GETTING A GRIP!

by David Young

The Leitz Telyt 400mm f6.8, follow-focus lens is a marvel of photographic engineering. Lightweight and wickedly fast to focus, this simple achromatic doublet, is tack sharp with very high contrast.

However, mine was an early version. While the optics never changed, the later models have a nicely molded hand grip, with space for cable or electric release. Mine has only a bent aluminum bar for a grip and it's hard on the hands! It doesn't accept any form of release, either!

So, I made one from two pieces of hard maple, sandwich-style, front & back of the aluminum bar. It was fitted with a standard cable release, which worked nicely with my Leica R8 and Leicaflex SL. *(See Vol. 37, #3, Page 37.)* The only hitch was that the cable emerged from the back of the grip, exactly where the web between thumb and index finger sits. Not bad, but not entirely comfortable, either.

Like many Leica users, I've been tempted by the lure of Digital. And, like many, I could neither afford, nor justify, a Leica DM-R; though I don't doubt that it is a magnificent piece of kit.

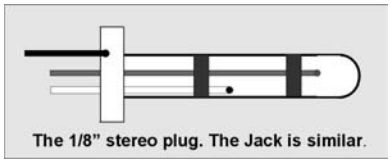
The Fotodiox Adapter.

For me, the solution was a Canon 20D - a very good, 8.2mp, digital body, with a variety of adapters that make it possible to use many of my Leica lenses with it. The challenge now, was to fit the nearly 40 yr old Telyt to the 20D!

Like many, modern, cameras - the 20D does not accept a cable release, instead, opting for an electric one. A further hitch is that the 20D (as do all newer Canon digital bodies) uses a proprietary 3 pin connector, which is impossible to obtain from any other source. You could try making one (instructions are on the internet), but it's easier to buy Canon's RS-80N3 wired remote and modify it.

Alternatively, Canon's RA-N3 cord costs about $6 less, from which you can cut the N3 plug and some wire, but it's a bit short (so you'll have to splice wires) and you'll have nothing of value left after you've cut it apart.

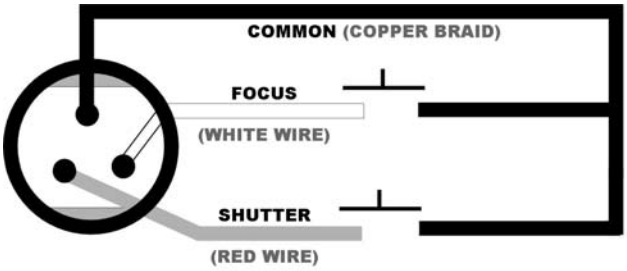
Cut the wire about 10" to 12" from the N3 connector and solder a male/female pair of 1/8" stereo headphone connectors, with the male end on the N3 end of the cord. Solder the braid to the outside pin, the red wire to the inside pin and the white wire to the middle sleeve. This way, you can still use the RS-80N3, as it was intended, later.



The 1/8" stereo plug. The Jack is similar.

As a bonus, if you ever want to extend the cord, you can buy a 50' stereo headphone extension, with 1/8" plug & jack, for around $12 rather than Canon's ET-1000N3 - 33 ft extension cord for nearly $100!

Canon's remote circuitry is very simple, with just two wires for focus and shutter-release.



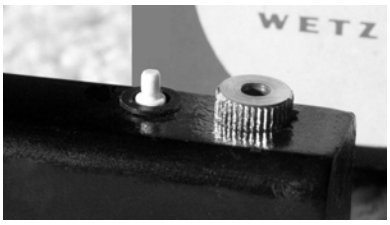
N3 connector as seen when looking into camera.

Short the white wire to the common (copper braid) and the camera will attempt to focus. Short the red wire to the braid and the camera will fire. As long as you do not apply any external voltages, you should have no problems.

Other than the RS80-N3 wired remote (about $50) I got all the electrical parts at Radio Shack, for under $10, so while it's a time consumer, this is not an expensive project.

The Canon 20D has a tendency to "go to sleep" after a minute or so. The common wisdom is to wire the white wire permanently to the common braid. This keeps the camera "awake", but it also reduces

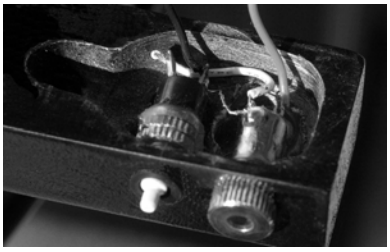
battery life. My solution was to use two push buttons… one for releasing the shutter, the other, on the side, for forcing the camera awake. You quickly learn to press the white button with the side of your thumb as you bring the camera to your eye. Set the time-out, via the menu, to 2 minutes and you'll never have a problem!



The first trick was to bore two holes - one for the 1/8" jack… the other for the shaft of a push - button switch from which I'd removed the actual button. This turned a large, rather garish switch into a neat, tiny, elegant one. I trimmed the hole for the switch with the trim piece for a round, panel-mount LED.

No mention of drill sizes here… each person's choice of switches and plugs will be slightly different. Choose your hole sizes with care, based on what you've bought.

Note that the stereo jack *must* be on the side. In my first design, I put it on the back, which was easier to do & looked great; but, when the cord was plugged into it, prevented the camera from being rotated to the vertical shooting position!



The wiring is pretty easy, but use care. Life is much easier if you can use a small 20 watt soldering iron… rather than the more common, larger, soldering gun. You don't want to have any shorts circuits! The camera could "stay awake" or, fire continuously! *(In the photo, you can see that black wire is soldered both to the shell of the stereo socket and one side of the white pushbutton. The other end of the black wire will go to one side of the shutter button. The red goes to the other.)*

In the photo, you can see how the inside of the grip was hollowed out to hold the switch and jack, using a combination of Forstner bits *(if you can, use a drill press, rather than a hand drill)* and a small sanding tube on a Dremel tool. In fact, I hollowed out much of the insides of both pieces of wood, simply to save weight.

The 1/8" stereo jack, both switches and its trim piece are held in place with small amounts of epoxy glue.

I chose the deluxe $4 button. The smaller ones were half the price (one of these became the 'white' button) but didn't have the same "feel". Finally, the black and red wires are threaded through a hole (make one!) in the aluminum bar and soldered to the two terminals of the pushbutton. Here, polarity doesn't matter.

Finally, I drilled the bottom of the front piece, and used epoxy glue to hold a 1/4"-20 'T' nut into the base. This makes a fine monopod socket. And the extra stability is welcomed when using Leica's 2x converter to make an 800mm lens!

The whole thing is held together, from the back, by a large brass screw, into a 1/4"-20 'T' nut, set into the front piece, which was covered with filler, prior to painting.

Before assembly, the wood work was sanded and then finished with two coats of gloss black, spray paint.

The grip is comfortable, the lens is easy to hold and use, even if supported only by the shoulder stock; and firing the shutter is smooth and vibration free so you can get shots like this…

Young "Whistler Marmot" – Tunkwa Lake, B.C.

LeiCanon – 400mm f6.8 Telyt w Leitz 2x converter on Canon 20D
1/1000th second at f8 - ISO 1600.