VBT-80P

Vacuum Bottle Tester

Vanguard Instruments Company

www.vanguard-instruments.com

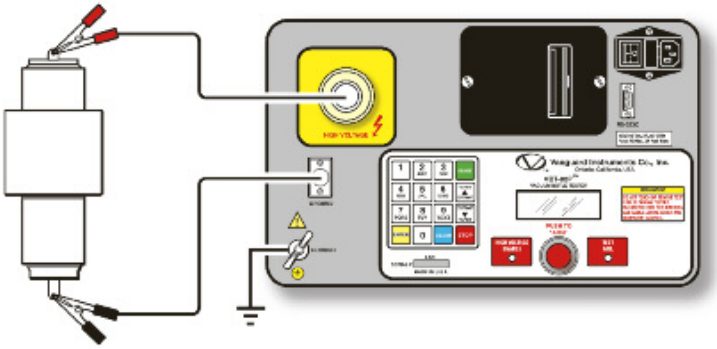
Rapidly

- Inexpensive
- Easy to Use
- Reliable
- Lightweight

High Voltage Connector

2.5-inch Wide Thermal Printer

Ground Cable Connector



VBT-80P™

The VBT-80P is a microprocessor-based, portable 80 kV dc vacuum bottle tester. This lightweight, portable tester is designed for testing circuit-breaker vacuum bottles in the field and at the shop.

Test voltages can be selected from 10 kV dc to 80 Kv dc in 1 Kv steps. The high-voltage test time can be set from 5 seconds to 2 minutes. The test voltage is raised to the selected voltage and held for the test time duration. After the test time duration has elapsed, the test voltage is returned to zero. If a flash-over condition occurs, such as bottle failure, the test voltage is immediately turned off, a "Failure" message is displayed on the LCD screen, and the "TEST FAIL" LED light on the unit is also illuminated.

The presence of high voltage is indicated by an audible tone and an illuminated "HIGH VOLTAGE" LED light. For additional operator safety, an "ARM" switch must be held down during testing.

The VBT-80P features a back-lit LCD screen (20 characters by 4 lines) that is viewable in both bright sunlight and low-light levels. A rugged, 16-key, membrane keypad is used to control the unit. Test results can be printed on the built-in 2.5-inch wide thermal printer.

The VBT-80P can store up to 84 records of 16 readings in Flash EEPROM. Test records can be retrieved and printed on the built-in thermal printer, or they can be transferred to a PC via the unit's RS-232C interface. A Windows® XP/Vista-based software application is provided with each unit. Using this software, test records can be retrieved from the VBT-80P and then stored on the PC for future analysis and report generation. Additionally, test records can be exported in Microsoft® Excel format for further analysis.

The VBT-80P is furnished with a 10-foot test cable that is terminated with a quick-disconnect test clip. A transportation case is also included.

FEATURES

- Automatic Testing
- 10 kV to 80 kV DC output in 1 kV steps
- Selectable dwell time from 5 seconds to 2 minutes
- Built-in 2.5" Thermal Printer
- Store 84 records (of 16 readings each)
- Very light weight

Ordering Information

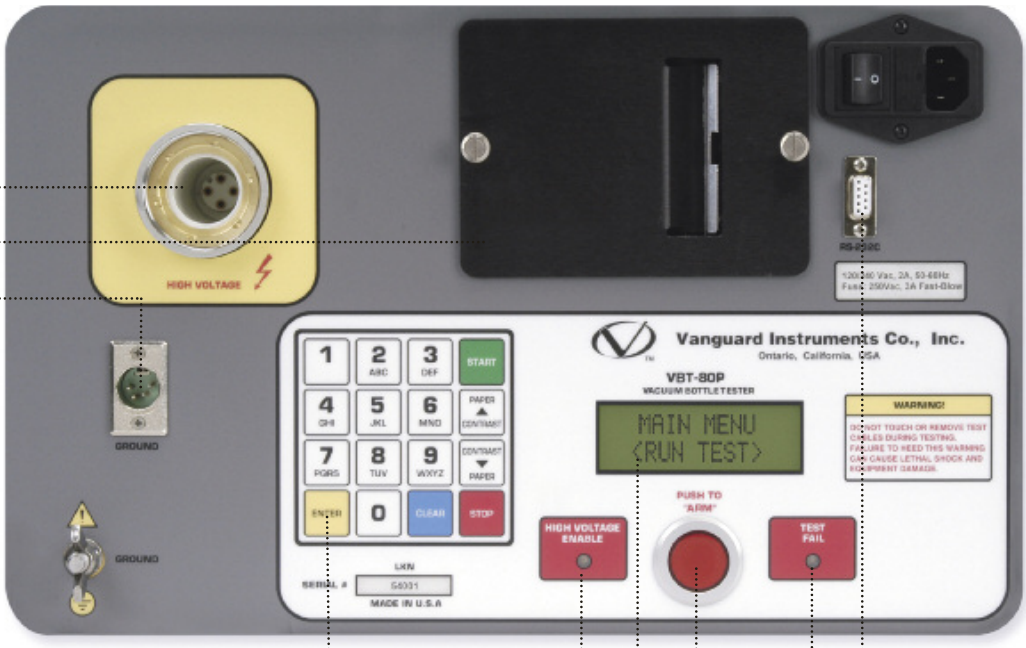
VBT-80P Circuit Breaker Vacuum Bottle Tester

