

## Trantec S5 Wireless Microphone Series

### QUICK INSTALLATION GUIDE



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## INTRODUCTION

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The Trantec S5 series represents our commitment to our customers by providing high-quality, reliable wireless audio links using our considerable design expertise gained over many years as a leading edge manufacturer.

We would like to thank you for purchasing this product and would like you to spend a few moments studying this Quick Installation Guide, especially the safety instructions, before going on to 'read' the full manual supplied on the CD Rom with this equipment.

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## S5 SERIES SYSTEM OVERVIEW

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The S5 series is a professional UHF wireless microphone system with features including:

- 24 channel simultaneous operation (12 channel S5.3)
- 10 preset banks including 1 custom user. (9 Banks S5.3)
- True "dual receiver" diversity – to minimise drop-outs
- Intuitive LCD and operating system on both receiver and transmitter
- Infra-red programming for fast system set-up
- Software transmitter function locks
- Headphone monitoring as standard
- Both XLR (switchable mic and line) and 1/4" jack AF outputs
- AF processing menu (S5.5 only)
- Over 1400 customer selectable channels
- Fully integrated PC software monitoring facility via USB port
- All metal construction of receiver and transmitters
- Rack kit and front mounting antenna adaptors included (S5.5 only)

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## SAFETY

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Our aim is to supply you with a product that provides you with countless hours of trouble free use. In order to achieve these goals we recommend the following:

- Keep the system away from direct sources of heat e.g. central heating radiators, heaters and direct sunlight.
- Do not expose the unit to an environment where it could be splashed with liquids as this may result in fire or electric shocks.
- Should the transmitters not be used for extended periods of time we recommend that the batteries are removed to avoid any potential leakage.
- Keep the system clean by using a slightly damp cloth. Never use household cleaning agents or solvents.
- Avoid using or storing the system in damp conditions.
- Always use the AC power adaptor supplied with the receiver and always disconnect from the AC outlet when not in use. And never remove the external covers of the equipment, so as to expose the electronics, or modify the unit in any way.

Should the covers be removed, or any other breach of the above instruction, the warranty becomes null and void in addition to personal risk from burns and/or electric shock.

When using the unit, should any of the following conditions occur, switch off the unit and remove AC adaptor from AC outlet immediately and contact your nearest dealer.

- Smoke or unusual smell
- Water or foreign metallic object inside unit
- Damaged housings caused by physical damage

Never pull cord of AC adaptor, always grasp main body of unit when connecting/ disconnecting to AC power outlet

Never touch any part of the system during a thunderstorm, as this may result in severe electric shock

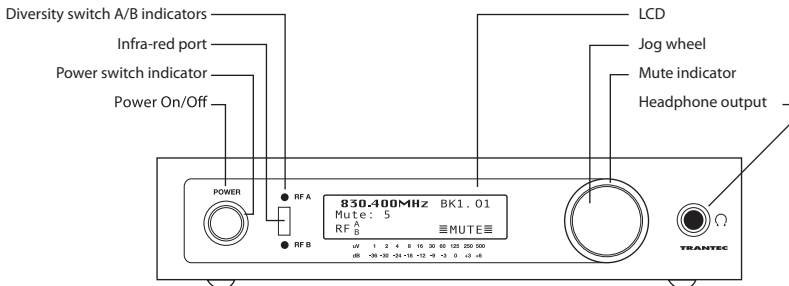
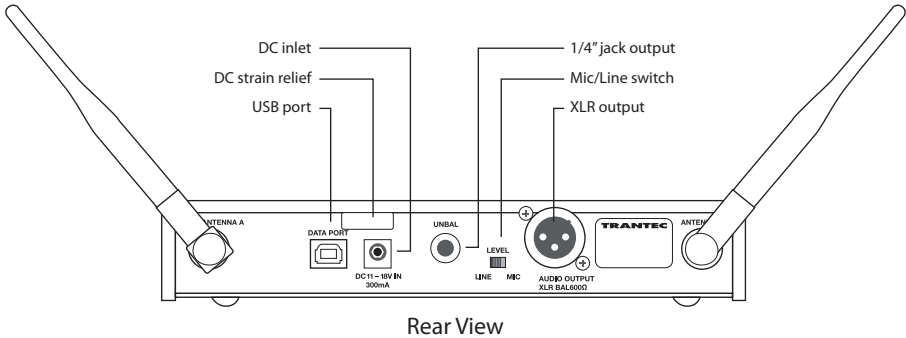
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## GETTING STARTED

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The S5 series is a high quality, fully featured wireless microphone system with many features including an intuitive operating system. To enable you to get started we recommend you initially set up the system as outlined in the next few pages.

