Controls

Multi/Micro USB terminal

Flash lamp

LED light unit/ AF illuminator

Wireless control signal receiver

Sync terminal

Multi Interface foot

Built-in wide panel/ Bounce sheet

Bounce indicator (upper/lower angle)

Fn button

LEVEL -/+ button

TEST button

Lock lever (Release button)

LINK lamp

LCD panel

MENU button

Power switch

Center button

Control wheel

Battery chamber door

Specifications

Basic information	Dimensions (approx.)	W 78.1mm × H 139.5mm × D 104.6mm (3 1/8inches × 5 1/2inches × 4 1/8inches)
	Weight (approx.)	449g (15.9 oz) (only main unit)
Type	Type	Auto electronic flash (clip-on type) with pre-flash metering
	Shoe type	Multi Interface Shoe
Flash head (Light-emitting unit)	Maximum guide number	60 (Flash coverage setting 200mm/STD flash distribution, ISO 100·m)
	Flash coverage	AUTO/MANUAL (20mm-200mm) Angle of view at 14mm focal length is also covered with the wide panel
	Flash mode	TTL/MANUAL/MULTI
	Flash duration (approx.)	Within 2.8ms (1/1 MANUAL)
	Color temperature (approx.)	5500K
	Recycle time	0.1-2.5 seconds (Alkaline battery)/0.1-1.7 seconds (Ni-MH battery)*1
	Number of flashes	More than 150 times (Alkaline battery)/More than 220 times (Ni-MH battery)*1
	Continuous flash performance	40 flashes at 10 flashes per second*2
	Bounce flash	Yes
	Bounce angle	Up 150deg (0deg/30deg/45deg/60deg/75deg/90deg/120deg/150deg) Down 8deg Left and right 90deg (0deg/30deg/45deg/60deg/90deg)
	Test flash	Yes
	Flash control	Flash control using pre-flash (P-TTL/ADI)
	Flash compensation	Yes*3
	Power level switching	25 levels (1/1-1/256) 1/3 steps
	High-speed sync (HSS)	Yes
	Modeling flash	Yes
	Built-in wide panel	Yes (14mm)
	Built-in bounce sheet	Yes
AF illuminator	AF illuminator	Yes*3
	Operating range (approx.)	0.5-3m*4 /0.5-10m*5
Radio controlled wireless function	Radio controlled wireless flash	Yes (commander/receiver)*6
	Frequencies	2.4 GHz band
	Channels	14 Channels (Auto/manual)
	Communication distance (approx.)*7	30m*1
	Groups	3 groups (TTL/MANUAL), 5 groups (group flash photography)
	Maximum flash units	15 units
	Lighting ratio control	3 groups (TTL)
Optical controlled wireless function	Optical controlled wireless flash	Yes (controller/remote)*8
	Channels	4 Channels
	Communication distance (approx.)*7	5m*1
	Groups	3 groups
	Lighting ratio control	3 groups (TTL)
LED light function	Center luminance intensity (approx.)	1200lx(0.5m)/300lx(1m)
	Lighting distance (approx.)	2m (when recording movies, set to ISO 3200 & F5.6)
	Focal length supported	35mm (35mm-format angle of view)
	Continuous lighting time (approx.)	1 hour (with Sony AA-size alkaline battery)
	Color temperature (approx.)	5500K
	Power level switching	15 steps
Other functions	Auto zoom control optimized for image sensor size	Yes*9
	Flash distribution setting	Yes
	Auto WB adjustment	Yes*9
	Custom key settings	Yes
	Memory settings	Yes
	Remote release	Yes
Display	LCD panel	Yes (Dot matrix)
External connectors	Sync terminal	Yes (IN/OUT)
	Multi/Micro USB terminal	Yes
Power source	Power source	Four AA-size alkaline or Ni-MH batteries
Other features	Dust and moisture resistant design	Yes*10
What's in box	Supplied accessory*11	Connector protect cap (1), Mini-stand (1), Case (1), Bounce adaptor (1), Color filter (amber) (1), Color filter (green) (1), Carrying pouch (1)

