December 29, 2009

Owner's Manual: Addendum 5.0
MiniTT1™/ FlexTT5™ for Canon

MiniTT1 Firmware Upgrade to version 5.000
FlexTT5 Firmware Upgrade to version 5.000
PocketWizard Utility Upgrade to version 1.18.9
340.00 - 354.00 MHz, FCC/IC
433.42 - 434.42 MHz, CE

Overview

ControlTL™ Firmware Version 5.0 is the most advanced firmware for the MiniTT1 Transmitter and FlexTT5 Transceiver. This newest ControlTL firmware incorporates several new features, many performance improvements and some new camera and flash compatibility. This firmware has been tested via the PocketWizard Beta Lab.

Current MiniTT1 Transmitter and FlexTT5 Transciever owners can upgrade to the new firmware for free via the PocketWizard Utility. Current users will need to upgrade their PocketWizard Utility to version 1.18.9, which is also on the downloads page. Please see a list of changes to the new Utility at the end of this document.

When upgrading your radios, be sure to upgrade all MiniTT1's and FlexTT5's to v5.0. Radios will only operate as expected when all units are using the latest firmware.

Compatibility

Added Canon 7D compatibility. Like the 5D Mark II and other cameras, adjusting Speedlites via the in-camera menu is not supported.

Added Metz 58 AF-1 Canon (firmware v3.0) and Metz 48 AF-1 Canon (firmware v2.0) compatibility. These flashes now work with the ControlTL system.

Key New Features

Automatic Camera Detection:

Camera model detection is now truly automatic. This feature obsoletes the need to select your camera model via the PocketWizard Utility. This gives you optimized High Speed Sync straight out of the box. On the Misc Tab, leave your camera model set to Auto (default) to use this feature. If you select your camera model, you will get the exact same features as with Auto, but you will not be able to switch your MiniTT1 or FlexTT5 radio to another camera model without first selecting it in the Utility. Always turn OFF your radio when switching cameras even if they are the same model.

Optimized HSS Crossover Auto Detect:

We changed the optimized HSS crossover point to automatically detect based on camera type. This allows the 5D and the 5D Mark II to sync at all shutter speeds with Canon Speedlites right out of the box without needing to use the PocketWizard Utility.

"High Speed Sync (FP Flash Sync) Begins At" will automatically be set to 1/320 for the 5D and 5D Mark II, and 1/400 for all other camera models. This feature is automatically engaged by default, or can be set by selecting "Auto" for "High Speed Sync (FP Flash Sync) Begins At" in the PocketWizard Utility. Selecting a different HSS crossover point overrides the auto setting.

Rear Curtain Sync:

We've added Rear Curtain Sync capabilities with the ability for you to set the shutter speed at which rear curtain sync is engaged. The default setting is set at 1/100 second so any time you are at that shutter speed or slower, rear curtain sync will be engaged. You can adjust this setting (or turn it off) in the PocketWizard Utility under the "Sync Timing" tab.

We found in testing that the Canon system rear curtain sync timing is actually not at the precise end of the shutter opening, but actually slightly before (Fig 1). We have been able to improve on this timing to put the flash at the very end of the exposure (Fig 2).

Fig 1: Rear Curtain Sync using Canon's technology.
Note: streak below golf ball. Camera: 7D; Shutter Speed: 1/10th;
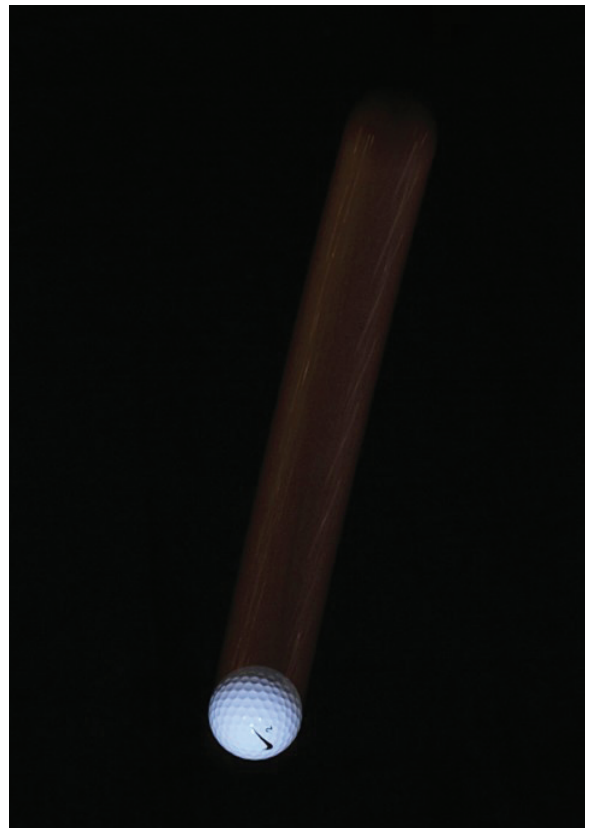Aperture: f/5.6; Lens: EF 50mm f/2.5 Macro

