

## Table of Contents

1. Getting to Know the Cactus V6 II
2. Cautions and Warnings
3. Major Specifications
4. Package Contents
5. Nomenclature
6. LCD Panel
7. Compatibility
8. TTL Pass-through
9. Getting Started
10. Camera System: Auto Detect and Learning
11. Flash Profile: Auto Detect and Customization
12. Flash Triggering
13. Remote Manual Power Control
14. High Speed Synchronization
15. Camera Shutter Release
16. Advanced Operations
17. Personalizing the V6
18. Working with Cactus Gear
19. LED Signal Guide
20. USB Connection
21. Optional Accessories
22. Troubleshooting
23. Notices
24. Warranty

## 1. Getting to Know the Cactus V6 II

Thank you for purchasing the Cactus Wireless Flash Transceiver V6 II. Compared with its predecessor V6, the Cactus V6 II allows you to command different brands' flashes off camera below or above x-sync speed. The freedom to adjust shutter speed equips you the best flexibility in controlling apertures and power levels – the possibilities are endless!

### 1.1 Special Features

1. **Cross-brand** wireless manual power control of Canon, Fujifilm, Nikon, Olympus, Panasonic, and Pentax flashes;

2. Two cross-brand high-speed sync modes: **Normal HSS** and **Power Sync**;
  - Normal HSS supports shutter speeds up to 1/8000s;
  - Power Sync boosts flash contribution above x-sync shutter;
3. **Rear curtain sync** and **slow sync** supported;
4. **Multi-master** supports up to 16 photographers firing the same set of flashes at their own power setting;
5. **AF-assist LED** illuminates focusing blind spot when needed;
6. **Flash specific profiles** with calibrated power levels for many current and previous flash models;
7. **User calibration** of flash profiles to ensure accurate power output;
8. **Lo Power** mode fires the flash for extremely short lengths of time;
9. **Absolute Power** mode benchmarks the power output of different flash models to the same light intensity;
10. **TTL pass-through** with Canon, Nikon, Fujifilm, Olympus, Panasonic and Pentax via one single unit;
11. **Group control** allows you to control up to four groups;
12. **Relay mode** triggers the camera shutter and flash in sync;
13. **Delay mode** is configurable from 1 millisecond to 999 seconds;
14. **Mini-USB** port for optional power supply and firmware update;

## 1.2 HSS and Power Sync Capabilities

Most cameras supports normal flash sync up to its x-synchronization shutter speed (commonly between 1/160 seconds and 1/250 seconds). Beyond this shutter speed, the cameras and the system flashes will behave differently. The high-speed sync, which is also known as the HSS or FP sync, has to be enabled on the system flash in order to synchronize the flash light with the camera beyond the x-sync shutter.

Cactus V6 II supports cross-brand high-speed sync in two ways:

1. **Normal HSS**: It supports the HSS or FP sync capabilities of the system flashes. While it allows user to adjust power levels, the flash exposure is much lower than the normal flash sync.
2. **Power Sync**: It syncs with the full power flash pulse without compromises on the flash exposure. While it does not allow power level adjustment, the flash exposure is much higher than the normal HSS mode.

## 1.3 Auto and Model-Specific Flash Profiles

Each flash model has its individual power level characteristics. In V6 II, we have profiled them in two ways:

1. System-specific **Auto Flash Profiles**: The V6 II can auto detect the camera system of the connected flash and activate the 'Auto' profile that will work with all flash models of the same camera system;
2. **Model-specific Profiles**: For more accurate power output, users can choose from the V6 II menu the flash profile that would work perfectly with the specific flash model.

We have profiled more than 40 popular flash models across a wide range of brands so that the V6 II can precisely control their output levels. With this unique feature, photographers can remotely control the flash power of various flash models, even of different brands!

For flash models that have not been included in the profile list, the V6 II can still work with it by the auto flash profiles. Users could further calibrate the flash profiles in the Cactus Firmware Updater to produce more accurate power outputs.

Whether built-in or calibrated from the firmware updater software, the flash profile stored in the V6 II can virtually command the flash to produce ANY power level within the maximum output, and even exceeds what the flash menu allows you to do:

1. Finer increment scales: The V6 can adjust the power level of flash to 1/10 EV step, a much finer increment level than the flash menu itself allows (see Section 12.3 for setting up the EV step).
2. Extremely short firing time: In Lo Power mode, the V6 can fire flashes for very short lengths of time at extremely low power levels (roughly equal to 1/256), which is beyond the standard flash power range (see Section 12.4 for enabling the Lo Power output).
3. Unified power level scale for different flash models: The V6 benchmarks the light intensity output of different flash models in your set up and commands them to fire at the same power scale (see Section 12.2 for adjusting absolute power).

Ready to go? Let's get on board and see what the V6 II can do!

## 2. Cautions and Warnings

Before using your V6, read the following safety precautions to ensure correct and safe use:

1. Turn OFF all your equipment (e.g., Cactus units, flash units, cameras, etc.) before changing batteries or making connections. Observe the correct polarity when changing batteries. There is a danger of explosion if the batteries are installed incorrectly.
2. Switch off the transceiver and remove batteries during storage.
3. Do not permanently store the product in a high temperature environment (i.e., under strong direct sunlight, near cooking stoves/oven).
4. The Cactus V6 II should never be submerged in liquid or exposed to heavy rain unless it is properly protected.
5. Do not operate the device in the presence of flammable gases or fumes.
6. Do not disassemble.
7. Do not crush and do not expose the V6 II to any shock or force such as hammering, dropping, or stepping on it.

## 3. Major Specifications

- Working radio frequency: 2445.80-2480.99MHz
- Number of channels: 16
- Number of groups: 4
- Support sync speed up to 1/8,000 second
- High-speed sync modes: Normal HSS, Power Sync
- Maximum effective distance: 100 meters
- Operating temperature: -20°C to +50°C
- Camera voltage handling: up to 6V
- Flash voltage handling: up to 300V
- Dimensions: 72mm (L) x 72mm (W) x 42 mm (H)
- Weight: 68g
- Power input: 2 x AA battery, 3V, 50mA, 0.15W; mini USB 2.0, DC input 5V, 500mA~1A
- Estimated battery life in hours (with LCD backlight on):

Alkaline AA Batteries 1000mAh		Rechargeable NiMH AA Batteries 2500mAh	
TX	RX	TX	RX

55	31	61	34
----	----	----	----

## 4. Package Contents

*(image)* V6 II Transceiver

*(image)* Flash Stand FS-2

*(image)* Album & User Manual

## 5. Nomenclature



TEST BUTTON/ SHUTTER RELEASE BUTTON

MULTI-SYSTEM SHOE (FEMALE)

LCD DISPLAY

LANYARD LOOP

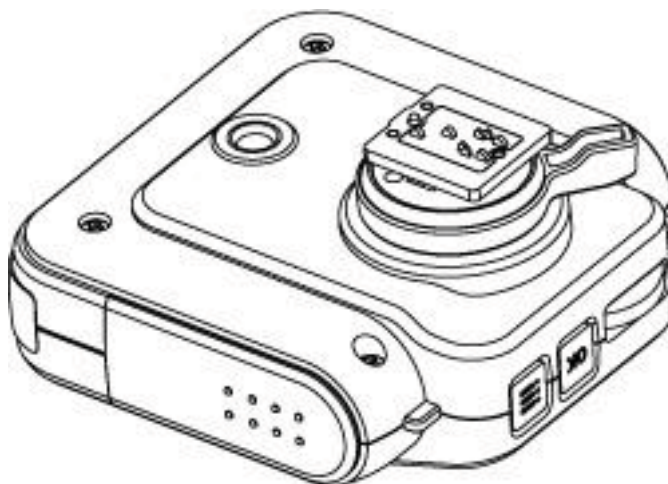
X-SYNC PORT

MINI USB PORT

MODE SWITCH

GROUP BUTTONS

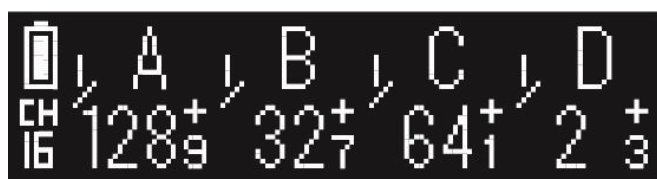
AF ASSIST LIGHT



- TRIPOD MOUNT
- MULTI-SYSTEM SHOE (MALE)
- HOT SHOE LOCK LEVER
- SELECTION DIAL
- OK BUTTON
- MENU BUTTON
- LED STATUS INDICATOR
- BATTERY DOOR

## 6. LCD Panel

### 6.1 TX Mode



- BATTERY INDICATOR
- GROUP
- CHANNEL
- POWER LEVEL
- POWER LEVEL INCREMENT

### 6.2 RX Mode



BATTERY INDICATOR  
GROUP  
POWER LEVEL  
POWER LEVEL INCREMENT  
SELECTED FLASH PROFILE  
WIRELESS SENSITIVITY  
CHANNEL  
DELAY TIMER  
RELAY MODE INDICATOR  
SLAVE MODE INDICATOR

## 7. Compatibility

The Cactus V6 II is both a wireless flash trigger and wireless remote control. While it triggers both portable flashes and studio strobe lights, it also supports remote control features with selected flash models.