*1 Sony test conditions.   *2 Normal flash, power level 1/32, 105mm, Ni-MH battery.   *3 Depending on the camera, this function is not available. For details, see support page. http://support.d-imaging.sony.co.jp/www/cscs/accessories/   *4 While a 50mm lens with the aperture set at F5.6 is attached and [AF LED LEVEL] of the flash unit is specified as [LOW]. *5 While a 50mm lens with the aperture set at F5.6 is attached and [AF LED LEVEL] of the flash unit is specified as [HIGH].   *6 Requires Radio Control Wireless Flash (sold separately) or Wireless Radio Receiver FA-WRR1 (sold separately) or Wireless Radio Commander FA-WRC1M (sold separately).   *7 May vary according to conditions.   *8 Requires Optical Control Wireless Flash (sold separately).   *9 Except DSLR-A100.   *10 Not guaranteed to be 100% dust and moisture proof.   *11 Warranty and Operating Instruction are excluded.

Refer to the Sony support page for camera compatibility information. http://www.sony.net/flash/f60rm/

SONY

External Flash with Wireless Radio Control

HVL-F60RM

HVL-F60RM

Powerful guide number 60 (GN60) flash with high-speed continuous shooting capability and radio control

High output and high-speed continuous shooting

GN60 power and wide range lens focal-lengths supported

The high GN60*[1] output of this clip-on flash unit provides plenty of power for a wide range of shooting situations. 20mm to 200mm (14mm with wide panel) lens focal-lengths are supported with flash coverage.
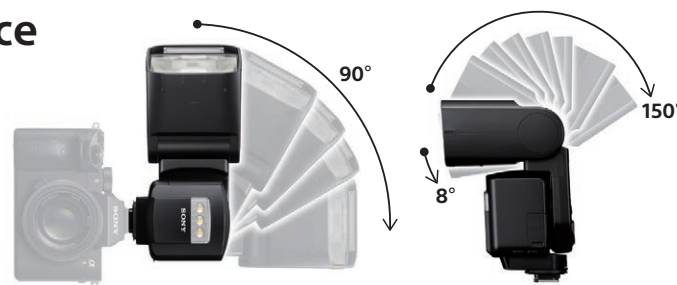
Continuous shooting support

Heat-resistant materials and advanced algorithms boosts maximum continuous shooting capability to approximately four times that of the previous Sony HVL-F60M*[2]. The HVL-F60RM resists overheating even when continuously cycled for extended periods. Number of flashes is 220 times*[3] with one set of batteries (four batteries). Recycle time is no more than 1.7 sec.*[3], or just 0.6 sec.*[3] with the optional External Battery Adaptor (FA-EBA1). Proper flash synchronization is maintained during continuous shooting, minimising flash misfires and ruined shots.

Sony's original Quick Shift Bounce

Quick Shift Bounce allows fast flash position changes

Quickly shift from horizontal to vertical orientation, 90° left or right, upward by up to 150°, and downward by 8° for flexible positioning and optimum lighting when quickly switching composition between vertical and horizontal.
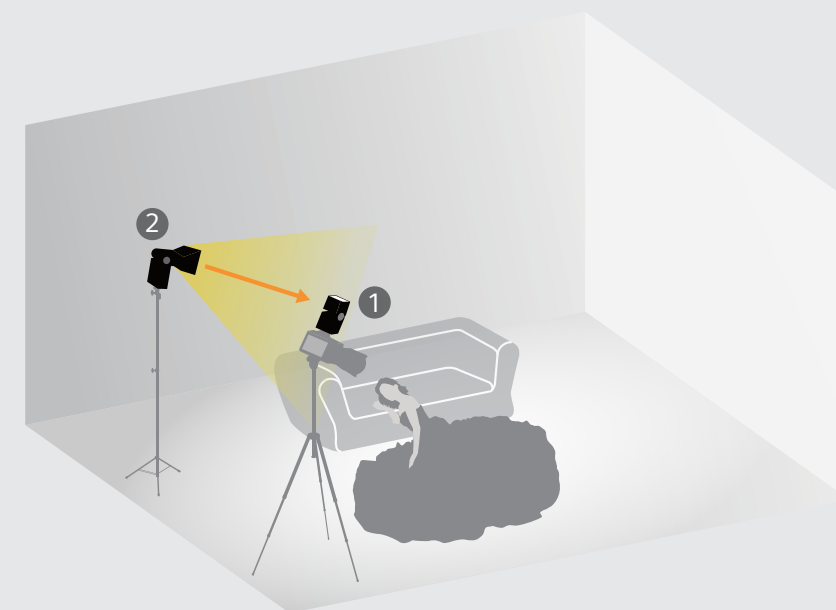
90°

150°

8°

1/160 sec., F5, ISO 100 α7R III FE 24-70mm F2.8 GM (SEL2470GM)

Flash set-up

Wireless control of multiple flashes is an ideal solution for small studios where large lights cannot be used or when time is limited.

