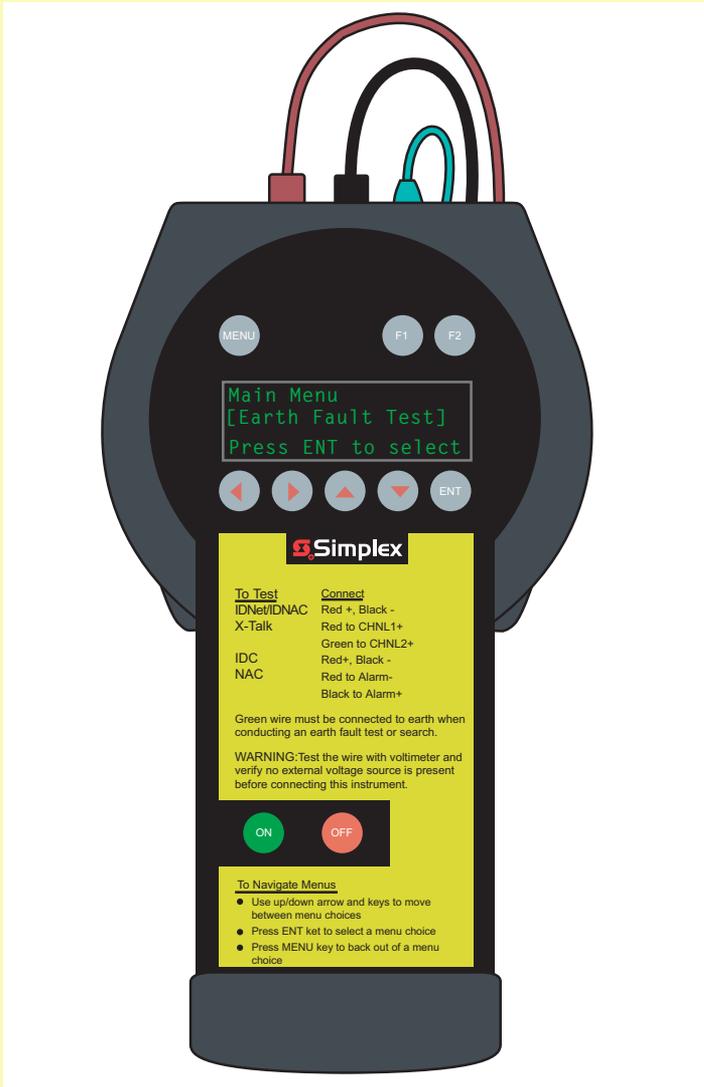


TrueSTART II

Installation & Service Instrument



579-1030 Rev A

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TrueSTART II Introduction

The Simplex TrueSTART II Instrument (TSIT) is a portable, handheld instrument for verification of the correct installation of Simplex peripherals and wiring to Simplex circuits and modules.

The TSIT is used to verify wiring, addressable devices, conventional zones (IDC) and signal circuits (NAC) before the Fire Alarm Control Panel (FACP) is commissioned.

This manual describes the steps to verify that all wiring and peripheral devices are correctly installed before connecting the wires to the FACP.

Power Sources

The TSIT operates from multiple power sources:

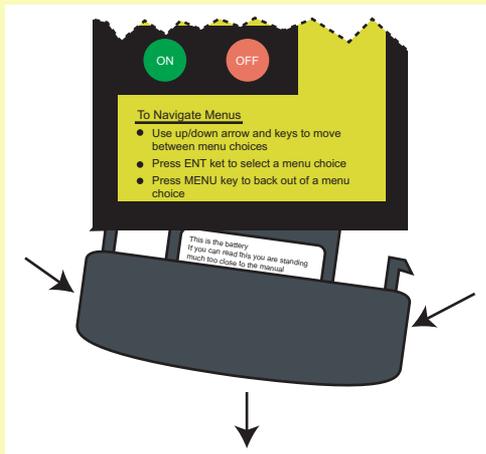
- ⇒ Lithium Ion Battery
- ⇒ AC Adapter
- ⇒ Any 24V DC source (using the Auxiliary Power Harness).

Battery Operation

Remove the battery compartment by squeezing in the tabs on the sides.

