

## FP Wireless System

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Featuring a comprehensive selection of system configurations with key wireless audio technologies and components, FP Wireless provides the ability to capture crystal-clear audio with confidence. With simple and flexible components, including a portable receiver and XLR plug-on transmitter, it has never been easier for audio to be captured in the demanding and dynamic videography and electronic field production (EFP) environments.

### FP1 Bodypack Transmitter

Lightweight, durable housing; for use with TA4F-connection microphones including lavaliers and headsets



### FP2 Handheld Transmitter

Lightweight, durable housing; available with either the legendary Shure SM58® cardioid dynamic wireless capsule or with the VP68 condenser omnidirectional capsule; compatible with all Shure wireless capsules



### FP3 Plug-On Transmitter

Durable metal housing, ergonomically designed for comfortable grip; XLR connectivity allows for use with any wired dynamic XLR microphone



### FP5 Portable Receiver

Lightweight, durable housing, suitable for mounting on camera or person, diversity antennas, output via TA3F cable to either XLR or 1/8" connectors.



## Features

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- Audio Reference Companding for crystal-clear audio
- Automatic Frequency Selection locates an open frequency at the touch of a button
- Automatic Transmitter Setup instantly syncs the transmitter to the receiver frequency
- Up to 12 compatible systems simultaneously
- All components powered by 2 AA batteries – no power cord required
- Transmitter gain attenuation control manages input level

## Furnished Accessories

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Micphone Clip (FP2)

Plug-on Transmitter Belt Clip and Protective Skin (FP3)

Camera Shoe Mount (FP5)