### 7.1 Flash & Studio Strobes

#### 7.1.1 Cactus RF60x / RF60

With the built-in Cactus V6 module, the Cactus RF60 series can be remotely commanded and triggered by V6 II TX (see Section 16.1.1).

#### 7.1.2 Flash Models with Digital TTL Mode:

- Canon e-TTL
- Fujifilm TTL
- Nikon i-TTL
- Olympus / Panasonic TTL
- Pentax TTL

#### 7.1.3 Other Flash Models and Studio Strobes

The Cactus V6 II triggers all other flash models via the hot shoe, and studio strobes with the PC sync male port, 3.5mm or 6.35mm port via optional cables (see Section 19). This includes high trigger voltage portable flash models, and all strobe models with a trigger voltage of 300V or under. The Cactus V6 II does not provide remote power control of these flashes and strobes.

For studio flashes to work with high-speed sync, they have to maintain a flash duration of 1/100 second or longer.

**Caution:**

Flashes or strobes with reversed polarity connectors DO NOT WORK with the Cactus V6 series.

## 7.2 Cameras

The Cactus V6 II works with practically all cameras that come with either (1) a standard ISO hot shoe, or (2) a female sync port connection.

For the high-speed sync and the AF assist capabilities, the V6 II would support cameras from Canon, Nikon, Olympus, Panasonic and Pentax that (1) comes with their specific system hot shoes, and (2) equipped with the same features with their system flashes. The V6 II supports HSS adaptation

To use the V6 II as a wireless shutter release, specific shutter cables are required. For the list of optional accessories, see Section 19.

## 7.3 Flash Triggers

### 7.3.1 Cactus V6

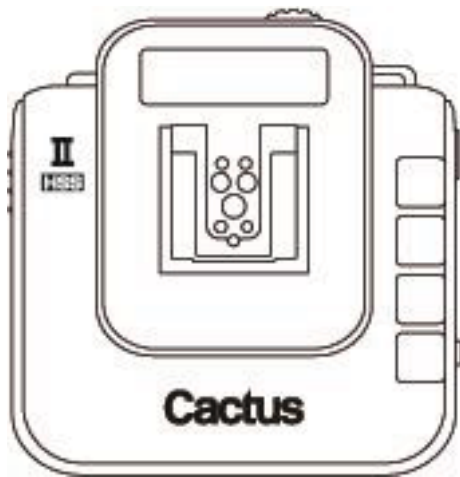
The Cactus V6 II is compatible with the Wireless Flash Transceiver V6, V5 and Laser Trigger LV5. See Section 16.2 for details.

### 7.3.2 Other Flash Triggers

The Cactus V6 II is NOT compatible with any other flash trigger model, including the Cactus V2, Cactus V2s, and Cactus V4.

## **8. TTL Pass-through**






The V6 II transceiver comes with a multi-system shoe that supports TTL pass-through.

While the V6 II does not command slave flashes to fire TTL exposures wirelessly, it is designed to pass TTL signal from camera to flash via the transmitter (TX) and vice versa.


The multi-system shoe supports TTL pass-through of Canon, Fujifilm, Nikon, Olympus, Panasonic, and Pentax systems. Make sure that camera and flash unit belong to the same TTL system.

With TTL pass-through, the TTL flashes behave as they would when directly connected to the camera hot shoe. The V6 II will work as a wireless flash commander while supporting all the automatic features (e.g., automatic flash output via TTL metering, AF assist light, second curtain sync, high speed sync/FP shutter) provided by the TTL flash system.

To enable TTL pass-through in the V6 TX II, press and hold  for 2 seconds. The LCD will show the TTL pass-through indicator at the left bottom corner where the channel indicator used to be.

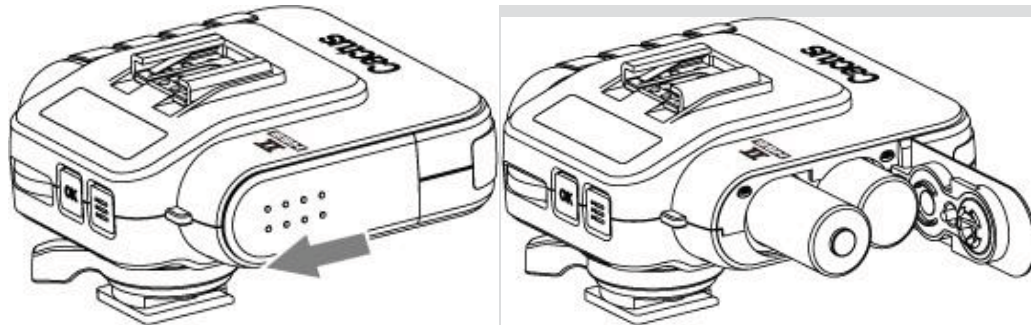
*(image)*

In TTL pass-through mode, the V6 II TX cannot control the power level of the flash attached.

To disable the TTL pass-through mode, press and hold  for 2 seconds. The TTL pass-through indicator will be replaced by the channel indicator on the LCD.

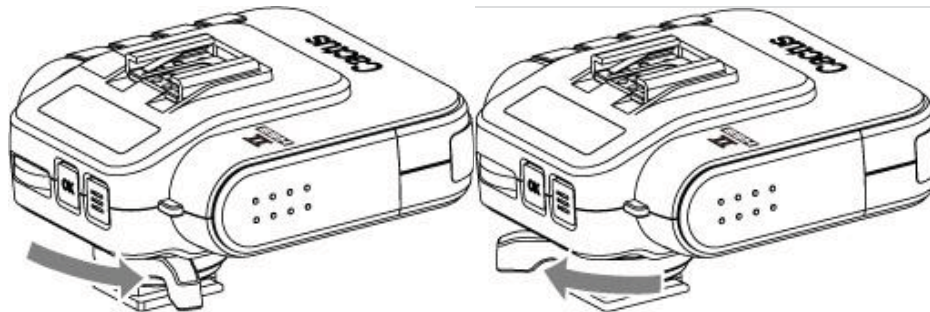
## 9. Getting Started

### 9.1 Installing the Batteries



Open the battery door by pushing it backward. Flip open the latch and insert two AA batteries using the correct polarities. Then close the battery door by pushing it to the front.

### 9.2 Attaching to and Detaching from the Camera






To mount the V6 II on a camera's hot shoe mount:

1. Turn the lock lever of the V6 II to the left to unlock the multi-system shoe (male).
2. Slide the V6 II into the camera's hot shoe.
3. Turn the lock lever of the V6 II to the right to lock the multi-system shoe (male).
4. When detaching the V6 II from the camera's hot shoe, turn the lock lever to the left to unlock the multi-system shoe (male). Otherwise, the multi-system shoe (male) may be damaged.

Note: Attach your flash to the V6 II as you would to the camera's hot shoe. If your

flash is not locked securely on the Multi-System Shoe (female), try half-locking the flash and retracting it slightly from the Multi-System Shoe until the locking pin hits the pinhole. Then lock your flash fully to the V6 II.









### 9.3 Buttons and Dial

The V6 II control panel is equipped with a Menu button , an OK button , and a selection dial  for quick access to different functions and the configuration menu.

The selection dial has a built-in push-in button that serves as a quick OK button. You may configure how the dial works to suit your working habit. (see Sections 17.1 - 17.3).


Major functions of the V6 II listed below are easily accessible by the buttons and dial.












#### Group Control (see Section 9.6)

Function	Mode	LCD	Key
Select a group (e.g., group A) for adjusting parameters (power level / zoom)	RX	Main screen, when the group is not selected	Hold* 
Deselect a group (e.g., group A)		Main screen, when the group is selected	
Turn on / off a group (e.g., group A)		Main screen, when the group is not selected	
Test firing a group (e.g., group A)		Main screen	 + 
Group EV Offset in absolute power mode (e.g., to group A)		Main screen, in absolute power mode	 + 
Change the RX to another group (e.g., to group A)	RX	Main screen	





\* Hold = Press and hold the button for 2 seconds, then release.

