



THE EASTERN SPECIALTY COMPANY

# **OPERATIONS MANUAL**

# **METER SITE ANALYZER**

**PRODUCT:**

**CATALOG NO. 6330**

# METER SITE ANALYZER OPERATIONS MANUAL CATALOG NO. 6330



THE EASTERN SPECIALTY COMPANY

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## LIMITED WARRANTY & LIMITATION OF LIABILITY

TESCO warrants to the original purchaser that it will correct all defects in material and/or workmanship in the Instrument, test equipment or software covered by this warranty (herein called "**PRODUCT**"), provided that TESCO is notified of such defect within the warranty period (set forth below) in accordance with paragraph four of this Warranty.

**WARRANTY PERIOD.** The warranty period shall begin on the date of shipment of the PRODUCT or the date of the issuance of this warranty certificate, whichever is later. If no warranty period is specified below and signed by an authorized DISTRIBUTOR of TESCO, the Warranty Period shall be one (1) year. In no event shall this Warranty remain in effect for more than the stated Warranty Period plus two (2) months after the date of shipment. TESCO's sole obligation and the purchaser's sole remedy under this Warranty is limited to repair or replacement, at TESCO's option, free of charge, F.O.B. TESCO's factory at Bristol, PA of any workmanship and/or part which in TESCO's sole judgment displays evidence of defect. On-site Warranty repairs will be made when in TESCO's judgment the PRODUCT cannot practically be shipped to TESCO's factory. Any modifications, additions or upgrades made to the PRODUCT or control software after this warranty becomes effective shall not extend the term of this warranty.

**COVERAGE.** The warranty set forth above shall be applicable only if the PRODUCT:

1. Is used for the specific purpose for which it was intended;
2. Is operated in accordance with instructions, if any, supplied by TESCO;
3. Has not been modified, neglected, altered, tampered with, vandalized, abused or misused, or subjected to accident, fire, flood or other casualties;
4. Has not been repaired by unauthorized persons;
5. Has not had its serial number altered, defaced or removed;
6. Has not been connected, installed or adjusted other than in accordance with the instructions, if any, furnished by TESCO.

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1. Notice of defect is given to TESCO by phone, fax, email or mail as soon as the defect is discovered.
2. Notice of defect contains the following information: PRODUCT serial number, PRODUCT model number, date of original installation, and an accurate and complete description of the defect including the exact circumstances leading to the defect.
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4. The Return Merchandise Authorization (RMA) number is written on the shipping label and all paperwork defective PRODUCT or part.
5. The defective PRODUCT or part is returned in the original packing or packing approved by TESCO

TESCO is not responsible for drayage charges, damages or labor costs incurred in conjunction with failure, removal or reinstallation of any PRODUCT, all of which shall be at the purchaser's expense. TESCO is not responsible for special, incidental or consequential damages, whether resulting from breach of warranty, negligence or any other reason.

TESCO manufactured parts will be available for a minimum period of at least two years after the manufacture of a PRODUCT has been discontinued.

TESCO will provide original purchaser during the Warranty Period, unlimited telephone consulting time for the purpose of PRODUCT trouble shooting/servicing and for the first thirty (30) days of the Warranty Period, unlimited telephone consulting time for the purpose of PRODUCT/software application.

**THE WARRANTY CONTAINED HEREIN IS IN LIEU OF ALL OTHER WARRANTIES AND TESCO MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, WARRANTIES OR CONDITION, DESIGN, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ANY OTHER MATTER.**

No other Warranty, express or implied, is authorized by TESCO, and no DISTRIBUTOR of TESCO or any other person has any authority to amend, extend, modify, enlarge or otherwise alter the foregoing warranty and disclaimers in any way whatsoever, except as provided for in an Extended Limited PRODUCT Warranty Agreement.

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# 1.0 INTRODUCTION

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## 1.1 Introduction

*The most versatile Site Testing tool in a small, lightweight package!*

Studies have shown that at transformer-rated sites, the vast majority of issues are related to wiring, CTs, PTs, and other issues. If you want to be sure the customer is billed correctly and you are not losing revenue, you must test the whole site, not just the meter — this is where TESCO's Meter Site Analyzer (Catalog No. 6330) comes in.

The 6330 revolutionizes meter site testing by providing a small, lightweight package!

It is the most versatile and complete tool for testing the entire functionality of transformer-rated metering installation in a convenient, portable, and lightweight kit. It can perform CT Testing (Ratio, Burden Only, Admittance), Demagnetization, Demand Testing, Customer Load or Phantom Load Testing (5-amp Current Load Box), and more! It has a database for storing test results that you can export to your PC.

Since 1904, customers have trusted TESCO for accuracy and reliability. When you think metering, think TESCO.

CAT. 6330 will be referred as "Site Analyzer" throughout the operational manual.

## 1.2 Contacting TESCO

For Technical Support or Calibration/Repair, please call 215.228.0500.

You can also send an email to [support@tescometering.com](mailto:support@tescometering.com) with any questions.

To view, print, or download the latest manual supplement, visit [www.tescometering.com](http://www.tescometering.com).

## 1.3 General Safety Summary

This manual contains information and warnings that must be observed to ensure safe operation and keep the Site Analyzer in a safe condition. Operation or service in conditions or in a manner other than specified could compromise safety. For the correct and safe use of this device, **it is essential that both operating and service personnel follow accepted safety procedures in addition to the safety precautions specified**, including proper PPE guidelines.



In this manual, a **WARNING** identifies conditions and actions that pose hazard(s) to the user, while a **CAUTION** identifies conditions and actions that may damage the Site Analyzer or the test equipment.

### **WARNING**

To avoid electrical shock, personal injury, or fire hazard:

- The device must not be switched ON if it is damaged or suspected to be faulty.
- Do not operate the device in wet, condensing, dusty, or explosive gas conditions.
- If the equipment is used in a manner not specified in this manual, the protection provided by the Site Analyzer may be impaired.
- Whenever it is likely that safety protection has been impaired, the device must be made inoperative and be secured against any unintended operation. Inform qualified maintenance or repair personnel.
- Safety protection is likely to be impaired if, for example, the Site Analyzer displays visible damage or fails to operate normally.

## 1.4 Description of Safety-related Icons

ICONS	DESCRIPTION
	Risk of danger. Important information. See manual.
	Hazardous voltage. Risk of electrical shock.

## 1.5 **Pr**oduct Features

### 1.5.1 Key Features

- **Voltage Drive:** 50-650V, 920V peak
- **Current Drive:** 0.1-21A, 30A peak
- **Meter Testing (Demand, Timed Run, Timed Register, Energy Delivery)**
- **CT Testing (Ratio, Burden Only, Ratio and Burden, Admittance, Demagnetization)**
- **Meter Accuracy Testing (T. A. is 5 amp)**
- **“Fast Key” Anytime Data (Metrology, Phasor Diagrams, Live Waveforms, Harmonics up to 50<sup>th</sup>)**

### 1.5.2 Standard Features

- **GRAPHICAL USER INTERFACE (GUI)**  
Displayed on a 7” 800x480, 1,000 nit color display; readable on direct sunlight
- **ETHERNET CONNECTIVITY**  
100 BaseT with support for: Web Services, Remote Control, Database Access. 7” RJ45 standard (blue) and crossover (red) cables are provided.
- **INTEGRATED CONTROL KEYPAD**  
The keypad is embedded in the front panel.
- **LOAD BOX**  
True three-phase with current of 0-5A with full harmonics.

### 1.5.3 Standard Unit

These are the standard items included in the package:

- 6330 TESCO Meter Site Analyzer
- Optical pickup (1037-SA) with 9.84 ft. cable, Next Gen compatible
- Battery charger (90W 19VDC output, 85 -264VAC input with 6 ft. cord)

### 1.5.4 Additional Items

These items are necessary for the unit to fully function and have a few varieties to choose from:

- Jumper Sets
- Current Cable Sets
- Voltage Cable Sets
- Test Clips for Voltage
- Rogowski Coil(s)

## 1.5.5 Optional Accessories

- SENSORLINK high voltage probe
- 50 ft. extension cables for Rogowski coils
- Diamond Level Support

## 1.6 General Specifications

### 1.6.1 Input Characteristics

PARAMETERS	DATA
Supply Frequency	50/60Hz
Power Supply Adaptor Output	19VDC, 4.74A
Power	90W Max.

### 1.6.2 Dimensions

PARAMETERS	DATA
Height	Lid closed: 6.7" (17.01 cm)
Width	13.9" (35.30 cm)
Depth	18.2" (46.22 cm)
Weight	17.8 lbs (8.07 kg)

### 1.6.3 Accuracy

PARAMETERS	DATA
Voltage Measurement Accuracy	±0.02%
Current Measurement Accuracy	±0.02%
Phase	±0.005 degrees
Power Measurements Accuracy (Watts / VA / VAR)	±0.04%, ±0.02% typical
Energy Measurements Accuracy (WHrs / VAHrs / VARHrs)	±0.04%, ±0.02% typical
Probe Channels	±0.02%

## 1.7 About this Operations Manual

This manual provides complete information for setting up and operating the Site Analyzer. This document instructs the user on the following operations of the CAT. 6330:

- Setup
- Front Panel Features
- Graphical User Interface (GUI)
- How to perform tests
- Instrument Maintenance

# 2.0 SETUP

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## 2.1 Introduction

This chapter provides instructions for unpacking and the proper setup for the Site Analyzer. Read this chapter before you operate the Site Analyzer. Instructions for cable connections can be found here.

## 2.2 Unpacking and Inspection

The Site Analyzer is shipped in a container designed to prevent damage during shipping.

Inspect the Site Analyzer carefully for damage, and immediately report any damage to the shipper. A packing list is included in the packaging. When you unpack the Site Analyzer, check for all the standard equipment listed and check the shipping order for any additional items ordered. Report any shortage to the place of purchase, your distributor, or directly to TESCO.

## 2.3 Setup, Airflow and Cooling Considerations

### 2.3.1 Setup and Placement

The Site Analyzer is a versatile and portable unit that you can easily adapt to your surroundings, on a site or inside the shop. The long cords allow for the placement for a Site Analyzer to be as close or as far from the site as possible.

Make sure to lay the Site Analyzer flat when using, and make sure there is proper ventilation for the fans on the side.



## 2.4 Main Power Supply

The Site Analyzer is fully battery powered and the battery can be charged in or outside of the unit from AC or DC. The battery can easily be swapped out. Additional chargers are available for purchase from TESCO or your distributor.

**WARNING** 

**To avoid electrical shock, personal injury, or fire hazard, connect the factory-supplied three-conductor-line power cord to a properly grounded power outlet.**

**During test operation, a two-conductor adapter or extension cord MUST NOT be used. This will break the protective ground connection and will affect the measurement accuracy of the Site Analyzer.**

**The power outlets supplying the Site Analyzer system should be controlled by an emergency switch so that power can be switched off if a hazard arises.**



# 3.0 FUNCTIONALITY

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### 3.1 Introduction

This chapter is a reference for the functions and locations of the Site Analyzer’s front panel features and provides brief descriptions of each feature for quick access. **Please read this information before operating the Site Analyzer.** Front panel operating instructions for the Site Analyzer are provided in this chapter.

### 3.2 Panel Features

Front panel features (controls, displays, indicators) and side panel sections (terminals) are shown in Figure 3.2.1 and Figure 3.2.2 respectively.

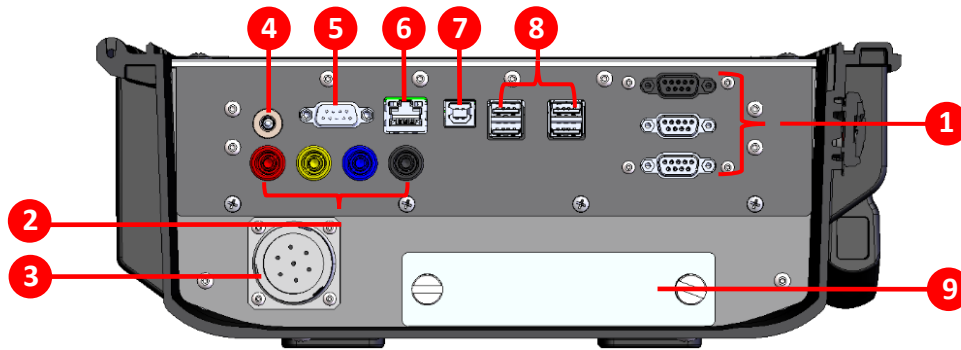
#### 3.2.1 Front Panel



NUMBER	DESCRIPTION
1	LCD screen
2	Function keys
3	Keypad
4	Fast access keys
5	Power button
6	Navigation buttons

Table 3.2.1. CAT. 6330 Front Panel Sections

### 3.2.2 Side Panel








NUMBER	DESCRIPTION
1	Rogowski Current Probe Terminals
2	Fused Voltage Lead Terminals
3	Current Cable Terminal
4	Battery Charger Input Terminal
5	Optical Pickup Terminal
6	Ethernet Communication
7	USB type-B port
8	USB type-A ports
9	Battery Compartment

Table 3.2.2. CAT. 6330 Side Panel Sections

### 3.2.3 Front Panel Buttons

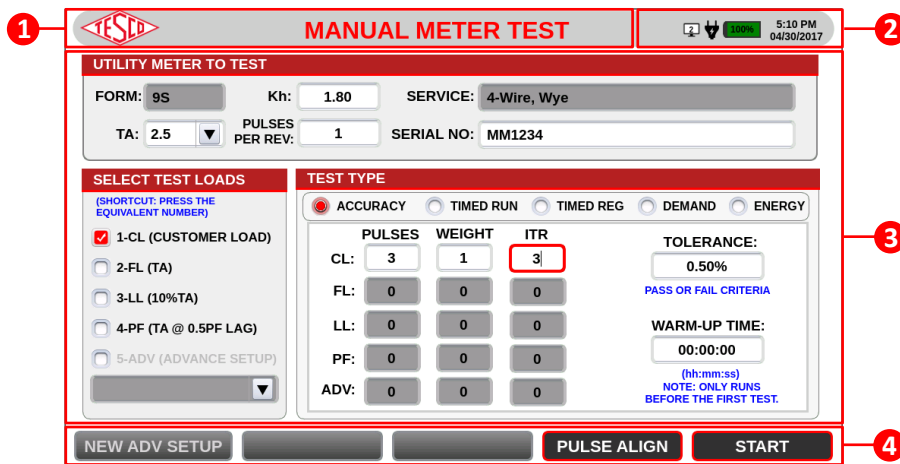
SYMBOL	DESCRIPTION
	<ul style="list-style-type: none"> <li>• Selects the NEXT or PREVIOUS menu item</li> <li>• Moves the <b>SELECTED LINE</b> UP or DOWN</li> <li>• Selects an Item from a dropdown menu</li> </ul>
	<ul style="list-style-type: none"> <li>• Moves the cursor left/right of the current character in text boxes.</li> <li>• Moves the selection left/right of the current selected cell in tables.</li> </ul>
	Selects the NEXT or PREVIOUS <b>TAB</b> item.
	Moves the focus from one section of the screen to another
	Displays many of the metrology values in tabular form.
	Displays a phasor diagram for the active phases. Diagram is continuously updated.
	Displays live waveforms.
	Displays harmonic analysis up to the 50 <sup>th</sup> .
	Deletes the previous character.

	Returns to the previous screen.
	Function keys
	Power button. Hold down to turn the device on until the LED lights up and wait for a few seconds for the screen to load.
	Selects a response.
	Provides context-sensitive help.

### 3.3 The Graphical User Interface (GUI)

#### 3.3.1 GUI Screen Sections

The user interface is divided into four sections. In the screen, any field or button that is grayed out cannot be changed or accessed by the user.






NUMBER	DESCRIPTION
1	Screen Title
2	Status Bar
3	Screen Data
4	Function Buttons

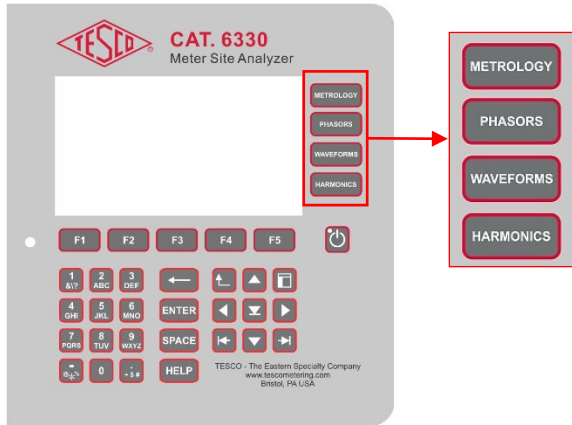
Table 3.3.1. CAT. 6330 GUI Sections

#### STATUS BAR ICONS

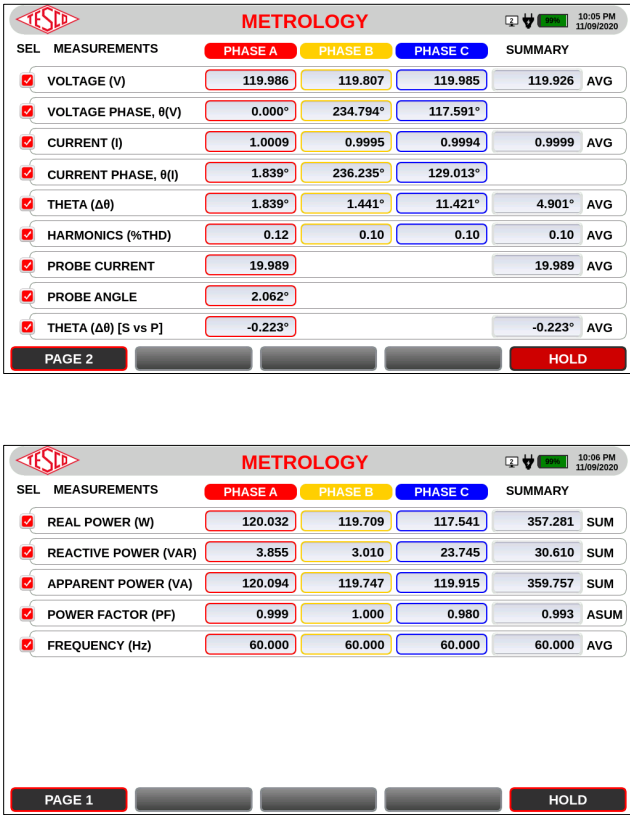
These icons are located at the status bar of the screen. They are indicators of different network connections and temperature levels of the device.

ICON	NAME	DESCRIPTION
	<b>Wired Connection</b>	LAN/Ethernet connection is enabled. The number represents the number of users remotely connected to the device.
	<b>Extremely Hot Temperature</b>	The Site Analyzer's temperature is above 158°F (70°C).
	<b>Charging</b>	The Site Analyzer is charging.