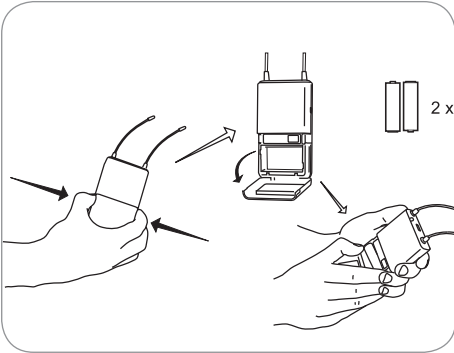
TA3F-to-XLRm Audio Cable

TA3F-to-3.5mm Dual-mono Audio Cable

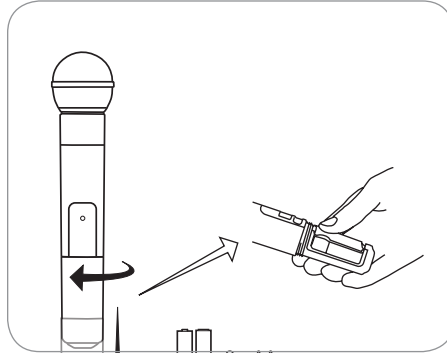
# Quickstart

## Install Batteries

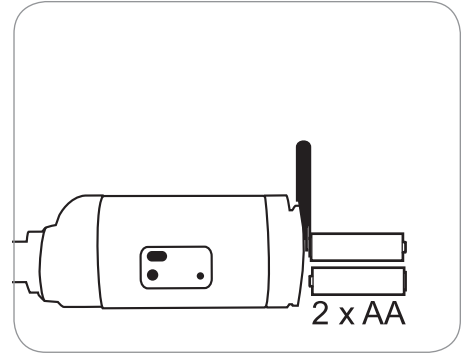
FP1 - FP5



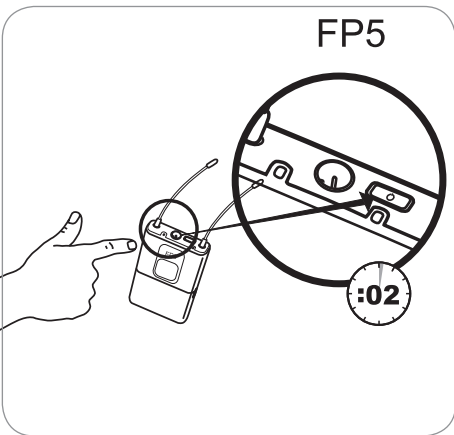
FP2



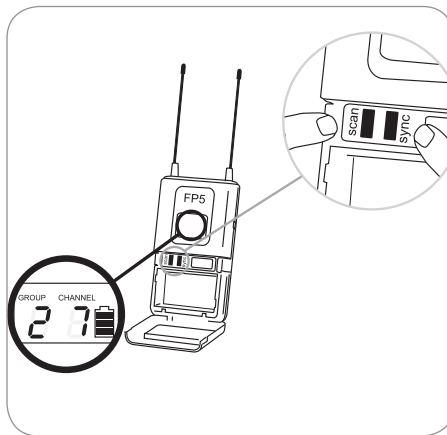
FP3



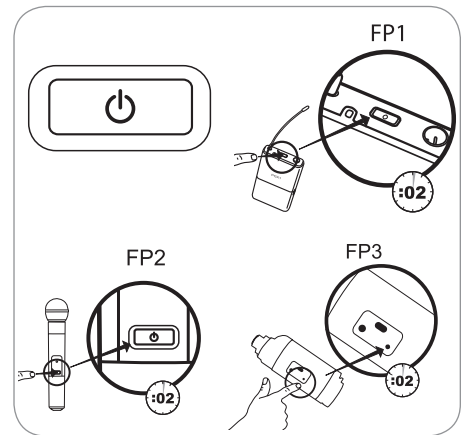
## Power up the FP5 Receiver



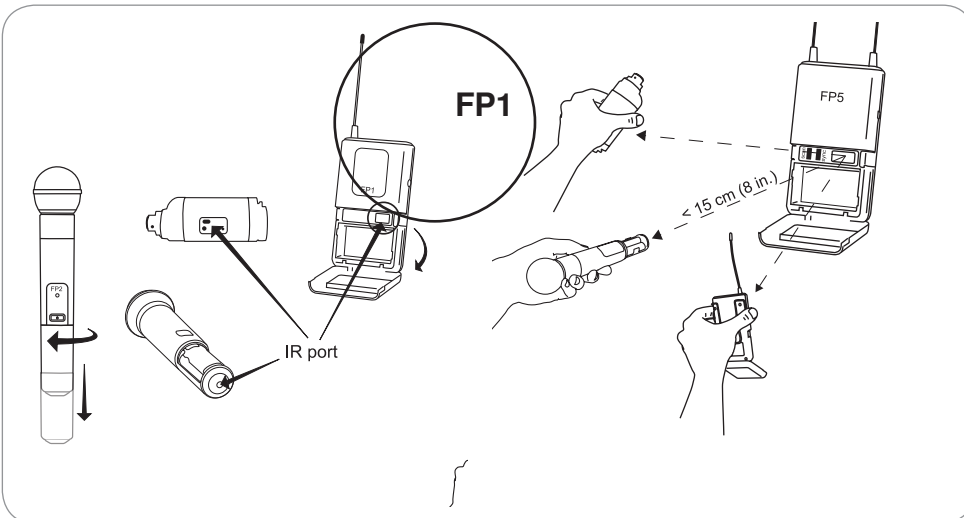
## Group scan for open frequencies



## Power up the transmitter



## Sync transmitter and receiver



# FP5

## FP5 Receiver

### ① Power LED

Green	Power on
Yellow	Low battery alert
Red	Critical low battery, replace immediately
Flashing red on power up	Battery dead

### ② RF LED

Illuminates when successfully synced to a transmitter (or manually tuned to a transmitter's frequency)

### ③ Power Button

Press and hold to power on or off.

### ④ Infrared (IR) port

Sends infrared beam to synchronize frequencies.

### ⑤ TA3M Jack

Use with TA3F cable for audio out.

### ⑥ Audio Output Gain

Adjust audio output level to devices such as cameras or recorders.

### ⑦ LCD Screen

Displays current settings for **GROUP** and **CHANNEL** and battery life.

