

Redback Distributors warrants this product for 12 months from date of purchase from Redback or its resellers to the consumer. If this item is part of an installation or another product, please contact the installer or supplier for your warranty.

During the warranty period, we undertake to repair or replace your product at no charge if found to be defective due to a manufacturing fault. The warranty excludes damage by misuse or incorrect installation (i.e. failure to install and operate device according to specifications in the supplied instruction manual), neglect, shipping accident, or no fault found, nor by use in a way or manner not intended by the supplier.

For repair or service please contact your PLACE OF PURCHASE.

It is at Redback discretion as to whether the goods will be repaired or replaced (whilst under warranty); and as to whether identical goods will be used to replace the item due to changes of models / products.

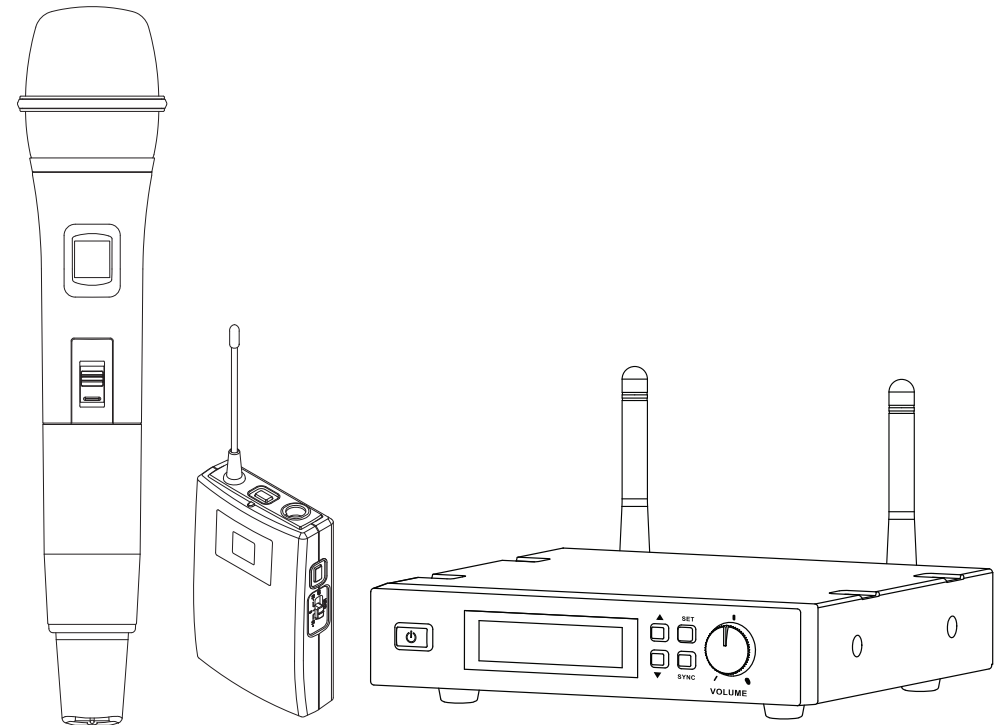
Note: Under no circumstances should you attempt to repair the device yourself or via a non-authorized Redback service centre, as this will invalidate the warranty!

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

NOT FIELD SERVICEABLE.



