



User guide

DXDMR500
DIGITAL DMR/ANALOG
UHF TWO-WAY RADIO MODEL

www.DeWALT.com

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English



DXDMR500
User guide

IF YOU HAVE QUESTIONS OR COMMENTS, CONTACT US.

1-866-208-1654

Before operating the radio, please read all safety and operating instructions. Save all instructions in a safe place for future reference.

Definitions: Safety Alert Symbols and Words

This instruction manual uses the following safety alert symbols and words to alert you to hazardous situations and your risk of personal injury or property damage.

⚠ DANGER: Indicates an imminently hazardous situation which, if not avoided, **will** result in death or serious injury.

⚠ WARNING: Indicates a potentially hazardous situation which, if not avoided, **could** result in death or serious injury.

⚠ CAUTION: Indicates a potentially hazardous situation which, if not avoided, **may** result in minor or moderate injury.

⚠ (Used without word) Indicates a safety related message.

NOTICE: Indicates a practice **not related to personal injury** which, if not avoided, **may** result in property damage.

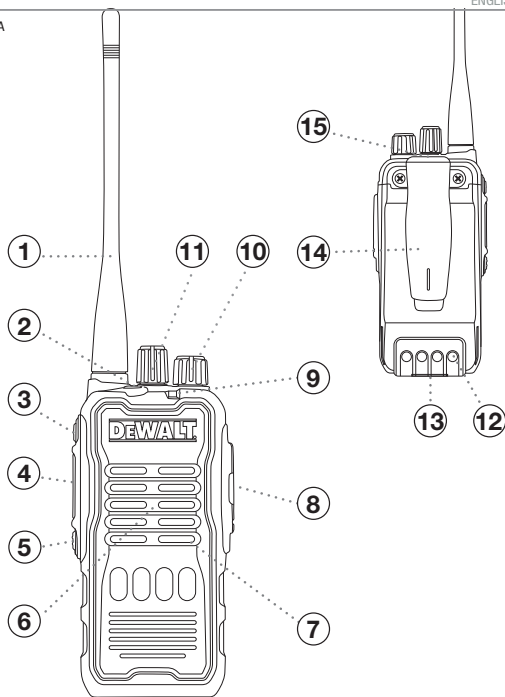
⚠ WARNING: Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

⚠ WARNING: Never modify the product or any part of it. Damage or personal injury could result.

⚠ WARNING: To reduce the risk of injury, read the user guide.

If you have any questions or comments about this or any product, call DeWALT toll free at: (866) 208-1654.

Fig. A



- Antenna
- Top Function Key – TK (Emergency Call Button as default)
- Side Function Key 1 – SK1 (Battery Level Indication / Zone Selection Button as default)
- PTT Button (Push-to-Talk)
- Side Function Key 2 – SK2 (High/Low Power / Squelch On/Off Button as default)
- Speaker
- Microphone
- Speaker/Microphone Jack / Comm Port
- LED Indicator
- Power on-off / Volume Knob
- Channel Selector Knob
- Charging Contacts
- Battery Latch
- Belt Clip
- Wrist Strap Connection

WARNING: Important Safety Instructions

1. Only accessories included in this package or specified by the manufacturer should be used with the radio.
2. Do not use cleaners or solvents to clean the exterior of the radio. Use only a damp or dry cloth.
3. Do not attempt to service the radio yourself. Removing the cover will void the warranty. Changes or modifications not expressly approved by DeWALT may void the user's authority granted by the FCC to operate this device and should not be made.
4. Do not plug the wall adaptor into the power outlet if the outlet is wet.
5. Do not use any portable radio that has a damaged antenna. If a damaged antenna comes into contact with your skin, a minor burn can result.
6. Do not place your radio in the area over an air bag or in the air bag deployment area. If a radio is placed in the air bag deployment area and the air bag inflates, the radio may be propelled with great force and cause serious injury to the occupants of the vehicle.