### ⑧ Scan Button

**Group scan:** Push and hold (3 sec.) to find an open group and channel.

**Channel scan:** Push and release to find an open channel in the current group.

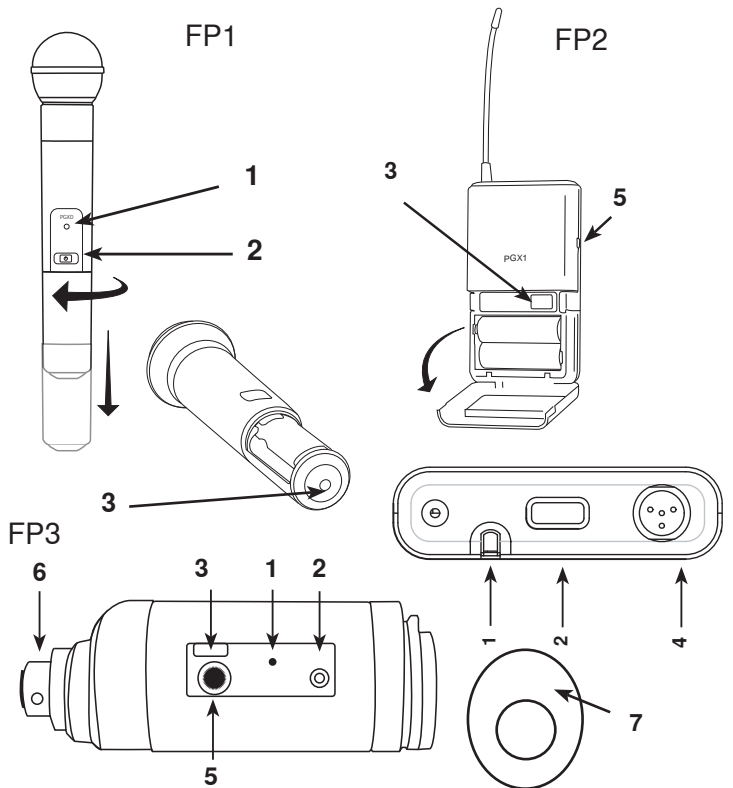
### ⑨ Sync button

Align receiver and transmitter and press **sync**. Blue IR LED indicates successful sync.

**Note:** Press **sync** and **scan** buttons to manually enter group and channel numbers

### ⑩ Antennas

Two antennas for diversity reception.



## Transmitter Controls and Connectors

### ① Indicator LED

Green	Ready
Flashing green	Controls locked
Flashing red	IR transmission in progress
Solid red	Battery power low
Flashing red on startup	Batteries dead (transmitter cannot be turned on until batteries are changed)
Rapid flashing red after synchronization	Transmitter and receive incompatible; contact your Shure reseller

### ② Power Button

Press and hold to power on or off.

### ③ Infrared (IR) Port

Receives infrared beam to synchronize frequencies. When using multiple systems, only one transmitter IR port should be exposed at a time.

### ④ 4-Pin Microphone Input Jack

Use with a TA4F connector for a lavalier or headset microphone.

### ⑤ Audio Input Gain

Adjusts audio level.

### ⑥ XLR Connection (FP3 only)

Plug into an XLR microphone or the output of an audio device.

### ⑦ Audio Input Level Indicator (FP3 only)

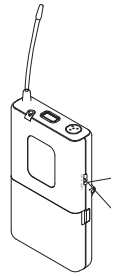
Red	Signal clip
Yellow	Nominal peak
Green	Audio present

## Adjusting Gain

### FP1 and FP3

Perform a sound check. Use the audio gain control located on the side (FP1) or front (FP3) of the unit to adjust the gain up (+) or down (-) until desired level is reached.

**FP3 only:** Adjust so the audio input level indicator flickers yellow at peak sound levels.



FP3

FP1

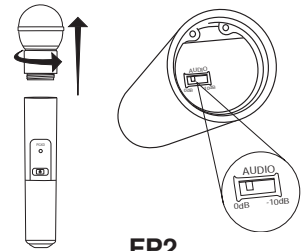
### FP2

The handheld transmitter normally does not require adjustment and **should be left at 0dB** for most applications. Only use the -10dB setting for loud singing or other high SPL applications if there is noticeable distortion.

Access the gain adjustment switch by unscrewing the head of the microphone. Use the tip of a pen or a small screwdriver to move the switch:

**0dB:** For normal use.

**-10dB:** Use only if audio distorts due to high SPL levels.



FP2

## Single System Setup

### 1. Perform a group scan:

Press and hold the **scan** button for 3 seconds. After the scan completes, the new group and channel is automatically activated and saved.