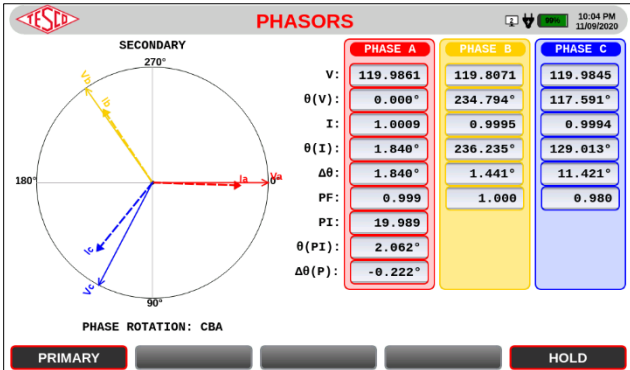
### 3.3.2 Fast Access Functions

SCREEN	DESCRIPTION
	<p>The "FAST" access buttons provide instant access to various measurements at any time.</p> <p>Pressing one of the buttons brings up the display regardless of what is shown on the screen. Pressing the same button again shows the previous screen. If one FAST display is showing and a second FAST button is pressed, the latter FAST button will then be displayed.</p>

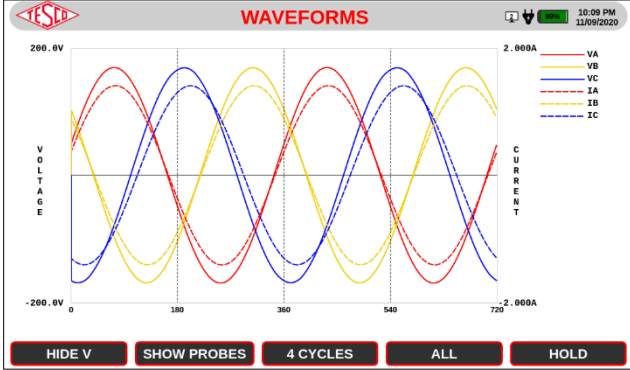
### 3.3.2a Metrology

SCREEN	DESCRIPTION																			
	<p>Displays many of the metrology values in tabular form. If no test is in progress, then the TREND PLOT and RECORD functions are available.</p> <p>The SEL column is used to select which parameters are used in a TREND PLOT or WAVEFORM RECORDING. Use the arrow keys to navigate through each of the parameter and press ENTER to select/deselect.</p> <p><b>FUNCTION KEYS:</b></p> <table border="1" data-bbox="836 1239 1461 1627"> <tr> <td>F1</td> <td><b>PAGE N</b></td> <td>Show a certain page of measurements, with N as the page number</td> </tr> <tr> <td>F2</td> <td></td> <td></td> </tr> <tr> <td>F3</td> <td><b>RECORD</b></td> <td>Record the selected parameters 15 times per second until the RECORD button is pressed again or METROLOGY display is exited.</td> </tr> <tr> <td rowspan="2">F4</td> <td><b>TIME</b></td> <td>Switch domain to TIME</td> </tr> <tr> <td><b>FREQ</b></td> <td>Switch domain to FREQUENCY</td> </tr> <tr> <td rowspan="2">F5</td> <td><b>HOLD</b></td> <td>Freeze the data acquisition.</td> </tr> <tr> <td><b>LIVE</b></td> <td>Change to showing live data.</td> </tr> </table>	F1	<b>PAGE N</b>	Show a certain page of measurements, with N as the page number	F2			F3	<b>RECORD</b>	Record the selected parameters 15 times per second until the RECORD button is pressed again or METROLOGY display is exited.	F4	<b>TIME</b>	Switch domain to TIME	<b>FREQ</b>	Switch domain to FREQUENCY	F5	<b>HOLD</b>	Freeze the data acquisition.	<b>LIVE</b>	Change to showing live data.
F1	<b>PAGE N</b>	Show a certain page of measurements, with N as the page number																		
F2																				
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F5	<b>HOLD</b>	Freeze the data acquisition.																		
	<b>LIVE</b>	Change to showing live data.																		

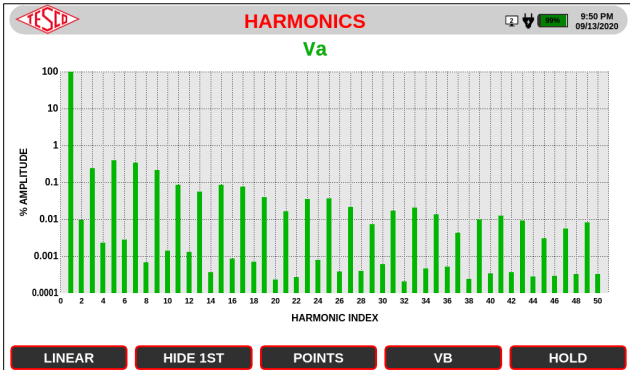
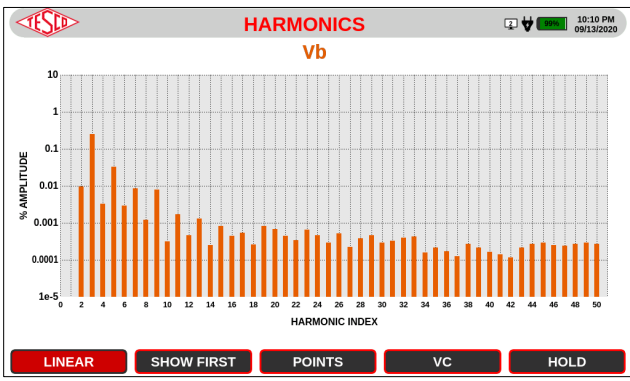
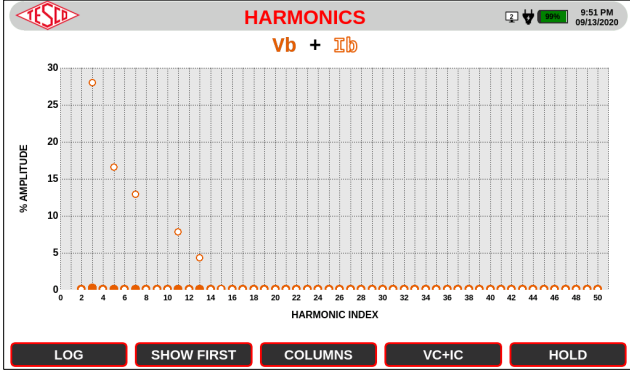

### 3.3.2b Phasors

SCREEN	DESCRIPTION																																																													
 <p>The screenshot shows the 'PHASORS' screen with a phasor diagram on the left and numerical data on the right. The diagram shows three voltage phasors (Va, Vb, Vc) and three current phasors (Ia, Ib, Ic) on a circular scale. The data is organized into three columns: PHASE A (red), PHASE B (yellow), and PHASE C (blue). At the bottom, there are buttons for 'PRIMARY', 'SECONDARY', and 'HOLD'.</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th></th> <th>PHASE A</th> <th>PHASE B</th> <th>PHASE C</th> </tr> </thead> <tbody> <tr> <td>V:</td> <td>119.9861</td> <td>119.8071</td> <td>119.9845</td> </tr> <tr> <td><math>\theta(V)</math>:</td> <td>0.000°</td> <td>234.794°</td> <td>117.591°</td> </tr> <tr> <td>I:</td> <td>1.0009</td> <td>0.9995</td> <td>0.9994</td> </tr> <tr> <td><math>\theta(I)</math>:</td> <td>1.840°</td> <td>236.235°</td> <td>129.013°</td> </tr> <tr> <td><math>\Delta\theta</math>:</td> <td>1.840°</td> <td>1.441°</td> <td>11.421°</td> </tr> <tr> <td>PF:</td> <td>0.999</td> <td>1.000</td> <td>0.980</td> </tr> <tr> <td>PI:</td> <td>19.989</td> <td></td> <td></td> </tr> <tr> <td><math>\theta(PI)</math>:</td> <td>2.062°</td> <td></td> <td></td> </tr> <tr> <td><math>\Delta\theta(P)</math>:</td> <td>-0.222°</td> <td></td> <td></td> </tr> </tbody> </table>		PHASE A	PHASE B	PHASE C	V:	119.9861	119.8071	119.9845	$\theta(V)$ :	0.000°	234.794°	117.591°	I:	1.0009	0.9995	0.9994	$\theta(I)$ :	1.840°	236.235°	129.013°	$\Delta\theta$ :	1.840°	1.441°	11.421°	PF:	0.999	1.000	0.980	PI:	19.989			$\theta(PI)$ :	2.062°			$\Delta\theta(P)$ :	-0.222°			<p>Displays a phasor diagram for the active phases. Diagram is continuously updated.</p> <p><b>KEYPAD &amp; FUNCTION KEYS:</b></p> <table border="1"> <tbody> <tr> <td>F1</td> <td><b>PRIMARY</b></td> <td>Switch to the primary reading.</td> </tr> <tr> <td></td> <td><b>SECONDARY</b></td> <td>Switch to the secondary reading.</td> </tr> <tr> <td>F2</td> <td></td> <td></td> </tr> <tr> <td>F3</td> <td></td> <td></td> </tr> <tr> <td>F4</td> <td></td> <td></td> </tr> <tr> <td>F5</td> <td><b>HOLD</b></td> <td>Freeze the data acquisition.</td> </tr> <tr> <td></td> <td><b>LIVE</b></td> <td>Change to showing live data.</td> </tr> </tbody> </table>	F1	<b>PRIMARY</b>	Switch to the primary reading.		<b>SECONDARY</b>	Switch to the secondary reading.	F2			F3			F4			F5	<b>HOLD</b>	Freeze the data acquisition.		<b>LIVE</b>	Change to showing live data.
	PHASE A	PHASE B	PHASE C																																																											
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F5	<b>HOLD</b>	Freeze the data acquisition.																																																												
	<b>LIVE</b>	Change to showing live data.																																																												

### 3.3.2c Waveforms

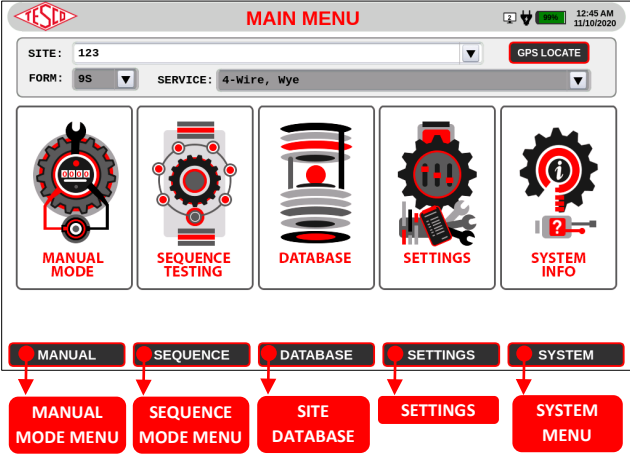

SCREEN	DESCRIPTION																		
 <p>The screenshot shows the 'WAVEFORMS' screen with a graph of voltage and current waveforms. The x-axis represents time in cycles (0 to 720), and the y-axis represents voltage (-200.0V to 200.0V) and current (-2.000A to 2.000A). The legend indicates VA, VB, VC (voltage) and IA, IB, IC (current). At the bottom, there are buttons for 'HIDE V', 'SHOW PROBES', '4 CYCLES', 'ALL', and 'HOLD'.</p>	<p>Displays live waveforms with recording functionality.</p> <p><b>KEYPAD &amp; FUNCTION KEYS:</b></p> <table border="1"> <tbody> <tr> <td>F1</td> <td><b>HIDE V</b></td> <td>Hide or show the voltage waveforms.</td> </tr> <tr> <td>F2</td> <td><b>HIDE I</b></td> <td>Hide or show the current waveforms.</td> </tr> <tr> <td>F3</td> <td><b>N CYCLES</b></td> <td>Select the number of cycles to be displayed: 1, 2, 4, 8</td> </tr> <tr> <td>F4</td> <td><b>PHASE A</b></td> <td>Shift between ALL, Phase A, Phase B and Phase C.</td> </tr> <tr> <td>F5</td> <td><b>HOLD</b></td> <td>Freeze the data acquisition.</td> </tr> <tr> <td></td> <td><b>LIVE</b></td> <td>Change to showing live data.</td> </tr> </tbody> </table>	F1	<b>HIDE V</b>	Hide or show the voltage waveforms.	F2	<b>HIDE I</b>	Hide or show the current waveforms.	F3	<b>N CYCLES</b>	Select the number of cycles to be displayed: 1, 2, 4, 8	F4	<b>PHASE A</b>	Shift between ALL, Phase A, Phase B and Phase C.	F5	<b>HOLD</b>	Freeze the data acquisition.		<b>LIVE</b>	Change to showing live data.
F1	<b>HIDE V</b>	Hide or show the voltage waveforms.																	
F2	<b>HIDE I</b>	Hide or show the current waveforms.																	
F3	<b>N CYCLES</b>	Select the number of cycles to be displayed: 1, 2, 4, 8																	
F4	<b>PHASE A</b>	Shift between ALL, Phase A, Phase B and Phase C.																	
F5	<b>HOLD</b>	Freeze the data acquisition.																	
	<b>LIVE</b>	Change to showing live data.																	

### 3.3.2d Harmonics

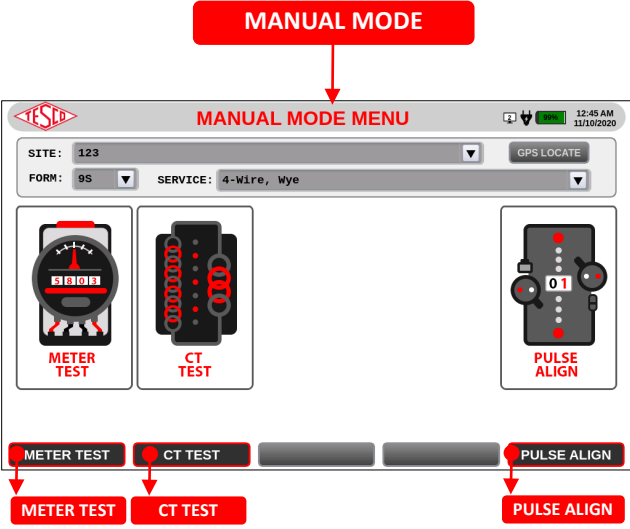

SCREEN	DESCRIPTION																							
 <p>Voltage A, log display with 1<sup>st</sup> harmonic displayed.</p>	<p>Displays live reading of the harmonics up to the 50th. Data can be represented by columns or points.</p> <p><b>NOTE:</b> The phase colors were changed in 3.3.2.4b Colors/Beeper Options.</p>																							
 <p>Voltage B, log display with 1<sup>st</sup> harmonic suppressed.</p>	<p><b>KEYPAD &amp; FUNCTION KEYS:</b></p> <table border="1"> <tr> <td>F1</td> <td><b>LOG</b></td> <td>Change Y axis from linear to log scale.</td> </tr> <tr> <td rowspan="2">F2</td> <td><b>SHOW FIRST</b></td> <td>Show the 1<sup>st</sup> harmonic (fundamental) so that the display can auto-scale to show more vertical detail.</td> </tr> <tr> <td><b>HIDE 1ST</b></td> <td>Hide the 1<sup>st</sup> harmonic (fundamental).</td> </tr> <tr> <td rowspan="2">F3</td> <td><b>POINTS</b></td> <td>Change from a Columns display to a Points display.</td> </tr> <tr> <td><b>COLUMNS</b></td> <td>Change from a Points display to a Columns display.</td> </tr> <tr> <td rowspan="2">F4</td> <td><b>VA</b></td> <td>Column mode: Shift between Va, Vb, Vc, Ia, Ib, Ic</td> </tr> <tr> <td><b>VB</b></td> <td>Point mode: Shift between Ia+Va, Ib+Vb, Ic+Vc, Pa, Pb, Pc</td> </tr> <tr> <td rowspan="2">F5</td> <td><b>HOLD</b></td> <td>Freeze the data acquisition.</td> </tr> <tr> <td><b>LIVE</b></td> <td>Change to showing live data.</td> </tr> </table>	F1	<b>LOG</b>	Change Y axis from linear to log scale.	F2	<b>SHOW FIRST</b>	Show the 1 <sup>st</sup> harmonic (fundamental) so that the display can auto-scale to show more vertical detail.	<b>HIDE 1ST</b>	Hide the 1 <sup>st</sup> harmonic (fundamental).	F3	<b>POINTS</b>	Change from a Columns display to a Points display.	<b>COLUMNS</b>	Change from a Points display to a Columns display.	F4	<b>VA</b>	Column mode: Shift between Va, Vb, Vc, Ia, Ib, Ic	<b>VB</b>	Point mode: Shift between Ia+Va, Ib+Vb, Ic+Vc, Pa, Pb, Pc	F5	<b>HOLD</b>	Freeze the data acquisition.	<b>LIVE</b>	Change to showing live data.
F1	<b>LOG</b>	Change Y axis from linear to log scale.																						
F2	<b>SHOW FIRST</b>	Show the 1 <sup>st</sup> harmonic (fundamental) so that the display can auto-scale to show more vertical detail.																						
	<b>HIDE 1ST</b>	Hide the 1 <sup>st</sup> harmonic (fundamental).																						
F3	<b>POINTS</b>	Change from a Columns display to a Points display.																						
	<b>COLUMNS</b>	Change from a Points display to a Columns display.																						
F4	<b>VA</b>	Column mode: Shift between Va, Vb, Vc, Ia, Ib, Ic																						
	<b>VB</b>	Point mode: Shift between Ia+Va, Ib+Vb, Ic+Vc, Pa, Pb, Pc																						
F5	<b>HOLD</b>	Freeze the data acquisition.																						
	<b>LIVE</b>	Change to showing live data.																						
 <p>Voltage B and Current B, linear display with 1st harmonic suppressed in "dots" mode.</p>	<p>Press  to return to the previous screen.</p>																							



