



HiFi Microphone User Guide

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Revision A

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415 East Exchange Parkway
Allen, Texas 75002

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FCC and IC Notices

This equipment complies with Part 15 of the FCC rules and Industry Canada licence-exempt RSS standard(s). This equipment should only be used with the antenna supplied by Motorola Solutions, Inc. Any changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

HiFi Mic 3.0 Transmitter, model **MIC-WRL-TRN-500** contains the following IDs:

FCC ID: AZ499FT6029

IC: 109U-99FT6029

HiFi Mic 3.0 Base, model **MIC-WRL-CHG-500** contains the following IDs:

FCC ID: AZ499FT6030

IC: 109U-99FT6030

Cet appareil est conforme à la Partie 15 des règlements de la FCC et Industrie Canada exempts de licence standard RSS. Cet appareil doit être utilisé uniquement avec l'antenne fournie par Motorola Solutions, Inc. Tout changement ou modification non expressément approuvée par le fabricant pourrait annuler l'autorité de l'utilisateur de faire fonctionner l'appareil.

HiFi Mic 3.0 Transmitter, model **MIC-WRL-TRN-500** contient les identifiants suivants:

FCC ID: AZ499FT6029

IC: 109U-99FT6029

HiFi Mic 3.0 Base, model **MIC-WRL-CHG-500** contient les identifiants suivants:

FCC ID: AZ499FT6030

IC: 109U-99FT6030

The device complies with Part 15 of the FCC rules and Industry Canada license-exempt RSS standard(s) subject to the following two conditions:

1. The device may not cause harmful interference.
2. The device must accept all interference received, including interference that may cause undesired operation.

Cet appareil est conforme à la Partie 15 des règlements de la FCC et Industrie Canada exempts de licence standard RSS soumis aux deux conditions suivantes:

1. Cet appareil ne peut causer des interférences nuisibles.
2. Cet appareil doit accepter toutes les interférences reçues, y compris les interférences qui peuvent perturber le fonctionnement.

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

Conformément à la réglementation d'Industrie Canada, cet émetteur radio ne peut fonctionner à l'aide d'une antenne d'un type et maximum (ou moins) Gain approuvé pour l'émetteur par Industrie Canada. Pour réduire le risque d'interférence avec d'autres utilisateurs, le type d'antenne et son gain doivent être choisis afin que la puissance isotrope rayonnée équivalente (PIRE) ne dépasse pas ce qui est nécessaire pour une communication réussie.

The radio transmitters IC: 109U-99FT6030 have been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

Antenna type (radio transmitter): Motorola part number WGP02504, 4.6 dBi gain, dipole antenna, 50 Ohm impedance.

Ces émetteurs radios IC: 109U-99FT6030 ont été approuvés par "Industry Canada" pour fonctionner avec les types d'antennes énumérés ci-dessous avec le gain maximal admissible et l'impédance d'antenne requise pour chaque type d'antenne indiqué. Les types d'antennes ne figurant pas dans cette liste, ayant un gain supérieur au gain maximum indiqué pour ce type, sont strictement interdits pour une utilisation avec cet appareil.

Type d'antenne (émetteur radio): Motorola part number WGP02504, 4.6 dBi gain, dipole antenna, 50 Ohm impedance.

The antennas used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Les antennes utilisées pour cet émetteur ne doivent pas être co- Les antennes utilisées pour cet émetteur ne doivent pas être co-localisées ou fonctionner conjointement avec une autre antenne ou un autre émetteur.

This device complies with Health Canada's Safety Code. The installer of this device should ensure that RF radiation is not emitted in excess of the Health Canada's requirement. Information can be obtained at

<https://www.canada.ca/en/health-canada/services/environmental-workplace-health/reports-publications/radiation/safety-code-6-health-canada-radiofrequency-exposure-guidelines-environmental-workplace-health-health-canada.html>

Cet appareil est conforme avec Santé Canada Code de sécurité 6. Le programme d'installation de cet appareil doit s'assurer que les rayonnements RF n'est pas émis au-delà de l'exigence de Santé Canada. Les informations peuvent être obtenues: <https://www.canada.ca/en/health-canada/services/environmental-workplace-health/reports-publications/radiation/safety-code-6-health-canada-radiofrequency-exposure-guidelines-environmental-workplace-health-health-canada.html>

Supplier's Declaration of Conformity

Per FCC CFR 47 Part 2 Section 2.1077(a)



Responsible Party

Name: Motorola Solutions, Inc.

Address: 415 East Exchange Parkway Allen TX 75013

Phone Number: 1-800-605-6734

Hereby declares that the product:

Model Name: MIC-WRL-CHG-500 and MIC-WRL-TRN-500

conforms to the following regulations:

FCC Part 15, subpart B, section 15.109 and section 15.109(g)

Class B Digital Device

As a personal computer peripheral, this device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

NOTICE:

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 receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio or TV technician for help.

