



Quantum[®] **INSTRUMENTS**



**Qflash ■ Turbo Battery ■ Quantum Battery 1+, 2, 4, 5
Bantam Battery ■ Radio Slave/Master Slave ■ Digital Meters**



Qflash model T is powered by the popular Quantum Turbo Battery for Guide No. 160 (iso 100) auto-flash power. Qflash model X can be powered by a Lumedyne® or Norman® pack, for up to 400 watt-seconds of auto-flash power.

Qflash uses parabolic reflectors for softer, cleaner light. The reflectors are removable for bare-bulb lighting. The flash head bounces and swivels.

Flash control is either automatic, TTL*, manual, or stroboscopic. Automatic exposure control covers a *nine stop range*, adjustable every 1/3 stop, for a total of *25 auto settings!*

Manual power can be adjusted from full to 1/64 power in 1/3 stop increments. Flash power can be precisely what you need.

Stroboscopic mode can be adjusted for flash power, and number and frequency of bursts.

Qflashes can be ganged together to produce flexible lighting setups with thousands of watt-seconds of auto-flash power. Qflash mounts on a camera bracket, tripod, or light stand and weighs no more than a conventional flash.



Model QFT mounted on quick release bracket QF70



Model QFX is powered by a Norman or Lumedyne pack

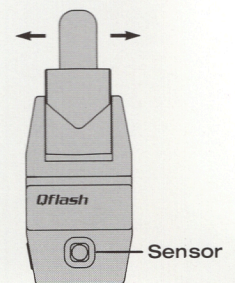
QFLASH® Studio quality high power automatic/TTL flash



Studio quality reflectors

To avoid the harshness that can be produced with rectangular reflectors, Qflash uses a parabolic reflector. The coverage is 55°, or the same as a normal lens. For wide angle lenses, the reflector position can be changed to cover 70°. For even softer light, a diffuser cover can be added which also increases coverage to 90°.

And the reflector can be removed for bare bulb, 360° coverage. The head adjusts vertically and horizontally every 15°.



Accurate auto ranges

Qflash's precise auto exposure settings cover as much as a 9 stop range with selections every

* TTL operation requires an optional adapter.

ISO:	25	100	200	400	1000
F# auto range	1.4 - 11	1.4 - 22	2.0 - 32	2.8 - 32	4.5 - 32
Max. auto distance	57'	114'	114'	114'	114'

1/3 stop. You can select auto-flash settings from f/1.4 to f/22, ISO 100, for example. Above is a short chart of typical auto settings (model QFT).

In auto mode the LCD shows whether a shot is under- or over-exposed. *Qflash is the only flash that can do that.*

When the exposure is good you get an "OK" in the display and a "beep" as soon as the Qflash recycles. If the exposure was under or over, you get three beeps right away and an "UNDR" or "OVER" in the display, telling which way to adjust Qflash. If you don't want the noise, for wedding ceremonies for example, you can plug in an earphone or just turn off the sounder.

Rdw OK F5.6
iso100 n 7- 28f

>>> UNDR F2.2
iso100 n 2- 7f

Rdw OVER F1.4
iso100 n30-114f

LCD shows min. & max. flash distance range for each auto setting

TTL Mode

With Quantum's optional adapters for popular TTL cameras, you can control the Qflash exposure through-the-lens. TTL operation indicates over and under exposure visually and audibly.

Manual power selection

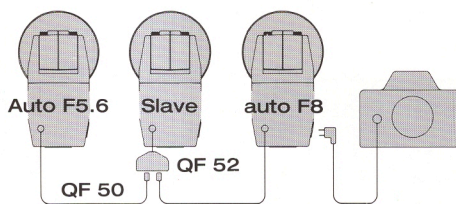
Accurate manual power settings can be adjusted in 1/3 stop increments for precise exposure. There are 19 steps from full to 1/64 power. The LCD shows the power level and the *actual flash duration* as well as the guide number for every power setting. Qflash will inform you when it is ready to flash with a "RDY" indication in the LCD display, and/or a "beep".

Qflash	Model T (Turbo powered)	Model X
Capacity	200 full power	*
Recycling	2.5 seconds	*

* same as Norman or Lumedyne manual head

Slave Mode for the most flexible lighting setups

One Qflash can control the exposure of an unlimited number of Qflash "slaves" connected to it. You can use this feature to increase lighting power, or light difficult subjects the way you want with multiple flash heads. They can be controlled via a TTL adapter or their own auto setting. The "master" Qflash can be controlled via a TTL adapter or its own auto setting.



You can also set each Qflash independently-- to its own auto, manual, or strobo exposure to get precise lighting ratios and light control.

Stroboscopic Mode

Qflash can provide multiple bursts with one shutter sync signal. The "Strobo" mode lets you select a strobe rate of one to 50 flashes/second. You can also select the power level and the total number of flashes from one to 20. (The number of bursts that can be set depends on the power level setting).

Remote Sensor

This accessory lets you put Qflash where you want and read the light at the camera position. Placement of Qflash can be up to 100' away (cable extensions required).

Lighted LCD

The lighted LCD panel shows Mode (Auto, Man, TTL, Slave, or Strobo), F#, flash duration, flash distance range, Guide #, ISO, flash ready, and *Under as well as Over exposure checks*. The Qflash controls are intuitive and easy to learn in minutes. Read-outs can be converted between English and metric units.

