

Owner's Manual Addendum

Including: **MultiMAX Firmware Upgrade v7.5** (for USB-enabled FCC/CE MultiMAX radios only)
Special Note for CE MultiMAX Owners

MultiMAX Firmware Upgrade v7.5

MultiMAX 7.5 is packed with new features and capabilities for the MultiMAX user including a new Long Range Mode for remote camera triggering, which beta testers found particularly useful in arenas and other challenging remote camera applications. Additionally, you can now move your Custom ID to any PocketWizard frequency for better triggering in crowded shooting environments. Multi-Zone Receive allows you to select more than one zone for receive, useful when sharing lights.

The new Signal Strength Indicator provides a quick view of local noise levels when the unit is turned on then switches to indicate the strength of the last trigger received. When you need to fully understand your shooting environment, the Noise Sniffer allows you to see the noise level on every channel. This allows you to locate potential interference and switch channels before it becomes a problem.

There's more and you can read the details for all new features and capabilities on the following pages.

NEW FEATURES:

- Long Range Mode for remote camera triggering
- Close Range Mode for working at extremely close distances
- Toggle the hot shoe on and off
- Custom ID Move - put your CID on a different frequency!
- Multi-Zone Receive
- Signal Strength indicator
- Menu indicator for longer menus
- Noise Sniffer
- Radio Relay (Repeater) Mode

Range Menu - */MENU L A

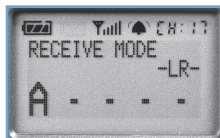
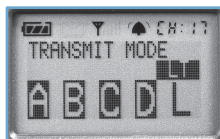
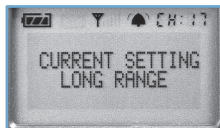
A:RANGE MODE

Long Range Mode - */MENU L A A

A:LONG-LT/LR

Long range mode increases the usable distance, up to double, between two MultiMAX radios. This new feature is ideal for photographers shooting sports or wildlife, or anyone who simply needs long range remote camera capability.

This mode must be activated on all radios that are expected to work together. When it is activated on a transmitter, **LT** will be displayed. When it is activated on a receiver, **-LR-** will be displayed. This mode is designed primarily for remote camera triggering. It can also be used for remote flash triggering at shutter speeds up to 1/125th. This mode cannot be used with the Plus II, Sekonic meters, or flash packs with a PocketWizard radio built in.



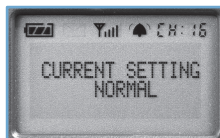
Engaging Long Range Mode will automatically adjust default contact time to 0.12 seconds.

NOTE: Long Range Mode is only for MultiMAX channels 17 through 32. Trigger confirmation is not available in Long Range Mode.

Normal Range Mode - */MENU L A B

B:NORMAL-TX/RX

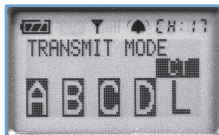
Normal mode sets your MultiMAX to work at standard distances on regular channels. This is the default operation for your MultiMAX. This mode must be activated on all radios that are expected to work together. When it is activated on a transmitter, **TX** will be displayed. When it is activated on a receiver, **-RX-** will be displayed.



Close Range Mode - */MENU L A C (Transmitter Only)

C:CLOSE-CT

Close range mode reduces the transmit power of your MultiMAX when it is in TRANSMIT mode. This mode is useful if you have a receiver very close to your transmitter (within a few feet). Normally it is recommended to keep several feet between a transmitter and a receiver. When working with radios very close together, like on a basketball net, the transmitter can overwhelm the receiver. Close Range Mode helps correct that situation.

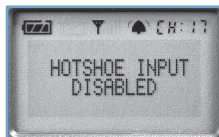


Close Range Mode is only set on a transmitter, not on a receiver. When it is activated on a transmitter, **CT** will be displayed. The receiver must be set to Normal Range Mode. -RX- will be displayed on the receiver. This mode is not compatible with Long Range Mode. This mode can be used with a MultiMAX, Plus, Plus II, flash packs with integrated PocketWizard radios or FlexTT5 as Receiver (standard channels only).

