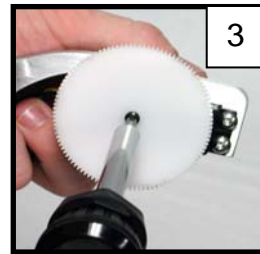
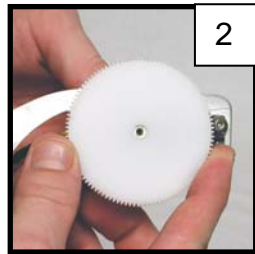
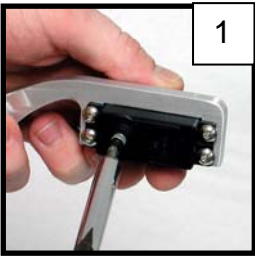


This unit is aimed at the Sony PMW-EX1 and -EX3, but it will also work with Canon and Fujinon lenses. Items included with the VZ-EFCU: universal bracket and motor assembly, one lens gear adapter (for Sony EX), one step-down adapter for 15mm mattebox rods, one Canon gear, one Fujinon Gear, two 10' extension cables, one control unit with LCD readout and clamp, 7.2V Li-Ion rechargeable battery, carrying bags, set of cable straps.



First, determine which gear you need to use and attach it to the motor. The Canon gear is marked "C" and the Fujinon is marked "F". For the Sony EX series of cameras, you will use the "F" gear. 1) Remove the screw in the center of the motor spindle. 2) Install the appropriate gear. 3) Replace the screw in the motor spindle.



For Sony EX-1 & EX-3 ONLY: Remove the screw on the lens gear adapter (A) and place it around the focus ring on the camera, then replace and tighten the screw until snug (B). Be sure the lens gear adapter is centered all the way around the camera's focus ring (C).



Incorrect

Correct

Attach the mattebox rods and make sure they are lined up **exactly parallel** with the camera's centerline (Note: The universal bracket comes with a step-down ring for use with 15mm rods. Remove this adapter if you have 19mm rods (D)). Now slide the bracket with motor-gear assembly (E) onto your mattebox rods and center the motor-gear vertically and horizontally in relation to the lens gear adapter (F). You may have to adjust the angle/length of the bracket by loosening the ratchet bolts (G) (called 'ratchet' because the handle can be repositioned w/o tightening or loosening by pulling out on the handle, thereby disengaging the clutch, and rotating it).



CONNECTION AND MANUAL OPERATION

Leave the drive gear disengaged from the focus ring. Connect the EFC control unit to the motor using the supplied extension cables, and turn on the power by pressing the **POWER** button. The EFC control unit has three display modes: 'Volt', 'Mark', and 'Main'. The EFC must be set to 'Main' for operation. 'Main' is the default mode when you turn on the power. Pushing the **SCROLL** button cycles you through the three modes, but you want to be in 'Main' mode at this point.

Set the lens to "infinity" and turn the dial on the control unit so that the LCD reads "0" before you engage the gear. You will notice that the individual arms of the motor bracket assembly can be positioned by loosening the plastic tee-head screws. If your focus ring moves forward when you turn it, position the gear so that it is near the front of the ridges on the focus ring. If your lens has internal focus (i.e., the focus ring does not move forward), you can position the gear in the middle of the focus ring. Once the gear has been mated to the focus ring, you can turn the dial on the control unit to adjust the lens through the focal range (1300 to 0 on the LCD readout).

If the motor does not turn the focus ring all the way, you can extend the range (this will be necessary to get full range on the EX-1 and EX-3). The VZ-EFC has a default range of 1300, but the range may be extended to 1740 or 1900. Press and hold the **SCROLL** button while powering the unit. The display will show RANGE and either 1300 (default), 1740, or 1900. Use the **SCROLL** button to select the desired range and press the **SELECT** button to save.

The direction of movement for the motor can also be changed if desired. "REVERSED" is the default setting, and it is the setting that will work with the previously mentioned setup instructions for the motor bracket. If you want to switch the motor direction, take that into account when setting up the motor bracket. To change the direction: Press and hold the **SELECT** button while powering the unit. The display will show SIGNAL and either "Reversed" or "Normal". Use the **SCROLL** button to select the signal direction and press the **SELECT** button to save. The "signal" and "range" configurations are saved in memory so you do not have to set them each time you power the VZ-EFC.

The EFC's default configuration is for "Reversed" signal direction and a range of 1300. To reset these defaults, press and hold the **SELECT** and **SCROLL** buttons while powering the unit. The display will show "Defaults Loaded" and then start normal operation.

PROGRAMMING FUNCTION

You can program up to 4 sequential focal marks. To program your marks, hit the **SCROLL** button until you are in 'Mark' mode, and then hit the **SELECT** button. You will see "A" come up, then turn the dial until you reach the desired focal point that you want to mark as "A". Hit the **SELECT** button to set the focal point. To mark "B", hit **SCROLL**, adjust to the desired position, and hit **SELECT**. However, you only need to program the number of marks you desire. For example, if you only want to mark "A", program it and hit **SCROLL** until you reach "EXIT", then hit **SELECT** (in this case, only mark "A" will show in the MAIN display mode).

The marks are saved in memory and do not have to be programmed again each time the EFC is powered. Once you hit "EXIT", the control unit is back in operating mode. Hit the **SELECT** button to shuttle between the marks in sequence. Hit the **SCROLL** button once to go back to full range mode (manual). To erase a specific mark, you must **SCROLL** to 'Mark' mode, go to the mark in question, turn the control knob to 0000 (fully counter-clockwise), and press the **SELECT** button.

BATTERY CHARGING

You can check remaining capacity of the battery by pushing the button next to the row of indicator LEDs. To charge the battery, first unplug the cable leading from the EFC control unit housing. Next, plug the supplied AC adapter into the "Charging Interface Cable" and then plug it into the battery. When the battery is fully charged, the indicator light on the charging interface cable will turn green. A full charging usually takes a few hours. Note that the row of indicator lights on the battery does not accurately reflect remaining capacity while the charger is attached. The indicator lights only function normally when the charger is disconnected. You should use the indicator light on the charging interface cable to determine when the battery is fully charged (green light). **NOTE: Do not attempt to remove battery from main unit. Although the battery should last for many hours on a full charge, for extra runtime, note that an additional VZ-B72 battery can be purchased and attached to the bottom of the battery on the unit ('double-stacked' so that you can plug into the extra battery when the first runs out).**

AC POWER

It is possible to power the EFC directly from an AC outlet using an optional AC/DC adapter, but it is necessary to first disconnect the battery from the EFC by unplugging the cable from the side of the battery. You cannot have two power sources connected to the EFC at once, otherwise **DAMAGE MAY OCCUR**. For information on the optional AC adapter for the EFC, contact VariZoom directly.

NOTES

You should turn off the control unit when not in use. Do not expose the motor or control unit to water or excessive heat.

The VZ-EFC is covered by a 2-year warranty (parts/labor) against defects in materials or craftsmanship. Please keep your sales receipt for warranty verification. For technical assistance or repair, please call 512-779-8812.