



SR-5300/DR-5300/MR-5300
WM-5300/WT-5300/WM-5320/WT-5320/MT-92
PROFESSIONAL RADIO MICROPHONE SYSTEM
IN THE UHF FREQUENCY RANGE

MANUAL



Designed and Manufactured by
ITEC Tontechnik und
Industrieelektronik GesmbH
8200 Laßnitzthal 300
Austria / Europe

1. Introduction

1.1. Overview of system components

Transmitter	
WM 5300	Hand-held microphone, condenser capsule. Operation with 2 batteries (1.5V / "AA")
WM 5320	Hand-held microphone, condenser capsule. With a lithium-ion battery (18500)
WT 5300	Pocket transmitter, operation with 2 batteries (1.5V / "AA")
WT 5320	Pocket transmitter with a lithium-ion battery (18500)
MT 92	Transmitter module for installation in mobile sound systems, 12V DC supply
Receiver	
SR 5300	Diversity receiver, 1/2 19", 1 HE
DR 5300	Diversity double receiver, 1/2 19", 1 HE
MR 5300	Diversity receiver module for installation in mobile sound systems, 12V DC supply
Accessories	
FB 71	Mounting bracket for the installation of an SR 5300 or DR 5300 in a 19" rack
FB 72	Mounting bracket for the installation of two SR 5300 or DR 5300 in a 19" rack
HC 80	Double charging station for the charging of two WM 5320, WT 5320 or 18500 battery

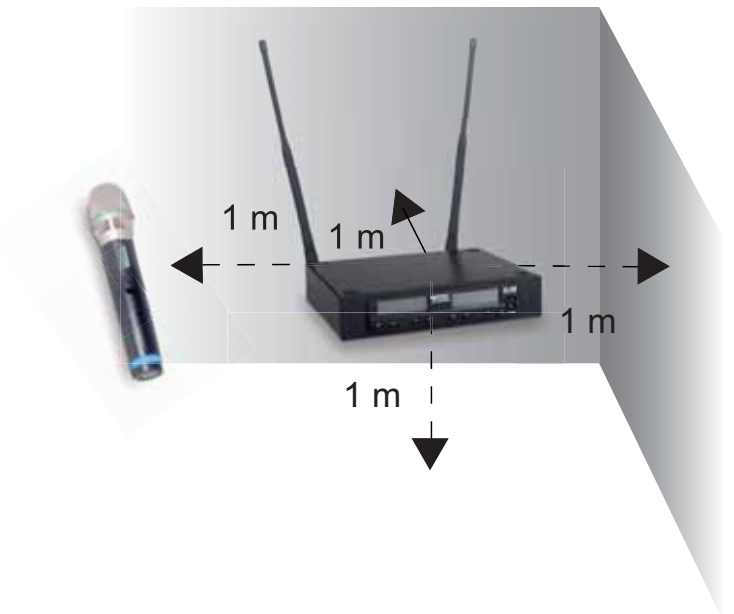
1.2. Features of the system

With the ITEC 5300, you have a modern and professional radio microphone system in the UHF frequency range. The receivers (the receiver module and the 19" installation module) are True-Diversity receivers, guaranteeing a wide range and interference-free reception without temporary cancellations. An innovative „Pilot Tone“ procedure provides reliable protection against interference caused by external transmitters and prevents switching clicks during switching on and off of the transmitter.

1.3. General assembly instructions

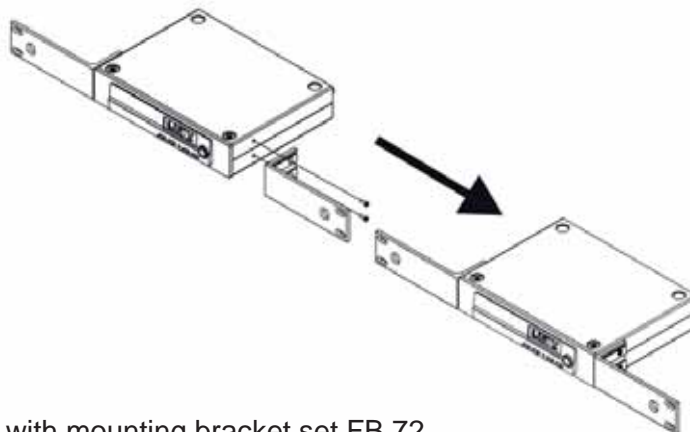
1.3.1. Positioning of the receiver

For proper operation, the receiver should be positioned as high as possible, at least, however, 1 m above the floor. The clearance from walls and metal surfaces should also be at least 1 m. For proper operation, the transmitter (microphone) must not be positioned closer than 1 m from the receiver. Proximity to sources of interference, such as e.g.: motors, fluorescent lamps, spotlights with ballasts, cars, mobile telephones, computers etc. should also be avoided.

