

USER GUIDE

M1-DMR™

BLACKBOX PROFESSIONAL TWO-WAY RADIOS



- Compact Size
- Digital DMR
- IP55 Water Resistant
- 32 Channels
- 1,600 mAh Battery
- 2 Slot Simplex

4.0"



**MOTOROLA
STYLE CONNECTOR**

Genuine
blackbox®

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Thank you for choosing the Blackbox M1-DMR two-way radio!

Here is some basic instructions. For more information, see our YouTube videos or contact your sales agent.

Product Inspection

Please confirm all items listed are included. If not please contact your sales agent.

Item	Qty
Main Unit	1
Antenna	1
Belt Clip	1
Battery	1
Charger	1
Adapter	1
Hand Strap	1
User Manual	1

Radio Overview



Radio Controls

No.	Part Name	No.	Part Name	No.	Part Name
1	Antenna	5	PTT Button	10	Accessory Jack
2	Channel Selector Knob	6	Mid Key	11	Strap Hole
3	Radio On-Off/ Volume Control Knob	7	Left Key	12	Belt Clip
		8	Speaker	13	Battery Latch
4	LED Indicator	9	Microphone		

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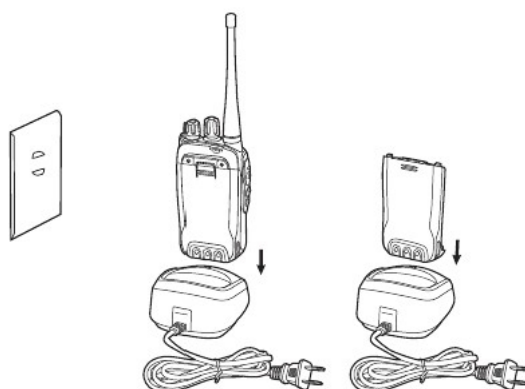
Programmable Keys

For enhanced convenience, you may request your sales agent to program the programmable side-button as a shortcut to an optional radio function listed:

No.	Shortcut Keys	Description
1	Adjust Power Level	To adjust RF power level
2	Emergency On	To initiate an emergency call
3	Emergency Off	To stop transmitting the emergency call
4	VOX	To enable or disable the VOX function
5	Zone Switch	To select a zone quickly
6	One Touch Call	To transmit a call, text message or other service to a preset contact quickly
7	Squelch Off	To always keep the speaker unmuted
8	Battery Power Indication	To indicate the current battery power

TIP: Long and short press of the key can be assigned with different functions via software.

Charging the Battery (with or without the radio attached).



1. Turn off the radio. Plug the adapter's connector into an outlet.
2. Plug the other end of the adapter into the jack on the rear of the charger.
3. Insert the battery or radio equipped with battery into the charger (line up the contacts).
4. The LED indicator lights are **red during charging** and **green when fully charged**.

TIP: Please charge the battery for 5 hours for the initial charge.

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LED Indicators – what do they mean?

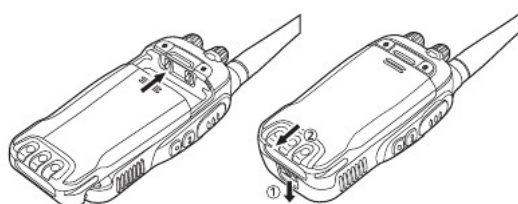
LED Indicator	Charging Status
LED indicator is red	During charging
LED indicator is green	Fully charged
LED indicator flashes red	Fault (re-insert)

Attaching the Antenna

With the radio turned off, set the antenna in its receptacle and turn clockwise to fasten it. To remove the antenna, turn it counterclockwise.

Attaching the Battery

1. Insert the battery into the radio as shown below;
2. Press the battery at its bottom slightly until the battery latch locks.

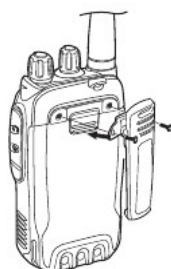


To remove the battery, please make sure the radio is turned off first, and then push the battery latch upwards and slide the battery (down) away from the radio.

TIP: Your sales agent can program the optional shortcut key to **Battery Power Indication** for the radio, so you can check current battery power via the shortcut key.

Attaching the Belt Clip

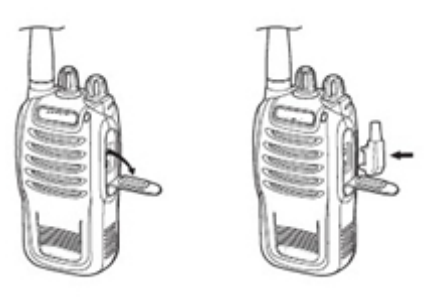
Align the screw holes on the belt clip with those on the radio, then fasten the belt clip with the screws. Do not over-tighten. To detach the belt clip, simply remove the screws.



