PocketWizard® | Quick Guide

MAKE IT POSSIBLE™

Power**MC2** Receiver with Control**TL**® for **Einstein**™ **E640**

Please read this Quick Guide thoroughly before operating. Also, review the product manuals for your camera, flash systems, and other PocketWizard radios.

This PocketWizard radio runs on powerful software called ControlTL® - Control The Light. It can be configured for your specific needs using the PocketWizard Utility which can be downloaded at: www.PocketWizard.com/support/downloads

The PowerMC2 Receiver requires a transmitting PocketWizard radio and a compatible Einstein™ E640 Flash. A transmitting ControlTL radio like a MiniTT1® or FlexTT5® is required for full functionality.

The PowerMC2 requires no batteries. It is powered from the remote port of your Einstein™ E640 Flash.

UPDATE FIRMWARE: Be sure to upgrade all your PocketWizard ControlTL radios (including this one) to the latest firmware for proper functionality.

For PowerMC2 to function, Einstein™ E640 Flash must have firmware version 26 or later installed.

Power**MC2**

Status LED / TEST Button

USB Port

Connector Pins
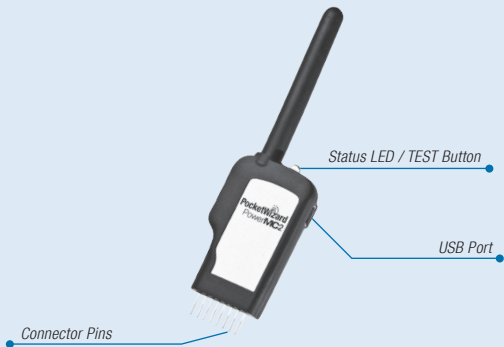
READ ME FIRST:

All equipment should be turned OFF when making connections or unwanted triggering or other erratic behavior may occur.

WARNING: To avoid electrical damage, never connect the PowerMC2 to a USB while it is installed in the Einstein™ E640 Flash. Always remove the radio module from the flash pack before connecting it to the USB.

The first exposure after making initial connections or powering on may not be properly exposed and flash power levels may not be set as expected. Always test at least twice.

All information in this Quick Guide is subject to change. Visit **www.PocketWizard.com/support** to find the latest flash and features compatibility, Quick Guides, and Owner's Manuals.

To use your PowerMC2:

1. Connect the PowerMC2 to your Einstein™ E640 Flash via the remote port, then power on the flash.

2. Select the Channel and Zone A, B, or C via the E640's LCD.

3. Set up your PocketWizard transmitter and take pictures normally.

4. Adjust the camera's Flash Exposure Compensation (FEC) to adjust the power of your remote flash. See the *Basic Power Control* section for more information about FEC.

Make sure all your radios are set to the same PocketWizard channel.

The Status LED blinks green every few seconds to indicate normal operation. It will blink red in sync with a trigger.

Momentarily pressing TEST will test trigger the flash.

Your PowerMC2 needs to be on the same channel as your transmitter. Channels can be set via the E640's built-in LCD. The PowerMC2 is capable of receiving on either ControlTL Channels for use with ControlTL radios like the MiniTT1 and FlexTT5 or Standard Channels for triggering with the PLUS II, MultiMAX, and Sekonic meters.

To set the channel, press the Einstein's™ FUNCTION button until the Channel selection box is highlighted and then change channels with the ADJUST buttons. Press the FUNCTION button again to specify a zone. When using ControlTL Channels or Standard Channels 17-32, you can specify zone A, B, or C.

Control**TL** ® & **PowerTracking**

ControlTL allows you to adjust your remote studio flash's output power directly from the camera position in three ways:

Basic Power Control - With just a ControlTL transmitter on your camera, use your camera's FEC to adjust remote flash output power. This is called *PowerTracking - Full Manual* and is the default when you are **not** using an AC3 ZoneController on your ControlTL transmitter. See the *Basic Power Control* section for more information.

Automatic PowerTracking - When engaged, any changes to aperture and ISO on your camera are automatically tracked by your remote flash output power to maintain the current exposure level. For example, if you open the aperture on your camera by one stop, then the power output level on your remote flash will decrease by one stop.

> **There are two ways to engage Automatic PowerTracking:**
>
> *No AC3 ZoneController on your ControlTL transmitter* - Set the PowerTracking mode in the PocketWizard Utility to a setting other than Full Manual for Automatic PowerTracking using just your camera's controls.
>
> *AC3 ZoneController Auto Mode* - Add an AC3 ZoneController set to A (Auto) on your ControlTL transmitter to adjust power output level independently for up to 3 zones of light in conjunction with Automatic PowerTracking.
>
> See those sections, as well as the PocketWizard Utility section, for more information.

