

FCC tested to comply with FCC standards

CANADA :
FCC ID: CEXQFTRIO
Qflash Trio

This device complies with Part 15 of the FCC Rules and with RSS-210 of Industry & Science Canada. Operation is subject to the following conditions: 1) this device may not cause harmful interference, and 2) this device must accept any interference received including that which may cause undesired operation of the device

IMPORTANT – CAUTION

Changes or modifications to this equipment could void your authority to use this product under the equipment authorization granted by the regulating agencies

CE 0678 ⚠

Declaration of Conformity: Quantum Instruments, Inc. declares that **Qflash Trio** satisfies all the technical regulations applicable to the product within the scope of Council Directive 1999/e/EC.



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**Quantum[®] Qflash[®] "Trio" shoe mount
Digital Flash**

Operating Instructions

QUANTUM Q[®]

Designed and manufactured in the USA

Rev Date 3.06.08

Flash Display Symbols

The top portion of the display contains information relating to the status of the internal radio, and the options that are set on the flash.

See Section 8 for setting the radio and Section 9 for setting the options.


Note : in some modes the radio mode will be set automatically.

CH – Channel setting of internal radio, 0 through 7

Tx / Rx – Radio set as Transmitter (Tx) for SYNC / LINK / QTTL or Receiver (Rx) for RX


1234 – zones that are turned on. If a zone is off it will be replaced by a "-"

 Speaker ON

 Reflector type N – normal, D – diffusor / wide angle dome / soft box,
B – bare bulb reflector, T – telephoto

 Flash LED indicators ON

 Flash ready

 Flash compensation set

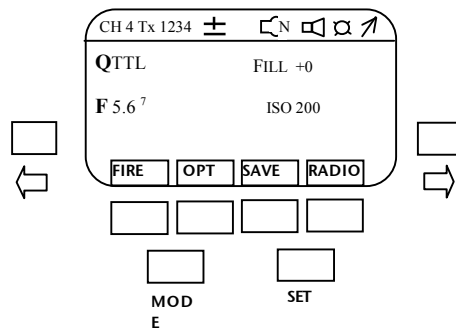


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1. INTRODUCTION

Quantum's "Trio" series flash integrates camera dedication, Qflash quality light, and Quantum's Free X Wire radio technology into a single shoe mount flash.

The Trio is compatible with Qflash series 5d-R and 3d-R, and Free X Wire models FW10w, FW7Q, FW8R, FW9T.

Many features of the Trio will enhance your lighting control when used with Qflash5d-R and Free X Wire FW10w, FW7Q, FW8R

While powerful and extremely versatile, the operation of the Trio is intuitive and straightforward. Many of the wireless modes will set the Radio to Transmit (Tx) or Receive (Rx) automatically. We encourage you to start pushing buttons and explore the operation of the Trio.

Older Qflash models can be upgraded to work with the new Trio. See www.qtm.com for costs for these upgrades.

2. WARNINGS

Disconnect external power before changing the flash tube, connecting or disconnecting to/from cameras, power packs, or any other equipment.

Operate only with a flash tube in the socket

Do not touch the flash tube socket with metal objects

This is a professional instrument. Keep away from children

Do not attempt to open the flash unit! dangerous high voltage inside

3. Advanced Features Summary

The chart below summarizes the advanced features for various Qflash series. A "U" means the Qflash model will have this feature when upgraded to series 5d-R. An "F" means this feature is available in the model shown. An "N" means the feature is not available. Visit qtm.com for upgrade procedures and costs.

Feature	Qflash Models			
	<u>QF4d</u>	<u>QF5d</u>	<u>QF5d-R</u>	<u>Trio</u>
Wireless Control in Nikon/Canon systems with Qnexus	U	U	F	N
Wireless multiple <i>ratio</i> TTL (QF5d-R requires Dw-R Adapters & FreeXWire)	U	U	F	F
Wireless preflash TTL with digital cameras (QFlash requires Dw/ Dw-R Adapters and FreeXWire)	U	U	F	F
Wireless remote Auto / Auto Fill mode	U	F	F	F
Zone control of FW7Q from panel of Qflash	U	F	F	N
Flash ready indication in camera viewfinder	F	F	F	F
Shutter speed control (camera detects flash and sets shutter)	F	F	F	F
Rear Curtain Sync	F	F	F	F
High speed sync	N	N	N	F
Auto focus assist	F	F	F	F
Auto Fill ratio	F	F	F	F

4. Getting Started

4.1 Restoring Factory settings

You can restore the factory settings by the following method:

1. Turn Turbo OFF, connect Trio to Turbo.
2. Press and hold any button
3. Turn Turbo ON.
4. The Qflash will display a reset message and some soft key options

RESET ALL - will restore all the factory settings.

KEEP P1 P8 - will keep your stored Program modes, but reset everything else to factory settings.

EXIT – will exit the reset menu without changes

4.1 Inserting the Flash Tube

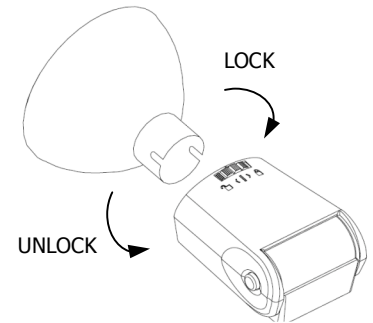
Match the red dot on the base of the flash tube with the red dot in the socket of Qflash. Push the flash tube in until it is seated snugly into the socket. **Excessive force is not required.**

Replace the flash tube only with Quantum type QF30 or QF30uv for Qflash model T5d / T5d-R. Qflash model X5d / X5d-R requires QF32 or QF32uv flash tubes. Other flash tubes will not provide proper exposure, may not work at all, or they may damage the Qflash.