## 700 Channel UHF Band True Diversity Wireless Microphone System

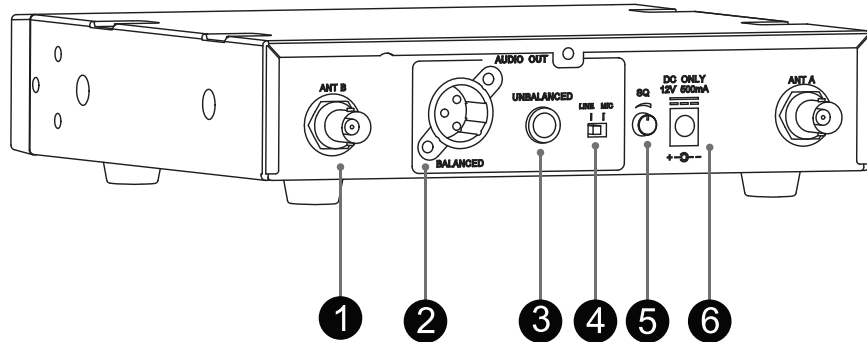


## Operating Instructions





Figure 3: Rear Panel View



1. **Antenna Input Connector:** BNC-type connectors provide connection to the supplied antennas or to coaxial cable used with an antenna divider, antenna boosters or remote antennas.
2. **Balanced Output:** 3-pin XLR connector provides balanced low-impedance output.
3. **Unbalanced Output:** Unbalanced 6.3mm mono jack audio output for connecting to a line point.
4. **Mic/Line Switch:** Use this to adjust output (XLR balanced connector and 6.35mm unbalanced phone jack) for microphone (-20dB) or line-level (0dB).
5. **Squelch:** Use the squelch to adjust the output level to suppress noise. The higher the squelch control, the lower the sensitivity of the receiver and smaller the service area of the system. Set the squelch to minimum before turning the receiver on. If you have unwanted noise increase the squelch control until the noise disappears.
6. **DC IN:** DC Input connector for the included 12V DC power supply.

**Connection:**

1. Connect the cable, one end to the balanced or unbalanced output jack of the receiver, the other end to the mic mixing input of amplifier, audio mixer etc.
2. For best results set the output volume control at about three quarter level and adjust mixer / amplifier level to suit.
3. The squelch level is adjustable by the rotary pot at the back of the unit. Adjust the squelch level to prevent external noise. Note: setting the squelch high (towards max) will reduce the range of the system.
4. When the receiver is not in use disconnect from the mains power.



**IMPORTANT NOTE:** Never use the balanced and unbalanced outputs at the same time. This may cause signal loss or increased noise.

For long distance requirements or special or difficult applications such as stadiums, auditoriums, shopping centres, a range of accessories are available to increase transmission distance or to reduce drop outs.

These include:

- C8841A Ceiling mount antenna
- C8842A Vertical mount antenna booster
- C8843A Mounting bracket to suit C 8842A antenna booster

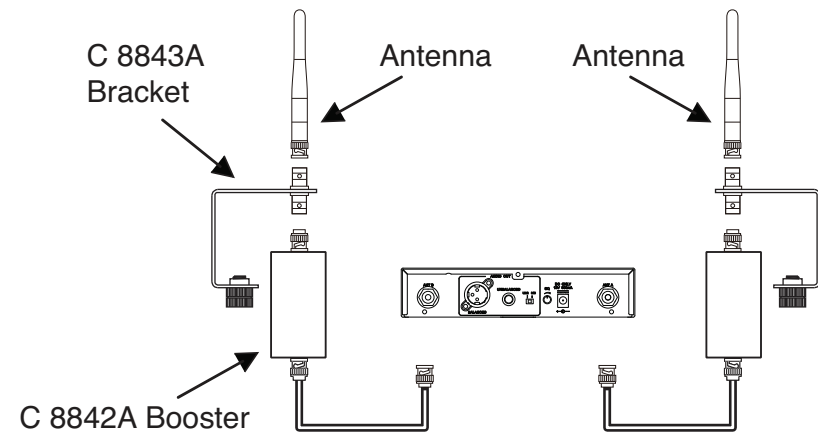
In addition to the above, for multiple system installations a range of accessories are available to aid cabling and installation.

These include:

- C8844A Antenna splitter / combiner
- C8846B Antenna divider

For further information on these and technical help please contact your nearest Redback dealer or consult the product manuals for the above.

The antenna booster is designed for long distance receiving applications, eg. if the distance exceeds 30M.



