

Ground Bond Tester

For Safety Agency Production Line Compliance Testing



HYAMP® III MODEL 3140

40 Amp Ground Bond Tester with an enhanced graphic LCD and simplified user interface.

FEATURES AND BENEFITS

FEATURE BENEFIT Enhanced graphic liquid crystal display

The enhanced graphic LCD provides the operator with an advanced user-interface. The backlit graphic display makes viewing and interpreting test results and data easier than ever before. The LCD can display text and symbols eliminating the need to decipher abbreviations.

FEATURE BENEFIT Ground bond tester with extended test capability up to 40 amps

The 3140 is a user-friendly production line ground bond tester designed to provide up to 40 Amps of ground bond test current.

FEATURE BENEFIT Simple menu driven setup

The easy to follow setup screens ensure that the operator correctly sets up all test parameters.

FEATURE BENEFIT Tamper proof front panel controls

This makes it possible to limit user access to the setup screens so that only authorized personnel with a security code can change test parameters.

FEATURE BENEFIT Multiple test memories & steps

A real benefit for manufacturers that test different products. This makes it possible to store all the various test parameters required and quickly recall them for each of the different products that need to be tested. There are 10 different memories with 3 steps per memory.

FEATURE BENEFIT Interconnect capabilities to form a complete mid-range test system

The 3140 can be interconnected to the Hypot III family of Hipot testers. These two instruments can then be rack mounted side by side in a single 19" 2U rack space. This provides a single DUT connection and automates the test sequence or sequences chosen by the operator such as AC Hipot, DC Hipot, IR and Ground Bond tests.

FEATURE BENEFIT User selectable output voltage frequencies of 50 or 60 hertz

This feature makes it simple for the user to select the output frequency so that products can be tested at the same frequency at which they will be used.

FEATURE BENEFIT Adjustable output current and milliohm trip ranges

This capability makes the 3140 versatile enough to meet all safety agency specifications for ground bond test requirements.

FEATURE BENEFIT Four wire measurement and milliohm offset

The four-wire measurement (Kelvin Method) technique eliminates test lead resistance when using the standard test leads. The milliohm offset function allows the use of longer test leads and test fixtures without compromising the test results.

FEATURE BENEFIT Built-in VERI-CHEK® self verification system

Regular verification is required by some agencies to validate that the instrument is functioning correctly. The VERI-CHEK feature, by prompting the user through the correct steps, allows for quick and easy validation. This built-in feature eliminates the additional cost of having to purchase an external box for verification.

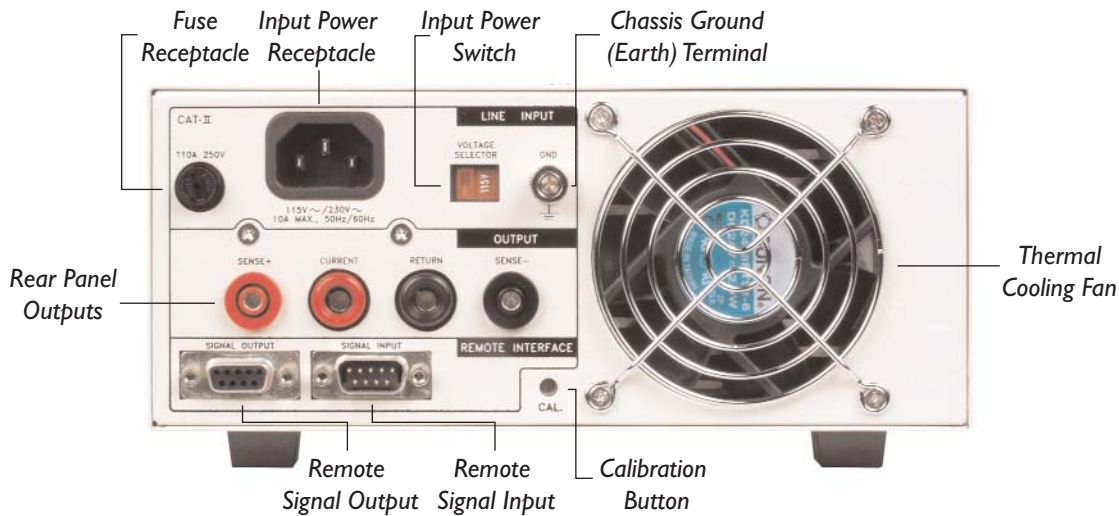
FEATURE BENEFIT CAL-ALERT®

This feature automatically alerts the user when the instrument is due for re-calibration. This eliminates the need for manual tracking of calibration dates.