AC3 ZoneController Manual Mode – With an AC3 ZoneController on your ControlTL transmitter, you can have simple and direct control over your flash output power. See the section on *Using an AC3 ZoneController* for more information.

Basic Power Control

With only a MiniTT1 or FlexTT5 on your camera, your camera's FEC (Flash Exposure Compensation) control will adjust your flash power output level for all your PowerMC2-connected flashes as shown in the table on the right.

Nikon: The camera's FEC or EC (Exposure Compensation) control will adjust flash power output level. The Nikon D3 series cameras do not have an FEC adjustment. You can use the EC adjustment on all Nikon cameras, including the D3 series, whenever a flash power output level adjustment is needed.

Canon: Both the camera's ISO and FEC controls will adjust flash power output level. Changes to FEC will adjust flash power output level as shown in the table on the right. Changes from the ISO used for your first picture will adjust flash output power level relative to FEC. For example, if your first picture was at ISO 200, and you adjusted ISO down to 100, your flash power level would be 1 stop brighter for all FEC settings.

This operation assumes PowerTracking is set to *Full Manual* in the PocketWizard Utility which is the default.

You can use any PocketWizard receiving radios together in the same exposure, including other ControlTL radios. Remember that studio and manual flash output will not be calculated as part of an E-TTL / i-TTL exposure.

Camera FEC/EC – or – AC3 Power Dial in Manual	Einstein™ E640 Power Output
+ 3	1/1
+ 2.7	1/2 + 0.6
+ 2.3	1/2 + 0.3
+ 2	1/2
+ 1.7	1/4 + 0.6
+ 1.3	1/4 + 0.3
+ 1	1/4
+ 0.7	1/8 + 0.6
+ 0.3	1/8 + 0.3
- 0	1/8
- 0.3	1/16 + 0.6
- 0.7	1/16 + 0.3
- 1	1/16
- 1.3	1/32 + 0.6
- 1.7	1/32 + 0.3
- 2	1/32
- 2.3	1/64 + 0.6
- 2.7	1/64 + 0.3
- 3	1/64

ControlTL® Center Point: The center point for all ControlTL operations, including Basic Power Control, PowerTracking, or when using an AC3 ZoneController, is 3 stops down from your flash's maximum. For example, in Basic Power Control this means 0 on your camera's FEC equals 1/8 on your flash and FEC +3 equals 1/1 (full power). This setting may be customized using the PocketWizard Utility under the PowerTracking tab.

Camera FEC Range and Basic Power Control: You can change the center point to better match your camera's FEC range by adjusting the *Flash Exposure Compensation* control in the PocketWizard Utility for each PowerMC2.

This setting must be configured on each receiving PowerMC2 radio.

Camera FEC Range	Maximum remote Einstein™ E640 power level available using default settings	Minimum remote Einstein™ E640 power level available using default settings	Set each PowerMC2 FEC so camera maximum FEC equals flash maximum output power	Set each PowerMC2 FEC so camera minimum FEC equals flash minimum output power
Canon +3 / -3	1/1 at FEC +3	1/64 at FEC -3	0	-2
Canon +2 / -2	1/2 at FEC +2	1/32 at FEC -2	+1	-3
Nikon +1 / -3	1/4 at FEC +1	1/64 at FEC -3	+2	-2

Using an AC3 ZoneController

An AC3 ZoneController on your transmitting ControlTL radio allows you to adjust the remote flash output power for up to 3 zones independently, in either Manual or Automatic modes.

Set the Zone on your PowerMC2-equipped Einstein™ E640 Flash to Zone A, B, or C as desired.

Manual Mode:

With an AC3 Zone Switch set to M (Manual), the AC3 Power Dial for that zone sets the absolute flash power output as shown in the table for Basic Power Control. Your camera's FEC/EC, ISO, and aperture controls will not affect the flash output power levels for AC3 zones set to M.

Automatic Mode:

With an AC3 Zone Switch set to A (Automatic), Automatic PowerTracking using *Center on ISO & Aperture with First Shot* is engaged. See the *Automatic PowerTracking* section for more information. The AC3 Power Dial for a zone sets the flash power output level for that zone relative to the ControlTL center point. Your camera's FEC control can be used to adjust flash output power level for all zones set to A (Auto).

Off:

With an AC3 Zone Switch set to Ø (Off), flashes in that zone will not trigger.

