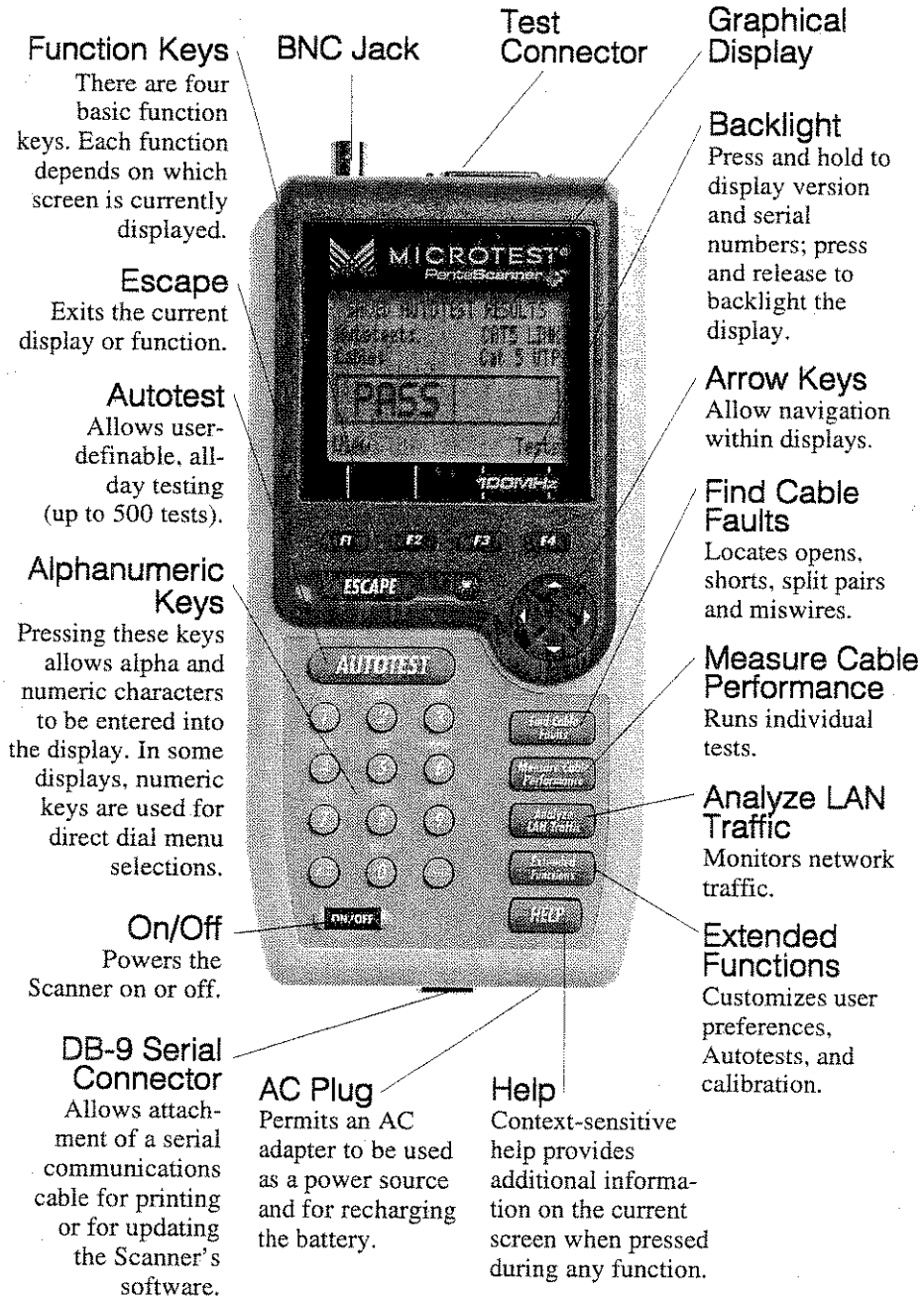

PENTASCANNER™
PRODUCT FAMILY

FUNCTIONAL OVERVIEW

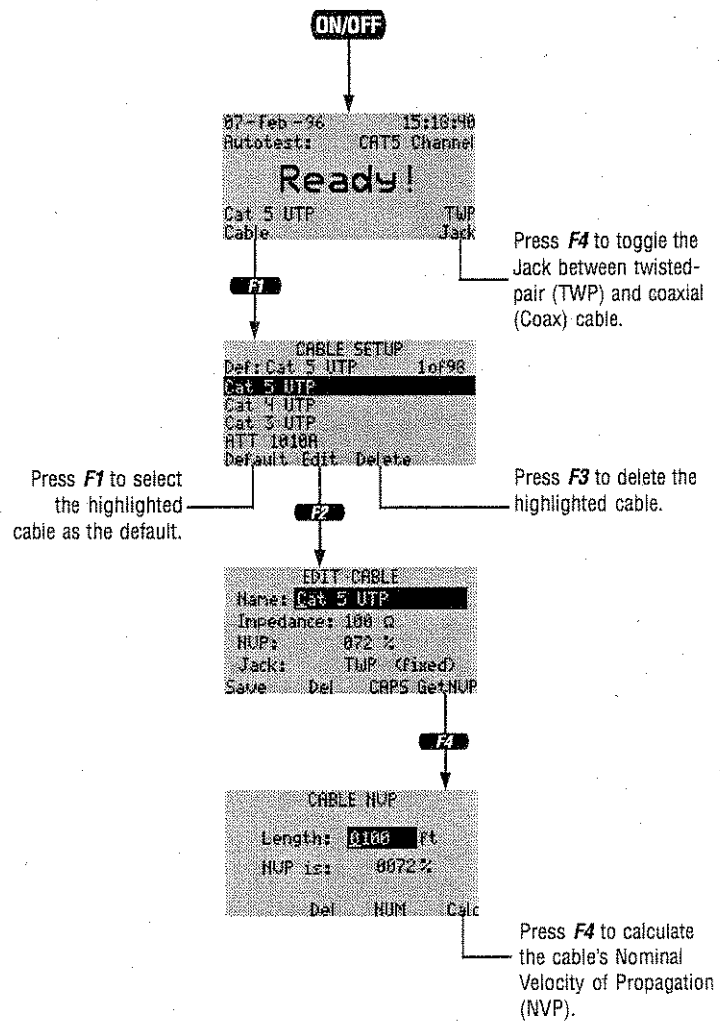


MICROTEST®

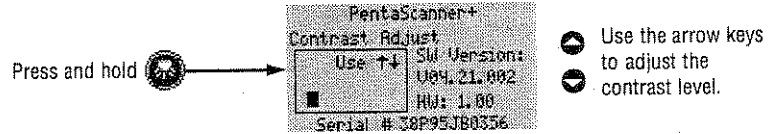
A Quick Look at the Scanner . . .



