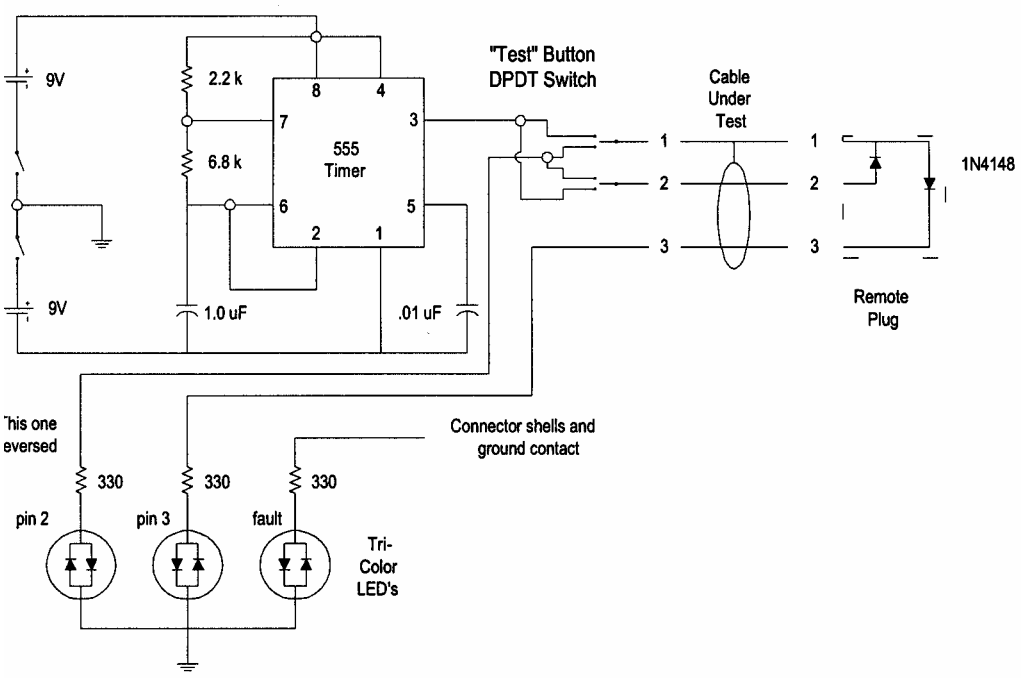

Pin 2	Pin 3	Fault	Condition
G	G		Cable Good
R	G		1 & 2 Reversed
G	R		1 & 3 Reversed
R	R		2 & 3 Reversed
Y	G		1 & 2 Shorted
G	Y		1 & 3 Shorted
Y	Y		2 & 3 Shorted or All Shorted
	G		2 Open
G			3 Open
R			2 & 3 Reversed and 3 Open
	R		2 & 3 Reversed and 2 Open
X	X	Y	1 *or* 2 and 3 Fault
X	X	R	2 Fault
X	X	G	3 Fault
Y	G	Y	1 & 2 Shorted and Fault
G	Y	Y	1 & 3 Shorted and Fault
Y	Y	Y	2 & 3 or All Shorted and Fault
If No LED's Light			***Press Test Button***
	G		1 Open
	R		2 & 3 Reversed and 1 Open
	No LED's		All Pins or 2 of 3 Open

G = Green R = Red Y = Yellow X = Any Color

Farrel Becker's Cable Tester

The remote cable tester permits rapid testing and fault identification in permanently installed cables whose ends are widely separated. It is, of course, useful for testing portable microphone cables of any length.

The *555* timer chip generates an 18 volt peak to peak bipolar square wave (approximately 90Hz) that is sent down the shield of the cable under test via pin 1. With the remote plug connected at the opposite end, one peak of the square wave is conducted to pin 2 by a diode and the other peak is conducted to pin 3 by a second diode with opposite polarity. The positive and negative peaks return to the tester via pins 2 and 3 and are sent to separate tn-color LEDs (two LEDs, one green and one red, wired in opposite polarity and enclosed in a single case). When a cable is correctly wired, only the green LEDs will light. The input to a third tn-color LED is connected, via a suitable connector, to earth ground (conduit, chassis, "U" ground, etc.) and will light to indicate shorts to ground.

The entire tester, with the exception of the remote plug, may be built into a small case. The "TEST" button should be of the momentary contact type. One male and one female XLR connector should be wired in parallel for the sending end of the tester. The remote plug consists of a Switchcraft S3FM with diode connections paralleled at each end. A second set of XLR connectors (one male and one female) may be mounted in the sender unit and wired with diodes to act as a built-in remote plug for use in testing portable cables. By paralleling male and female connectors at both ends, cables with any connector arrangement may be tested without the use of turnarounds.

The table indicates 20 conditions. At times, a combination of conditions may exist. If the exact condition cannot be determined from the LEDs, it's time to break out the ohmmeter.