#### Adjusting Power Level and Zoom (see Sections 13.1 and 17.1)



Function	Mode	LCD	Key
Adjust power level of all groups	TX	Main screen	

Adjust power level of a single group (e.g., group A)		Main screen	 + 
			Hold  , then 
Main screen		 + 	
Main screen			
Adjust power level of the Master flash		Main screen	 + 
Quick power adjustment		Main screen	
Zoom (Cactus) mode (needs configuration in menu beforehand)		Main screen	




#### Navigating the Menu (see Section 9.7)

Function	Mode	LCD	Key
Enter the menu	TX/RX	Main screen	
Browse through menu items and options		Menu	
Choose a menu item or option		Menu	
Leave the menu		Menu	


#### TTL Pass-through / Flash Lock (see Sections 8 and 10.1)

Function	Mode	LCD	Key
Enter / leave TTL pass-through mode	TX	Main screen	Hold 
Unlock the slave flash	RX	Main screen	Hold 

#### Dial Lock (see Section 17.2)

Function	Mode	LCD	Key
Lock the dial	TX	Main screen, when the dial is unlocked	Hold 
Temporarily unlock the dial		Main screen, when the dial is locked	
Unlock the dial		Main screen, when the dial is locked	Hold 

#### Firmware (see Section 20.2)

Function	Mode	Key
Check firmware version	OFF	Hold <b>A</b> + <b>D</b> and switch on to TX or RX mode
Firmware update mode		Hold  and switch on to TX or RX mode





## 9.4 Choosing the Operating Mode

*(image)*

The Cactus V6 II is a wireless transceiver that is capable of transmitting and receiving radio signals. Set the V6 II transceivers to the correct mode (transmitter to “TX”, receiver to “RX”) by sliding the mode switch to the correct position. This will automatically power on the transceivers.

## 9.5 Setting the Channel

The Cactus V6 II transceivers communicate with each other via radio frequency. There are 16 channels available. Always make sure that all of your V6 II transceivers are set to the same channel:

1. To set both TX and RX to the same channel, press . The LCD will show <CHANNEL> and the default channel number. Press  and turn the selection dial to the preferred channel number. Press  to set other menu items or press  to exit.
2. The selected channel number will be displayed on the LCD screen.

## 9.6 Setting and Selecting the Group

*(image)*

The group function in the V6 II can assign RXs into Group A, B, C, or D, and allows you to choose which group(s) to fire from the TX unit.





1. All V6 II transceivers must be set to the same channel.
2. Assign RX units to Groups A, B, C, or D by pressing one of the group buttons. Each RX can only be assigned to ONE group. The LED of the selected group will turn on.
3. Command the TX to fire any combination of groups by pressing the group button(s). You can fire any combination of A, B, C, and D groups. The LED of the activated group(s) will turn on.
4. To change the power level of a specific group, press and hold an activated group button. Quickly pressing the group button again will de-select the group.

5. Pressing the group button(s) of activated groups again on the V6 II TX will turn off the group(s). The V6 RX units that have been set to the off group(s) will not fire.
6. The V6 II will memorize the group selection in both TX and RX when it is switched off. Next time you switch on the V6 it will start up with the saved setting.

## 9.7 Navigating the Menu

There are a number of configurable menu options in the V6 II.

To change a menu option:

1. Press  to bring up the first menu item.
2. Dial right or left to scroll through each menu item.
3. Press  or push-in button once to access a menu item.
4. Dial right or left to scroll through each option of a menu item.
5. Press  or push-in button once to select the option. The configuration of the menu item will change immediately.
6. Press  to leave and go back to the main screen, or dial right or left to the next item in the sequence.

Menu item	Options	Applicable modes	
		TX	RX
CHANNEL	1-16	√	√
RELAY	OFF ON	√	√
DELAY	OFF SET	√	√
Lo POWER	OFF ON	√	
POWER MODE	RELATIVE ABSOLUTE	√	
EV STEP	1/10 1/3 1/2	√	
CAMERA SYSTEM	AUTO CANON FUJIFLIM NIKON	√	

	OLYMPUS (M43) PENTAX OTHERS		
FLASH PROFILE	CANON FUJIFILM NIKON PENTAX OLYMPUS (M43) OTHERS CUSTOM*	√	√
GROUP SEQUENCE	OFF A-B-C-D AB-CD	√	
HIGH SPEED MODE	DISABLE HSS NORMAL HSS POWER SYNC	√	
LEARN HSS	START SKIP	√	
SUB-MENU	LCD BACKLIGHT SLEEP DIAL DIRECTION SWAP CONTROL WORK RANGE FACTORY RESET BACK TO MENU	√	√

\*when available

The following configuration items are grouped under the “sub-menu”.

Sub-menu item	Options	Applicable modes	
		TX	RX
LCD BACKLIGHT	OFF 5 SECS 15 SECS STAY ON	√	√

SLEEP	OFF 15 MINS 60 MINS	√	√
DIAL DIRECTION	CLOCKWISE ANTI-CLOCKWISE	√	√
BACKLIGHT POWER	1-10	√	√
DAY LIGHT MODE	DISABLE ENABLE	√	√
TEMPORARY UNLOCK	DISABLE ENABLE	√	
RADIO ID	0-9999	√	√
SWAP CONTROL	QUICK POWER ADJ ZOOM (CACTUS)	√	
AF ASSIST POWER	1-10	√	√
MAX. X-SYNC SPD	1/160 SEC 1/180 SEC 1/200 SEC 1/250 SEC	√	
WORKING RANGE	LONG SHORT	√	
FACTORY RESET	NO YES	√	√

## 10. Camera System: Auto-detect and Learning

To fully utilize the advanced features of the V6 II transceivers, it is necessary to configure the correct camera system profile to the V6 II TX. On the LCD screen, the different camera systems will be represented by the icons below:

Canon	(Canon Camera Logo)
Fujifilm	(Fujifilm Camera Logo)
Nikon	(Nikon Camera Logo)
Olympus / Panasonic (M43)	(Olympus Camera Logo)
Pentax	(Pentax Camera Logo)


### 10.1 Auto Detect

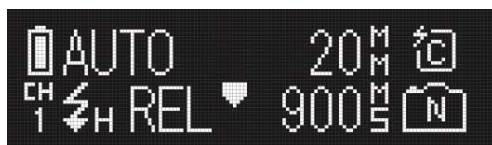


The V6 II TX is capable of auto detecting the camera system of the attached camera. It facilitates photographers to switch camera system promptly. To initiate the auto detection of camera system:

1. Attach your camera to the V6 II (see Section 9.2) and turn on your camera.
2. If you would like to command a master flash, attach your flash to the V6 II and turn on your flash.
3. Half press the shutter release of your camera while switching on the V6 II to the TX mode;
4. The V6 II will detect the camera system and the flash system of the attached camera and flash during the start up. The LCD screen will show the auto-detected camera and flash system briefly before loading the main screen.






5. To check the detected camera system from the main screen, press and hold the menu button  , and turn the selection dial to either direction at the same time. The detected camera system will be shown next to the channel.



6. The V6 II will memorize the detected camera system beyond the power cycle, until the next detection takes place.

## 10.2 Choose from Menu

Alternatively, photographers who mainly work on one camera system may choose it from the menu:

1. Switch on the V6 II in TX mode.
2. Press , and then turn the selection dial to <CAMERA SYSTEM>. Press .
3. Turn the selection dial until the LCD shows your camera system (e.g., <PENTAX>). Press .
4. The V6 II will memorize the chosen camera system beyond the power cycle, until you select another camera system from the menu next time.




**Note:** By choosing the camera system on the menu, the V6 II will disable the auto-

detection of the camera system when it is powered on. If you would like the V6 II to detect the camera system for you, choose <AUTO>. The option will display the camera system detected last time in the brackets (e.g., <AUTO(CANON)>).

### 10.3 Learn HSS

Even when you have assigned the correct camera system, there would be a chance that the camera does not sync with the slave flashes above x-sync speed. This would particularly happen when you fire and command the slave flashes in a different system from your camera.

