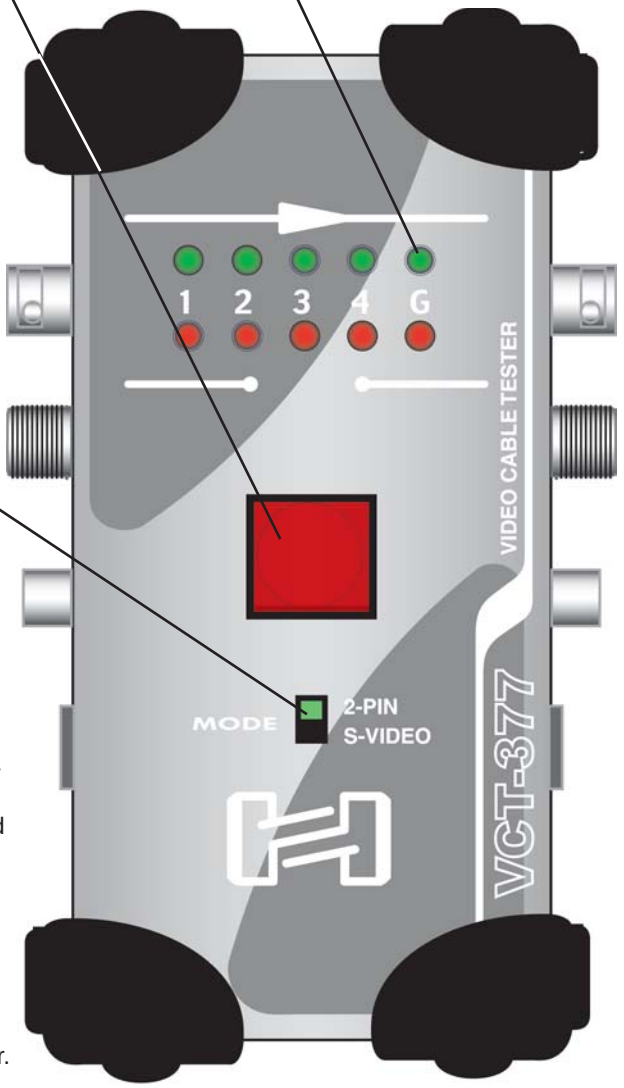
Hosa VCT-377 Cable Tester Applications Guide

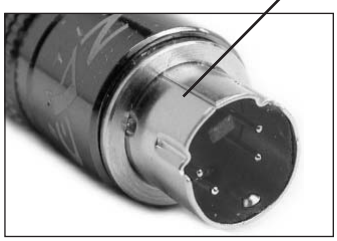
NOTE: THIS UNIT INCLUDES A NEW 9-VOLT BATTERY. OPEN THE BATTERY COMPARTMENT ON THE BOTTOM OF THE CASE, USING A SMALL PHILLIPS SCREWDRIVER. UNWRAP THE BATTERY, CONNECT IT TO THE BATTERY RECEPTACLE, AND REPLACE THE BATTERY & COMPARTMENT COVER. DIM LEDs USUALLY INDICATE THAT IT'S TIME TO REPLACE THE BATTERY. REMOVE THE BATTERY WHEN STORING UNIT FOR LONG PERIODS.

OVERVIEW: To test a cable, plug one end of the cable into the right side of the tester, and the other end of the cable into the left side of the tester, and then push the square red button in the center of the top panel. Lights on the top panel will blink in sequence as the tester does its work. When it is finished testing the cable, various combinations of green and red lights will be illuminated for several seconds to indicate the way the cable is wired.

Move the **MODE** Switch to the **2-PIN** position to test cables with various combinations of BNC, RCA or "F" (cable TV) connectors. The cable is wired correctly if the green LEDs illuminate over "**1**" and "**G**". If either of those LEDs fails to illuminate, that would indicate an "open" (broken) connection. If either of the corresponding (1 and G) red LEDs illuminate, that would indicate a short (bridged) connection. Either way, red LEDs indicate needed cable repairs.

Move the **MODE** Switch to the **S-VIDEO** position for the testing of S-Video cables and any cable that has a combination of S-Video and RCA, or S-Video and BNC.