## RECEIVER SET-UP



1. Attach the supplied antennae (2) to the rear panel BNC antenna connectors as shown in above illustration.
2. Connect the AC/DC adaptor into the DC inlet as marked on the rear panel using the attached cable strain relief. Observe the front panel on-off switch surround is illuminated red.
3. Connect the rear panel AF output from either the 1/4" Jack or XLR to your mixing console or amplifier. Note: the XLR balanced output can be switched for either mic or line. The system can be also monitored from the headphone socket using the "Jog-Wheel" to adjust Volume level.
4. Switch On-Off switch to "On" position and the receiver will default to initial setting as per illustration above. (BK1.01)

The system is now ready for use.

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## RECEIVER FREQUENCY SELECTION

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### 5. Frequency selection options

- To change selected channel in BANK1:  
Press "Jog-wheel" for 3 secs and enter the MAIN MENU. Press FREQ SELECT and go to BANK setting, then select BANK1 and rotate jog wheel to select new channel, finally press to ACCEPT to select new frequency. See attached frequency table.
- To change selected Bank:  
Press "Jog-wheel" for 3 secs and enter the MAIN MENU. Press FREQ SELECT and go to BANK setting, then select required BANK by rotating and pressing "Jog-Wheel" Select new channel, finally press ACCEPT to select new frequency. Go to step 6 to program transmitter via the Receiver Infra-red port.
- To change selected channel to a Custom single frequency. This option allows the customer to select 1 of over 1400 available channels:  
Press "Jog-wheel" for 3 secs and enter the MAIN MENU. Press FREQ SELECT and go to SINGLE press EDIT and rotate and press "Jog-Wheel" to Select new frequency and User Name. Press "Jog-Wheel" for 3 secs to EXIT then ACCEPT to select new custom frequency. Go to step 6 to program transmitter via the Receiver infra-red port.  
Please note: For S5.3 product the single user frequency will be added to Transmitter with receiver Bank1. In the case of the S5.5 it will be added to the Custom "USER" bank. See CD-ROM for more information.

### 6. Program Transmitter with Bank information via Receiver Infra-red port

Press "Jog-Wheel " for 3 secs and enter MAIN MENU Press TX SET to enter TX SETTINGS press FREQUENCY and align the Transmitter and Receiver Infra-red windows at a distance of less than 15cm, press SEND and wait a few seconds. The Transmitter should now be programmed and the Receiver will return to main display.

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## MISC SETTINGS

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### Mute/Squelch settings

- The S5 series uses sophisticated internal Mute functions including Pilot tone, Noise and RSSI to prevent noise break through from external sources when the transmitter is in the "OFF" position. The RSSI (Received signal strength) portion is user adjustable via the RX SETTINGS MENU. To Access press "Jog-Wheel" for 3 secs and enter MAIN MENU select and press RX SET then press MUTE and rotate "Jog-Wheel" to adjust between 1-10 then press. Please note high mute settings will decrease range and low mute settings increase the interference potential. We recommend a setting of between 4-6.