Automatic PowerTracking

When Automatic PowerTracking is engaged, any changes to aperture and ISO on your camera are automatically tracked by your remote flash output power to maintain the current exposure level. For example, if you open the aperture on your camera by one stop, then the power output level on your remote flash will decrease by one stop.

To engage Automatic PowerTracking when you are not using an AC3 ZoneController, set the PowerTracking mode to a setting other than *Full Manual*. This is done in the PocketWizard Utility for your transmitting ControlTL radio only. PowerTracking has several modes of operation available. See the *PocketWizard Utility* section on adjusting this setting via the PowerTracking Tab for more information.

The following directions are for the PowerTracking mode *Center on ISO & Aperture with First Shot*.

In this mode, the aperture and ISO as set on the camera for the first exposure will be aligned with the ControlTL center point (3 stops down from your flash's maximum output power). For example if your camera is set to ISO 100 and F:5.6 for its first exposure, then those exposure settings will yield a flash output power of 1/8. See the *ControlTL Center Point* section for more information.

To set the aperture and ISO values that will be aligned with the ControlTL center point:

1. Turn on your camera and transmitting MiniTT1 or FlexTT5, but wait to press your shutter button or take any pictures.

2. Set the aperture and ISO you wish to align with the center point. Set the shutter speed as desired, however changes to shutter speed will not affect PowerTracking.

3. Press the shutter button to take a picture. The center point is now aligned with your aperture and ISO settings.

4. Use your camera's FEC control to get the exposure the way you want it. If you are unable to achieve the exposure you want using this control, try adjusting the *Flash Exposure Compensation* control in the PocketWizard Utility for each PowerMC2, use a different aperture or ISO, or consider an AC3 ZoneController.

5. As you adjust your camera's ISO and aperture, flash power output will automatically track to maintain the current exposure level.

To change the values used for the center point, turn off your transmitter then turn it back on and follow these steps again. See the *PowerTracking Tab* in the PocketWizard Utility section below for more information.

IMPORTANT NOTE: Shooting in Shutter Priority/Tv, Program, Full Auto, or shooting quickly or making rapid exposure changes is not recommended. The flash values may change rapidly and your remote flash may not be able to keep up. Honor your flash's ready wait time or "dump" as necessary.

FEC NOTE: Flash Exposure Compensation (FEC) can be set in many places and all values are added together.

FEC can be set:

- On the Power Dials of the AC3 ZoneController
- On the camera for all zones except AC3 Manual zones
- For transmitting radios, the PocketWizard Utility can adjust the PowerTracking center point for ISO and aperture which affects all zones
- For a PowerMC2, the PocketWizard Utility can adjust FEC for the directly connected flash on the PowerTracking tab

If the combined FEC settings are more or less than your flash's capabilities, then the flash will operate at maximum or minimum output accordingly.

PocketWizard Utility

Some settings require the PocketWizard Utility software and your ControlTL radio connected to a computer via the Mini-USB port. Download the Utility at:
www.PocketWizard.com/support

WARNING: To avoid electrical damage, never connect the PowerMC2 to a USB while it is installed in the Einstein™ E640 Flash. Always remove the radio module from the flash pack before connecting it to the USB.

PowerMC2 Receiver Utility settings:

Exposure Tab

Flash Exposure Compensation (FEC): Offsets exposure for the connected flash only. This setting can be used as a simple FEC control for an individual flash, or it can be used to set flashes on the same zone to different power outputs or to balance them. This setting is cumulative with other FEC values set in the system. This control can also be used to adjust where the PowerTracking center point aligns with your camera's FEC control. See the *FEC NOTE* and *Camera FEC Range* section for more information. Default = *0.0*

Sleep Tab

Modeling Light Sleep: The modeling light will turn off after the set time if no triggers are received. Uncheck the box to have the modeling light stay on. Default = *Enabled at 600 seconds (10 minutes)*

Hibernate: When an Einstein™ E640 Flash is turned off, it's actually in STANDBY Mode and can be turned on remotely via a ControlTL radio. Uncheck the box to have the E640 never automatically power off.
Default = *Enabled at 60 minutes*

IMPORTANT: Make sure to press the *Set Configuration* button to save your settings.

