DWM-1000 User's Guide

Digital Wireless Microphone

Table of Contents

1.0 The Wireless Microphone (RMT)

The RMT offers a number of features which include:

belt clip allowing wear on a belt or other location
condenser microphone built into the face of the unit
external microphone jack for use with a lapel microphone
three LED indicators
1000 ft remote record range
dual RMT capable
5 different charging options
2 hr voice memo
covert mode for discrete recording
record lock for continuous interruptible remote recording
GPS logging
USB file transfer
user firmware upgradeable

2.0 System Components


RMT


belt clip


lapel microphone


dual band antenna


antenna mount and cable

note: for use with the ICT (in car transceiver)


USB/AC Adapter


USB Cable


AC Mic/Charge adapter


charger cradle

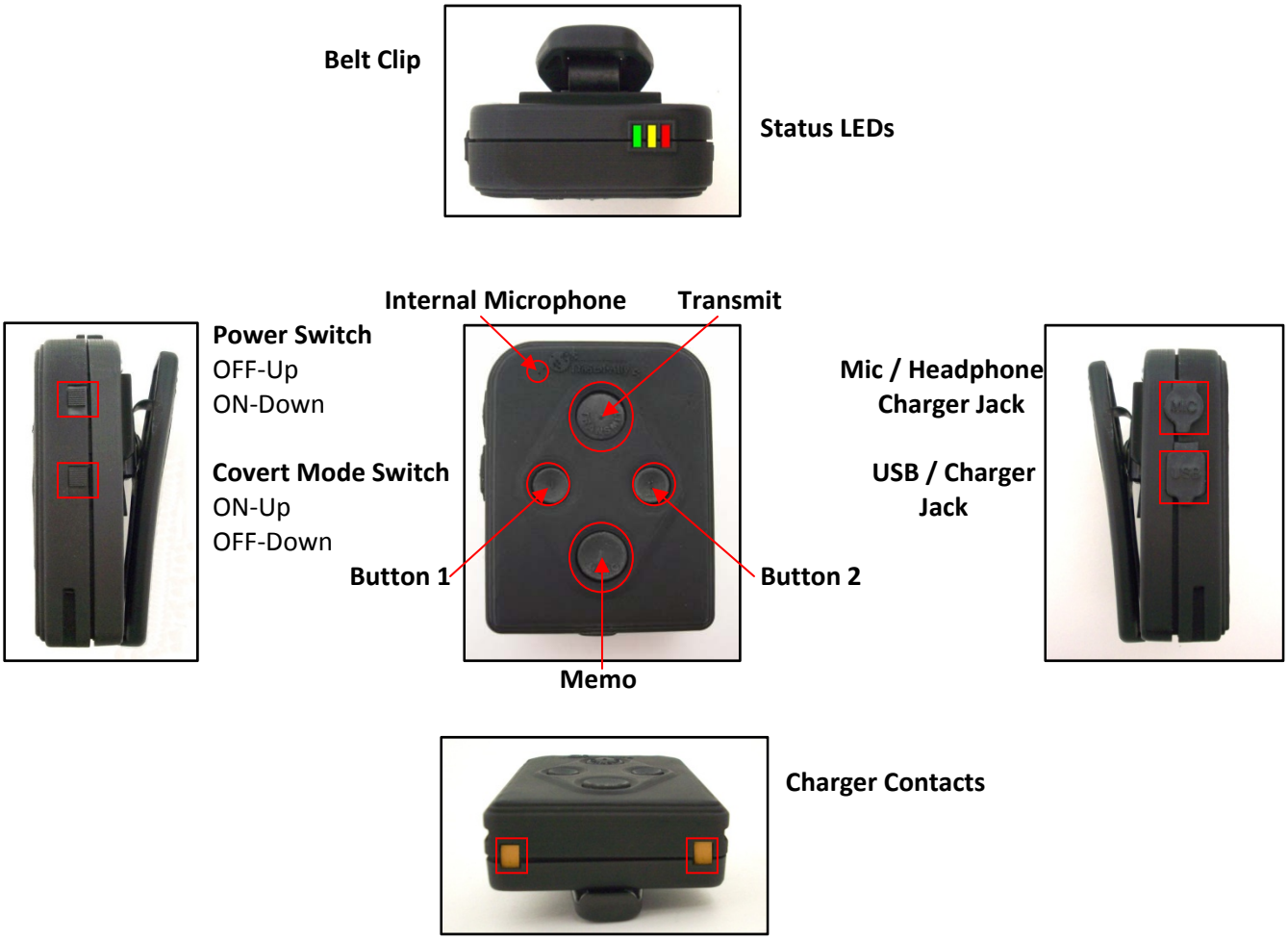

AC cradle adapter


charger cradle


cigarette lighter adapter

*headphones /ear bud not supplied

3.0 RMT Controls



4.0 Charging **Note: The RMT will need to be fully charged before initial use.**

The RMT can be charged in one of five ways:

