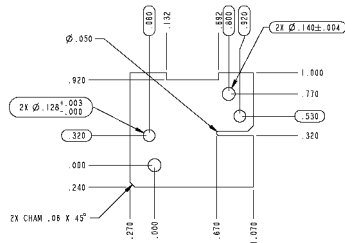
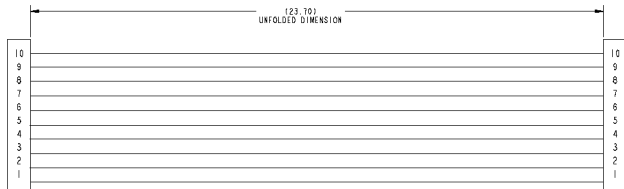


NOTES:

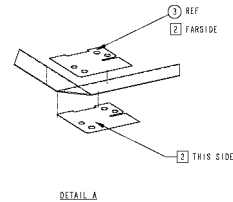
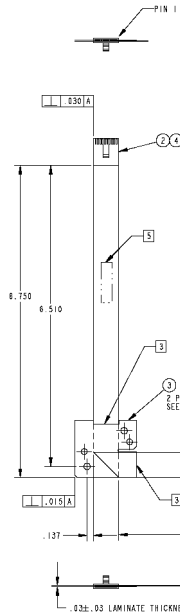
- ASSEMBLE PARTS USING MANUFACTURE SPECIFICATIONS.
- APPLY ADHESIVE TO APPROPRIATE SIDE OF CABLE TEMPLATE (ITEM 4), AND ATTACH TO BOTH SIDES OF CABLE AS SHOWN.
- USE LOCATING FEATURES (NOTCH & TAB) TO ALIGN CABLE AT 90°.
- ATTACH ITEM 5, DOUBLE-SIDED FOAM TAPE ON CABLE WHERE SHOWN. TAPE SHOULD OVERHANG .010 FROM CABLE EDGE.
- MARK CABLE WITH PART NUMBER AND REV LETTER WITH A CONTRASTING LABEL OR INDELIBLE INK USING .12 HIGH CHARACTERS, APPROX. WHERE SHOWN.
- WIRING AND TUBING USED IN THE CABLE ASSEMBLY MUST BE UL RECOGNIZED.
- CONNECTORS AND ALL OTHER COMPONENTS MUST BE UL RECOGNIZED OR MADE OF A UL RECOGNIZED MATERIAL WITH A MINIMUM FLAME RATING OF 94V-2.
- TRACEABILITY OF THE ABOVE MUST BE MAINTAINED BY THE VENDOR AND BE MADE AVAILABLE UPON REQUEST.



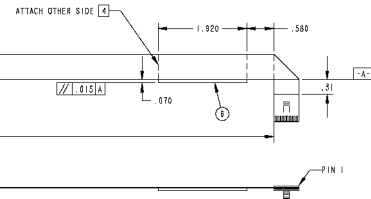
ALIGNMENT TEMPLATE
SCALE 2:1



WIRING DIAGRAM



DETAIL A



ITEM	QTY	DESCRIPTION	REFERENCE
8	1	.062 TAPE, URETHANE FOAM, DOUBLE SIDED ACRYLIC ADHESIVE	
5	2	CONTACT, RECEPTACLE COMB, .930 CL	AMP 48741-1
4	2	.087 ADHESIVE	
3	2	TEMPLATE, CABLE ALIGNMENT, .010 POLYCARBONATE SHEET	
2	2	ID COND CONNECTOR, .050 CL	AMP 487545-1
1	1	IR ID COND. CABLE, FLAT FLEX, .050 CL	PARLEX PE-1K38-10

APPROVALS		DATE	TITLE						
DESIGNED BY	SLK	07-11-97		HO CHIEN www.hochien.com					
CHECKED BY	MED	07-28-97							
DATE OF THIS DRAWING	REV	DATE							
07-28-97	620	07-18-97							
<table border="1"> <thead> <tr> <th colspan="2">BILL OF MATERIALS</th> </tr> </thead> <tbody> <tr> <td>REV</td> <td>DATE</td> </tr> <tr> <td>620</td> <td>07-18-97</td> </tr> </tbody> </table>			BILL OF MATERIALS		REV	DATE	620	07-18-97	HO CHIEN CABLE ASSY, DRABER CARRIER PN# CA-C4037A-0032 REV: D
BILL OF MATERIALS									
REV	DATE								
620	07-18-97								
SIZE: D SHEET: 42-7018 TOTAL SHEETS: 1 of 1									

ZONE	REV	ECO#	DESCRIPTION	DATE	APP#
A	620		PRODUCTION RELEASE (WAS 99-1122)	07-18-97	
VAR	B	650	ADD CHAM. CRITICAL DIMS, NOTE 6; TOU 18.9362 TO WAC 18.825; Ø .140 ± .004 WAS Ø .150	02-04-98	SLK
C	1219		ITEM 1 WAS AMP 489785-1, ADD NOTES 1, B, 9	06-21-00	SLK
D	1269		REMOVE OPTIONAL LABELING LOCATION	10-28-00	SLK

Hipot and Continuity Test Instructions For 10-Pin Flex Cables

1. PURPOSE

To provide step by step instructions for hipot and continuity testing of 10-pin flex cables.