FEATURE BENEFIT Electronic dwell settings

The electronic dwell control helps keep test results consistent by ensuring that the test duration is the same for each product tested.





MODEL 3140 Specifications

INPUT

VOLTAGE	115/230 VAC ± 10%, user selectable
FREQUENCY	50/60 Hz ± 5%
FUSE	15.0 Amp, slow acting 250 VAC

TEST MODE

OUTPUT RATING	Current: 1.00 – 40.00 Amps Resolution: 0.01 Amp/step Regulation: ± (2% of setting + 0.02 Amps) Voltage: 8 Volts AC, fixed
OUTPUT FREQUENCY	Range: 50/60 Hz, user selectable
DWELL TIME SETTING	Range: 0 and 0.5 – 999.9 seconds, 0 for continuous running Resolution: 0.1 second/step Accuracy: ± (0.1% of setting + 0.05 seconds)
MAXIMUM AND MINIMUM LIMITS	Range: 0 – 150 mΩ for 30.01 – 40 Amps 0 – 200 mΩ for 10.01 – 30 Amps 0 – 600 mΩ for 1.00 – 10 Amps Resolution: 1 mΩ Accuracy: Same as Ohmmeter Display
OFFSET CAPABILITY	Range: 0 – 100 mΩ Resolution: 1 mΩ Accuracy: ± (2% of setting + 2 mΩ)
CURRENT DISPLAY	Range: 0.00 – 40.00 Amps Resolution: 1 mΩ Accuracy: ± (3% of reading + 0.03 Amps)
OHMMETER DISPLAY	Range: 0 – 150 mΩ for 30.01 – 40 Amps 0 – 200 mΩ for 10.01 – 30 Amps 600 mΩ for 6 - 10 Amps Resolution: 1 mΩ Accuracy: ± (2% of reading + 2 mΩ) Range: 600 mΩ for 1.00 - 5.99 Amps Resolution: 1 mΩ Accuracy: ± (3% of reading + 3 mΩ)
TIMER DISPLAY	Range: 0.0 – 999.9 seconds Resolution: 0.1 seconds Accuracy: ± (0.1% of reading + 0.05 seconds)

GENERAL

REMOTE CONTROL SIGNAL OUTPUT	The following input and output signals are provided through two 9 pin D type connectors; 1. Remote control: Test, Reset, Interlock, and Withstand Processing. 2. Remote recall of memory program #1, #2 and #3. 3. Outputs: Pass, Fail, Test-in-Process, Start Out, and Reset Out.
PROGRAM MEMORY	10 Memories, 3 steps per memory, all steps within a memory are linkable.
SECURITY	Key Lock capability to avoid unauthorized access to all test parameters. Memory Lock capability to avoid unauthorized access to memory locations.
VERIFICATION SYSTEM	Built-in software driven verification menu to test fault detection circuits.
DISPLAY	128 x 64 dot resolution with front panel contrast setting.
ALARM VOLUME SETTING	Front panel adjustable volume setting with 10 set points.
LINE CORD	Detachable 6 ft. (1.80m) power cable terminated in a three prong grounding plug.
MECHANICAL	Tilt up front feet. Dimensions: (W x H x D) 8.5 x 4 x 15.5 in. (216 x 103 x 390 mm) includes feet. Weight: 19.15 lbs. (8.7 Kgs)
ENVIRONMENTAL	Operating Temperature: 32° - 104° F (0° - 40° C) Relative Humidity: 0 to 80%
CALIBRATION	Traceable to National Institute of Standards and Technology (NIST). Calibration controlled by software. Adjustments are made through front panel keypad in a restricted access calibration mode. Calibration information stored in non-volatile memory.