

HVT-DI QUICK START GUIDE

DIGITAL CONTROLLER FOR HVT-SERIES AC HIPOTS

The HVT-DI Series AC Hipot Testers are the most modern digital solution to AC field-testing of bucket trucks, aerial platforms, vacuum interrupters, breakers, switchgear, and other electrical apparatus. Each model includes a portable digital controls section and High Voltage section (bonnet) and is complete with an input line cord, interconnecting cables, and ground lead.

SCOPE OF SUPPLY



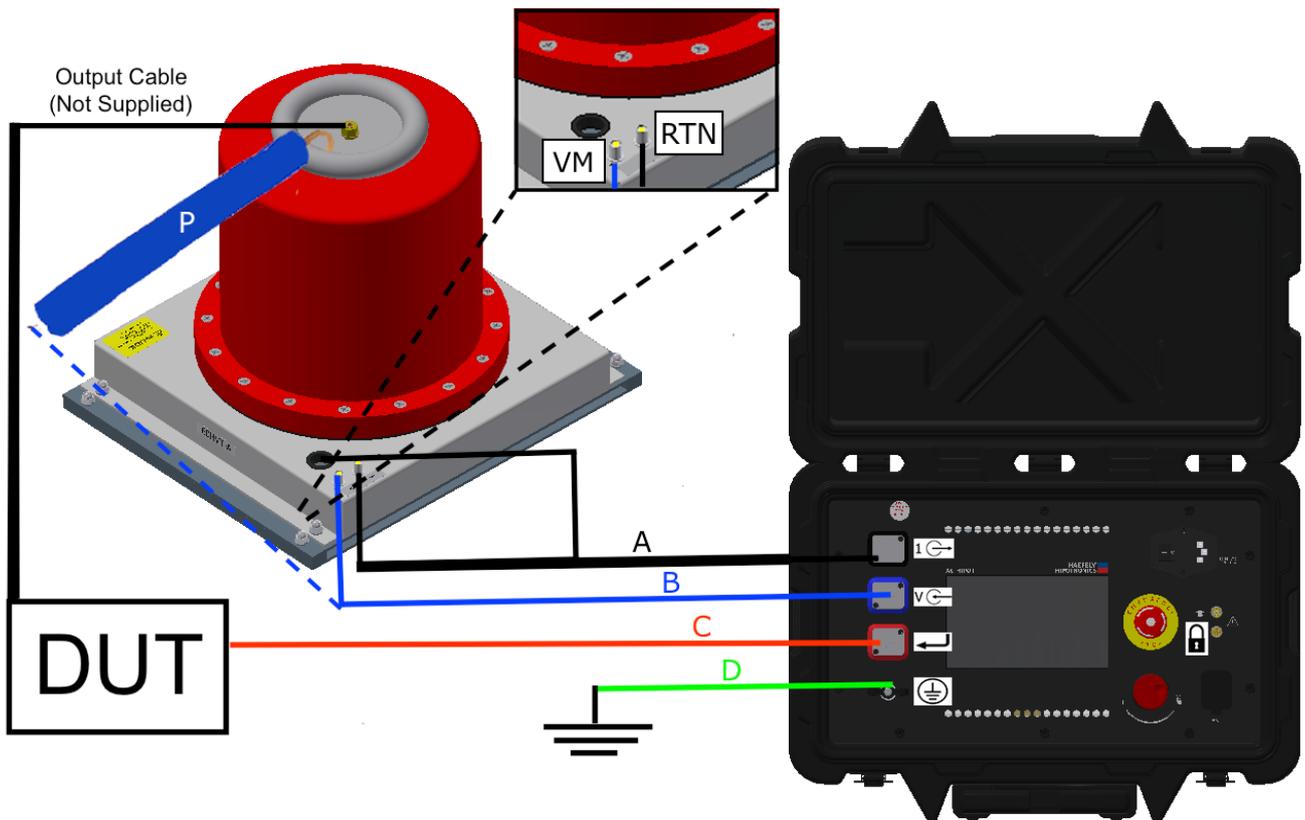
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|---------------------------------|---------------------------|--|
| 1. High Voltage Bonnet | 4. Interconnect Cable (A) | 8. Power Cord |
| 2. HVT-DI AC Digital Controller | 5. Current Probe (C) | 9. VM Probe (P) with BNC Cable (Resistor Stick)* |
| 3. Ground Cable (D) | 6. Interlock Plug (T) | 10. VM Interlock Plug (I) |
| | 7. BNC Cable | |

OPTIONAL ACCESSORIES

- | | |
|---|---|
|  | HHDA13-280
120kV rated grounding stick |
|  | HH-VMP60 / HH-VMP120
60kV / 120kV rated Voltmeter Probe |
|  | HH-SAFE
Safety strobe light with magnetic base |
|  | HH-FS
Foot operated interlock switch |
|  | EXT-WARN
Warranty Extensions to 2 or 3 years. Standard Warranty is 1 year. |
|  | HH-HS
Hand operated interlock switch |

*NOTE: VM Probe is standard for 120 kV units, optional for 30 and 60 kV units.

