

Simplify with Va

Test Record Header Information

Test-Record header information includes the Company Name, Substation Names, Circuit ID, Manufacturer, CT serial number, Operator's Name, and Test-record Comments. In addition to the test-record header, the user can enter a 20-character test description for each test in the record (10 test descriptions per record). The test-record header and the 10 test descriptions are stored with each test record in Flash EEPROM.

Test Record Storage Capacity

The EZCT-S2 can store up to 140 test records in Flash EEPROM. Each test record may contain up to 10 saturation curves, turns-ratio readings, and winding polarity. Test records can be recalled and printed by the thermal printer.

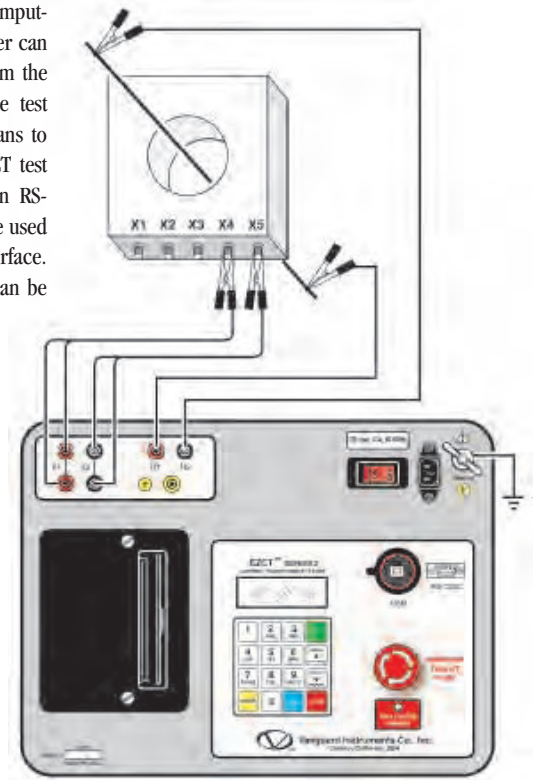
Test Plan Storage Capacity

The EZCT-S2 will store up to 128 CT Test Plans in Flash EEPROM. A test plan defines the saturation test voltage and current selection, CT name-plate ratio, and CT winding terminal connection instruction for each test. Up to 10 test definitions can be stored in each test plan. With the use of a test plan, CT testing is greatly simplified. The user needs only to follow the test plan connection instructions for the EZCT-S2 cables to the CT terminals (X1 to X5) and command the EZCT-S2 to perform the test. Test plans can be created from the EZCT-S2 front panel keyboard or on the PC and downloaded to the EZCT-S2 via the RS-232C or USB port.

Computer Interface

The EZCT-S2 can be used as a stand-alone unit or in a computer-control mode. A Windows XP-based "Current Transformer Analysis" software program is provided with each EZCT-S2. In computer control mode, the user can retrieve test records from the EZCT-S2 memory, create test plans, download test plans to the EZCT-S2 or run a CT test from the PC. A built-in RS-232C or USB port can be used for the computer interface. Tabulated test records can be exported to EXCEL.

EZCT™ S2 Connections



EZCT™ Series-2

The EZCT-S2 is a second-generation, microprocessor-based, Current Transformer Set. The EZCT-S2 will perform the current transformer saturation test and the CT (current transformer) turns-ratio automatically. The saturation test voltage is automatically raised and lowered by the EZCT-S2. No operator intervention is required. With up to 1500 Vac saturation test voltage available, the EZCT-S2 can easily perform saturation tests on very large CTs.

Saturation Test

The CT saturation test is performed using the ANSI/IEEE C57.13.1 test method. The test voltage [50 Vac, 250 Vac, 500 Vac, to 1500 Vac] is selected by the user for the CT saturation test. The test voltage is raised and lowered automatically by the EZCT-S2. Test voltage and current data are collected and stored in the EZCT-S2 internal memory. Up to 10 CT saturation and turns-ratio tests can be stored in one test record. Once the test is completed, the user can print test results and plot excitation curves on the built-in 4.5-inch-wide thermal printer.