**Note: TWO OR MORE WIRELESS MICROPHONES WHICH TRANSMIT AT THE SAME FREQUENCY CAN NOT BE USED IN THE SAME LOCATION.**

**WHEN TWO OR MORE WIRELESS MICROPHONES (HANDHELD AND/OR LAVALIER) ARE USED IN THE SAME LOCATION ENSURE THAT 10 OR MORE CHANNEL SPACES ARE BETWEEN EACH SELECTED FREQUENCY SO THAT INTERFERENCE DOES NOT OCCUR.**

**If interference still occurs (which is due to harmonics) select another frequency. TABLE 1 shows 4 groups of 8 frequencies which may be used together in the same area. ALTERNATIVELY USE THE SCAN FUNCTION.**

**TABLE 1: 520-550MHz**

	CH	GROUP 1	CH	GROUP 2	CH	GROUP 3	CH	GROUP 4
<b>CH 1</b>	2	520.075	18	520.875	32	521.575	65	523.225
<b>CH 2</b>	47	522.325	113	525.625	95	524.725	182	529.075
<b>CH 3</b>	162	528.075	133	526.625	308	533.575	323	534.075
<b>CH 4</b>	245	531.475	204	530.125	350	534.975	447	538.225
<b>CH 5</b>	399	536.625	264	532.125	378	535.925	504	540.175
<b>CH 6</b>	554	542.675	488	539.575	426	537.525	529	541.425
<b>CH 7</b>	608	545.375	647	547.325	542	542.075	572	543.575
<b>CH 8</b>	631	546.525	661	548.025	679	548.925	698	549.875

**TROUBLESHOOTING:**

Signal dropouts and noise may be suddenly encountered by interruption from outside if there is too long a distance between microphone and receiver, or battery power is low. In such a case, adjust receiver antenna or change battery.

**No Sound Output**

- Check the transmitter and receiver power supply and switch.
- Check that the transmitter and receiver are tuned to the same frequency.
- Check that the audio amplifier or mixer is switched on and that the receiver output is connected.
- Check whether transmitter is too far away from receiver or SQUELCH control set too high.
- Check whether transmitter or receiver is located too close to a metal object or there are obstructions between transmitter and receiver.

**Sound Interference**

- When using two or more microphone sets simultaneously, ensure that the chosen frequencies do not interfere (see Table 1 for frequency guide).
- Check for interference from other devices - wireless microphones, TV, radio etc.
- Improve antenna location.

**Distortion**

- Check the receiver volume level is not set too high.
- Check for interference from other devices - wireless microphones, TV, radio etc.

**PRECAUTIONS:**

- \* Avoid extremely dirty, dusty or wet environments.
- \* Avoid use in areas where extremely high humidity is present. Do not spill liquid on appliance or use near water.
- \* Do not drop the microphone on a hard concrete floor, nor strike the microphone head front with fist or fingers, nor blow strongly into the microphone head front.
- \* Remove the battery in microphone if not in use for a long time. This will prevent damage that a defective

**CHANNEL SELECTION MODES:**

The receiver operates in three channel selection modes.

**Manual Channel Selection:**

This mode allows you to manually select interference free channels. Table 1 shows the frequencies available. If two transmitters are being used in the same area, ensure the selected frequencies are at least 10 channel spaces apart. This reduces interference.



Use the ▲ button to select the MANUAL mode so that the 'MANUAL' marker appears on the LCD display.



Press the SET button for two seconds until the LCD is flashing. Then release the button.



Use the ▲ button to select the frequency. Hold the ▲ button to fast forward through all available frequencies until a suitable frequency is found. To move backwards use the ▼ button.



Press the SET button to lock the setting or let the selected channel and frequency values keep flashing five times, until they lock into that setting.

**Auto Scan Channel Selection:**

This mode automatically searches for an interference free channel.

Note: Have the transmitter 1m from the receiver when using this function.



Use the ▲ button to select the SCAN mode so that the 'SCAN' marker appears on the LCD display.



Press the SET button for two seconds until the LCD is flashing. Then release the button.