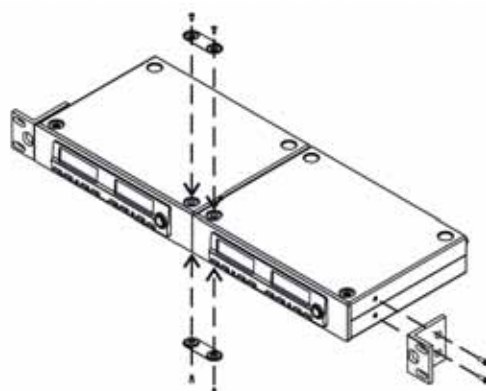


1.3.2. Assembly of the receivers in the 19" rack

Installation of a receiver with mounting bracket set FB 71:



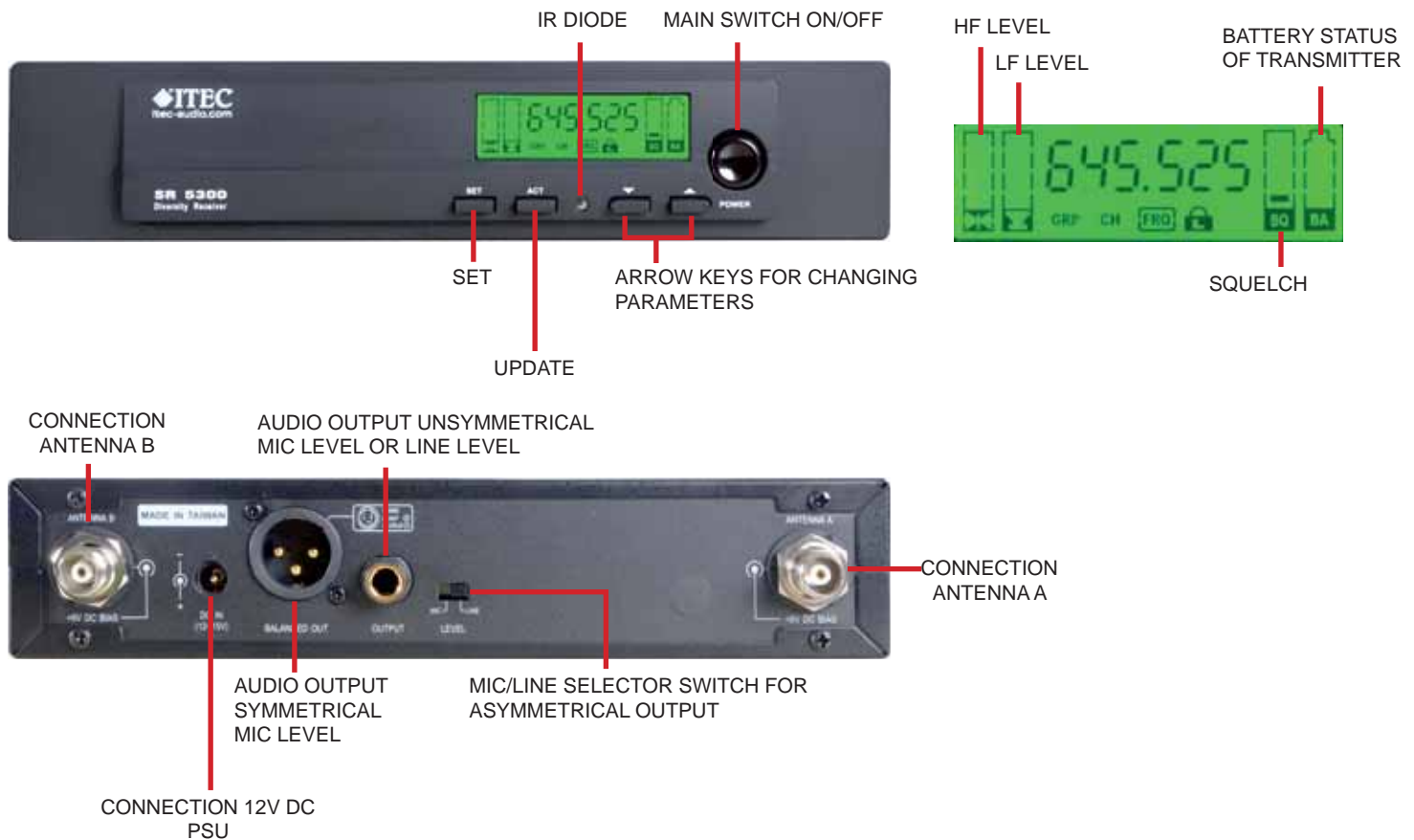
Installation of 2 receivers with mounting bracket set FB 72



In case of rack installation, the use of external antennas is recommended

2. Receiver

2.1. Diversity receiver ITEC SR-5300



Settings:

Pressing the SET button changes the setting mode in the order listed below:

↳ GRP (group) → CH (channel) → FRQ (frequency) → SQ (squelch - noise suppression) ↻

When the corresponding display flashes, the setting can be changed using the arrow keys.