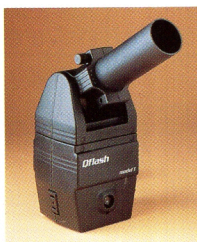
Modeling light for Qflash model X

A 35 watt modeling lamp for this model lies inside the flashtube at the focal point. It provides an illumination pattern true to the flash pattern, and serves as a focusing aid as well.

Qflash, *Quantum*, and *Turbo* are registered trademarks of Quantum Instruments, Inc.
Lumedyne is a registered trademark of Lumedyne Inc.
Norman is a registered trademark of Norman Enterprises, Inc.
Canon is a registered trademark of Canon USA.

Qflash Model Numbers and Accessories

- QFT- Qflash model T. Requires a Quantum Turbo Battery for power, Includes a 6' (2m) coiled power cord, reflector, diffuser, removable flash tube, 1/4-20 mounting thumbscrew, earphone.
- QFX- Qflash model X. Can be powered by a Lumedyne, Norman 200C, 200B, or 400B power pack. Includes reflector, diffuser, modeling lamp, removable flashtube, 1/4-20 mounting thumbscrew, earphone. Requires a QF40, 41 or 42 power cable to fit one of the power packs.
- QF30- Replacement flashtube for model QFT
- QF30uv- Optional UV coated tube for model QFT
- QF32- Replacement flashtube for model QFX
- QF32uv- Optional UV coated tube for model QFX
- QF33- Replacement modeling lamp for model QFX
- QF60- Spare Reflector
- QF61- "Snoot" for pinpoint lighting
- QF62- Wide angle diffuser/reflector, TBA
- QF63- Tele reflector, TBA
- QF64- Diffusing UV filter kit for Qflash
- QF65- Clear UV filter kit for Qflash
- QF70- Quick release "L" bracket



Power Cables

- QF40- Adapts QFX to work with Norman 200B or 200C.
- QF41- Adapts QFX to work with Norman 400B.
- QF42- Adapts QFX to work with Lumedyne power packs.
- QF43- Extends power cable for model QFX. 16' (5m) long. **Warning:** Do not use other manufacturer's power cables- you will damage the Qflash.
- QT48- Dual power connector for powering two Qflash model T's with one Turbo.
- QT49- Extension Cord, 10' (3m) for extending Turbo power cable for QFT.

Specifications

	Qflash model T	Qflash model X
Weight	31 ozs, 880 gm	28 ozs, 800 gm
Dimensions (flash alone)	3.2" x 3.5" x 6.5" (8cm x 9cm x 16.5cm)	
(reflector)	4.7", 12cm diameter	
Power	150 watt-sec.	200 or 400 watt-sec. (depends on pack)

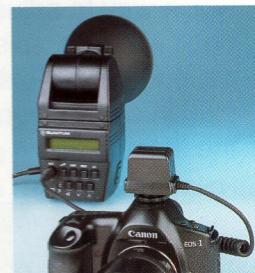
Control Cables

- QF50- Control Cable. To slave two Qflashes together. 20' (6m) long.
- QF51- Control Extension Cable, Male to Female, 20' (6m) long. To extend QF50, 52 or 53, TTL adapters, or QF21 Remote Sensor. Maximum control length possible is 100' (30m) using 5 QF51 cables.
- QF52- "Y" Connector Module. Needed for the third Qflash connected, and each one thereafter. Also required for a TTL adapter or Remote Sensor when used with 2 or more Qflash.
- QF53- Hot Shoe Sync Adapter. Syncs Qflash via the hot shoe on a camera.
- 536- Sync Cord, coiled, 18" (.5m) long, PC to Household male plug.
- 537- Sync Cord, coiled, 5' (1.5m) long, PC to Household male plug.

TTL Adapters and Remote Sensor

The TTL adapters will support through-the-lens exposure control of the Qflash by the camera electronics. Note: If a TTL adapter is used in a multi-Qflash setup, a QF52 Y-connector is required for the TTL adapter.

- QF10- Olympus: OM-2, 2N, 2SP, 4, 40, 707, 77AF, 88, 101; Practica BX20.
- QF11- Minolta X: X700, X500, X570, CLE; Maxxum 5000, 7000, 9000.
- QF12- Nikon: FA, FG, FE2, N2000, N2020, F301, F4, F4S, F401, F401S, N4004, F501, F601, F601M, N6000, N6006, F801, N8008, N90.
- QF13N- Canon: EOS-A2E, A2, A5, 1, 1N, 10, 10S, 600, 620, 630, 650, 700, 750, 850, 1000, 100F, Rebel, Rebel S, RT, T90, Elan.
- QF14- Minolta Xi: Dynax & Maxxum- 3000i, 3700i, 5000i, 700i, 7000i, 8000i, 8700i, 3xi, 5xi, 7xi, 9xi, SPxi.
- QF15- Contax: RTS II, RTS III, MD137, MA137, 139, 159MM, 167MT.
- QF16- Leica: R5, RE, R6, R6-2, R7.
- QF17- Pentax: SFX, SFXn, SF1, SF1n, SF7, SF10, Z1, PZ1, Z10, PZ10, LX (with finder shoe), 645.
- QF18- Rollei: SL2000f, 3001, 3003, SL66e, SL66x, SL66se, SL6006, 6002, 6008, 2.8GX.
- QF19- Hasselblad: (requires separate sync cord)- 500ELX, 503CX, 553ELX, 205TCC.
- QF20- Bronica: ETRsi, SQAi.
- QF21- Remote sensor: Shoe mount with live sync contacts.