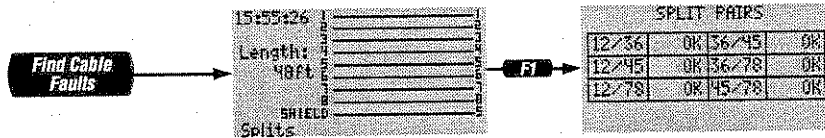
Cable Setup



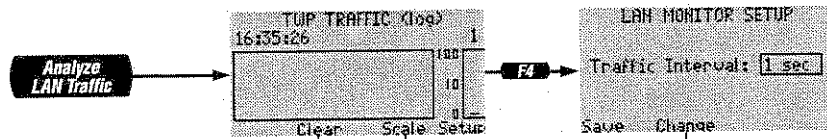
Scanner Information



Find Cable Faults



Analyze LAN Traffic

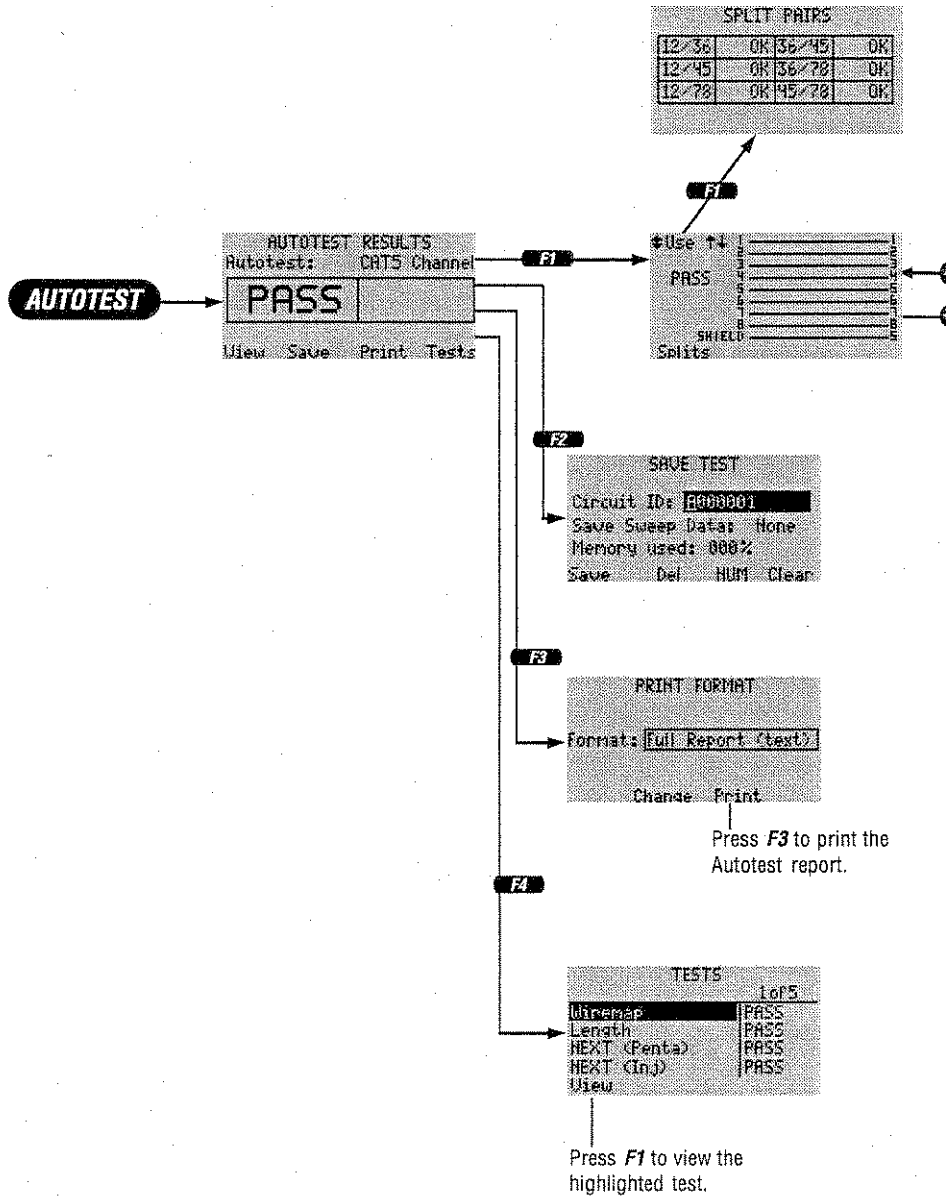


Press **F2** to clear the display.

Press **F3** to toggle the display between a linear and logarithmic scale.

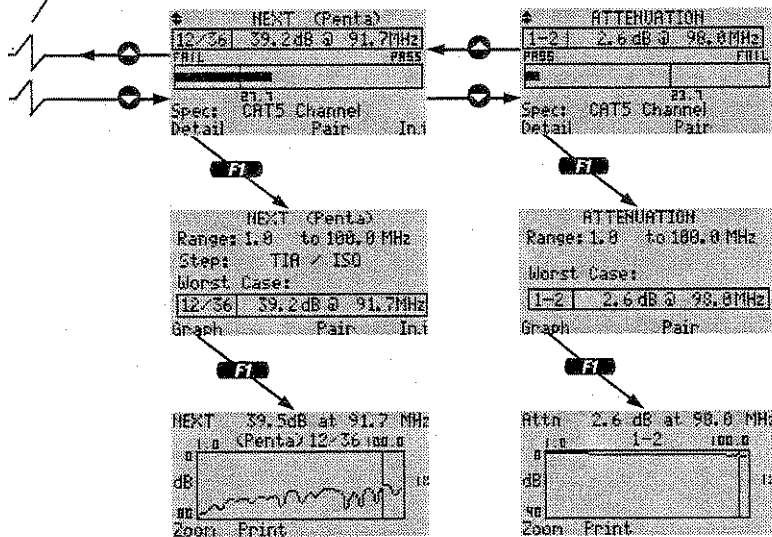
Press **F2** to change the interval at which traffic measurements are recorded.

Autotest



See Page 11 for **Length** and **Propagation Delay** Displays

See Page 11 for **ACR, Impedance, Loop Resistance, and Capacitance** Displays



Inj/Penta Press **F4** to switch the display between results from the injector end and the Scanner end of the cable.

Pair Press **F3** to toggle through the results for each wire pair.

Print Press **F2** to print the graph.

Zoom Press **F1** to magnify the area around the cursor.

Measure Cable Performance

Measure Cable Performance

- MEASUREMENTS**
1. NEXT
 2. Attenuation
 3. Length / Delay
 4. Impedance
 5. Loop Resistance
 6. Capacitance
 7. Impulse Noise
 8. P-P Noise
- Select

NEXT (Penta)
 Range: 0.7 to 100.0 MHz
 Step: TIR / ISO
 Worst Case:

1-2	38.9dB @ 91.9MHz
-----	------------------

 Graph Sweep Pair In.i

ATTENUATION
 Range: 1.0 to 100.0 MHz
 Worst Case:

1-2	2.6dB @ 97.0MHz
-----	-----------------

 Graph Sweep Pair

LENGTH / DELAY

1-2	49ft.69 nS	Open
3-6	48ft.68 nS	Open
4-5	49ft.69 nS	Open
7-8	48ft.67 nS	Open

Skews: 69 nS

IMPEDANCE

1-2	113Ω
3-6	114Ω
4-5	110Ω
7-8	113Ω

LOOP RESISTANCE

1-2	2.8Ω
3-6	3.0Ω
4-5	2.6Ω
7-8	2.7Ω

CAPACITANCE

1-2	623pF
3-6	614pF
4-5	656pF
7-8	619pF

IMPULSE NOISE

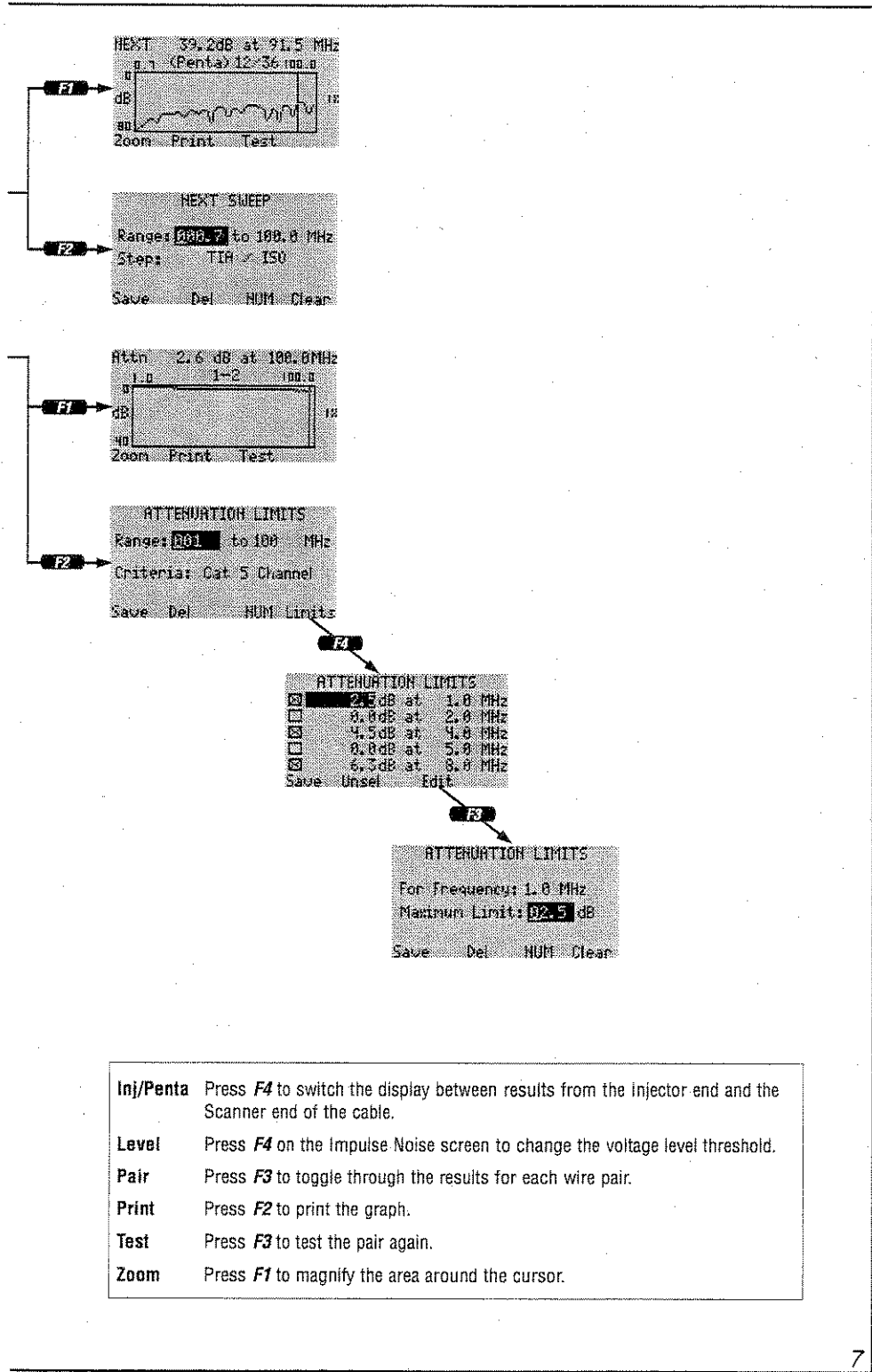
3-6
 16150±34

10	0.8
5	
0	

Unit: Count CPS ±0.3V
 00±00±22 8 0.00
 Pair: Clear Level

PEAK-PEAK NOISE

1-2	66mU
3-6	75mU
4-5	68mU
7-8	66mU



- Inj/Penta** Press **F4** to switch the display between results from the Injector end and the Scanner end of the cable.
- Level** Press **F4** on the Impulse Noise screen to change the voltage level threshold.
- Pair** Press **F3** to toggle through the results for each wire pair.
- Print** Press **F2** to print the graph.
- Test** Press **F3** to test the pair again.
- Zoom** Press **F1** to magnify the area around the cursor.