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Attaching the Audio Accessories and/or Programming Cable

1. Open the accessory jack cover;
2. Plug the accessory into the accessory jack.



TIP: The accessory jack cover is used for avoiding dust to ensure the normal connection between accessories and radio. It should be re-seated when the accessory jack is not in use.

Status Indicators

The LED indicator on the top of the radio will help you easily identify current radio status.

LED Indicator	Radio Status
LED flashes green	Powering on
LED is solid red	Transmitting
LED is solid green	Receiving
LED flashes orange	Scanning

Basic Operations

Turning On/Off the Radio

To turn on the radio, please rotate the Radio On-Off/Volume Control knob clockwise until it clicks. To turn off the radio, please rotate this knob counterclockwise until it clicks.

Adjusting the Volume

After turning on the radio, rotate the Radio On-Off/Volume Control knob clockwise to increase the volume, or turn this knob counterclockwise to decrease the volume.

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Selecting a Zone

A zone is a group of individual channels. The M1-DMR radio supports up to 16 zones, each with a maximum of 16 channels.

Ask your sales agent to program a shortcut key, which you can quickly toggle to your desired zone by pressing the programmed key.

Selecting a Channel

Rotate the Channel Selector knob to select your desired channel, and you can set TX Admit for every digital channel via the CPS, the TX Admit limits the transmissions on the current channel when there are activities on it.

1. Always Allow: The radio can transmit when PTT button is pressed no matter whether there are activities on the channel or not.
2. Channel Free: The radio can transmit when the channel is free.
3. Color Code Free: The radio can transmit when the channel is free or the color code doesn't match.

Digital/Analog Switch

Each channel of the radio can be programmed as either analog channel or digital channel by the dealer. If the current zone includes both analog and digital channels, you can quickly switch between digital and analog channels through the Channel Selector knob.

TIP: The M1-DMR is designed to work optimally in Digital Mode.

Private Call

In standby mode, the radio will transmit a Private Call to the preset Private Call contact on the current channel when PTT button is pressed.

Your sales agent may program a preset TX Contact for each digital channel. The preset TX Contact can be a Private Call number, a Group Call number or an All-Call number.

Group Call

In standby mode, the radio will transmit a Group Call to the preset Group Call contact on the current channel when PTT button is pressed.

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All-Call

The way to make an All-Call is the same with that of making a Group Call. Only when your sales agent enables the All-Call function can you perform this task.

Receiving and Responding to a Private Call

You can listen to the Private Call without any operation when you receive one, then press the PTT button within the preset time to respond to the Private Call.

Receiving and Responding to a Group Call

You can listen to the Group Call without any operation when you receive one, then press the PTT button within the preset time to respond to the Group Call.

TIP: You can not respond to an All Call.

Functions and Operations

Scanning

Scan On/Off

1. You can program a key to turn on/off the Scan function directly.
2. Program the Scan On/Off switch via the software (ask your sales agent).

Scan List

You can create a Scan List for each channel. Each Scan List contains up to 16 channels which can be digital channel or analog channel. This is done via the programming software.

TIP: The function “Scan” can be enabled only when there is a preset Scan List on the channel.

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Emergency Alarm

1. Digital Emergency Alarm

You can ask your partner or the control center for help through this function when an emergency occurs. Emergency Alarm has the highest priority so that it can be enabled no matter whether the radio is transmitting or receiving.

If you want to enable the Emergency Alarm on a channel, you must assign an emergency system for the channel via software. Emergency Type and Emergency Mode can also be set.

Emergency Type

The radio supports 5 emergency **types**:

Emergency Type	Description
Siren Only	The radio emits a siren, and the control center will not receive the emergency signal.
Regular	The radio displays audio and visual indicators during Emergency mode.
Silent	The radio does not display any audio or visual indicators during Emergency mode.
Silent w/ Voice	Except from the voice from the received audio, the radio does not display any other audio or visual indicators during Emergency mode.
Emergency Alarm	The radio emits a siren after sending an emergency signal to a control center, and it displays audio and visual indicators during Emergency mode.

Emergency Mode

The radio supports 3 emergency **modes**:

Emergency Mode	Description
Alarm	The radio only transmits the emergency alarm code when an Emergency is initiated.
Alarm w/ Call	The radio transmits both the emergency alarm code and emergency call when Emergency is initiated.
Call Only	The radio immediately transmits an emergency call when an Emergency is initiated.

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2. One Touch Call

A shortcut key can be programmed to the One Touch Call function, and corresponding services can be initiated by pressing the shortcut key.