4.2 Reflectors and Bare Bulb

Reflectors are secured by the locking ring near the base of the reflector. Rotate the ring in the directions shown in the diagram to loosen or tighten the reflectors.

When inserting a reflector, first slowly rotate it until the notch in the reflector “drops” fully into head of the Qflash. Then tighten the locking ring. If you do not let the reflector drop fully into the Qflash before locking it, the reflector may become loose during use.

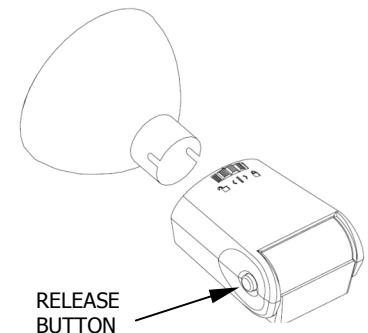


The “normal” QF60 reflector is supplied with Qflash 5d-R. Other reflectors are available as options from your dealer.

Reflector	Approx. Angle	Guide No. for ISO 200		
		QFT5d-R	QFX5d-R	
			200 Ws	400 Ws
Normal QF60	55	226ft / 72m	226ft / 72m	320ft / 100m
QF60 w/flat diffuser	70	128ft / 40m	128ft / 40m	180ft / 56m
QF67A Dome diffuser	90	128ft / 40m	128ft / 40m	180ft / 56m
QF 68 Soft Box				
QF69 Mini Soft Box				
QF62Bs/g Bare Bulb Reflector	120	90ft / 28m	90ft / 28m	128ft / 40m
QF63B Tele Reflector	20	453ft / 143m	453ft / 143m	640ft / 202m

4.3 Bounce and Swivel Head

The head position is locked and can be changed with a single button (see diagram). Press and hold this button, then adjust the head to the desired position. Release the button, and slightly move the head until it “clicks” and locks the head into the vertical and horizontal planes.



4.4 Connecting Trio to a Camera

Loosen Shoe lock until metal “foot” protrude
Slide Trio into camera hot shoe.
Tighten shoe lock wheel.

4.5 Powering Qflash

Before turning on any power to Qflash always make all electrical connections first, both to the camera and to the power pack.

The Trio is powered by any Quantum Turbo Battery including Turbo 2x2, Turbo Compact, Turbo SC, Turbo AC and Turbo Z.

Plug the Trio power cable into the flash, then into the output connection of the power pack.

If a "Check Turbo" message appears on the Trio display, turn off the Turbo, wait one second, and turn it on again. If the message appears again, the power pack needs recharging.

Very Important Tips

For consistent exposures with your digital camera and Trio.

- **Always do a custom white balance before shooting**
- **When shooting TTL use Aperture or Shutter priority or Manual camera modes (P mode gives inconsistent exposures)**
- **Set your metering area to center weight, partial metering instead of matrix or multi-spot metering.**
- **Your Trio provides 90 watt-seconds of power compared to 50 watt-seconds of a typical shoe mount flash. When shooting 6 ft. (2m) or closer, at ISO 200 or greater, with a wide open F/#, you must always diffuse the light. Otherwise your subject will be over-exposed.**

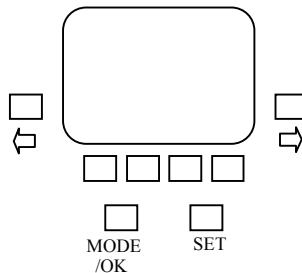
5. Basic Navigation

This Section explains how to maneuver your way around the Trio

The **Left ←** and **Right →** buttons have two functions.

1. When a selection or setting is highlighted on the display the **Left ←** and **Right →** buttons will change that selection or setting. For example if the F/number is highlighted then the **Left ←** and **Right →** buttons will adjust the F/number up or down.

2. If there is nothing highlighted on the display the **Left ←** and **Right →** buttons will change the function of the soft keys located under the display.



The **Mode** button allows you to change the mode of the Trio. Pushing it will bring up the mode change menu.

See Section 7 Choosing the right mode

There are four soft keys located at the bottom of the display. These soft keys will change function based on flash mode or user operation.

The **Set** button will highlight the settings on the display. Each time you press the Set button it will cycle through the available settings.

6. Soft keys

There are four soft keys located under the display. The function of these soft keys will change based on user operation. In some modes you can assign these soft keys to certain functions.

6.1 Soft key functions

6.1.1 Default assignment available for all Trio modes
(DEFAULT)

FIRE – Test fire the Trio, and any remotes if the radio is turned on

OPT – Enter the options screen to change, speaker, indicator lights, reflector, etc. See section xx.x

SAVE – Save this set up as one of the eight programs in PRGM MODE (Program Mode). See section xx.x

RADIO – Enter radio set up menu to turn radio on/off, change zones and channels See section xx.x

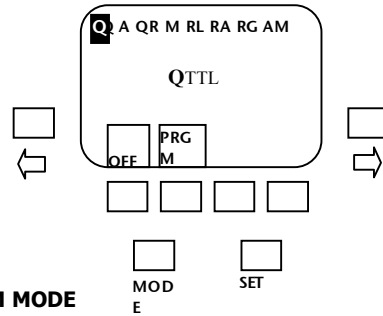
6.1.2 Sensor limit available for all Auto modes
(SENSOR LIMIT)

6.1.3 Radio Zones for all Trio modes when the radio is on,
(RADIO ZONES)
except for QTTL ratio and Advanced Multi modes. In these modes all zones default to ON.

