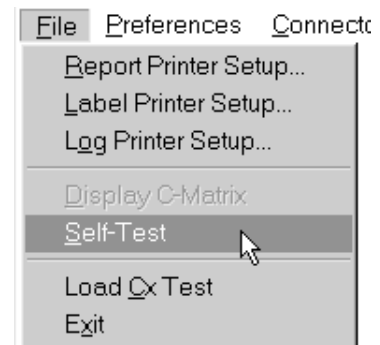


## 17 Self-Test and Calibration

### 17.1 Testing the Fixture Electronics

The software includes a built-in *Self-Test* function accessible from the *File* menu. Before testing, prepare the fixture as follows:

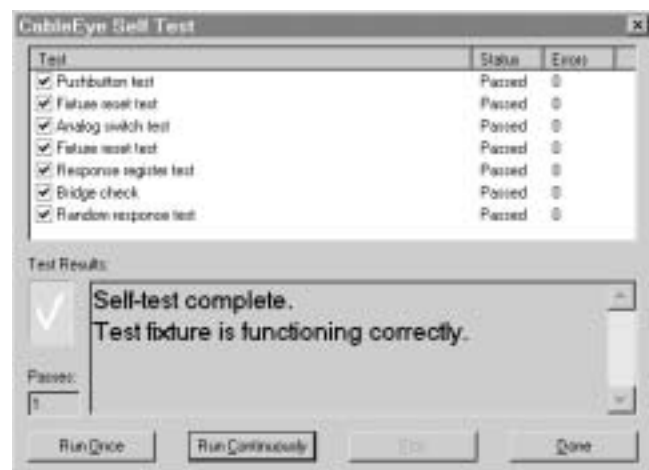
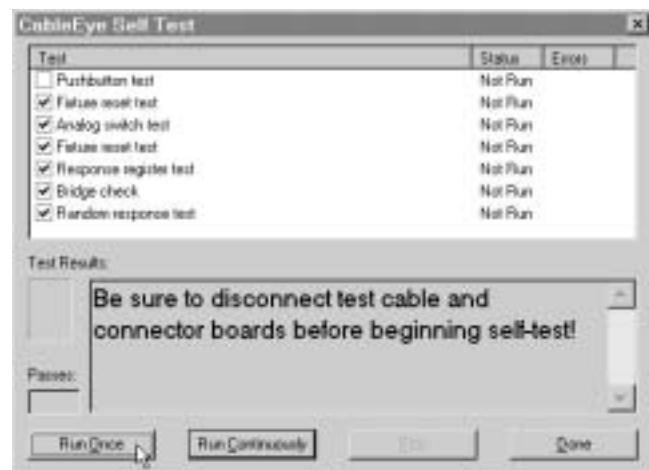
- 1 – Disconnect the test cable and remove all CB boards.
- 2 – Set the *Active Test Points* switch (if you have one on your unit) to the highest possible value to ensure that all test points are checked.



Choose *Self-Test* from the menu to open the self-test control window (right). Optionally check the *Pushbutton Test* if you would like to include the TEST button in the sequence of tests.

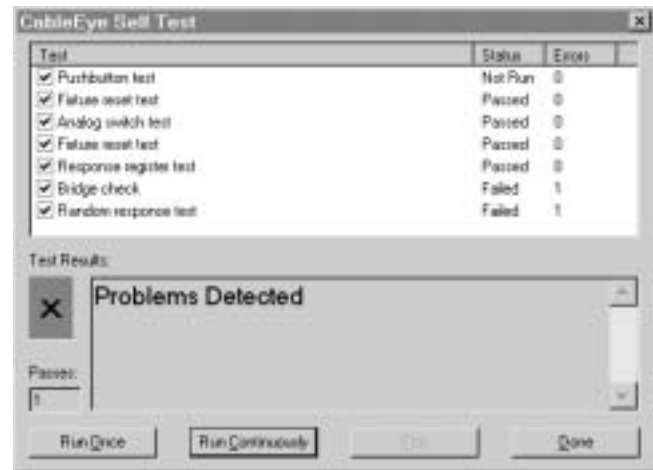
When ready, click *Run Once* to initiate the test. At this time, the test program applies test stimuli to the fixture electronics and expects precisely defined responses from a working fixture. If each of the seven tests listed in the window produces the correct response, a green box with a yellow checkmark appears (right) indicating that the hardware functions correctly.