We recommend photographers to initiate the HSS Learn to learn the HSS sync time of each of their camera once:

1. Mount the camera on the V6 II and switch on the V6 II in TX mode.
2. Make sure you have assigned the correct camera system to V6 II by auto detection (see Section 10.1) or menu configuration (see Section 10.2).
3. Press , and then turn the selection dial to <LEARN HSS >. Press .
4. Choose <START> and press . The LCD screen will show <PRESS SHUTTER WITHIN 30 SEC>.
5. Full press the camera to take a shot. The LCD screen will then show (LEARN COMPLETED> briefly.
6. The learned sync time will be implemented in that camera system until you initiate another learning again.

#### Notes:

1. The sync time of each camera system will be updated by the last learned result.
2. Changing cameras across system do not need re-learn again.
3. Changing cameras within the same system would need to LEARN HSS every time.

## 11. Flash Profile: Auto-detect and Customization

The V6 II transceiver commands flashes to fire at a particular output via flash profiles. There are three ways to obtain the correct flash profiles:

1. Let the V6 II detect and apply the <AUTO> flash profile (see Section 11.1).
2. Choose from the pre-installed flash profiles in the V6 (see Section 11.2).
3. Customize the auto profile in the Cactus Firmware Updater on a PC or Mac (see

Section 11.3).

On the V6 II LCD screen, the configured flash system will be represented by the icons below:

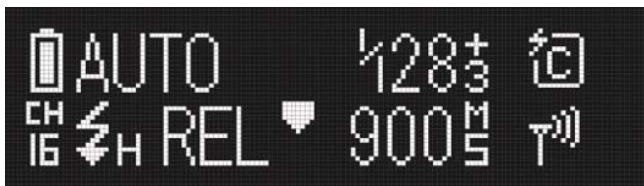
Canon	(Canon Flash Icon)
Fujifilm	(Fujifilm Flash Icon)
Nikon	(Nikon Flash Icon)
Olympus / Panasonic (M43)	(Olympus Flash Icon)
Pentax	(Pentax Flash Icon)

### 11.1 Detecting an Auto Flash Profile

The auto flash profile is camera system specific. It works with all digital flash within the same camera system to produce a moderately accurate (error within 0.3EV) flash output.

The V6 II is capable of auto detecting the flash system of the attached flash.

1. Attach your flash to the V6 II and turn on the flash.
2. Switch on the V6 II to the RX mode (for slave flashes) or TX mode (for master flash).
3. The V6 II will detect the flash system of the attached flash during the start up. The LCD screen will show the auto-detected flash system briefly before loading the main screen.







4. The V6 II will memorize the detected flash system after power cycles until the next detection.

If you wish to obtain more accurate output that is fine-tuned for your specific flash units, choose the model-specific flash profiles (see Section 11.2) or customize the existing flash profiles (see Section 11.3).

### 11.2 Choosing a Flash Profile

Choose the appropriate flash profile from the pre-installed profile list for each V6 II RX you will use with your flash.

1. Switch on the V6 II in RX mode.
2. Press , and then turn the selection dial to <FLASH PROFILE>. Press .
3. Turn the selection dial until the LCD shows your flash system (e.g., <CANON>). Press .
4. Turn the selection dial until the LCD shows your flash model (e.g., <580EX\*>). Press .
5. Connect the flash unit to the V6 II. Switch your flash to TTL mode and your flash will be ready for remote control. The chosen flash profile will be applied until you choose another flash profile.

In case you wish to fire and control an on-camera master flash via the V6 II TX, follow steps 2-4 above in TX mode to choose the appropriate flash profile for the master flash.

### 11.3 Customizing a Flash Profile

If your flash model is not included in the pre-installed profile list but support digital TTL, configure the V6 II to the Auto Flash Profile (see Section 11.1). In case you wish to fine tune the power level output commanded by the Auto Flash Profile, you may customize it with the Cactus Profile Editor available to PC and Mac.

1. Follow the firmware update procedures to connect V6 II with your computer (see Section 18.2).
2. Choose the flash system. Input the guide number of your flash at the zoom angle at 105mm (which is the benchmark of the pre-installed profiles in the V6 II).
3. Based on your experience in controlling the flash with the auto flash profile, input the power adjustment that you would like to achieve in each of the reference power level.
4. Enter the profile name in 1-6 letters or numbers.
5. Press STORE PROFILE button. The custom profile will be loaded to the connected V6 II.



To choose the saved flash profile from the profile list, see Section 11.2. All custom profiles will be stored under the flash system <CUSTOM> in the <FLASH PROFILE> menu.

Each V6 II can save up to 10 custom flash profiles from the Cactus Profile Editor.

Note: The Profile Editor supports profile sharing via codes. When customizing a flash profile, the editor will generate a code representing the changed parameters. You can share this code to friends, or simply enter the code received from others in the SHARE CODE column to generate a new customized profile in a second.

## 12. Flash Triggering

To command the flash units in different groups to fire:

1. Set the V6 II transceivers to the correct mode (transmitter to “TX”, receiver to “RX”). This will automatically power on the transceivers (see Section 9.4).
2. Set both TX and RX to the same channel (see Section 9.5).
3. Assign RX unit(s) to A, B, C, or D group and activate the group(s) on the TX (see Section 9.6).
4. Connect the V6 II RX to portable flashes or studio strobes.
5. On the TX, press  completely. The status LED of both TX and RX should blink in green simultaneously. The portable flashes or studio strobes will fire at the same time.
6. Test fire a particular group by pressing the group button and  completely and simultaneously.
7. Attach the TX to the camera’s hot shoe. If your camera does not have a hot shoe, connect the TX to the camera using an optional PC sync cable (CA-200).
8. Press the camera’s shutter release button. The flashes on the RXs will fire wirelessly and in sync.

Tips: The V6 II transceiver can trigger portable flashes with or without remote power control. If you wish to wirelessly trigger the slave flashes without controlling their power levels, choose the <OTHER> flash system in the <FLASH PROFILE> menu.

## 13. Remote Manual Power Control

Apart from flash triggering, the V6 II can also command the manual power of your flash. On each RX, choose the appropriate flash profile for each flash to be connected. The V6 II TX will then be able to command the flash to fire from 1/128 to

1/1 full power. V6 II offers two power definitions for users to command the flashes' power in the most convenient way.

To remotely control the power of your flash units:

1. Connect the flash units to the V6 II.
2. Switch on the flash units in TTL mode. Then switch on the V6 II in RX mode.
3. Choose the correct flash profile for each V6 II.
4. If you may command the flash to fire above the x-sync speed, turn on the HSS or FP flash on your flash units (see Section 14.1).

### 13.1 Relative Power

Similar to a common flash display, the V6 II TX indicates the power level of the remote flashes in proportion to full power in relative power mode, i.e., 1/1 for full power, 1/2 for half power, etc. Upon switching on the V6 II in TX mode, the LCD will show the relative power levels of all activated groups.

*(image)*


Note that the small single digit indicates the increment between major power levels.

#### 12.1.1 Single Group Power Adjustment

There are two ways to adjust the power level of a particular slave group.

1. Press and hold the group button until the power level of the chosen group is highlighted on the LCD. Turn the selection dial to the desired power level. Press shortly the group button to leave the group selection.
2. Short cut: Press and hold the group button and turn the selection dial simultaneously. Once the adjustment is finished, release the group button.

You may also adjust the power level of the master flash that you have mounted on the V6 II TX multi-system shoe (female).

1. Make sure that the TTL pass-through mode has not been activated (see Section 8).
2. Press  and turn the selection dial simultaneously to change the power level of the master flash.

#### 12.1.2 Multi-Group Power Adjustment

To adjust the power level of ALL active groups, simply turn the selection dial left or

right to the desired power level.

**Note:** The power level of the master flash is not affected by the multi-group adjustment.

### 12.1.3 Quick Power Adjustment Mode

By turning the dial left or right one “click,” the power level of the chosen groups will increase or decrease by one step. The EV step in the V6 II factory setting is 1/3 EV. The EV step can be configured to 1/2, 1/3, or 1/10 in the <EV STEP> menu (see Section 12.3).

If you wish to quickly change the power level using a larger interval, use the quick power adjustment mode.

1. In the main screen of the V6 II in TX mode, press  once to enter the quick power adjustment mode.
2. In this mode, each click of the dial will increase or decrease the power level for 1EV to and from the original value respectively. For example, if the power level of a group was 1/16 +3, one click of the selection dial will increase the power level to 1/8 +3 or decrease it to 1/32 +3.
3. Once you have finished the quick change, press  once again to leave the quick power adjustment mode. Each click of the dial thereafter will increase or decrease the power level in accordance with the setting you have made in the <EV STEP> menu.