### 2. Synchronize the transmitter:

Align the transmitter and receiver infrared (IR) ports and press the **sync** button.

After a successful sync, the transmitter LED momentarily flashes and the blue RF LED illuminates.

## Manual Group and Channel Selection (receiver only)

**Important:** Most single-system applications do not require manual group or channel settings--use an automatic frequency scan instead. However, it may be useful for some applications, such as to tune to and record audio directly from a microphone in a compatible wireless installation.

### To set the group:

1. Press the **scan** and **sync** buttons simultaneously. The **GROUP** display flashes.
2. Press the **sync** button to change the group number.
3. Press **scan** to accept the selected group.
4. Press **scan** again to save and exit.
5. If desired, perform a channel scan to select an open channel in that group.

### To set the channel:

1. Press the **scan** and **sync** buttons simultaneously. The **GROUP** display flashes.
2. Press **scan** to move to the channel setting. The **CHANNEL** number flashes.
3. Press the **sync** button to advance to the desired channel number.
4. Press **scan** to save and exit.

**Note:** Remember to sync the transmitter to the receiver.

## Multiple System Setup

Use the following steps to ensure the best performance when using multiple wireless systems at the same location.

1. Turn all receivers **on** and all transmitters **off**.

**Note:** Turn on any other digital equipment that could cause interference during the performance so it will be detected during the frequency scans in the following steps.

2. Perform a group scan using the first receiver by pressing and holding the **scan** button for 3 seconds.
3. Turn on the first transmitter and sync it to the receiver.

### For each additional system:

1. Manually set the group number to match the first receiver (see Manual Group and Channel Selection).
2. Perform a channel scan by pressing the **scan** button.
3. Sync the transmitter to the receiver.

**Important:** After syncing each transmitter, leave it on so that scans from the other receivers do not select that channel. Be sure only one transmitter IR port is exposed when synchronizing each system.

## Automatic Frequency Scan

If you experience RF interference, switch to a new channel using the channel or group scan.

**Channel scan:** Press the **scan** button on the receiver. Switches to new channel in the same group.

**Group scan:** Press and hold the **scan** button for 3 seconds. Finds a new group and selects an open channel in that group. (Do not use in multiple system setups unless all systems are moved to the same group.)

## Locking and Unlocking the Transmitter

Locking the transmitter prevents accidental changes during performances.

**To lock the controls:** With the transmitter off, hold the power button down until the green LED flashes (~5 seconds)

**To unlock the controls:** With the transmitter on, hold the power button down until the green LED flashes (~5 seconds)

## Troubleshooting

Issue	Indicator Status	Solution
No sound or faint sound	Transmitter power light on, receiver blue RF LED off	Sync the transmitter to the receiver Move closer to and maintain line-of-sight with the transmitter. Move away from metal surfaces and digital equipment.
	Transmitter power light on, receiver blue RF LED on	Verify all sound system connections Adjust gain settings on the transmitter and receiver. Make sure the handheld transmitter gain is at the <b>0dB</b> setting.
	Receiver power LED off, red, or blinking red	Insert fresh batteries or power on the receiver
	Transmitter power LED red or flashing red	Replace transmitter batteries If indicator continues flashing red after batteries are replaced, the transmitter and receiver may belong to incompatible frequency bands. Contact your Shure reseller for assistance.
		Transmitter power LED off
	Distortion or unwanted noise bursts	N/A
Change receiver and transmitter to a different frequency		
Reduce transmitter gain		
Replace transmitter batteries If using multiple systems, change the frequency of one of the active systems		
Distortion increases gradually	Transmitter or receiver power LED red	Replace batteries
Cannot turn transmitter or receiver on	Power LED flashing red	Replace batteries

## Tips for Improving System Performance

- Maintain a line-of-sight between transmitter and receiver
- Avoid proximity to metal surfaces and digital equipment that could cause RF interference, such as computers, LCD screens, and other audio electronics.