VBT-80P, Cable, Case	Part No: VBT-80P
VBT-80P High Voltage Cable	Part No: VBT-80P High Voltage Cable

Field Replaceable High Voltage Cable

A Portable 80kV Vacuum Bottle Tester

Test *Circuit-Breaker Vacuum Bottles In the Field and at the Shop*



Rugged 16-Key Membrane Keypad ***High Voltage Warning*** ***Back-lit LCD Screen 16 characters by 2 lines*** ***Arm Switch*** ***Test Fail Indicator*** ***RS-232C Interface***

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TEST RESULTS
DATE:12/29/04     TIME:07:39:01

COMPANY:     VANGUARD
STATION:     SHOP
CIRCUIT:     15KV
MFR:         ABB
MODEL:       681A308H24
S/N:         9809182201
KVA RATING:
OPERATOR:    HAI

TEST VOLTAGE:   80 KV
TEST LIMIT:     300 uA
TEST TIME:      0:10
LAST MEAS CUR:  98.08 uA
LAST MEAS VTG:  80.2 KV
        TEST PASSED!!
NOTES: _____

TEST VOLTAGE:   80 KV
TEST LIMIT:     300 uA
TEST TIME:      0:10
        TEST FAILED!!
NOTES: _____

DATE:12/29/04     TIME:07:39:43
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SPECIFICATIONS

TYPE	Portable, lightweight, 80 kV dc vacuum bottle tester
PHYSICAL SPECIFICATIONS	16.8”W x 3.5”H x 10.6”D (42.7 cm by 8.9 cm by 26.9 cm); Weight: 10 lbs (4.53 kg)
INPUT POWER	2 amps, 90 – 240 Vac, 50/60 Hz
OUTPUT VOLTAGE	10kV – 80 kV dc in 1 kV steps
OUTPUT RIPPLE VOLTAGE	3% max
DISCHARGE TIME	Maximum discharge time for internal high voltage is 0.3 seconds
DISPLAY	Back-lit LCD Screen (20 characters by 4 lines); viewable in bright sunlight and low-light levels
FAILURE INDICATOR	Failure indicator LED illuminates when test current exceeds 100 µA, 200 µA, 300 µA (programmable)
PRINTER	2.5-inch wide thermal printer
KEYPAD	Rugged membrane keypad (10 alpha-numeric keys, 6 function keys)
INTERNAL TEST RECORD STORAGE	Stores up to 84 records of 16 readings each
COMPUTER INTERFACE	RS-232C (19,200 baud) port
PC SOFTWARE	Windows® XP/Vista-based software is included with purchase price
ENVIRONMENT	Operating: -10°C to 50° C (15°F to +122° F); Storage: -30° C to 70° C (-22°F to +158° F)
HUMIDITY	90% RH @ 40˚C (104˚F) non-condensing
ALTITUDE	2,000m (6,562 ft) to full safety specifications
CABLES	One 10-foot high-voltage cable, one 10-foot high voltage return cable, one ground cable, one power cord
TRANSPORTATION CASE	Transportation case is included
WARRANTY	One year on parts and labor

Note: The above specifications are valid at nominal voltage and ambient temperature of +25°C (+77°F). Specifications are subject to change without notice.

Vanguard Instruments Company, Inc.

Vanguard Instruments Co., (VIC), was founded in 1991. Currently, our 28,000 square-foot facility houses Administration, Design & Engineering, and Manufacturing operations. From its inception, VIC's vision was, and is to develop and manufacture innovative test equipment for use in testing substation EHV circuit breakers and other electrical apparatus.

The first VIC product was a computerized circuit-breaker analyzer, which was a resounding success. It became the forerunner of an entire series of circuit-breaker test equipment. Since its beginning, VIC's product line has expanded to include microcomputer-based, precision micro-ohmmeters, single and three-phase transformer winding turns-ratio testers, winding-resistance meters, transformer tap-changing controllers, megaohm resistance meters, and a variety of other electrical utility maintenance support products.

VIC's performance-oriented products are well suited for the utility industry. They are rugged, reliable, accurate, user friendly, and most are computer controlled. Computer control, with innovative programming, provides many automated testing functions. VIC's instruments eliminate tedious and time-consuming operations, while providing fast, complex, test-result calculations. Errors are reduced and the need to memorize long sequences of procedural steps is eliminated. Every VIC instrument is competitively priced and is covered by a liberal warranty.

Vanguard products are available from:

Vanguard Instruments Company, Inc.
1520 S. Hellman Ave. • Ontario, California 91761 USA • P 909-923-9390 • F 909-923-9391
www.vanguard-instruments.com