2. SCOPE

All ribbon and flexible cables operating at 300V or below using “AMPMODU System 50” Single Row Cable Mount Receptacles. These cables include:

42-7018: Supplier pharmacy drawer cable

42-7030: Rx pharmacy drawer cable

42-8039: Dispenser dispenser cable

42-8040: Dispenser rail cable

3. DEFINITIONS

Test Program: A cable test setup saved in tester memory. Test Program is named after the Cable Signature.

Cable Signature: An 11-digit alphanumeric code consists of 6-digit Connection Signature, and 5-digit Parameter Signature separated by a dash (i.e.: 088BBA-EL0NH).

Connection Signature: Derived by the tester from: wire pattern of the tested cable, adapter used, and installed position of adapter in tester.

Parameter Signature: Identifies the Test Parameter Setting of the test.

Pin: Individual contact or terminal in a connector.

Net: An interconnection between two or more pins in a cable.

4. REFERENCES

<http://www.amp.com>

<http://www.cirris.com>

5. RESOURCES

- Cirris Signature 1100H+.
- Installed Custom Adaptor with two Single Row Shrouded Headers in J1 of tester.

6. RECORDS

Rev.	Change Description	Changed by	Approved By	Eff. Date
A	Initial Release	John Sie	Omar Hafez	2/25/2004

Hipot and Continuity Test Instructions For 10-Pin Flex Cables

7. INSTRUCTIONS

7.1. Setting-Up Tester

1. Connect the power supply and power cord together. Then plug the tester into a grounded power outlet.
2. Turn on the tester. Main screen should come up after Self Testing.

7.2. Retrieving Test Program: 088BBA-EL0NH

Refer to Appendix A for Test Program Parameters.

The loaded Test Program is always displayed on the main menu identified by "TEST:" followed by the test program file name (in this case would be: "**TEST: 088BBA-EL0NH**"); continue to "Testing Cables" sub-section if the Test Program is already loaded.

3. Press: **Set Up Test Program**
4. Press: **Load Test**
5. Select: **088BBA-EL0NH** (scrolling may be required to locate the program); once properly loaded, "TEST: 088BBA-EL0NH" option will be available.

7.3. Testing Cables

6. Press **TEST: 088BBA-EL0NH**
7. Attached Cable to be tested.
8. Press: **START TEST**
9. Inspect test result; red-tag **failed** cable.
10. Remove cable and segregate **Passed** and **Failed** cable.
11. Repeat Step 7 until all cables are tested.
12. Press: **Get Test Summary Cnt**
13. Verify the cable numbers are match with the summary count.
14. Switch Tester OFF.

Hipot and Continuity Test Instructions For 10-Pin Flex Cables

Appendix A – Test Program Parameters

Hipot and Continuity Test Instructions For 10-Pin Flex Cables

Cable Signature: 088BBA-EL0NH

Cable Description: Ribbon and Flexible Cables operating at 300V or below using AMPMODU System 50 Single Row Cable Mount Receptacles

Adapter:

Custom Adaptor with two Single Row Shrouded Headers in J1 of tester.

Test Parameter Setting

Resistance Threshold Setting

Connector Resistance Threshold: =< **1 ohm**

Component Resistance Threshold: **N/A**

LV Insulation Resistance Threshold: >**100kohm**

Hipot Setting

Hipot Test: **Standard**

High Voltage: **700V**

HV Insulation Resistance Threshold: > **10.0Mohm**

Duration: **.01 sec.**

Apply to: **All Adapter Pins**

Max Soak: **0**

High Capacitance Shield: **No**

Components Setting

Capacitor: **OFF**

Diodes: **OFF**

Resistor: **OFF**

Twisted Pair: **OFF**

4W Kelvin: **OFF**

Connections:

Net	Test Point
1	J1-001 J1-031
2	J1-003 J1-033
3	J1-005 J1-035
4	J1-007 J1-037
5	J1-009 J1-039
6	J1-011 J1-041
7	J1-013 J1-043
8	J1-015 J1-045
9	J1-017 J1-047
10	J1-019 J1-049

Test Instructions for 10-Pin Flex Cables (42-7018, 42-7030, 42-8039, 42-8040)

A. PURPOSE

To provide step by step incoming instructions for inspecting and testing 10- pin flex cables used in pharmacy and dispenser modules. These cables are pre-tested at the supplier using an provided Cirris Hipot cable tester to look for opens/shorts, and a 50X magnification microscope to inspect for correct alignment between connector pins and traces.

