

EQUIPMENT REPORTS

Philips ECG RCT7501 Remote Control Tester

A simple way to test your
remote-control transmitters

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EVEN IF YOU AREN'T A TV SERVICE TECHNICIAN, we're sure that there have been times when you wished for some way to test a remote-control transmitter. Since humans can't see the infrared light, and can't hear the ultrasonic signals emitted from such transmitters, troubleshooting remote controls systems has been a guessing game. The odds of winning, of course, are not in your favor.

We recently found a way to increase your odds at winning the remote-control guessing game: a new remote-control transmitter tester, the model *RCT7501* from Philips ECG, Inc. (1025 Westminster Drive, P.O. Box 3277, Williamsport, PA 17701). The *RCT7501* can be used to test both ultrasonic and infrared remote controls.

We tested the *RCT7501* with a good assortment of transmitters, including TV, cable, compact-disc, stereo, VCR, satellite TV, and even computer-keyboard remotes. The tester had no problems detecting signals from any of those transmitters, and no false triggering was noted.

The simpler the better

The *RCT7501* is one of the simplest of test instruments. Its circuitry consists of an infrared detector, an ultrasonic transducer, amplifying transistors, and a pulse stretcher. The only control is a power switch. When the detectors sense infrared or ultrasonic signals, a green TEST LED lights, and remains lighted for about 1 second after the signals cease.

No test instrument could be easier to use for go/no-go tests. Simply turn the tester on, and aim the suspected transmitter at it. When you press a key on the transmitter, you should see the green LED light. If all the other transmitter keys also give positive results, you should assume that the receiver is at fault. If you need to do further testing of the remote, a SCOPE/COUNTER test jack is provided on the side of the tester. (A cable is included.) That lets you view the received signals on an oscilloscope or measure the frequencies on a meter. If you know what signals you should expect, that feature can be an invaluable troubleshooting aid. A sample I-R

test signal is shown in Fig. 1.

The tester is a perfect example of what a shirt-pocket tester should be. It's about 4½ inches long, a little more than an inch wide, and about ¾ inch thick. The power switch is located on one side, opposite the SCOPE/COUNTER jack. The red POWER and green TEST LED's are on the front panel, and the infrared and ultrasonic detectors are on the top end.

The *RCT7501* remote-control tester is available from Philips ECG for \$49.95. (Call 1-800-225-8326 for their distributor nearest you.) We were impressed by the sensible, rugged tester and recommend it highly.

Another tester

As we were finishing our review of the Philips ECG *RCT7501* remote-control tester, we got a chance to evaluate a similar tester from Cableserv Electronics (18 Dufflaw Road, Toronto, Ontario, Canada M6A 1C8). Their tester, the Celtron-1, is shown in Fig. 2. It works similarly to the Philips unit: You simply turn it on, and aim a remote transmitter at it. If the transmitter is outputting infrared or ultrasonic signals, a green LED will light. The Celtron-1 includes an output jack for connection to a frequency counter or oscilloscope. No cable, however, is supplied with the tester.

The Celtron-1 offers a couple of

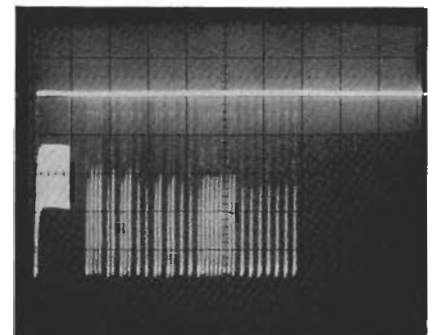


FIG. 1

features that the Philips unit does not. First, a piezoelectric transducer beeps to indicate the receipt of a signal, so you don't even have to look at the tester to know that your transmitter is working. Also, you cannot forget to turn the unit off. In fact, there is no off switch—



FIG. 2

the Celtron-1 turns itself off after about 30 seconds.

While we liked the added features and the slightly better sensitivity of the Celtron-1, we did not feel that it was constructed nearly as well as the Philips ECG unit. The Celtron 1 is available for \$89. **R-E**