

# V+F Lens Control Manual

v1.2



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### 1. Description.

**The V+F Lens Control** is available as a single channel wireless/cable control (*p/n 4050*) or a cable only version (*p/n 4051*). Both are used with DM-1 or DM-2 digital motors. The cable only version is intended to control the iris function of cinema style lenses mounted on video cameras. In this mode, the iris is controlled through:

- the cameras' remote set-up box (Sony RMB-150 or equivalent)
- through the cable connected Remote iris Box (*p/n 4020*)
- through the on-board control knob.

The wireless version adds the possibility of control through any of three wireless hand units:

- Focus-Iris Hand Unit (p/n 4024)
- FI+Z Hand Unit w/ MW Transmitter (p/n 4000 + 4910)
- Radio Micro Force unit (p/n 4015 or 4016)

Wireless channels are indicated on the digital display. A three position switch adjusts the motor torque level, and a second switch determines the direction of motor rotation. The small size of the control makes it especially suitable for hand held use.

The FI+Z Hand Unit (*p/n 4000* with Microwave Transmitter *p/n 4910*), the Focus-Iris Hand Unit (*p/n 4024*) or the Radio Micro Force (*p/n 4015* or *4016*) can all be used for wireless operation with version *p/n 4050*. The mode switch selects whether the unit responds to Focus, Iris, or Zoom commands. Camera Run/VTR signals are available for controlling all film and video cameras.

The unit operates over a voltage range of 11 - 30 VDC. For video cameras, all power and control signals are provided through the 12-pin Hirose on the camera. Film cameras having accessory receptacles capable of 1.5A @ 24V (Arri 435, Panavision) can also be used to provide both power and camera run functions. Otherwise separate receptacles are provided for external power and Camera Run/VTR.

## 2. Operation



p/n 4050 Wireless Version



VLC Receptacles



Mounting Bracket p/n 4342

### A. Mounting the V+F Lens control to the Camera.



VLC and Digital Motor with brackets

- a. Secure the V+F Lens Control to the Matte Box Support Rods using the Mounting Bracket. The jaw opening is adjusted to accommodate different rod sizes by turning the free half of the bracket as shown in the picture above.
- b. The V+F unit can be powered directly from the camera, or through a separate power cable. The cables for connection to the camera are p/n 4620 ~ 4630, and the power cables are p/n 4640, and 4641. See the complete list of cables in Section 4 of this document.
- c. Connect the digital motor (DM-1 or DM-2) with the motor cable (p/n 4410 ~ 4412).
- d. Use a Swing Arm Motor Bracket (p/n 4301 ~ 4303, 4333) to attach the motor to the Matte Box Support Rods. Engage the motor to the lens.

**B. Set-up Procedure-Video Camera Calibration**

- i. Power the camera.
- ii. Wireless Version only: Set the mode to Video by pressing the mode button until the “Video Iris” LED is lit. Press the “Cal” button. The Digital Motor will find the end stops of the lens. The f2.8 LED should be blinking. Using the knob on the VLC to move the iris to f2.8 and press the “Cal” button again. Now the F16 LED will blink.
- iii. Cable Only Version. There is no mode switch on this unit. Initiate calibration by pressing the “Cal” button. After the motor finds the end stops of the lens, the F2.8 LED will blink. Use the knob to set the lens to F2.8 and press the “Cal” button again. Now the F16 LED will blink. Adjust the lens to F16 and press the “Cal” button. Turn the knob until the iris is at F16 and press the Cal button. The lens is now calibrated to the video camera and the engraved F-stop marks on the knob should match those of the lens.

**C. Set-Up Procedure for wireless operation.** The V+F (p/n 4050) can be controlled through its microwave link by the following hand controls:

- a. The FI+Z Hand Unit
- b. The Focus-Iris Hand Unit
- c. The Radio Micro Force module with a Micro Force control.

Communication between the Hand Unit and the V+F will be established when both units are set to the same channel. The wireless channel is by using the channel button located to the right of the LED channel display.

- D. Control of the motor can be switched from an external source (wireless Hand Unit or RMB150 type device) to the knob by pressing the “Local” button. The red LED will be lit when the unit is under local control.
- E. The V+F may also be controlled via a cable connection through the Remote Iris Box (p/n 4020). To use this device with the V+F, place the unit into the “Local” mode and connect the Iris Box to the V+F “Remote” receptacle with cable 4642



Remote Iris Box p/n 4020

### 3. Specifications

Size 107mm x 66mm x 45mm (4.2" x 2.6" x 1.75")

Weight: 350g

Power Requirements: 11 - 30 VDC 0.2A quiescent at 12VDC.

### 4. Cables and Accessories

|      |  |
|------|--|
| 4620 | Camera Cable Arriflex 12V 11-pin Fischer |
| 4621 | Camera Cable Arriflex 24V 3-pin Fischer  |
| 4622 | Camera Cable Panavision Film             |
| 4623 | Camera Cable Panavision Genesis          |
| 4624 | Camera Cable Aaton                       |
| 4630 | Camera Cable Sony                        |
| 4640 | Aux Power Cable 12V 4-pin XLR            |
| 4641 | Aux Power Cable 24V 3-pin XLR            |
| 4642 | Remote Iris Cable Box 8'                 |

### 5. FCC Statement

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.

This equipment has been verified to comply with the limits for a class B computing device, pursuant to FCC Rules. Operation with non-approved equipment is likely to result in interference to radio and TV reception.

The user is cautioned that changes and modifications made to the equipment without the approval of manufacturer could void the user's authority to operate this equipment.

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.

#### **FCC RF EXPOSURE STATEMENT**

To satisfy RF exposure requirements, this device and its antenna must operate with a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.