Intended Use

HiFi Mic 3.0 Base is intended as a mobile device. To satisfy RF exposure requirements, the antenna must operate with a separation distance of at least 20 cm from all persons. Reference FCC KDB 784748, Section A.8.

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Introduction

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- About this document ([page 9](#))
- Related documents and information ([page 9](#))
- About the HiFi Microphone (HiFi Mic) ([page 10](#))
- Technical specifications ([page 1](#))
- Warranty information ([page 11](#))

Welcome

Welcome to the Motorola Solutions *HiFi Microphone User Guide*. This guide is designed to walk you through the basics of using HiFi Microphones (HiFi Mics) with Motorola Solutions 4RE DVRs to collect quality audio evidence.

About this Document

The *HiFi Microphone User Guide* describes the features of the HiFi Mic and its basic functions:

- Synchronizing the transmitter and the base so the DVR can record audio
- Charging the transmitter
- Triggering a recorded event from the transmitter
- Putting the transmitter into Covert mode
- Setting up status change notifications



Note: *This user guide covers the basic use of the HiFi Mic. It is not a comprehensive manual for every possible action or situation you could experience with the HiFi Mic. If you have a question about the HiFi Mic that is not covered in the user guide, contact your Motorola Solutions representative.*

Related documents and information

For subjects related to the Motorola Solutions 4RE DVR system that are not covered by the *HiFi Microphone User Guide*, see the following documents:

- *4RE In-Car DVR Quick Start Guide*
- *4RE In-Car DVR Installation Poster*
- *4RE In-Car DVR User Guide*

About the HiFi Microphone

The HiFi Microphone (HiFi Mic) is one of the Motorola Solutions components for transmitting audio to the 4RE DVR (digital video recorder) during the video recording process.

The HiFi Mic consists of two parts:


- **Base:** The base is the part of the HiFi Mic that is mounted in the vehicle and physically connects to the DVR and the antenna.
- **Transmitter:** The transmitter is the part of the HiFi Mic that you attach to your apparel or duty belt.

The HiFi Mic performs the following major functions:

- Transmits audio
- Synchronizes the transmitter and the base so the DVR can record transmitted audio
- Charges the transmitter
- Triggers a recorded event
- Disables all transmitter lights and sounds for Covert mode
- Notifies you when it has a change in its status

Technical specifications

The following table lists the technical specifications for the HiFi Mic:

Operating voltage	Transmitter: 4.2 VDC
	Base: 12 VDC
Frequency	2.4 GHz (2.402 to 2.480 GHz) - 40 channels. Adaptive Frequency Hopping
Operating range	Operating range varies according to environmental conditions and installation
Jacks	Transmitter: Lapel microphone jack
	Base: 8-pin RJ-45 for power, audio out, and trigger out
Battery	Capacity: Lithium-ion 4.2 VDC/1000mAh
	Charging time: 3 hours
	Stand-by time: 5 days
	Talk time: 15 hours
 Note: Performance can degrade as the battery ages.	

Warranty Information

Motorola Solutions, Inc., in recognition of its responsibility to provide quality systems, components, and workmanship, warrants each system, part, and component it manufactures first sold to an end user to be free from defects in material and workmanship for a period of **one-year** from the date of purchase. A defective component that is repaired or replaced under this limited warranty will be covered for the remainder of the original warranty period. Where defects in material or workmanship may occur, the following warranty terms and conditions apply:

Warrantor

This warranty is granted by Motorola Solutions, Inc., 415 East Exchange Parkway, Allen, TX 75002, Telephone: 1-800-605-6734.

Warranty parties

This warranty extends to the original end user of the equipment only and is not transferable. Any exceptions must be approved in writing from Motorola Solutions, Inc..

Parts and components covered

All parts and components and repair labor of the warranted unit manufactured and/or installed by Motorola Solutions, Inc. are covered by this warranty, except those parts and components excluded below.

Parts and components not covered

The limited warranty excludes normal wear-and-tear items such as frayed or broken cords, broken connectors, scratched or broken displays or consumable items such as batteries. Motorola Solutions, Inc. reserves the right to charge for damages resulting from abuse, improper installation, or extraordinary environmental damage (including damages caused by spilled liquids) to the unit during the warranty period at rates normally charged for repairing such units not covered under the limited warranty. In cases where potential charges would be incurred due to said damages, the agency submitting the system for repairs will be notified. Altered, damaged, or removed serial numbers results in voiding this limited warranty. If while under the warranty period, it is determined that the Motorola Solutions, Inc. system was internally changed, modified, or repair attempted, the system warranty will become null and void.

Limited liability

Motorola Solutions, Inc.'s liability is limited to the repair or replacement of components found to be defective by Motorola Solutions, Inc. Motorola Solutions, Inc. will not be liable for any direct, indirect, consequential, or incidental damages arising out of the use of or inability to use the system even if the unit proved to be defective. Motorola Solutions, Inc. will not be responsible for any removal or re-installation cost of the unit or for damages caused by improper installation.