Fig 2: Rear Curtain Sync using PocketWizard's technology.
Camera: 7D; Shutter Speed: 1/10th; Aperture: f/5.6;
Lens: EF 50mm f/2.5 Macro

You do not need to set anything on your flashes including Canon's own Second-Curtain Sync button. Toggling the setting on the flash will not change the setting in the radio.

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Pre-Flash Boost Mode:

In certain E-TTL situations, especially when shooting in full sun or over long distances, the normal pre-flash is simply not enough for the camera to see. Now, when Pre-Flash Boost is engaged, you get a pre-flash that is two stops brighter. This will approximately double the distance that the camera can make sense of the pre-flash E-TTL information or help compensate for the reduced output caused by a diffuser over the flash or a bounced flash.

Pre-Flash Boost can be engaged for your on-camera flash by simply angling the flash head in any direction other than the standard 90º position.

Pre-Flash Boost is engaged on a remote FlexTT5 by default, regardless of flash head position.

The PocketWizard Utility allows you to set Pre-Flash Boost modes independently for a local/on-camera flash or a remote flash. This is done on the Flash Tab.

"Local Preflash Boost Mode" is for a flash mounted on the MiniTT1 or FlexTT5 when it is used as a transmitter on the camera.

"Remote Preflash Boost Mode" is for a flash mounted on the FlexTT5 when used as a remote receiver. Setting this mode on a FlexTT5 used as a transmitter will not engage Pre-Flash Boost for other FlexTT5 radios used as remote receivers. It must be set on each remote FlexTT5 individually.

- "Force Preflash Boost" turns Pre-Flash Boosts on full-time (helpful when using diffusers). This is the default setting for a remote FlexTT5.

- "Auto Preflash Boost" enables Pre-Flash Boost whenever the flash head is rotated in any direction other than the standard 90º position. In the standard 90º flash head position, Pre-Flash Boost will not be used. This is the default setting for a MiniTT1 or FlexTT5 used as a transmitter.

- "Disable Preflash Boost" turns Pre-Flash Boost off.

Pre-Flash Boost is compatible with the following Speedlites only: 580EX, 580EX II, 430EX, 430EX II, 270EX

Pre-Flash Boost is not compatible with the following Speedlites and will be automatically disabled: 220EX, 550EX, 420EX

It is also not compatible with the Metz 58 AF-1 or 48 AF-1 Canon. When using these flashes you must manually set both Pre-Flash Boost modes to "Disable Preflash Boost" in the Utility.

Other New Features

- FEC (Flash Exposure Compensation) can now be set directly on a Speedlite in the shoe of a remote FlexTT5.

- Continuous triggering added for bottom shoe input when in Basic Trigger Mode. This allows you to trigger a remote camera for a continuous motor drive burst. Connect a footswitch or other button via the transmitting MiniTT1 or FlexTT5 radio's hot shoe to use this mode.

- Test button on FlexTT5 Transmitter starts local relay sequence on camera motor drive allowing you to easily test your relay set-up.

- Depth of Field preview remote activation added. When you press the DOF preview button on your camera, your remote flashes will activate their DOF preview mode normally.