### Pilot Tone

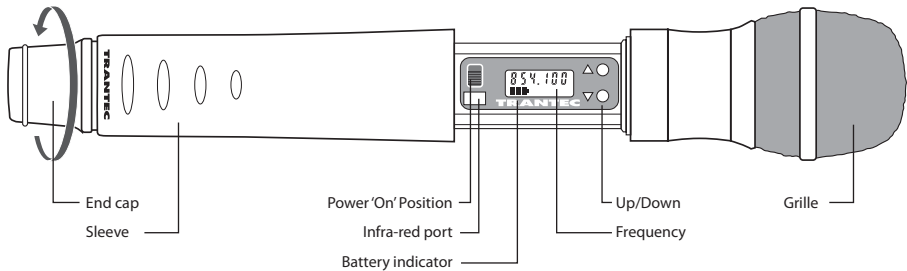
The S5 series has the ability to disable the pilot tone as a means of either identifying outside interference or allowing compatibility with non-pilot tone devices. To disable Pilot Tone go to RX SETTINGS menu and select PILOT and remove "Dot" from the "Box" then Exit menu.

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## TRANSMITTER SET-UP

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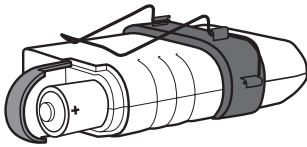
### HANDHELD



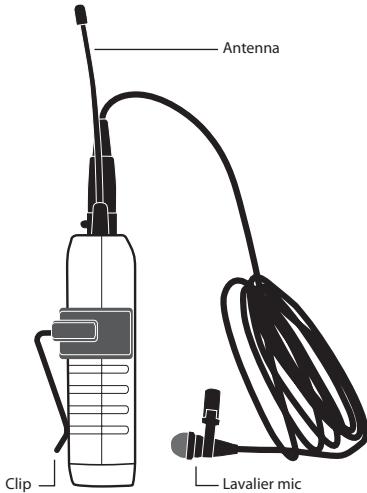
1. Undo handheld sleeve by unscrewing the end cap anti-clockwise and then gently sliding the sleeve to expose the LCD and Battery compartment. Place alkaline "AA" cell into battery compartment observing the correct polarity.
2. Slide the On-Off switch to the "On" position and observe the display is on and the battery LED located in the end cap is illuminated. Check display indicates same channel as receiver.
3. The receiver should now show received signal on its RF bargraphs and after 20 seconds the transmitter battery status.
4. Handheld Gain adjust  
Turn on Transmitter and wait for the flashing "decimal point" on the LCD to stop flashing. Press "Up" or "Down" buttons to increase or decrease head sensitivity in 3 stages. (0-2) "0" gain being for max SPL.
5. Frequency adjust  
Turn on Transmitter and adjust frequency whilst "decimal point" is flashing (approx 6 secs) via the "Up" or "Down" buttons. When correct frequency is selected turn transmitter "Off" then "On" to activate new selected channel.
6. Microphone Mute Switch  
Incorporated in the Handheld end-cap is a Power ON LED and Audio Mute switch. To mute the audio place switch towards LED.

## TRANSMITTER SET-UP

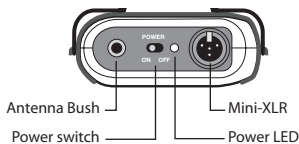
### BELTPACK



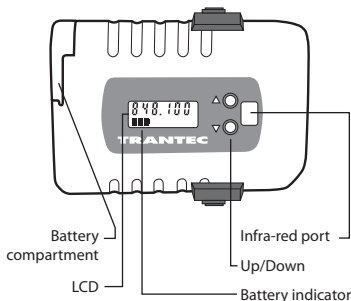
1. Insert battery into compartment by sliding end cap forward and up. Ensure battery is inserted with the correct polarity as shown.



2. Screw antenna into antenna socket as illustrated.
3. Plug Lavalier mic into Mini-XLR socket.
4. Place on-off switch to "On" position and observe the display is on and the battery LED is illuminated. Check display indicates same channel as receiver.



5. The receiver should now show received signal on its RF bar graphs and after 20 seconds the transmitter battery status.
6. Beltpack AF gain adjust. Turn on transmitter and wait for the flashing "decimal point" on the LCD to stop flashing. Press "Up" or "Down" buttons firmly to increase or decrease AF gain with 10 steps with "0" being minimum.



7. Frequency adjust  
Turn on Transmitter and adjust frequency whilst "decimal point" is flashing (approx 6 secs) via the "Up" or "Down" buttons. When correct frequency is selected turn transmitter "Off" then "On" to activate new selected channel.