HOW TO SELECT A QUANTUM® BATTERY

Quantum makes rechargeable power packs for all types of photographers, and for all needs of flash photography.



When several hundred full power flashes are needed use the Quantum Battery 1+, 2, or 4

If you need to shoot several hundred full power manual shots, and you need consistent and short recycle times, the Quantum Battery 1+, 2, 4, or 5 is for you. These compact workhorses are the most popular power packs. They fit neatly on a belt, on a shoulder strap, or under a coat. They offer great performance and value. And, they are used by leading news, wedding, sports, and all other photographers.

Select Quantum Battery 1+, 2, or 4 depending upon the flash you use. Quantum Battery 5 will power the Kodak DCS 420 and 460. A "Module" adapter connects the pack to the flash. See pages 8, 9, and 11 for details and Module selection.



The lightweight Bantam is small enough to put anywhere

For a more compact size, choose the Bantam Battery. Bantam can be mounted onto a camera/flash bracket to make a self contained set up. Bantam is also ideal as a back up power pack, and will power your flash through several rolls of automatic/TTL shooting. See pages 10 and 11 for details and Module selection.



Turbo power gives you non-stop shooting, and extended power, in the studio or on location

For fastest recycling and greatest capacity, pick the Turbo Battery. Turbo recycles many flash units in one second (full power manual)! Turbo is also the power partner for the new Qflash, model T. The Turbo Battery connects to many shoe and handle mount flashes using "Turbo Cables", which plug into the flashes' high voltage sockets. See pages 6, 7, and 11 for details and Turbo Cable selection.

All Quantum packs have overseas chargers for most countries. There are also fast chargers, vehicle chargers, module/cable extension cords. Refer to the following pages to make your selection.

Choose from the world's most popular selection of portable flash power packs. Made in the U.S.A.



QUANTUM TURBO[®] BATTERY

The Quantum Turbo Battery is the choice for high performance flash power. When you can't afford to wait an extra second for the flash "ready" light, Turbo-power your flash. Turbo delivers *non-stop flash™* by generating flash power 4-6 times faster than your flash can. Shoot faster than ever before. Custom designed "Turbo Cables" connect to many shoe and handle mount flashes, allowing you to power both types with one pack.

Here's the performance that Turbo can give your flash:

- Flash recycling 4-6 times faster — one second recycling for full power manual guide number 110 flashes.
- 350 full power shots per charge (450 shots in "economy" mode and 2 sec. recycling — thousands on automatic).
- Power monitor "fuel gauge" tells you exactly how much power remains, and a red warning light for when power gets low.
- Reliable rechargeable lead cells. No nicads. No memory. And a charging indicator that gives the status of charge.
- Semi-soft, slim, comfortable case. Wear it under a tuxedo, over your shoulder, or drop it in your camera bag.



Dual Connector QT48 powers two flashes simultaneously with the Turbo

Recycling Performance Chart For Typical Flash Units

Battery		Vivitar 283 (GN 110)	Metz 45CL Series (GN 148)	Sunpak 611/622 (GN 160)
Alkalines*	Recycle	11-30 sec.	5.3-30 sec.	13-35 sec.
	# Flashes	75	135	80
NiCads*	Recycle	5-21 sec.	3.5-20 sec.	7-25 sec.
	# Flashes	42	31	60
TURBO BATTERY*	Recycle	1-2 sec.	1.5-2.5 sec.	2-3 sec.
	# Flashes	350	315	175

*Full power operation – times will vary depending upon the particular flash unit in use. Flash models with similar guide numbers will perform similarly to those above.



Recycle/capacity switch lets you choose ultra-fast recycling or extended capacity mode



Turbo power gives you non-stop shooting with Qflash, as well as other portable flash units

Accessories

To select a Turbo Cable for your flash, see page 11.

Turbo comes with its own charger; chargers listed below are for replacement, traveling, fast charging, etc.

- QT40- Replacement Charger, 110/120 VAC
- QT41- Euro Charger, 220/240 VAC
- QT42- Euro/Scandinavian Charger 220/240 VAC
- QT43- Australia/N. Zealand Charger, 240 VAC
- QT46- Vehicle Charger
- QT47- Fast Charger, USA/Canada
- QT48- Dual Connector for powering two flashes
- QT49- Extension Cord for Turbo Cables, 10ft. (3m)
- QBC- Mounting Clamp for Quantum Batteries, Bantam, or Turbo



THE QUANTUM BATTERY 1+, 2, 4, AND 5

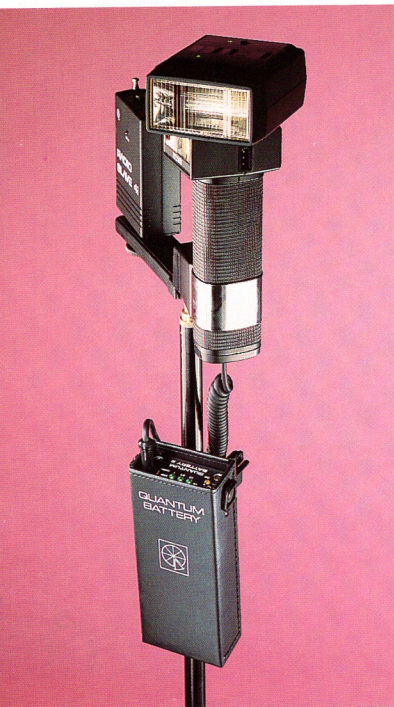
The Quantum Battery 1+, 2, 4, and 5 are thoroughbred power packs for portable flash photography. To tap their power you plug a "module", specially designed for your flash, into the flash battery compartment. Substitute Quantum rechargeable power for the small, unpredictable AA alkalines or nicads, and you gain these advantages:

- Faster recycling— typically 50% faster, and consistently fast even as battery charge is depleted.
- Typically 250+ **full power manual** shots, and 1000+ automatic shots per charge.
- Reliable charging. Quantum's power comes from sealed lead cells. No fussy nicads with potential "memory" charging irregularities.
- Power monitor lights up to show remaining power in the pack. No surprises or sudden loss of power — works like a fuel gauge.

- Enormous cost savings. One Quantum Battery 1+, for example, yields the power of \$2000 worth of AA alkaline cells. And at much better performance.

If you ever use up all the capacity of the Quantum, you can replace the cells at very reasonable cost to give you another "\$2000" worth of equivalent AA power (or about \$3000 worth of lithium AA cell power).

- Twin output jacks allow two flashes to be powered together.
- Special features of the QB1+: Automatically shuts itself off, and can't be accidentally turned on without a Module plugged in. Electronic circuit breaker. Charges in 3-10 hours with standard charger. Charge status light tells you when charge is complete.



Fast and convenient power for handle mount flash units

- | | | | | |
|--|---|--|--|--|
| Automatically
shuts itself
off if you
forget to | Electronic
Circuit Breaker
prevents
damage
to flash —
never
has to be
replaced | More
precise
readout of
remaining
battery
power | Battery
power from
lead cell
without
"memory"
problems
of nicads | Charges
faster
3 to 10 hours.
Charge light
goes out
when
charging is
complete |
|--|---|--|--|--|





Clip your Quantum to a belt, hang over your shoulder, carry in a bag, or attach it to a bracket



Quantum power source for extended operation of Canon and Kodak Digital Camera Systems

Recycling Performance Chart For Typical Flash Units

Battery		Vivitar 283 (GN 110)	Metz 45CL-4 Series (GN 148)	Sunpak 544 (GN 140)
Alkalines*	Recycle	11-30 sec.	5.3-30 sec.	6-30 sec.
	# Flashes	75	135	120
NiCads*	Recycle	5-21 sec.	3.5-20 sec.	4-20 sec.
	# Flashes	42	31	57
QUANTUM BATTERY 1+*	Recycle	3.5-5 sec.		
	# Flashes	250		
QUANTUM BATTERY 2*	Recycle		3.2-5.5 sec.	2.8-5 sec.
	# Flashes		270	325

*Full power operation – times will vary depending upon the particular flash unit in use. Flash models with similar guide numbers will perform similarly to those to the left.

Accessories

For selecting a Module for your flash, see the Selection Chart, page 11.

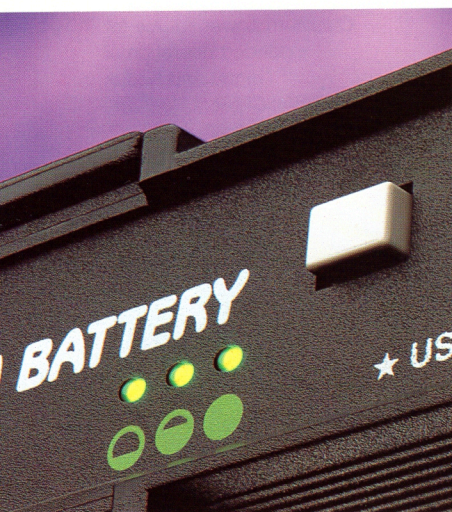
Note: A charger is included with the Quantum Battery. Chargers listed below are for replacement, traveling, etc.

Accessory Type	QB1/1+	QB2	QB4	QB5
Module Extension Cord, 10ft (3m)	QB22	QB23	QB23	QB22
Replacement Charger, 100/120 VAC	QB26	QB28	QB28	QB50
Euro Charger, 220/240 VAC	QB30	QB31	HB32	QB51
Euro/Scandinavian Charger, 220/240 VAC	QB38	QB39	QB39	
Australia/N. Zealand Charger, 240 VAC	QB32	QB33		
Fast Charger, USA/Canada	QB34	QB37		
Vehicle Charger	QB35	QB36		RA16
Mounting Clamp	QBC	QBC	QBC	QBC
Power Cord w/o module attached				RA-0



BANTAM BATTERY

Fourteen ounces of concentrated power



Status button activates 3-LED display that indicates battery power remaining

Recycling Performance Chart For Typical Flash Units

		Vivitar 283	Canon 420/430	Nikon SB24/SB25
Alkalines*	Recycle	7-13 sec.	6-10.5 sec.	4.5-9 sec.
	# Flashes	145	150	165
NiCads*	Recycle	5.5-10 sec.	3.5-13 sec.	3.5-11 sec.
	# Flashes	112	90	100
BANTAM* BATTERY	Recycle	2-3.5 sec.	1.3-3 sec.	2.5-4 sec.
	# Flashes	210	225	210

*Typical 1/2 power flashes (f/8 @ 10', auto or TTL).