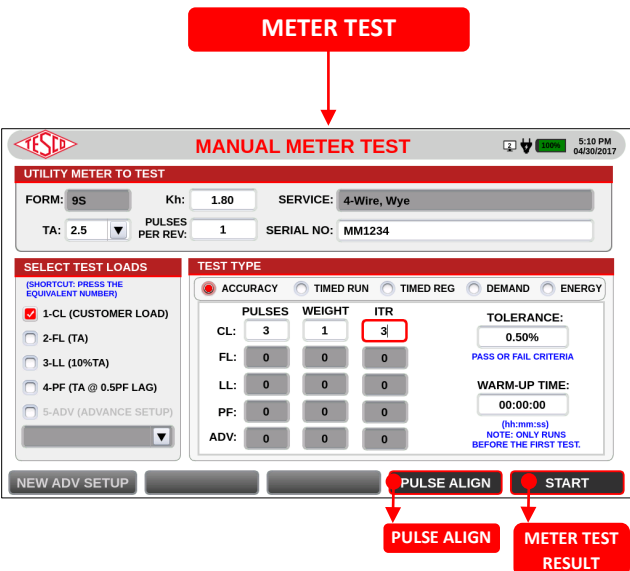

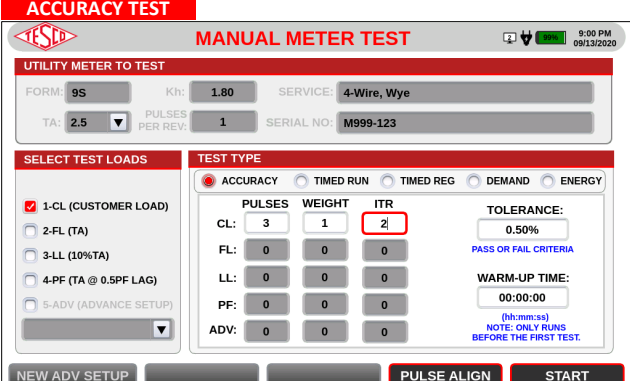
### 3.3.3 Main Menu

SCREEN	DESCRIPTION																					
	<p>The MAIN MENU contains the core functions of the device. A site can be selected using the SITE dropdown box. Clicking the GPS LOCATE button will narrow the choices for SITE to those at the current GPS location.</p> <p>If only one <b>site</b> is found, that <b>site</b> will be loaded. If the correct <b>site</b> is not found, then you have a choice of going to the DATABASE and creating a <b>site</b> or testing in MANUAL mode.</p> <p>If no site is selected, then tests can be performed in MANUAL mode, but data cannot be saved to the results database.</p> <p><b>KEYPAD &amp; FUNCTION KEYS:</b></p> <table border="1" data-bbox="836 577 1461 850"> <tr> <td>F1</td> <td><b>MANUAL</b></td> <td>Perform Meter Test, CT Test, or Pulse Alignment Check</td> </tr> <tr> <td>F2</td> <td><b>SEQUENCE</b></td> <td>Perform a test sequence</td> </tr> <tr> <td>F3</td> <td><b>DATABASE</b></td> <td> <ul style="list-style-type: none"> <li>Create/View/Edit information in the database: sites, test results, data library, and test sequences</li> </ul> </td> </tr> <tr> <td>F4</td> <td><b>PREFERENCES</b></td> <td>Open the PREFERENCES MENU screen</td> </tr> <tr> <td>F5</td> <td><b>SYSTEM</b></td> <td>Open the SYSTEM MENU screen</td> </tr> </table> <p>Press  to return to the previous screen.</p> <p><b>DATA</b></p> <table border="1" data-bbox="836 955 1461 1113"> <tr> <td><b>SITE</b></td> <td>Choose an existing site configuration.</td> </tr> <tr> <td><b>FORM</b></td> <td>Meter form, will be loaded automatically if site is selected</td> </tr> <tr> <td><b>SERVICE</b></td> <td>Services/wiring configurations available for selected meter form. This will be loaded automatically if a site is selected.</td> </tr> </table>	F1	<b>MANUAL</b>	Perform Meter Test, CT Test, or Pulse Alignment Check	F2	<b>SEQUENCE</b>	Perform a test sequence	F3	<b>DATABASE</b>	<ul style="list-style-type: none"> <li>Create/View/Edit information in the database: sites, test results, data library, and test sequences</li> </ul>	F4	<b>PREFERENCES</b>	Open the PREFERENCES MENU screen	F5	<b>SYSTEM</b>	Open the SYSTEM MENU screen	<b>SITE</b>	Choose an existing site configuration.	<b>FORM</b>	Meter form, will be loaded automatically if site is selected	<b>SERVICE</b>	Services/wiring configurations available for selected meter form. This will be loaded automatically if a site is selected.
F1	<b>MANUAL</b>	Perform Meter Test, CT Test, or Pulse Alignment Check																				
F2	<b>SEQUENCE</b>	Perform a test sequence																				
F3	<b>DATABASE</b>	<ul style="list-style-type: none"> <li>Create/View/Edit information in the database: sites, test results, data library, and test sequences</li> </ul>																				
F4	<b>PREFERENCES</b>	Open the PREFERENCES MENU screen																				
F5	<b>SYSTEM</b>	Open the SYSTEM MENU screen																				
<b>SITE</b>	Choose an existing site configuration.																					
<b>FORM</b>	Meter form, will be loaded automatically if site is selected																					
<b>SERVICE</b>	Services/wiring configurations available for selected meter form. This will be loaded automatically if a site is selected.																					

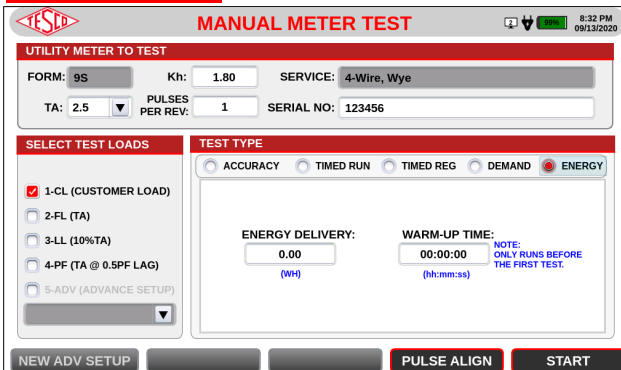
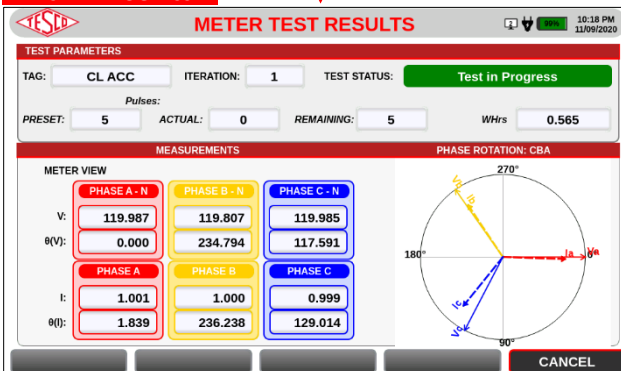
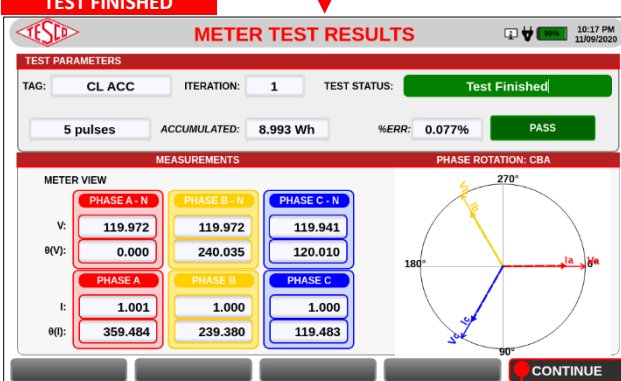
#### 3.3.3.1 Manual Mode

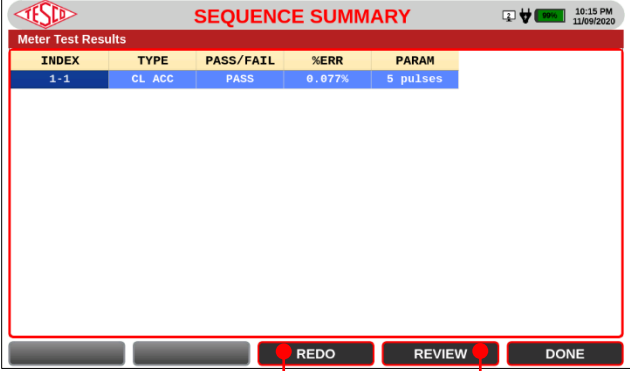
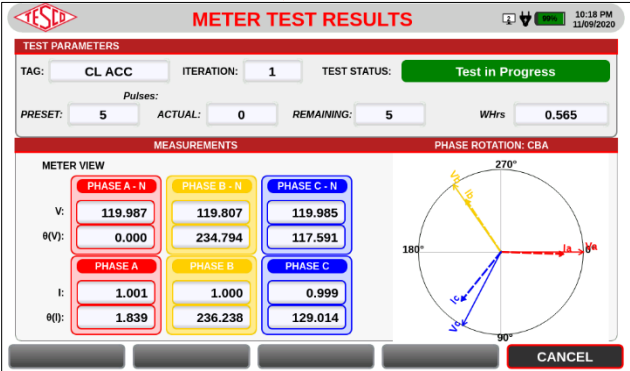
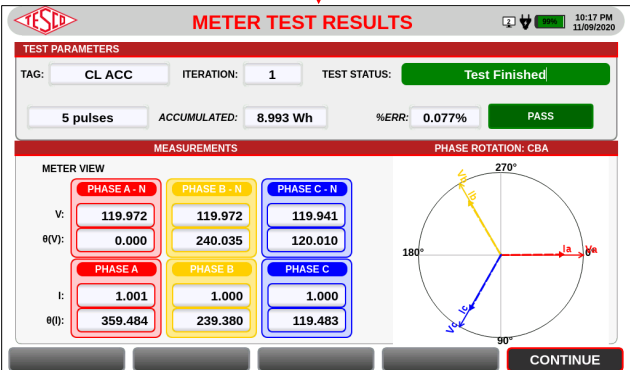
SCREEN	DESCRIPTION																					
	<p>Manual Mode allows testing without specifying a site or test sequence. If a <b>site</b> was selected on the MAIN MENU, then the information on this screen will automatically be filled in. If no SITE was selected, then one can be selected here, or just a meter form and service can be manually set.</p> <p><b>KEYPAD &amp; FUNCTION KEYS:</b></p> <table border="1" data-bbox="836 1375 1461 1638"> <tr> <td>F1</td> <td><b>MANUAL</b></td> <td>Perform a meter test.</td> </tr> <tr> <td>F2</td> <td><b>CT TEST</b></td> <td>Perform a CT test.</td> </tr> <tr> <td>F3</td> <td></td> <td></td> </tr> <tr> <td>F4</td> <td></td> <td></td> </tr> <tr> <td>F5</td> <td><b>PULSE ALIGN</b></td> <td>Perform to check pulse alignment. See section 3.3.2.1c Pulse Alignment Check for more information.</td> </tr> </table> <p>Press  to return to the previous screen.</p> <p><b>DATA</b></p> <table border="1" data-bbox="836 1711 1461 1879"> <tr> <td><b>SITE</b></td> <td>Choose an existing site configuration</td> </tr> <tr> <td><b>FORM</b></td> <td>Meter form, will be loaded automatically if site is selected</td> </tr> <tr> <td><b>SERVICE</b></td> <td>Services/wiring configurations available for selected meter form. This will be loaded automatically if a site is selected.</td> </tr> </table>	F1	<b>MANUAL</b>	Perform a meter test.	F2	<b>CT TEST</b>	Perform a CT test.	F3			F4			F5	<b>PULSE ALIGN</b>	Perform to check pulse alignment. See section 3.3.2.1c Pulse Alignment Check for more information.	<b>SITE</b>	Choose an existing site configuration	<b>FORM</b>	Meter form, will be loaded automatically if site is selected	<b>SERVICE</b>	Services/wiring configurations available for selected meter form. This will be loaded automatically if a site is selected.
F1	<b>MANUAL</b>	Perform a meter test.																				
F2	<b>CT TEST</b>	Perform a CT test.																				
F3																						
F4																						
F5	<b>PULSE ALIGN</b>	Perform to check pulse alignment. See section 3.3.2.1c Pulse Alignment Check for more information.																				
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<b>FORM</b>	Meter form, will be loaded automatically if site is selected																					
<b>SERVICE</b>	Services/wiring configurations available for selected meter form. This will be loaded automatically if a site is selected.																					

### 3.3.3.1a Meter Test

SCREEN	DESCRIPTION																																			
	<p>Perform a meter test to determine the accuracy of the meter under different loads.</p> <p><b>FUNCTION KEYS:</b></p> <table border="1" data-bbox="836 388 1461 661"> <tr> <td>F1</td> <td>NEW ADV SETUP</td> <td></td> </tr> <tr> <td>F2</td> <td></td> <td></td> </tr> <tr> <td>F3</td> <td></td> <td></td> </tr> <tr> <td>F4</td> <td>PULSE ALIGN</td> <td>Perform to check pulse alignment. See section 3.3.2.1c Pulse Alignment Check for more information.</td> </tr> <tr> <td>F5</td> <td>START</td> <td>Start the manual meter test.</td> </tr> </table> <p>Press  to return to the previous screen.</p> <p><b>METER PARAMETERS</b></p> <table border="1" data-bbox="836 756 1461 1018"> <tr> <td>FORM</td> <td>Form number of the meter.</td> </tr> <tr> <td>Kh</td> <td>Meter test constant.</td> </tr> <tr> <td>SERVICE</td> <td>Services/wiring configurations available for selected meter form.</td> </tr> <tr> <td>TA</td> <td>Test amp of the meter.</td> </tr> <tr> <td>PULSES PER REV</td> <td>If a meter is configured to generate multiple pulses per Kh, then this is the number of pulses per Kh.</td> </tr> <tr> <td>SERIAL NUMBER</td> <td>Serial number of the meter. This is optional.</td> </tr> </table> <p><b>TEST LOADS</b> Customer voltage is used for all tests.</p> <table border="1" data-bbox="836 1092 1461 1354"> <tr> <td>1-CL (CUSTOMER LOAD)</td> <td>Uses customer load where the site analyzer is measuring the voltage signal and the current signals from both the potential and the current transformers.</td> </tr> <tr> <td>2-FL (TA)</td> <td>Load box provided current of TA at PF=1.0 is used.</td> </tr> <tr> <td>3- LL (10%TA)</td> <td>Load box provided current of 10% TA at PF=1.0 is used.</td> </tr> <tr> <td>4- PF (TA @ 0.5PF LAG)</td> <td>Load box provided current of TA at PF=0.5 lagging is used.</td> </tr> </table>	F1	NEW ADV SETUP		F2			F3			F4	PULSE ALIGN	Perform to check pulse alignment. See section 3.3.2.1c Pulse Alignment Check for more information.	F5	START	Start the manual meter test.	FORM	Form number of the meter.	Kh	Meter test constant.	SERVICE	Services/wiring configurations available for selected meter form.	TA	Test amp of the meter.	PULSES PER REV	If a meter is configured to generate multiple pulses per Kh, then this is the number of pulses per Kh.	SERIAL NUMBER	Serial number of the meter. This is optional.	1-CL (CUSTOMER LOAD)	Uses customer load where the site analyzer is measuring the voltage signal and the current signals from both the potential and the current transformers.	2-FL (TA)	Load box provided current of TA at PF=1.0 is used.	3- LL (10%TA)	Load box provided current of 10% TA at PF=1.0 is used.	4- PF (TA @ 0.5PF LAG)	Load box provided current of TA at PF=0.5 lagging is used.
F1	NEW ADV SETUP																																			
F2																																				
F3																																				
F4	PULSE ALIGN	Perform to check pulse alignment. See section 3.3.2.1c Pulse Alignment Check for more information.																																		
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4- PF (TA @ 0.5PF LAG)	Load box provided current of TA at PF=0.5 lagging is used.																																			
	<p><b>TEST TYPE PARAMETERS</b></p> <p><b>A. ACCURACY TEST</b> Perform this test to determine a meter’s accuracy under one or more load conditions.</p> <p><b>PARAMETERS</b></p> <table border="1" data-bbox="836 1522 1461 1869"> <tr> <td>PULSES</td> <td>Sets the number of pulses that the test will be run. Different numbers of pulses can be set for different loading conditions.</td> </tr> <tr> <td>WEIGHT</td> <td>When the overall accuracy for the selected test is computed, a weighted average can be performed. To get the weighted average, the WEIGHT is multiplied by the %ERROR and the product summed over all tests. The result is divided by the total weight of tests performed.</td> </tr> <tr> <td>ITR</td> <td>Iteration of the selected test.</td> </tr> <tr> <td>TOLERANCE</td> <td>Tolerance needed for pass/fail criteria.</td> </tr> <tr> <td>WARM-UP TIME</td> <td>Period of time for meter to stabilize prior to test execution.</td> </tr> </table>	PULSES	Sets the number of pulses that the test will be run. Different numbers of pulses can be set for different loading conditions.	WEIGHT	When the overall accuracy for the selected test is computed, a weighted average can be performed. To get the weighted average, the WEIGHT is multiplied by the %ERROR and the product summed over all tests. The result is divided by the total weight of tests performed.	ITR	Iteration of the selected test.	TOLERANCE	Tolerance needed for pass/fail criteria.	WARM-UP TIME	Period of time for meter to stabilize prior to test execution.																									
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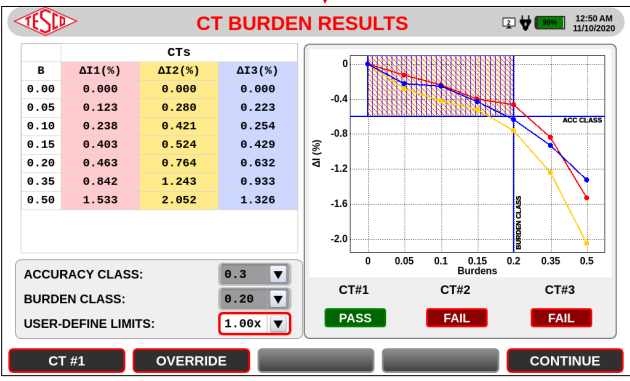












SCREEN	DESCRIPTION										
	<p><b>B. TIMED RUN TEST</b></p> <p>A timed run test is identical to an accuracy test except the minimum time for the test is set. The actual measurement still starts and ends based on the meter pulses.</p> <p><b>PARAMETERS</b></p> <table border="1"> <tr> <td><b>TEST DURATION</b></td> <td>Set the test duration.</td> </tr> <tr> <td><b>ITERATIONS</b></td> <td>Number of times the test will be repeated</td> </tr> <tr> <td><b>TOLERANCE</b></td> <td>Tolerance used for pass/fail criteria.</td> </tr> <tr> <td><b>WARM-UP TIME</b></td> <td>Time for meter to stabilize prior to test execution.</td> </tr> </table>	<b>TEST DURATION</b>	Set the test duration.	<b>ITERATIONS</b>	Number of times the test will be repeated	<b>TOLERANCE</b>	Tolerance used for pass/fail criteria.	<b>WARM-UP TIME</b>	Time for meter to stabilize prior to test execution.		
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	<p><b>C. TIMED REGISTER TEST</b></p> <p>This test prompts the user for the meter’s primary register value and runs a test for a predefined duration. Then, it prompts the user again for the meter’s primary register value. The system computes the meter’s registration using the difference of the two values.</p> <p><b>Note:</b> Use caution that the accuracy of the test is not limited by the resolution of the meter readout.</p> <p><b>PARAMETERS</b></p> <table border="1"> <tr> <td><b>TEST DURATION</b></td> <td>Set the test duration.</td> </tr> <tr> <td><b>ITERATIONS</b></td> <td>Number of times the test will be repeated</td> </tr> <tr> <td><b>TOLERANCE</b></td> <td>Tolerance used for pass/fail criteria.</td> </tr> <tr> <td><b>WARM-UP TIME</b></td> <td>Time for meter to stabilize prior to test execution.</td> </tr> </table>	<b>TEST DURATION</b>	Set the test duration.	<b>ITERATIONS</b>	Number of times the test will be repeated	<b>TOLERANCE</b>	Tolerance used for pass/fail criteria.	<b>WARM-UP TIME</b>	Time for meter to stabilize prior to test execution.		
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	<p><b>D. DEMAND TEST</b></p> <p>The demand interval must be set to the same interval as the meter under test. For this test to work correctly you must be able to reset the demand register of the meter. The meter’s demand must continually show the interval demand.</p> <p><b>PARAMETERS</b></p> <table border="1"> <tr> <td><b>INTERVAL</b></td> <td>Set the interval of meter.</td> </tr> <tr> <td><b>SUB-INTERVAL</b></td> <td>Set the sub-interval for the demand test.</td> </tr> <tr> <td><b>ITERATIONS</b></td> <td>Number of times the test will be repeated</td> </tr> <tr> <td><b>TOLERANCE</b></td> <td>Tolerance needed for pass/fail criteria.</td> </tr> <tr> <td><b>WARM-UP TIME</b></td> <td>Time for meter to stabilize prior to test execution.</td> </tr> </table>	<b>INTERVAL</b>	Set the interval of meter.	<b>SUB-INTERVAL</b>	Set the sub-interval for the demand test.	<b>ITERATIONS</b>	Number of times the test will be repeated	<b>TOLERANCE</b>	Tolerance needed for pass/fail criteria.	<b>WARM-UP TIME</b>	Time for meter to stabilize prior to test execution.
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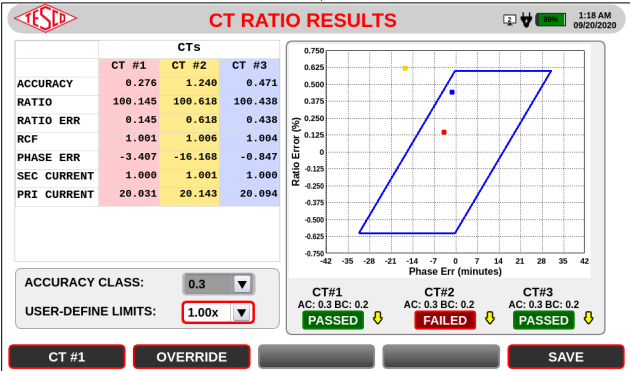
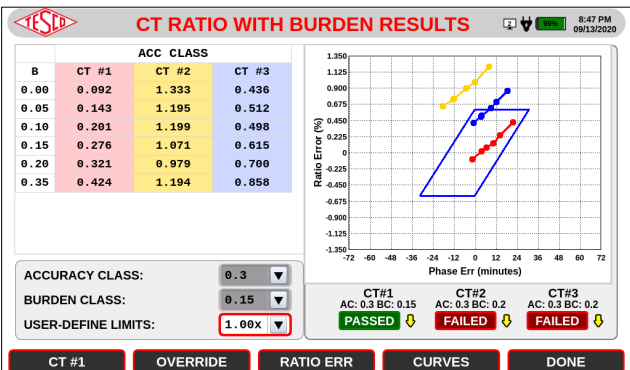
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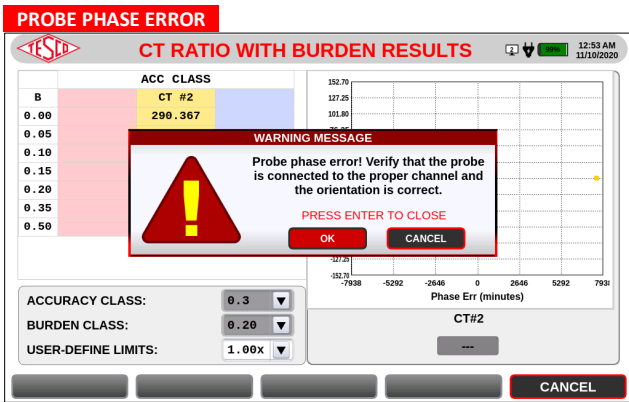
### 3.3.3.1b CT Testing