6.1.4 Quick turn off used in QTTL ratio and Advanced Multi
only
(QUICK TURN OFF)

7. Choosing the right mode

To select a mode, press the **MODE/OK** button. The available modes will appear across the top of the display, with the current mode highlighted. The full name of the current mode will also appear in the center of the display. Use the **Left ←** and **Right →** arrow buttons to select the mode. Then press the **MODE/OK** or **SET** buttons to select the mode and exit.



There are two soft keys in this menu, **OFF** and **PRGM MODE**

OFF – This will prevent the flash from firing. Use this if you want to turn off the light from the on camera flash, but still want any remotes you are using to fire when the shutter is pressed.

PRGM MODE - Pressing this button will bring you into the program mode. In the program mode you can store up to eight of your favorite settings. You can easily jump between any of these eight settings for quick lighting set ups.

Below is a description of each mode and it's operation. This will aid you in choosing the mode that is best for the desired lighting .

7.1 Q QTTL

QTTL mode uses the exposure system built into the camera. You may offset exposure by 2 stops above or 3 stops below camera setting.

Use this mode if you want the camera to control the exposure

Radio: Can be set to send a SYNC signal to fire remote flashes. Each remote flash controls it's own exposure.

Or it can be set to send a QTTL signal to remote Qflashes.

Positives : Simplest of all the QTTL mode while still being able to fire and/or control remote flashes, such as power packs used for room lights

Negatives : Not possible to ratio remote flash exposures. Remotes will be the same exposure as the local flash.

7.2 A Automatic

Light output is controlled by the sensor located on the front of the flash.

When flash is placed on a camera F number and ISO information are sent to the flash from the camera. As the F number and ISO are changed on the camera this flash will follow.

Use this mode if you want the sensor to control the exposure

Radio: Can be set to send a SYNC signal to fire remote flashes. Each remote flash controls it's own exposure.

Or it can be set to send a LINK signal to both fire and control the exposure of remote Qflashes.

Positives : Fast response for action shots. No pre flash required. Exposure easily checked with flash meter. Remote Qflash can be adjusted from -3 stops below to +2 stops above camera settings.

Negatives : Requires some knowledge of how auto flash exposure works. One remote exposure setting for all remotes.

7.3 QR QTTL Ratio

Uses the exposure system built into the camera. Possible to set independent ratios of multiple remote flashes.

Use this mode if you want to set up lighting ratios that are controlled by the camera's TTL system.

Radio: Turned on automatically. Set only Channel/Zones to match.

Positives : Allows for ratios between remote flashes without entering the more complex Advanced Multi mode. Set remote Qflash 8's to RG mode.

Negatives : Slower response, not good for action shots. Data transmission occurring before, during, and after shot. Data transmission can interfere with other photographers in the area.

7.4 M Manual

Light output is controlled by fixed power output of flash.

When flash is placed on a camera F number and ISO information are sent to the flash from the camera. As the F number and ISO are changed on the camera this flash will follow.

Use this mode if you want the most accurate and repeatable exposures possible

Radio: Can be set to send a SYNC signal to fire remote flashes. Each remote flash controls it's own exposure.

Or it can be set to send a LINK signal to both fire and control the exposure of remote Qflashes.

Positives : Most accurate of all flash modes.

Negatives : Requires some knowledge of exposures, distance, and the use of a flash meter.

7.5 RL Remote Linked to local Qflash

Quick and easy set up remote Qflash Trio. Light output is controlled by the local flash. Use this mode as the simplest way to set up remote flash systems.

If the local Qflash is in QTTL-W mode then the exposure will match the output of the local flash.

If the local flash is in Auto, this Remote flash can be set 2 stops above or 3 stops below the local flash. This is achieved by adjusting the 'LINKED' setting on the local Qflash.

Radio: Turned on automatically. Set only Channel/Zones to match.

Positives : Not difficult to set up, and works for all modes of the local flash. No time delay between shutter and flash.

Negatives : Most basic type of multiple flash mode, and therefore does not lend itself to complicated ratios. There is only one exposure setting for all remotes.

7.6 RA Remote Automatic

Light output is controlled by the sensor located on the front of the remote Qflash. F number and ISO information are sent to the flash from the camera. As the F number and ISO are changed on the camera this flash will follow.

Use this mode if you want a remote flash to have the dedication of a TTL flash, but the simplicity of the automatic sensor.

Radio: set Automatically.

Positives : No pre flash required. Very Quick mode. No time delay between shutter and flash. None of the problems associated with TTL.

Negatives : Since exposure is controlled by the sensor on flash, user needs to be mindful of camera placement. If the camera and flash are in widely different locations, the picture will not be properly exposed.

7.7 RG Remote Group

Allows full control of Remote Qflashes whose mode is set on the control panel located on the local Qflash Trio.

Use this mode if you plan on making frequent changes to the settings on the remote flash, such as mode, f number, and power

Radio: set Automatically.

Positives : Greatest flexibility in flash set up without leaving camera position.. Multiple flashes in mixed modes possible.

Negatives : Slower response, not good for action shots. Data transmission occurring before, during, and after shot. Data transmission can interfere with other photographers in the area.

7.8 AM Advanced Multi

This mode allows the user to have full control over Three remote flash groups. There is no limit to how flashes can be set to any one group. Mode, F number, power, and even linking the exposure of a remote flash group can all be set from the push buttons on the local flash.