Times and total flashes will vary with distance to subject, different flash models, and other conditions.

It takes you through six 36-exposure rolls if you're shooting automatic or TTL (f/8 @ 10 ft.)...or about three rolls at full power with a GN 110 flash. That's almost three times as many flashes as with nicads, and twice as many as with alkalines.

Using Bantam, your flash recycle time is three times faster than with brand new alkalines, and twice as fast as with nicads. And unlike conventional AA batteries, Bantam stays fast, shot after shot, until its charge is almost exhausted. Bantam is one tough, little power pack.

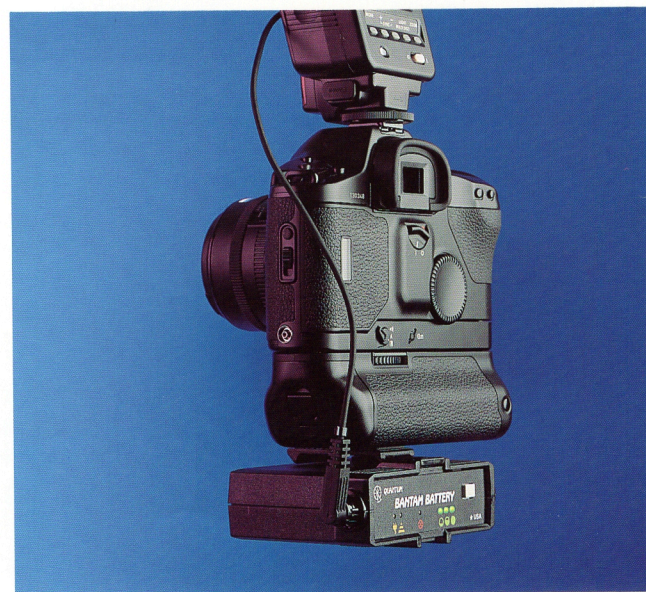
- Keeps its charge for months when you're not using it.
- You can fully recharge at any time, no matter how much charge it still has.
- Sealed lead cell can be recharged to give you over 50,000 shots typically over its lifetime. (The internal cells can be replaced for another 50,000!)
- Costs less than one-tenth of a cent per shot!
- Power monitor "fuel" gauge, like QB1+.
- Charging monitor.



Small and light, a perfect power source for a roving flash

Accessories

- BEX- Module Extension Cord, 6ft (2m), coiled
- BQA- Adapts QB1/1+ Modules to Bantam
- BQB- Adapts Bantam Modules to QB1/1+
- BR1- Replacement Charger, 100/120 VAC
- BR2- Euro/ Scan. Charger, 220/240 VAC
- BR3- Aus/NZ Charger, 240 VAC
- BR4- Euro Charger, 220/240 VAC
- BCLIP- Replacement Case Clip
- QBC- Mounting Clamp



Mounts directly onto camera tripod socket for quick action shooting, especially when more than one camera is needed

Selection Chart for Modules and Cables

Find your flash in the left column. Then read across to locate the compatible modules or cables to fit the Quantum power packs listed.

Example:

If you use a Vivitar 283 you may buy a Turbo Battery with Cable CV, or you may buy a Quantum Battery QB1/1+ with Module MA2, or you may buy a Bantam Battery with Module XA2.

This chart is continuously being updated. Please consult your Photo Dealer for the latest version.

Special Selection Chart

Digital Camera	Use
Kodak DCS200	QUANTUM BATTERY 2 Kodak Power Cord #893-0893
Kodak DCS420 & DCS460	QUANTUM BATTERY 5 Kodak Power Cord # 890-3676
Canon EOS•DCS 3 EOS•DCS 5 (available soon)	QUANTUM BATTERY 5 Kodak Power Cord # 890-3676

YOUR FLASH		BANTAM	QB1 / QB1+	QB2	QB4	TURBO
ACHIEVER 1850STW	XA2	MA2				
300AF, 630AF, 632AF	XG2					
DZ260, 360LCD, TZ250	XG2	MG2				
AGFATRONIC 643				MV		
ARMATAR 100						CV
200, 300						CV
LR200HD, LR300HD						CA
M200, M300						CA
BRAUN 320, 340	XA2	MA2				
CAMBRON SV6000	XG2	MG2				
CANON 155A, 199A	XA2	MA2				
299T	XB2	MB2				
ML-3, 300TL	XG2	MG2				
300EZ	XF2	MF2				
420EZ	XZ2	MZ2				
430EZ	XZ2	MZ2				CZ
480G						CZ
540EZ	XKZ	MKZ				CZ
COBRA 30TD, D500	XA2	MA2				
300AF, 700AF	XG2					
D650, D632	XG2	MG2				
CONTAX TLA30	XA2					
TLA280	XA2	MA2				
TLA360	XKE	MKE				
CULLMAN MC25	XG2	MG2				
MC30, CX35, CX40	XG2	MG2				
FUJICA 300X	XF2					
HANIMEX TZ134	XB2	MB2				
TS855	XB2	MB2				
PRO 550	XB2					
HASSELBLAD 4504			MM			CM4
HONEYWELL 710, 780						CH
780S, 782, 810, 890						CH
890S, 892, 892S						CH
METZ 25CT3	XA2	MA2				
28CT3, 38CT3	XA2	MA2				
32CT SERIES, except CT7	XE	ME				
32Z SERIES	XE3	ME3				
36CT SERIES	XE	ME				
40M22	XE4	ME4				
45CT-1, 45CT-5			MM			CM1
45CL-1, 3, 4; 45CT-3, 4			MM			CM4
MINOLTA 320X	XA2	MA2				
280PX	XA2					
360PX	XA2	MA2				CL3
2800AF	XE	ME				
4000AF	XB2	MB2				CL4
3200i	Xi	Mi				
3500xi	Xi5	Mi5				
5200i, 5400xi, 5400HS	Xi5	Mi5				CL5
NATIONAL PE321SW	XA2	MA2				
PE387S, PE388SW	XG2	MG2				
JAPAN ONLY: PE381SG						CN3