WARNING: Important Safety Instructions for Battery

Read All Instructions

- Do not incinerate the battery even if it is severely damaged or is completely worn out.
- Do not discard battery in a fire. The battery pack can explode in a fire.
- Do not replace battery in any area labeled "Hazardous Atmosphere". Any sparks created in a potentially explosive atmosphere can cause an explosion or fire.
- Do not disassemble, crush, puncture, shred, or otherwise attempt to change the form of your battery.
- Do not allow conductive materials such as jewelry, keys, or beaded chains to touch exposed battery terminals.
- Do not dry a wet or damp battery with an appliance or heat source, such as a hair dryer or microwave oven.
- A small leakage of liquid from the battery cells may occur under extreme usage or temperature conditions. This does not indicate a failure. Do not open, deform or mutilate the battery as there may be corrosive materials which can cause damage to eyes or skin and may be toxic if swallowed.

However, if the outer seal is broken and this leakage gets on your skin:

- a. Wash quickly with soap and water.

- b. Neutralize with a mild acid such as lemon juice or vinegar.
- c. If battery liquid gets into your eyes, flush them with clean water for a minimum of 10 minutes and seek immediate medical attention.

This product uses Lithium-ion Battery. Do not transport package if damaged, a fire hazard could exist.

For more information, please call our customer support line at **(866) 208-1654**.

Recycle Battery

Local, state or federal laws may prohibit disposal of batteries in ordinary trash. Consult your local waste authority for information regarding available recycling and/or disposal options.

Product Service & Support

For any questions about operating this new DeWALT branded product, PLEASE CONTACT US FIRST... do not return this product to the retail store. The contact information for support will vary depending on the country in which you purchased and utilize the product.

To obtain warranty service or other information for products purchased from DeWALT itself or through its authorized reseller or agent and utilized in the U.S.A., please call our consumer support line at **(866) 208-1654**. You will receive instructions on how to ship the products at your expense to an our Authorized Service Center. To obtain service, you must include: (a) a copy of your receipt, bill of sale or other comparable proof of purchase; (b) a written description of the problem; and, most importantly; (c) your address and telephone number.

For further information needed on its features, please visit **DeWALT.COM** for frequently asked questions and the electronic manual.

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WARNING:

1. Exposure to high volume sound levels may cause temporary or permanent damage to your hearing. Although there is no single volume setting that is appropriate for everyone, you should always use your radio with the volume set at low level and avoid prolonged exposure to high volume sound levels.
 - Set the volume control in a low position and use as low a volume as possible.
 - Avoid turning up the volume to block out noisy surroundings. Whenever possible, use your radio in a quiet environment with low background noise.

- Limit the amount of time you use headsets or earpiece at high volume levels.
 - When using the radio without a headset or earpiece, do not place the radio's speaker directly against your ear.
2. Observe all signs and instructions that require an electrical device or RF radio product to be switched off in designated areas, such as gas/refueling stations, hospitals, blasting areas, potentially explosive atmospheres, or aircraft.
 3. If you experience a skin irritation after using this product, discontinue use and seek medical attention.
 4. If the product or charger: overheats; has a damaged cord or plug; has been dropped or damaged; has been dropped into water, disconnect any charger from its power supply, discontinue use of the product.
 5. Never use your radio outdoors during a thunderstorm. Keep the radio out of reach of babies and young children.
 6. **NEVER** hold the radio so that the antenna is very close to, or touching exposed parts of the body, especially the face or eyes, while transmitting. The radio will perform best if the microphone is around 2 inches (5 cm) away from the lips and the radio is vertical.

Electromagnetic Interference

Nearly every electronic device is susceptible to electromagnetic interference (EMI) if inadequately shielded, designed, or otherwise configured for electromagnetic compatibility. Turn off your radio in any facility where posted notices instruct you to do so. These facilities may include hospitals or health care facilities that may be using equipment that is sensitive to external RF energy.

- When instructed to do so, turn off your radios when on board an aircraft. Any use of a RF device must be in accordance with applicable laws, regulations and airline crew instructions.
- Some radios may interfere with some hearing aids. In the event of such interference, you may want to consult your hearing aid manufacturer or physician to discuss alternatives.
- If you use any other personal medical device, consult the manufacturer of your device to determine if it is adequately shielded from RF energy. Your doctor or physician may be able to assist you in obtaining this information.

CAUTION:

This device complies with Part 15 of the FCC/RSS-119 of the IC Rules. Operation is subject to the condition that this device does not cause harmful interference.