Radio: Turned on automatically. Set only Channels/Zones to match.

Positives : Possible to set up mixed mode lighting set ups and make changes without walking over to the remotes. Good mode to use if the remotes are inaccessible.

Negatives : Slow to use, not good for action shots. Data transmission occurring before, during, and after shot. Data transmission can interfere with other photographers in the area.

8. Radio set up

Press the **RADIO** soft key to enter the radio set up menu. To exit the set up menu press the **MODE/OK** or **SET** buttons.

The two soft keys located on the right side are used to adjust the channel up or down.

The soft key labeled **ZONES** is used to turn the zones ON or OFF.

The left most soft key is used to set up the mode of the radio.

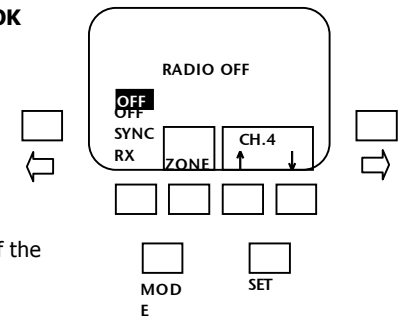
OFF – Radio off no signal sent.

SYNC – Trio sends a sync only signal to remotes. A remote flash can be another Trio, any Qflash using an FW10w, FW8R, FW7Q or any studio strobe using an FW10w, FW8R. Tx will appear in upper left corner of display.

RX – Trio will fire when local flash sends a sync signal. Local flash can also control exposure of Trio set to RX. Local flash can be a Trio, a Qflash 5d-R using an FW10w or FW9T, or a QTTL adapter with an FW9T. Rx will appear in upper left corner of display.

LINK / QTTL – Trio will send a sync signal plus exposure control signals to Remotes. A remote flash can be another Trio or Qflash 5d-R using an FW10w or FW7Q. Tx will appear in upper left corner of display.

For a group of flashes that will fire together, set all units to the same channel. Within each channel you may set units to different zones. Use different zones when you wish to turn off some, but not all the remote flashes.



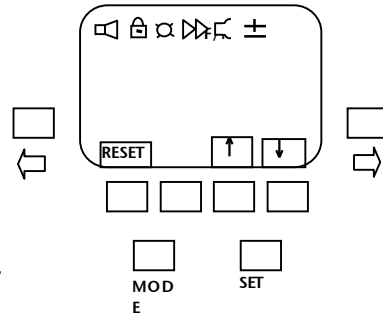
9. Options

Press the **OPT** (options) soft key to enter the options set up menu. To exit the set up menu press the **MODE/OK** or **SET** buttons

Use the **LEFT** or **RIGHT** arrows to select the option you want to change.

The two soft keys located on the right side are used to adjust the option that has been elected.

The **RESET** soft key is used to reset the Trio to factory default settings.



9.1 Speaker

You may want the speaker off for sensitive shooting, or turn it on for audible confirmation of flash exposure.

9.2 Lock Trio

Turning this option on will lock out the buttons and prevent any accidental changing of settings. To unlock the Trio Press the outer two soft keys when prompted.

9.3 Flash indicators

The green Flash Indicators on either side of the Trio give visual indication that a flash fired, whether the exposure was good, over, under, or no flash, indicating that the flash did not fire. You can enable or disable the lights.

9.4 Sync type

▶▶ F – Front curtain sync, ▶▶ R – Rear curtain sync, HSS – high speed sync

9.5 Reflector

Setting the reflector type is important so that the displayed distance, guide number and f/# correspond to the reflector in use. The choices are **NORM** (for the reflector supplied with Qflash), **DIFF** (for diffusers supplied with Qflash, optional QF67A Dome diffuser, QF68 Soft Box, or QF69 Mini Soft Box), **BBE** (optional Bare Bulb Enhancers QF62Bs and QF62Bg) and **TELE** (for optional QF63B Tele photo reflector). The reflectors must be repositioned manually.

Notes:

When using QF62B s/g the manual parameters are accurate only for an open area. In medium and small rooms the very widely dispersed light will bounce off nearby walls and increase exposure. A practical solution when using QF62B in small rooms is to meter the light, or use Auto, TTL, or QTTL modes which will provide better exposures and attractive, soft lighting.

When using a Telephoto Reflector QF63B the Auto mode cannot be used because the flash sensor is blocked. Use Manual, TTL, QTTL, Strobe or Linked modes.

9.6 Compensation

Quantum calibrates Qflashes to American National Standards Institute (ANSI) standards with laboratory equipment traceable to the National Institute of Standards and Technology (NIST). From time to time, photographers may wish to fine tune Qflash exposures to match their exposure meters, to compensate for variations in cameras or films, to match particular styles, for effects, or for individual taste.

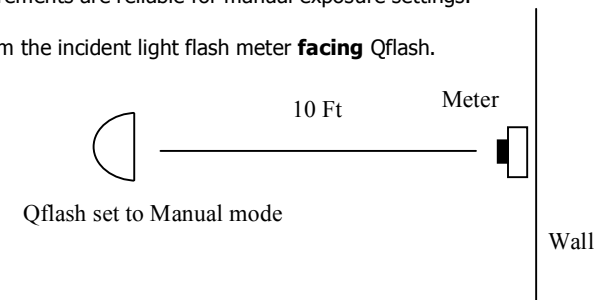
There are two compensations available- one for Manual and one for Auto mode. In QTTL modes Qflash does not control exposure and compensation will not apply.

