



WM-716-A / WT-716-A / SDR-716-A / SDR-2716-A
PROFESSIONAL RADIO MICROPHONE SYSTEM
VHF FREQUENCY RANGE

MANUAL



ITEC Tontechnik und
Industrieelektronik GesmbH
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1. Introduction

1.1. System components - Overview

Transmitter	
WM-716-A	Hand-held microphone, electret condenser capsule. Operation with 2 batteries (1.5V / "AA") or optional with 2 rechargeable batteries NiMh / "AA".
WT-716-A	Pocket transmitter suitable for lavalier microphone, headset or transmission cable. Operation with 2 batteries (1.5V / "AA") or optional with 2 rechargeable batteries NiMh / "AA".
Receiver	
SDR-2716-A	Diversity stationary receiver, ½ 19", 1 HE, including power supply 230VAC / 12VDC.
SDR-716-A	Diversity module receiver for installation in mobile sound systems, supply 12VDC.
Accessories	
FB 71-A	Mounting bracket for the installation of an SDR-2716-A in a 19" Rack.
FB 72-A	Mounting bracket for the installation of two SDR-2716-A in a 19" Rack.
HC-92	Double charging station for the charging of two WM-716-A/WT-716-A.

1.2. Features of the system

With the ITEC 716-A you have a modern and professional radio microphone system in the VHF frequency range. The receivers (the receiver module and the 19" installation model) are True-Diversity receivers, guaranteeing wide range and interference-free reception without temporary dropouts. 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.

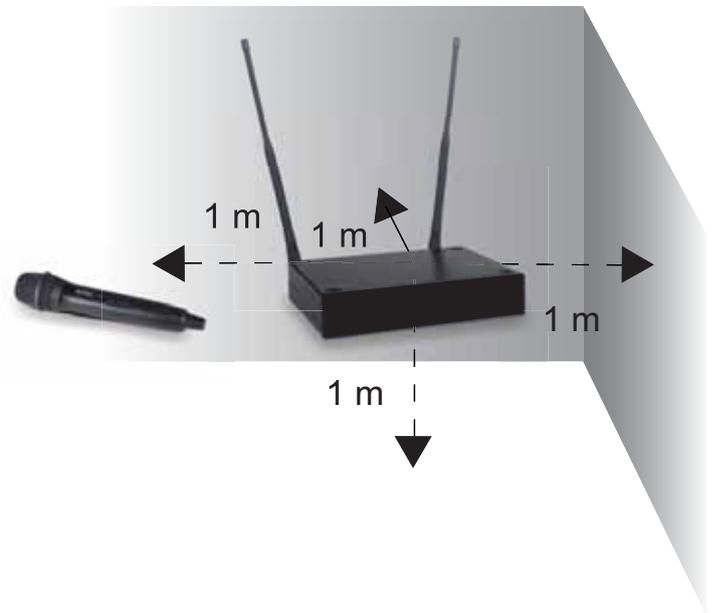
For each device type, two frequency variants (EUV 232 and EUV 243) are available. In every variant are 8 different frequencies adjustable (see point 5, frequency list).

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, cars, mobile telephones, computers etc. should also be avoided.

Especially for WiFi routers a distance of a few meters is recommended!



1.3.2. Assembly of the receivers in the 19" rack

The ITEC SDR 2716-A is suitable for installation in 19" racks. There are two different sets of mounting brackets available.



Installation of one receiver with mounting bracket set FB 71-A



Installation of two receivers with mounting bracket set FB 72-A

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

2. Receiver

2.1. Diversity stationary receiver ITEC SDR-2716-A



Elements on the front:

1. POWER: On / off switch
2. Channel ▲ / ▼: Buttons for channel adjustment
3. Channel display
4. RF A/B: Reception indicator (shows if reception and which of the two antennas is currently active)
5. Audio: Audio signal indication
6. Volume: Audio level adjustment



Elements on the back:

7. ANT.A / ANT.B: TNC sockets for connecting the supplied rod antennas or ext. antennas.
8. DC-IN: Socket for connecting the supplied power adapter.
9. MIC: Balanced microphone output, XLR Male
Line: Unbalanced output, 6.3 mm jack
It is recommended to use the balanced output.
10. MIC/LINE: Switch between microphone output and line level.
(Microphone level = about -20dB)
11. SQ: Squelch
Default setting: complete left, minimum interference suppression, maximum distance.
Turn to the right (clockwise): maximum interference suppression, shorter distance.