Your DeWALT radio generates RF electromagnetic energy during transmit mode. This radio is designed for and classified as "Occupational Use Only"/"Controlled Use Only", meaning it must be used only during the course of employment by individuals aware of the hazards, and the ways to minimize such hazards.

This radio is NOT intended for use by the "General Population" in an uncontrolled environment.

Important: Your DeWALT radio has been tested and complies with the FCC/IC RF exposure limits for "Occupational Use Only"/"Controlled Use Only". In addition, your radio complies with the following Standards and Guidelines with regard to RF energy and electromagnetic energy levels and evaluation of such levels for exposure to humans:

- FCC OET Bulletin 65 Supplement C, Edition 01-01, Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields.
- IC RSS-102 Issue 2 Radio Frequency Exposure Compliance of Radiocommunication Apparatus.
- American National Standards Institute (C95.1 - 2005), IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz.
- American National Standards Institute (C95.3 - 2002), IEEE Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields - RF and Microwave.
- IEEE Standard 1528-2003.

To ensure that your exposure to RF electromagnetic energy is within the FCC/IC allowable limits for "Occupational Use Only"/"Controlled Use Only", always adhere to the following guidelines:

- DO NOT operate the radio without a proper 50 Ohm antenna attached, as this may damage the radio and may also cause you to exceed FCC/IC RF exposure limits. A proper antenna is the antenna supplied with this radio by the manufacturer or an antenna specifically authorized by the manufacturer for use with this radio.
- DO NOT transmit for more than 50% of total radio use time ("50% duty cycle"). Transmitting more than 50% of the time can cause FCC/IC RF exposure compliance requirements to be exceeded. The radio is transmitting when the "TX indicator" light is red. You will cause the radio to transmit by pressing the "PTT" switch.
- ALWAYS use DeWALT authorized accessories (antennas, batteries, belt clips, speaker/microphones, etc). Use of unauthorized accessories can cause the FCC/IC RF exposure compliance requirements to be exceeded.
- ALWAYS keep the antenna at least 1 inch (2.5 cm) away from your head and body when transmitting and only use the DeWALT belt-clips, listed in this user manual,

when attaching the radio to your belt, etc., to ensure FCC/IC RF exposure compliance requirements are not exceeded. To provide the recipients of your transmission the best sound quality, hold the microphone at least 2 inches (5 cm) from your mouth, and slightly off to one side.

The information listed above provides the user with the information needed to make him or her aware of RF exposure, and what to do to assure that this radio operates within the FCC/IC RF exposure limits of this radio.

Electromagnetic Interference/Compatibility

During transmissions, your DeWALT radio generates RF energy that can possibly cause interference with other devices or systems. To avoid such interference, turn off the radio in areas where signs are posted to do so. DO NOT operate the transmitter in areas that are sensitive to electromagnetic radiation such as hospitals, aircraft, and blasting sites.

IMPORTANT NOTICE:

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*

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

NOTE: 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/TV technician for help.*

This radio is designed for and classified as "Occupational/Controlled Use Only", meaning it must be used only during the course of employment by individuals aware of the hazards, and the ways to minimize such hazards; NOT intended for use in an General population/uncontrolled environment

- DO NOT operate the radio without a proper antenna attached, as this may damage the radio and may also cause you to exceed RF exposure limits. A proper antenna is the antenna supplied with this radio by the manufacturer or an antenna specifically authorized by the manufacturer for use with this radio.*
- DO NOT transmit for more than 50% of total radio use time, more than 50% of the time can cause RF exposure compliance requirements to be exceeded.*
- This transmitter may operate with the antenna(s) documented in this filing in Push-to-Talk and body-worn configurations. RF exposure compliance is limited to the specific belt-clip and accessory configurations as documented in this filing and the separation distance between user and the device or its antenna shall be at least 2.5 cm.*

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

- (1) This device may not cause interference.*
- (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;*
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.*

Cette radio est conçue et classée comme «Utilisation professionnelle / contrôlée uniquement», ce qui signifie qu'elle ne doit être utilisée que pendant le travail par des personnes conscientes des dangers et des moyens de minimiser ces dangers; NON destiné à être utilisé dans une population générale / un environnement non contrôlé.