Remedy

If, within the duration of this warranty, a unit or component covered by this warranty is returned to Motorola Solutions, Inc. and proves to be defective in material or workmanship, Motorola Solutions, Inc. shall (at its option) repair or replace any defective components or offer a full refund of the purchase price. Replacement of a defective component(s) pursuant to this warranty shall be warranted for the remainder of the warranty period applicable to the system warranty period.

Shipping

During the first ninety (90) days of the initial warranty period, Motorola Solutions, Inc. will provide a prepaid shipping label to return any defective unit for end users in the continental United States provided serial numbers are submitted with the request. In such event, contact Motorola Solutions, Inc.'s Customer Service Department to request a return material authorization (RMA) number. Failure to obtain and use a Motorola Solutions, Inc. prepaid shipping label in the first ninety days (90) on the return shipment will result in the end user being responsible for shipping costs to Motorola Solutions, Inc. After the first ninety (90) days, the end user will be responsible for any shipping charges to Motorola Solutions, Inc. Motorola Solutions, Inc. will return ship the product to a customer within the continental United States by prepaid ground shipping only. Any expedited shipping costs are the responsibility of the end user.

Customers that are outside the continental United States will be responsible for all transportation costs both to and from Motorola Solutions, Inc.'s factory for warranty service, including without limitation to any export or import fees, duties, tariffs, or any other related fees that may be incurred during transportation.

You may also obtain warranty service by contacting your local Motorola Solutions, Inc. Authorized Service Center (ASC) for shipping instructions. A list of local ASCs may be obtained by contacting Motorola Solutions, Inc.'s Customer Service Department. Customers will be responsible for all transportation costs to and from the local ASC for warranty service.

Extended warranty

Extended warranties may be purchased directly from Motorola Solutions, Inc. Any and all extended warranties must be purchased prior to the expiration of any previous warranty. Failure to purchase an extended warranty prior to the expiration of the warranty period will require the covered unit to be physically inspected at the facility of the manufacturer and any repairs necessary to bring the unit back to full working order must be performed prior to the issuance of any new warranty. The customer will be responsible for the cost of the inspection (equal to 1 hour of labor) plus the standard costs associated with any required repairs. Should you have any further questions regarding the Motorola Solutions, Inc. limited warranty, please direct them to:

Motorola Solutions, Inc.
Attn: Customer Service Department
415 East Exchange Parkway
Allen, Texas 75002

1-800-605-6734

<https://support.watchguardvideo.com/hc/en-us>
Motorola Solutions Support

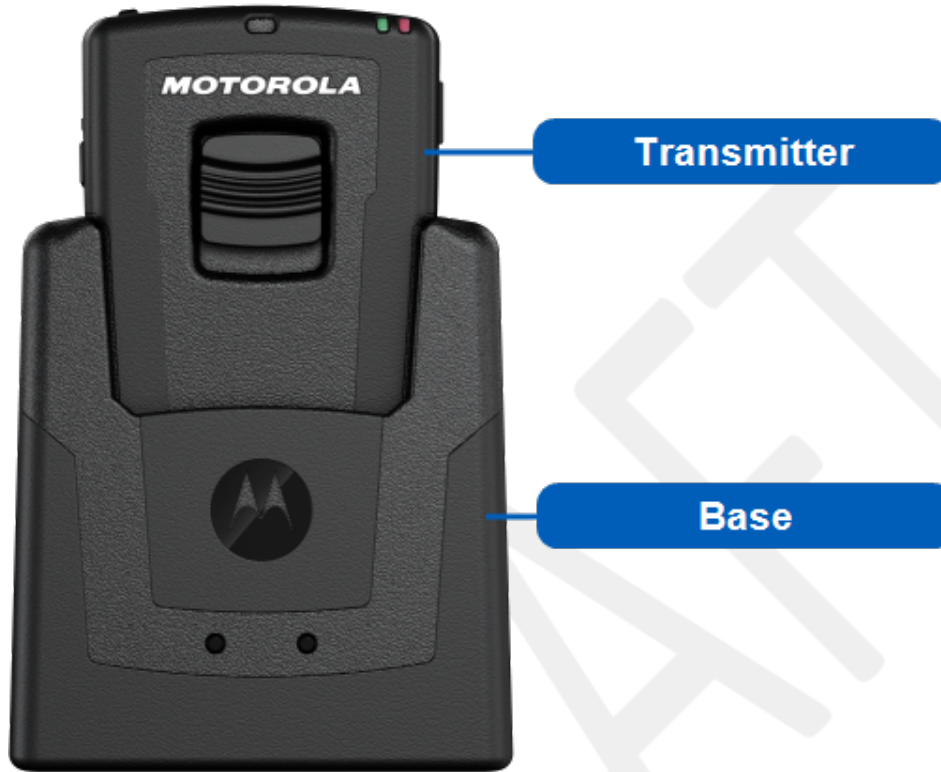
HiFi Microphone

In this section...