while seated in a cradle powered by the cigarette lighter adapter
while seated in a cradle powered by a 12vdc/AC adapter
USB cable interconnected between the RMT and a PC
USB cable interconnected between the RMT and a USB/AC adapter
12vdc/AC adapter connected to the RMT MIC jack

The red and green LED's indicate battery charge cycle status.

Red LED on: Charge in Progress
Green LED on: Charge Complete

Note: The RMT is powered down during the charging cycle.
It must be powered on by the user after removing it from the charging cradle.
Audio will not be recorded by the RMT if it is not powered up while the DVM is recording.

5.0 Power Slide Switch
To power the RMT ON, slide the power switch up.
When the RMT is powered ON, the green LED will flash every 3 seconds while in the Standby Mode.

Sliding the power switch down will turn the RMT OFF.

6.0 LED Indicators
The LEDs indicate the current operating status of the RMT.

RED LED – ON steady; indicates the RMT is transmitting or MEMO record is enabled

flashes rapidly; searching for a clear radio channel

YELLOW LED – ON steady while transmitting (red LED illuminated);
indicates the RMT is out of range

flashes slowly; 25% battery charge remaining

flashes rapidly; 15% battery charge remaining

GREEN LED - flashes every 3 seconds; indicates RMT is ON and in Standby Mode

SYNCH Modes:

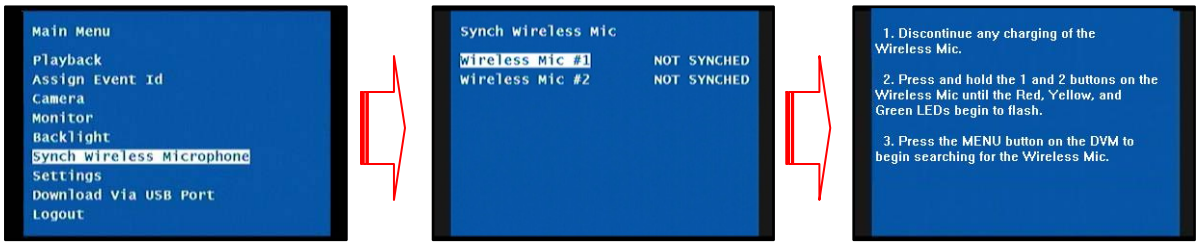
Ready to Synch - red, yellow, and green LEDs flash rapidly

During Synch - red and green LEDs flash alternately

Synch Finished - red, yellow, and green LEDs illuminate for 1 second
RMT returns to Standby Mode when complete

7.0 Synching the Wireless Microphone (RMT) to the DVM
Prior to initial use, the RMT must be synched with the DVM.
Please note that the RMT must be within 3 feet of the antenna during the synchronization process.

7.1 Select Synch Wireless Microphone from the DVM Main Menu and press Select (button 2) to continue.



7.2 Select the Wireless Mic to Synch (#1 or #2) and press Select (button 2) to continue.

7.3 Note: Discontinue any charging before proceeding.

7.4 Press and hold button 1 and 2 on the RMT until the red, yellow, and green LEDs begin to flash.

7.5 Press the MENU button on the DVM to begin Synching.

7.6 Note: Once the Wireless Mic is detected, Synching will begin.

7.7 Once Synching is Successful, press the MENU button to continue.

7.8 Note: Repeat the above procedure to Synch an additional RMT to the DVM.

8.0 Transmitting Audio

The RMT can be used to transmit audio and initiate a recording.
The RMT can be used to transmit audio after a recording has already been initiated.

Press and hold the TRANSMIT button on the RMT for several seconds while in standby mode.
Release the TRANSMIT button once the red LED begins flashing rapidly.
This is an indication the RMT is searching for a clear radio channel.
Once a clear channel is established, the red LED will illuminate continuously and recording has begun.
If the RMT is unable to establish communication with the DVM in approximately 4-6 seconds, it will return to standby mode.