Services are listed below:

- Group Call
- Private Call

3. Lone Worker

With this feature, the radio can be programmed whether to automatically enter Emergency mode or not via the software if there is no operation for a predefined time. This function is helpful especially for people who work alone. The radio will automatically send the emergency signal to other radios, or to the control center for help if the Lone Worker can not operate the radio within the predefined time.

Service and Support

Your Blackbox radio comes with a 3-Year Manufacturer Defect Warranty. The battery has a 1-Year Manufacturer Defect Warranty. Simply contact your sales agent for support.

Cautions

1. Read the user manual before use.
2. Do not use the radio with a damaged antenna.
3. Turn off the radio in potentially explosive or flammable environments.
4. Avoid the contact between the battery and metal, oily or corrosive objects.
5. Do not immerse the radio or battery into liquids or discard them in fire.
6. Use the radio only with Blackbox branded battery, adapter, charger and audio accessories.

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Declaration of Conformity

Per FCC CFR 47 Part 2 Section 2.1077(a), this product conforms to FCC Part 15, subpart B, section 15.107(a), 15.107(d), and section 15.109(a).

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.



Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

The device meets the requirements of FCC PART 90. Local laws and regulations shall be complied with when setting up or using the equipment, and corresponding qualifications and relevant procedures shall be obtained if necessary. Consulting the relevant authorities is suggested.

ISED RSS warning

This product meets the applicable Industry Canada technical specifications. / Le présent matériel est conforme aux spécifications techniques applicables d'Industrie Canada.

This device complies with ISED license-exempt RSS standard (s). Operation 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'ISED 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.

RF Exposure Compliance and Control Guidelines and Operating Instructions

To control your exposure and ensure compliance with the occupational/controlled environment exposure limits always adhere to the following procedures.

Guidelines:

- Do not remove the RF Exposure Label from the device.
- User awareness instructions should accompany device when transferred to other users.
- Do not use this device if the operational requirements described herein are not met.

Operating Instructions:

- Transmit no more than the rated duty factor of 50% of the time. To transmit (talk), push the Push-To-Talk (PTT) button. To receive calls, release the PTT button. Transmitting 50 % of the time, or less, is important because this radio generates measurable RF energy exposure only when transmitting (in terms of measuring for standards compliance).
- Hold the radio in a vertical position in front of face with the microphone (and the other parts of the radio, including the antenna) at least one inch (2.5 cm) away from the nose. Keeping the radio at the proper distance is important because RF exposures decrease with distance from the antenna. Antenna should be kept away from eyes.
- When worn on the body, always place the radio in approved clip, holder, holster, case, or body harness for this product. Use of non-approved accessories may result in exposure levels, which exceed the occupational/controlled environment RF exposure limits.
- Use only manufacturer's name approved supplied or replacement antennas, batteries, and accessories. Use of non-manufacturer-name approved antennas, batteries, and accessories may exceed the FCC and IC RF exposure guidelines.
- For a list approved accessories please consult your local dealer for information.

Pour contrôler votre exposition et garantir le respect des limites d'exposition en milieu professionnel / contrôlé, respectez toujours les procédures suivantes.

Des lignes directrices:

- Ne retirez pas l'étiquette d'exposition RF de l'appareil.
- Les instructions de sensibilisation de l'utilisateur doivent accompagner l'appareil lorsqu'il est transféré à d'autres utilisateurs.
- N'utilisez pas cet appareil si les exigences opérationnelles décrites ici ne sont pas satisfaites.

Mode d'emploi:

- Ne transmettez pas plus que le facteur de service nominal de 50% du temps. Pour transmettre (parler), appuyez sur le bouton Push-To-Talk (PTT). Pour recevoir des appels, relâchez le bouton PTT. La transmission à 50% du temps, ou moins, est importante car cette radio génère une exposition à l'énergie RF mesurable uniquement lors de la transmission (en termes de mesure de conformité aux normes).
- Tenez la radio en position verticale devant le visage avec le microphone (et les autres parties de la radio, y compris l'antenne) à au moins 2,5 cm (2,5 cm) du nez. Il est important de garder la radio à la bonne distance car les expositions aux RF diminuent avec la distance de l'antenne. L'antenne doit être éloignée des yeux.
- Lorsqu'elle est portée sur le corps, placez toujours la radio dans un clip, un support, un étui, un étui ou un harnais de sécurité approuvés pour ce produit. L'utilisation d'accessoires non approuvés peut entraîner des niveaux d'exposition qui dépassent les limites d'exposition aux RF de l'environnement professionnel / contrôlé.
- Utilisez uniquement les antennes, batteries et accessoires fournis ou de remplacement approuvés par le fabricant. L'utilisation d'antennes, de batteries et d'accessoires non approuvés par le fabricant peut dépasser les directives d'exposition RF FCC et IC.
- Pour obtenir une liste des accessoires approuvés, veuillez consulter votre revendeur local pour plus d'informations.