- Group and channel: see Appendix List of permanently programmed frequencies
- Frequency: free setting of the frequency only possible in group 11!
- Squelch: 1 bar (low noise suppression = high range) up to 5 bars (high noise suppression = low range)

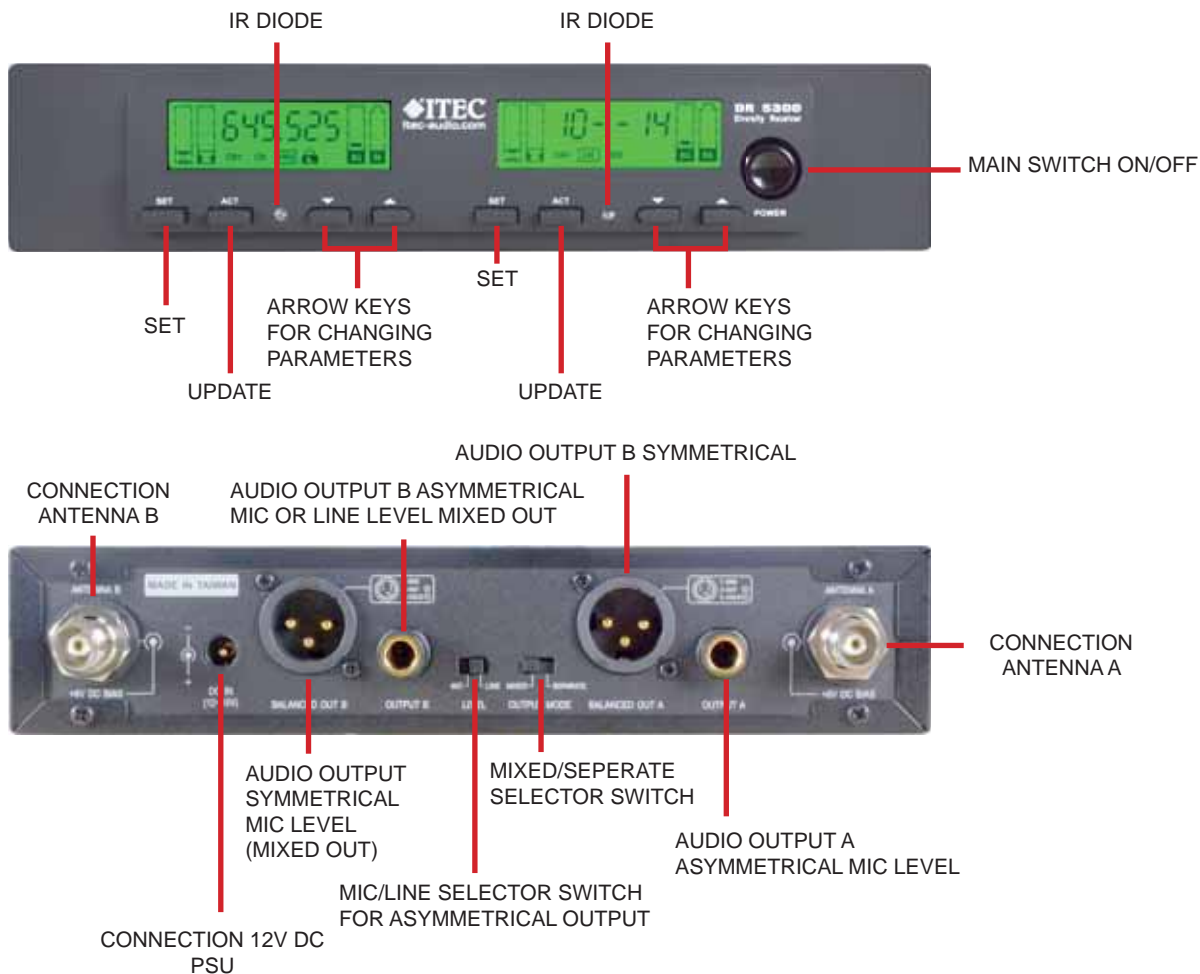
If a transmitter is in operation in the environment, its frequency cannot be selected!

Disable/Enable by a long press of the SET button. If the button lock is active, a key symbol appears on the display.