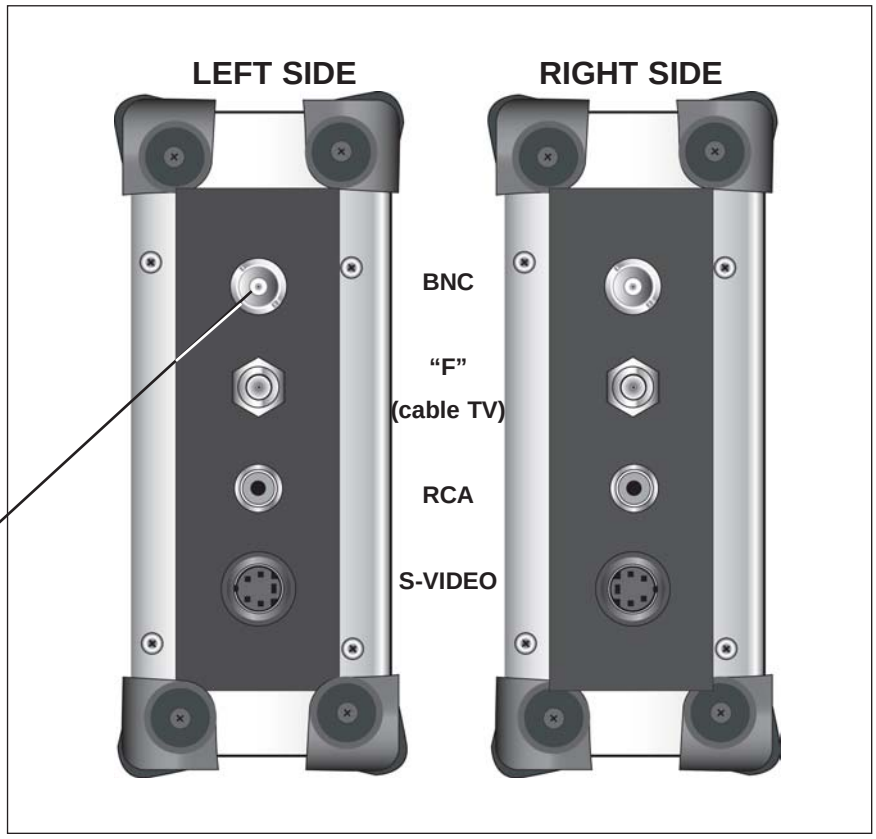
*The "crown" or "surround" of an S-Video connector is not a signal carrier, but most cable manufacturers connect the crowns at each end of the cable to each other, via the cable shield. Hosa S-Video cables are wired this way. (It's important to know if your cable is or isn't grounding your video equipment chassis-to-chassis when you're troubleshooting certain video and audio problems.) An illuminated red or green **G** LED indicates that one or both crowns are shorted to the shield in this manner.

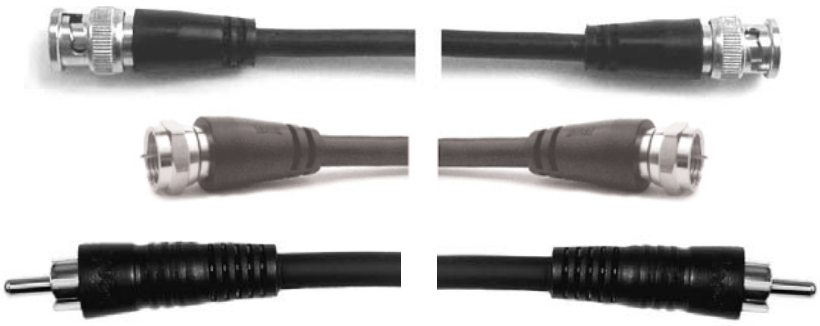
SIDE-PANEL JACK BAYS

The diagram at the right shows the orientation of the jack bays on the VCT-377.

When testing cables with S-Video at one end, and any *other* connector at the other end, please always connect the S-Video plug to the S-Video jack on the RIGHT side, and then connect the other plug to the appropriate LEFT side jack. This will ensure that your results consistently match the examples in this Applications Guide.

A WORD ABOUT BNC CONNECTORS: The BNC connector is a “push and turn” device. To connect a BNC plug to the tester, first lightly turn the connector until it “mates” with the guide pins on the tester. Then push the connector onto the jack and turn clockwise while pushing, to lock. To release the plug from the tester, first push IN and then turn counter-clockwise. Take care while turning to avoid causing the tester’s jack to turn.





BNC CONNECTORS

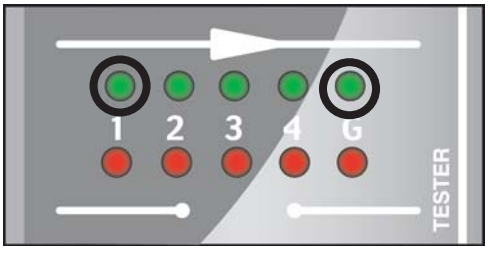
“F” (CABLE TV) CONNECTORS (THREADED)

RCA CONNECTORS

Two-conductor cables like the ones above (or any combination of these) are referenced to the “1” and “G” LEDs. A good test will yield Green LEDs at “1” and “G”.