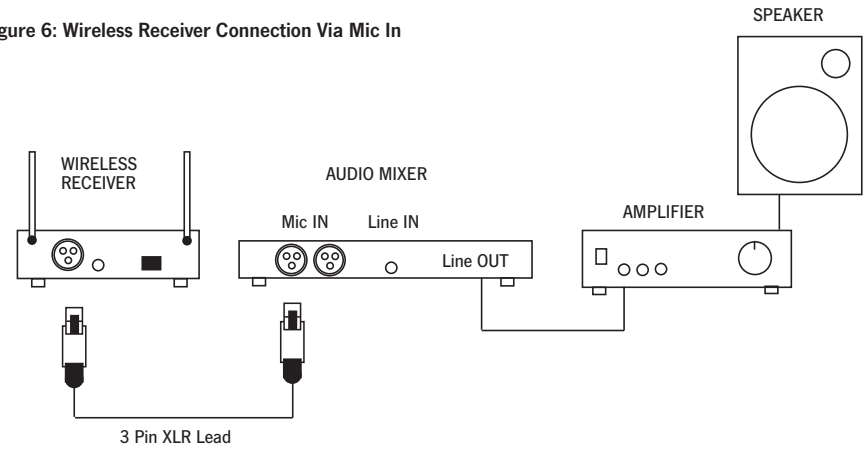


Use the ▲ button to allow the unit to scan for a vacant or unused frequency. Press the up arrow button to initiate each frequency channel search – no need to hold button.

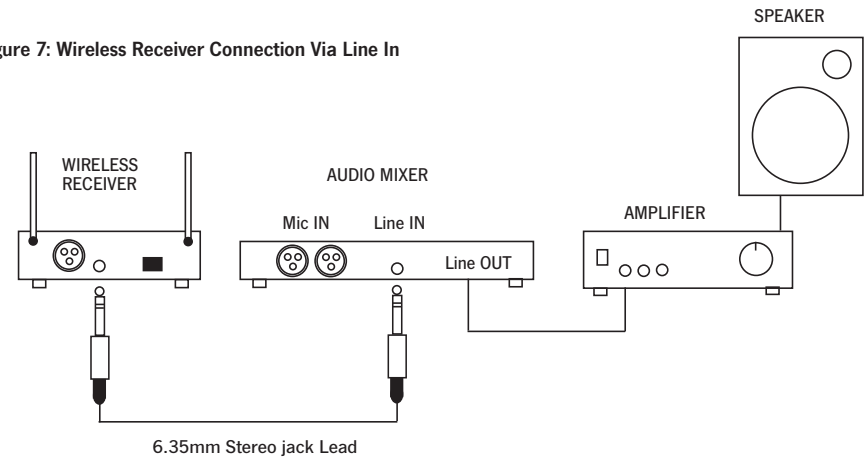


Press the SET button to lock the setting or let the selected channel and frequency values keep flashing five times, until they lock into that setting.

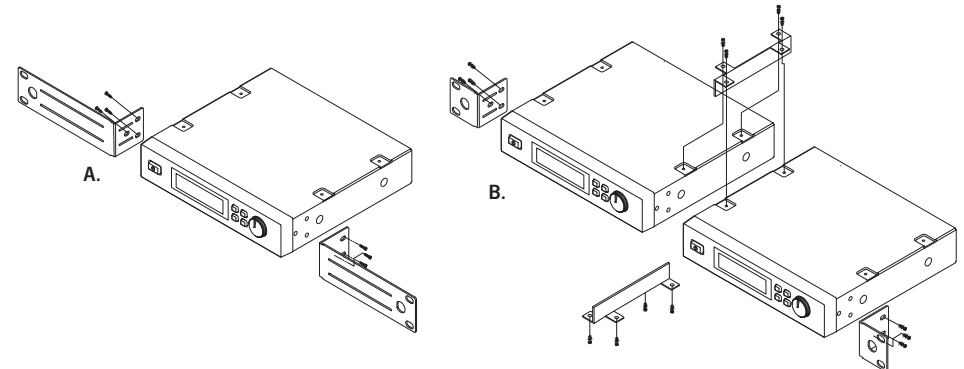
**Figure 6: Wireless Receiver Connection Via Mic In**