The frequency setting of the corresponding microphone or pocket transmitter takes place by pressing the ACT button. For this purpose, the microphone / pocket transmitter must be switched on and the IR receiver diode of the transmitter must be held at a distance of approximately 10 cm from the IR transmitter diode of the receiver.

Caution: No other microphones in the vicinity may be switched on during the updating procedure. They may otherwise accidentally receive the IR data.

2.2. Diversity receiver ITEC DR-5300



Settings:

Pressing the SET button changes the setting mode in the order listed below:

↳ GRP (group) → CH (channel) → FRQ (frequency) → SQ (squelch - noise suppression) ↶

When the corresponding display flashes, the setting can be changed using the arrow keys.

- Group and channel: see Appendix List of permanently programmed frequencies
- Frequency: free setting of the frequency only possible in group 11!
- Squelch: 1 bar (low noise suppression = high range) up to 5 bars (high noise suppression = low range)

If a transmitter is in operation in the environment, its frequency cannot be selected!

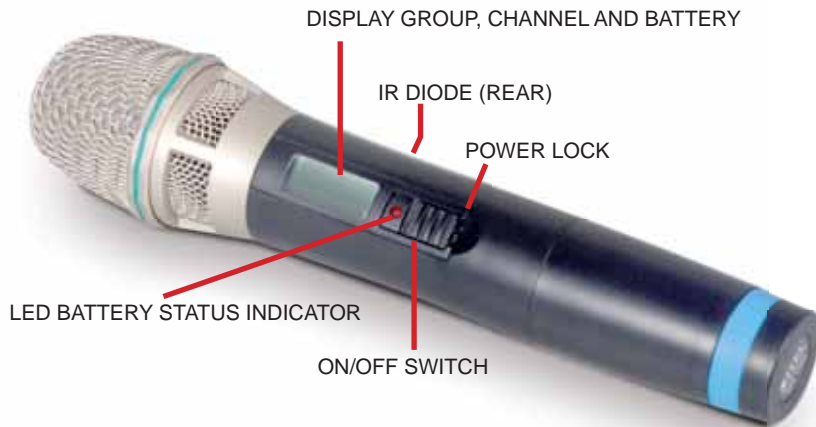
Disable/Enable by a long press of the SET button. If the button lock is active, a key symbol appears on the display.

The frequency setting of the corresponding microphone or pocket transmitter takes place by pressing the ACT button. For this purpose, the microphone / pocket transmitter must be switched on and the IR receiver diode of the transmitter must be held at a distance of approximately 10 cm from the IR transmitter diode of the receiver.

Caution: No other microphones in the vicinity may be switched on during the updating procedure. They may otherwise accidentally receive the IR data.

3. Hand-held microphones

3.1 ITEC WM-5300



3.1.1 Replacement of the capsule

The capsule can be unscrewed for replacement. The microphone is equipped with an electret capsule as standard. A dynamic capsule is available upon request.

3.1.2 Batteries

The WM-5300 is operated with 2 AA batteries. Please make sure that both batteries are always replaced by new ones of the same type. When inserting the batteries, please pay attention to correct polarity. The status of the battery is shown on the LCD display. The red LED battery status display also indicates the battery status: when switching on, the display lights up for approximately 1 second and then goes out again. If this indicator lights up permanently, this is a warning that signals the low charging status of the battery.



Battery change:

Unscrew the cap at the bottom end of the microphone and insert two new batteries. Ensure correct polarity (minus pole resp. at the spring contact, top and bottom)! Battery type: 2x Mignon "AA" 1.5V

Note: Old batteries are special waste and must be disposed of accordingly. Some batteries (mainly cheap products) may leak in case of longer storage, which may lead to corrosion and destruction of the battery contacts. Use high-quality alkaline batteries from brand manufacturers; these also have a longer service life.

3.2 ITEC WM-5320, rechargeable



3.2.1 Replacement of the capsule

The capsule can be unscrewed for replacement. The microphone is equipped with an electret capsule as standard. A dynamic capsule is available upon request.

3.2.2 Lithium ion battery

The WM 5320 has a lithium ion battery of type 18500. When charging, only use the original ITEC-HC 80 charger. The external charging contacts enable charging by simply placing the microphone into the charging station without having to remove the battery. However, changing the battery and charging the removed battery are also possible (keep a spare battery for long periods of use). The operating time with a fully charged battery is approx. 10 – 12 hours.