No Green LED at either position would indicate an “open” (not connected) condition. A Red LED at either position would indicate a “short”. Both conditions indicate needed repairs.

GOOD TEST



Circles indicate illuminated LEDs.

The MODE switch should be in the “2-PIN” position when testing these cables.

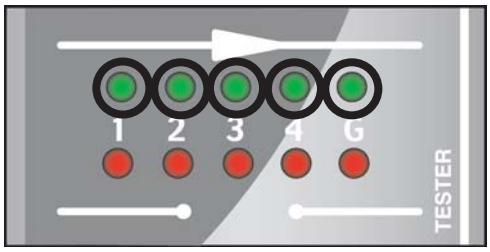
S-VIDEO CONNECTORS

The wiring scheme for S-Video cables consists of four inner conductors plus a wrap-around shield. The inner conductors terminate at four pins at each end, numbered 1 through 4, and are represented on the tester by LEDs **1** through **4**. The shield is connected to the "crown" at each end, and is represented by the **G** LED.

To test, first move the MODE Switch to the "S-VIDEO" position. A good test will show all 5 Green LEDs illuminated.

Any unlit Green LED would indicate an open (broken) connection. Any illuminated Red LED would indicate a short. Either condition indicates needed repairs.

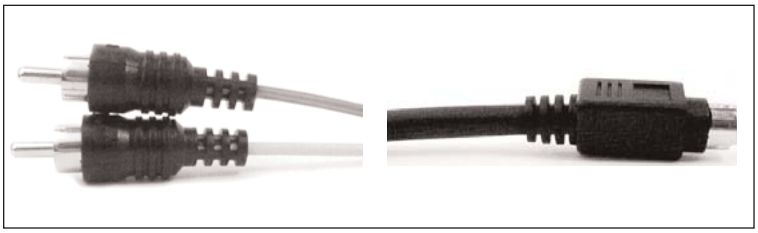
GOOD TEST

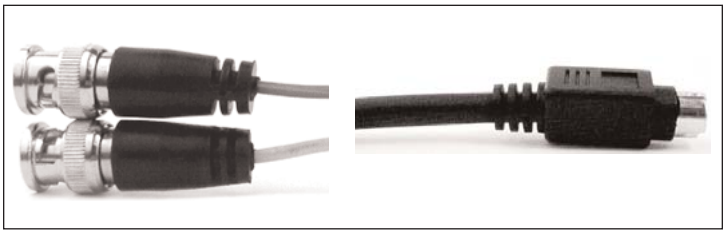


All 5 Green LEDs illuminated.

Make sure the MODE Switch is in the S-VIDEO position.

S-VIDEO BREAKOUT CABLES

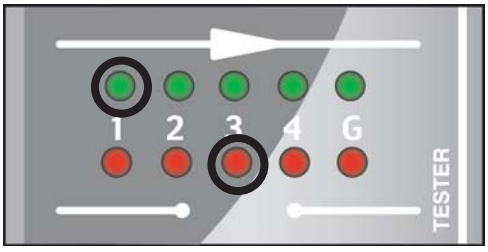




Cables like the ones shown above are used to "break-out" (separate) the chrominance and luminance feeds of an S-Video output. To test these cables, make sure to plug the S-Video connector into the RIGHT SIDE of the tester, and then plug each of the other two plugs, one at a time, into the LEFT SIDE, testing each one separately. Each cable, therefore, will yield two good tests, shown at the right.

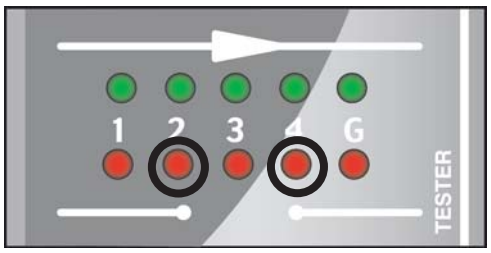
Make sure the MODE Switch is in the S-VIDEO position.

GOOD TEST with ONE RCA (or BNC)



#1 Green; #3 Red.

GOOD TEST with the OTHER RCA (or BNC)



#2 Red; #4 Red.

A color version of this Applications Guide is
available online at *www.hosatech.com*.

HOSA TECHNOLOGY, INC. 6650 CABALLERO BLVD. BUENA PARK, CA 90620
PHONE: (714) 522-8878 FAX: (714) 522-4540