Frequency adjustment:

There are two frequency ranges (EUV232 and EUV243) with 8 adjustable channels each (see point 5, Frequency list). The range is defined by the respective variant and can not be changed.

The channel setting on the receiver is made using the „Channel ▲ / ▼“ buttons. To avoid unintentional adjustment, the buttons are normally locked. To unlock, press both buttons simultaneously for about 5 seconds until the display flashes. Now use the ▲ / ▼ buttons to select the channel. After a few seconds, the display automatically switches from flashing mode to permanent mode, the channel is now set and the buttons are locked again.

Attention: During adjustment, the microphone should be off because a „busy“ channel can not be selected.



2.1. Diversity Module receiver ITEC SDR-716-A



Elements on the front:

1. (PWR/VOL: On/off switch and audio level adjustment)
2. Channel ▲ / ▼ : Buttons for channel adjustment
3. Channel display
4. RF A/B: Reception indicator (shows if reception and which of the two antennas is currently active)
5. AF: Audio signal indication
6. SQ: Squelch

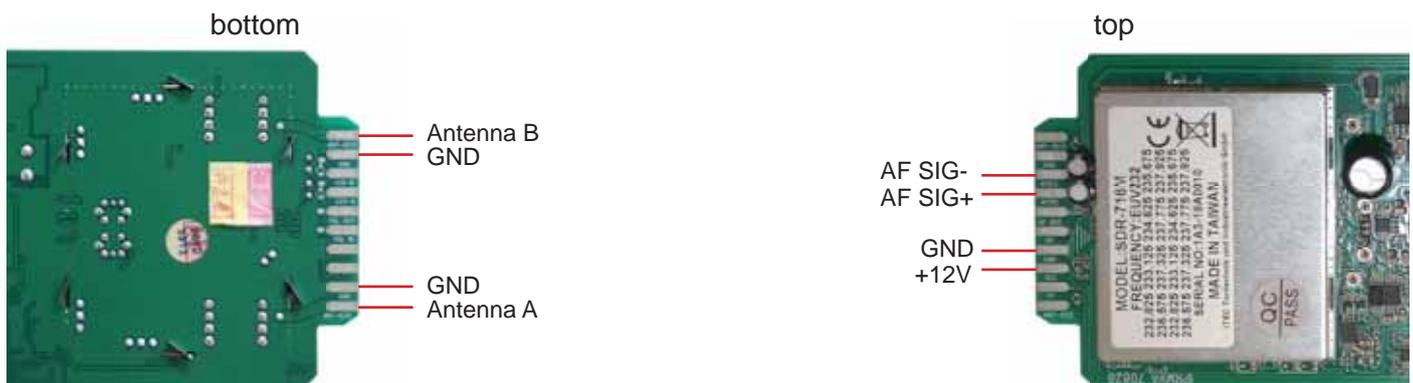
Default setting: complete left, minimum interference suppression, maximum distance.
 Turn to the right (clockwise): maximum interference suppression, shorter distance.

Frequency adjustment:

There are two frequency ranges (EUV232 and EUV243) with 8 adjustable channels each (see point 5, Frequency list). The range is defined by the respective variant and can not be changed.

The channel setting on the receiver is made using the „Channel ▲ / ▼ “ buttons. To avoid unintentional adjustment, the buttons are normally locked. To unlock, press both buttons simultaneously for about 5 seconds until the display flashes. Now use the ▲ / ▼ buttons to select the desired channel. After a few seconds, the display automatically switches from flashing mode to permanent mode, the channel is now set and the buttons are locked again.

Attention: During adjustment, the microphone should be off because a „busy“ channel can not be selected.



3. Hand-held Microphones or transmitters

3.1 Hand-held microphone ITEC WM-716-A



Battery indicator:

The red / green battery status indicator indicates the battery condition: when turned on, the indicator lights red for about 1 second and then turns green. If it is constantly red, this is a warning that indicates the weak state of the batteries.