## 13.2 Absolute Power

If you want to coordinate the light output of multiple flashes with different maximum power outputs, the regular power ratios such as “1/4” or “1/8” may not be as helpful. The output of one powerful flash model at “1/8” can be higher than that of another, weaker flash model at “1/4.” For this reason, the V6 II offers an “absolute power” mode in which EV numbers can be used to specify an absolute light intensity, independent of the maximum power output of a flash model.

The power levels in guide number have been rescaled to the absolute power scheme in EV as below:

ABSOLUTE LIGHT INTENSITY IN EV	GUIDE NUMBERS (IN METERS)			
	+0.0	+0.3	+0.5	+0.7

17	58.0	64.4	69.0	73.9
16	41.0	45.5	48.8	52.3
15	29.0	32.2	34.5	36.9
14	20.5	22.7	24.4	26.1
13	14.5	16.1	17.2	18.5
12	10.3	11.4	12.2	13.0
11	7.2	8.0	8.6	9.2
10	5.1	5.7	6.1	6.6
9	3.6	4.0	4.3	4.6
8	2.6	2.8	3.0	3.2
7	1.8	2.0	2.1	2.3
6	1.3	1.4	1.5	1.6

When setting up the absolute power mode, the V6 II TX will collect the flash profiles being selected by the RX units in the same channel and rescale them to the unified light intensity scale. The following example shows how the model-specific relative power scales are translated into the absolute power scale.




ABSOLUTE LIGHT INTENSITY SCALE IN EV	RELATIVE LIGHT INTENSITY SCALE OF 4 FLASHES WITH DIFFERENT FULL POWER GUIDE NUMBERS			
	FLASH A	FLASH B	FLASH C	FLASH D
18				
17		GN58		
16		1/2		GN41
15	GN29	1/4		1/2
14	1/2	1/8	GN21	1/4
13	1/4	1/16	1/2	1/8
12	1/8	1/32	1/4	1/16
<b>11</b>	<b>1/16</b>	<b>1/64</b>	<b>1/8</b>	<b>1/32</b>
10	1/32	1/128	1/16	1/64
9	1/64		1/32	1/128
8	1/128		1/64	
7			1/128	
6				

When you set all flashes to 11 EV (see italicized section in the above table) in absolute power mode, all flashes will emit the same intensity of light notwithstanding the differences in their own relative power scale. For instance, at 11







EV, Flash A is firing the amount of light equal to its 1/16 power, while Flash C is firing equal to its 1/8 power..

To change the V6 II system to the absolute power mode:

1. Switch on the remote V6 II in RX mode. Choose the correct flash profiles for each of the V6 II RXs.
2. Switch on the V6 II that you would like to be the commander in TX mode. Make sure that it is on the same channel as the RX units. Press . Turn the selection dial to <POWER MODE> and press . Turn the selection dial to <ABSOLUTE (SETUP)> and press  to confirm.
3. The V6 II TX will then collect the flash profiles from the V6 II RX units and set up the absolute power level scheme. Once the set up is finished, the LCD display will return to the main screen again and show the absolute light intensity of the four groups.
4. Adjust the power level as you do in relative power mode (see Section 12.1). Each figure before decimal place represents 1 EV and the smaller figure thereafter 1/10 EV.




*(image)*

5. Set all the activated groups to the same power level. Test fire the slaves and determine whether they produce the same flash output.
6. If the initial set up is not accurate enough, you may offset the absolute power scale of each group. Press any group button and  simultaneously to get into the offset mode for that group. For example, if the flash output of group A is slightly stronger than the other groups at the same absolute power levels, press  and  simultaneously. The LCD screen will show <GROUP A OFFSET>. Turn the selection dial left or right to adjust the power scale from -1EV to 1EV. Press  to return to the main screen.

Note: The absolute power set up will not be saved upon switching off the V6 II TX. The V6 II TX will restart in relative power mode.

### 13.3 EV Step

The control panel of the V6 II TX offers three EV step options: 1/10 EV, 1/3 EV, and 1/2 EV. The configuration applies to both relative and absolute power modes.

To adjust the EV step, switch on the V6 II in TX mode and press . Turn the selection dial to <EV STEP>. Press  and turn the dial to the desired increment level (1/10, 1/3, or 1/2). Press  to confirm.





**Notes:**

1. The selected EV step will be memorized upon switching off and will be applied when switching on again.
2. In the quick power adjustment mode (see Section 12.1.3), the configured EV step will be replaced by the 1EV step changes.

### **13.4 Lo Power**

At the Lo Power level, the relative power output of a flash triggered by the V6 II is roughly equal to 1/256. The difference between 1/128 and 1/256 power outputs may be hardly detected by flash meter, but the extremely short firing duration helps freeze faster-than-lightning moments and is ideal for high-speed photography.

To enable Lo Power:

1. Switch on the V6 II in TX mode and press . Turn the selection dial to <Lo POWER> and press . Turn the selection dial to <ON> and press .
2. Once the Lo Power is enabled, the Lo Power will be shown as <Lo> at one step below 1/128 power in the relative power mode, or one step below the lowest power of each group in the absolute power mode.
3. To disable the Lo Power output, follow step 1 to enter the Lo Power menu. Turn the selection dial to <OFF> and press .

## **14. High Speed Synchronization**

The HSS capabilities of V6 II are designed to support flash photography at shutter speeds beyond a camera's maximum sync speed.

To this end, the V6 II will command the remote flashes to fire either flashes with an extended duration or a full power normal flash to produce even frame illumination at shutter speeds as high as 1/8000 second.

**Tip:** HSS flash is commonly used outdoor, especially in sunlight. The faster shutter speed supported by HSS flash allows you to use a wider aperture to achieve shallower depth of field while maintaining correct exposure.

## 14.1 Setup for Multi-brand





High speed synchronization has to be operated in a highly precise manner. Apart from the system-wise profile, we recommend you to input your camera-specific profile to the V6 II before you command the V6 II to high-speed synchronization with flashes from multi-brands.

### 14.1.1 Learn HSS.

Let V6 to learn HSS with your camera (see Section 10.3)

### 14.1.2 Maximum X-sync Speed:

Canon and Olympus (M43) users have to set up the maximum x-sync speed of their camera once before working in any of the high speed sync mode. Check with your camera specifications to find out the maximum x-sync speed supported before the setup.

1. Press  . Turn the selection dial to <SUB-MENU>, press  .
2. Turn the selection dial to <MAX. X-SYNC SPD.>, press  .
3. Turn the selection dial to choose the correct maximum sync speed, press  .


The V6 II will memorize the setting after power cycles until further changes. Change the setting

There is no need for Nikon and Pentax cameras to configure the maximum x-sync speed.

## 14.2 Normal HSS

When the shutter speed of the camera exceeds its x-sync speed, the normal HSS setting of the V6 II would command the remote flashes to fire continuous and constant flash pulse for the full duration between the first curtain opening and second curtain closing when the shutter speed of the camera exceeds the x-sync speed. In some camera systems, it is also known as focal plane or FP flash.

To command the flash units to fire the HSS flash when your camera shutter speed exceeds the x-sync speed:

1. Configure the V6 II TX and the V6 II RX to the correct camera and flash systems (see Section 10 and 11).
2. Switch the V6 II TX to the normal HSS mode. On the V6 II TX, press  . Turn the

selection dial to <HIGH SPEED SYNC> and press  . Turn the selection dial to <NORMAL HSS> and press  . On the status screen of the LCD screen, the HSS icon (ILLUSTRATION OF HSS ICON) would be shown.

3. Turn on the HSS or FP flash option on the flash units.
4. In case the camera does not completely sync with the slave flashes above x-sync speed, proceed to <LEARN HSS> once for your camera (see Section 10.3).

Note: The continuous light output of normal HSS flash does not freeze a moving object as a normal flash would do. Instead, it will cause motion blur, much like a continuous light source would. In order to freeze motion in normal HSS flash, you need to use high shutter speeds.

### 14.3 Power Sync

As an alternative to the normal HSS, the Power Sync of the V6 II syncs with the full power flash of the remote flashes. Power Sync yields a much higher exposure than the normal HSS flash.

To command the flash units to Power Sync when the camera shutter speed exceeds the x-sync speed:

1. Configure the V6 II TX and the V6 II RX to the correct camera and flash systems (see Section 10 and 11).
2. Switch the V6 II TX to the normal HSS mode. On the V6 II TX, press  . Turn the selection dial to <HIGH SPEED SYNC> and press  . Turn the selection dial to <POWER SYNC> and press  . On the status screen of the LCD screen, the Power Sync icon (ILLUSTRATION OF POWER SYNC ICON) will be shown.
3. Switch the camera shutter beyond its x-sync speed and take a shot.
4. If the frame is not evenly illuminated from top to bottom, go back to the <HIGH SPEED SYNC> menu (repeat step 2). Press and hold  , turn the selection dial simultaneously to offset the sync time. When you see a dark band at the top of the image, offset the sync time to positive (to delay the default sync time). When the dark band appears at the bottom, offset the sync time to negative (to shorten the sync time).