9.0 Voice Memo

The RMT can be used to record audio and GPS information.
The RMT is capable of recording a single two hour session or multiple sessions resulting in a total of two hours.

9.1 To begin a recording: while in the standby mode, press and hold the MEMO button until the red LED illuminates continuously. The yellow LED will flash rapidly while preparing for a record session.

9.2 To stop a recording: press and hold the MEMO button until the red LED turns off. The yellow LED will flash rapidly while closing the record session.

9.3 To playback a recording: press and hold the 1 button until the green LED illuminates continuously.
Use of headphones or an ear bud is required to listen to the audio playback.
With multiple recorded sessions, the most recent recording will begin playback.

9.4 To select playback with multiple record sessions present: press and hold the MEMO and 1 button.
The red, yellow, and green LEDs will illuminate for 1 second.

To playback the most recent recording:
The green LED will flash followed by a 3 second pause.
Pressing the MEMO button during this first pause will begin playback.

To playback the second most recent recording:
After the three second pause, the green LED will flash once again.
Pressing the MEMO button during this second pause will begin playback

The process will continue for additional recordings.

9.5 To stop the playback of a recording: press and hold the 2 button until the green LED turns off.

9.6 To determine the recording memory capacity: press and hold the MEMO and the 2 button.
The red, yellow, and green LEDs will flash indicating the amount of available memory remaining.

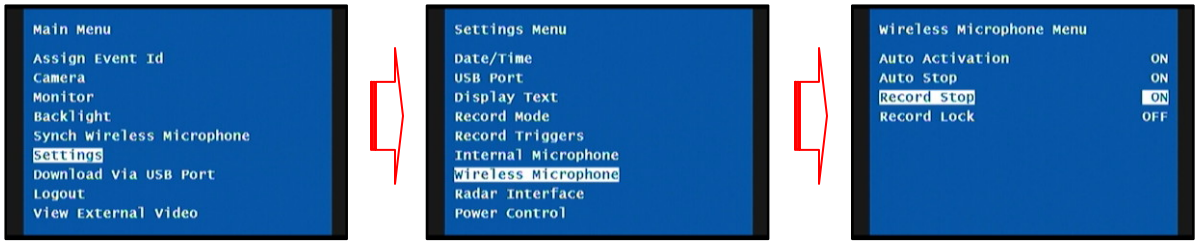
one flash	75% memory remaining
two flashes	50% memory remaining
three flashes	25% memory remaining
four flashes	memory full

Continuing to hold the MEMO and the 2 button will cycle the flash sequence once again after 5 seconds.

10.0 Covert Mic Mode
The Covert Mode disables all three LEDs on the RMT.
To enable Covert Mode, slide the covert mode switch Up.

To disable the Covert Mode, slide the covert mode switch Down.

11.0 Record Lock Mode
Record lock disables the PWR and RECORD buttons on the RMT so that it remains on during recording.
Record Lock Mode is enabled via the Settings Menu on the DVM.

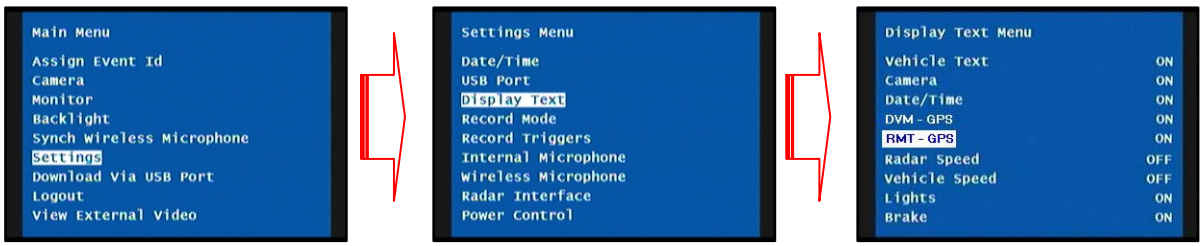


The RMT will cease transmitting once the recording has been stopped by pressing the STOP button on the DVM.

12.0 GPS (Global Positioning System) Enabled

The RMT is WAAS GPS enabled, allowing highly accurate latitude and longitude coordinates of the RMT location to be transmitted to the DVM.

The RMT GPS coordinates can be enabled via the Settings Menu on the DVM.



13.0 USB

The USB jack can be used to charge the RMT utilizing a PC or the AC/USB adapter.
Additionally, once the RMT is interconnected to a PC it is recognized as a removable drive and the voice memo and GPS logger files can be transferred.