CT Ratio and Polarity Test

The EZCT-S2 determines the CT turns-ratio using the ANSI/IEEE C57.12.90 measurement method. A test voltage is applied on two CT secondary terminals (X1 to X5). The induced voltage is measured through the CT H1-H2 terminals. CT turns-ratio and polarity are displayed and stored in memory. The turns-ratio measuring range is from 0.8 to 5,000. The CT winding polarity is displayed as a + sign (in-phase) or a - sign (out-of-phase) and is printed with the phase in degrees.

Operator Interface and Display

The EZCT-S2 displays messages on a 4-line by 20-character, sunlight-viewable LCD. The LCD is also backlit for low-light viewing condition. An alpha-numeric keypad allows the users to enter test information and control functions.

Thermal Printer

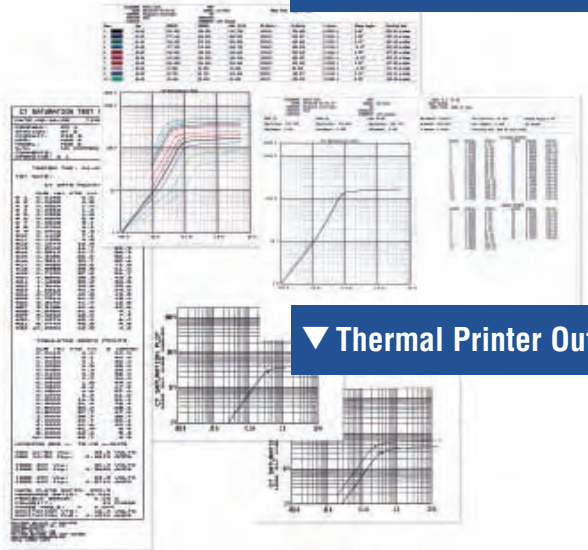
A built-in 4.5-inch-wide thermal printer prints the CT test results and saturation curves.

Current-Transformer Test Set

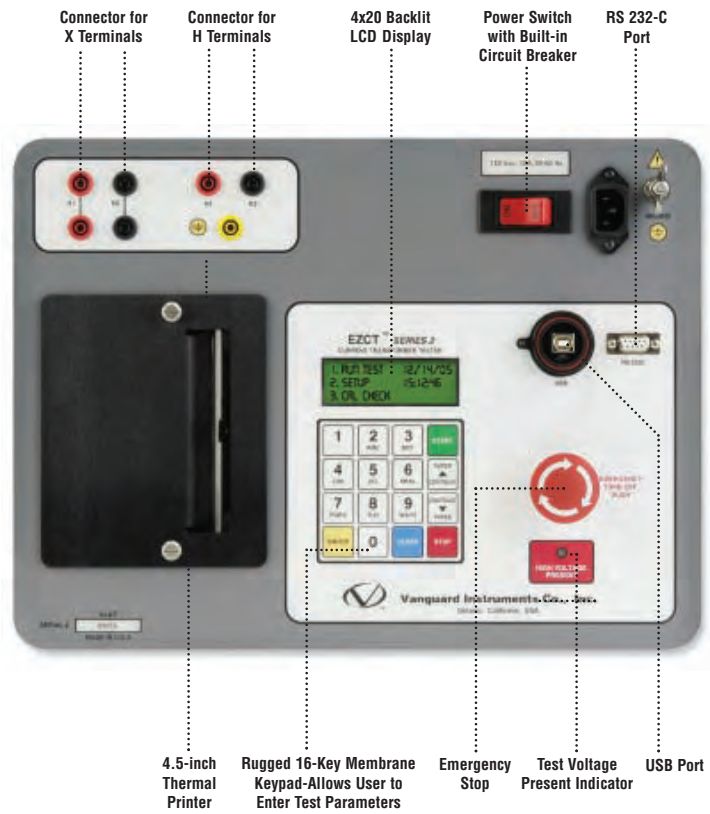
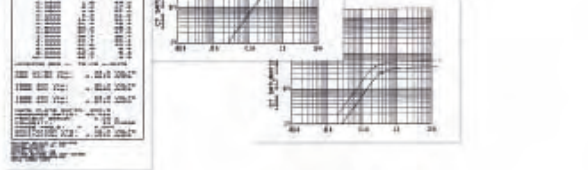
the Tedious Procedure of Current-Transformer Testing