Hot Shoe Menu - */MENU L B

B:HOTSHOE OFF

Toggle the hot shoe on or off as needed. Press */MENU L B. Display will show "Hotshoe Input Disabled". Toggling the hot shoe input to OFF may be useful when mounting the MultiMAX on a cold shoe, or when you desire the trigger input to come from PORT 1 and not the hot shoe it is mounted in. Press */MENU L B again and the display will read "Hot shoe Input Enabled".



Custom ID Menu - */MENU L C

C:CUSTOM ID

This menu only appears if you have a Custom ID and you have a US/FCC radio.

What is a Custom ID? It is a private channel on a MultiMAX. In hyper-crowded shooting environments, Custom IDs give you the confidence to know that your remote flash or camera can only be triggered by you and not any other photographer. It is an exclusive code installed on top of an existing PocketWizard frequency, usually replacing Channel 17 with your new custom code and frequency combination.

No other manufacturer offers such a unique and valuable service. Because Custom IDs require a firmware modification, this service is only available directly through LPA Design. Contact us via our inquiries page on:

PocketWizard.com: <http://www.pocketwizard.com/contact/inquiry/>

Move Custom ID Frequency - */MENU L C A

A:CUSTOM ID FREQ

Use this menu to move your Custom IDs to a different frequency. This is useful if there is RF noise on your Custom ID's default frequency (see "Noise Sniffer" for more information) or if another user has a Custom ID on your default frequency.



Select the Custom ID you want to move to a different frequency by pressing A or B. Only Quad-Triggering Channel IDs (Channels 17 - 32) can be moved. Only your first 2 Custom IDs can be moved.

On the next screen you will see: SAME AS CHAN XX and a number.

The number is the frequency - 349.000 = 349.000 MHz. Using the arrow keys, move your Custom ID to the frequency you want and press */MENU. Every frequency is shared by a MultiMAX Quad-Triggering Channel.



When the display says SAME AS CHAN 21 and the frequency displayed is 348500 that means that your Custom ID will use the same frequency that is in use on standard Channel 21 - Photographers using that channel can't trigger you and you can't trigger them, but if you try to trigger at the exact same time then you may interfere with each other and cause a loss of triggers.

View Custom ID - */MENU L C B

B:VIEW CUSTOM ID

Displays a list of your installed Custom IDs and what frequency they are using.



Multi-Zone Receive (Receive Only)

The MultiMAX now allows you to select more than one Zone for receive. You can receive on any combination of Zones. If you select A and B, for example, any trigger on either A or B will trigger the radio. This feature allows another avenue of creative control for zones.

EXAMPLE: Two photographers are working the same venue. Each has their own portable flash system that they move with them, and they share area flashes that light the ceiling. One photographer could use Zone A for his nearby flashes while the other photographer uses Zone B. The receiver triggering the area flashes could be set to A & B.

Menu Indicator

If a menu in the MultiMAX contains more than four items, there is a now an indicator that shows there are more choices above or below the current list. Just use the arrow keys to see the other menu items.

Signal Strength Indicator (Receive Only)

The Signal Indicator (antenna level bars like on a cell phone) now performs two functions:

1. Noise Meter: If your radio has NOT been triggered, the Signal Indicator will show steady noise in the area. More bars = Good radio environment (less noise). If your Signal Indicator shows fewer bars then there is a strong source of constant interference in the area. The Signal Indicator will not show transient or brief interference like from another PocketWizard user. Noise Sniffer "SLOW" scan might help there.

2. If your radio has been triggered, the Signal Indicator shows the strength of the last trigger received. More bars = clear signal.

Noise Sniffer - */MENU B L (Receive Only)

L:NOISE SNIFFER

The Noise Sniffer is a MultiMAX tool for troubleshooting RF issues. It can show the relative radio noise for the MultiMAX channel and frequency displayed. To access the Noise Sniffer set the MultiMAX to RECEIVE then press */MENU B L.

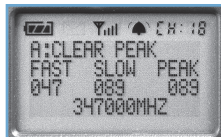


In Noise Sniffer mode, use the arrow keys to cycle through the channels. If you have a Custom ID, it will use the correct frequency for your Custom ID channel.

Place the MultiMAX in a location you intend to use, or walk around with the MultiMAX to help pinpoint noise sources. Move the antenna closer to cable-runs and metal structures to see if they are sources of RF noise on your channel.