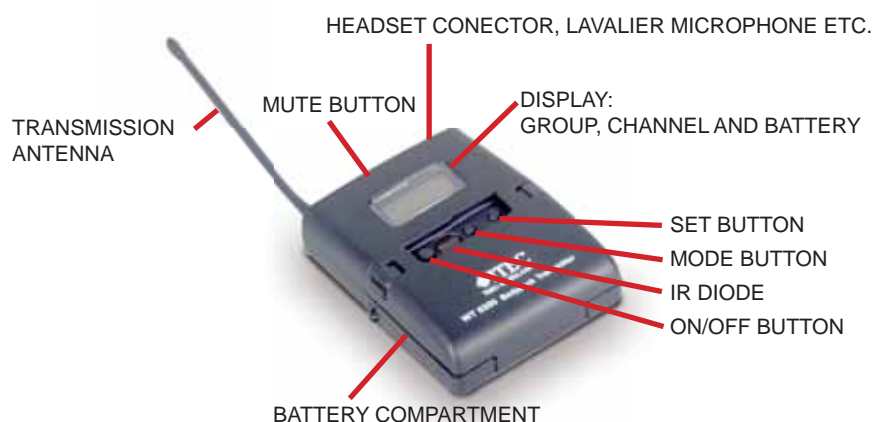
Replacing the lithium ion battery:

Unscrew the microphone capsule. Remove the round contact plate by pressing the two catches. The lithium ion battery can now be easily removed. Pay attention to correct polarity when inserting the replacement battery. The plus pole (marked by a groove) is at the top.



4. Pocket transmitter

4.1. ITEC WT-5300



4.1.1 Settings

The current settings are displayed by pressing the MODE button. To change a value, the SET button must be pressed for 10 seconds. When the display flashes, the value can be changed by pressing the SET button again.

	Display/selection option						Note
GRP CH	XX		XX				Display only - Change by IR signal from the receiver
FREQ	XXX.XXX MHz						Display only - Change by IR signal from the receiver
AF-GAIN	-18	-12	-6	0	+6	+12	Amplification -18dB (line) to +12dB (microphone level)
RF-Power	LOW		HI				Setting the transmission power
MUTE MODE	Disable		Manual				Activated (manual) or deactivated (disable) the MUTE button on the device
SET LOCK	Unlock		Lock				Locking of the button function including the On/Off button (power lock)

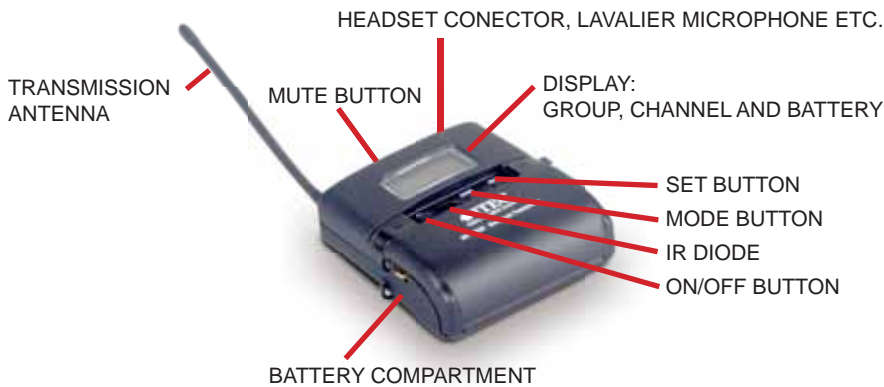
4.1.2 Battery change

Open pocket transmitter cover by pressing left and right snapper simultaneously. Insert two new batteries. Note the poles (minus pole at spring contact, left)! Battery type: 2 „AA“ 1.5V Mignon

Battery status on display.



4.2. ITEC WT-5320



4.2.1 Settings

The current settings are displayed by pressing the MODE button. To change a value, the SET button must be pressed for 10 seconds. When the display flashes, the value can be changed by pressing the SET button again.

	Display/selection option						Note
GRP CH	XX XX						Display only - Change by IR signal from the receiver
FREQ	XXX.XXX MHz						Display only - Change by IR signal from the receiver
AF-GAIN	-18	-12	-6	0	+6	+12	Amplification -18dB (line) to +12dB (microphone level)
RF-Power	LOW		HI				Setting the transmission power
MUTE MODE	Disable		Manual				Activated (manual) or deactivated (disable) the MUTE button on the device
SET LOCK	Unlock		Lock				Locking of the button function including the On/Off button (power lock)