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<b>RATIO TEST WITH ADDED BURDEN</b>	The Ratio with Burden test is the most accurate test of the performance of a CT. Both primary and secondary of the CT are simultaneously measured. From these measurements we can calculate many CT parameters such as accuracy class, RCF, ratio error and phase error. This test <b>does</b> require a current probe, such as a Rogowski coil, connected to the primary of the transformer.																																							
<b>ADMITTANCE</b>	An admittance test injects a 1575 Hz signal into the secondary of a CT and measures the response to determine the admittance of the CT. The value you measure depends somewhat on the primary wiring and circuit characteristics. However, these effects do not generally change over time. Therefore, the real value of an admittance test is that one can do the hard job of making a Ratio with Burden test once, and then make an admittance test on the known good site. Later one can just measure admittance to see if anything on the site has changed.																																							
F1	<b>DEMAG</b>	Demagnetize all CTs.																																						
F2																																								
F3																																								
F4																																								
F5	<b>START</b>	Start test.																																						
<b>MANUFACTURER</b>	Manufacturer name																																							
<b>MODEL</b>	Model number/code																																							
<b>SERIAL NO.</b>	Serial number																																							
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<b>MAX TEST BURDEN</b>	Max burden allowed for the CT																																							

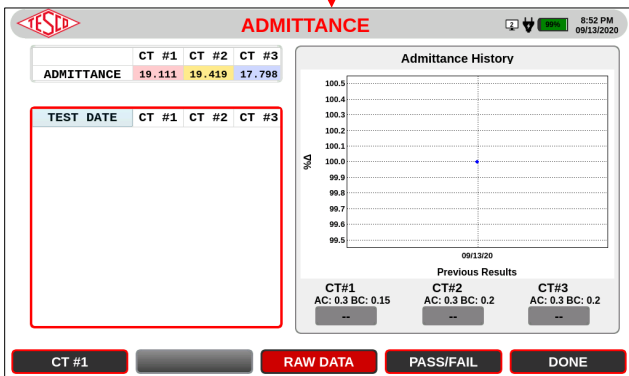
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Soft keys provide many different ways of looking at the test data.</p> <p>The test on each CT will <b>PASS</b> if:</p> <ul style="list-style-type: none"> <li>Measured current falls within the specified accuracy region (in a Burden Test) or inside the parallelogram (in a Ratio Test) even at low current</li> </ul> <p>The test on each CT will <b>FAIL</b> if:</p> <ul style="list-style-type: none"> <li>Current is below minimum or above maximum current of CT</li> <li>Measured current is beyond the specified accuracy region (in a Burden Test) or outside the parallelogram (in a Ratio Test)</li> </ul> <p><b>CT TEST RESULTS ICONS</b></p> <table border="1" style="font-size: small;"> <tr> <td style="text-align: center;"></td> <td>Secondary current is above <math>RF * 5A</math>. Accuracy is not specified above this point. 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**ADMITTANCE**



F4	<b>CURVES</b>	Label changes depending on what view you are in. In CURVES view, it shows PARALLELOGRAM and changes to PARALLELOGRAM plot when pressed.
F5	<b>DONE</b>	DONE or SAVE will be available depending on whether a site has been selected.
	<b>SAVE</b>	

**DATA**

B	Burden resistance
$\Delta I$ (%)	Measured current
ACCURACY CLASS	Accuracy class of CT
BURDEN CLASS	Burden class of CT
USER-DEFINE LIMITS	Extended range of accuracy class

**ADMITTANCE TEST**


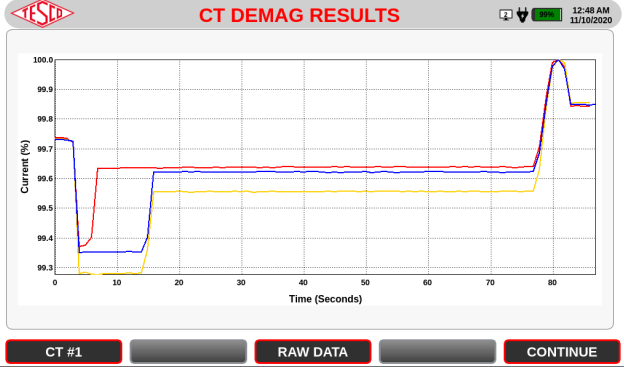
An admittance test injects a signal into the secondary of a CT and measures the response to determine the admittance of the CT. The user can manually PASS/FAIL a CT based on the user's standard.

**KEYPAD & FUNCTION KEYS**


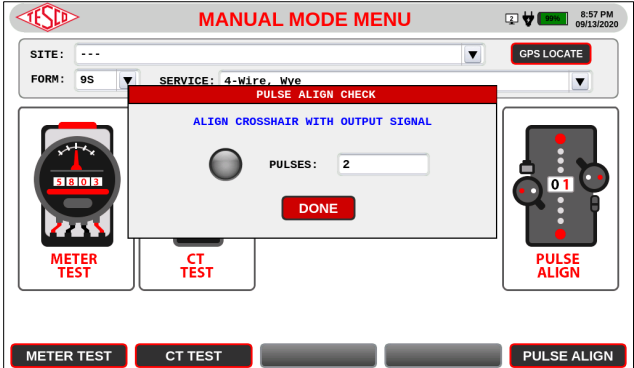
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	<b>CT #1</b>	
	<b>CT #2</b>	
	<b>CT #3</b>	
F2		
F3	<b>RAW DATA</b>	Show numerical/actual data.
F4	<b>PASS/FAIL</b>	Manually PASS/ FAIL a CT or all CTs.
F5	<b>DONE</b>	Return to CT Test Setup.

**TEST PARAMETERS**

TEST DATE	Date and time when test was performed
CT #N	Show test result of CT #N, where N is the CT number

SCREEN	DESCRIPTION													
<div style="text-align: center; margin-bottom: 10px;"> <span style="background-color: red; color: white; padding: 5px 15px; border-radius: 5px; font-weight: bold;">DEMAG</span>   </div> 	<p><b>DEMAGNETIZATION TEST</b> Demagnetize all CTs. Current transformer demagnetization is done by gradually increasing the secondary resistance from low to high then from high to low at a consistent rate.</p> <p><b>KEYPAD &amp; FUNCTION KEYS</b></p> <table border="1" data-bbox="837 411 1463 800"> <tr> <td style="text-align: center;">F1</td> <td style="text-align: center;"> <div style="background-color: black; color: white; padding: 2px 10px; border-radius: 5px; font-weight: bold;">ALL</div> <div style="background-color: black; color: white; padding: 2px 10px; border-radius: 5px; font-weight: bold;">CT #1</div> <div style="background-color: black; color: white; padding: 2px 10px; border-radius: 5px; font-weight: bold;">CT #2</div> <div style="background-color: black; color: white; padding: 2px 10px; border-radius: 5px; font-weight: bold;">CT #3</div> </td> <td rowspan="4" style="vertical-align: top; padding: 5px;">Shift between different display modes. Either one CT at a time or multiple CTs. Only the available CTs are shown.</td> </tr> <tr> <td style="text-align: center;">F2</td> <td style="background-color: gray; width: 100px;"></td> </tr> <tr> <td style="text-align: center;">F3</td> <td style="text-align: center;"> <div style="background-color: black; color: white; padding: 2px 10px; border-radius: 5px; font-weight: bold;">RAW DATA</div> </td> <td style="vertical-align: top; padding: 5px;">Show numerical/actual data.</td> </tr> <tr> <td style="text-align: center;">F4</td> <td style="background-color: gray; width: 100px;"></td> </tr> <tr> <td style="text-align: center;">F5</td> <td style="text-align: center;"> <div style="background-color: black; color: white; padding: 2px 10px; border-radius: 5px; font-weight: bold;">CONTINUE</div> </td> <td style="vertical-align: top; padding: 5px;">Returns to CT TEST SETUP screen.</td> </tr> </table>	F1	<div style="background-color: black; color: white; padding: 2px 10px; border-radius: 5px; font-weight: bold;">ALL</div> <div style="background-color: black; color: white; padding: 2px 10px; border-radius: 5px; font-weight: bold;">CT #1</div> <div style="background-color: black; color: white; padding: 2px 10px; border-radius: 5px; font-weight: bold;">CT #2</div> <div style="background-color: black; color: white; padding: 2px 10px; border-radius: 5px; font-weight: bold;">CT #3</div>	Shift between different display modes. Either one CT at a time or multiple CTs. Only the available CTs are shown.	F2		F3	<div style="background-color: black; color: white; padding: 2px 10px; border-radius: 5px; font-weight: bold;">RAW DATA</div>	Show numerical/actual data.	F4		F5	<div style="background-color: black; color: white; padding: 2px 10px; border-radius: 5px; font-weight: bold;">CONTINUE</div>	Returns to CT TEST SETUP screen.
F1	<div style="background-color: black; color: white; padding: 2px 10px; border-radius: 5px; font-weight: bold;">ALL</div> <div style="background-color: black; color: white; padding: 2px 10px; border-radius: 5px; font-weight: bold;">CT #1</div> <div style="background-color: black; color: white; padding: 2px 10px; border-radius: 5px; font-weight: bold;">CT #2</div> <div style="background-color: black; color: white; padding: 2px 10px; border-radius: 5px; font-weight: bold;">CT #3</div>	Shift between different display modes. Either one CT at a time or multiple CTs. Only the available CTs are shown.												
F2														
F3	<div style="background-color: black; color: white; padding: 2px 10px; border-radius: 5px; font-weight: bold;">RAW DATA</div>		Show numerical/actual data.											
F4														
F5	<div style="background-color: black; color: white; padding: 2px 10px; border-radius: 5px; font-weight: bold;">CONTINUE</div>	Returns to CT TEST SETUP screen.												

### 3.3.3.1c Pulse Alignment Check

SCREEN	DESCRIPTION				
<div style="text-align: center; margin-bottom: 10px;"> <span style="background-color: red; color: white; padding: 5px 15px; border-radius: 5px; font-weight: bold;">PULSE ALIGN</span>   </div> 	<p>This will apply voltage and current to the meter so that the optical probe can be aligned with the meter's pulse output. Before performing a pulse alignment check, make sure that the optical pickup (1037-SA) is attached to the meter.</p> <p><b>FUNCTION KEYS</b></p> <table border="1" data-bbox="837 1268 1463 1318"> <tr> <td style="text-align: center;"> <div style="background-color: black; color: white; padding: 2px 10px; border-radius: 5px; font-weight: bold;">DONE</div> </td> <td style="padding: 5px;">Close the pop-up screen</td> </tr> </table> <p><b>DATA</b></p> <table border="1" data-bbox="837 1367 1463 1398"> <tr> <td style="text-align: center;">PULSES</td> <td style="padding: 5px;">Pulse count</td> </tr> </table>	<div style="background-color: black; color: white; padding: 2px 10px; border-radius: 5px; font-weight: bold;">DONE</div>	Close the pop-up screen	PULSES	Pulse count
<div style="background-color: black; color: white; padding: 2px 10px; border-radius: 5px; font-weight: bold;">DONE</div>	Close the pop-up screen				
PULSES	Pulse count				


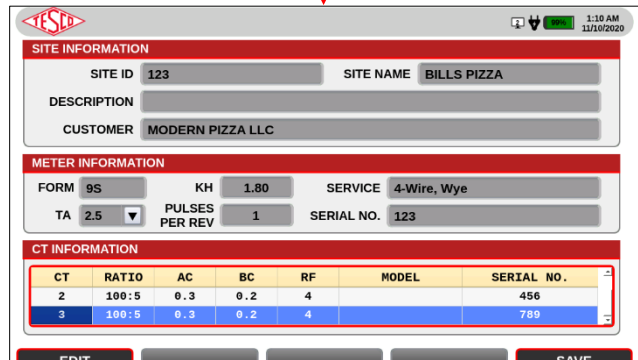

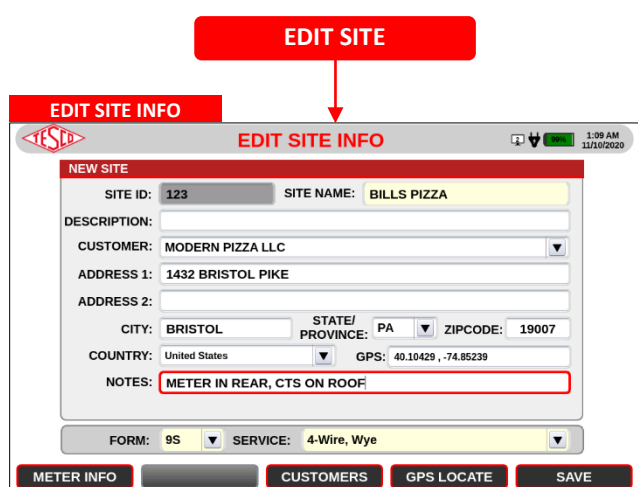
### 3.3.3.2 Sequence Testing

SCREEN	DESCRIPTION															
	<p>Sequence testing is performed when there is more than one type of test to execute. In this test, a sequence must be selected and</p> <p>To know how to perform a Sequence Test, proceed to section <b>4.3 Sequence Test</b>.</p> <p><b>KEYPAD &amp; FUNCTION KEYS</b></p> <table border="1"> <tr><td>F1</td><td></td><td></td></tr> <tr><td>F2</td><td></td><td></td></tr> <tr><td>F3</td><td></td><td></td></tr> <tr><td>F4</td><td></td><td></td></tr> <tr><td>F5</td><td><b>RUN</b></td><td>Start sequence testing.</td></tr> </table>	F1			F2			F3			F4			F5	<b>RUN</b>	Start sequence testing.
F1																
F2																
F3																
F4																
F5	<b>RUN</b>	Start sequence testing.														
	<p><b>DATA</b></p> <p>All data is taken from the SITE data records. A SITE must be selected before a TEST SEQUENCE can be run. All boxes on this form are read-only except SEQUENCE and the ENA fields.</p> <table border="1"> <tr><td><b>SEQUENCE NAME</b></td><td>Sequences available for selected meter form and service.</td></tr> <tr><td><b>TOLERANCE</b></td><td>Tolerance for the pass or fail criteria.</td></tr> <tr><td><b>TA</b></td><td>Test amps (RMS of a full load test).</td></tr> <tr><td><b>SERVICE</b></td><td>Services/wiring configurations available for selected meter form.</td></tr> <tr><td><b>ENA</b></td><td>Toggle to select or deselect a test.</td></tr> <tr><td><b>TAG</b></td><td>Alias or brief description of the test.</td></tr> <tr><td><b>TEST DESCRIPTION</b></td><td>Type of test available for the sequence.</td></tr> </table>	<b>SEQUENCE NAME</b>	Sequences available for selected meter form and service.	<b>TOLERANCE</b>	Tolerance for the pass or fail criteria.	<b>TA</b>	Test amps (RMS of a full load test).	<b>SERVICE</b>	Services/wiring configurations available for selected meter form.	<b>ENA</b>	Toggle to select or deselect a test.	<b>TAG</b>	Alias or brief description of the test.	<b>TEST DESCRIPTION</b>	Type of test available for the sequence.	
<b>SEQUENCE NAME</b>	Sequences available for selected meter form and service.															
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<b>ENA</b>	Toggle to select or deselect a test.															
<b>TAG</b>	Alias or brief description of the test.															
<b>TEST DESCRIPTION</b>	Type of test available for the sequence.															
	<p><b>SITE SCAN</b></p> <p>Voltages and currents are scanned and evaluated to see if they match the site configuration specified.</p> <p><b>KEYPAD &amp; FUNCTION KEYS</b></p> <table border="1"> <tr><td>F1</td><td><b>PRIMARY</b></td><td>Switch showing between primary and secondary current readings.</td></tr> <tr><td>F2</td><td></td><td></td></tr> <tr><td>F3</td><td></td><td></td></tr> <tr><td>F4</td><td></td><td></td></tr> <tr><td>F5</td><td><b>CONTINUE</b></td><td>Proceed to the next test in the sequence.</td></tr> </table> <p>For more information on the tests, refer to section <b>3.3.2.1a Meter Test</b> and <b>3.3.2.1b CT Test</b>.</p>	F1	<b>PRIMARY</b>	Switch showing between primary and secondary current readings.	F2			F3			F4			F5	<b>CONTINUE</b>	Proceed to the next test in the sequence.
F1	<b>PRIMARY</b>	Switch showing between primary and secondary current readings.														
F2																
F3																
F4																
F5	<b>CONTINUE</b>	Proceed to the next test in the sequence.														