Changing the batteries:

Unscrew the cap at the bottom of the microphone. Always both batteries are to be replaced. Be careful when inserting the batteries (see picture, insert both batteries with the plus pole upwards). Battery type: 2 pcs. „AA“ (Mignon), 1.5V.



Annotation:

Old batteries are hazardous waste and must be disposed of accordingly.

Some batteries (especially low-priced products) may leak if stored for a long time, leading to corrosion and destruction of the battery contacts and the PCB. Use high quality alkaline batteries, these also allow a longer operating time.

Rechargeable Batteries:

Alternatively, the wireless microphone WM-716-A can also be operated with two pieces of NiMH rechargeable batteries of size „AA“. Use the original charging station HC-92 for charging.

Never insert a microphone with a normal battery into the charging station.

Frequency adjustment:

Unscrew the cap at the bottom of the microphone. Turn the rotary switch to the desired channel with a small screwdriver (see point 5, frequency list). Adjust with the microphone switched off or after setting, turn micro on / off again so that new selection is accepted.



3.2. Beltback transmitter ITEC WT-716-A



Battery indicator:

The red / green battery status indicator indicates the battery condition: when turned on, the indicator lights red for about 1 second and then turns green. If it is constantly red, this is a warning that indicates the weak state of the batteries.

Changing the batteries:

Open hinged lid, press the two snapper left and right at the same time. Always both batteries are to be replaced. Be careful when inserting the batteries (see picture, insert batteries with the negative pole at the spring contact).

Battery type: 2 pcs. „AA“ (Mignon), 1.5V.



Annotation:

Old batteries are hazardous waste and must be disposed of accordingly.

Some batteries (especially low-priced products) may leak if stored for a long time, leading to corrosion and destruction of the battery contacts and the PCB. Use high quality alkaline batteries, these also allow a longer operating time.

Rechargeable Batteries:

Alternatively, the wireless microphone WM-716-A can also be operated with two pieces of NiMH rechargeable batteries of size „AA“. Use the original charging station HC-92 for charging.

Never insert with a microphone with a battery into the charging station.

Frequency adjustment:

Open hinged lid and turn the rotary switch to the desired channel with a small screwdriver (see point 5, frequency list). Adjust with the transmitter switched off or after setting, switch the transmitter on / off again, so that new selection is accepted.



Furthermore, there are two controls in this area for adjusting the volume of different microphones. If you get transmitter and microphone from ITEC, an optimal setting has already been made.

Therefore, make changes to these controllers only in exceptional cases.

„MT“ adjusts the level of a microphone and „GT“ that of a guitar or a transmission cable.

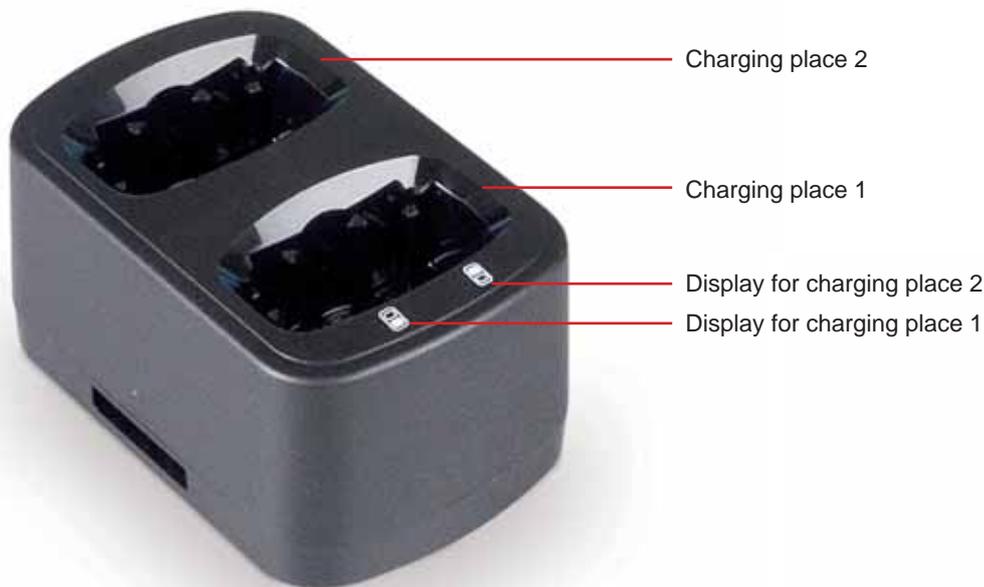
4. The charging station HC-92

The charging station HC-92 can be used to charge handheld microphones of the type WM-716-A as well as belt-pack transmitters of the type WT-716-A.