127 = maximum noise the MultiMAX can sense. Lower is better. Readings below 40 are unlikely. What "should" the numbers be? As low as possible and still have reliable operation. These numbers are only for comparing one channel to another or for verifying RF noise as a possible factor on your channel or location of choice. There is no perfect number, so operation needs to be evaluated in context with these numbers.

- **FAST Noise** – displays noise readings as fast as the MultiMAX can sample. If this number is consistently high, there is a strong interference source in the area. It samples so quickly, however, that brief transient noise is hard to note.
- **SLOW Noise** – displays the highest noise sample out of the last 150. This will help you see live transient or very brief noise like another PocketWizard radio triggering.
- **PEAK Noise** – displays the highest noise reading (FAST or SLOW) since you last cleared it or changed channels. This will help you see the highest noise moment, but it is not real time. It is good for catching the most transient of interference or as a reference when evaluating a better location. Reset using the A key.



When all three numbers are roughly equal, this represents the base line RF noise for that channel in that location. Lower is better. Choose a channel with less noise or move to a less noisy area.

If FAST is low compared to SLOW or PEAK then there may be transient RF noise in the area. Something is probably creating RF noise on the channel but it is only happening sporadically. If possible, use another channel or move away from the interference source. If SLOW only shows occasional spikes, you may be fine.

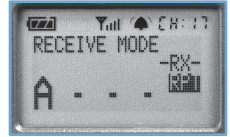
If the unit's LED blinks in any manner other than the normal "powered on" blink (once every two seconds), then the source of the noise is another PocketWizard on your frequency!

A MultiMAX mounted near the ground (within a few feet) may display a low noise reading and still have poor performance. This is because the ground absorbs radio energy. It absorbs the signal from your PocketWizards, so performance worsens in general. It also absorbs the ambient RF noise so the MultiMAX Noise Sniffer shows less noise present. In this situation a small amount of RF noise might have a much more extreme effect on reception reliability as one problem exacerbates the other.

Radio Relay (Repeater) Mode (Receive Only)

This mode lets you deploy another MultiMAX to increase your range. It receives and transmits on the same channel.

To activate Radio Relay (Repeater), set the MultiMAX to RECEIVE on your channel of choice, then press the “L” key twice. You should now see RPT on the display.



Pressing “L” toggles between these modes:

- RLY = Standard Camera Relay. It also displays the channel to be used when Transmitting. This is set in TRANSMIT mode. Read more about Relay Mode in your MultiMAX manual.
- RPT = Radio Relay (Repeater). There is no transmit channel to set in this mode. It uses the channel as displayed in the upper right.
- No relay function (off = no display). The radio operates only as a receiver.

Make sure the zone of the repeater is set to one you are using on your transmitter. You can use all of the other zones on your transmitting unit and the RPT MultiMAX will relay your selected zones as long as it is also on one of the selected zones.

Deploy the repeating MultiMAX where it effectively triggers the remote unit, and can be effectively triggered by your transmitting unit.

IMPORTANT: Do not deploy more than one repeater to cover the same remote. Extra repeating units will step on each other and make it difficult for your remote to get a trigger – bathing an area with repeaters is likely to worsen the remote's performance. You can use additional units to further increase the distance from your remote, but each repeater should be deployed to cover only one leg of the journey. Each repeating unit increases the radio delay by ~0.0012 seconds (~1/800). If you are using the RPT unit for remote camera triggering, this small delay will be unnoticeable. If you are using the RPT unit for remote flash triggering, this may affect the fastest shutter speed you can use.

Suggestions for remote camera triggering:

Eliminate as many RF interference issues as possible.

- Maintain a line of sight between the units.
- Keep the antennas parallel and at least 12" apart.
- Make sure the radios, and especially the antennas, are not near any large metal, concrete, or high water-content objects. People and trees are mostly water! Make sure they are not blocked by these objects or by hills. Crowds gathering between you and your remotes will reduce range. Try to keep the antennas above the heads of crowds.
- PocketWizard radios will have reduced performance if deployed close to the ground. Try to get them up high – 4 feet or higher improves range dramatically. Consider using any miniphone/headphone extension cable (including a PocketWizard MMX cable) to locate the receiver higher up.
- Avoid mounting them to long metal railings or other building structures.
- Avoid mounting them near long cable runs for other equipment or close to building wiring.
- Do not wrap connecting cables around the antenna. Keep them away from the antenna. Use right angle connectors whenever possible.
- Do not affix the radio by taping the antenna to something. Especially, do not use duct tape or any tape containing metal fibers on the antenna.
- Avoid using long cable runs with PocketWizard radios. If you must use a long cable run, deploy ferrite chokes (<http://www.radioshack.com/product/index.jsp?productId=2103222>) near the PocketWizard end of the long run. Use more than one ferrite choke when possible. Place them 6 to 12 inches from the radio and from each other.
- “Dead spots” have a number of causes, but the solution is usually the same: move the unit a few inches or feet away from the problem area.