Extended Functions

Extended Functions

- ↓ EXTENDED FUNCTIONS
- 1. Autotest Memory
- 2. Setup Autotest
- 3. Calibrate Injector
- 4. User Preferences
- 5. Injector Info
- 6. Cable Trace
- 7. Office Locator
- Select

1 → See Autotest Memory, page 10

2 → See Setup Autotests, page 12

3 → CALIBRATE INJECTOR
Calibrating...
Cancel

4 → USER PREFERENCES SETUP
1. Owner/Company Name
2. Backlight/AutoShutoff
3. Units
4. Printer Port
5. Date/Time
Select

5 → INJECTOR INFO
Calibrated at 00:00:09-Feb
Battery: OK
SW Version: 4.21
HW Version: 0
Serial # 38T95J00934

6 → Trace Cable
Output: TWP

7 → OFFICE LOCATOR

1 → OWNER/COMPANY NAME
Owner Name: **E. CARUJAL**
Company Name: MICROTEST
Save Del CAPS Clear

2 → BACKLIGHT/AUTOSHUTOFF
Backlight on for: **1 min**
AutoShutoff: 10 min
Save Change

3 → UNITS SETUP
Units: **Feet**
Language: English (fixed)
Date Style: dd-mm-yy (fixed)
Save Change

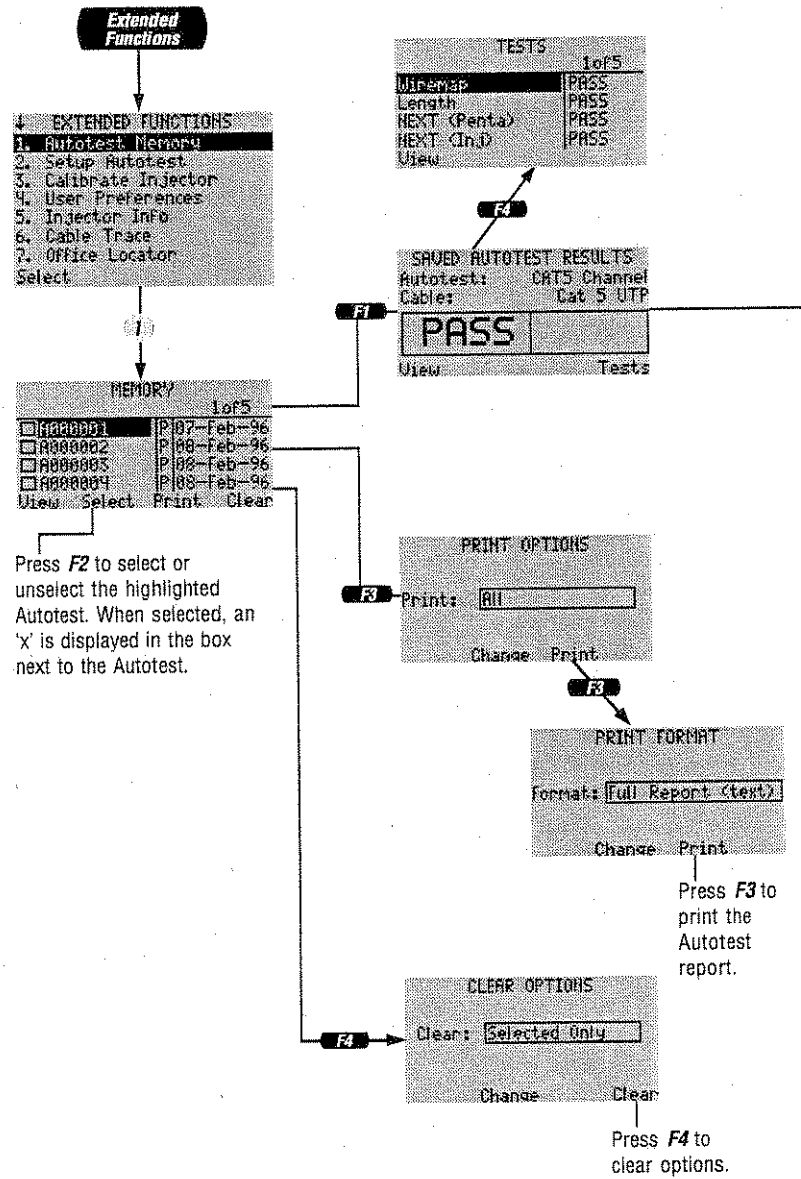
4 → PRINTER PORT SETUP
Baud: **9600**
Handshake: XON/XOFF
Data Stop Bits: 8.1 (fixed)
Parity: None (fixed)
Save Change Printer