B. SCOPE

The following cable part numbers are covered by this document:

- 42-7018 Pharmacy Drawer Cable, Supplier
- 42-7030 Pharmacy Drawer Cable, iRx
- 42-8039 Dispenser Dispense Cable
- 42-8040 Dispenser Rail Cable

C. REFERENCES

- MQA-I-02 Instructions for Incoming Inspection

D. RESOURCES

- Cableeye test fixture and computer
- Cableeye connector boards (2) for 10-Pin flex cable
- Microscope (if necessary to verify connector alignment)

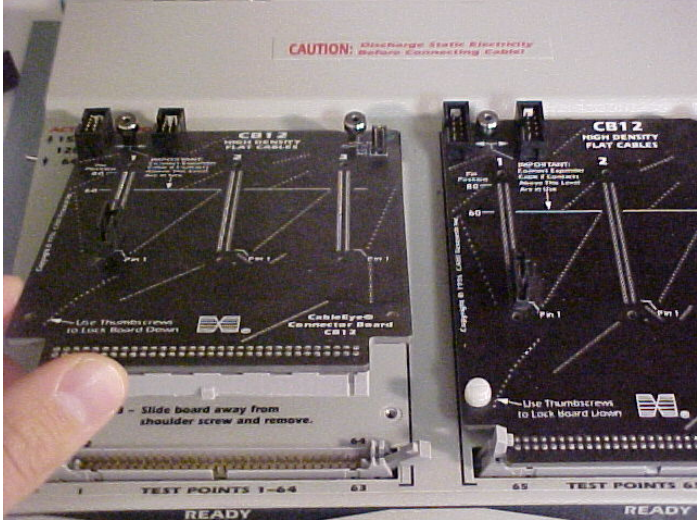


E. VISUAL

1. Check that the shipment contains the certificate of conformance
2. Check that the certificate is completed and states that the cables were hipot tested, and checked by microscope for alignment between connector pins and traces
3. Check that the cables have the part number, revision, datecode and vendor initials.




Test Instructions for 10-Pin Flex Cables (42-7018, 42-7030, 42-8039, 42-8040)

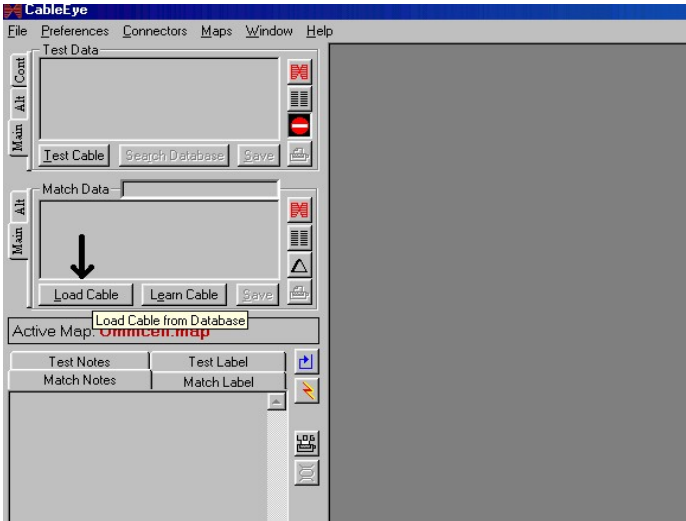
F. TEST INSTRUCTIONS

 <p>The image shows two black CB12 connector boards being inserted into the Cableeye test fixture. A hand is visible on the left, holding one of the boards. The boards are labeled 'CB12 HIGH DENSITY FLAT CABLES'. A red 'CAUTION' label is visible at the top of the fixture. The boards have 'TEST POINTS 1-64' and 'READY' labels.</p>	<p>1. Install the two connector boards for 10-Pin Flex cables.</p>
 <p>A close-up of the 'ACTIVE TEST POINT' switch. The switch is a rotary knob with three positions: 152 (top), 128 (middle), and 64 (bottom). A white arrow points to the 152 position, which is currently selected.</p>	<p>2. Verify that the active points switch is set to 152.</p>
 <p>A hand is shown pressing a button on the back-left side of the Cableeye test fixture. The fixture is labeled 'CAUTION: Discharge Before Co'. Below the button, there is a 'CB12 HIGH DENSITY FLAT CABLES' label and a 'LAMP FOR AUTO TO OFF' indicator.</p>	<p>3. Turn on the test fixture by pressing the button at the back-left side of the Cableeye test fixture.</p>