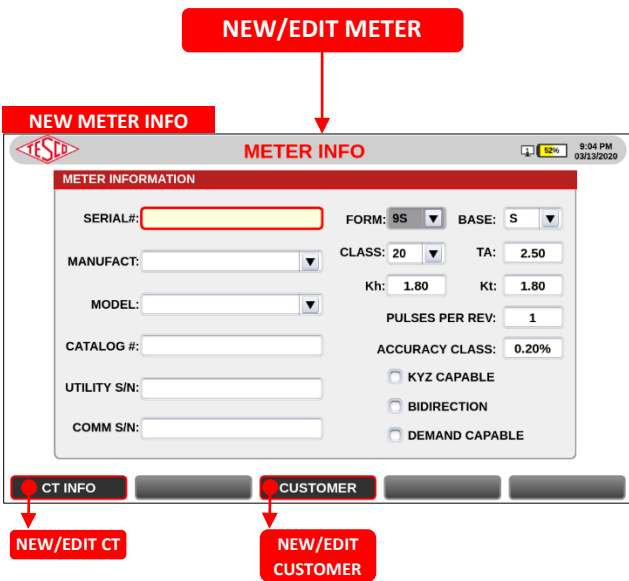

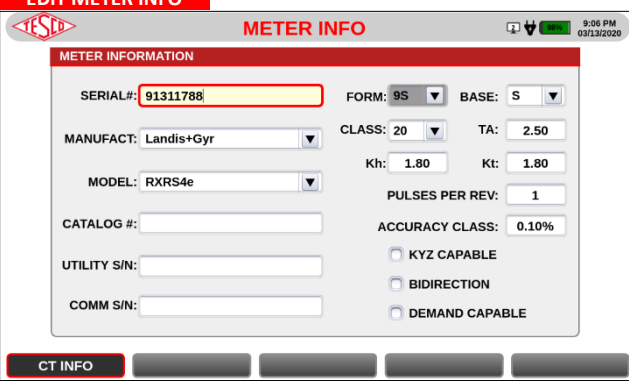
### 3.3.3.3 Database

SCREEN	DESCRIPTION																																											
	<p>This contains information on sites registered in the Site Analyzer. The user can create a new site and edit an existing record. Aside from the site, the user can also create and edit Meter, CT, and Customer information per site.</p> <p>The database also shows test results from Meter and CT tests. Do note that these test results were able to be saved because a site was selected prior to performing the test. To edit a site or view the test results, a site must be selected first.</p> <p><b>KEYPAD &amp; FUNCTION KEYS:</b></p> <table border="1"> <tr> <td>F1</td> <td><b>NEW SITE</b></td> <td>Create new site information. This also includes creating and editing information on meter, CT, and customer.</td> </tr> <tr> <td>F2</td> <td><b>EDIT SITE</b></td> <td>Edit information of a site, meter, CT, and customer. This will be enabled once a site is selected.</td> </tr> <tr> <td>F3</td> <td><b>TEST RESULTS</b></td> <td>View test results on meter, CT, and PT tests. This will be enabled once a site is selected.</td> </tr> <tr> <td>F4</td> <td><b>DATA LIBRARY</b></td> <td>View/Create/Edit information on meter, CT, and PT.</td> </tr> <tr> <td>F5</td> <td><b>TEST SEQUENCES</b></td> <td>View/Create/Edit test sequences.</td> </tr> </table> <p>Press  to return to the previous screen.</p> <p><b>DATA</b></p> <table border="1"> <tr> <td>SEARCH SITE</td> <td>Enter characters to search for a site</td> </tr> <tr> <td>SITE ID</td> <td>ID of site</td> </tr> <tr> <td>SITE NAME</td> <td>Name of site</td> </tr> <tr> <td>DESCRIPTION</td> <td>Description about site</td> </tr> <tr> <td>CUSTOMER</td> <td>Choose customer</td> </tr> <tr> <td>ADDRESS 1</td> <td>Location of site</td> </tr> <tr> <td>ADDRESS 2</td> <td>Location of site</td> </tr> <tr> <td>CITY</td> <td>City where site is located</td> </tr> <tr> <td>STATE/PROVINCE</td> <td>State/Province where site is located</td> </tr> <tr> <td>ZIPCODE</td> <td>Zip code of the local address</td> </tr> <tr> <td>COUNTRY</td> <td>Country where site is located</td> </tr> <tr> <td>GPS</td> <td>Automatically fill in using GPS Locate</td> </tr> <tr> <td>NOTES</td> <td>Additional information about the site</td> </tr> <tr> <td>SELECTED SITE</td> <td>Displays name of the selected site to edit</td> </tr> </table>	F1	<b>NEW SITE</b>	Create new site information. This also includes creating and editing information on meter, CT, and customer.	F2	<b>EDIT SITE</b>	Edit information of a site, meter, CT, and customer. This will be enabled once a site is selected.	F3	<b>TEST RESULTS</b>	View test results on meter, CT, and PT tests. This will be enabled once a site is selected.	F4	<b>DATA LIBRARY</b>	View/Create/Edit information on meter, CT, and PT.	F5	<b>TEST SEQUENCES</b>	View/Create/Edit test sequences.	SEARCH SITE	Enter characters to search for a site	SITE ID	ID of site	SITE NAME	Name of site	DESCRIPTION	Description about site	CUSTOMER	Choose customer	ADDRESS 1	Location of site	ADDRESS 2	Location of site	CITY	City where site is located	STATE/PROVINCE	State/Province where site is located	ZIPCODE	Zip code of the local address	COUNTRY	Country where site is located	GPS	Automatically fill in using GPS Locate	NOTES	Additional information about the site	SELECTED SITE	Displays name of the selected site to edit
F1	<b>NEW SITE</b>	Create new site information. This also includes creating and editing information on meter, CT, and customer.																																										
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GPS	Automatically fill in using GPS Locate																																											
NOTES	Additional information about the site																																											
SELECTED SITE	Displays name of the selected site to edit																																											

### 3.3.3.3a New/Edit Site

SCREEN	DESCRIPTION																																											
<div style="text-align: center; margin-bottom: 10px;"> <span style="background-color: red; color: white; padding: 5px 15px; font-weight: bold;">NEW SITE</span> </div>  <div style="margin-top: 20px;">  </div>	<p><b>NEW/EDIT SITE</b></p> <p>Create new site information. Fill out the information and save it in the database. If the site info is for editing, the fields will be filled with pre-saved information of that site and the user can make changes.</p> <p><b>KEYPAD &amp; FUNCTION KEYS:</b></p> <table border="1" data-bbox="836 493 1461 787"> <tr> <td>F1</td> <td><b>METER INFO</b></td> <td>Open the METER INFO screen to create or edit meter information.</td> </tr> <tr> <td>F2</td> <td></td> <td></td> </tr> <tr> <td>F3</td> <td><b>CUSTOMERS</b></td> <td>Open the CUSTOMERS screen to view, edit, and create customer information.</td> </tr> <tr> <td>F4</td> <td><b>GPS LOCATE</b></td> <td>Obtain GPS coordinates of the Site Analyzer.</td> </tr> <tr> <td>F5</td> <td><b>SAVE</b></td> <td>Save site information. Proceeds to Site Information Database afterwards.</td> </tr> </table> <p>Press  to return to the previous screen.</p> <p><b>DATA</b></p> <table border="1" data-bbox="836 913 1461 1291"> <thead> <tr> <th>SITE ID</th> <td>ID of site</td> </tr> </thead> <tbody> <tr> <td>SITE NAME</td> <td>Name of site</td> </tr> <tr> <td>DESCRIPTION</td> <td>Description about site</td> </tr> <tr> <td>CUSTOMER</td> <td>Choose customer</td> </tr> <tr> <td>ADDRESS 1</td> <td>Location of site</td> </tr> <tr> <td>ADDRESS 2</td> <td>Location of site</td> </tr> <tr> <td>CITY</td> <td>City where site is located</td> </tr> <tr> <td>STATE/PROVINCE</td> <td>State/Province where site is located</td> </tr> <tr> <td>ZIPCODE</td> <td>Zip code of the local address</td> </tr> <tr> <td>COUNTRY</td> <td>Country where site is located</td> </tr> <tr> <td>GPS</td> <td>Automatically fill in using GPS Locate</td> </tr> <tr> <td>NOTES</td> <td>Additional information about the site</td> </tr> <tr> <td>FORM</td> <td>Meter form associated with the site.</td> </tr> <tr> <td>SERVICE</td> <td>Service and CT/PT configuration.</td> </tr> </tbody> </table> <p><b>Note:</b> Highlighted data indicate required parameters.</p>	F1	<b>METER INFO</b>	Open the METER INFO screen to create or edit meter information.	F2			F3	<b>CUSTOMERS</b>	Open the CUSTOMERS screen to view, edit, and create customer information.	F4	<b>GPS LOCATE</b>	Obtain GPS coordinates of the Site Analyzer.	F5	<b>SAVE</b>	Save site information. Proceeds to Site Information Database afterwards.	SITE ID	ID of site	SITE NAME	Name of site	DESCRIPTION	Description about site	CUSTOMER	Choose customer	ADDRESS 1	Location of site	ADDRESS 2	Location of site	CITY	City where site is located	STATE/PROVINCE	State/Province where site is located	ZIPCODE	Zip code of the local address	COUNTRY	Country where site is located	GPS	Automatically fill in using GPS Locate	NOTES	Additional information about the site	FORM	Meter form associated with the site.	SERVICE	Service and CT/PT configuration.
F1	<b>METER INFO</b>	Open the METER INFO screen to create or edit meter information.																																										
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<div style="text-align: center; margin-bottom: 10px;"> <span style="background-color: red; color: white; padding: 5px 15px; font-weight: bold;">EDIT SITE</span> </div> 																																												

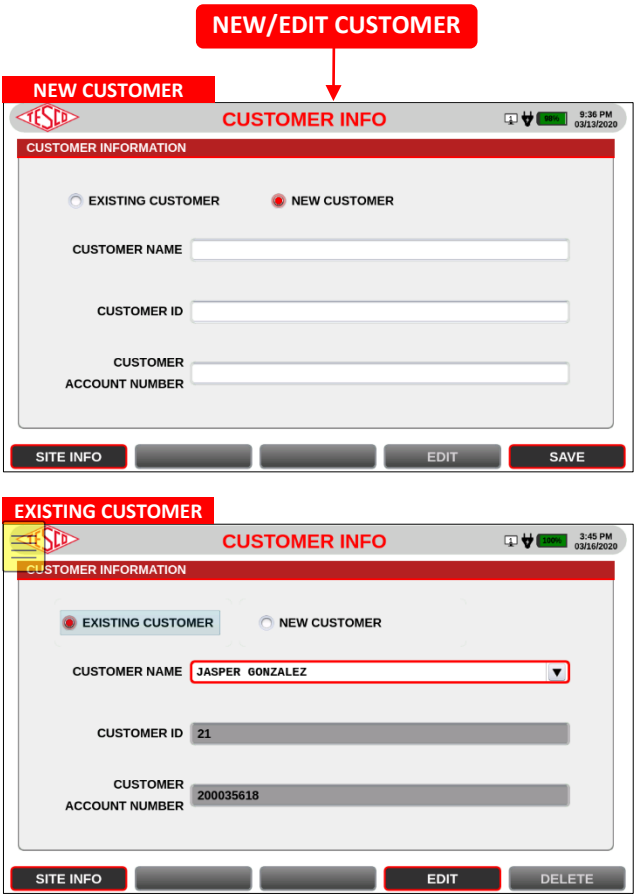

### 3.3.3.3b New/Edit Meter

SCREEN	DESCRIPTION																																		
	<p>Create new meter information. Fill out the information and save it in the database. If the existing meter info is for editing, the fields will be filled with pre-saved information of that meter and the user can make changes.</p> <p><b>KEYPAD &amp; FUNCTION KEYS:</b></p> <table border="1" data-bbox="836 430 1461 682"> <tr> <td>F1</td> <td><b>CT INFO</b></td> <td>Open the NEW CT screen to create new CT information</td> </tr> <tr> <td>F2</td> <td></td> <td></td> </tr> <tr> <td>F3</td> <td><b>CUSTOMER</b></td> <td>Open the CUSTOMERS screen to view, edit, and create customer information</td> </tr> <tr> <td>F4</td> <td></td> <td></td> </tr> <tr> <td>F5</td> <td></td> <td></td> </tr> </table> <p>Press  to return to the previous screen.</p>	F1	<b>CT INFO</b>	Open the NEW CT screen to create new CT information	F2			F3	<b>CUSTOMER</b>	Open the CUSTOMERS screen to view, edit, and create customer information	F4			F5																					
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F3	<b>CUSTOMER</b>	Open the CUSTOMERS screen to view, edit, and create customer information																																	
F4																																			
F5																																			
	<p><b>DATA</b></p> <table border="1" data-bbox="836 798 1461 1480"> <thead> <tr> <th>SERIAL #</th> <td>Serial number of the meter</td> </tr> </thead> <tbody> <tr> <td>MANUFACT</td> <td>Manufacturer's name</td> </tr> <tr> <td>MODEL</td> <td>Model number of the meter</td> </tr> <tr> <td>CATALOG #</td> <td>Catalog # of the meter</td> </tr> <tr> <td>UTILITY S/N</td> <td>Serial number provided by Utility (if applicable)</td> </tr> <tr> <td>COMM S/N</td> <td>Serial number of communication device (if applicable)</td> </tr> <tr> <td>FORM</td> <td>Form number of the meter (auto-populates the default Kh in the Kh field)</td> </tr> <tr> <td>BASE</td> <td>Meter base (S, K, A, etc...)</td> </tr> <tr> <td>CLASS</td> <td>Meter class (determines maximum current and auto-populates the default test amps in TA field)</td> </tr> <tr> <td>TA</td> <td>Test Amps (RMS of a full load test)</td> </tr> <tr> <td>Kh</td> <td>Meter Constant (Watt hours per revolution of disk)</td> </tr> <tr> <td>Kt</td> <td>Meter Test Constant (Watt hours per pulse) Kt = Kh / Pulses per revolution</td> </tr> <tr> <td>PULSES PER REV</td> <td>Number of pulses in every revolution of the disk. Integer &gt;= 1</td> </tr> <tr> <td>ACCURACY CLASS</td> <td>Accuracy class of the meter</td> </tr> <tr> <td>BIDERCTIONAL</td> <td>Select if meter has bidirectionality functionality</td> </tr> <tr> <td>KYZ</td> <td>Select if meter has KYZ functionality</td> </tr> <tr> <td>DEMAND CAPABLE</td> <td>Select if meter is capable of demand testing</td> </tr> </tbody> </table> <p><b>Note:</b> Highlighted data indicate required parameters. Fields with default values are required and must be set correctly if the default is not correct.</p>	SERIAL #	Serial number of the meter	MANUFACT	Manufacturer's name	MODEL	Model number of the meter	CATALOG #	Catalog # of the meter	UTILITY S/N	Serial number provided by Utility (if applicable)	COMM S/N	Serial number of communication device (if applicable)	FORM	Form number of the meter (auto-populates the default Kh in the Kh field)	BASE	Meter base (S, K, A, etc...)	CLASS	Meter class (determines maximum current and auto-populates the default test amps in TA field)	TA	Test Amps (RMS of a full load test)	Kh	Meter Constant (Watt hours per revolution of disk)	Kt	Meter Test Constant (Watt hours per pulse) Kt = Kh / Pulses per revolution	PULSES PER REV	Number of pulses in every revolution of the disk. Integer >= 1	ACCURACY CLASS	Accuracy class of the meter	BIDERCTIONAL	Select if meter has bidirectionality functionality	KYZ	Select if meter has KYZ functionality	DEMAND CAPABLE	Select if meter is capable of demand testing
SERIAL #	Serial number of the meter																																		
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Kt	Meter Test Constant (Watt hours per pulse) Kt = Kh / Pulses per revolution																																		
PULSES PER REV	Number of pulses in every revolution of the disk. Integer >= 1																																		
ACCURACY CLASS	Accuracy class of the meter																																		
BIDERCTIONAL	Select if meter has bidirectionality functionality																																		
KYZ	Select if meter has KYZ functionality																																		
DEMAND CAPABLE	Select if meter is capable of demand testing																																		

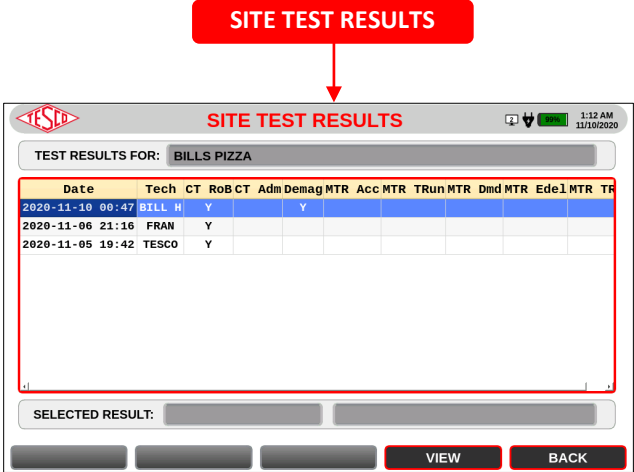



### 3.3.3.3c New/Edit CT

SCREEN	DESCRIPTION																													
<div style="text-align: center; margin-bottom: 20px;"> <span style="background-color: red; color: white; padding: 5px 10px; font-weight: bold;">NEW/EDIT CT</span>  </div> <div style="margin-bottom: 20px;"> <span style="background-color: red; color: white; padding: 5px 10px; font-weight: bold;">NEW/EDIT SITE</span> </div> <div> <span style="background-color: red; color: white; padding: 5px 10px; font-weight: bold;">EDIT CT</span>  </div>	<p><b>NEW CT</b></p> <p>Create new CT information. Fill out the information and save it in the database. A maximum of three (3) CTs can be added at a time. If the existing CT info is for editing, the fields will be filled with pre-saved information of that CT and the user can make changes and save them.</p> <p><b>KEYPAD &amp; FUNCTION KEYS:</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center; width: 5%;">F1</td> <td style="text-align: center; width: 20%;"><span style="background-color: black; color: white; padding: 2px 5px; font-weight: bold;">SITE INFO</span></td> <td style="width: 75%;">Open the SITE INFO screen to create or edit a site</td> </tr> <tr> <td style="text-align: center;">F2</td> <td style="text-align: center;"><span style="background-color: black; color: white; padding: 2px 5px; font-weight: bold;">COPY 1 TO ALL</span></td> <td>Copy information (except serial number) from CT #1 to other CTs.</td> </tr> <tr> <td style="text-align: center;">F3</td> <td style="text-align: center;">[Greyed out button]</td> <td></td> </tr> <tr> <td style="text-align: center;">F4</td> <td style="text-align: center;"><span style="background-color: grey; color: white; padding: 2px 5px; font-weight: bold;">CT LIBRARY</span></td> <td></td> </tr> <tr> <td style="text-align: center;">F5</td> <td style="text-align: center;">[Greyed out button]</td> <td></td> </tr> </table> <p>Press  to return to the previous screen.</p> <p><b>DATA</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #ffffcc;"> <th style="text-align: left; padding: 5px;">SERIAL NO</th> <th style="text-align: left; padding: 5px;">Serial number of the meter</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;"><b>MANUFACTURER</b></td> <td style="padding: 5px;">Manufacturer's name</td> </tr> <tr> <td style="padding: 5px;"><b>MODEL</b></td> <td style="padding: 5px;">Model number of the meter</td> </tr> <tr> <td style="padding: 5px;"><b>NAMEPLATE RATIO</b></td> <td style="padding: 5px;">Ratio of primary to secondary current</td> </tr> <tr> <td style="padding: 5px;"><b>RATING FACTOR</b></td> <td style="padding: 5px;">Rating factor of the CT</td> </tr> <tr> <td style="padding: 5px;"><b>ACCURACY CLASS</b></td> <td style="padding: 5px;">Accuracy class of the CT</td> </tr> <tr> <td style="padding: 5px;"><b>MAX TEST BURDEN</b></td> <td style="padding: 5px;">Maximum amount of burden</td> </tr> </tbody> </table> <p><b>Note:</b> Highlighted data indicate required parameters. Fields with default values are required and must be set correctly if the default is not correct.</p>	F1	<span style="background-color: black; color: white; padding: 2px 5px; font-weight: bold;">SITE INFO</span>	Open the SITE INFO screen to create or edit a site	F2	<span style="background-color: black; color: white; padding: 2px 5px; font-weight: bold;">COPY 1 TO ALL</span>	Copy information (except serial number) from CT #1 to other CTs.	F3	[Greyed out button]		F4	<span style="background-color: grey; color: white; padding: 2px 5px; font-weight: bold;">CT LIBRARY</span>		F5	[Greyed out button]		SERIAL NO	Serial number of the meter	<b>MANUFACTURER</b>	Manufacturer's name	<b>MODEL</b>	Model number of the meter	<b>NAMEPLATE RATIO</b>	Ratio of primary to secondary current	<b>RATING FACTOR</b>	Rating factor of the CT	<b>ACCURACY CLASS</b>	Accuracy class of the CT	<b>MAX TEST BURDEN</b>	Maximum amount of burden
F1	<span style="background-color: black; color: white; padding: 2px 5px; font-weight: bold;">SITE INFO</span>	Open the SITE INFO screen to create or edit a site																												
F2	<span style="background-color: black; color: white; padding: 2px 5px; font-weight: bold;">COPY 1 TO ALL</span>	Copy information (except serial number) from CT #1 to other CTs.																												
F3	[Greyed out button]																													
F4	<span style="background-color: grey; color: white; padding: 2px 5px; font-weight: bold;">CT LIBRARY</span>																													
F5	[Greyed out button]																													
SERIAL NO	Serial number of the meter																													
<b>MANUFACTURER</b>	Manufacturer's name																													
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<b>ACCURACY CLASS</b>	Accuracy class of the CT																													
<b>MAX TEST BURDEN</b>	Maximum amount of burden																													