4.2.2 Charging and replacing the lithium ion battery

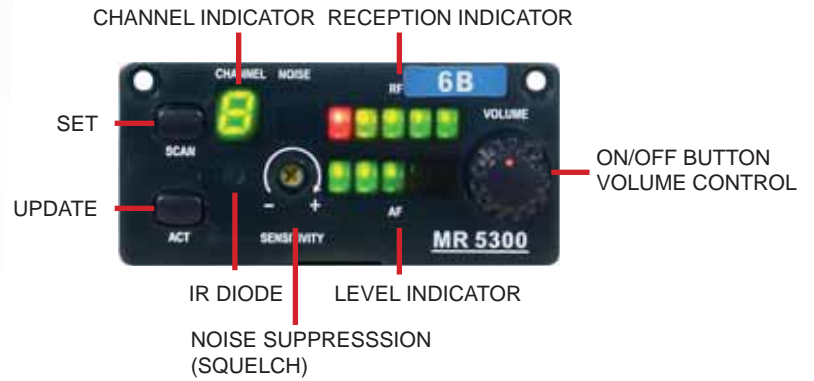
When charging, only use the original ITEC-HC 80 charger. The external charging contacts enable charging by simply placing the pocket transmitter into the charging station without having to remove the battery. However, changing the battery and charging the removed battery are also possible (keep a spare battery for long periods of use). The operating time with a fully charged battery is approx. 10 – 12 hours.

Open the cover on the pocket transmitter to replace the battery. For this purpose, simultaneously press the catches on the left and right-hand side. Insert the replacement battery. Note the poles (plus pole, marked by a groove, is on the right)! The type of battery is 18500.



5. Installation modules

5.1. Receiver module ITEC MR 5300



Channel settings:

Press the SCAN button for 2 seconds: 7-segment display flashes. Briefly pressing again switches over to the next channel.

Keep the SCAN button pressed: Channelling takes place at one-second intervals

If a transmitter is in operation in the environment, its frequency cannot be selected!

The frequency setting of the corresponding microphone or pocket transmitter takes place by pressing the ACT-button. For this purpose, the microphone / pocket transmitter must be switched on and the IR receiver diode of the transmitter must be held at a distance of approximately 10 cm from the IR transmitter diode of the receiver.

Caution: No other microphones in the vicinity may be switched on during the updating procedure. They may otherwise accidentally receive the IR data.

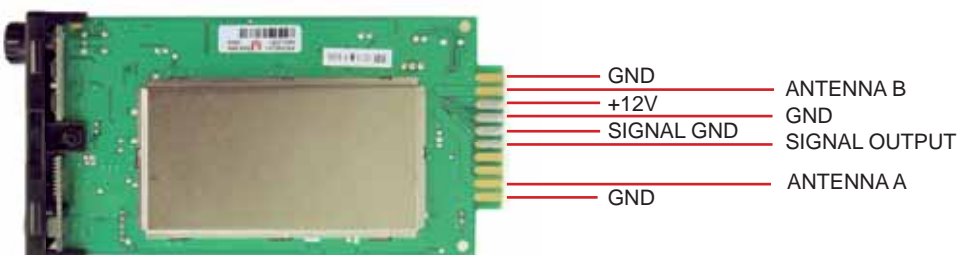
Noise suppression (squelch):

Setting takes place via a potentiometer on the front panel (sensitivity).

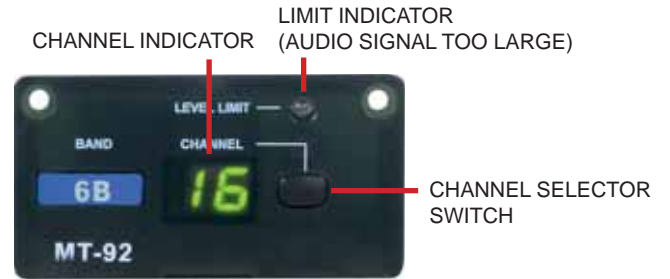
Turning in counter-clockwise direction (-): high noise suppression = low range

Turning in clockwise direction (+): low noise suppression = high range

Pin assignment (underside)

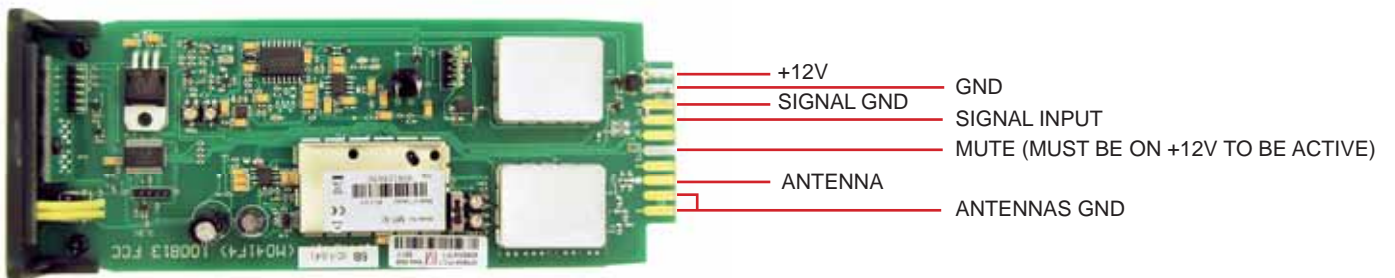


5.2. Transmitter module ITEC MT 92



The module transmitter MT 92 cannot be updated via IR. Channel selection takes place manually by pressing the CH button. The transmitter can be switched on and off by a long press of the CH button.