For remote “finish line” cameras or any remote camera where a long motor drive burst is desired, consider the following:

- Set a long contact time (for example, 1.50 seconds) on the remote receiving unit. If range is an issue or remote operation is intermittent, this will help. If any single trigger is received, a long burst is guaranteed. Contact time is set by pressing * B A.
- Trying to get a remote camera to trigger as fast as the master camera in your hands by having the transmitting PocketWizard connected to the shoe or PC of the master may be problematic. Cameras are not designed to be triggered like a high speed hot shoe flash – for example five very short triggers in under one second. This may confuse the remote camera, cause it to not trigger, or cause it to trigger sporadically. Instead of relying on the shoe trigger, use either:
 - » A button cable (BT1 or BT3) connected to PORT 1 of the transmitting unit. Tape this button to the grip of the master camera.
 - » A –P cable (pre-release/pre-trigger cable) connected from the motor drive of the camera in your hands to PORT 1 of the transmitting MultiMAX. This causes the transmitting unit to be triggered as you press all the way down on your camera’s shutter release. You must use a –P cable and it must be set to OFF for this to function properly.

PocketWizard Utility

Your MultiMAX has a USB port which allows it to be easily updated to the latest firmware using the PocketWizard Utility. The PocketWizard Utility can be downloaded on our website at <http://www.PocketWizard.com/support/downloads/>

To connect your USB-enabled MultiMAX to your computer, please follow these steps:

1. Turn off the MultiMAX radio and make sure you have fresh batteries installed.
2. Press and hold the backlight key (located between MENU and TEST) as you turn the MultiMAX on to TRANSMIT.
3. Note that the STATUS LED blinks steadily and the LCD remains blank. This confirms the radio is in USB mode.
4. Make sure the PocketWizard Utility is running on your computer and no other PocketWizard radios are connected to it.
5. Connect your MultiMAX radio to your computer using a standard Mini-B USB cable and note that your MultiMAX radio appears in the PocketWizard Utility.
6. To update your radio, click "Check For Updates" in the Maintenance Tab. Most updates require a full factory reset (see the RESET section on Page 29 in your MultiMAX Owner's Manual). Be sure to write down any special settings like Contact Time, etc., before you update your radio.

Consider updating all the USB-enabled MultiMAX radios in your system to the same firmware. Older MultiMAX radios that do not have a USB port will continue to work as part of your MultiMAX system. The older non-USB radios cannot get the new features, but will still perform their original functions normally when paired with USB-enabled radios.

Special Note for CE MultiMAX Owners

The owner's manual included with your purchase refers to the US (344-354 MHz) model of the MultiMAX. The following adjustments or errata should be noted for proper operation of your CE (433 MHz) MultiMAX:

Page 18:

The CE MultiMAX is not compatible with the following products as these products were not produced on CE frequencies: 10 Channel Classic, 16 Channel Classic, PocketWizard MAX, and Calumet TurboFilter.

Page 49:

The CE MultiMAX cannot be powered by the ACC port.

Page 50:

The PocketWizard Radio Frequencies table refers to USA frequencies. CE units do not operate on these frequencies and are not compatible with PocketWizard radios on these frequencies.

CE PocketWizard Radio Frequencies:

Channel	Frequency	Unit	Digital Code
1 - 16	433.62 MHz	Plus or MultiMAX	16 Bit
17 - 32	434.22 MHz	MultiMAX Only	24 Bit (20 Bit in FAST MODE)

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This product is covered under a warranty. For more information on this warranty and to register your product, please go to www.PocketWizard.com/support.

US Patent: 5,359,375 and Patents Pending
LPF657 v1.0