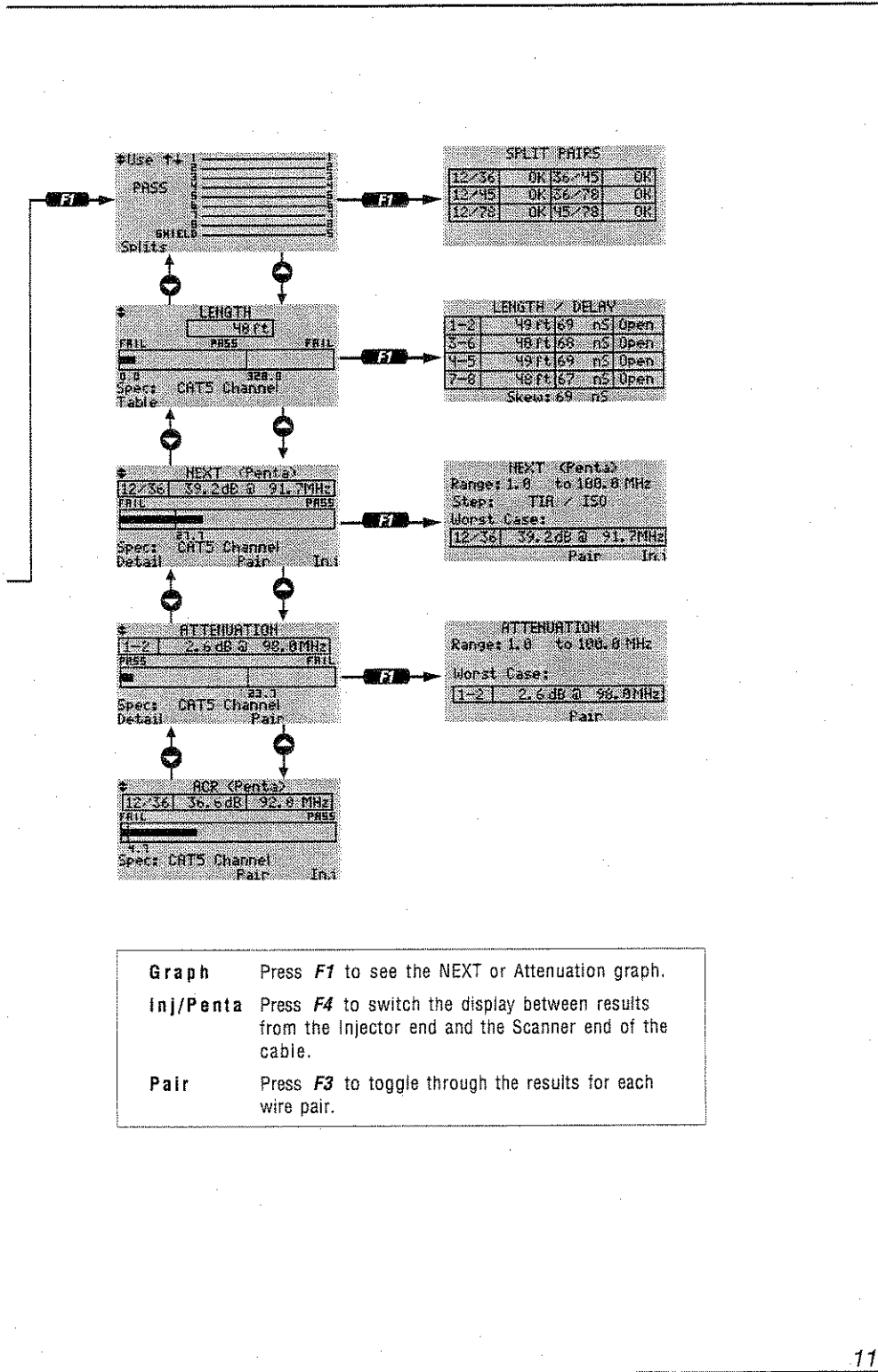
Press **F3** to select the graphics printer type.