### 3.3.3.3d New/Edit Customer

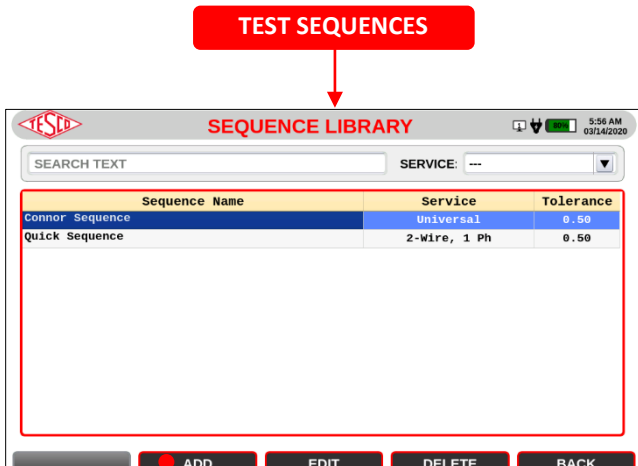

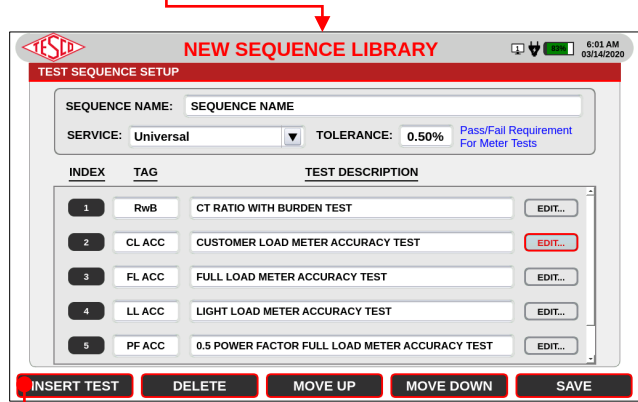
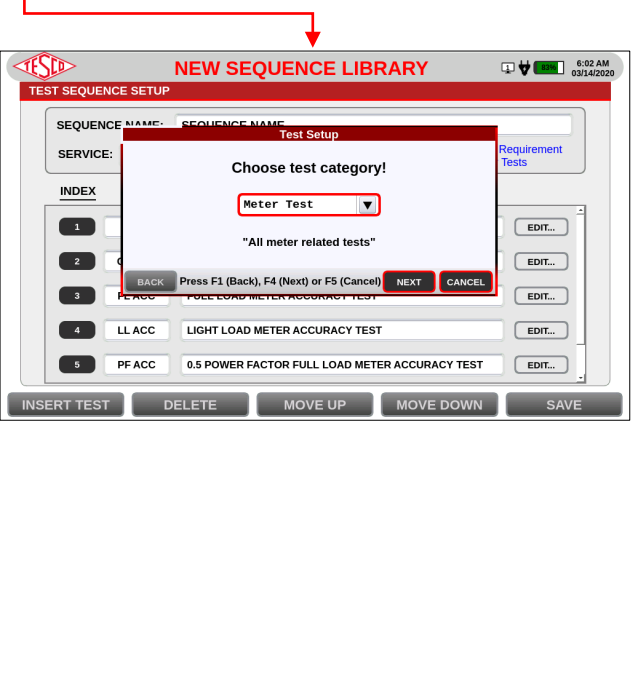
SCREEN	DESCRIPTION																											
	<p>Create new customer information. Fill out the information and save it in the database. If the customer info is for editing, the fields will be filled with pre-saved information of that customer and the user can make changes.</p> <p><b>KEYPAD &amp; FUNCTION KEYS:</b></p> <table border="1"> <tr> <td>F1</td> <td><b>SITE INFO</b></td> <td>Open the NEW SITE INFO screen</td> </tr> <tr> <td>F2</td> <td></td> <td></td> </tr> <tr> <td>F3</td> <td></td> <td></td> </tr> <tr> <td>F4</td> <td><b>EDIT</b></td> <td>Edit existing customer information. Information that are grayed out will be enabled for editing.</td> </tr> <tr> <td></td> <td><b>CANCEL</b></td> <td>Cancel editing the existing customer's information</td> </tr> <tr> <td>F5</td> <td><b>DELETE</b></td> <td>Delete existing customer's information. This will be enabled once a customer is selected.</td> </tr> <tr> <td></td> <td><b>SAVE</b></td> <td>Save changes made to existing or new customer's information</td> </tr> </table> <p>Press  to return to the previous screen.</p> <p><b>DATA</b></p> <table border="1"> <tr> <td><b>CUSTOMER NAME</b></td> <td>Name of customer</td> </tr> <tr> <td><b>CUSTOMER ID</b></td> <td>ID of customer</td> </tr> <tr> <td><b>CUSTOMER ACCOUNT NUMBER</b></td> <td>Account number of customer</td> </tr> </table>	F1	<b>SITE INFO</b>	Open the NEW SITE INFO screen	F2			F3			F4	<b>EDIT</b>	Edit existing customer information. Information that are grayed out will be enabled for editing.		<b>CANCEL</b>	Cancel editing the existing customer's information	F5	<b>DELETE</b>	Delete existing customer's information. This will be enabled once a customer is selected.		<b>SAVE</b>	Save changes made to existing or new customer's information	<b>CUSTOMER NAME</b>	Name of customer	<b>CUSTOMER ID</b>	ID of customer	<b>CUSTOMER ACCOUNT NUMBER</b>	Account number of customer
F1	<b>SITE INFO</b>	Open the NEW SITE INFO screen																										
F2																												
F3																												
F4	<b>EDIT</b>	Edit existing customer information. Information that are grayed out will be enabled for editing.																										
	<b>CANCEL</b>	Cancel editing the existing customer's information																										
F5	<b>DELETE</b>	Delete existing customer's information. This will be enabled once a customer is selected.																										
	<b>SAVE</b>	Save changes made to existing or new customer's information																										
<b>CUSTOMER NAME</b>	Name of customer																											
<b>CUSTOMER ID</b>	ID of customer																											
<b>CUSTOMER ACCOUNT NUMBER</b>	Account number of customer																											

### 3.3.3.3e Test Results

SCREEN	DESCRIPTION															
	<p>All of the test results for the selected site are displayed and organized by test session. The display indicates which test types are included in a particular test session. Use the  and  buttons to scroll to a site and press ENTER to select. Press VIEW to view the data in summary form.</p> <p><b>KEYPAD &amp; FUNCTION KEYS:</b></p> <table border="1"> <tr> <td>F1</td> <td></td> <td></td> </tr> <tr> <td>F2</td> <td></td> <td></td> </tr> <tr> <td>F3</td> <td></td> <td></td> </tr> <tr> <td>F4</td> <td><b>VIEW</b></td> <td>View details of selected test result.</td> </tr> <tr> <td>F5</td> <td><b>BACK</b></td> <td>Return to the SITE INFORMATION DATABASE screen.</td> </tr> </table> <p>Press  to return to the previous screen.</p>	F1			F2			F3			F4	<b>VIEW</b>	View details of selected test result.	F5	<b>BACK</b>	Return to the SITE INFORMATION DATABASE screen.
F1																
F2																
F3																
F4	<b>VIEW</b>	View details of selected test result.														
F5	<b>BACK</b>	Return to the SITE INFORMATION DATABASE screen.														



### 3.3.3.3f Test Sequences

SCREEN	DESCRIPTION																								
 <p><b>TEST SEQUENCES</b></p> <p><b>SEQUENCE LIBRARY</b></p> <table border="1"> <thead> <tr> <th>Sequence Name</th> <th>Service</th> <th>Tolerance</th> </tr> </thead> <tbody> <tr> <td>connor Sequence</td> <td>Universal</td> <td>0.50</td> </tr> <tr> <td>quick Sequence</td> <td>2-Wire, 1 Ph</td> <td>0.50</td> </tr> </tbody> </table> <p>ADD EDIT DELETE BACK</p>	Sequence Name	Service	Tolerance	connor Sequence	Universal	0.50	quick Sequence	2-Wire, 1 Ph	0.50	<p>Add, edit, and delete test sequences. This allows the user a certain level of customization in the sequence. In adding or editing a test sequence, the user can re-arrange the tests with the MOVE DOWN and MOVE UP buttons.</p> <p><b>KEYPAD &amp; FUNCTION KEYS:</b></p> <table border="1"> <tr> <td>F1</td> <td></td> <td></td> </tr> <tr> <td>F2</td> <td><b>ADD</b></td> <td>Add new test sequence.</td> </tr> <tr> <td>F3</td> <td><b>EDIT</b></td> <td>Edit a test sequence.</td> </tr> <tr> <td>F4</td> <td><b>DELETE</b></td> <td>Delete a test sequence.</td> </tr> <tr> <td>F5</td> <td><b>BACK</b></td> <td>Return to previous screen.</td> </tr> </table> <p>Press  to return to the previous screen.</p>	F1			F2	<b>ADD</b>	Add new test sequence.	F3	<b>EDIT</b>	Edit a test sequence.	F4	<b>DELETE</b>	Delete a test sequence.	F5	<b>BACK</b>	Return to previous screen.
Sequence Name	Service	Tolerance																							
connor Sequence	Universal	0.50																							
quick Sequence	2-Wire, 1 Ph	0.50																							
F1																									
F2	<b>ADD</b>	Add new test sequence.																							
F3	<b>EDIT</b>	Edit a test sequence.																							
F4	<b>DELETE</b>	Delete a test sequence.																							
F5	<b>BACK</b>	Return to previous screen.																							
 <p><b>NEW SEQUENCE LIBRARY</b></p> <p><b>TEST SEQUENCE SETUP</b></p> <p>SEQUENCE NAME: SEQUENCE NAME</p> <p>SERVICE: Universal TOLERANCE: 0.50% <small>Pass/Fail Requirement For Meter Tests</small></p> <table border="1"> <thead> <tr> <th>INDEX</th> <th>TAG</th> <th>TEST DESCRIPTION</th> <th>EDIT...</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>RwB</td> <td>CT RATIO WITH BURDEN TEST</td> <td>EDIT...</td> </tr> <tr> <td>2</td> <td>CL ACC</td> <td>CUSTOMER LOAD METER ACCURACY TEST</td> <td>EDIT...</td> </tr> <tr> <td>3</td> <td>FL ACC</td> <td>FULL LOAD METER ACCURACY TEST</td> <td>EDIT...</td> </tr> <tr> <td>4</td> <td>LL ACC</td> <td>LIGHT LOAD METER ACCURACY TEST</td> <td>EDIT...</td> </tr> <tr> <td>5</td> <td>PF ACC</td> <td>0.5 POWER FACTOR FULL LOAD METER ACCURACY TEST</td> <td>EDIT...</td> </tr> </tbody> </table> <p>INSERT TEST DELETE MOVE UP MOVE DOWN SAVE</p>	INDEX	TAG	TEST DESCRIPTION	EDIT...	1	RwB	CT RATIO WITH BURDEN TEST	EDIT...	2	CL ACC	CUSTOMER LOAD METER ACCURACY TEST	EDIT...	3	FL ACC	FULL LOAD METER ACCURACY TEST	EDIT...	4	LL ACC	LIGHT LOAD METER ACCURACY TEST	EDIT...	5	PF ACC	0.5 POWER FACTOR FULL LOAD METER ACCURACY TEST	EDIT...	<p><b>NEW SEQUENCE LIBRARY</b></p> <p>Create a new sequence with a pre-defined</p>
INDEX	TAG	TEST DESCRIPTION	EDIT...																						
1	RwB	CT RATIO WITH BURDEN TEST	EDIT...																						
2	CL ACC	CUSTOMER LOAD METER ACCURACY TEST	EDIT...																						
3	FL ACC	FULL LOAD METER ACCURACY TEST	EDIT...																						
4	LL ACC	LIGHT LOAD METER ACCURACY TEST	EDIT...																						
5	PF ACC	0.5 POWER FACTOR FULL LOAD METER ACCURACY TEST	EDIT...																						
 <p><b>NEW SEQUENCE LIBRARY</b></p> <p><b>TEST SEQUENCE SETUP</b></p> <p>SEQUENCE NAME: SEQUENCE NAME</p> <p>SERVICE: Requirement Tests</p> <p><b>Choose test category!</b></p> <p>Meter Test</p> <p>"All meter related tests"</p> <p>BACK Press F1 (Back), F4 (Next) or F5 (Cancel) NEXT CANCEL</p> <p>INSERT TEST DELETE MOVE UP MOVE DOWN SAVE</p>																									

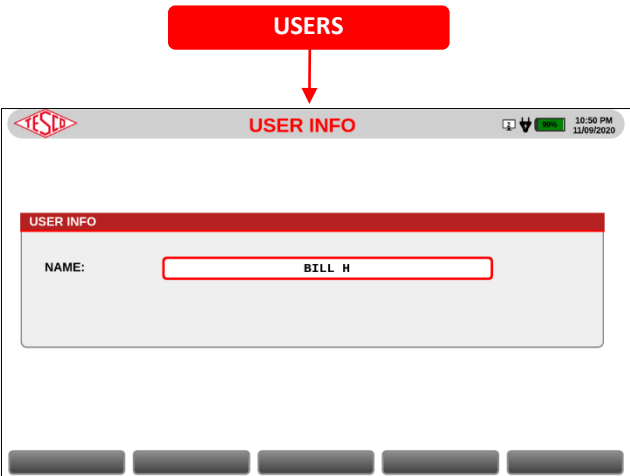
### 3.3.3.4 Settings

SCREEN	DESCRIPTION															
	<p>Change or update the options and settings for the device.</p> <p><b>KEYPAD &amp; FUNCTION KEYS:</b></p> <table border="1"> <tr> <td>F1</td> <td><b>GENERAL</b></td> <td>Adjust screen brightness options and select method of assigning IP address.</td> </tr> <tr> <td>F2</td> <td><b>USERS</b></td> <td>View name of user or technician.</td> </tr> <tr> <td>F3</td> <td><b>COLORS/BEEPER</b></td> <td>Change phase color assignments.</td> </tr> <tr> <td>F4</td> <td><b>TESTING</b></td> <td>Set global testing options.</td> </tr> <tr> <td>F5</td> <td></td> <td></td> </tr> </table> <p>Press  to return to the previous screen.</p>	F1	<b>GENERAL</b>	Adjust screen brightness options and select method of assigning IP address.	F2	<b>USERS</b>	View name of user or technician.	F3	<b>COLORS/BEEPER</b>	Change phase color assignments.	F4	<b>TESTING</b>	Set global testing options.	F5		
F1	<b>GENERAL</b>	Adjust screen brightness options and select method of assigning IP address.														
F2	<b>USERS</b>	View name of user or technician.														
F3	<b>COLORS/BEEPER</b>	Change phase color assignments.														
F4	<b>TESTING</b>	Set global testing options.														
F5																

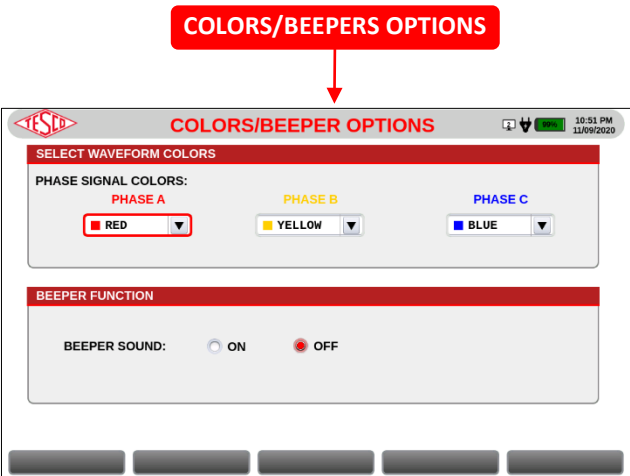

### 3.3.3.4a General Options

SCREEN	DESCRIPTION																										
	<p>Select how the brightness level of the screen is managed and change network settings.</p> <p><b>KEYPAD &amp; FUNCTION KEYS:</b></p> <table border="1"> <tr> <td>F1</td> <td><b>NETWORK</b></td> <td>Shows a pop-up that allows changing the network settings.</td> </tr> <tr> <td>F2</td> <td></td> <td></td> </tr> <tr> <td>F3</td> <td></td> <td></td> </tr> <tr> <td>F4</td> <td></td> <td></td> </tr> <tr> <td>F5</td> <td></td> <td></td> </tr> </table> <p><b>DATA</b></p> <table border="1"> <tr> <td><b>BRIGHTNESS LEVEL</b></td> <td colspan="2">Manually set brightness level of screen. The user can choose to auto-adjust the brightness level or set a certain level for it.</td> </tr> <tr> <td><b>TIMEZONE</b></td> <td colspan="2">Select a timezone for the site analyzer. The time and date are automatically updated once a timezone is selected.</td> </tr> <tr> <td rowspan="2"><b>IP ADDRESS</b></td> <td><b>DHCP</b></td> <td>Select for IP address assigned by the network</td> </tr> <tr> <td><b>STATIC</b></td> <td>Select for IP address specified by the user</td> </tr> </table> <p>Press  to return to the previous screen.</p>	F1	<b>NETWORK</b>	Shows a pop-up that allows changing the network settings.	F2			F3			F4			F5			<b>BRIGHTNESS LEVEL</b>	Manually set brightness level of screen. The user can choose to auto-adjust the brightness level or set a certain level for it.		<b>TIMEZONE</b>	Select a timezone for the site analyzer. The time and date are automatically updated once a timezone is selected.		<b>IP ADDRESS</b>	<b>DHCP</b>	Select for IP address assigned by the network	<b>STATIC</b>	Select for IP address specified by the user
F1	<b>NETWORK</b>	Shows a pop-up that allows changing the network settings.																									
F2																											
F3																											
F4																											
F5																											
<b>BRIGHTNESS LEVEL</b>	Manually set brightness level of screen. The user can choose to auto-adjust the brightness level or set a certain level for it.																										
<b>TIMEZONE</b>	Select a timezone for the site analyzer. The time and date are automatically updated once a timezone is selected.																										
<b>IP ADDRESS</b>	<b>DHCP</b>	Select for IP address assigned by the network																									
	<b>STATIC</b>	Select for IP address specified by the user																									