## Furnished Accessories

Micrphone clip (FP2)	WA371
Plug-on Transmitter belt clip and protective skin (FP3)	AFP301
Camera Shoe Mount (FP5)	AFP511
TA3F-to-XLRm audio cable	WA451
TA3F-to-3.5mm dual-mono audio cable	WA461

# SPECIFICATIONS

<b>Working Range</b>	100 m (300 ft)
<b>Line of Sight</b>	Note: Actual range depends on RF signal absorption, reflection and interference.
<b>Tonekey</b>	32.768 kHz
<b>Audio Frequency Response</b>	45–15000 Hz
	Note: Dependent on microphone type
<b>Total Harmonic Distortion</b> Ref. ±38 kHz deviation with 1 kHz tone	<0.5%, typical
<b>Dynamic Range</b>	>100 dB, A-weighted
<b>Operating Temperature Range</b>	-18°C (0°F) to +50°C (122°F)
	Note: Battery characteristics may limit this range.

## FP1

<b>Gain Adjustment Range</b>	-10– +20dBV								
<b>Input Impedance</b>	1 MΩ								
<b>RF Output Power</b>	10–30 mW								
	varies by region								
<b>Pin Assignments</b> TA4M	<table border="1"> <tr> <td>1:</td> <td>ground (cable shield)</td> </tr> <tr> <td>2:</td> <td>+ 5 V Bias</td> </tr> <tr> <td>3:</td> <td>audio</td> </tr> <tr> <td>4:</td> <td>Tied through active load to ground (On instrument adapter cable, pin 4 floats)</td> </tr> </table>	1:	ground (cable shield)	2:	+ 5 V Bias	3:	audio	4:	Tied through active load to ground (On instrument adapter cable, pin 4 floats)
1:	ground (cable shield)								
2:	+ 5 V Bias								
3:	audio								
4:	Tied through active load to ground (On instrument adapter cable, pin 4 floats)								
<b>Dimensions</b>	108 mm x 64 mm x 19 mm (H x W x D)								
<b>Weight</b>	81 g (3 oz.), without batteries								
<b>Housing</b>	Molded polycarbonate case								
<b>Power Requirements</b>	LR6 AA batteries, 1.5 V								
<b>Battery Life</b>	up to 12 hours (alkaline)								

## FP2

<b>Maximum Input Level</b>	<b>at -10 dB gain setting:</b>	+2dBV
	<b>at 0 dB gain setting:</b>	-8dBV
<b>Gain Adjustment Range</b>	10 dB	
<b>RF Output Power</b>	10–30 mW	
	varies by region	
<b>Dimensions</b>	254 mm X 51 mm dia. (10 X 2in.)	
<b>Weight</b>	290 g (10.2oz.) (without batteries)	
<b>Housing</b>	Molded PC/ABS handle and battery cup	
<b>Power Requirements</b>	LR6 AA batteries, 1.5 V	
<b>Battery Life</b>	up to 12 hours (alkaline)	

## FP3

<b>Gain Adjustment Range</b>	-10– +20dBV
<b>Input Impedance</b>	1 MΩ
<b>RF Output Power</b>	10–30 mW
	varies by region
<b>Dimensions</b>	99 mm x 66 mm x 23 mm (H x W x D)
<b>Weight</b>	207 g (7.3 oz.), without batteries
<b>Housing</b>	Molded polycarbonate case
<b>Power Requirements</b>	LR6 AA batteries, 1.5 V
<b>Battery Life</b>	up to 12 hours (alkaline)

## FP5

<b>Dimensions</b>	108 mm X 64 mm X 19 mm (H x W x D)
<b>Weight</b>	81 g (3 oz.)
<b>Housing</b>	Molded polycarbonate case
<b>Sensitivity</b>	-108 dBm for 12 dB SINAD, typical
<b>Power Requirements</b>	LR6 AA batteries, 1.5 V
<b>Battery Life</b>	up to 12 hours (alkaline)

## Audio Output (UR5)

<b>Type</b>	TA3F
<b>Configuration</b>	Impedance balanced
<b>Pin Assignments</b>	1=ground, 2=hot, 3=cold
<b>Maximum Audio Output Level</b> Ref. ±38 kHz deviation with 1 kHz tone	-13dBV (into 600 Ω load)
<b>Impedance</b>	200 Ω

## Frequency Range and Transmitter Output Level

NOTE: This Radio apparatus may be capable of operating on some frequencies not authorized in your region. Please contact your national authority to obtain information on authorized frequencies for wireless microphone products in your region.