- N'utilisez PAS la radio sans une antenne appropriée, car cela pourrait endommager la radio et vous faire dépasser les limites d'exposition aux RF. Une antenne appropriée est l'antenne fournie avec cette radio par le fabricant ou une antenne spécifiquement autorisée par le fabricant pour être utilisée avec cette radio.*
- NE PAS transmettre pendant plus de 50% du temps total d'utilisation de la radio, plus de 50% du temps peut entraîner un dépassement des exigences de conformité à l'exposition aux RF.*

– Cet émetteur peut fonctionner avec les antennes documentées dans ce dossier en configurations Push-to-Talk et portées sur le corps. La conformité de l'exposition aux radiofréquences est limitée aux configurations de clip de ceinture et d'accessoires spécifiques décrites dans ce dossier et la distance de séparation entre l'utilisateur et l'appareil ou son antenne doit être d'au moins 2,5 cm.

Important

CAUTION:

NEVER hold the transceiver so that the antenna is very close to, or touching exposed parts of the body, especially the face or eyes, while transmitting. The transceiver will perform best if the microphone is 2 to 4 inches (5 to 10 cm) away from the lips and the transceiver is vertical.

NEVER operate the transceiver with a headset or other audio accessories at high volume levels.

NEVER short the terminals of the battery pack.

DO NOT push the **PTT** button when not actually desiring to transmit.

DO NOT modify the transceiver for any reason.

AVOID using or placing the transceiver in direct sunlight or in areas with temperatures exceed $-20^{\circ}\text{C} \sim +60^{\circ}\text{C}$ / $-5^{\circ}\text{F} \sim +140^{\circ}\text{F}$.

KEEP the transceiver from the heavy rain, and **NEVER** immerse it in water.

The use of battery packs/chargers not included in this package may impair transceiver performance and invalidate the warranty.

Changes or modifications not expressly approved by DeWALT, may void the user's authority granted by the FCC/IC to operate this radio and should not be made. To comply with FCC/IC requirements, transmitter adjustments should be made only by or under the supervision of a person certified as technically qualified to perform transmitter maintenance and repairs in the private Land Mobile and Fixed Services as certified by an organization representative of the user of those services.

Replacement of any transmitter component (crystal, semiconductor, etc.) not authorized by the FCC/IC equipment authorization for this radio could violate FCC/IC rules.

Use of this radio outside the country where it was intended to be distributed is subject to government regulations and may be prohibited.

Note: Radios which are manufactured after January 1st 2013 will be limited to 12.5 kHz channel bandwidth. See 47 C.F.R. §§ 90.203(j), 90.209(b).

Licensing Information

DeWALT Professional two-way radios operate on radio frequencies that are regulated by local government agencies. The regulatory agency in the USA is the Federal Communications Commission (FCC) and in Canada, Industry Canada (IC). To transmit on these frequencies, you are required to have a license issued by the FCC/IC. For Canadian users, you are required to have a license or other authorization under the Radio communication Act. Application is made with your local Industry Canada office. For other countries check with the local regulatory agency or your distributor to verify if this radio is approved for use and how you can obtain a license.

FCC Application (USA Users)

Application is made available on FCC Main Form 601 and Schedules E, D and H. To obtain these FCC forms, request document 000601 which includes all forms and instructions. If you wish to have the document faxed, mailed, submitted online, or have questions, use the contact information below.

Send fax to Fax-On Demand system at:	Call the FCC forms hotline at:	To apply for new / renew / modify existing license online, visit:	For questions regarding FCC license contact the FCC at:
1-202-418-0177	1-800-418-FORM 1-800-418-3676	Universal Licensing System (ULS) at http://wireless.fcc.gov/uls/index.htm?job=home	1-888-CALL-FCC 1-888-2255-322 Or: http://www.fcc.gov

Before filling out your application, you must decide which frequency(ies) you can operate on. See "Pre-programmed Channel Frequency Table". For questions on determining the radio frequency, contact your dealer.

IC Licensing Information (Canadian Users)

For information on obtaining a LMRS license in Canada, visit the following Website link to see a list of district and regional offices for Industry Canada's Spectrum Management department:
http://www.canadabusiness.ca/servlet/ContentServer?pagename=CBSC_ON%2Fdisplay&lang=en&cid=1081944194346&c=Regs

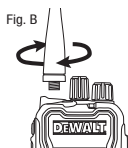
Using Your Radio

Caring for Your Radio

Your radio will give you years of trouble-free service if cared for properly. Handle the radio gently. Keep the radio away from dust. Never put the radio in water or in a damp place. Avoid exposure to extreme temperatures.