YOUR FLASH		BANTAM	QB1 / QB1+	QB2	QB4	TURBO
NIKON SB11					MK	CK
SB23, SB12, SB16	XG2	MG2				
SB15, SB17	XF2	MF2				
SB20, SB22	XE	ME				
SB24, SB25	XKE	MKE				CK
SB21	XF2					
SB26	XKZ	MKZ				CK
NISSIN 340T	XG2	MG2				
360WX, 360TW	XG2	MG2				
4000GW, 4800GT			MN			
OLYMPUS T32	XE	ME				CO3
T45						CO3
PENTAX AF200T	XA2	MA2				
AF280T	XA2	MA2				
AF400T			MP			
AF500FTZ						CN3
POLAROID 203, 403		ML				
PROMATIC FTD 4000	XF2	MF2				
FTD4500AF	XF2	MF2				
FTD5200, FTD5600	XF2					
RICOH SL300P	XA2	MA2				
SL400			MN			
ROKUNAR AR1100TZ	XG2					
ROLLEI E36RE					MR	
SIGMA EF430	XG2	MG2				
STARBLITZ 3000 SERIES (except 3600 DFM)	XB2	MB2				
3600DFM	XF2	MF2				
D30CP	XB2	MB2				
SUNPAK 26SR	XG2	MG2				
260, 26FD, 26DX	XG2	MG2				
30SR, 30DX, 36DX	XG2	MG2				CS4
411S, 433D, 433AF	XG2	MG2				CS4
36FD, 383						
331, 333, 333D, 344D	XG2	MG2				
422D, 444D	XG2	MG2				CS4
411, 511						CS5
522, 544, 555, 4205G			MS			CS5
AUTOZOOM 3600, 455			MS			CS5
AP52						CS4
120J		MA2				CS4
AUTOZOOM 5000, 611		MC				CS5
622		MH				CS6
VIVITAR 285	XA2	MA2				
283, 285HV	XA2	MA2				CV
3700, 4600	XA2	MA2				CV
5200, 5600	XG2	MG2				CV
3900						CN3
628AFM, 636AF	XF2	MF2				
600 SERIES 1	XA2	MA2				CV
5250, 728ZOOM, 836AF	XG2	MG2				
736AFM	XVI	MVI				
YASHICA CS250 AF	XG2	MG2				



RADIO SLAVE 4i

The Radio Slave 4 is already the best, most popular remote-flash / remote-shutter slave system. Now it has been improved to become *the Radio Slave 4 "i"!*

You can use Radio Slave 4i to trigger any number of remote flashes without a sync cord. Or, you can connect Radio Slave to trip a motor drive camera at great distances. It's coded radio signal works indoors, outdoors, around corners and through walls. Line-of-sight between you and the flash/camera is not required! And unlike other slaves, it cannot be over-powered by the light of a flash.

The newly developed Radio Slave 4i has these refinements and features:

- Range is up to 350' (110m). With antenna down, range is up to 200' (60m).
- Hot shoe mount for the Sender unit. Also mounts to brackets, dead shoes, etc.
- Instant retriggering for multiple flash bursts. (No waiting between triggers as with infra-red slaves). Faster than any motor drive shot sequence.
- Battery life increased 5 times-
Remote unit: 400 hours (alkalines),
800 hours (lithium)
Sender unit: 1-2 years.

- Fastest sync speeds-
For cameras with extremely fast shutter sync, 1/500 (focal plane) or 1/1000 (leaf) shutter. This extremely fast synchronization means Radio Slave 4i is virtually indistinguishable from "wired" sync.
- Unique Status Light confirms proper operation and/or low battery.
- Superior interference-free reception. User selected, coded channels permit many Radio Slaves to operate in the same area.



Radio Slave 4i is compatible with the Radio Slave 4 and Radio Slave 2



LED status light tells that Remote unit is on, gives confirmation of signal from Sender unit, and indicates a low battery

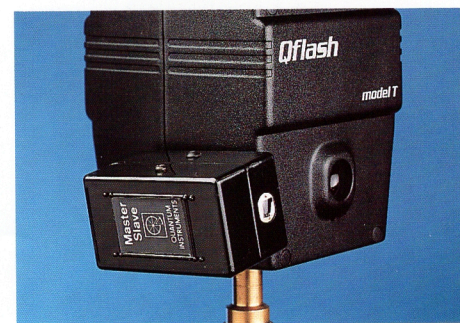
MASTER SLAVE

The Master Slave is a super sensitive photo slave. You can trigger it by direct (110 GN) flash guaranteed to 500 feet (150m). Neither direct sun nor incandescent lamps will affect its broad range or reliability. It is up to ten times more sensitive than other photo slaves, so its aim can be much less critical.