CONNECTIONS



To properly connect the HVT-DI AC Hipot Controller, please follow the instructions below:

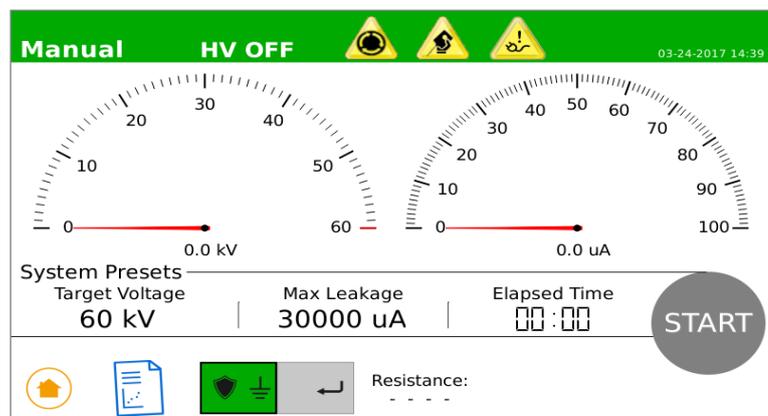
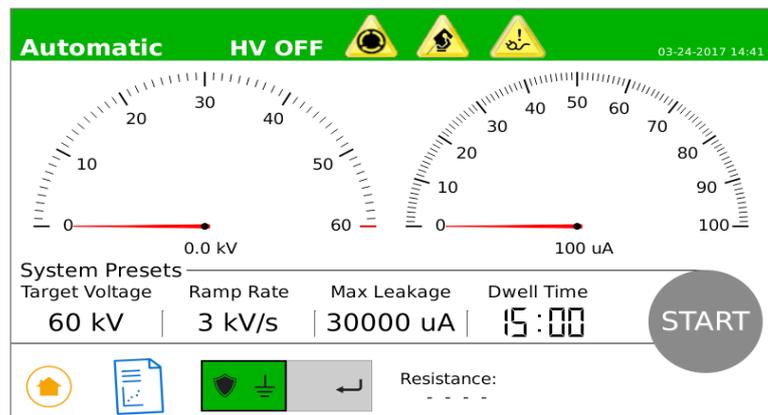
- Connect Ground Cable (D) to Controller post () and Earth Ground.
- Connect the interconnect cable (A) to the black port on the Controller ().
- Connect the BNC port on the interconnect cable (A) to the terminal labeled return (RTN) on the bonnet.
 - **If using a VM Probe (P):** Hook the VM Probe to the top of the bonnet and connect the other end to the blue port on the controller () using a second BNC cable (B). Then short the VM terminal on the bonnet (VM) with the VM interlock plug (I).
 - **If you have a 120HVT-DI:** hook the VM Probe to the toroid as above, but connect the other end to the terminal on the bonnet labeled "HV Probe" using the shorter BNC cable (not shown). Connect the VM terminal on the bonnet (VM) to the blue port on the controller () with a BNC cable (B).
 - **If you do not have a VM probe:** Connect the VM terminal on the bonnet (VM) to the blue port on the controller () using a BNC cable (B).
- Connect the current probe (C) to the DUT and connect the BNC end to the red port on the controller ().
- Connect the top of the bonnet to the DUT using customer-supplied output connection.
- Insert interlock plug (T) into port on controller ().
- Once all the connections have been made, connect the power cord to the controller and power on.

OPERATIONS

There are two modes of operation: Automatic and Manual. To adjust the parameters of the test, use the touchscreen to select the parameter and input the correct target voltage, max leakage current, ramp rate (Automatic mode only) and if the DUT is grounded or floating. Once the test parameters have been set and all safety guidelines have been put in place, press the Start button to start the test.

After the test is complete, a window will appear outlining the name of the test, the output voltage and the duration of the test. You will be prompted to either save the test or hit "OK" to continue without saving. If you continue without saving and later wish to save the last test performed, press the reports icon next to the home button.

Note: if the user leaves the test screen without saving, the data will be stored as "LAST TEST" and can be accessed from the reports menu until the next test is performed.