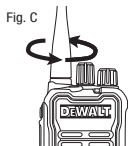
Connecting the antenna

Align the base of the antenna onto the antenna connector and turn clockwise until snug (Fig. B). Do not over tighten.



Disconnecting the antenna

Turn the base of the antenna counter-clockwise to disconnect it from the radio. (Fig. C)



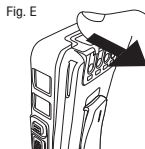
Installing the battery

1. Press the top of the belt clip to open the clip slightly if the belt clip was installed.
2. Slide the battery to the battery compartment and align the top tabs of the battery with the slots located on the top of battery compartment. Push the lower back section of the battery towards the radio until the battery snaps into place. (Fig. D)



Removing the battery

Pull the Battery Latch outward to release the battery from the radio. (Fig. E)

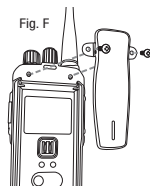


Installing the belt clip

1. Remove the battery from battery compartment if any. Then align the screw holes of both belt clip and the radio as shown, screw down the two screws (M2.5x6.5mm) with a proper screwdriver mildly, you may use a Philips* Head #1 screwdriver to do so. (Fig. F)

(Screw nuts may be damaged if overtighten)

2. Reinstall the battery.



Charging the battery with the radio

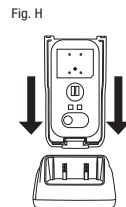
The radio is equipped with a charging base and a power supply adaptor. To charge the battery with the radio attached:

1. Place the DeWALT charging base on a flat surface in a dry location.
2. Insert the AC adaptor cable connector into the port on the rear of the charging base.
3. Plug the AC adaptor into a power outlet.
4. Align the slots on the sides of the battery with the rails in the charging base (Fig. G).
5. Slide the radio into the charging base.



Charging the battery only

1. Place the DeWALT charging base on a flat surface in a dry location.
2. Insert the AC adaptor cable connector into the port on the rear of the charging base.
3. Plug the AC adaptor into a power outlet.
4. Align the slots on the sides of the battery with the rails in the charging base (Fig. H).
5. Slide the battery into the charging base.



Charging Notes:

- Best charging performance: room temperature, 60 - 85° F (15 - 30° C).
- Charging base operating temperature range: 32 - 115° F (0 - 45° C).
- The battery should be fully charged at least once every three months for battery maintenance.

Charging base LED Indicator

LED Indicator	Battery Condition	Action
Alternating Red/Green for a short awhile	N/A	Indication for showing the input power source has just been connected well and ready for charging
No indication	N/A	Ready for inserting radio or battery only for charging
	No power input	Check the AC adapter connections
	Open circuited battery contacts	Check and clean contacts of battery and charging base
	Battery is not inserted in place	Check and realign the battery position when slide it into the charging base
Continuous Red	Charging in process	Allow battery to complete charging
Continuous Green	Charging complete	Remove battery for use or leave on for charge maintenance in short period
Continuous Orange	Short circuit at terminals	Remove battery and disconnect AC power
	Bad battery	Replace battery
Blinking Orange	The charging base output is overload	Remove battery and disconnect AC power. Check and replace AC adapter or charging base.
	Bad battery	Replace battery

Note: A completely discharged battery may take up to 6 hours to completely charge.

Basic Operation

Turning Your Radio On and Off

To turn on the power:

Rotate the **Power on-off / Volume** knob clockwise until “beep” and current channel number is heard.

To turn off the power:

Rotate the **Power on-off / Volume** knob counterclockwise.

Adjusting the volume

Rotate **Power on-off / Volume** knob clockwise to increase the volume or counterclockwise to decrease the volume.

Squelch On/Off for Analog Channel

(default feature of Side Function Key 2 – SK2*)

(For Analog channels only)

Your radio will automatically shut off weak transmissions and unwanted noise due to terrain, conditions for Analog channel(s) (if any assigned) as default or if you’ve reached your Maximum Range limit.