Test Instructions for 10-Pin Flex Cables (42-7018, 42-7030, 42-8039, 42-8040)

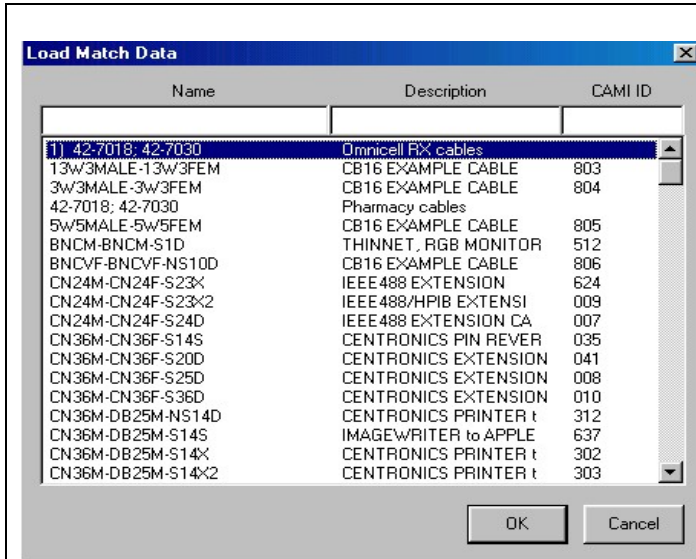


4. Double click on the CableEye icon, which is on the desktop.

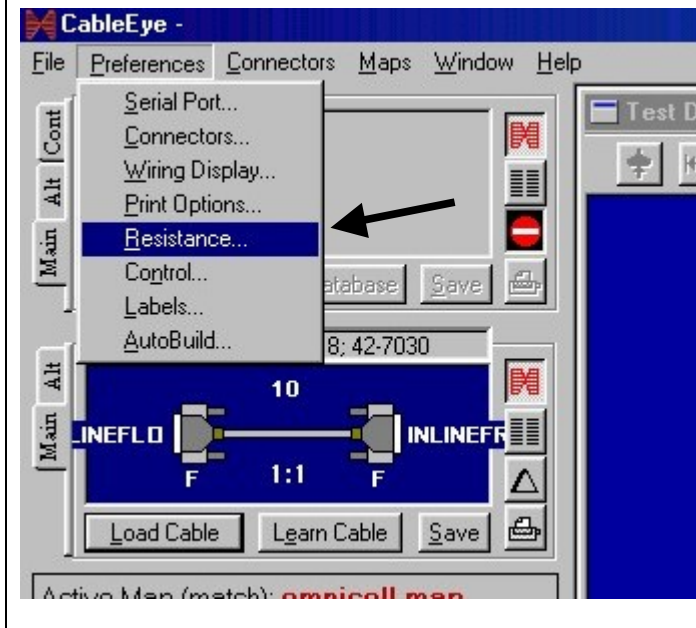


5. Click on “Load Cable.”

Test Instructions for 10-Pin Flex Cables (42-7018, 42-7030, 42-8039, 42-8040)