14.0 Firmware Update

The USB feature allows the RMT to be updated with the newest firmware available.
Firmware updates and programming instructions are available through customer support.

15.0 Specifications

Integrated 900MHz, Frequency Hopping Spread Spectrum, Dual Receiver Capable, GPS Enabled, Remote Microphone System.

Technology	Channels	Power	Nominal Range	Region
868 MHz FHSS	47/70 channel	25mWatt*	1000 ft range	Europe
916 MHz FHSS	50/255 channel	1000mWatt*	1000 ft range	Americas
916 MHz FHSS + Wi-Fi	50/255 channel	1000mWatt*	1000 ft range	Americas

*effective radiated power

GPS sensitivity	acquisition	-142 dBm
	tracking	-159 dBm
TTFF (time to first fix)	< 35s	

Dimension of RMT*	2.96" x 1.87" x 2.12"	75.21 mm x 47.57 mm x 53.91 mm
Weight of RMT*	0.25 lbs / 4.12 oz. / 0.117 kg	
Body/Shell Construction	High Temperature ABS Plastic	

*with belt clip attached

Dimension of Charger	2.42" x 1.55" x 3.25"	61.65 mm x 39.51 mm x 82.55 mm
Weight of RMT	0.16 lbs / 2.46 oz. / 0.070 kg	
Body/Shell Construction	High Temperature ABS Plastic	

Operating Temperature -4°F to +167°F (-20°C to +75°C)

Transmit Time: 8.5 hours typical (1kHz audio output)
Receive Time: 8.5 hours typical
Standby Time: 134 hours typical
Battery Life: 54 hours typical (based on 10% transmit/receive and 90% standby)
Initial battery charge time: 12 hours
Average charge time: 4 to 5 hours

Indicators: Battery Charge / Low Battery / Operating State / Out of Range

Voice/GPS Record Capacity: 2 hours

Microphone: internal
external microphone jack

Li-ion rechargeable battery pack
Charging Options
12vdc cigarette lighter adapter with charging cradle (in-charge charging)
12vdc AC power adapter with charging cradle (desktop charging)
USB/AC power adapter with USB cable (desktop charging)
USB cable (PC charging)
12vdc AC power charging adapter (desktop charging)

16.0 Limited Warranty

Digital Ally, Inc. Digital Wireless Microphone is guaranteed to be free from defects in workmanship and material for a period of twenty four (24) months from the date of purchase to the original purchaser. If any failure, resulting from either workmanship or material defects should occur under normal and proper usage during this period, such failure will be repaired or replaced due to defective materials or workmanship at Digital Ally, inc. factory or its authorized service center at no cost to the purchaser. Purchaser shall return the failed unit to the factory or its authorized service center freight prepaid. Digital Ally, Inc. will pay for shipping charges for the return of the equipment.

This warranty applies only to internal electronic components and circuitry. Warranty excludes normal wear and tear such as frayed cords, broken connectors, scratched or broken cases and other items due to physical abuse. Manufacturer reserves the right to charge for defects and/or damages resulting from abuse or extraordinary environmental damage to the unit during the warranty period at rates normally charged for repairing such units not covered under warranty.

As a further limit on warranty, and as an expressed warning, the user should be aware that harmful personal contact may be made with seller's in-car video system in the vent of violent maneuvers, collisions, or other circumstances, even though said equipment was installed and used according to instructions. Digital Ally, Inc. specifically disclaims any liability for injury caused by the product in all such circumstances.

Warranty Does Not Cover the Following:

- Damages caused by operator abuse or neglect.
- Damages caused by incorrect use, carelessness, unauthorized alterations, improper storage or unauthorized service, installation or repairs.
- Damages caused by fire, flood, lightning, vandalism, collision, Acts of God, or other events beyond the control of Digital Ally, Inc.
- Physical damage to external parts such as cabinets, buttons, microphones, wires, cables, etc.
- Damages resulting from loss of use, loss of time or inconvenience, property damaged caused by this unit or its failure to work, or any other incidental or consequential damages.
- Hostile operating environments.
- In-transmit damage claims, improper handling by common carriers, UPS, Federal Express, DHL, US Post Office, etc.

- **Notice: The DWM-1000 Digital Wireless Microphone should be returned to the manufacturer for service. The warranty is void if opened.**

Extended Warranty Plan:

Any and all Warranties must be purchased prior to the expiration of any previous warranties. These must be purchased directly from Digital Ally, Inc. for a period no less than one year and not to exceed three years.

