PocketWizard®

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Owner's Manual: Addendum v4.300

MiniTT1™/FlexTT5™ for Canon

340.00 - 354.00 MHz, US FCC/Canada IC

MiniTT1 Firmware Upgrade to version 4.300
FlexTT5 Firmware Upgrade to version 4.300

All MiniTT1 and FlexTT5 owners are encouraged to upgrade and try this new firmware. Check www.PocketWizard.com regularly for future updates.

This new version of the ControlTL firmware introduces many improvements, especially to 5D Mark II operation, as well as corrections and improvements for other camera models. While greatly improved, operation with the 5D Mark II is still not 100%. Notably, operation with wide aperture lenses like the f:2.5 or wider series have some limitations regarding the narrowest aperture that can be used especially when there is a flash used on camera. See below for more details on this specific case.

IMPORTANT:

- This firmware version requires PocketWizard Utility version 1.18 or later to be installed. If you are still running version 1.15, click here to get the latest version. Find the version number in the title bar of the Utility.
- Upgrade all of your MiniTT1 or FlexTT5 radios to the latest firmware. Mixing old and new revisions may result in undesirable behavior.
- Always perform a factory reset after updating your firmware. Be sure to write down any custom settings for Configuration 1 or Configuration 2 before you reset your radios so you can re-apply them after the upgrade. See RESET B on page 28 in the Owner's Manual or simply hold TEST as you power on for 10 seconds until you see 4 blinks (green).

New Features

Camera model "Auto" setting now detects 5D Mark II

The 5D Mark II now gets the benefit of automatic detection when the MiniTT1 or FlexTT5 are used on top of the camera. Previously this camera model had to be selected in the PocketWizard Utility on the Misc Tab for proper timings to be used. Now, due to the unique signature this camera presents to the ControlTL system, the default setting of Auto can be used. Photographers that previously had to craft C.1 or C.2 settings precisely for the 5D Mark II now have more flexibility.

Additionally, the uniqueness of the 5D Mark II detection allows for the ControlTL radios to automatically use the higher efficiency High Speed Sync (HSS) flash timings. As announced in firmware version 4.250, these new timings allow for faster recycling, more flashes from your batteries, more light output, and greater working distances than possible when using Canon's E-TTL system alone. These special timings are available for all compatible Canon EOS DSLRs, but only the 5D Mark II gets the benefit of these timings automatically. To get the benefit of these higher HSS efficiencies with all other cameras, you must select your camera model on the Misc Tab in the PocketWizard Utility.

See the Additional Notes: New "Auto" behavior below for more information on "Auto."

Canon 270EX compatibility

This new Canon flash can be used as follows:

270EX: Can be used on the MiniTT1 or FlexTT5 (transmitter or receiver) in ETTL mode.

To use this flash on a ControlTL radio mounted on a camera at HSS shutter speeds, you first need to enable HSS mode in the flash. Mount the 270EX directly on a camera (no radio in-between) and enable HSS mode via the camera's menus. Once that mode is enabled, the flash will work properly at HSS shutter speeds when mounted on a MiniTT1 or FlexTT5 when used as a transmitter. HSS operation is automatic (no need to set it) when used on a FlexTT5 as a receiver.

This flash may have occasional exposure issues when used on a MiniTT1 or FlexTT5 mounted directly on certain cameras like the 5D Mark II, 40D, 20D, and possibly others.

ADDITIONAL NOTES:

New "Auto" behavior: Calibration shot no longer triggers local flashes, specifically selected cameras get calibration shots

When the MiniTT1 or FlexTT5 have their camera model set to "Auto" on the Misc Tab in the PocketWizard Utility (default behavior), the first exposure taken after the on-camera radio is powered on is a calibration shot – the radio measures the camera's pre-sync to X-sync delay. A flash in the top shoe of the camera's radio will not be fired during this first shot. Previously, flashes were fired during this shot but since the calibration process often yields an unusable image, this was deemed a waste of flash battery power. The new behavior saves flash battery power by not triggering the flash on top during the calibration shot. Remote flashes on FlexTT5 radios will still trigger during this calibration shot. You can avoid this by turning on the remote FlexTT5 radios after you perform your calibration shot.