Pin assignment (top side)



6. The charging station HC 80

Using the charging station HC 80, not only hand-held microphones of type WM 5320, pocket transmitters of type WT 5320 can be individually charged, but also lithium-ion batteries of type 18500. A total of two of these units – in any combination - can be charged at the same time.



Simultaneous charging of 2 transmitters WM 5320 or WT 5320 possible

7. Appendix: Frequency list

Standard frequencies (5)
other frequency bands upon request.

CH SR 5300 DR 5300	Gruppe										CH MR 5300	11
	1	2	3	4	5	6	7	8	9	10		
1	566.450	566.700	566.950	567.200	567.400	567.300	566.950	566.850	566.825	566.750	1	Free frequency selection
2	566.950	567.200	567.450	567.700	567.900	567.800	567.450	567.350	567.325	567.250	2	
3	567.700	567.950	568.200	568.450	568.650	568.550	568.200	568.100	568.075	568.000	3	
4	574.600	574.850	575.100	575.350	575.550	575.450	568.700	568.600	568.575	568.500	4	
5	577.400	577.650	577.900	578.150	578.350	578.250	570.200	570.100	570.075	570.000	5	
6	585.700	585.950	586.200	586.450	586.650	586.550	570.900	570.800	571.325	571.250	6	
7	588.100	588.350	588.600	588.850	589.050	588.950	571.950	571.850	571.825	571.750	7	
8	589.025	589.275	539.525	589.775	589.975	589.875	572.525	572.425	577.100	577.025	8	
9							575.975	575.875	578.150	578.075	9	
10							583.000	582.900	578.775	578.700	0	
11							583.500	583.400	580.150	580.075	A	
12							585.250	585.150	585.325	585.250	B	
13							586.425	586.325	587.125	587.050	C	
14							588.350	588.250	587.975	587.900	D	
15							589.100	589.000	589.225	589.150	E	
16							589.600	589.500	589.775	589.700	F	

Standard frequencies (6B)
other frequency bands upon request.

CH SR 5300 DR 5300	Gruppe										CH MR 5300	11
	1	2	3	4	5	6	7	8	9	10		
1	645.275	645.525	645.775	646.025	644.100	645.675	664.950	664.425	644.200	645.525	1	Free frequency selection
2	646.075	646.325	646.575	646.825	645.700	647.175	645.800	644.925	644.700	646.050	2	
3	652.400	652.650	652.900	653.150	651.100	651.175	646.300	645.675	645.450	647.025	3	
4	657.225	657.475	657.725	657.975	653.200	654.675	647.050	646.175	645.950	647.450	4	
5	660.800	661.050	661.300	661.550	659.600	657.675	648.050	647.675	647.450	650.150	5	
6	663.125	663.375	663.625	663.875	663.300	662.675	648.650	648.275	648.050	650.675	6	
7	664.900	665.150	665.400	665.650	664.400	664.675	650.650	650.000	649.775	651.725	7	
8	666.125	666.375	666.625	666.875	667.600	667.175	655.750	651.350	651.125	652.175	8	
9							658.250	659.625	659.400	659.675	9	
10							658.950	660.450	660.225	660.100	0	
11							661.725	661.025	660.800	661.275	A	
12							662.400	661.850	661.625	661.825	B	
13							664.950	663.600	663.375	664.400	C	
14							665.450	664.525	664.300	664.925	D	
15							666.300	665.100	664.875	666.050	E	
16							666.800	665.925	665.700	666.475	F	

Group 10 of receivers SR 5300 and DR 5300 is compatible with the channels of the MR 5300.

ITEC RADIO MICROPHONE SYSTEMS - FREQUENCY LIST

Standard frequencies (8)
other frequency bands upon request.

CH SR 5300 DR 5300	Group							CH MR 5300	8	0
	1	2	3	4	5	6	7			
1	822.575	823.075	822.825	822.675	822.975	822.875	822.575	1		824.000
2	824.250	824.750	824.500	824.350	824.650	824.550	824.250	2		827.000
3	825.300	825.800	825.550	825.400	825.700	825.600	825.300	3		830.000
4	827.125	827.625	827.375	827.225	827.525	827.425	827.125	4	Free frequency selection	
5	829.500	830.000	829.750	829.600	829.900	829.800	829.500	5		
6	830.400	830.900	830.650	830.500	830.800	830.700	830.400	6		
7	830.975	831.475	831.225	831.075	831.375	831.275	830.975	7		
8							823.075	8		
9							824.750	9		
10							825.800	0		
11							827.625	A		
12							830.000	B		
13							830.900	C		
14							831.475	D		

Group 10 of receivers SR 5300 and DR 5300 is compatible with the channels of the MR 5300.