1 α7R III │ FE 24-70mm F2.8 GM │ HVL-F60RM (HVL-F60RM is used as a commander.)
2 HVL-F60RM │ Diffuser │ Power level 1/1

*1 200mm at ISO 100 in meters. *2 Sony test conditions. *3 When using Ni-MH batteries. Sony test conditions.

1/100 sec., F5.6, ISO 800 α7R III FE 24-70mm F2.8 GM (SEL2470GM)

1/25 sec., F2, ISO 800 α7R III FE 85mm F1.4 GM (SEL85F14GM)

Refined controls for extra operability and convenience

Direct output adjustment
An independent light output level button (LEVEL -/+ button) allows direct control of output for efficient workflow. A comprehensive display facilitates adjustments and flash output level confirmation, and also provides intuitive access to flash output settings for paired wireless flashes.

Custom keys and TTL flash memory
Functions can be freely assigned to the unit's four-way controller, center button, and control wheel for easy access when required. What's more, TTL flash output can be memorized and recalled when needed for immediate use or use after minor adjustment. This is another feature that can simplify manual workflow and save time.

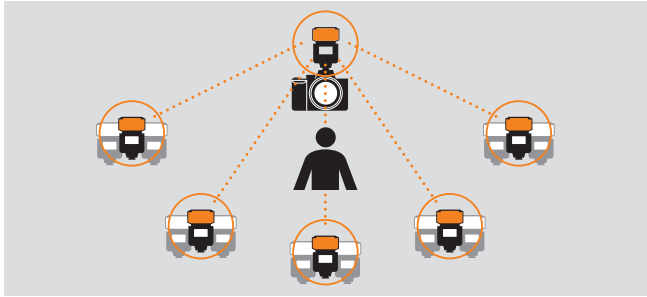# Comprehensive optical and wireless radio flash control

Stable wireless radio communication
Both optical remote flash triggering and wireless radio triggering are supported. One HVL-F60RM mounted on a compatible camera paired with off-camera units provides reliable, interference-free radio communication in conditions that would make optical communication difficult. Slow sync, rear-curtain sync, and multi flash are supported.*4
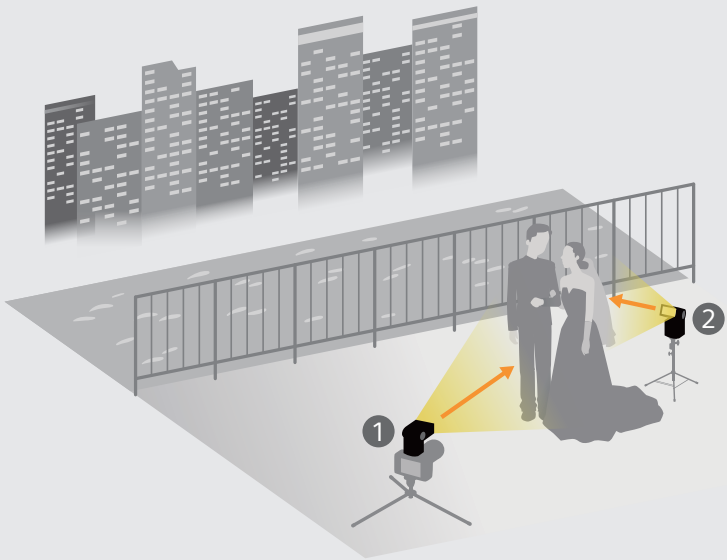

Multi flash ratio control
Up to 15 flash units can be assigned to up to 5 groups*5 for wireless flash control at distances of up to 30 meters.*6 Optional Wireless Radio Commander (FA-WRC1M) and Wireless Radio Receiver (FA-WRR1) units allow the HVL-F60RM to be used with Sony flash units that do not have built-in radio wireless capability, as well as the radio-capable HVL-F45RM.

Flash set-up
Wireless operation allows triggering at a distance from the camera, or when the subject blocks line-of-sight communication. The use of a pairing system means that interference from other radio sources won't affect operation.