In total, two of these units can be charged simultaneously - in any combination.

Attention: Never place a device that is equipped with normal batteries in the charging station. Only suitable for handheld microphones or bodypack transmitters with original ITEC NiMh batteries 1.5V, „AA“.

The charging station should be connected to a wall outlet with the associated 230VAC / 12VDC power adapter.



Charging indication:

Flashing red: charging station is free or batteries are defective or contact is not correct

Solid red: battery is charging

Solid green: Battery is fully charged

Microphones or transmitters must be switched off during the charging process.

A complete charge (with NiMh 2100mAh batteries) will take about 5 hours. Do not leave Charging station unattended during charging.



5. Frequency list

ITEC VHF wireless microphone systems

EUV-232

channel	frequency
1 = 9	232.825
2 = 10	233.125
3 = 11	234.625
4 = 12	235.675
5 = 13	236.575
6 = 14	237.325
7 = 15	237.775
8 = 16	237.925

EUV-243

channel	frequency
1 = 9	243.200
2 = 10	243.700
3 = 11	244.600
4 = 12	246.300
5 = 13	247.100
6 = 14	247.500
7 = 15	248.600
8 = 16	249.900

X XXX.XXX to prefer

Hereby ITEC Tontechnik und Industrieelektronik GmbH declares that ITEC 716-A series radio equipment complies with Directive 2014/53 / EU.

Full test reports are available on request.

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EG Konformitätserklärung Declaration of Conformity

Dokument-Nr./
Document-No. 039-19

Hersteller/
Manufacturer ITEC Tontechnik und Industrieelektronik GesmbH

Anschrift/
Address: 8200 Lassnitzthal 300, Austria

Produktbezeichnung/
Product name: Drahtlosmikrofone
Wireless microphones

Type/
Type: ITEC WM-716-A, WT-716-A

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: IEC 62368-1:2014/COR1:2015
EN 62368-1:2014/A11:2017

ING. WERNER LOIBNER

Name/Name

Geschäftsführer / Managing Director

Stellung/Position

2019-02-01

Datum/Date

Unterschrift/Signature

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

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.

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ITEC VHF - WIRELESS MICROPHONE SYSTEM-716-A - SPECIFICATIONS

GENERAL FEATURES OF THE SYSTEM	
Radio frequency	EUV-232: 232 MHz - 238 MHz / EUV-243: 243 MHz - 250 MHz
Maximum Frequency Deviation	± 40 kHz
Audio Frequency Response	50 Hz – 18 kHz
Harmonic Distortion	< 0.5% @ 1 kHz
WM 716-A 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=270 g
WT 716-A POCKET TRANSMITTER	
Power supply	2 batteries, alkaline "AA" 1.5 V
Operating time	approx. 20 hours with one set of batteries
Dimensions, weight	83 x 60 x 30 mm, Weight= 61 g
SDR 2716-A DIVERSITY RECEIVER, ½ 19"	
Power supply	12 V DC (PSU 230 V AC / 12 V DC included)
Dimensions, weight	200 x 47 x 180 mm, (1/2 19", 1 HE), Weight= 0.7 kg
SDR-716 RECEIVER MODULE	
Power supply	12 V DC , power consumption approx. 110 mA
Dimensions, weight	75 x 35 x 130 mm (W x H x D), Weight= 79 g
HC 92 CHARGING STATION	
Power supply	12 V DC (Netzteil 230 V AC / 12 V DC im Lieferumfang)
Dimensions, weight	95 x 75 x 140 mm (W x H x D), Weight= 400 g

All information without guarantee. Subject to technical changes.