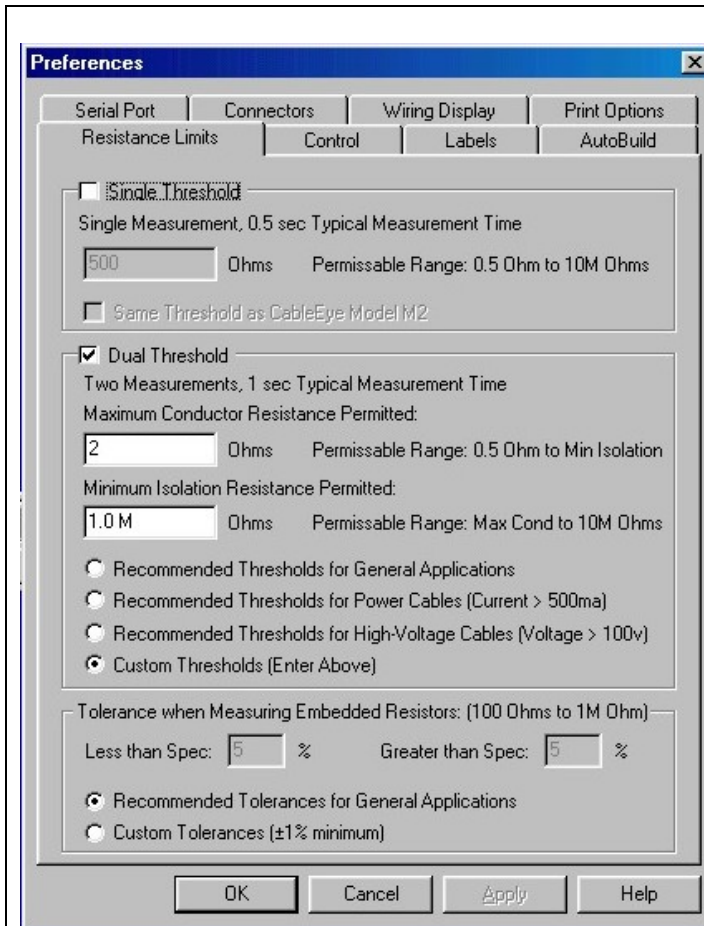


6. After clicking on “Load Cable,” select the “42-7018; 42-7030” cable from the list then click “OK.”

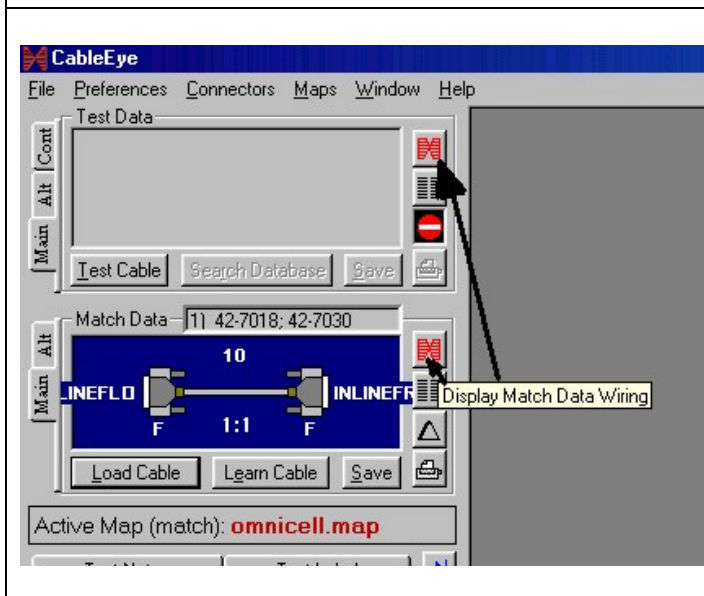


7. Click on “Preferences,” then scroll down and select “Resistance.”

Test Instructions for 10-Pin Flex Cables (42-7018, 42-7030, 42-8039, 42-8040)

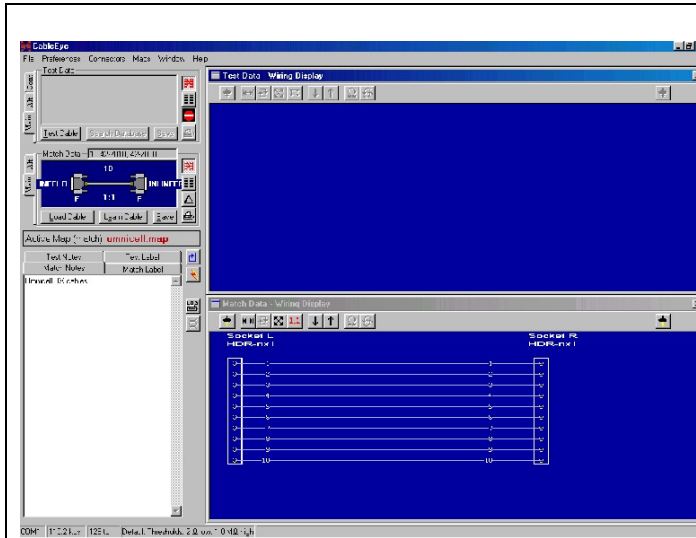


- Verify that “Dual Threshold,” is checked, that the “Maximum Conductor Resistance Permitted” is 2 Ohms and the “Minimum Isolation Resistance Permitted” is 1.0 M Ohms. If correct, click “Cancel.”

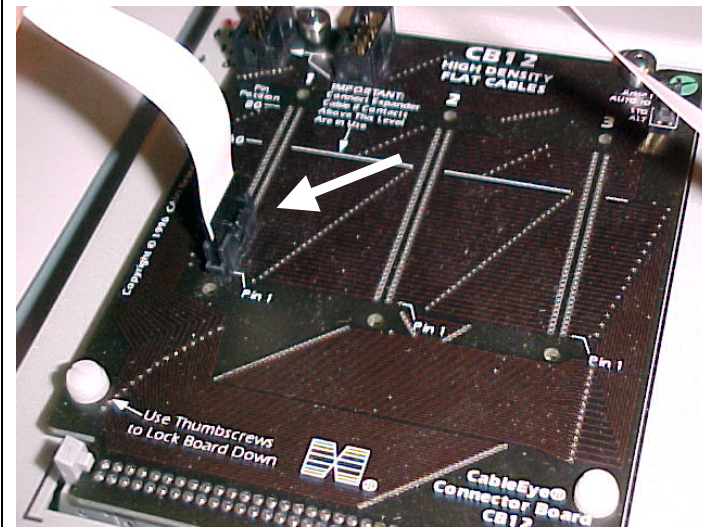


- Click on both “Display Match Data Wiring” buttons, which should bring up a diagram of the wiring.