You can turn off auto squelch for Analog channel (or turn on maximum range extender) by press and hold the **Squelch On/Off** button*, allowing all signals to be received and extending the maximum range of your radio.

To exit the function, press and hold the **Squelch On/Off** button* again.

* Remarks: You may have different feature and setting of function key assignment for setting, please consult with your system administrator and/or dealer.

Selecting the Channel

The radio has 16 pre-programmed Analog Channel[†] in Zone 1 and 1 pre-programmed Digital Channel[†] in Zone 2 (see the default Zones and Frequency table on page 10). The radio can be programmed with up to 256 channel frequencies (i.e. up to 16 zones, and each zone carries up to 16 channels)[‡]. Rotate the **channel** knob to change the channel.

[†] Those channel(s) and zone(s) settings would be assigned by your system administrator and programmed by the dealer.

Zone Selection

(default feature of Side Function Key 1 – SK1*)

The radio can be programmed with up to 16 zones*, each zone can carry up to 16 channels* (see the default Zones and Frequency table* on page 10).

To change to next assigned zone number, press and hold the **Zone Selection** button* until the next zone number prompted. Repeat the step until the desired zone number reached.

Talking and Listening

To communicate, all radios in your group must be set to the same channel (frequency) and CTCSS/DCS codes for analog channel(s)*, and/or be set to the same channel (frequency), TDMA (Time Division Multiple Access) time slot, group IDs (if assigned), color code and voice encryption key (if assigned) for digital channel(s)*. To talk, press and hold the **PTT** button. The red TX indicator light glows continuously when transmitting.

To receive message, release the **PTT** button.

For maximum clarity, hold the radio two to four inches away from your mouth and speak directly into the microphone. Do not cover the microphone while talking.

Responding to a Group Call or Private Call in a Digital Channel

To receive a call made to a group of users, your radio must be configured as part of that group. And, to receive a private call from an individual, the caller must know and call your Radio ID.

When you receive a Group Call or Private Call, your radio un-mutes and the incoming call sounds from the speaker of the radio. Press and hold the **PTT** button within a predetermined period of time (the hang time would be programmed by your dealer) and speak clearly into the microphone after the caller waits your response.

Once finish your response, release the **PTT** button to listen.

If there is no valid communication activity within the predetermined hang time, the call ends. Then, the radio is ready for initiating another new call.

* Remarks: You may have different feature and setting of function key assignment that requested with the dealer, please consult with your system administrator and/or dealer.

* Those channel(s) and zone(s) settings would be assigned by your system administrator and programmed by the dealer.

Battery Level Indication

(default feature of Side Function Key 1 – SK1*)

To check the battery level, press and release the **Battery Level Indication** button, the status will be voice prompted.

Transmit Power Setting

(default feature of Side Function Key 2 – SK2*)

The radio can transmit at 1 watt or 4 watts. Press and release the High/Low Power button to toggle the power of the selected channel. When "Power Low" prompted, 1 watt is selected. When "Power High" prompted, the radio will transmit with high power instead. High power operation may be restricted on some channels and is stated in your FCC license.

* Remarks: You may have different feature and setting of function key assignment for setting, please consult with your system administrator and/or dealer.

Emergency Call

(default feature of Top Function Key – TK*)

The **emergency call** button is used to call others for help when emergency events happen through digital channel.

As default, press and release the **Emergency Call** button to enter the radio's emergency mode, then press and hold the **Emergency Call** button to exit the emergency mode. And, the default emergency mode and setting are Emergency Alarm and Regular respectively.

The **Emergency Call** features and related configurations would be assigned by your system administrator and programmed by the dealer.

Your radio supports four Emergency Alarm modes:

- **Emergency Alarm** – sends an Emergency Alarm, a non-voice signal, which triggers an alert indication on a group of radios. The activated emergency alarm mode would be cancelled automatically if no emergency acknowledgment received after timeout.
- **Emergency Alarm with Call** – sends an Emergency Alarm to a group of radios. Upon acknowledgement by a radio within the group, the communication among those radios can be initiated over a programmed Emergency channel by pressing the **PTT** button from the emergency call initiator.
- **Emergency Alarm with Voice to Follow** - sends an Emergency Alarm to a group of radios. The radio's microphone would be activated automatically

and pickup the sound and transmits to a group of radios for a predetermined period of time (from 10 seconds to 120 seconds for selection during pre-programming) without pressing the **PTT** button.