5 → DATE/TIME SETUP
Date: **89**-Feb-96
Time: 09:08
Save Change

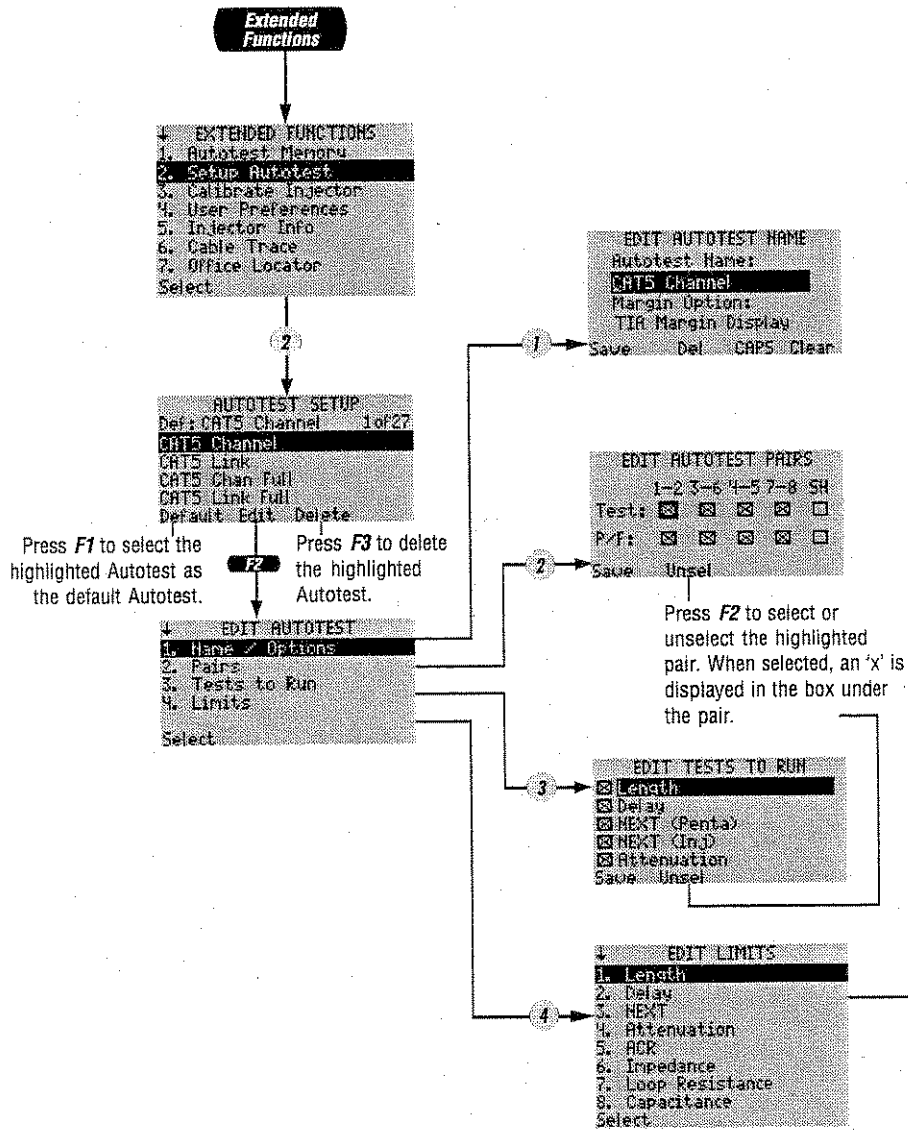
Change Press **F2** to toggle through the setup choices for the active field. The active field is displayed enclosed in a box.