"Compensation" affects overall exposure, not fill or ratio settings of various modes.

9.6.1 Manual mode Qflash Compensation

This procedure will calibrate Qflash to an **incident light** flash meter you use and trust. Note that only incident light measurements are reliable for manual exposure settings.

1. Place the TRIO 10 feet from the incident light flash meter **facing** Qflash.



2. The area surrounding the meter and flash should be similar to the shooting environment you usually work in. For example, in a large hall, there will be little light bouncing from walls and ceilings. In a small room, the light meter reading will be increased by whatever bounce occurs from nearby surfaces. These factors will affect calibration and should be considered.
3. Turn the Trio on, set mode to manual (M) and change the manual power setting to 1/8.
4. Set the film speed on the flash and the flash meter to the same value.
5. Change the F number on the flash until the distance shown in the display is 10 feet.
6. Fire the Trio. Note the F/number on the flash meter.
7. Press the **OPT** soft key, then use the **Left** ← and **Right** → buttons to scroll through the options until the manual compensation is highlighted.
8. Using the **UP** and **DOWN** soft keys, adjust the F/ number in the display until it matches the F/ number from the flash meter.

9.6.2 Auto mode Qflash Compensation

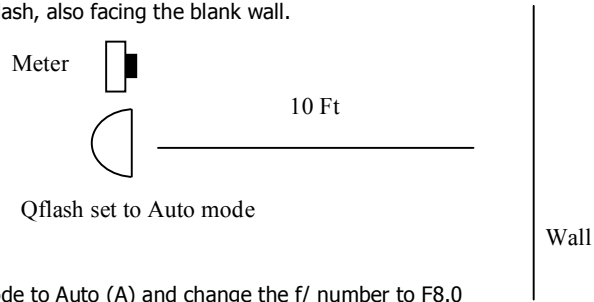
This procedure will calibrate Qflash to a **reflected light** flash meter you use and trust. Note that only reflected light measurements are reliable for auto exposure settings.

This is because auto mode flashes read reflected light from the scene and subject. In order to compare those readings to a meter, the meter must also be reading the same reflected light. The reflected light is affected by the subject and background, and an incident light reading will not typically provide the same reading (unless the subject is an 18% gray card).

1. Place the Qflash 10 feet from a blank wall. The wall should be larger than the metering area of the meter, and preferably a wall of continuous tone (blank wall).

2. Place flash meter next to Qflash, also facing the blank wall.

Be sure to set the flash meter for a **reflected** reading.



3. Turn the Trio on, set the mode to Auto (A) and change the f/ number to F8.0

4. Set the film speed on the flash and the flash meter to the same value.

5. Fire the Trio. Note the F/number on the flash meter.

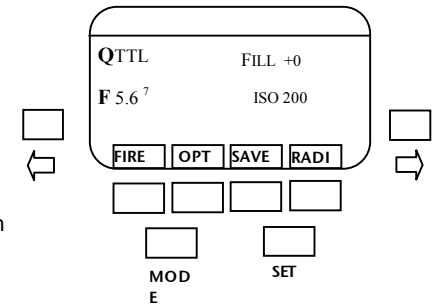
6. Press the **OPT** soft key, then use the **Left ←** and **Right →** buttons to scroll through the options until the auto compensation is highlighted.

7. Using the **UP** and **DOWN** soft keys, adjust the F/ number in the display until it matches the F/ number from the flash meter.

10. Q QTTL Mode Operation

F/number, ISO are sent to the flash from the camera. Only the fill setting is user adjustable. Press the **Set** button to highlight the fill setting. Use the **left** ← and **right** → arrow buttons to adjust the fill up or down.

The fill setting is used to adjust the flash output from 3 stops below (-3) the camera setting to 2 stops (+2) above the camera setting. The fill can be adjusted in 1/3 steps.



Using the Radio

The internal radio can be used to trigger remote flashes, or room lights, set radio **SYNC**.

Or the radio can be used to control the light output of remote Qflashes, set radio **QTTL**. The remote flash can be another Trio in **RL** mode or a Qflash model 5d-R set to **Linked to Local** with an FW10w, FW7Q or FW8R.

Be sure that the channel and zones match the channel and zones set on the Trio
See section 8.0 for setting the channel and zones on the Trio

10.1 QTTL mode soft keys

If the radio is turned off, there is only the default soft key functions available



If the radio is on, then the soft keys may be used to turn the radio zones on / off

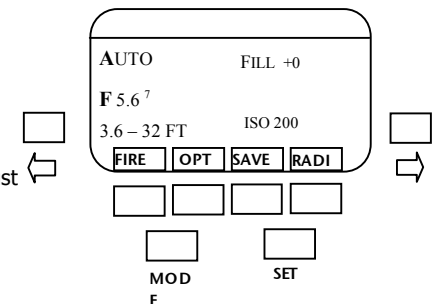


11. A Automatic Mode Operation

11.1 On camera Automatic mode

F/number, ISO are sent to the flash from the camera. Only the fill setting is user adjustable. Press the **Set** button to highlight the fill setting. Use the **left** ← and **right** → arrow buttons to adjust the fill up or down.

The fill setting is used to adjust the flash output from 3 stops below (-3) the camera setting to 2 stops (+2) above the camera setting. The fill can be adjusted in 1/3 steps.



Flash distance displays the working distance between your Qflash and Subject based on the current settings. Moving outside this range may result in an Under or Overexposed picture.