Note: Since the Power Sync always command the remote flashes to fire in full power, the power level cannot be adjusted. The power levels on the main screen is to be executed when the shutter speed is within the x-sync.

## 15. Camera Shutter Release



Note:

This function requires the use of a separately purchased shutter release cable for connection between the transceiver and camera. This cable is NOT included in the V6 II transceiver package.




## 15.1 Basic Setup

*(image)*

A minimum of two Cactus V6 II transceivers is required to operate Cactus V6 II as a wireless shutter release.

1. Connect the V6 II RX to your camera using an appropriate shutter release cable.
2. Set both the V6 II TX and RX to the same channel. On the V6 II TX, activate the group assigned to the V6 II RX.
3. Half-press  on the TX to test the auto focus. The status LED on both the TX and RX will turn ORANGE to indicate auto focus. Press  completely on the TX for shutter release. The status LED on both transceivers will turn GREEN to indicate shutter release.

## 15.2 Bulb Mode









1. Set the camera to Bulb.
2. Press completely and hold  on the V6 II TX. The status LED on the V6 II TX and V6 II RX will turn green at first and go off after approximately 2 seconds. The LCD display will show <BULB MODE ON>.
3. Release  on the V6 II TX. The camera's shutter is now in a continuous open state.
4. To close the camera's shutter, press completely and release  on the V6 II TX again. The green status LED on both the TX and RX will blink simultaneously.

## 15.3 Relay Mode: Camera Shutter + Flash






*(image)*

The relay mode in the V6 series is an economic solution for coordinating the wireless shutter release with flash trigger systems. With relay capability, you need only 3 transceivers to wirelessly control both the camera and a flash unit at one time.

1. Make sure that all the V6 II units are set to the same channel.
2. Set the V6 II that you would like to use as the handheld remote as TX, then all others as RX.

3. Mount one of the V6 II RXs onto the camera's hot shoe, and also connect the V6 II RX to the camera's shutter release port with an appropriate shutter release cable (optional). Connect the other V6 II RXs to the flash units.
4. On the on-camera V6 II RX, press . Turn the selection dial to <RELAY>. Press . Turn the selection dial to <ON>. Press  to confirm and then press  to return to the main screen. The relay mode indicator <REL-C> will appear on the main screen.
5. In the handheld V6 II TX unit, press . Turn the selection dial to <RELAY>. Press  and turn the dial to <ON>. Press , then press  to return to the main screen. The relay mode indicator REL will replace the channel indicator.

*(image)*




6. By pressing  on the TX, both the camera and flash units will be triggered and sync with each other. In addition, you will also be able to control the power level of the flashes with your V6 II TX.
7. To exit the Relay mode in both TX and RX units, press  and turn the selection dial to <RELAY>. Press  and turn the selection dial to <OFF>. Press  and then press  to return to the main screen.

## 16. Advanced Operations

### 16.1 Autofocus Assist Light

The V6 II is equipped with an autofocus assist LED and is capable of supporting the auto-focus assist signal from configured camera system. The power of the LED light could be adjust to best suit your working environment.

To configure the AF assist LED:

1. Switch on the V6 in TX or RX mode, press , and turn the selection dial to <SUB-MENU>. Press .
2. Turn the selection dial to <AF-ASSIST POWER>, press . You would then be able to turn on and select the power of the AF assist LED.

**Note:** The V6 II TX completely replicates the AF signal commanded by the connected camera. If the camera does not support AF assist signal via the hot shoe, the AF assist LED would not be activated.

## 16.2 Multi-master

The V6 II supports up to 16 TXs working together in a lighting set up. Photographers can share the same set of remote flashes and command them to fire the power output without being influenced by the others.







There is no need to configure on the V6 II menu to support multi-master. By the time any of the photographer in the group presses the shutter, the V6 II TX would trigger the RXs and command the flash to fire the configured power levels from that specific TX.

Note: If two TXs are triggering at the same time, the RXs may interfere with each other. It is recommended to the photographers in the set up to shoot one by one.

## 16.3 Delay Timer

*(image)*

Every V6 II is equipped with a delay timer that is configurable in either the TX or RX mode. The delay timer delays the trigger response for the time period set. If you wish to fire the flash a bit later than the first curtain sync to create a different light effect (e.g., to achieve a second curtain sync), set an appropriate delay time from 1 millisecond to 99 seconds.

1. Switch on the V6 in TX or RX mode, press , and turn the selection dial to <DELAY>. Press .
2. To set a delay time in millisecond, turn the dial to <SET MS> and press . Turn the dial to set each digit and press  to confirm and move to another digit.
3. To set a delay time in second, turn the dial to <SET SEC> and press . Turn the dial to set each digit and press  to confirm and move to another digit.
4. The status screen of V6 TX and main screen of the V6 II RX will show the status of the delay timer (see Section 6.2).

## 16.4 Group Sequence

There may be some situations in which you would like to fire the slave groups in a very short sequence:

- Post-production of high dynamic range (HDR) photos: In burst mode,

photographers can take two pictures of the same scene with contrasted flash power levels very quickly. The resulting pictures can be very handy in the post-production of HDR photos.

- Evaluating the individual contribution of the slave groups: Taking a series of pictures in burst mode will allow you to review the contribution of each slave group individually.
- Speed up the flash cycle: When you need to fire a series of flashes at high power levels, assign two or more flashes to different groups and adjust them to the same power level. Alternately firing the flashes will let the capacitors recharge during the longer interval, ensuring enough charge for the next high power output.




The V6 II offers two group sequence modes for selection:

A-B-C-D: The first trigger in a series will fire group A, then group B, and so on. The fifth trigger will fire group A and start the cycle again. Another series will restart at group A when there is no triggering event in 2 seconds.



*(image)*

AB-CD: The first trigger in a series will fire group A and B together, then group C and D. The third trigger will fire group A and B, and start the cycle again. Another series will restart at group AB when there is no triggering event in 2 seconds.

*(image)*

1. Switch on the V6 II in TX mode. Press  , and turn the selection dial to <GROUP SEQUENCE>. Press .
2. Turn the selection dial to A-B-C-D or AB-CD and press .
3. Depending on the group sequence mode you set, one or two cursors will point to the group alphabets on the main screen, indicating which group(s) will be fired next.

## 17. Personalizing the V6 II

You may configure a number of personalized options in the SUB-MENU of the V6 II to suit your needs. Press  and turn the selection dial to <SUB-MENU>, then press . Turn the selection dial again will scroll through all the personalized options.




### 17.1 Selection Dial Direction



In <DIAL DIRECTION>, the selection dial of the V6 can be configured to operate in a <CLOCKWISE> or <ANTI-CLOCKWISE> direction. To increase the power level in the main screen, for example, you would have to turn the selection dial to the left in the clockwise setting, or turn it to the right in the anti(counter)-clockwise setting.


### 17.2 Selection Dial Lock

To prevent unintended turning of the selection dial and its consequence of affecting the power levels, the dial can be locked in the main screen of the TX mode:

1. To lock the selection dial, press and hold the selection dial or  for 2 seconds. The LCD will show [lock] at the left upper corner.
2. To temporarily unlock the selection dial, press the selection dial or  once. Alternatively, press and hold any group button to select a group for power level adjustment. The LCD will show [unlock] to indicate the temporary unlock status. The dial will be locked again when no button or dial is pressed or turned in 2 seconds.
3. The temporary unlock mechanism can be enabled or disabled in the <TEMPORARY UNLOCK> sub-menu.
4. To permanently unlock the selection dial, press and hold the selection dial or  for 2 seconds.

Note: The short-cut for adjusting the power level of a single group by pressing a group button and turning the dial simultaneously (see Section 12.1.1) will be unaffected.

### 17.3 Swap Control



In the main screen of the V6 II TX, pressing  or the push-in selection dial once will change it to one of the following modes:

- Quick Power Adjustment Mode <QUICK POWER ADJ>: expanding the power adjustment to 1EV step (see Section 12.1.3).
- Zoom (Cactus) Mode <ZOOM (CACTUS)>: controlling the zoom level of the Cactus RF60 (see Section 16.1.1).

This can be configured in <SWAP CONTROL>.