In addition, each alarm has the following types:

- Siren only – Radio triggers siren alarm itself only.
- Regular – Radio transmits an alarm signal and shows both audio and visual indications.
- Silent – Radio transmits an alarm signal without any audio or visual indication. Radio mutes all incoming calls until you press the **PTT** button to initial the emergency call.
- Silent with Voice – Radio transmits an alarm signal without any audio or visual indication, but allow incoming calls to sound through the radio's speaker

* Remarks: You may have different feature and setting of function key assignment for setting, please consult with your system administrator and/or dealer.

Radio LED Indicators

When you press and hold Talk button and the Radio is transmitting	Red LED on
Receiving	Green LED on
The current channel is not assigned and not available for use.	Orange LED on
When Battery low	Red LED flashes
When in Emergency call	Red LED fast flashes
Channels scanning	Green LED flashes
Hang time period	Orange LED flashes
Data Reading in progress when accessed by programming software in a programming device.	Irregular Red LED flashes
Data Writing in progress when accessed by programming software in a programming device.	Irregular Green LED flashes

Technical Specifications

GENERAL SPECIFICATIONS*

Channel Capacity	16 per zone (total 256 in 16 zones)		
CTCSS/CDCSS Codes	50/168		
Frequency Band	400-470MHz		
Channel Bandwidth	25kHz/12.5kHz (Analog) 12.5kHz (Digital)		
TDMA Supporting	DMO 2-slot		
Digital Protocol	ETS TS 102 361-1,-2,-3		
Digital Vocoder Type	ABME+2™		
Voice Encryption	ARC 40-bits		
LED Indicator	Green/Red/Orange		
Battery Type	7.4V / 2000mAh Li-ion		
Antenna Connector	SMA		
Headset / Microphone Connector	Dual 3.5 mm / 2.5 mm		
Battery Connector	Bottom Charging Contacts		
Controls	3 sides buttons (PTT, SK1, SK2) 1 top button (TK) 1 top rotary channel selector 1 top rotary control (Volume, Power on/off)		
Power Switch	Rotary Knob		
Charging Base	Drop-in Type		
Power Supply	Input: 100-240 VAC / 50/60Hz / 0.2A		
Dimensions (without antenna)	5.3 x 2.4 x 1.5 inches (133 x 61 x 37 mm)		
Weight (with battery pack)	10.5 oz (~300g)		
Frequency Stability vs. Temperature	≤1.5ppm		
Estimated Battery (TX-RX-STBY duty cycle)	Power	5-5-90 duty cycle	
		Analog	Digital
	1 Watt	19 hrs	22 hrs
	4 Watts	12 hrs	15 hrs
FCC ID Designator	2AHJMDMREJJ		
IC ID Designator	21854-DMREJJ		

* Remarks: All specifications subject to change without notice.

RECEIVER SPECIFICATIONS*

Sensitivity	-119dBm @12 dB SINAD -119dBm @5%BER
Adjacent Channel Selectivity	60dB @12.5kHz 70dB @25kHz
Intermodulation	65dB
Spurious Rejection	70dB
Hum and Noise	-40dB @12.5kHz -45dB @25kHz
Conducted Spurious Emission	≤ -57dBm (<1GHz) ≤ -47dBm (>1GHz)
Audio Output Power	1W
Audio Distortion	≤3% (Rated typically)

TRANSMITTER SPECIFICATIONS*

Modulation Designator	16K0F3E/11K0F3E (Analog) 4FSK (Digital)
TX Output Power	4W / 1W
Rated Spurious Emission	≤ -36dBm (<1GHz) ≤ -30dBm (>1GHz)
Hum and Noise	-40dB @12.5kHz -45dB @25kHz
Adjacent Channel Power	60dB @12.5kHz 70dB @25kHz
Modulated Audio Distortion	≤3%

ENVIRONMENTAL SPECIFICATIONS*

Ingress Protection Rating	IP54
Operating Temperature	-5°F ~ +140°F / -20°C ~ 60°C
Storage Temperature	-22°F ~ +150°F / -30°C ~ 65°C

* Remarks: All specifications subject to change without notice.