Additionally, when a camera is specifically selected on the Misc Tab in the Utility, the radio still performs a calibration validation measurement on the first shot. Even if you select your camera, the first shot will not trigger a flash in the top shoe of the camera connected radio. This first shot is used to validate that your camera responded in an appropriate time frame to make sure new HSS timings can be used. If it does respond properly, you get the benefits of the new HSS timings. If it does not, then the radio uses Auto mode and default HSS timings.

To get your camera to respond properly, and get the most benefit out of "Auto" or a selected camera, take a few shots with it before connecting your ControlTL radio. These few shots are especially helpful if the camera has just come from a temperature extreme (hot from a sunny car trunk, or cold from a plane's cargo hold) or to lubricate the shutter a few times after having been off for a while.

Always trigger at least twice after you turn on your on-camera radio to verify exposure!

NOTE: For all cameras, the shutter speed needs to be set to 1/4000 or slower for the first trigger after a ControlTL transmitter is powered on. Calibration measurements cannot be performed at faster shutter speeds.

New Default: Force TTL Master Mode

"Force TTL Master Mode" is now enabled by default. Previously we emulated Canon's system such that <MASTER> mode must be engaged on the flash on-camera for remote flashes to trigger. This is Canon's method for controlling the remote flashes from the camera position – toggling <MASTER> on and off toggles the remote flashes on and off. This operation was not intuitive to

many photographers and generated many questions, so we now engage our ControlTL feature of “Force TTL Master Mode” by default.

The on-camera flash now appears to the camera to be in <MASTER> mode all the time. All remote PocketWizard radios on the same channel will trigger.

This mode enables the use of a 430EX or 430EX II in the shoe of a ControlTL transmitter as a master to trigger remote flashes. The transmitter tells the camera that <MASTER> mode is active even though that mode is not available or set in the flash. This also benefits the 580EX (I and II) as they will emit fewer communication flashes. This reduces the “flickering pre-flash” that bothers some subjects. All flash controls remain active.
If you wish to retain the ability to toggle on and off your remote flashes using the <MASTER> control on your 580EX or 580EX II, you will need to uncheck “Force TTL Master Mode” in the Utility on the Misc Tab (alternate method: set your on-camera radio to an unused channel, like C.2, to have only the local flash fire and not the remotes – make sure the C.2 channel is not in use by another photographer). You only need to change this setting for a radio used as a transmitter on a camera - FlexTT5 radios used for triggering a remote flash do not need this setting changed.

When “Force TTL Master Mode” is engaged, toggling <MASTER> on the flash will not toggle on and off remote flashes. When you perform a factory reset after firmware upgrade, this mode will be engaged by default.

FlexTT5 Transmitter Only Mode

This mode has been greatly improved and is recommended when using a FlexTT5 as a transmitter on the camera. Without this mode enabled, other photographers could trigger your on-camera flash.

Bug Fixes:

- Occasionally, the camera’s shutter speed would get stuck at X-sync if TEST was pressed and held for a long time (like when triggering a remote motor driven camera). This has been corrected.

- The ST-E2 on top of a MiniTT1 on top of a 5D Mark II, 1D Mark III, and possibly other cameras, would lose its settings when coming out of sleep mode. This has been improved. Interesting to note, this behavior happened on a 5D Mark II with an ST-E2 directly in its shoe (no radios involved). This firmware corrects that behavior.

- Distance info on 580EX II not updating sometimes. This operation has been improved, but may still exhibit inconsistent behavior. Recommended workaround is to set the flash on the camera’s radio to never sleep (disable Auto Power Off using the correct custom function).

- FlexTT5 as a transmitter on a 1D Mark III had inconsistent performance when adjusting ratios using a flash on top of the Flex. This has been corrected.

- 5D Mark II performance with large aperture lenses improved. On wider lenses like the 50mm f/1.4 or 85mm f/1.2 there are still narrower aperture settings that result in shutter clipping. This edited text from the 4.250 Addendum still applies:

    - Due to special trigger timing considerations for this camera, some lenses will experience frame clipping (hard lines or dark frames caused by the shutter getting “caught” by the flash) at mid to narrower aperture settings. Larger maximum aperture lenses like f/1.4 or f/1.2 models are most affected and may start to see flash clipping as early as f/5.6. Lenses with a widest aperture of f/3.5 to f/5.6 may not experience clipping at all. If there is no flash on top of the ControlTL transmitter in the shoe of the 5D Mark II, results will be better. This aperture issue does not affect any other camera we have tested. Please test each of your lenses across the full range of f-stops to be sure you understand the limitations.