**Figure 7: Wireless Receiver Connection Via Line In**



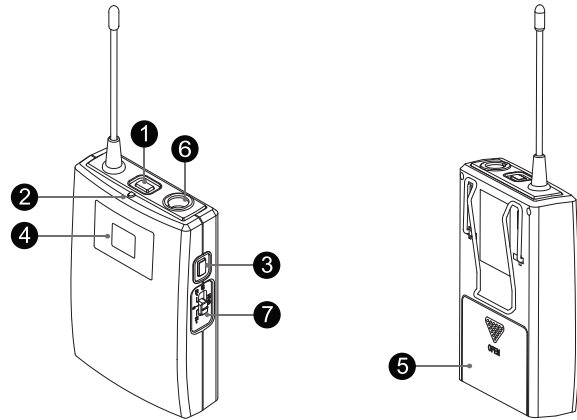
**Figure 8:** The unit may be 19" rack mounted individually, shown in (A) with additional C 8889 rack mount ears (sold separately). Or side by side with an additional receiver, shown in (B) - hardware included.



**Beltpack Microphone:**

A range of microphones and pickups are available for the belt pack transmitter including tie clip mic, lecture type headset and aerobics type headset.

**Figure 5: Beltpack Microphone Transmitter C 8893D**



1. **Power ON/Mute Button:** Press for 4 seconds to power mic on or off. Short press to mute/unmute.
2. **Power/Mute LED:** Indicates power/mute and low battery status.  
Red: ON.  
Flashing red: Low battery (approx. 10 mins operation left).  
Blue: Muting on  
Flashing blue: Muting on & low battery (approx. 10 mins operation left).
3. **SYNC:** For frequency pairing with the receiver.
4. **LCD:** Displays channel number and battery power level.
5. **Battery Compartment**
6. **Mini XLR Connector:** For microphone or guitar pick-up.
7. **Gain switch:** Adjusts the input audio level of the transmitter. The gain adjustment is -10dB, 0, 10dB.

**Operation: (See Fig 3.)**

1. Slide open the battery compartment.
2. Insert two AA Size 1.5V batteries into the battery holder according to polarity (+) and (-) indicators marked on the battery housing. The transmitter accepts dry cell batteries or rechargeable batteries.
3. Replace battery cover.
4. To switch on, push the power switch for 4 seconds (or until the LCD illuminates). The LCD shows channel number and battery status.
5. To change channel/frequency, press the SYNC button and synchronise the receiver and transmitter frequency. See "SYNC mode" for detailed instructions on how this function operates.
6. Adjust gain switch to optimum level to prevent overdriving (-10dB, 0dB, 10dB).
7. To switch off, press and hold the power button for 4 seconds or until the LCD displays 'OFF'.
8. Remove the batteries from the unit if it is not to be used for a long time. This will prevent damage to the unit that a defective leaking battery may cause.

**Preset Channel Selection:**

This mode is used when multiple C 8890D systems are used in the same area. Each receiver is setup to use PRESET mode. This allows each receiver to select a channel in one of four preset groups. Within each preset group is eight selectable channels. See Table 1 for a list of frequencies within each preset group. Once configured, up to eight transmitters and receivers may be used in the same location without interference. If more than eight frequencies are required, once a group of eight is selected, go to autoscan mode and continue to set frequencies nine through twelve.

If interference occurs within the selected preset group, try switching to the next preset group. If all groups exhibit interference, use manual or auto scan mode to find a suitable channel.

Use the ▲ button to select the PRESET mode so that the 'PRESET' marker appears on the LCD display.

Press the SET button for two seconds until the LCD is flashing. Then release the button.

Press the ▲ button to select a preset group.

Press the SET button again to change to the channel selection zone within the chosen preset group.

Press the ▲ button to scroll through the channel numbers in order to select a preset frequency channel.

Press the SET button to lock the setting or let the selected channel and frequency values keep flashing five times, until they lock into that setting.