17.0 Contact Us

Digital Ally, Inc.
7311 West 130th Street, Suite 170
Overland Park, Kansas 66213

website: www.digitalallyinc.com
Support Email: support@digitallyinc.com
Sales Email: sales@digitalallyinc.com

Support Hours of Operation

Monday – Friday: 8AM – 6PM (Central) ***(excluding holidays)***

Sales/Support Toll Free: 1-800-440-4947

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules *(and the Industry Canada (IC) Spectrum Management and Telecommunications policy, RSS 210 standard.)* These limits are designed to provide reasonable protection against interference in a commercial or residential installation. This product generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the manufacturer's instruction manual, may cause harmful interference with radio communications. Operation of this product in a residential area is likely to cause harmful interference, in which case you will be required to correct the interference at your own expense. 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.
2) This device must accept any interference received, including interference that may cause undesired operation.

These limits are designed to provide reasonable protection against harmful interference in a non-residential installation. However, there is no guarantee that interference will not occur in a particular installation. Any changes or modifications to this device not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

THIS "product" MEETS THE FCC REQUIREMENTS FOR EXPOSURE TO RADIO FREQUENCY ENERGY (SAR). Your wireless "product" is a radio transmitter and receiver. It is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission of the U.S. Government. These limits are part of a set of comprehensive guidelines that establish permitted levels of RF energy for the general population. The guidelines are based on standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific studies. The standards include a substantial safety margin designed to assure the safety of all persons, regardless of age and health. The exposure standard for wireless communications devices employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC is 1.6W/kg. Tests for SAR are conducted using standard operating positions, as applicable to this device, specified by the FCC. The standard incorporates a substantial margin of safety to give additional protection for the public and to account for any variations in measurement. Before a badge is available for sale to the public, sample units must be tested by a certified regulatory lab to verify that they do not exceed the limit established by the government-adopted requirement for safe exposure.

USE ONLY APPROVED ACCESSORIES

RF exposure (SAR) tests have been performed on the "product" when it is being worn correctly and used with the approved accessories. The SAR test results show that the badge complies with all FCC exposure requirements. When a properly-oriented badge is operated with the appropriate accessories, as directed in the "*product User Guide"*, the level of RF exposure is well below the FCC limit of 1.6W/Kg. Therefore, to ensure compliance with FCC RF exposure guidelines when wearing the "product", the user should only use "product" approved accessories (e.g., lanyard, pocket clip, etc.). Accessories that have not been tested for RF exposure compliance with this product may not comply with the FCC RF exposure safety guidelines and should not be used. To ensure RF exposure compliance of the "product" when using the lanyard, position and maintain the call button, the speaker, and the antenna facing away from the body, as illustrated in the "Getting Started" section of the *"product User Guide"*. The badge and lanyard attachment have been designed specifically to maintain proper orientation during normal usage. Additionally, the lanyard clip can be secured to clothing to provide additional stability. Wearing the "product" with the antenna facing the body may result in non-compliance with FCC RF exposure guidelines and must be avoided. Use only the internal antenna which is part of this product. Any use of unauthorized antennas, any modifications to the supplied antenna, or any use of unauthorized attachments could damage the badge, violate FCC regulations, and void the user's authority to operate the product.

IC RSS 210

This Radio Standards Specification (RSS) sets out the requirements for license exempt low-power intentional radiators, defined as Category I equipment as per RSS-Gen. The applicable standard for low-power intentional radiators in Canada, for Category I equipment corresponds with FCC Part 15 Subpart C. The two are very closely harmonized in terms of permitted frequencies, types of operation, and other technical requirements, but a separate certification application is required for Canada. Receivers for RSS-210 transmitters also require certification with applicable limits to be found in RSS-210.

Approved Antennas for the DVM-ICT1

Antenna Factor	ANT-916-CW-RAH	Portable Antenna
antennas.us	UL-9000-319	Mobile Antenna
Larsen	LPT825/19NMOHF	Mobile Antenna

Digital Ally, Inc Model: DVM-RMT1

Tested To Comply with FCC Class A - Digital Device Standards

FCC ID: WPZ-DWMRMT1
FCC ID: WPZ-DWMICT1

Tested to Comply with Industry Canada Type 1 Standards
IC: 7945A-DWMRMT1
IC: 7945A-DWMICT1