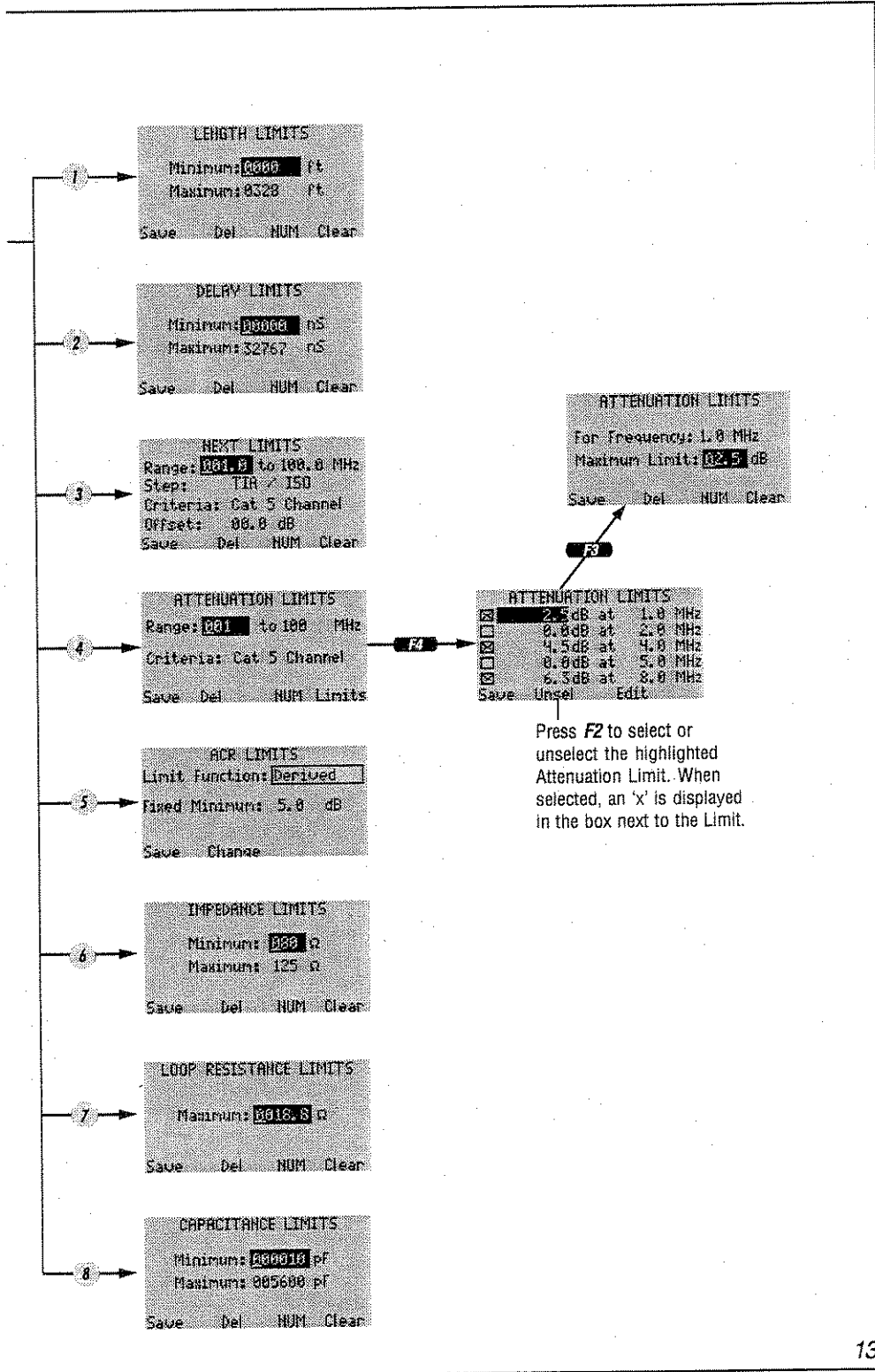
Extended Functions: Autotest Memory





Extended Functions: Setup Autotests





Keypad Editing

Use this editing method if your Scanner has an alphanumeric overlay on the keypad.

Position the cursor at the character to be edited.

Alphabetic and special characters are printed above each numbered key on the keypad. For example, ABC is printed above the 2 key. With the keypad in CAPS mode, press and hold the 2 key to display an A, B, or C. Release the key to place the displayed character in the field that is being edited.

The 1 key allows entry of special characters:

- hyphen, _ underscore, . period, , comma, * asterisk,
(left parentheses,) right parentheses, / slash, # pound sign.

Press Del (F2) to delete the character at the cursor.

Press CAPS (F3) (or caps (F3) or NUM (F3)) to toggle the keypad between uppercase letters (CAPS), lowercase letters (caps), or numerics (NUM).

Press the ◀ or ▶ arrow key to move left or right within the string of characters.

Press Save (F1) to save the new entries.

To Enter an Autotest's Circuit ID

If your Scanner has an alphanumeric overlay on the keypad, use the keypad to enter field values. When editing the Circuit ID, press F3 to change editing modes (CAPS, caps, NUM or Inc). Increment (Inc) mode automatically increments the last character position, and lets you manually increment or decrement any character using the ▲ or ▼ arrow key.

To start the Automatic Increment function:

1. Run the initial Autotest.
2. Enter the initial Circuit ID.
3. Set F3 to Inc mode.
4. Press F1 to save the Autotest.

After performing the next Autotest, enter the SAVE TEST screen. The Scanner will automatically increment the last field in the Circuit ID. Press F1 to save the Autotest.

Keypad Editing