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## OPERATING HINTS

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To maximise operating performance Trantec recommends the following:

- Ensure good line of sight between receiver antenna and transmitter, avoid obstructions e.g. concrete walls and metal structures.
- Ensure the receiver antenna is at least 3m (10 feet) away from the transmitters at all times.
- Always ensure transmitters are separated by at least 20cm.
- Never position the transmitter antenna directly against the body or the hand. This will reduce the operating range.
- Ensure correct setting of Mute control for effective control of interference whilst the transmitter is turned off. Default is normally 4-5 but may need to increase with multi-channel set-ups.
- Do not mix separate Banks in multi-channel set-ups.
- Use SCAN function to check for external interference. (See CD-ROM for more information)
- Set transmitter AF gain so the receiver VU indicates 0db with occasional peaks to +6dB.
- Keep Microphone/Instrument lead away from the antenna on the beltpack.
- Do not mix other brands of wireless microphone as Trantec cannot guarantee multi-channel compatibility.

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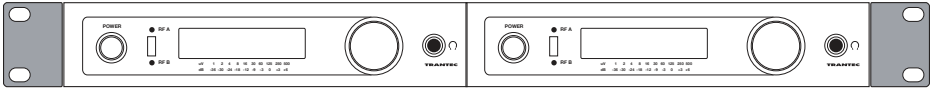
## TROUBLESHOOTING

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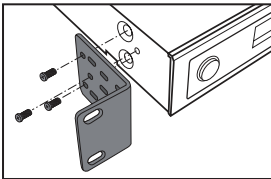
- No operation of Transmitter  
Replace current battery with fresh correct Alkaline 'AA' type.
- No RF signal on receiver  
Check transmitter and receiver are "tuned" to the same channel
- Poor range  
Check mute level setting. For normal range we recommend a Mute setting of 4-5.
- AF Signal distorted  
Check Receiver XLR mic-line switch for correct match to Mixer/Amplifier. Reduce gain of Transmitter if VU meter shows over 6dB.
- AF Signal low level with high background noise  
Adjust Transmitter gain so VU bar graph shows 0dB with 6dB peaks.
- External Head amplifiers not operating  
Check for shorts in the leads and ensure Receiver PHANTOM PWR is switched on via RX SETTINGS Menu.
- Receiver LCD contrast poor  
Enter receiver RX SETTINGS Menu, select LCD and press then rotate "Jog-Wheel" to adjust contrast. The receiver will automatically exit after a few seconds.

## S5 SERIES RACK MOUNT KIT

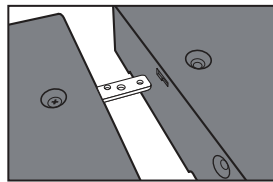
The rackmounting kit is supplied as standard with S5.5 systems, or is available as an accessory for S5.3 systems.



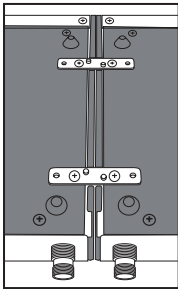
### 19" Rack 2 x S5 series Receivers



1. Unscrew 3 x lid retaining screws M3x6 from opposite sides of each receiver case and fit angled brackets as per illustration using supplied screws.

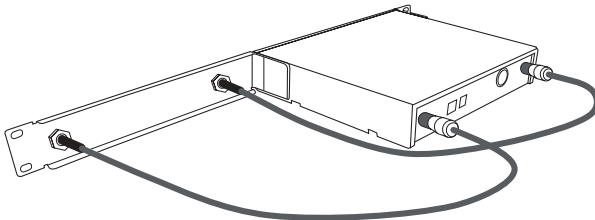


2. Remove plastic plugs from top of the Receiver lid and place metal joining strip in lid slots and carefully fit M3x6 screws (coloured black) as per illustration.



3. Place remaining joining strips x 2 on the bottom side of the receiver chassis using M3x6 CSK screw as per illustration.