Hereby ITEC Tontechnik und Industrieelektronik GmbH declares that ITEC 5300 series radio equipment complies with Directive 2014/53/EU.

Full test reports are available on request.



CE EG Konformitätserklärung Declaration of Conformity

Dokument-Nr./ Document-No. 040-17

Hersteller/ Manufacturer ITEC Tontechnik und Industrieelektronik GesmbH

Anschrift/ Adress: 8200 Lassnitzthal 300, Austria

Produktbezeichnung/ Product name: Drahtlosmikrofone
Wireless microphones

Type/ Type: ITEC WM-5300, ITEC WM-5320,
ITEC WT-5300, ITEC WT-5320, ITEC MT-92

Das bezeichnete Produkt stimmt mit den Vorschriften der unten genannten Europäischen Richtlinien überein, nachgewiesen durch die Einhaltung der unten angeführten Normen:

The above mentioned product has been manufactured according to the regulations of the following European directives proven through compliance with the standards listed below:

Richtlinie / Directive

LVD Directive 2014/35/EU
RED 2014/53/EU

Normen / Generic standards

EMC: EN 301 489-1: V2.2.0 (2017)
EN 301 489-9: V2.1.1 (2017)
Radio Spectrum: EN 300 422-1 V 2.1.2 : 2017
Safety: EN 60065: 2014
IEC 60065 (Edition 8.0) : 2014
Health: EN 62479: 2010

ING. WERNER LOIBNER

Name/Name

Geschäftsführer / Managing Director

Stellung/Position

2017-09-30

Datum/Date

Diese Erklärung bescheinigt die Übereinstimmung mit den genannten Richtlinien, beinhaltet jedoch keine Zusicherung von Eigenschaften. Die Sicherheitshinweise der mitgelieferten Produktdokumentation sind zu beachten.

Unterschrift/Signature

This declaration certifies compliance with the above mentioned directives but does not include a property assurance. The safety notes given in the product documentations, which are part of the supply, must be observed.

ITEC RADIO MICROPHONE SYSTEMS - SPECIFICATIONS

GENERAL FEATURES OF THE SYSTEM	
Maximum Frequency Deviation	± 40 kHz
Frequency Response	50 Hz – 18 kHz
Harmonic Distortion	< 0.5% @ 1 kHz
Signal-to-Noise Ratio	> 106 dB
WM 5300 HAND-HELD MICROPHONE	
Power supply	2 batteries, alkaline "AA" 1.5 V
Operating time	approx. 20 hours with one set of batteries
Dimensions, weight	L=225 mm, diam.=50 mm, Weight=260 g
WM 5320 HAND-HELD MICROPHONE, BATTERY OPERATION	
Power supply	1 lithium-ion battery, type 18500, 3.7 V
Operating time	approx. 10 - 12 hours with one battery charge
Dimensions, weight	L=250 mm, diam.=50 mm, Weight=285 g
WT 5300 POCKET TRANSMITTER	
Power supply	2 batteries, alkaline "AA" 1.5 V
Operating time	approx. 10 - 12 hours with one battery charge
Dimensions, weight	85 x 65 x 22 mm, Weight=90 g
WT 5320 POCKET TRANSMITTER, BATTERY OPERATION	
Power supply	1 lithium-ion battery, type 18500, 3.7 V
Operating time	approx. 10 - 12 hours with one battery charge
Dimensions, weight	75 x 65 x 22 mm, Weight=110 g
SR 5300 DIVERSITY RECEIVER, ½ 19"	
Power supply	12 V DC (PSU 230 V AC / 12 V DC included)
Dimensions, weight	210 x 44 x 180 mm, (1/2 19", 1 HE), Weight=0.8 kg
DR 5300 DIVERSITY DOUBLE RECEIVER, ½ 19", ½ 19"	
Power supply	12 V DC (PSU 230 V AC / 12 V DC included)
Dimensions, weight	210 x 44 x 180 mm, (1/2 19", 1 HE), Weight=0,95 kg
MR 5300 RECEIVER MODULE	
Power supply	12 V DC , power consumption approx. 220 mA
Dimensions, weight	75 x 35 x 145 mm (W x H x D), Weight=140 g
MT 5300 TRANSMITTER MODULE	
Power supply	12 V DC , power consumption approx. 150 mA
Dimensions, weight	65 x 35 x 165 mm (W x H x D), Weight=80 g
HC 80 CHARGING STATION	
Power supply	12 V DC (PSU 230 V AC / 12 V DC included)
Dimensions, weight	90 x 80 x 150 mm (W x H x D), Weight=320 g