BAND	Range	Transmitter output*
G4	470 - 494 MHz	30 mW
G4E	470 - 494 MHz	10 mW
G5	494 - 518 MHz	30 mW
G5E	494 - 518 MHz	10 mW
H5	518 - 542 MHz	30 mW
H5E	518 - 542 MHz	10 mW
J3	572 - 596 MHz	30 mW
K3E	606 - 630 MHz	10 mW
L4	638 - 662 MHz	30 mW
L4CN	638 - 662 MHz	30 mW
L4E	638 - 662 MHz	30 mW
P4	702 - 726 MHz	30 mW
P4CN	702 - 726 MHz	30 mW
Q24	736 - 754 MHz	30 mW
R13	794 - 806 MHz	20 mW
R19	794 - 806 MHz	10 mW
R5	800 - 820 MHz	20 mW
JB	806 - 810 MHz	10 mW
S6	838 - 865 MHz	10 mW
X4	925 - 932 MHz	10 mW

\* Conductive into 50 ohms

# Certifications

## FP1, FP2, FP3, FP5

This Class B digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Meets requirements of the following standards: EN 300 422 Parts 1 and 2, EN 301 489 Parts 1 and 9, EN60065.

Meets essential requirements of the following European Directives:

- R&TTE Directive 99/5/EC
- WEEE Directive 2002/96/EC, as amended by 2008/34/EC
- RoHS Directive 2002/95/EC, as amended by 2008/35/EC

**Note:** Please follow your regional recycling scheme for electronic waste

## FP5

Approved under the Declaration of Conformity (DoC) provision of FCC Part 15.

Certified by IC in Canada under RSS-123 and RSS-102.

**IC:** 616A-FP5L, 616A-FP5M, 616A-FP5A, 616A-FP5B, 616A-FP5C

## LICENSING INFORMATION

Licensing: A ministerial license to operate this equipment may be required in certain areas. Consult your national authority for possible requirements. Changes or modifications not expressly approved by Shure Incorporated could void your authority to operate the equipment. Licensing of Shure wireless microphone equipment is the user's responsibility, and licensability depends on the user's classification and application, and on the selected frequency. Shure strongly urges the user to contact the appropriate telecommunications authority concerning proper licensing, and before choosing and ordering frequencies.

**Note:** EMC conformance testing is based on the use of supplied and recommended cable types. The use of other cable types may degrade EMC performance.

**Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.**



**WARNING:** Danger of explosion if battery incorrectly replaced. Operate only with Shure compatible batteries.



**WARNING:** Battery packs shall not be exposed to excessive heat such as sunshine, fire, or the like.

## FP1, FP2, FP3

Type Accepted under FCC Parts 74.

**FCC:** DD4FP3L, DD4FP3M, DD4FP3A, DD4FP3B, DD4FP3C, DD4SLX1G4, DD4SLX1G5, DD4SLX1, DD4SLX2G4, DD4SLX2G5, DD4SLX2.

Certified by IC in Canada under RSS-123 and RSS-102.

**IC:** 616A-FP3L, 616A-FP3M, 616A-FP3A, 616A-FP3B, 616A-FP3C, 616A-SLX1G4, 616A-SLX1G5, 616A-SLX1, 616A-SLX2G4, 616A-SLX2G5, 616A-SLX2.

This device complies with Industry Canada licence-exempt RSS standard(s). Operation of this device is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

The CE Declaration of Conformity can be obtained from Shure Incorporated or any of its European representatives. For contact information please visit [www.shure.com](http://www.shure.com)

The CE Declaration of Conformity can be obtained from: [www.shure.com/europe/compliance](http://www.shure.com/europe/compliance)

Authorized European representative:  
Shure Europe GmbH  
Headquarters Europe, Middle East & Africa  
Department: EMEA Approval  
Jakob-Dieffenbacher-Str. 12  
75031 Eppingen, Germany  
Phone: 49-7262-92 49 0  
Fax: 49-7262-92 49 11 4  
Email: [info@shure.de](mailto:info@shure.de)

## Information to the user

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