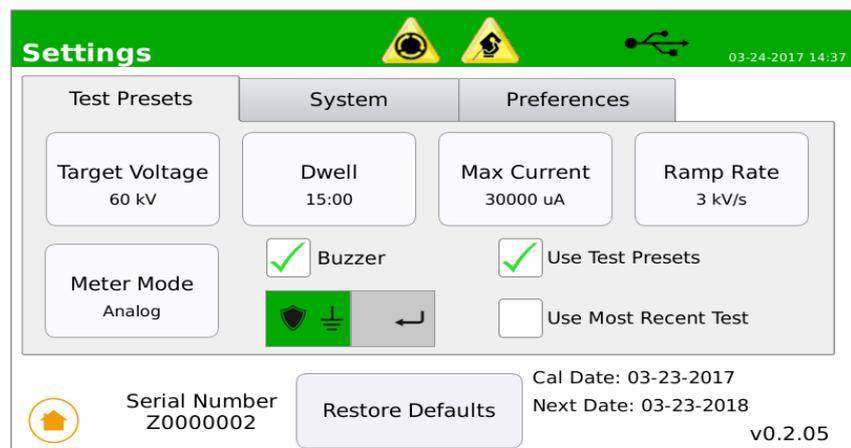
SETTINGS

In Settings, there are three menus: Test Presets, System and Preferences. The Test Presets Menu allows users to set and preset the testing parameters for future tests. The user also has the option to load the test parameters of the most recent test.

The System Menu has options to toggle the voltmeter between peak or RMS values. From here you can also set the output frequency to either 50 or 60Hz.

The Preferences Menu allows the user to do the following:

- Change the language of the unit
- Adjust Screen Brightness
- Adjust the Date and Time
- Name the unit and add personal information on the unit
- Enable or disable the touchscreen

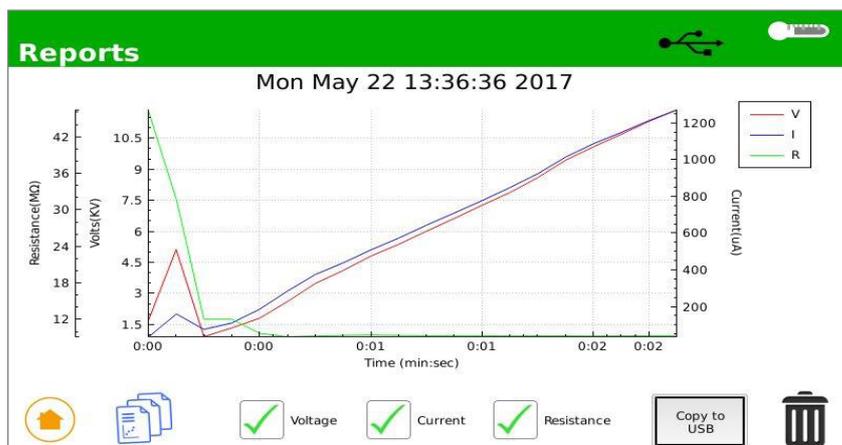


Located on the bottom of the settings menu is the serial number of the unit and a record of the unit's last calibration date, next calibration date, and the version of the software.

REPORTS

In the Reports Menu, you can select and recall data from previous tests. The tests are automatically named by the date and time of the test. Once a test has been selected the screen will show a graphical representation of the data. From this screen the user can toggle options to show voltage, current, and resistance.

The user can also copy the data to a USB flash drive as a .CSV file.



TROUBLESHOOTING

ISSUE	CAUSE	SOLUTION
Unit does not power on	1. No Input power	1. Verify that input power is on 2. Verify power cord is connected to input source and HVT-DI 3. Power switch is in the ON position 4. Check fuse (250VAC, 10A) 5. Consult factory
Cannot initiate high voltage ("Start" button is gray)	1. System is initializing 2. Interlocks are open 3.	1. Wait until "Start" button is green (about 5 seconds) 2. Twist E-stop clockwise 3. Insert interlock plug in External Interlock Input. 4. If applicable, press and hold hand-switch or foot-switch
Power Lost...Shutting Down	1. 2. AC mains power interrupted 3. Input power cord removed 4. Power switch is set to OFF position	1. Battery backup automatically engages to display metering functionality when high voltage is active. System will shut down once 0.0kV is reached. Test data is saved as last test in "Reports". Wait 2 minutes. Reestablish AC mains and power on HVT-DI.
DUT Breakdown	1. Measured leakage current exceeded the maximum limit set by the user.	1. Press OK or Save Report 2. Repeat test as desired
Max Leakage Current Exceeded	1. Measured leakage current exceeded the maximum limit set by the user.	1. Press OK or Save Report 2. Repeat test as desired



OFFICES:

Europe

Haefely Test AG
Birsstrasse 300
4052 Basel
Switzerland

+41 61 373 4111
+41 61 373 4912
sales@haefely.com

China

Haefely Test AG Representative Beijing Office
8-1-602, Fortune Street
No. 67, Chaoyang Road, Chaoyang District
Beijing, China 100025

+86 10 8578 8099
+86 10 8578 9908
sales@haefely.com.cn

North America

Hipotronics, Inc.
1650 Route 22 N
Brewster, NY 10509
United States

+1 845 279 3644
+1 845 279 2467
sales@hipotronics.com