

High Voltage Test Set

Helps Maximize Operating Life

The High Voltage (HV) Test Set is a portable, self-powered, precision instrument for monitoring and calibrating all system TWT or Klystron/Power Supply voltages. It is essential that on-going verification and calibration of tube operating voltages be made as part of routine preventive maintenance and repair procedures to maximize the operating life of the tube. The HV Test Set can be used where the system does not provide such measurements, or when the voltages require precise adjustment.

The HV Test Set uses precision HV dividers to reduce the tube voltages to safe operating levels (less than 20 VDC). These low voltages can be measured with a digital volt meter at test points located on the front panel of the Breakout Box.

The HV Test Set includes an isolated, digital volt meter in the Breakout Box for safe, direct HV Test Set

For verification and calibration of TWT and Klystron operating voltages measurement of the TWT filament (heater) voltage. The precise setting and maintenance of this voltage is critical for maximizing tube life.

Worldwide Support

Backed by over three decades of satellite communications experience, and CPI's worldwide 24-hour customer support network that includes more than twenty regional factory service centers.



Klystron Test Set

For calibration and verification of TWT and klystron operating voltages

HIGH VOLTAGE TEST SET INCLUDES

- Breakout Box
- High Voltage Cables
- Filament Load Resistor Assembly/Test Plug or Calibration Module
- Operator's Manual
- Carrying Case



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High Voltage Test Set

High Voltage Test Set Components

The **breakout box** is the key component of the test set. It is a self-contained amplifier voltage measurement device contained in an environmentally sealed package. The unit consists of monitoring circuits for all traveling wave tube (TWT) or klystron electrode voltages. The test points on the face of the box are banana plug receptacles for use with a conventional digital volt meter.

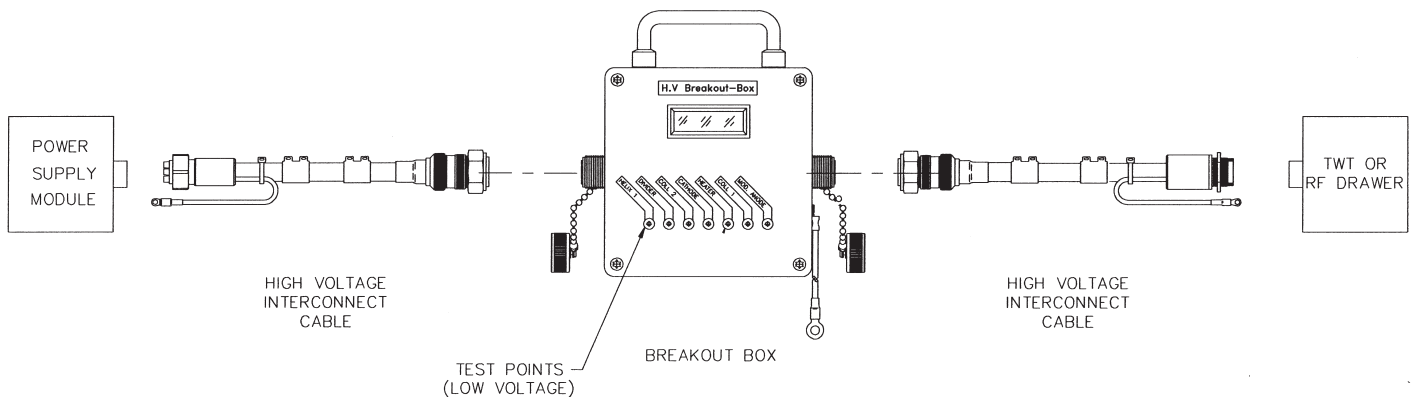
High voltage interconnect cables provide secure connections between the Breakout Box and the HPA being tested. All HPAs use two high voltage interconnect cables, except the 3 kW TWTA (one), the Millitron (three), the VSTAR 30 (five) and the millimeter wave J-Rack (five).

A **filament load resistor assembly**, a **test plug**, or a **calibration module** can be used to calibrate and monitor the power supply without a TWT or RF drawer.

