

1.1 General

The portable hand-held EZ-TESTER® II, is designed to perform in-service monitoring and in-service and out-of-service testing on DS1, DS3, and STS-1 communications equipment and circuits. It is used during installation to verify acceptable performance and during maintenance to isolate problems to the communications components or end user equipment. The EZ-TESTER II incorporates the following design features:

- Rugged metal case minimizes damage from drops and similar accidents
- Weather-resistant construction protects test set in wet or dusty field conditions
- Menu driven setup and operation for ease of use
- Auto configuration feature determines line characteristics and reduces setup time
- Dedicated storage for eight custom test setups
- Includes 40 stored test patterns vital to DS1, DS3, and STS-1 testing
- Controls and simulates CSU/NIU loopback functions
- Includes built in speaker, with jack for an optional headset
- Provides DS0 channel access from any of the higher order transport levels.
- Software upgrades can be field installed using OnCall® with a telephone line and modem
- Quick factory turnaround when upgrading to DS3 or STS-1 capability

1.2 Functional Description

The EZ-TESTER II consists of both a transmitter and receiver that provide for comprehensive testing of DS1, DS3, and STS-1 SONET networks. As a receiver, it can monitor customer data or received test data to identify current line coding and framing information, and to detect and display standard alarms and errors. As a transmitter, it can be used to send standard test patterns, inject errors into the data stream, and generate loop up and loop down commands to NIUs and CSUs to enhance isolation of network impairments. During operation, a capture memory stores selected events, periodic test summaries, and end of test results. All events are date and time stamped from an internal real time clock and can be reviewed locally, remotely, or output to a printer. Eight user defined test setups can be stored and recalled for ease of operation. An auto configuration function is available in each of the three main line test modes to determine line characteristics. Remote control operation and printer output is provided through an auxiliary RS-232 port.

1.3 Physical Description

The EZ-TESTER II is housed in a rugged aluminum case with a removable cover and folding stand. A positive latch keeps the test set securely closed and protected when it is not in use. A power jack and a 25-pin RS-232 jack are mounted externally at the top of the case. The power jack is used for recharging the internal nickel metal hydride (NiMH) batteries using the PS-6 Battery Eliminator/Charger. The RS-232 jack can be used for a printer or a remote control device. When the jack is configured as a printer port, an 80 column printer can be supported. When configured as a remote control port, the test set can be connected directly to a terminal or modem for remotely controlled operation.

The water resistant front panel of the EZ-TESTER II has a keyboard and display on the lower portion. The twenty-seven key keypad is used to operate the test set, and a 24 line x 32 character liquid crystal display presents the setup options, test results, configuration setups, and history events on a 2-5/8 inches square viewing area. During setup and operation, the speaker sounds an audible tone when each key is depressed. The tone level is adjustable in amplitude and may be disabled by the user if desired.

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The upper portion of the EZ-TESTER II front panel is divided into six areas. The top two areas are jack fields for the Bantam DS1 jacks on the left, and the shared WECO 440A STS-1/DS-3 jacks on the right. Each jack field includes a green LED that flashes when the test set detects pulse data on the associated communications line. The middle areas are LED fields for DS1 mode testing on the left and STS-1 testing on the right. Each field includes green status and red alarm indicators. The two lower fields are LED fields for DS3 testing on the right and a small field for three LEDs used in common by all three testing modes. During operation, these indicators provide real time information on the status of the test set and alarm conditions detected in the received data stream. The indicators also provide history information by blinking when a status or alarm condition has changed state while running a test.

1.4 Receiving and Unpacking

The EZ-TESTER II should be unpacked when received and visually inspected for any damage. If the test set appears to be damaged and the outside of the shipping container is damaged, contact the carrier and submit a claim. The serial number on the bottom of the test set should correspond with the packing list. If there are any problems noted, contact the factory or your sales representative. Immediately prior to shipment, Electrodata, Inc. ensures that the battery pack in each test set is fully charged. To be certain your test set is ready for use, however, we recommend that the test set be placed on charge using the supplied battery eliminator/charger as described in paragraph 3.3 before attempting any extended operation. The test set may be used while the batteries are on charge.

1.5 Options and Accessories

The EZ-TESTER II is designed with forward compatibility. Through the use of factory installed options, the test set can be upgraded for DS1, DS3 and STS-1 testing. Table 1-1 lists the options available for the EZ-TESTER II.

Table 1-1. EZ-TESTER II Options

Option	Description	Requirements
00	DS1 Basic Unit	
01	Adds FT1 (Fractional T1)	Opt.00
03	ESF/SLC 96 Monitor and Control	Opt.00
04	Performance Statistics Retrieval	Opt.00
05	Addressable Repeater and Maintenance Switch Control	Opt.00
06	Dial Supervision	Opt.00
07	Computer Enhanced Test (Windows®)	
08	MF Dial/Capture	Opt.00, Opt.06
09	Primary Rate ISDN	Opt.00
10	Terminal Emulation	
11	DDS Channel Testing	Opt.00
12	GR-303 Test Access	Opt.00
20	DS3	
21	FEAC	Opt.20
30	STS-1 (STS-1 includes Async VT1.5 if Option 00 is present)	Opt.20
31	Byte Synchronous VT1.5	Opt.30, Opt.00
99	Three Year Warranty (Replaces 1 yr warranty)	

To identify the currently installed options, turn the test set on, refer to the MAIN MENU and press soft key F3 (CONFIG) twice to reveal the INSTALLED OPTIONS screen.

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