- Remote camera pre-trigger/wakeup control from a MultiMAX Transceiver – This allows you to remotely wake-up or sleep your remote camera when it's connected to a FlexTT5 by simply toggling its Zone on a transmitting MultiMAX. Requires an -ACC motor drive cable. Works in Basic Trigger Mode or when receiving on a Quad-Triggering Standard Channel (un-check "Use ControlTL for Rx Channel" on the Channel tab). Not available on ControlTL channels.

Bug Fixes / Refinements

- Force Master Mode with a 430EX II has been improved on the Rebel XSi, and possibly other cameras, when triggering a MiniTT1. Corrects an issue where a full power flash (blowout) would occur on occasion.

- Remote Wireless Manual Power Control will now permit maximum output power on all flashes when used in X-Sync mode (HSS mode was not an issue).

- Corrected a situation where pressing TEST on a FlexTT5 made it so you could not trigger for 2 or 3 seconds, but only on a Standard Channel.

- Flash Exposure Lock (FEL) with 5D Mark II has been improved. Corrected a situation where pressing FEL would cause a remote flash to trigger and/or blowouts would occur.

- Improved continuous remote camera triggering operation for the following scenario: FlexTT5 connected to a camera's motor drive port with an -ACC cable and set to a Standard channel and Bottom Shoe Disable mode turned on.

- Improved 50D performance by eliminating an issue with blowouts occurring with on-camera flash set to Master Mode or when using Force TTL Master Mode.

- Corrected 420EX flash periodic random exposure blowouts when used as remote flash on a FlexTT5.

- Improved battery monitoring for MiniTT1 Transmitter.

- Power management changes to reduce risk of battery leakage on FlexTT5 when used with alkaline batteries. The MiniTT1 coin cell is less likely to leak based on its chemistry.

- Corrected 1D Mark III with on-camera flash which had periodic blowouts if put in 10 fps high speed drive mode.

- Corrected a relay mode lock-up issue (camera would trigger continuously) which occurred when TEST was pressed on the remote FlexTT5 in Basic Trigger Mode.

- Corrected possibility of random blowouts if pre-flash RF command was missed by FlexTT5.

- Fixed problems with Bottom Shoe Disable mode where bottom shoe was still responding to shoe data which could cause a remote camera to not trigger.

- Corrected issue where Canon 1D Mark II or 1D Mark IIn would not trigger from CM-N3-ACC cord.

- Corrected issue where 430EX II would appear to switch out of SLAVE mode automatically as the FlexTT5 was turned on, but did not do so properly and would then not trigger correctly. Switching out of SLAVE mode is the correct behavior as Canon SLAVE mode is not used for remote ControlTL flashes.

- With previous versions of the firmware, using a 5D Mark II with fast aperture lenses imposed a limitation on the narrowest aperture you could use. This issue has been eliminated completely and all apertures should be available with this camera, regardless of the lens used.

- The issue regarding white balance color shifting occasionally at HSS shutter speeds when using a FlexTT5 as a Transmitter on a camera has been fixed.

PocketWizard Utility 1.18.9

New Features:

- Added Beta functionality: the public Beta Lab will be used to post beta versions of firmware for PocketWizard radios. Users will be able to download the beta vesion from the beta lab and provide feedback before we release new firmware to the public.

- Added a Settings button to allow control of automatic downloads and provide access to Beta Lab.

- Made downloads faster for multiple units (download once, update many). Also added a "Download All" feature.

- Added a Device Inventory feature under the Settings button.

- Added Mac Snow Leopard compatibility.

Bug Fixes / Refinements:

- Corrected an issue where buttons were "graying out" making the Utility unusable. This was done by improving the FTP operation.

Additional Notes:

- You will notice new features in the PocketWizard Utility which have been added as part of a future direction for ControlTL features. The Modeling and Exposure Tabs and some items on the Flash Tab do not apply to your MiniTT1 or FlexTT5 ControlTL radios.

- The PocketWizard Utility Help files are currently being re-written to sync with current product features and updates. New Help files will be availalble for download in the near future.

  All information on how to access the new features of ControlTL firmware 5.0 via the PocketWizard Utility have been communicated in this and previous documents.