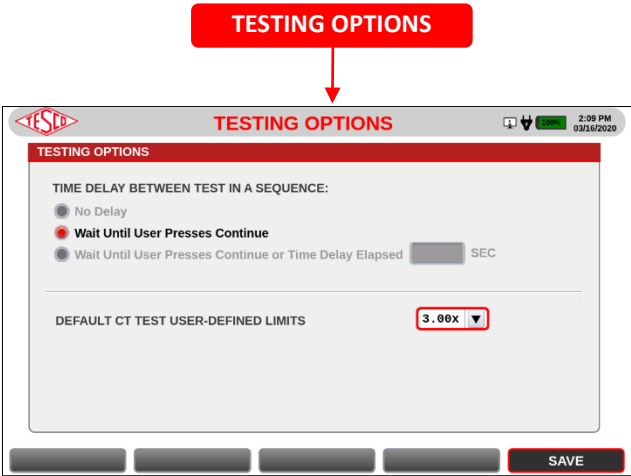

### 3.3.3.4b Users

SCREEN	DESCRIPTION
	<p>Displays the technician's or user's name. The username will also be shown in the main menu after bootup.</p>

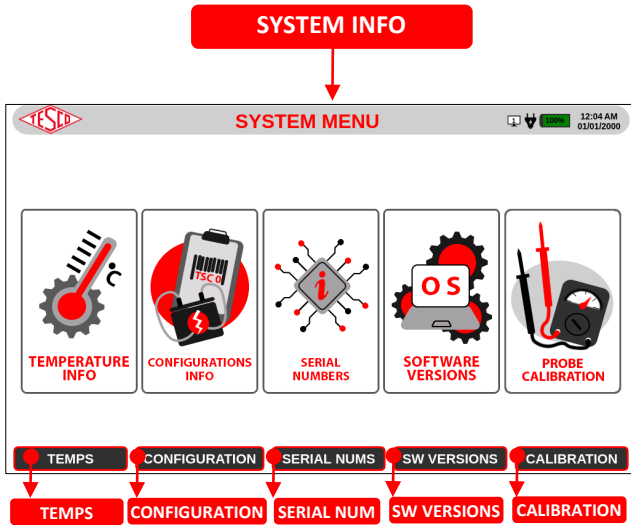

### 3.3.3.4c Colors/BEEPERS Options

SCREEN	DESCRIPTION																							
	<p>Choose colors for displaying each phase's data in the system. All phase color coding and plots are affected.</p> <p><b>KEYPAD &amp; FUNCTION KEYS:</b></p> <table border="1" data-bbox="820 1228 1453 1438"> <tr> <td>F1</td> <td></td> <td></td> </tr> <tr> <td>F2</td> <td></td> <td></td> </tr> <tr> <td>F3</td> <td></td> <td></td> </tr> <tr> <td>F4</td> <td></td> <td></td> </tr> <tr> <td>F5</td> <td><b>SAVE</b></td> <td>Save the changes made on the colors/beeper settings.</td> </tr> </table> <p>Press  to return to the previous screen.</p> <p><b>DATA</b></p> <table border="1" data-bbox="820 1564 1453 1680"> <tr> <td><b>PHASE SIGNAL COLORS</b></td> <td colspan="2">Choose signal colors for Phase A, B, and C</td> </tr> <tr> <td rowspan="2"><b>BEEPER SOUND</b></td> <td><b>ON</b></td> <td>Select to turn on beeper sound</td> </tr> <tr> <td><b>OFF</b></td> <td>Select to turn off beeper sound</td> </tr> </table>	F1			F2			F3			F4			F5	<b>SAVE</b>	Save the changes made on the colors/beeper settings.	<b>PHASE SIGNAL COLORS</b>	Choose signal colors for Phase A, B, and C		<b>BEEPER SOUND</b>	<b>ON</b>	Select to turn on beeper sound	<b>OFF</b>	Select to turn off beeper sound
F1																								
F2																								
F3																								
F4																								
F5	<b>SAVE</b>	Save the changes made on the colors/beeper settings.																						
<b>PHASE SIGNAL COLORS</b>	Choose signal colors for Phase A, B, and C																							
<b>BEEPER SOUND</b>	<b>ON</b>	Select to turn on beeper sound																						
	<b>OFF</b>	Select to turn off beeper sound																						

### 3.3.3.4d Testing Options

SCREEN	DESCRIPTION																	
	<p>Set an option whether to define a delay between tests in a sequence; wait until a user presses continue; or have no delay at all and have the succeeding test execute immediately. The user can also set the default defined limits for CT testing.</p> <p><b>KEYPAD &amp; FUNCTION KEYS:</b></p> <table border="1" data-bbox="816 506 1442 747"> <tr> <td>F1</td> <td></td> <td></td> </tr> <tr> <td>F2</td> <td></td> <td></td> </tr> <tr> <td>F3</td> <td></td> <td></td> </tr> <tr> <td>F4</td> <td></td> <td></td> </tr> <tr> <td>F5</td> <td><b>SAVE</b></td> <td>Save the changes made on the testing options. This will be enabled once there are changes.</td> </tr> </table> <p>Press  to return to the previous screen.</p> <p><b>DATA</b></p> <table border="1" data-bbox="816 877 1442 957"> <tr> <td><b>DEFAULT USER DEFINED LIMITS</b></td> <td>Select the default user-defined limits for all the CT tests.</td> </tr> </table>	F1			F2			F3			F4			F5	<b>SAVE</b>	Save the changes made on the testing options. This will be enabled once there are changes.	<b>DEFAULT USER DEFINED LIMITS</b>	Select the default user-defined limits for all the CT tests.
F1																		
F2																		
F3																		
F4																		
F5	<b>SAVE</b>	Save the changes made on the testing options. This will be enabled once there are changes.																
<b>DEFAULT USER DEFINED LIMITS</b>	Select the default user-defined limits for all the CT tests.																	

### 3.3.3.5 System Information

SCREEN	DESCRIPTION															
	<p>This contains information on the user, temperature, load box, controllers, and operating system of the Site Analyzer.</p> <p><b>KEYPAD &amp; FUNCTION KEYS:</b></p> <table border="1" data-bbox="816 1371 1417 1661"> <tr> <td>F1</td> <td><b>USER</b></td> <td>View/Edit user's name and time and date settings.</td> </tr> <tr> <td>F2</td> <td><b>TEMPS</b></td> <td>Check temperature of the circuit, CTs, and battery.</td> </tr> <tr> <td>F3</td> <td><b>CONFIGURATION</b></td> <td>View configurations for current, frequency, thermal, and feedback settings.</td> </tr> <tr> <td>F4</td> <td><b>SERIAL NUMS</b></td> <td>View serial number of the system's PC boards.</td> </tr> <tr> <td>F5</td> <td><b>SW VERSIONS</b></td> <td>View detailed information of the software.</td> </tr> </table> <p>Press  to return to the previous screen.</p>	F1	<b>USER</b>	View/Edit user's name and time and date settings.	F2	<b>TEMPS</b>	Check temperature of the circuit, CTs, and battery.	F3	<b>CONFIGURATION</b>	View configurations for current, frequency, thermal, and feedback settings.	F4	<b>SERIAL NUMS</b>	View serial number of the system's PC boards.	F5	<b>SW VERSIONS</b>	View detailed information of the software.
F1	<b>USER</b>	View/Edit user's name and time and date settings.														
F2	<b>TEMPS</b>	Check temperature of the circuit, CTs, and battery.														
F3	<b>CONFIGURATION</b>	View configurations for current, frequency, thermal, and feedback settings.														
F4	<b>SERIAL NUMS</b>	View serial number of the system's PC boards.														
F5	<b>SW VERSIONS</b>	View detailed information of the software.														

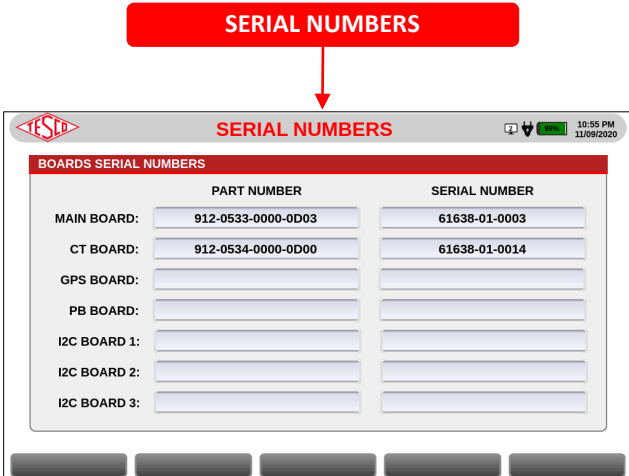

### 3.3.3.5a Temperature

SCREEN	DESCRIPTION															
	<p>This contains the information on the temperature of the device.</p> <p><b>DATA</b></p> <table border="1"> <tr> <td rowspan="4" style="text-align: center;"><b>TEMPERATURES</b></td> <td><b>SOM</b></td> <td>Temperature of SOM</td> </tr> <tr> <td><b>BURDEN CIRCUIT</b></td> <td>Temperature of burden circuit</td> </tr> <tr> <td><b>CT PHASE A</b></td> <td>Temperature of CT Phase A</td> </tr> <tr> <td><b>CT PHASE B</b></td> <td>Temperature of CT Phase B</td> </tr> <tr> <td colspan="2"><b>CT PHASE C</b></td> <td>Temperature of CT Phase C</td> </tr> <tr> <td colspan="2"><b>SHOW EXTREME TEMP. SCREEN INDICATOR</b></td> <td>This will enable changing the color of the temperature indicator into red when the Site Analyzer's temperature is beyond 158°F or 70°C.</td> </tr> </table> <p><i>*Default temperature is in Fahrenheit (°F).</i></p> <p>Press  to return to the previous screen.</p>	<b>TEMPERATURES</b>	<b>SOM</b>	Temperature of SOM	<b>BURDEN CIRCUIT</b>	Temperature of burden circuit	<b>CT PHASE A</b>	Temperature of CT Phase A	<b>CT PHASE B</b>	Temperature of CT Phase B	<b>CT PHASE C</b>		Temperature of CT Phase C	<b>SHOW EXTREME TEMP. SCREEN INDICATOR</b>		This will enable changing the color of the temperature indicator into red when the Site Analyzer's temperature is beyond 158°F or 70°C.
<b>TEMPERATURES</b>	<b>SOM</b>		Temperature of SOM													
	<b>BURDEN CIRCUIT</b>		Temperature of burden circuit													
	<b>CT PHASE A</b>		Temperature of CT Phase A													
	<b>CT PHASE B</b>	Temperature of CT Phase B														
<b>CT PHASE C</b>		Temperature of CT Phase C														
<b>SHOW EXTREME TEMP. SCREEN INDICATOR</b>		This will enable changing the color of the temperature indicator into red when the Site Analyzer's temperature is beyond 158°F or 70°C.														



### 3.3.3.5b Configuration

SCREEN	DESCRIPTION																								
	<p>This contains the information on the standard and load box.</p> <p><b>DATA</b></p> <table border="1"> <tr> <td rowspan="8" style="text-align: center;"><b>LOAD BOX INFO</b></td> <td><b>MAX CURRENT</b></td> <td>Maximum current for the load box</td> </tr> <tr> <td><b>MIN CURRENT</b></td> <td>Minimum current for the load box</td> </tr> <tr> <td><b>MAX FREQ</b></td> <td>Maximum frequency for the load box</td> </tr> <tr> <td><b>MIN FREQ</b></td> <td>Minimum frequency for the load box</td> </tr> <tr> <td><b>THERMAL CUTOFF</b></td> <td>Thermal cutoff</td> </tr> <tr> <td><b>THERMAL RESTORE</b></td> <td>Thermal restore</td> </tr> <tr> <td><b>FB AMP COR</b></td> <td>Feedback amplitude correction</td> </tr> <tr> <td><b>FB PHASE COR</b></td> <td>Feedback phase correction</td> </tr> <tr> <td rowspan="3" style="text-align: center;"><b>METROLOGY / WAVEFORM CALIBRATION</b></td> <td><b>MODEL</b></td> <td>Model number/name of the device</td> </tr> <tr> <td><b>SERIAL NUM</b></td> <td>Serial number of the device</td> </tr> <tr> <td><b>DATE</b></td> <td>Date of the latest metrology calibration on the device</td> </tr> </table> <p>Press  to return to the previous screen.</p>	<b>LOAD BOX INFO</b>	<b>MAX CURRENT</b>	Maximum current for the load box	<b>MIN CURRENT</b>	Minimum current for the load box	<b>MAX FREQ</b>	Maximum frequency for the load box	<b>MIN FREQ</b>	Minimum frequency for the load box	<b>THERMAL CUTOFF</b>	Thermal cutoff	<b>THERMAL RESTORE</b>	Thermal restore	<b>FB AMP COR</b>	Feedback amplitude correction	<b>FB PHASE COR</b>	Feedback phase correction	<b>METROLOGY / WAVEFORM CALIBRATION</b>	<b>MODEL</b>	Model number/name of the device	<b>SERIAL NUM</b>	Serial number of the device	<b>DATE</b>	Date of the latest metrology calibration on the device
<b>LOAD BOX INFO</b>	<b>MAX CURRENT</b>		Maximum current for the load box																						
	<b>MIN CURRENT</b>		Minimum current for the load box																						
	<b>MAX FREQ</b>		Maximum frequency for the load box																						
	<b>MIN FREQ</b>		Minimum frequency for the load box																						
	<b>THERMAL CUTOFF</b>		Thermal cutoff																						
	<b>THERMAL RESTORE</b>		Thermal restore																						
	<b>FB AMP COR</b>		Feedback amplitude correction																						
	<b>FB PHASE COR</b>	Feedback phase correction																							
<b>METROLOGY / WAVEFORM CALIBRATION</b>	<b>MODEL</b>	Model number/name of the device																							
	<b>SERIAL NUM</b>	Serial number of the device																							
	<b>DATE</b>	Date of the latest metrology calibration on the device																							


### 3.3.3.5c Serial Numbers

SCREEN	DESCRIPTION				
	<p>This contains the serial numbers of the controllers.</p> <p><b>DATA</b></p> <table border="1" data-bbox="836 399 1461 451"> <tr> <td><b>PART NUMBER</b></td> <td>Part number of the listed boards</td> </tr> <tr> <td><b>SERIAL NUMBER</b></td> <td>Serial number of the listed boards</td> </tr> </table> <p>Press  to return to the previous screen.</p>	<b>PART NUMBER</b>	Part number of the listed boards	<b>SERIAL NUMBER</b>	Serial number of the listed boards
<b>PART NUMBER</b>	Part number of the listed boards				
<b>SERIAL NUMBER</b>	Serial number of the listed boards				

### 3.3.3.5d Software Versions

SCREEN	DESCRIPTION														
	<p>This contains the information on the Linux operating system.</p> <p><b>DATA</b></p> <table border="1" data-bbox="836 1302 1429 1669"> <tr> <td><b>FIRMWARE VERSION</b></td> <td>Firmware version of the software</td> </tr> <tr> <td><b>LINUX KERNEL VERSION</b></td> <td>Linux kernel version of the software</td> </tr> <tr> <td><b>MAIN BOARD FPGA SW VERSION</b></td> <td>Software version of the FPGA main board</td> </tr> <tr> <td><b>CT BOARD FPGA SW VERSION</b></td> <td>Software version of the FPGA CT board</td> </tr> <tr> <td><b>DB SCHEMA VERSION</b></td> <td>Database version</td> </tr> <tr> <td><b>HW VERSION</b></td> <td>Hardware version</td> </tr> <tr> <td><b>SOM SERIAL NUMBER</b></td> <td>Serial number of SOM</td> </tr> </table> <p>Press  to return to the previous screen.</p>	<b>FIRMWARE VERSION</b>	Firmware version of the software	<b>LINUX KERNEL VERSION</b>	Linux kernel version of the software	<b>MAIN BOARD FPGA SW VERSION</b>	Software version of the FPGA main board	<b>CT BOARD FPGA SW VERSION</b>	Software version of the FPGA CT board	<b>DB SCHEMA VERSION</b>	Database version	<b>HW VERSION</b>	Hardware version	<b>SOM SERIAL NUMBER</b>	Serial number of SOM
<b>FIRMWARE VERSION</b>	Firmware version of the software														
<b>LINUX KERNEL VERSION</b>	Linux kernel version of the software														
<b>MAIN BOARD FPGA SW VERSION</b>	Software version of the FPGA main board														
<b>CT BOARD FPGA SW VERSION</b>	Software version of the FPGA CT board														
<b>DB SCHEMA VERSION</b>	Database version														
<b>HW VERSION</b>	Hardware version														
<b>SOM SERIAL NUMBER</b>	Serial number of SOM														

### 3.3.3.5e Calibration

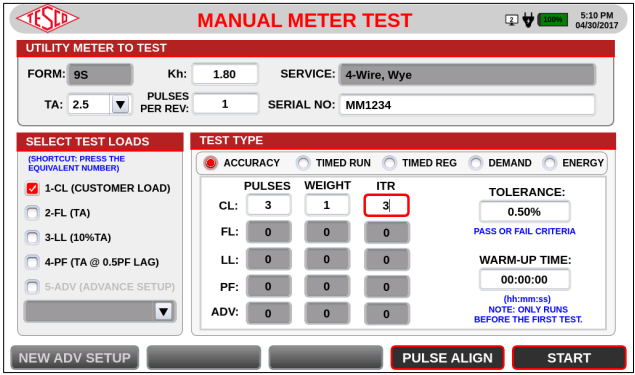
SCREEN	DESCRIPTION																															
	<p>Shows calibration details of the site analyzer. Should the site analyzer need recalibration, please contact TESCO. Contact details are found in section 1.2 Contacting TESCO.</p> <p><b>KEYPAD &amp; FUNCTION KEYS:</b></p> <table border="1"> <tr> <td>F1</td> <td><b>PROBE</b></td> <td>Switch between showing probe or metrology calibration details.</td> </tr> <tr> <td>F2</td> <td></td> <td></td> </tr> <tr> <td>F3</td> <td></td> <td></td> </tr> <tr> <td>F4</td> <td></td> <td></td> </tr> <tr> <td>F5</td> <td></td> <td></td> </tr> </table> <p>Press  to return to the previous screen.</p> <p><b>DATA</b></p> <table border="1"> <tr> <td><b>DATE CALIBRATED</b></td> <td>Date when the site analyzer was las calibrated.</td> </tr> <tr> <td><b>CALIBRATION DUE DATE</b></td> <td>Due date indicating when the site analyzer should be recalibrated.</td> </tr> <tr> <td><b>MODEL</b></td> <td>Probe model</td> </tr> <tr> <td><b>SERIAL #</b></td> <td>Probe serial number</td> </tr> <tr> <td><b>TYPE</b></td> <td>Probe type</td> </tr> <tr> <td><b>RANGE 1</b></td> <td>TBD</td> </tr> <tr> <td><b>RANGE 2</b></td> <td>TBD</td> </tr> <tr> <td><b>RANGE 3</b></td> <td>TBD</td> </tr> </table>	F1	<b>PROBE</b>	Switch between showing probe or metrology calibration details.	F2			F3			F4			F5			<b>DATE CALIBRATED</b>	Date when the site analyzer was las calibrated.	<b>CALIBRATION DUE DATE</b>	Due date indicating when the site analyzer should be recalibrated.	<b>MODEL</b>	Probe model	<b>SERIAL #</b>	Probe serial number	<b>TYPE</b>	Probe type	<b>RANGE 1</b>	TBD	<b>RANGE 2</b>	TBD	<b>RANGE 3</b>	TBD
F1	<b>PROBE</b>	Switch between showing probe or metrology calibration details.																														
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<b>TYPE</b>	Probe type																															
<b>RANGE 1</b>	TBD																															
<b>RANGE 2</b>	TBD																															
<b>RANGE 3</b>	TBD																															