- HiFi Microphone (HiFi Mic) overview ([page 14](#))
- Using the HiFi Mic ([page 15](#))
- Base features ([page 16](#))
- Transmitter features ([page 20](#))
- Display icons ([page 27](#))
- Synchronizing the base and the transmitter ([page 30](#))
- Charging the transmitter ([page 31](#))
- Using two HiFi Mics in the same vehicle ([page 33](#))

Overview

The Motorola Solutions HiFi Microphone (HiFi Mic) consists of a transmitter and a base:



The base, commonly mounted inside the vehicle on the headliner or center console, holds the transmitter when you are not using it.

You must synchronize the transmitter and base to record audio using the 4RE DVR ([see page 30](#)). The transmitter-base pairing allows the DVR to detect the transmitter and its audio transmission.

During your shift, you can attach the transmitter to your apparel using an alligator clip or to your duty belt using a longer belt clip. For information about these and other accessories, contact your Motorola Solutions representative.

For most agencies, transmitters are configured to be inactive (on but not recording) by default. Triggering a recorded event automatically activates all transmitters ([see page 21](#)).

Using the HiFi Microphone

You use the HiFi Mic throughout your shift to help your 4RE DVR collect quality audio evidence.

Beginning a shift

1. Remove the transmitter from the base and power it ([see page 25](#)).
2. Verify whether the transmitter is synchronized with the base in your vehicle ([see page 27](#)).
3. If needed, sync the transmitter with the base ([see page 30](#)).

During a shift

- As needed, trigger a recorded event ([see page 21](#)).
- As needed, mute transmitted audio ([see page 21](#)).
- As needed, change the notification mode ([see page 23](#)).
- As needed, activate Covert mode ([see page 23](#)).

Ending a shift

1. Power off the transmitter ([see page 25](#)).
2. Place the transmitter in the base to charge ([see page 31](#)).



Note: *Motorola Solutions recommends that you power off the transmitter before you put it in the base to charge, but this step is not required.*

Base

The base is the part of the HiFi Microphone (HiFi Mic) that is mounted in the vehicle and physically connects to the 4RE DVR and the antenna.

The base serves the following purposes:

- Synchronizes with the transmitter so the DVR can record audio transmitted by the HiFi Mic ([see page 30](#))
- Charges the transmitter while it rests in the base ([see page 31](#))
- Stores the transmitter while not in use ([see page 14](#))

Features on the base include:

- Status LEDs ([see page 16](#))
- DVR cable connection ([see page 17](#))
- Antenna connection ([see page 16](#))
- Contacts for charging and syncing with the transmitter ([see page 16](#))



Note: A version of the base exists that only serves as a charger for the HiFi Mic. This version of the base is not used in the vehicle. For information about the charge-only base, contact your Motorola Solutions representative.

Status LEDs

The HiFi Mic has status LEDs on both the base and the transmitter. You can use these LEDs in conjunction with the icons on the display to determine the status of the HiFi Mic.

On the base, the status LEDs are on the front of the unit under the Motorola Solutions logo:



The LEDs on the base can help to indicate the status of certain HiFi Mic functions:

- **Synchronizing:** As the base syncs with the transmitter, both the red and green LEDs flash. After the base and transmitter are synced, either the green LED turns on or the red LED starts flashing, depending on whether the transmitter is fully charged or begins to charge ([see page 30](#)).
- **Charging:** The red LED flashes while the transmitter is charging. When the transmitter's battery is fully charged, the red LED turns off and the green LED turns on ([see page 31](#)).
- **Normal operation:** When the base and transmitter are on and functioning normally but not transmitting audio to be recorded, the green LED is on.
- **Recording:** When audio is being recorded from the transmitter's microphone, the base's green LED is on ([see page 21](#)).
- **Muted:** When the transmitter's microphone is muted, the green LED flashes ([see page 21](#)).
- **Turned off:** When the transmitter is turned off and not in the base, the red LED flashes.
- **Covert mode:** When the transmitter is in Covert mode, the LEDs on the base behave normally. Covert mode does not change the LED behavior on the base ([see page 23](#)).
- **Lost connection/out of range:** If the base loses connection to or is out of range of the transmitter, the red LED flashes until the connection is reestablished.

For information on the status LEDs, [see page 24](#). For information on the display icons, [see page 27](#).

Connections and contacts

The base includes a DVR cable connection, antenna connection, and contacts for charging the transmitter and synchronizing it with the base.

DVR cable connection

The DVR cable connection is located on the back of the base:



Connect the DVR system interface cable to the DVR cable connection point.



Note: Motorola Solutions recommends that you use a short cable (3-foot) to connect the HiFi Mic base to the DVR. Keeping the cable short helps maintain audio quality.

Antenna connection

The antenna connection is located on the back of the base:



Connect the window-mount antenna to the antenna connection point.



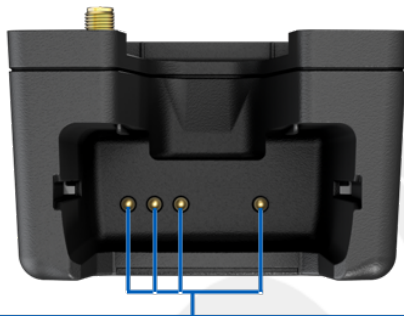
Tip: Finger-tighten the SMA connector when you connect the antenna to the base. Using hand tools can damage the connector.