Using the Radio

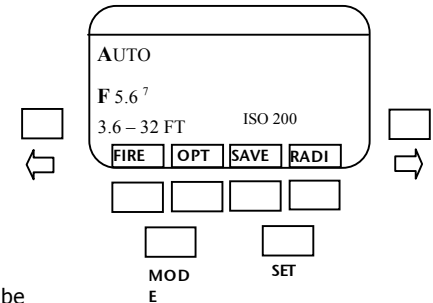
The internal radio can be used to trigger remote flashes, or room lights, set radio to **SYNC**.

Or the radio can be used to control the light output of remote Qflashes, set radio to **LINK**. The remote flash can be another Trio in **RL** mode or a Qflash model 5d-R set to **Linked to Local** with an FW10w, FW7Q or FW8R.

Be sure that the channel and zones match the channel and zones set on the Trio. See section 8.0 for setting the channel and zones on the Trio

11.2 Off Camera Automatic mode

In the off camera operation the Fill adjust will be disabled, however the F/number, ISO are user adjustable. Pressing the **Set** button will highlight them in that order. Use the **left** and **right** arrow buttons to adjust the highlighted setting up or down.



Using the Radio

To enable the Trio to be fired remotely set the internal radio to **RX**. An FW10w or FW9T must be located at the camera position, or you can use another Trio at the camera position.

Be sure that the channel and zones match the channel and zones set on the Trio. See section 8.0 for setting the channel and zones on the Trio

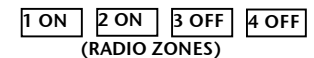
11.3 Auto mode soft keys

To change the function of the soft keys use the **Left** ← and **Right** → buttons when no selection or setting is highlighted on the display.

If the radio is turned off, the default and sensor limit soft key functions available



If the radio is on, then the soft keys may be used to turn the radio zones on / off



11.4 Auto mode exposure indications

There are three types of exposure indications. The display will blink either OK, Over, or Undr. The display will also indicate how much over or under the last exposure was, from +3 stops to -3 stops. If an arrow appears then the exposure error is more than 3 stops (for example -3 →).

If activated in Options (Section 8.2) the Speaker will sound after a flash. The audible signal is one "beep" for "OK and ready", and three "beeps" for "Undr" or "Over".

11.4 Auto Sensor Limit

Setting Qflash to Auto exposure makes picture taking fast and easy. However, an automatic flash has a flaw: the sensor on the flash expects the subject to be wide, flat, and fill the view of the sensor. A person standing against a wall fits this description; people in a catering hall or in a park at night do not. When the background is located far behind the subject, the automatic flash struggles to produce even lighting. The result is often an over exposed subject, sometimes by as much as two stops. When a photo lab develops film with a greatly over exposed subject, it will 'print down' to bring the flesh tones back into range. Or, time will be spent adjusting a digital image, with the resultant loss of detail and image quality.

To solve this problem use the Flash sensor limit.

∞ - No limit placed on sensor distance
20ft / 6m, 15ft / 4m, 10ft / 3m, 5ft / 2m,

When the Flash Sensor Limit is set to ∞ the flash will produce the desired f/# for a subject within the flash's minimum and maximum flash distance.

With Auto Sensor Limit turned on, a 'Limit' indicator is activated. After a flash, if the subject's distance exceeds the sensor limit currently set (5, 10, 15 or 20ft. / 2, 3, 4, 6m) the word 'Limit' will appear in the display. Three beeps and/or 3 blink warning may also occur (if those features are set in Options). If the subject is within the current sensor limit normal exposure indicators (OK, Undr, Over) will apply.

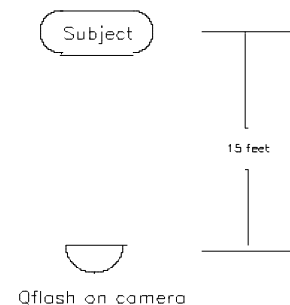
11.6 Using the Sensor Limit

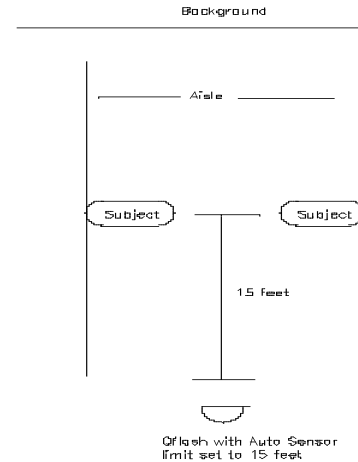
The flash Sensor Limit function essentially cuts down on the distance that Qflash attempts to illuminate. See the examples shown below.

No Background
(open field in park)

Open field

The subject is located 15 feet from the camera. The background is an open field in a park. By setting the Sensor Limit to 15 feet, the flash will read only the light from subjects within 15 feet, ignoring anything further.





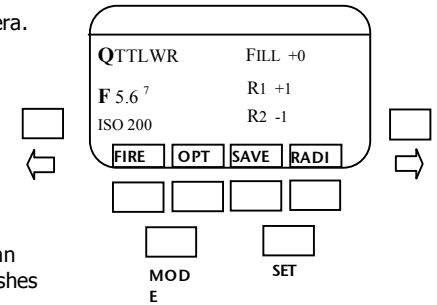
Two subjects separated by a gap
 Sometimes two subjects are separated by a gap. When this occurs the sensor is 'looking' between the two subjects and may miss them. The Sensor Limit will correct for this by reading only the light from objects within the limit set, in this case, 15 feet. The light from objects further away will be ignored.