# 4.0 CONFIGURATIONS

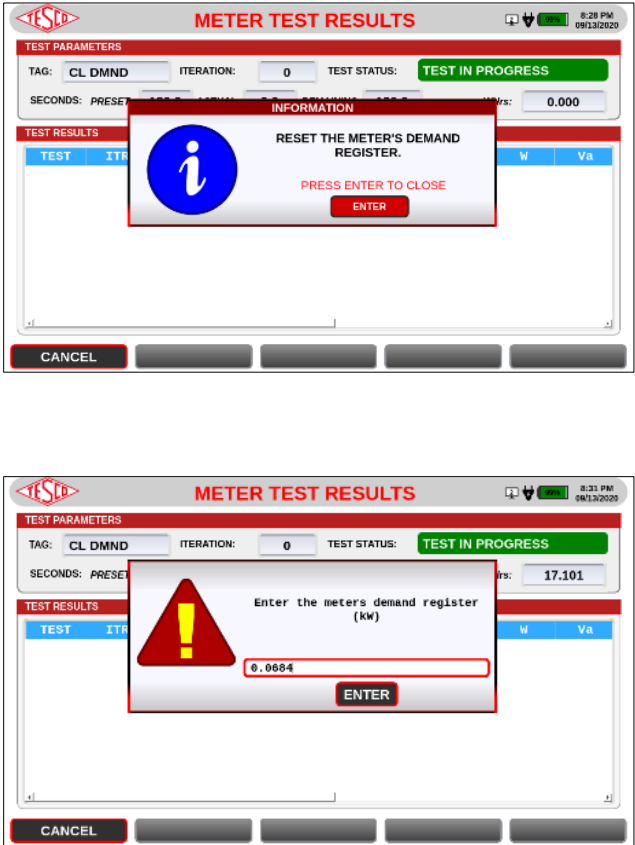
4.1 Meter Test.....	40
4.2 CT Test.....	40
4.3 Sequence Test .....	42



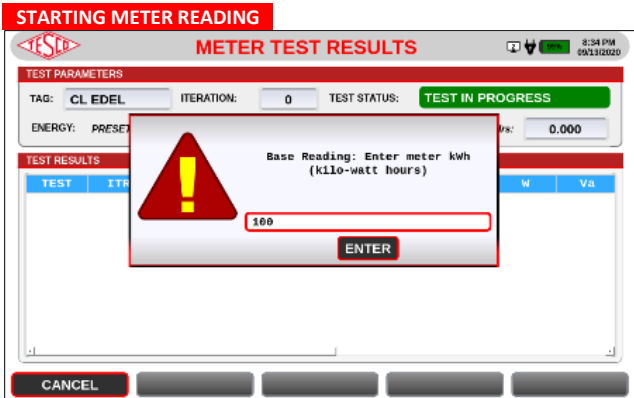
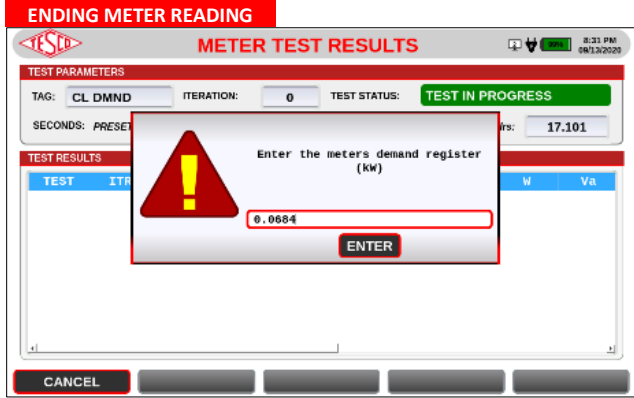
# 4.1 Meter Test

SCREEN	DESCRIPTION
	<p><b>HOW TO PERFORM METER TEST:</b></p> <ol style="list-style-type: none"> <li>1. If a site was preselected, the test parameters will be automatically filled in. Otherwise, manually input the parameters and select the test load and test type.</li> <li>2. If an optical probe is attached to the meter, the meter's pulse output can be aligned by pressing <b>F3</b> [PULSE ALIGN]. It will display the Pulse Alignment Check screen.</li> <li>3. Once everything is set, press <b>F4</b> [START] to start the test.</li> <li>4. Depending on the test type, a pop-up will appear to ask the user to enter a certain value. For example, in the Demand Test, a user will be asked to enter the meter's demand register (kW) to continue with the test.</li> <li>5. The test will end with the test results shown.</li> </ol>

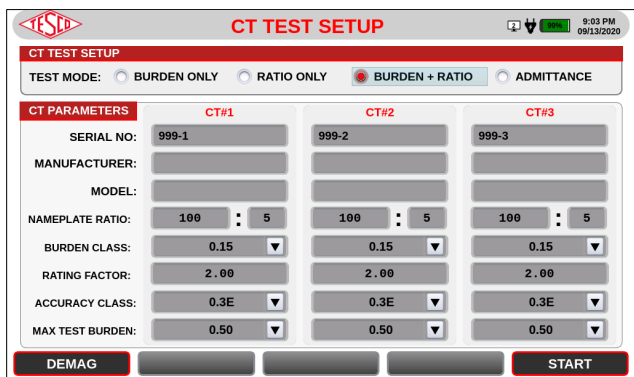
## 4.1.1 Demand Test

SCREEN	DESCRIPTION
	<p><b>HOW TO PERFORM DEMAND METER TEST:</b></p> <ol style="list-style-type: none"> <li>1. Press <b>F4</b> [START].</li> <li>2. Reset the demand register in the meter.</li> <li>3. The Site Analyzer will deliver current to the meter for one sub-interval.</li> <li>4. Read the meter's demand register and enter the value.</li> <li>5. The Site Analyzer will compute the full interval demand and calculate the registration.</li> </ol>

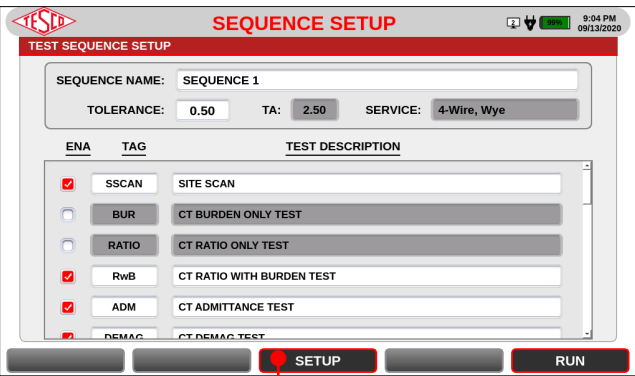
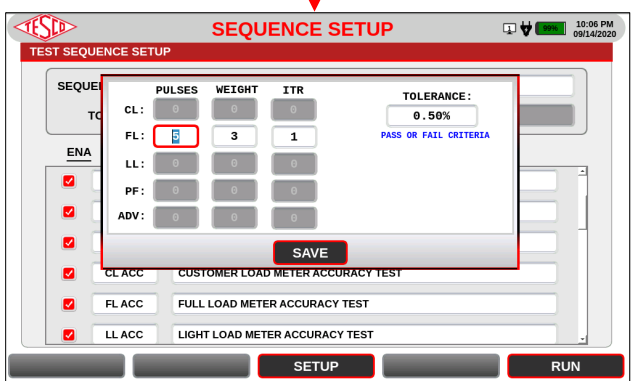

### 4.1.1 Energy Test

SCREEN	DESCRIPTION
 <p><b>STARTING METER READING</b></p> <p><b>METER TEST RESULTS</b></p> <p>TEST PARAMETERS TAG: CL EDEL ITERATION: 0 TEST STATUS: TEST IN PROGRESS ENERGY: PRESET kwh: 0.000</p> <p>TEST RESULTS Base Reading: Enter meter kWh (KILLO-watt hours) 100 ENTER</p> <p>CANCEL</p>	<p><b>HOW TO PERFORM ENERGY METER TEST:</b></p> <ol style="list-style-type: none"> <li>1. Press <b>F4</b> [START].</li> <li>2. Enter meter kWh.</li> </ol>
 <p><b>ENDING METER READING</b></p> <p><b>METER TEST RESULTS</b></p> <p>TEST PARAMETERS TAG: CL DMND ITERATION: 0 TEST STATUS: TEST IN PROGRESS SECONDS: PRESET s: 17.101</p> <p>TEST RESULTS Enter the meters demand register (KW) 0.0684 ENTER</p> <p>CANCEL</p>	

### 4.2 CT Test

SCREEN	DESCRIPTION																																				
 <p><b>CT TEST SETUP</b></p> <p>CT TEST SETUP TEST MODE: <input type="radio"/> BURDEN ONLY <input type="radio"/> RATIO ONLY <input checked="" type="radio"/> BURDEN + RATIO <input type="radio"/> ADMITTANCE</p> <p>CT PARAMETERS</p> <table border="1"> <thead> <tr> <th></th> <th>CT#1</th> <th>CT#2</th> <th>CT#3</th> </tr> </thead> <tbody> <tr> <td>SERIAL NO:</td> <td>999-1</td> <td>999-2</td> <td>999-3</td> </tr> <tr> <td>MANUFACTURER:</td> <td></td> <td></td> <td></td> </tr> <tr> <td>MODEL:</td> <td></td> <td></td> <td></td> </tr> <tr> <td>NAMEPLATE RATIO:</td> <td>100 : 5</td> <td>100 : 5</td> <td>100 : 5</td> </tr> <tr> <td>BURDEN CLASS:</td> <td>0.15</td> <td>0.15</td> <td>0.15</td> </tr> <tr> <td>RATING FACTOR:</td> <td>2.00</td> <td>2.00</td> <td>2.00</td> </tr> <tr> <td>ACCURACY CLASS:</td> <td>0.3E</td> <td>0.3E</td> <td>0.3E</td> </tr> <tr> <td>MAX TEST BURDEN:</td> <td>0.50</td> <td>0.50</td> <td>0.50</td> </tr> </tbody> </table> <p>DEMAG START</p>		CT#1	CT#2	CT#3	SERIAL NO:	999-1	999-2	999-3	MANUFACTURER:				MODEL:				NAMEPLATE RATIO:	100 : 5	100 : 5	100 : 5	BURDEN CLASS:	0.15	0.15	0.15	RATING FACTOR:	2.00	2.00	2.00	ACCURACY CLASS:	0.3E	0.3E	0.3E	MAX TEST BURDEN:	0.50	0.50	0.50	<p><b>HOW TO PERFORM A CT TEST:</b></p> <ol style="list-style-type: none"> <li>1. Select a CT Test type:             <ul style="list-style-type: none"> <li>• Burden Only</li> <li>• Ratio Only</li> <li>• Ratio with Added Burden</li> <li>• Admittance</li> </ul> </li> <li>2. After selecting a CT Test Type, enter CT information. If all CTs have the same information, press <b>F2</b> [COPY 1 TO ALL] to copy the information (except serial number) from CT #1 to the other CTs.</li> <li>3. If a site was selected, the fields will be automatically filled in.</li> <li>4. Optional: Demagnetize the CTs by pressing <b>F1</b> [DEMAG]. This will perform Demag Test to return the CT accuracy to its normal state.</li> <li>5. Once everything is set, press <b>F5</b> [START] to start the CT Test.</li> <li>6. Live results will be shown on the CT Test Results screen, and the data plotting will vary depending on the selected test type.</li> </ol>
	CT#1	CT#2	CT#3																																		
SERIAL NO:	999-1	999-2	999-3																																		
MANUFACTURER:																																					
MODEL:																																					
NAMEPLATE RATIO:	100 : 5	100 : 5	100 : 5																																		
BURDEN CLASS:	0.15	0.15	0.15																																		
RATING FACTOR:	2.00	2.00	2.00																																		
ACCURACY CLASS:	0.3E	0.3E	0.3E																																		
MAX TEST BURDEN:	0.50	0.50	0.50																																		

### 4.3 Sequence Test

SCREEN	DESCRIPTION																																																																						
 <p>The screenshot shows the 'SEQUENCE SETUP' screen. At the top, it displays 'TEST SEQUENCE SETUP' with a red header. Below this, there are fields for 'SEQUENCE NAME: SEQUENCE 1', 'TOLERANCE: 0.50', 'TA: 2.50', and 'SERVICE: 4-Wire, Wye'. A table lists various tests with checkboxes: SSCAN (checked), BUR (unchecked), RATIO (unchecked), Rwb (checked), ADM (checked), and DEMAG (checked). At the bottom, there are 'SETUP' and 'RUN' buttons.</p>	<p><b>HOW TO PERFORM SEQUENCE TESTING:</b></p> <ol style="list-style-type: none"> <li>1. Select a site in the Main Menu. This is required before Sequence Setup can be accessed.</li> <li>2. Set the Sequence Name and Tolerance for the pass or fail criteria. The TA and Service can't be changed as they were already configured in the chosen site.</li> <li>3. Select the tests that will be included in the sequence. Press <b>←</b> or <b>→</b> to go to the list and press the tab buttons or navigation buttons to move to each test.</li> <li>4. Press <b>ENTER</b> to select or deselect a test. Tests that will not be included in the sequence are grayed out.</li> <li>5. If any of the meter test is included, press <b>F3</b> [SETUP] to configure. This is only available for meter tests.</li> <li>6. When everything is set, press <b>F5</b> [RUN] to start the sequence test. This will show the live reading of the results for the first test in the sequence, which in this case is Site Scan.</li> <li>7. Once the test is completed, press <b>F5</b> [CONTINUE] to proceed to the next test in the sequence.</li> </ol>																																																																						
 <p>This screenshot shows a configuration dialog for meter tests. It has a 'TOLERANCE' field set to '0.50%' and a 'PASS OR FAIL CRITERIA' section. The criteria are: CL: 0, FL: 0, LL: 0, PF: 0, ADV: 0. There are also fields for 'PULSES', 'WEIGHT', and 'ITR' with values 0, 3, and 1 respectively. A 'SAVE' button is at the bottom.</p>	<ol style="list-style-type: none"> <li>8. If the test needs to be canceled, press <b>F1</b> [CANCEL]. This will cancel the whole sequence test and will proceed to the Sequence Setup screen.</li> <li>9. Once the whole sequence is finished, it will show the Sequence Results Summary screen. Press <b>F1</b> [METER RESULTS / CT RESULTS] to switch between CT Test Results and Meter Test results.</li> </ol>																																																																						
 <p>The screenshot shows the 'SEQUENCE RESULTS SUMMARY' screen. It has a red header and displays 'SEQUENCE PARAMETERS' with 'SEQUENCE NAME: SEQUENCE 1' and 'SERVICE: 4-Wire, Wye'. Below is a table of 'CT TEST RESULTS'.</p> <table border="1" data-bbox="178 1333 776 1564"> <thead> <tr> <th>TEST</th> <th>PHASE</th> <th>TYPE</th> <th>P/F</th> <th>Max Burden With Ratio</th> <th>Bur 0: Ratio</th> <th>Bur 0: Ratio</th> </tr> </thead> <tbody> <tr><td>0</td><td>A</td><td>Burden Only Test</td><td>NO</td><td>0.50</td><td>NO</td><td>99.894 -0.100</td></tr> <tr><td>0</td><td>B</td><td>Burden Only Test</td><td>NO</td><td>0.50</td><td>NO</td><td>100.644 0.644</td></tr> <tr><td>0</td><td>C</td><td>Burden Only Test</td><td>NO</td><td>0.50</td><td>NO</td><td>100.428 0.428</td></tr> <tr><td>1</td><td>A</td><td>Ratio Only Test</td><td>NO</td><td>0.00</td><td>YES</td><td>99.907 -0.095</td></tr> <tr><td>1</td><td>B</td><td>Ratio Only Test</td><td>NO</td><td>0.00</td><td>YES</td><td>100.645 0.645</td></tr> <tr><td>1</td><td>C</td><td>Ratio Only Test</td><td>NO</td><td>0.00</td><td>YES</td><td>100.415 0.415</td></tr> <tr><td>2</td><td>A</td><td>Burden And Ratio Test</td><td>NO</td><td>0.50</td><td>YES</td><td>99.894 -0.100</td></tr> <tr><td>2</td><td>B</td><td>Burden And Ratio Test</td><td>NO</td><td>0.50</td><td>YES</td><td>100.642 0.642</td></tr> <tr><td>2</td><td>C</td><td>Burden And Ratio Test</td><td>NO</td><td>0.50</td><td>YES</td><td>100.425 0.425</td></tr> </tbody> </table> <p>At the bottom, there are 'METER RESULTS' and 'SAVE' buttons.</p>	TEST	PHASE	TYPE	P/F	Max Burden With Ratio	Bur 0: Ratio	Bur 0: Ratio	0	A	Burden Only Test	NO	0.50	NO	99.894 -0.100	0	B	Burden Only Test	NO	0.50	NO	100.644 0.644	0	C	Burden Only Test	NO	0.50	NO	100.428 0.428	1	A	Ratio Only Test	NO	0.00	YES	99.907 -0.095	1	B	Ratio Only Test	NO	0.00	YES	100.645 0.645	1	C	Ratio Only Test	NO	0.00	YES	100.415 0.415	2	A	Burden And Ratio Test	NO	0.50	YES	99.894 -0.100	2	B	Burden And Ratio Test	NO	0.50	YES	100.642 0.642	2	C	Burden And Ratio Test	NO	0.50	YES	100.425 0.425	<ol style="list-style-type: none"> <li>10. Press <b>F5</b> [SAVE] to save the test results. View them again later by going to the Main Menu &gt; Database.</li> </ol>
TEST	PHASE	TYPE	P/F	Max Burden With Ratio	Bur 0: Ratio	Bur 0: Ratio																																																																	
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# 5.0 MAINTENANCE

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## 5.1 Introduction

This chapter explains how to perform the routine user maintenance required to your Site Analyzer in optimal operating condition.

## 5.2 Cleaning the Instrument External Surface

Clean the exterior of the Site Analyzer using a soft cloth slightly dampened with either water or a non-abrasive mild cleaning solution that is not harmful to plastics.



**Do not use hydrocarbons or chlorinated solvents for cleaning. They can damage the plastic materials used in the Site Analyzer.**

## 5.3 Repair / Parts Replacement / Recalibration

For the Site Analyzer's repair, parts replacement, and recalibration, directly contact TESCO through phone or email. See section **1.2 Contacting TESCO** for contact details. TESCO recommends recalibration on an annual basis. Further details can be found on the Calibration Certificate provided with your Site Analyzer.