Test Instructions for 10-Pin Flex Cables (42-7018, 42-7030, 42-8039, 42-8040)



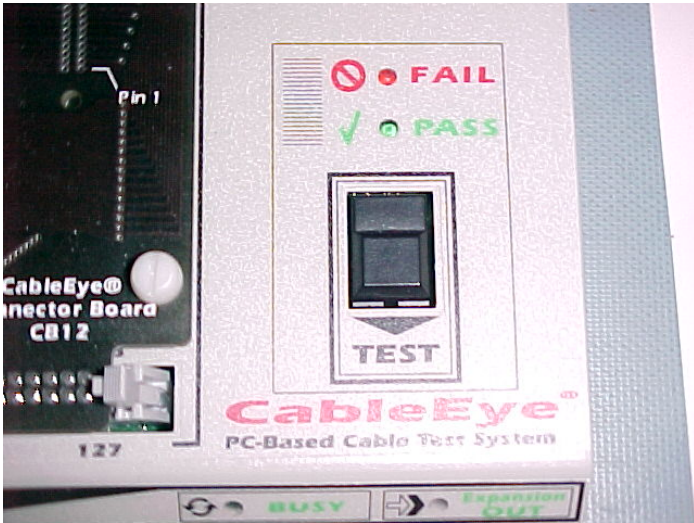
10. The ready screen should appear, with the master cable shown in the lower half.



11. To test a cable, plug in one connector of the cable to the left connector board, and the other connector to the right connector board.

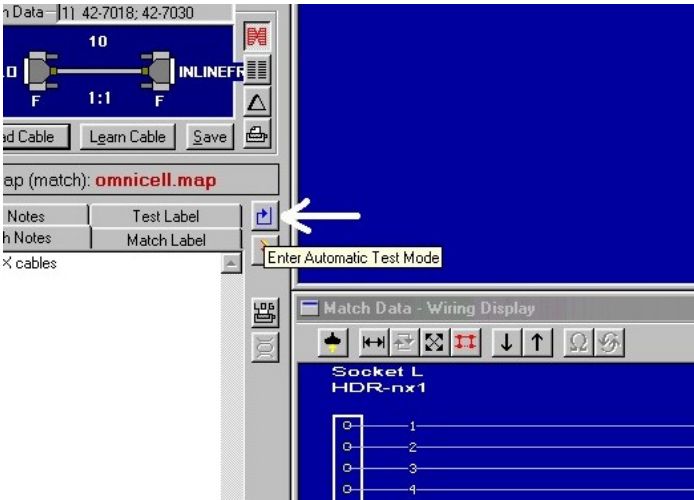
Test Instructions for 10-Pin Flex Cables (42-7018, 42-7030, 42-8039, 42-8040)

12. Press the “Test” push button on the Cableeye test fixture. A green pass light will indicate a good cable, and a red fail light will indicate a defective cable. Note that you can also see the results on the computer screen (see screenshots in later steps)



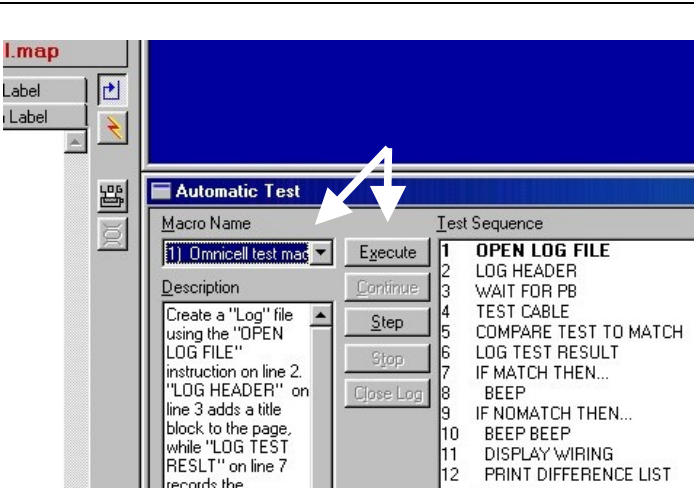
The image shows the CableEye PC-Based Cable Test System hardware. On the left, a green PCB is labeled 'CableEye Connector Board CB12' and '127'. The main unit is white with a 'TEST' button and two indicator lights: a red 'FAIL' light and a green 'PASS' light. The brand name 'CableEye' and 'PC-Based Cable Test System' are printed on the front panel.