Note: You should only use the antenna that you received from Motorola Solutions with the HiFi Mic. Using a different antenna can compromise wireless performance and audio quality.

Charge and sync contacts

The contacts for charging the transmitter and synchronizing it with the base are inside on the floor of the base:



Charging and syncing contacts



Note: This graphic shows the base from above, looking down into it.



Important! Avoid touching the charge and sync contacts on the base and transmitter with your bare hands.

The contacts used to charge the transmitter and sync it with the base physically line up with the contacts on the bottom of the transmitter.

Transmitter

The transmitter is the part of the HiFi Microphone (HiFi Mic) that you attach to your apparel or duty belt.

The transmitter includes the following features:



1. Display backlight button ([see page 22](#))
2. Display ([see page 27](#))
3. Status LEDs ([see page 24](#))
4. Microphone
5. External microphone jack ([see page 26](#))
6. Talk/Mute slide button ([see page 21](#))
7. Mode button ([see page 23](#))
8. Power switch ([see page 25](#))
9. Transmitter

The transmitter serves the following purposes:

- Transmits audio through the base for the DVR to record
- Mutes transmitted audio ([see page 21](#))
- Triggers the DVR to begin recording ([see page 21](#))
- Communicates its status using the display and the status LEDs

For information about the icons on the display, [see page 27](#). For information on the status LEDs, [see page 24](#).

Talk/Mute slide button

The **Talk/Mute** slide button is on the front of the transmitter. After turning on the transmitter and synchronizing it with the base, you can use the **Talk/Mute** button to trigger a recording event or to mute audio being transmitted to the DVR.

Triggering the DVR to begin a recorded event

If the DVR is not recording, slide the **Talk/Mute** button down and release it to trigger the DVR to begin a recorded event.



Note: *If a recorded event is triggered on the DVR by something other than the HiFi Mic, the transmitter audio automatically begins transmitting to the DVR.*

The transmitter indicates that it is transmitting audio using an icon on the display (**Record** icon) and the status LEDs (green LED is on).

For information on the icons on the display, [see page 27](#). For information on the status LEDs, [see page 24](#).



Important! *You cannot stop a recorded event using the HiFi Mic, even when a recorded event is triggered from the HiFi Mic. You can only stop a recording event using the DVR display.*

Muting audio being transmitted to the DVR

When the DVR is recording, you can slide down and hold the **Talk/Mute** button to mute any audio being transmitted to the DVR.



Important! *No audio is recorded while you hold down the **Talk/Mute** button.*

The transmitter indicates that audio is muted using an icon on the display (**Mute** icon) and the status LEDs (green LED flashes).

Display

The display is on the top of the transmitter:



1. Status LEDs
2. Display
3. Display backlight button

The display shows icons that indicate the current transmitter status (battery, connection, signal) and mode (recording/muted, Covert, vibrate/beep/silent). For more information about the display and its icons, [see page 27](#).

Display backlight button

The **Display Backlight** button is on the top of the transmitter next to the display. When you press this button, the background of the display lights up, allowing you to see the display icons better, especially in low-light conditions. When you press the button, the display backlight turns on for ten seconds.

Mode button

The **Mode** button is on the left side of the transmitter as you look at the front of the transmitter:



The **Mode** button changes the notification mode and activates Covert mode.

Changing the notification mode

The notification mode is one of the ways the transmitter lets you know that its status has changed. For example, the transmitter will display status indicators when the battery is low or when your HiFi Mic has moved out of the base's range.

You can set the notification mode to one of four options:

- Vibrate and beep
- No notification
- Vibrate only
- Beep only

To change the notification mode, press the **Mode** button twice within two seconds.

As you continue to press the **Mode** button within two seconds, the notification mode cycles through the four options.

The transmitter indicates which mode is active by displaying the selected notification icon on the display ([see page 27](#)).



Note: Pressing it once activates the display backlight.

Activating Covert mode

Covert mode disables the status LEDs and audio notifications on the transmitter so no light or sound comes from it without your action.

To activate (or deactivate) Covert mode, press and hold the **Mode** button for two seconds.

The transmitter indicates when it is in Covert mode by displaying the **Covert Mode** icon ([see page 27](#)).



Note: *In Covert mode, the display backlight only lights when you press the **Display Backlight** button.*

Status LEDs

The HiFi Mic has status LEDs on both the base and the transmitter. You can use these LEDs in conjunction with the icons on the display to determine the status of the HiFi Mic.

