

EPROM Software

Software History

7.034 (February 2003)

- Added support for the 2-line Extended Display
- Improved start-up diagnostics

7.032 (March 2002)

- Allowed for constant text width when using |E and |F
- Enhanced IrDA protocol
- Added Dyna-IR serial port protocol
- Changed SCANBRK Command functionality
- Added Random Continuity function (CONTINUITY-RND Sequence Command)

7.012 (January 2001)

- Allowed setting of RCOUNT and SCOUNT up to 65535

7.010 (November 2000)

- Changed the IR transfer protocol to IrDA
- Added a driver to support an external display for viewing messages from the Message Table

7.001 (April 2000)

- Added the ability to print the Julian Date Code on a label.
- Made slight changes to the Setup menu structure.

7.000 (January 2000)

- New 1MB EPROM chip is used and requires the support of a new IC component (5280184).
- Added SWITCH-RANDOM command for random switch test function

- AUTOLEARN functionality enhanced to allow other programs to be used as templates for learned program; this includes Test Parameters, Symbolic Names, ALARM netlist, and Program Sequence and Messages.
- AUTOLEARN Rename functionality added.

6.001 (September 1999)

- Eliminated the intermittent soft shorts error associated with long harness lengths or capacitance in the harness
- Eliminated incorrect AUTOLEARNED program errors associated with long harness lengths or capacitance in the harness
- An Analyzer error message now displays both color information and circuit information.
- Detection Switch Errors now display "SWITCH OPEN" and "SWITCH CLOSED" versus "OPEN" and "SHORT".
- Probe Mode now displays "CONNECTED" when the probe is touching a connection to a test point.
- Errors associated with splices are now displayed as "OPEN (Splice 3)" versus "3 OPEN".
- Renamed Error Tone menu from "LOUD/SOFT" to "LONG/SHORT"
- Functionality added to allow the Analyzer to operate as an Infrared Print Server.
- Miswire functionality added that performs a background Short Scan whenever the Analyzer is stopped on an OPEN; if either of the two open points are shorted elsewhere, a MISWIRE ERROR will occur
- Sample Tones added for Error Tones menu
- Disabled the ability to advance past the AUTO command by pressing the START button
- RUN sequence command added that is used to execute another program that is loaded in the Analyzer's memory
- Ability to print a sample label directly from the Analyzer
- BKEY command added to allow a branch to a specific line number if the keyswitch is closed
- CLERVARs command added that will clear all of the variables in memory
- Error Log enhanced to produce a warning message when the log is full
- Reset Option added if errors are found during the I/O point test.
- Overwrite File Warning added when transferring data from a DynaCard
- Automatic Restart Option added that would restart the previously loaded program on Address Exception Errors.

5.100 (May 1999)

- Menu Structure enhanced to provide better descriptions and navigation through the Analyzer
- Error Log enhanced to display the amount of memory allocated when exiting the display

- Control Port Bit Test modified to display the number of the bit being set
- AUTO command enhanced to allow the entire netlist to be scanned
- Checksum added to an AUTOLEARNED program
- Diode Test enhanced to look for 10 consecutive matching results for a valid test
- AUTOLEARN checksum algorithm enhanced

5.021 (February 1999)

- 256XL XBIT protocol added to allow the 256XL to access old PDC boards as well as I/O extension system boards
- Control Port SPI protocol added to allow for use of I/O extension system boards
- X-Modem protocol enhanced to recognize CRC and checksum modes
- Checksum feature added to prevent corruption of the .BIN file
- Parameter functions enhanced to store the parameter values in a temporary location, not in the .BIN file

5.020 (September 1998)

- Pushbutton Debounce function added
- Alarm function enhanced; the Analyzer looks for a change of state of the keyswitch , either on-to-off or off-to-on, instead of just off.
- Serial Port Timeout feature added; if no response is detected from the receiving device within the specified timeout period, the Analyzer will display the message "SERIAL 2 TIMEOUT" and move to the next sequence command