Master Slaves can be combined with the Radio Slave for economical multiple flash wireless sync.



No sync cord required— Radio Slave Sender syncs to hot shoes



Guaranteed to trigger to 500' by direct Guide# 110 flash

Radio Slave / Master Slave Models and Accessories

Radio Slave

Model Number	Compatibility			Description
	405	505	505i	
405TR	Yes	(1)	(1)	Radio Slave II Set
505SR	(1)	Yes	(2)	Radio Slave 4 Set
505SRi	(1)	(2)	Yes	Radio Slave 4i Set

Compatibility Notes:

(1) Model 405 is compatible with models 505/505Si on 2 of 4 channels.

(2) Model 505R is compatible with 505Si on all channels, but does not have extra-high speed sync option.

Master Slave

Model Number	Description
100	Master Slave 100 with American household male plug
101	Master Slave 101 with PC female connector and velcro strip for mounting
110	Adapter cord- household female to PC female for model 100
111	Adapter cord- household female to Vivitar for model 100
534	Adapter cord- PC male to household male for model 101

Motor Drive Cords

Model Number	Compatibility			Description
	405	505	505i	
451	Yes	Yes	Yes	Nikon MD2/4/12/15, 8008, 8008S, F4S, N90 needs Nikon adapter MC25
452	Yes	Yes	Yes	Hasselblad ELM, ELX
453	Yes	Yes	Yes	Canon, Olympus, Bronica
454	Yes	Yes	Yes	Mamiya RZ67, RZ67 II, 645 Super, 645 Pro
455	Yes	Yes	Yes	All Minolta except models used with cord #458
456	Yes	Yes	Yes	Leica
458	Yes	Yes	Yes	Minolta 5000, 7000, 9000, 5000i, 7000i, 8000i, 5xi, 7xi, 9xi, 700si
459	Yes	Yes	Yes	EOS A5, A2E, A2, 1, 1N, 620, T90
460	Yes	Yes	Yes	Pentax MX, LX
461	Yes	Yes	Yes	Pentax ME II Super
462	Yes	Yes	Yes	Contax 139, 167, RS III, ST
463	Yes	Yes	Yes	Bronica SQA1
464	Yes	Yes	Yes	Rollei 6008, 6006, 6003, 6002, SLX

Sync Cords

Model Number	Compatibility			Description
	405	505	505i	
434	Yes	No	No	1.5 ft. (.5m) replacement sync cord for 405T transmitter
435	Yes	No	No	4 ft. (1.2m) coiled sync cord for 405T transmitter
470	Yes	No	No	Special sync cord for Hasselblad "C" lens
534	No	Yes	Yes	1.5 ft. (.5m) replacement sync cord - PC male to household male (twin prong)
535	No	Yes	Yes	Coiled sync cord, 5 ft. (1.5m) for 505S/Si - PC male to household male (twin prong)
536	No	Yes	Yes	1.5 ft. (.5m) replacement sync cord - PC male to household male (twin prong with center pin) - for 505S/Si s/n E888 & above
537	No	Yes	Yes	5 ft. (1.5m) coiled sync cord - PC male to household male (twin prong with center pin) - for 505S/Si s/n E888 & above
570	No	Yes	Yes	Special sync cord for Hasselblad "C" lens
QF53	No	Yes	Yes	Hot shoe sync adapter. Syncs 505S via hot shoe of camera

Miscellaneous Accessories

Model Number	Compatibility			Description
	405	505	505i	
410	Yes	No	No	Pole mount kit for 405R, 3 piece extended range 3/8" to 2 1/4"
415	Yes	Yes	No	AC adapter/charger for 505R or 405R, 115 VAC
438	Yes	No	No	Replacement belt clip for 405T transmitter
510	No	Yes	Yes	Pole mount kit for 505R/Ri, 3 piece extended range 3/8" to 2 1/4"
511	No	Yes	No	Replacement belt clip for 505S sender
512	No	No	Yes	Replacement dead shoe mounting kit for mounting 505Si to bracket or tripod
515	No	No	Yes	AC adapter (US) for 505Ri
538	No	No	Yes	Replacement belt clip for sender (505Si)



QUANTUM DIGITAL METERS

Quantum meters have remained classics because of their unique features shared with no other meters:

- They are the smallest professional meters.
- Their LED readouts are very rugged and can be seen in darkness.
- They have an incredible reputation for durability going back over 17 years.
- They have great price / performance. Made in USA.

Quantum meters share these features with other professional meters:

- Memory recall of last reading.
- Professional accuracy, $\pm 1/3$ stop
- Accessories
- Incident / reflected light, flash, ambient + flash, footcandles, footlamberts, lux.