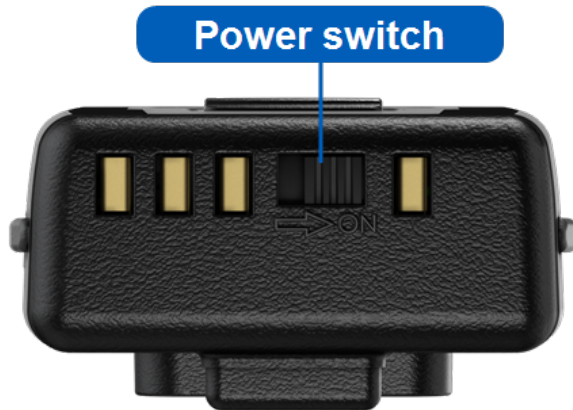
On the transmitter, the status LEDs are on the front top-right corner of the display. The LEDs on the transmitter indicate the status of the following HiFi Mic functions:

- **Synchronizing:** As the transmitter syncs with the base, both the red and green LEDs flash. After the transmitter and base are synced, either the green LED turns on or the red LED flashes, depending on whether the transmitter is fully charged or begins to charge ([see page 30](#)).
- **Charging:** The red LED flashes while the transmitter is charging. When the transmitter's battery is fully charged, the red LED turns off and the green LED turns on ([see page 31](#)).
- **Normal operation:** When the transmitter and base are on, functioning normally, and not transmitting audio to be recorded, both of the LEDs are off.
- **Recording:** When the audio transmitted from the transmitter's microphone is being recorded, the green LED is on ([see page 21](#)).
- **Muted:** When the transmitter's microphone is muted, the green LED flashes ([see page 21](#)).
- **Turned off:** When the transmitter is turned off and is not stored in the base, both of the LEDs are off.
- **Covert mode:** When the transmitter is in Covert mode, both of the LEDs are off ([see page 23](#)).
- **Lost connection/out of range:** If the transmitter loses connection to or is out of range of the base, the red LED flashes until the connection is reestablished.

For information on base status LEDs, [see page 16](#). For information on display icons, [see page 27](#).

Power switch

The **Power** switch is on the bottom of the transmitter between the contacts for charging and synchronizing:



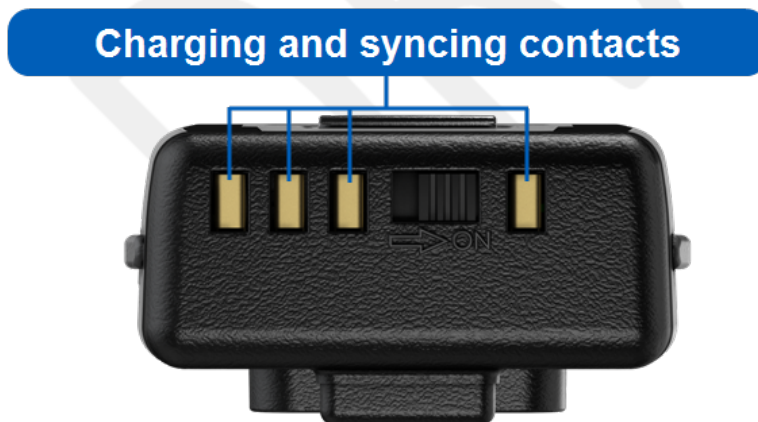
Slide this switch to power the transmitter on or off.



Note: Motorola Solutions recommends that you power off the transmitter before you put it in the base to charge, but this step is not required.

Contacts for charging and synchronizing

The contacts for charging the transmitter and synchronizing it with the base are on the bottom of the transmitter:



Important! Avoid touching the charge and sync contacts on the base and transmitter with your bare hands.

These contacts line up with contacts inside on the floor of the base and make it possible for the base to charge and sync with the transmitter.

External microphone jack

The external microphone jack is on the right-hand side of the transmitter, as you look at the front of the transmitter:



If you want to use the optional lapel microphone available from Motorola Solutions, you can connect it to the HiFi Mic using the external microphone jack.

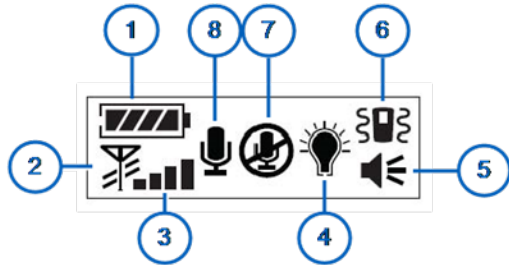
Open the external microphone jack cover and connect the lapel microphone cable at this point.



Note: *The optional lapel microphone can be less susceptible to wind noise and help to provide better quality audio. For information about the accessory lapel microphone that Motorola Solutions offers, contact your Motorola Solutions representative.*

Display Icons

The display is on the top of the transmitter:



1. Battery level
2. Signal connection indicator
3. Signal strength
4. Covert mode
5. Beep mode
6. Vibrate mode
7. Mute
8. Record

The display shows icons that indicate the transmitter's current status and mode.




Note: This graphic only shows where the icons can appear on the display. Some of the icons will never appear on the display at the same time.


Status icons


The status icons on the display indicate the battery, connection, and signal states.

Battery level

The **Battery Level** icon is on the top left-hand corner of the display and looks like a battery on its side. This icon indicates the charged level of the transmitter battery.