With the Sensor Limit it is no longer necessary for the subject to be centered in the frame. As long as the subject is within the Sensor Limit

12. QR QTTL Ratio Mode Operation

F/number, ISO are sent to the flash from the camera.

Local fill setting (on camera flash), R1 ratio, and R2 ratio are user adjustable. Pressing the **Set** button will highlight them in that order. Use the **left** ← and **right** → arrow buttons to adjust the highlighted setting up or down.



When you Press the **Set** button, an **ON/OFF** soft key will appear on the right of the display. You can use this soft key to prevent the Local, R1 or R2 flashes from firing.

To prevent a flash from firing, press the **Set** button until the flash you want to turn off is highlighted. Then press the **OFF** soft key, the word "OFF" will appear next to that flash.

Using the Radio

The internal radio will be turned on automatically, but you may still need to select the proper channel to match the channel on the Remote flashes. See section 8.0 for setting the channel and zones on the Trio

The remote flashes may be a Trio or a Qflash model 5d-R with a FW7Q or FW8R.

If the remote flash is another Trio then it must be set to **RG** remote group mode.

If the remote is a model 5d-R, select either Wireless Remote Group R1 or Wireless Remote Group R2.

12.1 QTTL Ratio mode soft keys

Only the default soft key functions are available **FIRE** **OPT** **SAVE** **RADI**
(DEFAULT)

In the QTTL Ratio mode the radio is set automatically and all zones are ON

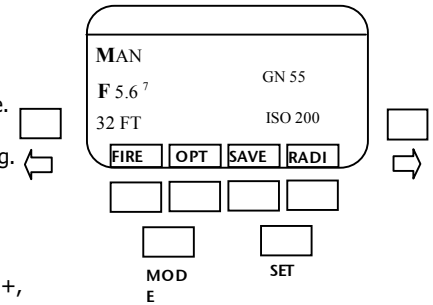
13. M Manual Mode Operation

13.1 On camera Manual Mode

F/number, ISO are sent to the flash from the camera. Only the power setting is user adjustable.

Press the **Set** button to highlight the power setting. Use the **Left** ← and **Right** → arrow buttons to adjust the power up or down.

Power settings are adjustable in 1/3 steps from full power to 1/64th power like this: 1/1, 1/1-, 1/2+, 1/2, 1/2- 1/32.



Using the Radio

The internal radio can be used to trigger remote flashes, or room lights, set radio to **SYNC**.

Or the radio can be used to control the light output of remote Qflashes, set radio to **LINK**. The remote flash can be another Trio in **RL** mode or a Qflash model 5d-R set to **Linked to Local** with an FW10w, FW7Q or FW8R

Be sure that the channel and zones match the channel and zones set on the Trio. See section 8.0 for setting the channel and zones on the Trio

13.2 Off camera Manual Mode

In the off camera operation Power, F/number, ISO are all user adjustable. Pressing the **Set** button will highlight them in that order. Use the **left** ← and **right** → arrow buttons to adjust the highlighted setting up or down.

Using the Radio

To enable the Trio to be fired remotely set the internal radio to **RX**. A FW10w or FW9T must be located at the camera position, or you can use another Trio at the camera position.

Be sure that the channel and zones match the channel and zones set on the Trio. See section 8.0 for setting the channel and zones on the Trio

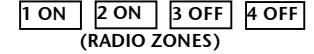
13.3 Manual mode soft keys

To change the function of the soft keys use the **Left** ← and **Right** → buttons when no selection or setting is highlighted on the display.

If the radio is turned off, there is only the default soft key functions available

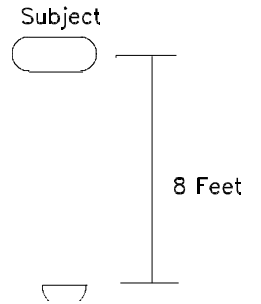


If the radio is on, then the soft keys may be used to turn the radio zones on / off



13.4 Manual shooting made easy

Nothing can beat the combination of a flash meter and a flash set manually. Automatic and TTL are a compromise based on the need for speed. Setting the flash for a manual power setting and taking an incident meter reading takes time and resources the average photographer may not have. So we use automatic flash exposure and know that in some situations the sensor may be fooled.



The Trio allows for easy manual shooting without metering. Below is an example of how this is accomplished.

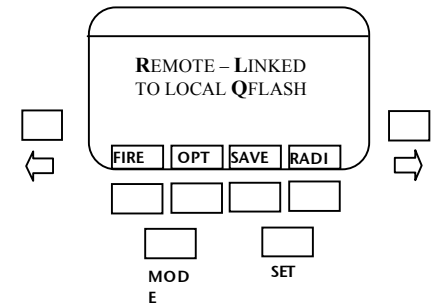
In this example Qflash will produce an F8.0 at the subject (8 ft), and it will be quickly accomplished without metering.

The F number and Film speed will come from your camera, adjust the power setting until the Qflash distance shown matches the subject distance as closely as possible.

14. RL Remote – linked to local Qflash Mode Operation

Light output of this flash will equal the light output of the local, the local flash can be set to any mode.

The Local flash maybe a Trio, a Qflash model 5d-R with a FW10w or FW9T. Or you may use a QTTL adapter with an FW9T for wireless TTL with no local flash.



Using the Radio

The internal radio will be turned on automatically, but you may still need to select the proper channel to match the channel on the Remote flashes. See section 8.0 for setting the channel and zones on the Trio.

The local flash may be a Trio in any mode, the radio of the local Trio must be set to **LINK** or **QTTL**.