With the Fiber Optic Probe PM10, the PhotoMeter 1 or LX will give pin-point luminance readings

Accessories for Calcu-meters

ST-	Standard Turret	FOX-2-	12" flexible fiber optic probe
SX-1-	10° spot metering attachment	MX-1-	Microscope attachment
DX-1-	Flat diffuser	FTS -	Flash trigger switch- for CFS
FOX-1-	1" fiber optic probe	CFC-	Replacement sync cord for CF2
SDX-	Swivel dome	HC1-	Hard Case
DX-2 -	Diffuser/enlarging attachment	HC2-	Soft Case

Accessories for PhotoMeters

PM10-	Rigid fiber optic probe- must be calibrated with meter	PM12-	Flexible fiber optic probe- must be calibrated with meter
PM11-	Illuminance receptor, rotating- must be calibrated with meter	HC2 -	Soft Case

Models

CFS - Calcu-Flash S measures studio or portable thyristor flash units, including direct and bounce flash, fill-in flash at 1/60 sec., multiple flash, and even accumulated flash. It's very easy to operate and a great value.

CF2 - Calcu-Flash II is a combination meter that measures flash, flash plus ambient, or ambient light alone. It offers adjustable flash sync speed settings over a six stop range from 1/15 to 1/500 sec., and the ability to test fire your flash from the subject position. It has professional versatility.

CLXP - Calcu-Light XP gives you fast, accurate measurement of both reflected and incident light, with an unusually wide measuring range of EV -7 to EV +21. By rotating the meter's calculator dial to the light reading, you can see, at a glance, every usable shutter speed and aperture combination. This is invaluable when you're determining depth-of-field.

PM1, PMLX - PhotoMeter 1 & LX are precision reference meters for video, cinematography, industrial, and scientific use. Both meters take either illuminance or luminance readings. PhotoMeter 1 reads from 0.01 to 99,900 footcandles or footlamberts. PhotoMeter LX reads from 0.1 to 999,000 lux or candela/metre².

Write or call for the technical brochure for photometers.



Inexpensive studio flash meter with 1/3 stop readout

Featured Accessories



Mounting clamp QBC holds any Quantum pack to a light stand, tripod leg, or monopod



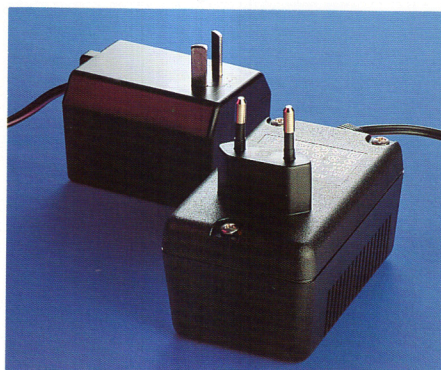
Locking Modules fit the battery compartments of all popular flashes. US Patent #4,988,584



Charge your Turbo Battery between assignments with the optional QT46 vehicle charger



Hot shoe adapter QF53 lets you sync accessories (such as Radio Slave and Qflash) to cameras with only hot shoe sync



Chargers are available for using your Quantum worldwide. Fast chargers, vehicle chargers also available



Versatile QF70 L bracket can be used as a conventional quick release bracket, as well as a platform for a flash and Radio Slave

Specifications

Quantum Battery Packs

	Bantam	QB1+	QB2-QB4	Turbo
Size cm	7.5 x 10 x 3	9 x 11 x 4.3	17-21 x 8 x 4.3	17 x 10 x 4.3
inches	3 x 4 x 1.2	3.7 x 4.2 x 1.7	6.5-8 x 3 x 1.7	6.7 x 4 x 1.7
Weight	400g (14 oz)	750g (26 oz)	940-1200g (33-40 oz)	1100g (39 oz)
Battery energy	7.2 watt-hr.	15 watt-hr.	21-25 watt-hr.	24 watt-hr.

Radio and Master Slaves

	Radio Slave 4i Remote	Radio Slave 4i Sender	Master Slave
Batteries	4 x AA alkaline/lithium	1 x 9v alkaline	1 x 9v alkaline
Battery Life	approx. 400/800 hrs	1-2 years	1-2 years
Size	10 x 7.5 x 3.7 cm, plus "foot" 4.2 x 3 x 1.5 in.	10 x 6 x 2.5 cm 4 x 2.5 x 1 in.	5 x 2 x 2 cm 2.5 x 1.2 x 1.2 in.
Weight	170g (6 oz) w/o battery	80g (3 oz) w/o battery	50g (2 oz)

Digital Meters

	Calcu-Flash S	Calcu-Flash II	Calcu-Light XP
Incident light	N/A	x	x
Reflected light	N/A	x	x
Accuracy	within 1/3 stop or Ev		
Light measuring angle	180° incident; 30° reflected		
Ambient range, iso 100	N/A	Ev3 - Ev24	Ev-7 - Ev21
Trigger	Cordless	Cord & Cordless	N/A
Size	10 x 7 x 3 cm (4 x 2.8 x 1.2 in)		
Weight	120g (4.5 oz)	130g (4.6 oz)	112g (4 oz)
Batteries	Commonly available watch & photo button cells type A76, MS76, 10L14, 357, etc.		

	PhotoMeter 1	PhotoMeter LX
Illuminance	footcandles	lux
Luminance	footlamberts	candela/metre ²
Range	0.01 - 99,900	0.1 - 999,000
Readout	3 digit LED display	
Accuracy	within 7%, ± 2 digits for color temp. 2800°K	
Sensor	Silicon photodiode with photometric filter	
Spectral response	Close match to the C.I.E. photopic response	
Size	10 x 7 x 3 cm (4 x 2.8 x 1.2 in)	
Weight	120g (4.5 oz)	
Batteries	Commonly available watch & photo button cells type A76, MS76, 10L14, 357, etc.	

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