When the icon shows the battery with all four bars , the battery is fully charged.

When the icon shows less than four bars, one bar for example , the charge level of the battery is less than fully charged. With the battery level icon showing only one bar, the battery charge is less than 25 percent.

When the **Battery Level** icon shows only the outline , the battery is low. Place the transmitter in the base to charge as soon as possible.





Warning! If the battery outline begins blinking, the charge level has moved below normal operational limits; you should place the transmitter in the base to charge immediately.

While the transmitter is charging, the bars in the **Battery Level** icon cycle on and off in series.

For information on charging the transmitter battery, [see page 31](#).

Connection

The **Connection** icon is on the bottom left-hand corner of the display under the **Battery Level** icon, and looks like an antenna . This icon indicates the state of the connection between the base and the transmitter.

When the icon shows only the antenna , the transmitter and the base are synced and have a fully established connection.

When the antenna and diagonal bars blink together, the transmitter and the base have lost their connection.



Warning! When the transmitter and the base lose their connection, no audio is transmitted to the DVR.

Signal strength

The **Signal Strength** icon appears just to the right of the **Connection** icon and looks like a set of stair-stepped bars. This icon indicates the strength of the received signal from the base to the transmitter.


When the icon shows all four stair-stepped bars , the signal is strong.

When the icon shows less than four bars, two bars for example , the signal is weaker.


Mode icons

The mode icons on the display indicate whether the transmitter audio is being recorded, which notification mode is active, and whether Covert mode has been activated or deactivated.

Record

The **Record** icon appears in the middle of the display, just to the right of the **Signal Strength** icon, and looks like an old-fashioned microphone . This icon indicates that the transmitted audio is being recorded by the DVR ([see page 21](#)).

Mute

The **Mute** icon appears in the middle of the display and looks like a circled **Record** icon with a slash through it . This icon indicates that audio is no longer being recorded by the DVR ([see page 21](#)).

Covert mode

The **Covert Mode** icon appears in the middle of the display, just to the left of the notification icons, and looks like a light bulb. This icon indicates whether Covert mode has been activated.



When the icon shows a darkened light bulb , Covert mode has been activated ([see page 23](#)).

When the icon shows a lit light bulb , Covert mode has been deactivated ([see page 23](#)).

Notification

The notification icons appear in the top and bottom right-hand corners of the display.

There are two notification icons:

- **Vibrate**: The **Vibrate** icon appears in the top right-hand corner of the display and looks like a cell phone with vertical waves on both sides of it . This icon indicates that the transmitter vibrates to show a change in its status.
- **Beep**: The **Beep** icon appears in the bottom right-hand corner of the display and looks like the side view of a speaker with three lines coming out of it . This icon indicates that the transmitter beeps to show a change in its status.

Depending on the selected settings, the notification icons can appear individually or together in the display. For example, both icons will show in the display when the transmitter is set to vibrate and beep to indicate a status change. When there is no notification of a status change, neither icon will show in the display ([see page 23](#)).

Synchronizing the Transmitter and the Base

The transmitter and the base in the vehicle must be synchronized before the DVR can record audio transmitted by the transmitter's microphone. The pairing that is created when the transmitter and the base sync together, which lets them identify each other's communication. For information on the transmitter, [see page 20](#). For information on the base in the vehicle, [see page 16](#).

Mics that stay in the same vehicle from shift to shift remain synchronized with the base in that vehicle. If you move your transmitter between vehicles or take it from a pool of mics inside the agency, you must sync the transmitter with the base in the vehicle before you can use it.



Note: A charge-only version of the base is available for the HiFi Microphone (HiFi Mic). Charge-only bases are not used in vehicles. For information about charge-only bases, contact your Motorola Solutions representative.

The transmitter and the base in the vehicle sync automatically when you place the transmitter in the powered base for a few seconds.

To sync the transmitter with the base:

1. Power the DVR on and verify it is ready to use.
2. Power the transmitter on ([see page 25](#)).
3. Place the transmitter into the base.

The LEDs on the transmitter and the base flash and the transmitter beeps as the pair syncs. After the transmitter and base are synced, either the green LEDs turn on (the transmitter is ready to use) or the red LEDs start flashing (the transmitter needs charging).

4. Remove the transmitter from the base and verify the connection on the transmitter's display ([see page 27](#)).

For information on charging the transmitter, [see page 31](#).

Charging the Transmitter

The battery in the transmitter must be charged before you can use the HiFi Microphone (HiFi Mic). The base (either the vehicle base or the charge-only base) serves as the charger for the transmitter.



Important! Avoid touching the charge and sync contacts on the base and transmitter with your bare hands.

To charge the transmitter:

1. Power off the transmitter ([see page 25](#)).
2. Place the transmitter in a base.



Note: Motorola Solutions recommends that you power off the transmitter before you put it in the base to charge, but this step is not required.

If the base is in the vehicle, the base syncs with the transmitter before the transmitter begins to charge.

For more information about syncing the transmitter and the base, [see page 30](#).

