



FOCUS Manual

remote controller for still cameras



The gentLED focus. Allows control of focus AND shutter on cameras with electrical contacts.

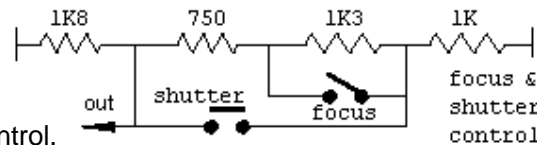
The FOCUS QuickStart gives basic operation of mode 1; this Manual gives details of all the other operating modes. You can try these modes without a camera connected by viewing the LEDs on the unit.

1 STANDARD MODE (blue wire not connected). The camera is triggered as the RC transmitter joystick moves from one extreme to the other. This mode is designed for use with the joystick replaced with a switch, or perhaps an auxiliary channel.

Press the button to set the focus (or half press); one red LED will show. Release to take the picture; two red LEDs will show. Return to the focus position within 2 seconds to keep the focus set. The press-switch could be a toggle switch depending on user preference.

2 PROGRESSIVE MODE (blue wire connected to black). As the stick moves from one extreme to the other first the focus (one red LED), then the shutter is activated (two red LEDs).

For ease of operation in this mode the joy-stick can be replaced with this circuit for separate focus and shutter control.



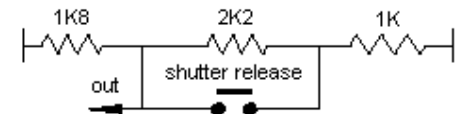
If the switch is held in the “shutter” position the shutter stays pressed which allows for “bursts” of photographs if the camera is in “continuous” mode. Every 5 seconds the shutter and focus will “flash” which triggers the camera to take another picture if in “single shot”. This allows an intervalometer operation to be remotely enabled. A simple switch can also be used with this mode, but there is no control of focus.

3 SHARED CHANNEL or BULB MODE (blue wire connected to yellow). Operation is similar to that described for mode 2 except:
1. The focus & shutter triggering happens at one end of the servo travel, this allows the channel to be shared or for use of centre biased controls. The *focus & shutter* control circuit shown in Mode 2 won't work.
2. There is no 5 second repeater mode, better for bulb or continuous use.

A simple switch can also be used with this mode, as per Mode 2.

4 INTERVALOMETER MODE, triggers the camera every 5 or 10s. Use the unit without a RC system, connect black (-ve) and red (+ve) to a 3V to 5.5V supply and **don't** connect the yellow & blue. Connecting blue & black to -ve changes the time period from 10 to 5s.

If you want the convenience of switch operation, but this is not available on your RC transmitter, it can be modified with



the addition of this circuit, replacing the existing joy-stick. This is available as an optional extra, **joy-switch shutter** (push switch), or **joy-switch focus** (toggle switch). See www.gentles.ltd.uk/gentled/plug.htm.

Specification

Supply Voltage	3 to 5.5V (absolute maximum voltage, 6.5V)
Supply Current	Maximum 30mA pulses when LEDs activated, typically 0.5mA otherwise. (excluding camera)
Servo Pulses	Pulse threshold varies with mode between 1.3 and 1.8mS. Pulses should be less than Supply V + 0.7V.
Output Current	Absolute maximum 100mA, (3 to 12 volts).
Weight	varies depending on connector option.

Diagnostics

Use a servo on the RC channel output and make sure that you are getting a full 90° movement for the stick extremes. Make sure the trim on the transmitter is set correctly.