### 19" rack 1 x S5 Series receiver with front mount antennae



4. Unscrew 3 x lid retaining screws M3x6 from the left hand side of the chassis. (viewed from front) and fit angled bracket as per illustration 1 using the supplied screws.

5. Unscrew 3 x lid retaining screw M3x6 from the right hand side of the chassis and fit supplied long bracket using the supplied screws.

6. Fit extension cables as per illustration into front panel long bracket and tighten BNC nut. Should front mount antennae not be required fit plastic blanking plug (supplied) into spare holes.

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## TECHNICAL SPECIFICATIONS

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### Overall System

|                            |               |                           |
|----------------------------|---------------|---------------------------|
| Frequency Bands available: | D1 863-865MHz | D2 854-865MHz (S5.3 only) |
| D3 830-865MHz              | C1 794-830MHz | C2 794-806MHz             |
| B1 722-752MHz              | B2 740-752MHz | A1 692-722MHz             |
| E1 668-698MHz              | F1 636-668MHz | G1 606-638MHz (S5.5 only) |
| G2 606-622MHz (S5.3 only)  |               |                           |

|                        |                               |
|------------------------|-------------------------------|
| RF Switching BW:       | 36MHz typical                 |
| RF grid spacing:       | 25kHz                         |
| RF Bandwidth:          | < 200kHz                      |
| AF Frequency response: | 60Hz – 20kHz                  |
| AF Distortion:         | < 0.8% at nom deviation 22kHz |
| AF Dynamic range :     | >110dBA                       |
| AF Noise reduction:    | Trantec proprietary           |
| Temperature range :    | -10°C to +55°C                |

### Receiver Specification

|                     |                                                                            |
|---------------------|----------------------------------------------------------------------------|
| Type:               | Dual Diversity featuring PLL Dual conversion                               |
| IF Freq:            | 1st IF 55.875MHz 2nd IF 10.7MHz                                            |
| Sensitivity:        | < 1uV/12dB SINAD                                                           |
| 1st Image:          | >70dB                                                                      |
| RSSI range:         | 10 steps 30dB range                                                        |
| Antenna Inputs:     | BNC 50 Ohm                                                                 |
| AF switches:        | Low Cut – High Boost – Phase Reversal (S5.5 only)                          |
| AF Output level:    | XLR Line +15dBm max. XLR Mic -25dBm max. Unbal 1/4" jack socket +9dBm max. |
| Antenna Phantom:    | 9V @ 60mA short-circuit protected on each RF port                          |
| Bank Specification: | 10 Banks x 24 Channels (S5.5)<br>9 Banks x 12 Channels (S5.3)              |
| Infra-Red Link:     | Range 15cm max.                                                            |
| Computer Interface: | Computer monitoring via rear panel USB interface                           |
| Power Consumption:  | 300mA @ 12Vdc nominal                                                      |

### Transmitter Specification

|                      |                                                                |
|----------------------|----------------------------------------------------------------|
| Power Supply:        | Single Alkaline "AA" cell 1.5V nom                             |
| Power consumption:   | Typically 120mA                                                |
| Operating time:      | Typically 8-10hrs minimum                                      |
| Controls:            | On-Off, AF Gain Adjust, Frequency Adjust<br>AF Mute (Handheld) |
| Gain Range:          | Beltpack +2dBm to -20dBm in 10 steps<br>Handheld 3 steps 6dB   |
| Handheld dimensions: | 32mm x 250mm. Grille diameter 51mm. Weight 350g                |
| Beltpack dimensions: | 55mm x 80mm x 20mm. Weight 110g                                |

Please note: The design and specifications are subject to change without prior notice.

This equipment is in compliance with the essential requirements and other relevant provisions of Directives 1999/5/EC, 89/336/EC or 73/23/EC.

IMPORTANT NOTICE. Before using this wireless microphone system please observe the requirements of each country with respect to frequency allocations and individual licensing requirements.

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WEEE DECLARATION

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This symbol indicates that this piece of electrical/electronic equipment must be disposed of separately from normal waste at the end of its operational life. Please dispose of this product by taking it to your local recycling or collection point.



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