5.019 (July 1998)

- Boot-up time reduced to one (1) second
- Analyzer's Serial Ports enhanced to allow for the use of 38400 baud communication rate
- Serial Port Timeout enhanced to use a counter instead of the real time clock
- SERIAL1 and SERIAL2 commands for enhanced control of the Analyzer's serial ports
- Y2K Compliance 5.017 Modified the ALARM macro to maintain compatibility with ALARMOFF sequence macro

5.016 (March 1998)

- Download Memory Available message; now displays the total memory available in the destination memory.
- Power-Up Scan diagnostics test enhanced
- Probe function display enhanced to show both symbolic information and the absolute I/O point on the same display for each point probed

- Spanish text added for menus and error messages
- ALARM_BIT function added to the MENUS:OTHER menu.
- "Insufficient Points" message now includes the number of points present
- New sounds added; 10- low/high/low, 11- high/low/high, 12- fog horn, 13- charge
- BBRK command added to branch to a specified sequence line when the Break flag is set
- SCANBRK command added to scan a specified netlist when the Analyzer stops on an error
- Last Errors variables added for label printing; Alarm Key flag enhanced; the STOP button is only deactivated if the Key flag is enabled
- ALARM function enhanced so that only the key can turn the alarm off
- Moved UNIT_ID Function to SETTINGS: MORE menu
- Verification procedure added when writing data to the cartridge

5.014 (July 1997)

- ADVON cartridge feature enhanced in conjunction with the ADVOFF sequence command
- Changed the Manual Advance Flag to be enabled at the start of every sequence or after every REPEAT command
- Error Logging functionality enhanced

5.012 (May 1997)

- Capacitor Testing functionality enhanced
- Error Logging functionality enhanced
- TESTTIME, TIMESTART and TIMESTOP commands added
- CAP and PCAP netlist commands added to test capacitors and polarized capacitors
- BST (Branch On Start Key) command added that checks the status of the start button
- SYNCHI and SYNCHLO commands added
- Manual Advance Flag default changed to disabled
- ADVON (Advance On) cartridge feature added to work in conjunction with the Manual Advance Flag
- ALARM functionality added

Upgrade Procedure

Upgrading the software of the Dynalab XL Series Analyzer is accomplished by replacing the EPROM located on the processor board. The following steps explain how to upgrade this EPROM.

- Back up any Analyzer resident programs to a cartridge, since memory will be initialized and all programs will be erased.
- Disconnect the power cord from the Analyzer.
- Remove the screws on the rear of the Analyzer that secure the gray cover, then slide the cover off to the rear.
- Standing in the front of the Analyzer and looking down on the processor board (upper most board in the card cage) the EPROM (U301) is located in the upper left corner area. Using an IC component removal tool or flat-bladed screwdriver, carefully pry the old EPROM from its socket.
- Insert the new EPROM into the socket with the half-circle polarization designator aligned with the half circle notch in the socket.

WARNING: Failure to orient the EPROM properly, will result in it being permanently damaged.

- Reassemble the cover.
- Insert the power cord and turn on the Analyzer.
- The Analyzer memory must be initialized after installing a new EPROM. This is accomplished by installing the cartridge then depressing the Stop key while turning in the Analyzer. The Setup Menu will then be displayed. Move the cursor to the DIAGNOSTIC~RESET menu option and press the <START> key. Select "Yes" when asked for verification of this action.
- Turn off the Analyzer and, after a couple of seconds, turn it back on.
- The Analyzer will now come up with the main menu, ready for standard operation.

Special Notice

EPROM version 7.000 is the first release using a new, larger EPROM. The increased capacity of this EPROM will allow Dynalab to continue to add enhancements to the XL Series Analyzers for years to come.

To access this new EPROM format, the Analyzer CPU requires a one-time PLD upgrade. At startup, this new EPROM performs a check for the proper PLD and provides an error message if not found. To upgrade the PLD, Part number 5280184 (located in socket U204), must be replaced with part number 5280185.