY (Program Type)

This button is used to scan for stations of a selected program type. When active, the top of the display will show 'PTY'. For normal tuning of the complete band, this button **MUST** be turned off.

Pressing this button once starts the tuner scanning only for the RDS program type selected (format or genre, eg Pop, Rock, News etc). When this button is pressed the RDS program type is temporarily displayed on screen. Note that it may take up to 20 seconds to scan for a station of the selected program type.

To select another RDS program type, press PTY button once and then any of the buttons numbered 1 to 6 once. Each button



Figure 2: Front Panel

numbered 1 to 6 holds up to five RDS program types. The RDS program types can be accessed in two stages.

Press PTY and then press any of the buttons numbered 1 to 6 twice will yield two separate codes per button.

To access the other three codes per button, press PTY then PTY again, and then press any of the buttons numbered 1 to 6 from one to three times.

After pressing the buttons the tuner will scan and lock into the RDS code type station. If no RDS code type station exists the tuner will display PTY NONE (no program type).

To find the next station of the designated program type press one the TUNE buttons.

To turn off the PTY function, press the PTY button twice in succession. The PTY will disappear from the display.

**13. AF/REG**

**AF (Alternative Frequency):** Using this button allows the user to know if a searched station has an RDS signal strength strong enough to display the RDS information.

Press the AF button and 'AF' will appear at the top of the display. If the current station (or stations) being scanned has a good RDS signal strength button 'AF' will display in bold. If a poor RDS signal strength or no RDS is found for the tuned station the 'AF' will flash. In this situation press the AF/REG button to turn off the flashing display.

**REG (Regional mode):** To activate this function, AF must be on (either bold or flashing in the display). Press this button for three seconds to switch to regional mode. The main display will show 'REG ON' and 'REG' will display at the top of the display. Tuning can now commence to find stations with weaker signals. Press the AF/REG button for 3 seconds to turn off this function. The display will show 'REG OFF' momentarily

Pressing this button allows the tuner to lock into strong signal strength stations only.

**14. USB Slot:**

Connect a USB stick to this socket and the 'USB PLAY' sign will appear on the LCD. Remove the USB stick and the unit will revert to CD or Radio mode.

**Important Note About Antenna Cabling.**

75Ω coaxial antenna cable will provide better shielding than the supplied 300Ω FM cable, which will reduce noise and interference on the tuner. A better antenna, oriented toward the signal source (i.e. broadcast towers) will also improve signal reception. Connecting the GND connection to the earth on the PA amplifier will also reduce electrostatic noise, especially for AM reception.

**About RDS Functions - Radio Data System.**

Allows a tuner's LCD screen to display text information being transmitted by FM analogue radio stations. RDS technology is becoming more prevalent in Australia. RDS Codes: PTY – Program Type (ie Station format or music genre); PS - Station Name or ID; DATE or CLOCK TIME; TEXT - Song Title, Artist, Station slogan, traffic updates etc. If the FM radio station in question has not activated and/or is not broadcasting RDS data, then the RDS feature will show nothing, no scrolling text, time, station name etc.

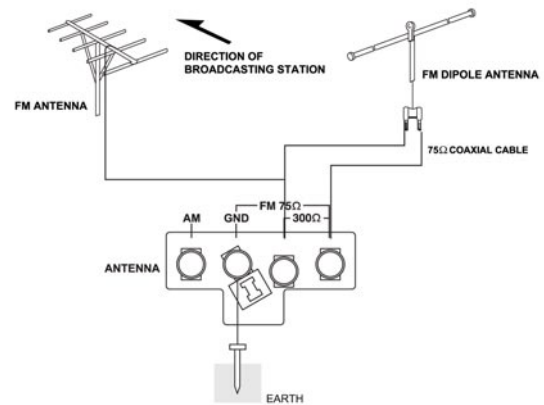


Figure 3: FM Antenna Wiring

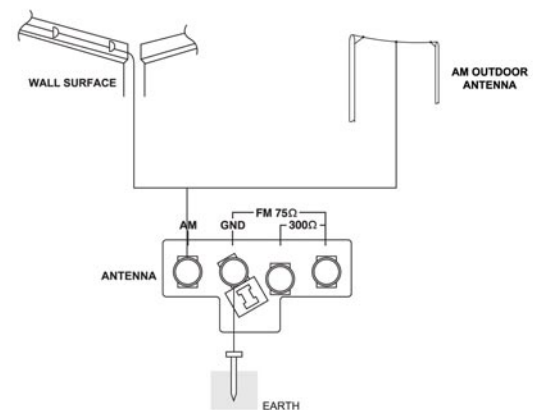


Figure 4: AM Antenna Wiring

**SPECIFICATIONS:**

**Receiver Section:**

- Tuning Range:**..... FM: 87.5 – 108MHz  
AM: 522 – 1620kHz  
**Note:** AM tuning is preset to 9kHz for Australian models
- Usable Sensitivity:**..... FM: 6dBuV; AM: 25dBuV
- Antenna Impedance:**..... FM: 300Ω balanced  
75Ω unbalanced  
AM: High Impedance lead antenna (Not supplied)
- Signal to Noise:** ..... FM: >60dB; AM: >50dB
- T.H.D:** ..... FM: Less than 0.5%  
AM: Less than 0.5%

**CD Section:**

- Digital Filter:**.....8 times over sampling
- T.H.D:** .....Less than 0.03%
- Signal to Noise Ratio:** .....More than 85 dB
- Frequency Response:** .....10Hz – 20kHz
- Loading Time:** .....6 seconds

**General:**

- Dimensions:** .....195(W) x 40(H) x 215(D) mm
- Weight:** .....CDR-100RDSU: 1.3kg