Click *Run Continuously* to cycle the test sequence indefinitely. In this case, press *Stop* to end it. Note that the pushbutton test occurs only on the first cycle and is not repeated.



Should the self-test procedure detect a problem, you will see a red box with a black "X" indicating that at least one test failed (right).

**IMPORTANT:** Be sure the test cable and all CB boards are disconnected before starting the test. *This error screen will appear if you attempt to use Self-Test with CB boards connected!*



If you use *Run Continuously*, be aware that a power glitch or static electricity discharge to the test fixture during testing may cause an incorrect response and failure on *one cycle*. This is only temporary and does not indicate an internal error. Simply restart the test to confirm proper operation.

Certain kinds of hardware problems may prevent the fixture from linking with the software on startup. In this case, you will be unable to use Self-Test. If you experience a problem in which the test fixture cannot communicate with the computer, confirm that the problem is not in your serial port or computer by moving the fixture to a different computer, installing the software there, and attempting to communicate again. Static discharge into any of the I/O connectors on the back of your PC may cause damage to the computer's serial port or other hardware.

Proper linkage between the computer and the CableEye fixture causes the *Ready* lights (green LED) on the front of the fixture to turn on. These lights should turn off when you exit the CableEye software. If the Ready lights glow when the CableEye software is not loaded, when the fixture's serial cable is disconnected, or when the computer is off, this is a sure indication that hardware problems exist in the test fixture.

## 17.2 Calibration Not Required

The CableEye PC-Based Cable Test System includes no analog components that require calibration. The resistance threshold is fixed at about 16k ohms, allowing CableEye to be quite sensitive to the detection of short circuits.

To confirm proper operation, perform the following tests:

**1** – Remove all test cables and CB boards from the fixture and set the *Active Test Points* switch (if you have one on your system) to the maximum number of test points. Then, from the *File* menu, choose *Self-Test* and run the test (described earlier on page 17-1). After several seconds, you should see a message that says *Self-test complete. The fixture is functioning correctly.* If any other message appears, contact CAMI Research for further instructions.

**2** – Maintain a set of cables that are known to be good (“golden” cables) to be used only for fixture certification. This is necessary to ensure that each connector on each board functions properly. Use these cables only for testing the connector boards. Periodically check the connector boards to confirm that all pins and shells are intact.

**3** – For each test of a golden cable, print the test results as confirmation that the calibration procedure was performed. The date will automatically be included on the printout, and you may add custom notes or label text before printing.

### 17.3 Year 2000 Compliance

- 1 – We certify that the CableEye Windows software, v3.0 and greater, exhibits no failure or misoperation resulting from year 2000-related date issues.
- 2 – The CableEye hardware contains no date-processing software or circuitry and will function correctly for all dates possible.
- 3 – The CableEye DOS software through v2.5.3 will function properly for year 2000, however, the year digits for the date on all printed documentation will appear as “100” rather than “00” (Example: “January 1, 2000”, would print as “1-1-100”).

We have recently released corrected DOS software that is fully compliant with year 2000. Customers whose 1-year warranty is still valid or who have renewed their warranty and are thus part of our support program may download this upgrade at no charge directly from our web site. Use the special access codes provided with your equipment purchase or warranty renewal to enter the *Customer Services* area of our web site.

For customers who are out of warranty and not part of the support program, our new Windows software, which is a major upgrade with many new features as well as being Y2K compliant, is available for \$195 per CableEye system. It includes a corrected version of the DOS software as well.