With charge-only bases, mics begin to charge immediately. Charge-only bases are usually used in an office environment.



Note: A charge-only base serves only as a charger for the HiFi Mic and is not used in a vehicle. For information about the charge-only base, contact your Motorola Solutions representative.

As the transmitter charges, the red LEDs flash and the bars in the **Battery Level** icon on the display cycle in series. When the transmitter is fully charged, the green LEDs illuminate, and the **Battery Level** icon shows four bars ([see page 27](#)). After 65 minutes in a base, the transmitter is approximately 50 percent charged. The transmitter is fully charged after three hours.



Note: If you charge your transmitter in a charge-only base, you may need to re-sync the transmitter with the base in your vehicle when you want use it again ([see page 30](#)).

Charging in a vehicle with the ignition off

When you shut down your vehicle, the DVR shuts down with it. Because the HiFi Mic base is connected to the vehicle through the DVR, the base shuts down as well.

HiFi Microphone

After ten minutes, the base powers back up and begins to charge the transmitter. The base remains on for four hours to fully charge the transmitter, and then the base shuts down again until the vehicle, DVR, and base are powered on again.

Using Two HiFi Microphones

For the most part, using two HiFi Microphones (HiFi Mics) in a vehicle is just like using one transmitter.

When using two HiFi Mics in the same vehicle, do the following to minimize the potential for interference between the transmitters when both mics are in use:

- When you install the HiFi Mic antennas, install them horizontally in the upper-right and upper-left corners of the windshield to keep them as far apart as possible.
- When only one of the two transmitters (mics) is in use, dock the unused transmitter in its vehicle base.

Best Practices and Troubleshooting

In this section...

- Best practices for
 - Installing the HiFi Microphone (HiFi Mic) ([page 35](#))
 - Using the HiFi Mic ([page 35](#))
- Troubleshooting HiFi Mic issues ([page 36](#))

Best Practices

The items in the following sections are considered Motorola Solutions best practices.



Note: *These best practices are not required. They are provided to help you have the best experience possible with your HiFi Microphones (HiFi Mics).*

Installation best practices

Keep the following best practices in mind when you install a HiFi Mic in your vehicle:

- Use a short cable (3-foot) when you connect the HiFi Mic base to the 4RE DVR; keeping the cable short helps maintain audio quality.
- Use the antenna that you received from Motorola Solutions with the HiFi Mic. Using a different antenna can compromise wireless performance and audio quality.
- Install the antenna horizontally in the upper right-hand corner of the windshield (as you look out the windshield) and 2.5 inches away from the windshield's edge away from any metal.
- If you use two HiFi Mics in your vehicle, install the antennas horizontally in the upper right-hand and upper left-hand corners of the windshield to keep them as far apart as possible to minimize the potential for interference when two mics are in use.
- Finger-tighten the SMA connector when you connect the antenna to the base. Using hand tools can damage the connector.

Usage best practices

Keep the following best practices in mind when you use your HiFi Mic:

- Power off the transmitter before you put it in the base to charge.
- Avoid touching the charge and sync contacts on the base and transmitter with your bare hands.
- If you have two HiFi Mics in your vehicle but you are only using one of them, dock the unused transmitter in its vehicle base. The unused empty base can interfere with the HiFi Mic that is being used.
- Store the transmitter in a cool environment and with 40% or less of battery state of charge.

Troubleshooting

If your HiFi Microphone (HiFi Mic) is not functioning properly, refer to the sections below for possible remedies.

If you have no reception...

- Check that the power switch on the transmitter is on ([see page 25](#)).
- Check that the transmitter battery is charged ([see page 27](#)).
- Check the connection between the DVR and the base ([see page 17](#)).
- Check that the transmitter and the base are synced, have a good connection, and that the transmitter has a strong signal from the base ([see page 27](#)).



Tip: If your HiFi Mic still has no reception after trying all of the above steps, contact Motorola Solutions Customer Service for assistance.

If you have poor reception, static, or noise...

- Check the location of the antenna ([see page 35](#)).
- Check the antenna connection on the base ([see page 16](#)).
- Check that the transmitter and the base are synced, have a good connection, and that the transmitter has a strong signal from the base ([see page 27](#)).
- If you have two HiFi Mics in the vehicle, check whether one of them is unused and NOT docked in its base ([see page 33](#)).



Tip: If your HiFi Mic still has poor reception, static, or noise after trying all of the above steps, contact Motorola Solutions Customer Service for assistance.

If the transmitter does not respond to or synchronize with the base...

- Check that the base and transmitter have the Motorola Solutions branding to verify base and transmitter compatibility.
- Check that the transmitter battery is charged ([see page 27](#)).
- Check the connection between the DVR and the base ([see page 17](#)).
- Check that the power switch on the transmitter is on ([see page 25](#)), turn it off and back on, and then try again to sync the transmitter and the base ([see page 30](#)).



Tip: *If your transmitter still does not respond to or synchronize with the base after trying all of the above steps, contact Motorola Solutions Customer Service for assistance.*

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