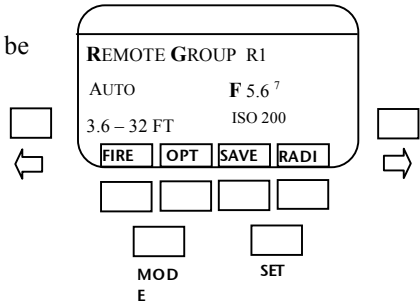
The local flash may also be a Qflash5d-R in any mode with an FW10w or FW9T. The TTL feature / switch must be turned on, see your FW instructions for turning the TTL feature on.

Or the local flash may be a QTTL adapter with an FW9T.

16. RG Remote Group Mode Operation

When using this mode the Local flash must be a Trio, or a Qflash model 5d-R with an FW10w or FW9T.

On the remote Trio the display will prompt you to select one of three possible groups.



Group L – Remote flashes set to this group will have the same exposure as the local flash, the local flash can be set to any mode.

Remote-linked to local Qflash will appear on the display if this group is selected

Group R1 / R2 – The operation of remotes set to this group depend on the mode of the local flash.

Using the Radio

The radio is set automatically and the function of the remote Trio depends on the settings of the local Qflash. You may still need to select the proper channel to match the channel on the local Qflashes. See section 8.0 for setting the channel and zones on the Trio.

If the local Qflash is a Trio set to advanced multi (AM) or a 5d-R set to Wireless Control, then mode, power, F/number and ISO for the remote Trio is set on the display of the local flash.

If the local Qflash is set to QTTLwR (Trio or 5d-R) then the remote Trio will automatically be set QTTL ratio. The ratio adjustments for Groups R1 and R2 would be done on the display of the local flash.

If the local Qflash (Trio or 5d-R) is set to any other mode, then the remote Trio set to Group R1 and R2 would default to Linked to local Qflash, and produce the same exposure as the local flash.

16.1 Changing the Remote Group

If after selecting the Group you wish to change it, press the **Set** button and the Group will highlight. Use the **Left** ← and **Right** → buttons to scroll through the Remote Group choices or use the Remote Group soft keys that appear.

16.2 Remote Group soft keys

To change the function of the soft keys use the **Left** ← and **Right** → buttons when no selection or setting is highlighted on the display.

Only the default soft key functions are available



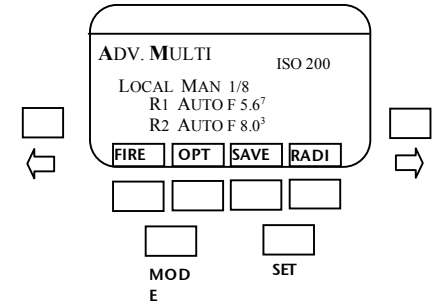
In the Remote Group mode the radio is set automatically and all zones are ON

17. AM Advanced Multi Mode Operation

This mode gives full control of the Mode and all the settings of the Local flash plus two remote flash groups.

Press the **Set** button until you reach the setting that you want to change is highlighted. Then use the **Left** ← and **Right** → buttons to adjust the highlighted setting up or down

When the **Set** button is pressed, the soft keys allow you to “jump” to a setting without having to scroll through all the settings.



Using the Radio

In Advanced Multi mode the radio is set automatically and all zones are ON. You may still need to select the proper channel to match the channel on the Remote flashes. See section 8.0 for setting the channel and zones on the Trio.

The Remote flashes can be another Trio or a Qflash model 5d-R with an FW10w, FW8R, or FW7Q.

The Remote flash must be set to one of the three following groups, Group L, Group R1, or Group R2.

17.1 Advanced Multi mode soft keys

To change the function of the soft keys use the **Left** ← and **Right** → buttons when no selection or setting is highlighted on the display.

The default soft key functions are available

FIRE	OPT	SAVE	RADI
------	-----	------	------

(DEFAULT)

The soft keys can also be used to quickly turn off the Local flash or any of the remote groups

LOCA	R1	R2	ON
------	----	----	----

(QUICK TURN OFF)

To turn off any group first press the soft key for that Group, then press the ON / OFF soft key. When the group has been turned off, the word OFF will appear next to that group.

If the local flash is set to Auto then the sensor limit functions are available

5	10	15-20	OFF
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(SENSOR LIMIT)

18. Program Mode Operation

The Program mode allows you to store your favorite settings and set-ups and then quickly recall them just by pressing the soft keys. You can program up to 8 Qflash set-ups of Manual, Auto, or TTL operation, including settings for all parameters.

18.1 Saving a set up

When you find a set up you like and want to store it, press the **SAVE** soft key. The display will prompt you to determine the program number (*Pnumber*) that you want to save the set up as. Use the **Left** and **right** arrows to adjust the P number up or down. Once you've selected the P number you want to store the set up as, then press the **save** soft key. If you wish to not save the set up, then press the **exit** soft key.

18.2 Using the program mode.

To enter the program mode, press the **MODE** button, then press the **PRGM MODE** soft key, then press the **MODE** button again.

The current program number will be displayed along with the mode and the settings for that program.

The soft keys allow you to change to a different program number quickly.

You can change the function of the soft keys by pressing the **Left** and **right** arrows when nothing is highlighted.

The available soft key functions depend on the mode of the program.

Any changes made to the settings of any program are saved to that program automatically. There is no need to take any action to save the changes.

To exit the program press the **MODE** button, then use the **left** ← and **right** → arrows to select a new mode, then press the **MODE** button again.