An **operation manual** and **carrying case** are included with each HV Test Set.



SPECIFICATIONS	
OPERATING CONDITIONS	
Maximum Voltage	15 kVDC
Maximum Current	7.5 amps
Altitude	Sea level to 10,000 ft
Temperature	0°C to +50°C
MECHANICAL	
Breakout Box	
Weight	7 lbs (3.18 kg)
Dimensions	7.7 x 6.3 x 6.8 inches (195.6 x 160 x 96.5 mm)
Case, High Voltage Set and Manual	
Weight	20 lbs max. (9.1 kg)
Dimensions	19.5 x 15 x 9 inches (469.9 x 381 x 228.6 mm)



High Voltage Test Set

Product	HV Test Set	Breakout Box	Cable Assy, High Voltage Interconnect	Filament Load Resistor Assy	Calibration Module	Carrying Case	Manual
Single Drawer 200-400W Rack, 500-750W ODUs, M-band J-Rack	01022894-00	01020673-00	01020681-00 01020682-00	01022898-00	NOT REQUIRED	01026110-00	01026664
Single Drawer 500-750W Rack, L- and S/C-band J-Racks	01022894-01	01020673-00	01020681-00 01020682-00	01022898-00	NOT REQUIRED	01026110-00	01026664
2-drawer "F Series" 300-750 W TWTAs	01022895-00	01020673-00	01020683-00 01020684-00	01022898-02	NOT REQUIRED	01026110-00	01026664
2-drawer 2.25 kW TWTAs (C- and X-band)	01022892-00	01020673-00	01020675-00 01020676-00	01022898-00	NOT REQUIRED	01026110-00	01026664
125 W Ku-band Outdoor Unit (ODU)	01027464-00	01020673-00	01027462-00 01027463-00	01022898-02	NOT REQUIRED	01026110-00	01026664
GEN IV Klystron HPA	01027825-00	01020673-01	01027823-00 01027824-00 01020798-00	01027822-00	NOT REQUIRED	01026110-00	01026664
200 W Ku-band ODU	01035319-00	01020673-00	01020687-00 01020688-00	01022898-02	NOT REQUIRED	01026110-00	01026664
250/500/550 W Ka-band TWTA ODUs (with NEC TWT)	01035299-00	01020673-00	01020679-01 01020680-01	01022898-02	NOT REQUIRED	01026110-00	01026664
500 Ka-band TWTA ODU (Thales TWT)**	02001615-00	01020673-00 (qty 2)	01020679-01, 01020680-01, 01020681-02, 01020682-02	01022898-03, 01022898-04	02001630-00	01026110-00 (qty 2)	01026664
400 W ODU, 270 W ODU	01022897-00	01020673-00	01020685-00 01020686-00	01022898-02	NOT REQUIRED	01026110-00	01026664
2.25 kW Super Linear TWTA (single-drawer)	01032115-00	01020673-00	01020679-02 01020680-02	01022898-00	NOT REQUIRED	01026110-00	01026664
Millitron Ka-band	01032360-00	01022901-01	01024852-00 01032361-00 01032362-00	NOT REQUIRED	01024880-00	01026150-06 01026150-07	01026671
VSTAR 30	01022896-00	01022891-00	01024852-00 (qty 2) 01026197-00	NOT REQUIRED	01024880-00	01026150-06 01026150-07	01026671
J-RACK (18.0 - 26.5 GHz and 26.0 - 40.0 GHz)	01024871-00	01022901-00	01017058-02 01017059-03	NOT REQUIRED	01024880-01	01026150-06 01026150-07	01026671
Compact Klystron Power Amplifier (CKPA)	01027831-00	01020673-00	01027823-00 01027824-00	01027822-00	NOT REQUIRED	01026110-00	01026664

*HV Test Set also available for other products.

**Also requires Test Plub, P/N 8199915900

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For a complete list of our service locations, please visit www.cpii.com/support



For more detailed information, please refer to the corresponding CPI technical description if one has been published, or contact CPI. Values noted are at 25°C. Specifications may change without notice as a result of additional data or product refinement. Please contact CPI before using this information for system design.