Vanguard's EZCT™ Series 2 Current Transformer Test Set

▼ Color Printer Output



▼ Thermal Printer Output



Ordering Information EZCT-S2™ Current Transformer Test Set

EZCT-S2™, Cable, Software	Part No: EZCT-S2
EZCT-S2™ Shipping Case	Part No: EZCT-S2 Shipping Case
4.5-inch Printer Paper	Part No: Paper TP4

SPECIFICATIONS

TYPE	Portable Current-Transformer Test Set
PHYSICAL DIMENSIONS	16.8W by 12.6H by 12D inches (42.7 cm x 32 cm x 26.9 cm)
WEIGHT	48 lbs (21 kg)
INPUT POWER	90-130 Vac or 200-240 Vac (user specified), 50 Hz/60 Hz
MEASUREMENT METHOD	ANSI/IEEE C57.12.90 and ANSI/IEEE C57.13.1
OUTPUT TEST VOLTAGE	0-50 Vac @ 10A max, 0-250 Vac @ 10A max 0-500 Vac @ 5A max, 0-1500 Vac @ 1.2A max
VOLTAGE READING RANGE	0 to 2,200 Vac, (Accuracy: ±1.0% of reading, ±1 volt)
CURRENT READING RANGE	0 to 10A, (Accuracy: ±1.0% of reading, ±0.02A)
TURNS-RATIO RANGE	0.8 to 999: 0.1%, 1000 to 1999: 0.3%, 2000 to 5000: 1%
PHASE ANGLE MEASUREMENT	0 to 360 degree, Accuracy: ±1.0 degree
DISPLAY	LCD Screen: 20 characters by 4 lines; viewable in bright sunlight
PRINTER	4.5-inch thermal printer
COMPUTER INTERFACE	RS-232C Port (115k baud) and one USB Port
PC SOFTWARE	Windows XP-based CT Analysis Program included with purchase price
TEST RECORD STORAGE	Store 140 test records. Each test record may contain up to 10 sets of saturation, resistance and ratio data
TEST PLAN STORAGE	Store 128 test plans. Each test plan stores 10 saturation test voltage and current settings
SAFETY	Designed to meet UL 61010A-1 Certification and CAN/CSA C22.2 No. 1010.1-92
ENVIRONMENT	Operating: -10° to 50° C (15°F to +122° F); Storage: -30° C to 70° C (-22°F to +158° F)
CABLES	Two 20-ft X cables set, One 35-ft H cable set, Power cord, One cable-carrying duffel bag
WARRANTY	One-Year parts & 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.

Instruments Designed and Developed by the Hearts and Minds of Utility Electricians Around the World

You've seen a lot of utility test equipment in your time. You work with it routinely. Your facility relies upon it to ensure peak performance. Often times, your maintenance tasks are tedious, time-consuming and repetitive. But timely and accurate information is the currency of maintaining maximum uptime and minimal repair, thus testing must be done. Your instruments must be up to the task.

Vanguard Instruments is familiar with your problems and shares in your desire to make transformer and breaker testing fast, reliable, and simple. These principles are the basis for every Vanguard design. They also form the premise for our ongoing research and development as well as every innovative feature we introduce.

How do we know what you're looking for in utility test equipment? We're there in the trenches with you! Our Chief Engineer is frequently on-site at power utility substations around the country and all over the world; working, listening and talking with electricians and technicians just like you. More than that, you've shown us the real nitty-gritty of testing. We've taken that to heart and then back to the lab to solve your problems. The results of your recommendations are embodied in utility test equipment that is easy to use, lightweight, rugged and dependable. The EZCT-2000™, along with Vanguard's full line of test equipment, leads the industry in accuracy and automatically performs a range of tasks and calculations that were once the bane of every utility electrician.

We hope that you will take a few moments to consider the technological innovations that are engineered into every Vanguard test instrument. Equally important, we want to know that our past efforts make a present difference in your testing routines and on-line uptime. We're not done though. You can be confident we're looking for new ways to improve the results of your testing regimen. Thanks for choosing Vanguard Instruments.



Vanguard Instruments Company, Inc.

1710 Grevillea Court • Ontario, CA 91761 • Phone 909-923-9390 • Fax 909-923-9391
Website: www.vanguard-instruments.com