### 17.4 LCD Options

The LCD screen of the V6 II can be configured in the following ways:

1. LCD Backlight Auto Off: The LCD backlight of the V6 II will turn on whenever  ,  , the selection dial, and any of the group buttons has been pressed or turned. In order to conserve energy, there is a timer setting that automatically turns off the backlight. In <BACKLIGHT OFF>, choose from <OFF>, <5 SECS>, <15 SECS> or <STAY ON>.
2. LCD Backlight Power: In <BACKLIGHT POWER>, configure the brightness of LCD display from 1 to 9.
3. LCD Daylight Mode: Enable <DAYLIGHT MODE> if you work under direct sunlight. The LCD screen will replace the reversed fonts with black fonts on white background.

### 17.5 Sleep Timer

To conserve energy when you forget to switch off the V6 II after use, the sleep timer will switch the V6 to the sleep mode after a specified period. In <SLEEP>, choose from <OFF>, <15 MINS> or <60 MINS>.



To wake up the V6 II from the sleep mode, press any button or turn the selection dial once. Local triggering via a hot shoe or x-sync port also awakens the V6.

Note: Wireless triggering will not wake up the V6 II RX units remotely.

### 17.6 Work Range

The working distance of the V6 II can be customized to suit your shooting purpose. In <WORK RANGE>, choose <SHORT> when you need to place the V6 II TX units very close to the RX units (e.g., when shooting macro), or choose <LONG> for normal shots. While the <SHORT> option will reduce the maximum effective distance of the V6 II by approximately 70%, it will eliminate the interference caused by placing the V6 TX and RX units in close proximity.

### 17.7 Factory Reset

To retrieve to the original manufacturing setting of the V6 II and erase all the custom flash profiles, use Factory Reset. In the <FACTORY RESET> sub-menu, press  and turn the dial to <YES>. The screen will show <CONFIRM?>. Press  to confirm.

## **18. Working with Cactus Gear**

The V6 II transceiver is compatible with the Cactus Wireless Flash RF60 series, Wireless Flash Trigger V6, V5, and Laser Trigger LV5.

*(image)*

## 18.1 RF60 Series

### 18.1.1 RF60x/RF60 as Slave

*(image)*

With the built-in Cactus V6 module, the Cactus RF60x can be remotely commanded and triggered by the V6 II TX, within or beyond x-sync speed. The RF60 series in this set up would support both normal HSS and Power Sync flash.

Note: The Cactus V6 II can specify up to 1/10 EV step and communicate it with the RF60; however, the RF60 series will only display the nearest 1/3 EV step.

To control the power level of the RF60 series Slave:

1. Set the V6 II and the RF60x to the same channel.
2. Activate the group assigned to the RF60 Slave on the V6 TX.
3. Adjust the power level of each group as you would with the V6 RX.

To control the zoom level of the RF60 series Slave:

1. Configure the swap control to Zoom (Cactus) mode (see Section 15.3).
2. In the main screen of the V6 II TX, press  once. The zoom levels of the activated groups will be shown on the screen.
3. Adjust the zoom level of each group as you would to adjust the power level (see Section 12.1). The zoom control supports both single group and multi-group adjustments.

You may also combine the RF60 series with TTL flashes to form a remote flash control system. For example, assign a RF60x to group A, a Canon 580EX II (with a V6 II RX) to group B, and a Nikon SB-900 (with another V6 II RX) to group C. The V6 II TX will be able to trigger them all, set their power levels in either relative or absolute power mode and adjust their zoom angles.

### 18.1.2 RF60 Series as Master

*(image)*

You may assign the RF60 series as master on the camera's hot shoe and let it trigger

and command other RF60 Slave and V6 II RX units. While the RF60 series Master can control the power and zoom levels of slave flashes, it would not be able to support high speed synchronization.

## 18.2 V6, V5 and LV5

The Cactus V6 II transceiver can work in pairs with the Cactus V6, V5 or LV5 for wireless triggering without group control. They all share the same 2.4GHz, 16-channel platform.

Since the V5 and LV5 do not support groups and remote power control, the V6 II TX will trigger all V5s, independent of which group it considers active. Similarly, both V5 and LV5 will trigger any V6 II RX, independent of which group the V6 RX has been assigned to.

## 19. LED Signal Guide

Status	Indicator on TX	Indicator on RX
Flash triggering	Green	
Shutter triggering	Green	
Half-press auto focusing	Orange	
Power level command received	N/A	Orange
Bulb mode activation	Green (for 2 seconds)	
Bulb mode deactivation	Green	
Low battery	Red (every 3 seconds)	
Firmware update mode	Red (every 0.5 second)	

## 20. USB Connection

The V6 transceiver comes with a mini-USB port that serves two purposes: providing external USB power and for firmware updates.

### 20.1 External USB Power

Apart from AA batteries, the Cactus V6 II can also be powered by a 5V DC, 500~1,000mA external USB power device. Check with the specifications of your USB power device to determine the compatibility with the V6 II transceiver.

Note: External USB Power cannot charge the rechargeable batteries inside the V6 II battery compartment.

## 20.2 Checking and Updating Firmware

Cactus will release new firmware for the V6 from time to time. Get your V6 updated via the USB connection.

To check the firmware version of the V6 II, press and hold **A** and **D** , then switch on the V6 II in TX or RX mode at the same time. The LCD display will show the firmware version installed in the unit. Release the buttons, the LCD display will return to the main screen after 3 seconds.

To perform a firmware update when available:

1. Switch off the V6 II and remove the batteries inside.
2. Connect it with a computer via the Cactus mini-USB cable MU-1 (optional).
3. Press and hold **≡**, then switch on the V6 II in TX or RX mode at the same time.
4. The V6 II is now in firmware update mode. The status LED blinks in red rapidly. The firmware update program will then recognize the connected V6 and start the upgrade.

Please visit [www.cactus-image.com/v6.html](http://www.cactus-image.com/v6.html) for more information.

Firmware updates only work on Microsoft Windows platform. Mac OS is not supported.

## **21. Optional Accessories**

1. Wireless Flash RF60x / RF60
2. Wireless Flash Trigger V6
3. Laser Trigger LV5
4. Shutter Release Cables  
(Cactus Shutter Cables are available for most camera models by Canon, Leica, Minolta, Nikon, Olympus, Panasonic, Pentax, Samsung, and Sony. Please visit our website for compatible models.)
5. Sync Cables and Adapters
  - PC Sync Cable CA-200

- 3.5mm Plug Cable w/6.35mm Plug adapter CA-360
- 6. USB to mini USB cable MU-1
- 7. Lanyard CL-1

## 22. Troubleshooting

Before reading this section, ensure that the Cactus V6 II transceiver have been set up correctly (following the instruction in Section 8-14 of this manual). If the problem persists after conducting the troubleshooting steps, contact your seller directly for further assistance.

### 1. Wrong Flash Power Fired

LCD DISPLAY	POSSIBLE CAUSE	SOLUTION
RX displays wrong power levels	More than one TXs are controlling the flash power of the RXs	<ul style="list-style-type: none"> <li>- Always use ONE TX only in a set up</li> <li>- Set all transceivers to another channel</li> </ul>
RX displays correct power levels	1. The chosen flash profile does not match the flash model	Choose the correct flash profile or learn a new one
	2. The flash is in a wrong operation mode (e.g. M mode)	Check and set the flash to the TTL mode
	3. A wrong EV offset has been set in the absolute power mode	Check and reset the EV offset of the group concerned

### 2. Flash Profile Learning Fails

LCD DISPLAY	POSSIBLE CAUSE	SOLUTION
LCD shows error messages during flash learning	1. The flash model is not supported	Check Section 7.1.3 for the compatibility of flash models for flash profile learning
	2. The flash is powered by depleted batteries and producing unstable output of power	Replace the batteries of the flash
	3. The distance between the wall and the V6 is too close or too far	<ul style="list-style-type: none"> <li>- Position the V6 II and the flash facing a white wall at a distance of 1 meter</li> <li>- Use a light stand or tripod to fix the position of the V6</li> </ul>

	4. The ambient light around the scene is too prominent or unstable	Try performing the flash learning in an enclosed space with low and stable ambient light
--	--	--