FlexTT5 or MiniTT1 *Transmitter* settings that affect the use of a PowerMC2:

Modeling Tab

Modeling Light Control: Check this box to control modeling light behavior from the transmitter. Default = *Enabled*

Control Mode: Determines when the modeling light will go to its active setting. Set to *Camera Wake* to have the modeling light go active when the camera's shutter release is half-pressed. Set to *AF-Assist* to have the modeling light go active only when the camera requests auto-focus assist. Default = *Camera Wake*

Modeling Light Autotrack: Enable this control for the modeling light level to track with the camera exposure or AC3 Power Dial settings. Default = *Enabled*

Modeling Light Active XX%: Sets the active output level of the modeling light if Autotrack is not used. Default = *100%*

Modeling Light Sleep: Check this box to have the modeling light automatically go to a set output level after a set time. If this box is unchecked, the modeling light will never sleep. Default = *Enabled*

Modeling Light Sleep XX%: Sets the output level of the modeling light when it sleeps. Default = *10%*

Modeling Light Delay After Camera Sleeps: Sets the number of seconds after the camera sleeps (meters go inactive) when the modeling light will go to its sleep value. Default = *30 seconds*

PowerTracking Tab

PowerTracking Control: Adjusts how ControlTL-capable remote studio flashes, like flashes connected to a PowerMC2, respond to the AC3 ZoneController in Auto Mode, or to a ControlTL Transmitter with no AC3. See the *ControlTL & PowerTracking* section for information.

> **Full Manual (default):** Turns off PowerTracking for aperture and ISO. See the *Basic Power Control* section for more information.
>
> > **Nikon:** With no AC3 ZoneController on the transmitter, only the camera's FEC/EC control will adjust flash power output level.
> >
> > **Canon:** With no AC3 ZoneController on the transmitter, the camera's ISO and FEC controls will adjust flash power output level.
> >
> > With an AC3 ZoneController on the transmitter, any zones set to Auto Mode will operate as *Center on ISO & Aperture with First Shot* (see below) when this control is set to *Full Manual*. AC3 Manual Mode can be used to adjust flash output power manually with an AC3.
>
> **Center on ISO & Aperture with First Shot:** Aperture and ISO as set on the camera for the first exposure will be aligned with the ControlTL center point (3 stops down from your flash's maximum output power). For example if your camera is set to ISO 100 and F:5.6 for its first exposure, then those exposure settings will yield a flash output power of 1/8. Adjustments to aperture, ISO, and FEC will adjust flash output power accordingly, as will adjusting the Power Dial on AC3 zone in Auto Mode. See the *Automatic PowerTracking* section for more information.
>
> **Center on ISO & Aperture:** Lets you set the aperture and ISO that will be aligned with the ControlTL center point (3 stops down from your flash's maximum output power). Adjust the drop-down boxes for the Aperture Center-On and ISO Center-On values you want to use.

Center on Aperture Only: PowerTracking will only work with aperture changes. Set the desired aperture using the *Aperture Center-On* control. ISO changes will be ignored for PowerTracking for Nikon cameras, and FEC/ISO changes for Canon cameras.

Center on ISO Only: PowerTracking will only work with ISO changes for Nikon cameras and FEC/ISO changes for Canon cameras. Set the desired ISO using the *ISO Center-On* control. Aperture changes will be ignored for PowerTracking.

No Change (trigger only): Turns off PowerTracking and the Power Dials on the AC3 ZoneController will not adjust the power output of your remote flash. Use this setting if another photographer is controlling the flash's manual power output, like when sharing flashes with another photographer and you want to use the exact same manual flash output power.

For other PocketWizard Utility settings, refer to the documentation for the MiniTT1, FlexTT5, AC3 ZoneController, PowerST4 for Elinchrom, or other ControlTL radios or accessories.

PowerMC2 radio information (RECEIVE ONLY):
340.00 – 354.00 MHz, US FCC/IC
433.42 – 434.42 MHz, CE

IMPORTANT: US FCC / Canada frequency radios are NOT compatible with CE frequency radios or Japan frequency radios and vice versa. For more information on frequency, please go to:
www.PocketWizard.com/wheretobuy/frequency

Temperature
Operating Temperature: Above -15° C (5° F) and below 50° C (120° F)
Storage Temperature: Above -30° C (-22° F) and below 85° C (185° F)

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Warranty:

This PocketWizard product is covered under a two-year limited manufacturer's warranty. For warranty details, and to register your product, please go to **www.PocketWizard.com/support** or contact your local PocketWizard Distributor. Distributor contact information can also be found at **www.PocketWizard.com**. To receive a copy of the two-year limited manufacturer's warranty on this PocketWizard product, e-mail us at **warranty@lpadesign.com** or write to us at LPA Design, Inc., 21 Gregory Drive, Suite 140, South Burlington, VT 05403, United States of America, Attn: Warranty.

For more information on this product, including detailed features, specifications, etc., go to **www.PocketWizard.com**.

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