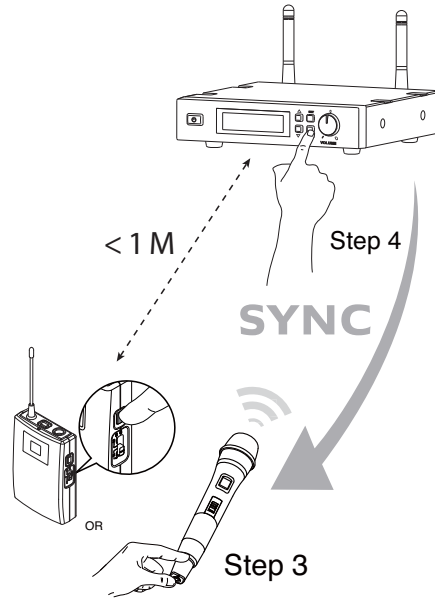


**SYNC Mode:**

Sync mode is designed to avoid having to manually match channels on your receiver and transmitter. This speeds up the set up process, especially in multi-system environments.

**Follow these steps to synchronise receiver and transmitter frequencies:**

1. Ensure receiver and handheld mic/beltpack are switched on and within 1m of each other
2. Select your desired interference free frequency on the receiver.
3. Press and hold the SYNC button on the handheld mic/beltpack. The 'SYNC' marker will start flashing on the receiver LCD display.
4. Keep pressing the SYNC button on the transmitter. Then press the SYNC button on the receiver at the same time to transfer the selected frequency to your handheld mic/beltpack.

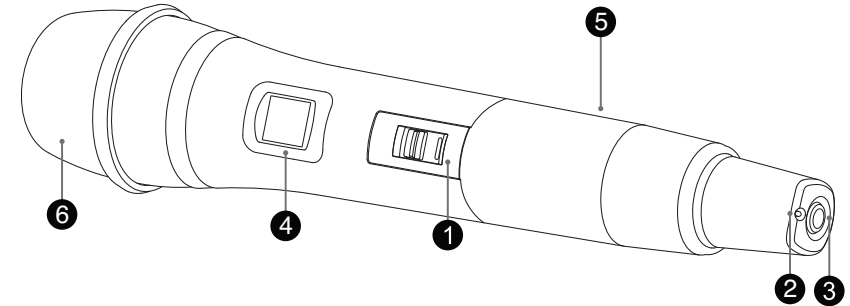


**PLEASE NOTE: ALL TRANSMITTERS ARE SOLD SEPARATELY**

**Handheld Transmitter Features:**

- High sensitivity unidirectional dynamic capsule reduces unwanted handling noise to a minimum
- Special noise absorption design which eliminates switch shock and handling noise.
- PLL synthesised control.
- Muting switch & LED indicator.
- Low battery LED indicator.

**Figure 4: Handheld Microphone Transmitter C 8892D**



**1. Power ON/OFF/Mute Switch**

**2. Power/Mute LED:**

- Red: ON.
- Flashing red: Low battery (approx. 10 mins operation left).
- Blue: Muting on
- Flashing blue: Muting on & low battery (approx. 10 mins operation left).

**3. SYNC button:** For frequency pairing with receiver.

**4. LCD:** Displays channel number & battery level.

**5. Battery Compartment**

**6. Grille:** Protects the microphone capsule and helps reduce breath sounds and wind noise.

**Operation: (See Fig 4.)**

1. Unscrew to open the battery compartment.
2. Insert two AA Size 1.5V batteries into the battery holder according to polarity (+) and (-) indicators marked on the battery housing. The transmitter accepts dry cell batteries or rechargeable batteries.
3. Replace battery cover.
4. Slide the power switch into the on position. The LCD shows channel number and battery status.
5. To change channel/frequency, press the SYNC button and synchronise the receiver and transmitter frequency. See "SYNC mode" for detailed instructions on how this function operates.
6. To switch off, slide the power switch into the off position. The LCD displays 'OFF'.
7. Remove the batteries from the unit if it is not to be used for a long time. This will prevent damage to the unit that a defective leaking battery may cause.