### 3. Flash Misfire (Unexpected Flash Firing)

LED Blinks?	Possible Causes	Solution
TX: No RX: No	Poor hot shoe condition	<ul style="list-style-type: none"> <li>- Adjust tightness of hot shoe contact</li> <li>- Clean the hot shoe contacts of the V6 II with a clean cloth</li> </ul>
TX: No RX: Yes (GREEN)	1. Background radio interference	<ul style="list-style-type: none"> <li>- Set both transceivers to another channel</li> <li>- Change setup location as interference may come from other equipment in the surrounding area</li> </ul>
	2. TX and RX transceivers are placed too close to each other	Choose <SHORT> in the working range sub-menu
	3. Optical Trigger has been switched on and triggered by unexpected ambient light	Switched off the optical trigger, as it may not work in that environment

### 4. Slow Synchronization (Delayed Flash)

LED Blinks?	Possible Causes	Solution
TX: Yes (Green) RX: Yes (Green)	1. Wrong camera setup	<ul style="list-style-type: none"> <li>- Check Section 10.1 for camera system setup</li> <li>- Set maximum x-sync speed of the camera</li> <li>- Perform Learn HSS once</li> </ul>
	2. Delay timer has been set	Turn off the delay timer or adjust the delay timer to a correct sync time
TX or RX: Yes	3. Insufficient battery power	Replace batteries and retry

(Red every 3 seconds)		
-----------------------	--	--

5. Flash Not Triggered/Shutter Not Released

LED Blinks?	Possible Causes	Solution
TX: No RX: No	1. Poor battery contact or insufficient battery on TX	Replace batteries on TX and retry
	2. Poor hot shoe condition	- Adjust tightness of hot shoe contact - Clean the hot shoe contacts of the V6 with a clean cloth
TX: Yes (Green) RX: No	1. Poor battery contact or battery out of power on RX	Replace the batteries in the RX and retry
	2. Channel and group mismatch	Ensure both transceivers are set to the same channel and the group assigned to the RX has been activated on the TX
	3. Background radio interference	- Set both transceivers to another channel - Change setup location as interference may come from other equipment in the surrounding area
	4. Beyond 100m effective range	Make sure TX and RX transceivers are placed within 100m (328 ft) of each other
	5. TX and RX transceivers are placed too close to each other	Choose <SHORT> in the working range sub-menu
TX: Yes (Green)	1. Poor hot shoe contact	- Adjust tightness of hot



RX: Yes (Green)		shoe contact - Clean the hot shoe contacts of the V6 with a clean cloth
	2. Flash used is not compatible with the V6 II	Check that the flash used is compatible with the V6 II (see Section 7.1)
	3. Poor cable connection	- Check the cable connection - Change the cable
	4. Wrong cable is used (only when the V6 is used as a Wireless Shutter Release)	Ensure that an appropriate shutter release cable is used

## 23. Notices

### Notices for Customers in the U.S.A.

Federal Communications Commission (FCC) Radio Frequency Interference Statements.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient or relocate the receiving antenna.

Increase the separation between the equipment and receiver.

Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.

changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

HARVEST ONE LIMITED AND THE MANUFACTURER OF THIS WIRELESS FLASH

TRANSCIVER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS TO THIS EQUIPMENT. SUCH MODIFICATIONS COULD VOID THE USER AUTHORITY TO OPERATE THE EQUIPMENT.

FCC

FCC ID: VAAWFTV6II

MADE IN CHINA

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

#### R&TTE Declaration of Conformity (DOC)

We, Harvest One Limited, 11D, Block 2, Koon Wah Mirror Factory (6<sup>th</sup>) Industrial Building, 7-9 Ho Tin Street, Tuen Mun, Hong Kong, declare under our own responsibility that the product:

Cactus Wireless Flash Transceiver V6 II

is in conformity with the essential requirements and other relevant requirements of the R&TTE Directive (1999/5/EC).

*(image)*

This product, Cactus Wireless Flash Transceiver V6 II, is in conformity with the provisions of EU Council Directive: 1999/5/EC.

*(image)*

The crossed-out wheeled bin means that within the European Union the product must be disposed separately at the end of the product cycle. Do not dispose this product with other municipal waste.

#### NCC Warning Statement

##### Article 12

Without permission, any company, firm or user shall not alter the frequency, increase the power, or change the characteristics and functions of the original design of the certified lower power frequency electric machinery.

##### Article 14

The application of low power frequency electric machineries shall not affect the navigation safety nor interfere a legal communication, if an interference is found, the service will be suspended until improvement is made and the interference no longer exists.



Korean Certification of Conformity



Japan Electrical Safety Approval



## **24. Warranty**

The limited warranty set forth below is given by Harvest One Limited in the world with respect to the Cactus brand Wireless Flash Transceiver purchased with this limited warranty.

Your Cactus Wireless Flash Transceiver or other contents, when delivered to you in new condition in its original container, is warranted against defects in materials or workmanship as follows: for a period of one (1) year from the date of original purchase, defective parts or a defective Wireless Flash Transceiver returned to our authorized dealers, as applicable, and proven to be defective upon inspection, will be repaired with new or comparable rebuilt parts or exchanged for a new Wireless Flash Transceiver as determined by Harvest One Limited or the authorized dealers.

This limited warranty shall only apply if the Wireless Flash Transceiver is used in conjunction with compatible camera and flash equipment, as to which items, Harvest One Limited, shall have no responsibility.

This limited warranty covers all defects encountered in normal use of the Wireless Flash Transceiver, and does not apply in any of the following cases:

- (a) Loss of or damage to the Wireless Flash Transceiver due to abuse, mishandling, improper packaging by you, alteration, accident, electrical current fluctuations.
- (b) Failure to follow operating, maintenance or environmental instructions prescribed in Cactus user's manual.
- (c) Receive services performed by someone other than Harvest One Limited or

authorized dealers.

- (d) Without limiting the foregoing, water damage, sand/corrosion damage, battery leakage, dropping the transceiver, scratches, abrasions or damage to the body, or damage to the hot shoe or PC cables, will be presumed to have resulted from misuse, abuse or failure to operate the Wireless Flash Transceiver as set forth in the operating instructions.

NO IMPLIED WARRANTY, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, APPLIES TO THE WIRELESS FLASH TRANSCEIVER AFTER THE APPLICABLE PERIOD OF THE EXPRESS LIMITED WARRANTY STATED ABOVE, AND NO OTHER EXPRESS WARRANTY OR GUARANTY, EXCEPT AS MENTIONED ABOVE, GIVEN BY ANY PERSON OR ENTITY WITH RESPECT TO THE WIRELESS FLASH TRANSCEIVER SHALL BIND HARVEST ONE LIMITED. HARVEST ONE LIMITED SHALL NOT BE LIABLE FOR LOSS OF REVENUES OR PROFITS, INCONVENIENCE, EXPENSE FOR SUBSTITUTE EQUIPMENT OR SERVICE, STORAGE CHARGES, LOSS OR CORRUPTION OF DATA OR ANY OTHER SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES CAUSED BY THE USE OR MISUSE OF, OR INABILITY TO USE, THE WIRELESS FLASH TRANSCEIVER, REGARDLESS OF THE LEGAL THEORY ON WHICH THE CLAIM IS BASED, AND EVEN IF HARVEST ONE LIMITED HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. IN NO EVENT SHALL RECOVERY OF ANY KIND AGAINST HARVEST ONE LIMITED GREATER IN AMOUNT THAN THE PURCHASE PRICE OF THE CACTUS WIRELESS FLASH TRANSCEIVER SOLD BY HARVEST ONE LIMITED OR ITS AUTHORIZED DEALERS AND CAUSING THE ALLEGED DAMAGE. WITHOUT LIMITING THE FOREGOING, YOU ASSUME ALL RISK AND LIABILITY FOR LOSS, DAMAGE OR INJURY TO YOU AND YOUR PROPERTY AND TO OTHERS AND THEIR PROPERTY ARISING OUT OF USE OR MISUSE OF, OR INABILITY TO USE, THE CACTUS WIRELESS FLASH TRANSCEIVER NOT CAUSED DIRECTLY BY THE NEGLIGENCE OF HARVEST ONE LIMITED. THIS LIMITED WARRANTY SHALL NOT EXTEND TO ANYONE OTHER THAN THE ORIGINAL PURCHASER OF HARVEST ONE LIMITED, OR THE PERSON FOR WHOM IT WAS PURCHASED AS A GIFT, AND STATES YOUR EXCLUSIVE REMEDY.

CORPORATE OFFICE:

HARVEST ONE LIMITED

11D, BLK 2,

KOON WAH MIRROR FACTORY (6TH) IND. BLDG.,

7-9 HO TIN ST,

TUEN MUN, HONG KONG

PLEASE CONTACT YOUR LOCAL DEALER FOR CUSTOMER SERVICE.

© HARVEST ONE LTD. 2016