13. If testing a batch of cables, click on the “Enter Automatic Test Mode” button.



The screenshot shows a software interface with a blue background. A white arrow points to a button labeled 'Enter Automatic Test Mode'. Other visible elements include a 'Match Data - Wiring Display' section with a 'Socket L HDR-nx1' label and a list of pins (1-4).

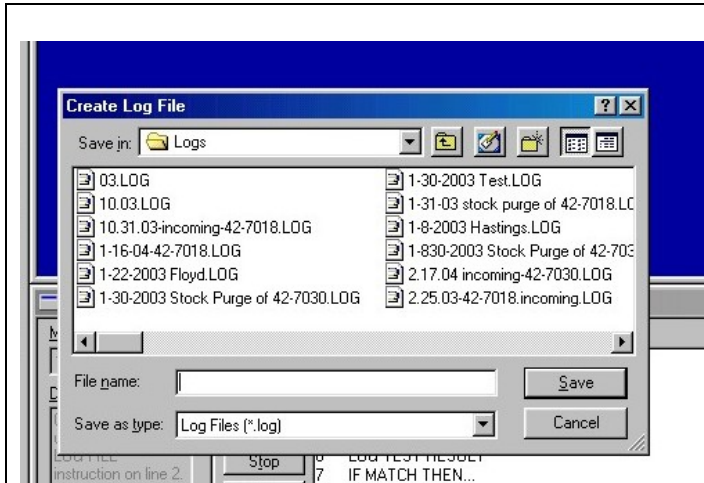
14. Select “1) Test Macro” from the list of Macro Names, then click “Execute.”



The screenshot shows the 'Automatic Test' dialog box. A white arrow points to the 'Macro Name' dropdown menu, which is set to '1) Omnicell test mac'. Another white arrow points to the 'Execute' button. The 'Test Sequence' list is visible on the right side of the dialog.

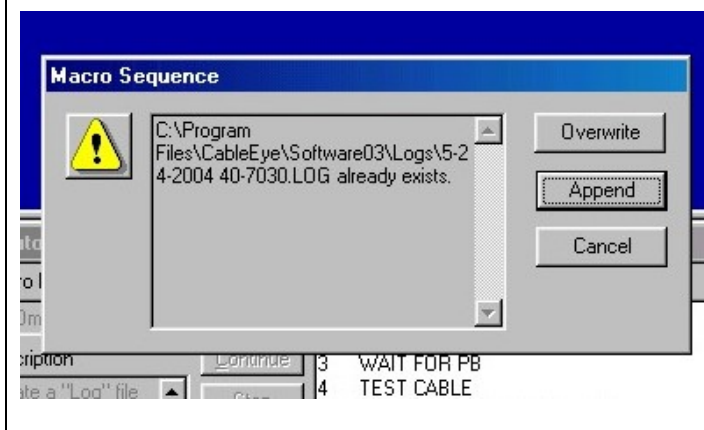
Macro Name	Test Sequence
1) Omnicell test mac	1 OPEN LOG FILE
	2 LOG HEADER
	3 WAIT FOR PB
	4 TEST CABLE
	5 COMPARE TEST TO MATCH
	6 LOG TEST RESULT
	7 IF MATCH THEN...
	8 BEEP
	9 IF NOMATCH THEN...
	10 BEEP BEEP
	11 DISPLAY WIRING
	12 PRINT DIFFERENCE LIST

Test Instructions for 10-Pin Flex Cables (42-7018, 42-7030, 42-8039, 42-8040)

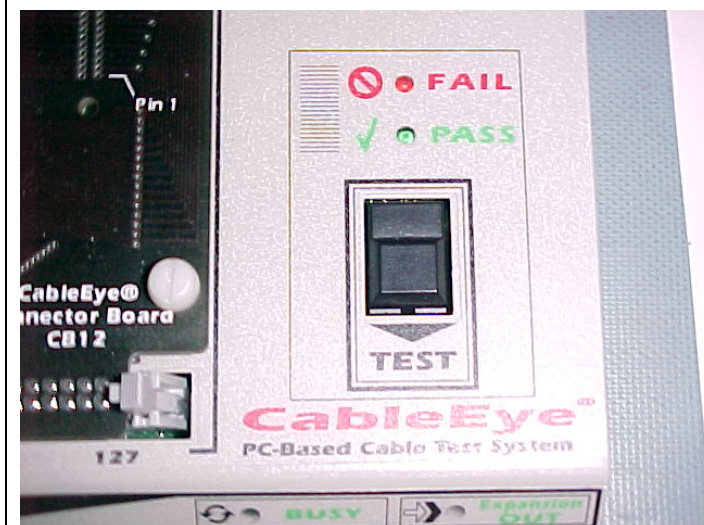


15. Once the Create Log File screen appears, create a name for the file, then click save. The format should include the cable part number and the date tested, ex:

42-7030_2004-05-24.log

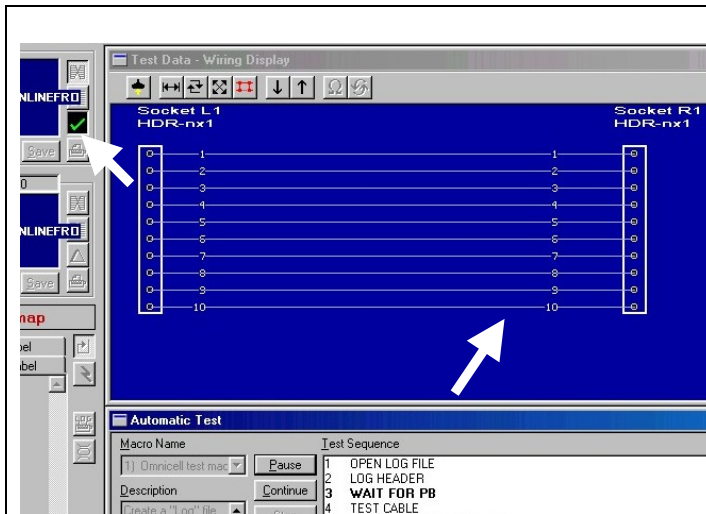


16. If you want to append to a file that is already open, select the file and click “Append.”

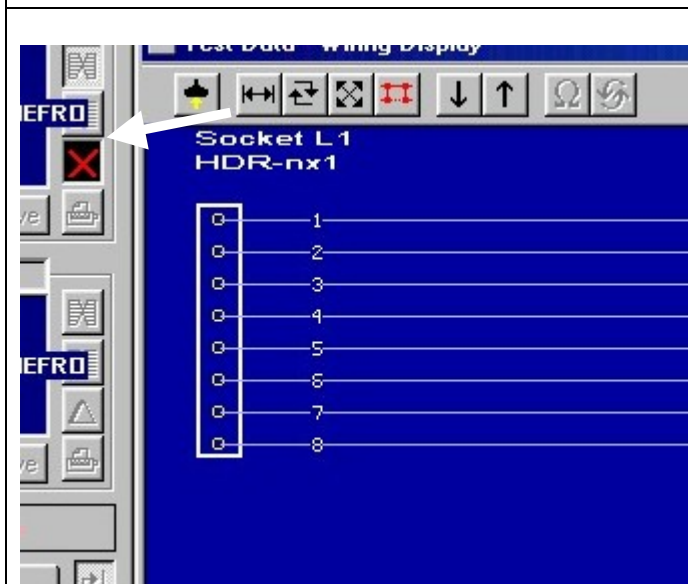


17. When the third step, “Wait for PB” is highlighted, place your cables into the connector boards, then press the “Test” button.

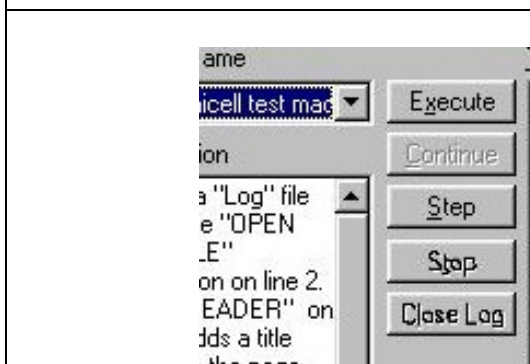
Test Instructions for 10-Pin Flex Cables (42-7018, 42-7030, 42-8039, 42-8040)



18. If the cable passes, a green check should appear on the screen, and the wiring diagram for the cable under test should match the master cable. Repeat testing until you have finished the batch of cables.



19. If the cable fails, a red “x” should appear. The wiring diagram will also look different from the master cable. In this screenshot, note that only 8 pins are connected, as opposed to 10. A printout of the defective cable will automatically be printed.



20. When finished, press the “Stop” button. Do **not** press the “Close Log” button, as you need to keep the log file open to print the final report.

Test Instructions for 10-Pin Flex Cables (42-7018, 42-7030, 42-8039, 42-8040)

21. Select “2) Final Report” from the list of Macro Names, then click “Execute,” which prints a copy of the final report.

G. DISPOSITION

1. Follow instructions in [MQA-I-2: Instruction for Incoming Inspection](#) regarding the disposition of test results and material.

H. REVISION HISTORY

Rev.	Change Description	Approved By	Eff. Date
A	Initial Release	Omar Hafez	5/25/2004