Customizing your Radio

Your radio can be customized to fit your specific needs. This can be done by your dealer or distributor using special configuration software. Each analog channel can be programmed for TX frequency, RX frequency, TX power level, Bandwidth, CTCSS or CDCSS, Busy Channel Lock Out, TX time out value, Scan Enabled, Whisper Mode, Rx Only Mode, etc. Each digital channel can be programmed for TX frequency, RX frequency, TX power level, DMA Slot Mode, Color Code, Busy Channel Lock Out, TX time out value, Scan Enabled, Call Type/Call ID Selection, Emergency Call Notification Setting, Voice Encryption, Whisper Mode, RX Only Mode, and etc.

The configuration software allows setting the radio default Squelch level, Radio ID, Function Keys assignment, Digital Contacts/RX Group assignment, Digital Emergency Call modes and variables, Voice Encryption values, Zone assignment, Mic gain, Lone worker variables, Tones and Signaling values, Power Save mode and etc.

Pre-programmed Channel Frequency Table

Zone 1 – Analog Channels						
Channel	Frequency (MHz)	Power Output	Code System	RX Code (Hz)	TX Code (Hz)	Bandwidth (kHz)
1	464.5500	High	CTCSS	67.0	67.0	12.5
2	467.9250	High	CTCSS	67.0	67.0	12.5
3	467.8500	High	CTCSS	67.0	67.0	12.5
4	467.8750	High	CTCSS	67.0	67.0	12.5
5	461.0625	High	CTCSS	67.0	67.0	12.5
6	461.1125	High	CTCSS	67.0	67.0	12.5
7	461.1625	High	CTCSS	67.0	67.0	12.5
8	461.2125	High	CTCSS	67.0	67.0	12.5
9	464.5000	High	CTCSS	67.0	67.0	12.5
10	467.7625	High	CTCSS	67.0	67.0	12.5
11	464.5000	High	CTCSS	67.0	67.0	12.5
12	464.5000	High	CTCSS	77.0	77.0	12.5
13	464.5000	High	CTCSS	88.5	88.5	12.5
14	464.5000	High	CTCSS	179.9	179.9	12.5
15	464.5000	High	CTCSS	None	60.0	12.5
16	464.5500	High	CTCSS	67.0	67.0	12.5

Zone 2 – Digital Channel						
Channel	Frequency (MHz)	Power Output	TDMA	Group ID	Color Code	Voice Encryption
1	433.3750	High	Slot 1	1	1	Off

Warranty & Trademark Acknowledgment

Limited 3 Year Warranty

DeWALT warrants to the original consumer purchaser only that this product and the component parts thereof, will be free from defects in workmanship and materials for a period of three years from the date of first consumer purchase. During this period, DeWALT will, repair or replace, at its sole option and discretion, this product or any defective parts. DeWALT's liability hereunder shall be limited to repair or replacement of the defective part or parts, and such correction shall constitute a fulfillment of all of DeWALT's warranties hereunder.

This limited warranty is only valid for the original consumer purchaser in limited jurisdictions and is not transferable. This limited warranty will automatically terminate prior to expiration if this product is sold or otherwise transferred to another party. The product must be purchased from DeWALT or an authorized dealer or the warranty is void. This limited warranty is valid only for products purchased and utilized in specific jurisdictions. Please visit our website at **DeWALT.COM** for a list of jurisdictions wherein this limited warranty is valid.

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The procedure for obtaining service and support, and the applicability of this warranty, will vary depending on the country or jurisdiction in which you purchase and utilize the product. For details on obtaining product service, support and other warranty information please visit **DeWALT.COM**.

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Provided that the product was purchased from DeWALT itself or through its authorized reseller or agent and utilized in the U.S.A., DeWALT will, without charge, repair or replace, at its option, defective products, products or component parts upon delivery to the authorized DeWALT Authorized Service Center, accompanied by proof of the date of first customer purchase, such as a duplicated copy of a sales receipt.

You must pay any initial shipping charges required to ship the product for warranty service, but the return charges, to an address in the U.S.A., will be at DeWALT's expense, if the product is under warranty.

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