When you enter the initial Circuit ID, you can divide the fields by using non-alphanumeric characters. The non-alphanumeric characters are considered field separators. For example, the Circuit ID BLDG-001 is divided into two fields by the '-' character. In Automatic Increment mode, the Scanner will automatically increment the last field, "001", from "001" to "999" and then roll back to "000". Both alphabetic and numeric characters (A-Z, a-z, 0-9) will be incremented if the circuit ID contains both types of characters.

While in Automatic Increment mode, you can manually increment the last character by pressing the Scanner's ENTER key. In addition, you can use the ◀ and ▶ keys to move to any character in the Circuit ID, and you can use the ▲ key to manually increment (or the ▼ key to decrement) the character at the cursor.

Note: When in Inc mode, pressing F3 will allow you use the arrow keys to move the cursor from the Circuit ID field to the Save Sweep Data field.

If your Scanner does not have an alphanumeric overlay, press Edit (F2) to display the edit screen.

After editing, press Save (F1) to store your changes and exit or press the ESCAPE key to return to the AUTOTEST RESULTS screen.

Use this editing method if your Scanner does not have an alphanumeric overlay on the keypad.

Position the cursor at the character to be edited.

Press the A-Z key to enter an alphabetic character and press the ▲ or ▼ arrow key to change it. You can hold down the ▲ or ▼ arrow key to scroll through the available characters. Or, press a number key to enter a numeric value.

Press the ◀ or ▶ arrow key to move left or right within the string of characters.

Press Del (F1) to delete the character at the cursor.

Press Clear (F4) to erase the contents of the field.

Press Done (F2) to exit the editing screen.



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2938-4520-01E Rev. 1 4/96