(more)

* = All apertures available for use ? = untested (data from beta field reports)

EF Lens	Narrowest Aperture No Speedlite on camera's radio	Narrowest Aperture Speedlite on camera's radio	Narrowest Aperture, No Speedlite on camera's radio HSS shutter speeds	Narrowest Aperture Speedlite on camera's radio HSS shutter speeds
EF 50mm f/1.4	f/22*	f/8	f/8	f/7.1
EF 50mm f/2.5 Macro	f/32*	f/14	f/14	f/14
EF 70-300mm f/4-5.6 IS USM	f/32*	f/32*	f/25	f/25
EF 24-70mm f/2.8 L USM	f/22*	f/14	f/13	f/10
EF 24-105mm f/4 L IS USM	f/22*	f/22*	f/22*	f/22*
EF 28-135mm f/3.5-1.6 IS	f/22*	f/22*	f/22*	f/22*
EF 85mm f/1.8 USM	f/22*	?	?	?
EF 16-35mm f/2.8 L (II?) USM	f/22*	?	?	?
EF 135mm f/2 L USM	f/29	?	?	?
EF 70-200mm f/4L USM	f/32*	?	?	?

NOTE: Any Speedlite, including the ST-E2, in any mode when on the camera's radio can cause this behavior. A fully manual flash, but not a Speedlite even in manual mode, can work. 3rd party E-TTL II compatible flashes have not been tested and may produce undesirable behavior.

- FEC control from the flash is now implemented for the FlexTT5 when used as a transmitter.
- FEL and FEC operation on a 5D Mark II when using a FlexTT5 on the camera has been improved.
- AF-Assist operation greatly improved in several scenarios including on specific cameras like the 5D Mark II and when using the FlexTT5 as a transmitter on the camera. Also corrected a situation where AF-Assist would stay on during the exposure and be visible in the image.
- A situation where flash recharge/recycle would be delayed has been corrected.

- Continuous triggering of a remote FlexTT5, like used for a continuous motor drive burst for a remote camera, was not work ing in Basic Trigger Mode. Also Basic Trigger Mode, when set on a FlexTT5, would only send a single trigger when TEST was held. This would affect both remote camera triggering and teaching a radio a new channel. This has been corrected.

- Operation with a 5D Mark II using Master Ratio Mode with a flash or ST-E2 on top has been improved.

- Errors with top shoe flash communication after camera wakeup when using a 5D Mark II have been corrected.

- Basic Trigger Mode now triggers a flash in the top shoe (and P2 for a FlexTT5) when on a camera.

- Fixed a Learn Mode bug in Basic Trigger Mode. If learn mode was engaged during Basic Trigger Mode, but no channel was actually learned, the radio would stop transmitting the previously known channel. This has been corrected.

- 5D Mark II operation with an HSS enabled flash on the radio on the camera has been fixed.

Not included in this release:

- If TEST is pressed on a FlexTT5 in the shoe of a camera, the radio will not allow a Standard trigger from the camera until the STATUS LED blinks twice. This will be corrected in a future release.
- If TEST is pressed on a relay FlexTT5 (in the shoe of camera with motor drive cable attached to P1) while in Basic Trigger Mode, the camera gets locked into a continuous trigger. Workaround = test the relay setup using a transmitting PW instead of pressing TEST on the relay radio. Should be corrected in a future release.
- G9 and G10 operation no longer supported. A future release may reverse this situation.
- On a Rebel XSi, infrequently the camera will revert to 1/200 and then be unable to adjust the shutter speed higher.
- On a 20D there may be a slight delay of the local flash trigger at HSS shutter speeds.
- On a 5D (not the Mark II) with a 580EX II in the top shoe of a ControlTL radio at fastest HSS shutter speeds, a slight banding can occur at the bottom of the frame. A possible workaround is to use Force TTL Master Mode or use slower shutter speeds.
- On a 5D Mark II, and possibly other cameras, a low power test flash can very rarely occur when pressing other camera buttons like FEC.
- Remote camera pre-trigger toggle via a MultiMAX on a Standard channel is not implemented at this time.
- Features not expressly covered like Rear Curtain Sync, FEB, stroboscopic, remote DOFP and modeling mode, and adjusting flash settings or custom functions via the camera's menu controls are not yet implemented.
- Other manufacturer's flashes like Quantum, Metz, Sunpak, etc. compatibility is not confirmed.
- Custom IDs not yet available.