① α7R III │ FE 85mm F1.4 GM │ HVL-F60RM │ Power level 1/32,+0.3
② HVL-F60RM │ Power level 1/64

*4 For compatibility information visit Sony's camera support page. http://www.sony.net/flash/f60rm/   *5 In the Group flash mode. Up to 3 groups in the TTL or Manual flash mode. *6 Sony test conditions.
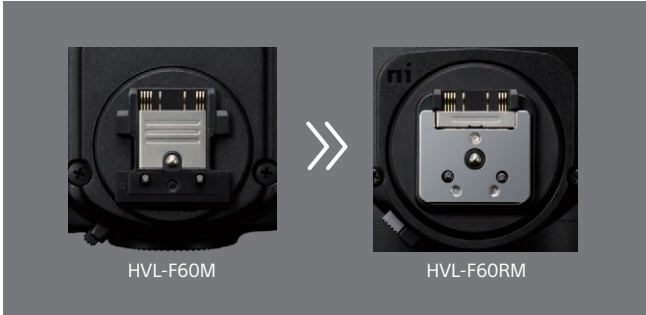
1/20 sec., F2.8, ISO 1600 α7R III FE 85mm F1.4 GM (SEL85F14GM)

Features for versatile flash shooting

Professional reliability in challenging environments

A metal Multi Interface foot contributes to reliability. A dust and moisture resistant[7] design ensures reliable operation in harsh environments. An optional Rain Guard (FA-RG1) provides even further protection and reliability. All of these features support comfortable shooting.

HVL-F60M   HVL-F60RM

LED light and AF illuminator

Not only for studio, but also for outdoor shooting, a built-in LED light can provide extra illumination. It also functions as an AF assist light to ensure accurate autofocus operation in dim lighting. The LED can make manual focus easier in dark situations too.

Bounce adaptor

The supplied bounce adaptor can be attached for extra diffusion that will illuminate a wider area than the bare flash and also create softer shadows. Use the bounce adaptor with the wide panel to enhance the effect even further.

Color filters

In addition to an auto white balance function that automatically adjusts for light color in scene being photographed, supplied color filters can be used to match or complement existing lighting in order to achieve natural white balance or create a specific atmosphere.

Sync terminal (IN/OUT)

The sync terminal can function as either an input or an output. As an input it can receive the trigger signal from a flash meter when determining exposure, for example. As an output it can relay the flash trigger to an external monobloc flash or similar for expanded multi-flash versatility.

Remote release

The remote release function can be used to remotely release the shutter in synchronization with one or more flash units, making it possible to simultaneously shoot a single subject from multiple angles, for example.

Multi/Micro USB terminal[8]

The flash unit can be connected to a computer via its Multi/Micro USB terminal for convenient software updating when available.

The expanding Sony's lighting system

Flash
HVL-F45RM
Compact and lightweight clip-on flash with GN45[9].
Built-in wireless radio control in multi-flash settings and conventional optical wireless communication.

Flash
HVL-F32M
Slim, compact, and lightweight flash. Optical controlled wireless flash.

Flash
HVL-F20M
Compact, easy-to-use flash for advanced lighting. Optical controlled wireless flash.

Wireless Radio Commander
FA-WRC1M

Wireless Radio Receiver
FA-WRR1

Wireless radio commander (FA-WRC1M) and wireless radio receiver (FA-WRR1) units allow Sony flash units that do not have built-in radio wireless capability, such as the HVL-F32M[10] to be used as radio wireless flash.

NEW
External Battery Adaptor for Flash[10]
FA-EBA1
External battery power for sub-second cycle times and continuous shooting.
The supplied battery magazine can be inserted in either orientation for fast battery changes. The magazine holds eight AA batteries, but can be used with just four batteries if required.

NEW
Rain Guard[10]
FA-RG1
Rain Guard to minimize ingress of water dripping into the flash and the camera[11].

*7 Not guaranteed to be 100% dust and moisture proof. *8 Not for battery charging. *9 105mm at ISO 100 in meters. *10 For compatibility, refer to the Sony support website. *11 This unit is designed to minimize ingress of water dripping down from the attached flash into the camera, but not to completely protect against water ingress. When the camera is held in the portrait orientation or at a tilt for photographing, in particular, it may fail to protect against water ingress.