Connect a charged battery to the harness inside the tester case.

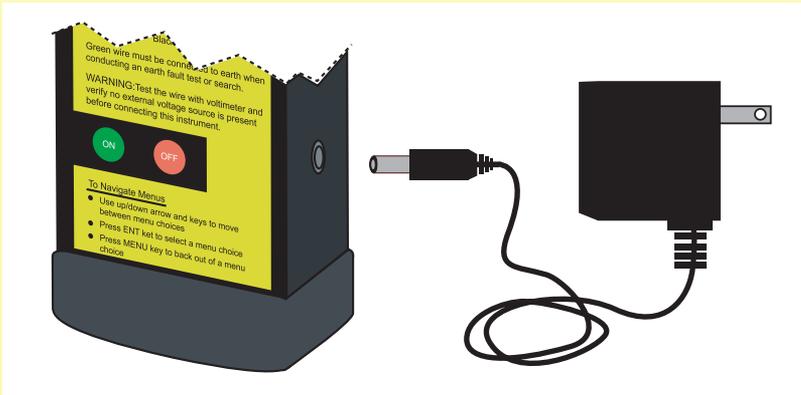
Replace the battery compartment.



AC Adapter

Connect the AC Adapter to the power port in the right side of the TSIT. Plug the adapter into a wall outlet.

The AC Adapter is rated for 100-240 VAC, 50-60 Hz. It is supplied with a US standard wall plug.



Aux Power Harness

The Aux Power Harness is a multi-purpose accessory that is used to:

- ⇒ Extend the reach of the AC adapter
- ⇒ Provide power (via alligator clips) to ZAMs and other 24V powered devices (when used with the AC adapter)
- ⇒ Power the tester from an FACP

The output from the AC adapter will support up to 650 mA ZAM load in addition to powering the TSIT.

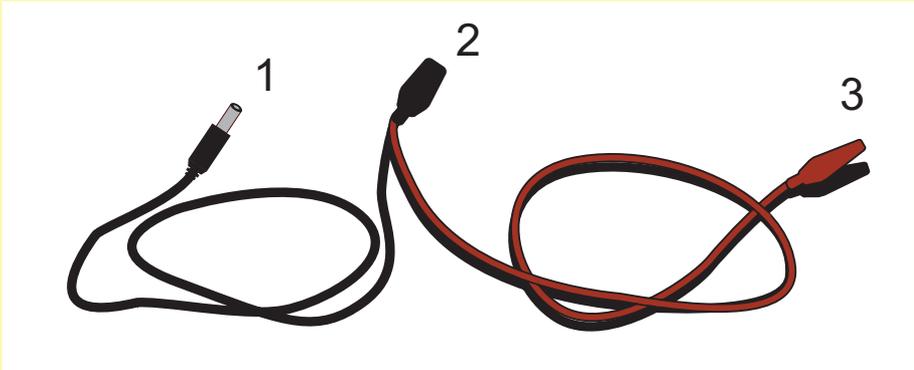
Note: The TSIT cannot power auxiliary devices when operating from the batteries. The battery voltage is too low (14.4V) to power 24V DC devices.

The battery is disabled when the AC adapter or the Aux Power Harness are plugged into the TSIT.

The Power Plug (1) connects to the TSIT, bringing power from either the AC Adapter or the Alligator Clips (3).

To use the Aux Power Harness with the AC Adapter, connect the power plug from the adapter to the Power Jack (2).

Red & Black Alligator Clips (3) may be used as INPUT to provide power to the tester, or as an OUTPUT to distribute 24V power to peripheral devices such as IDNet ZAMs.



Testing & Safety

The TSIT supports the line testing of IDNet and IDNAC addressable devices, Simplex NACs and Simplex IDCs. Connect and test only these types of circuits.

Before connecting the tester to any circuit for testing, verify that the circuit is not connected to any voltage source. Measure across each circuit pair with a voltmeter. Measure each conductor to earth. Remove any external voltage source prior to connecting tester.

Power-Up

Do not connect the test leads to any field wiring until after the TSIT is powered. Press and hold the Green ON button until the Initialization Screen is displayed. The tester requires approximately 5 seconds to initialize, after which it will display the first menu choice.

Selecting a Test

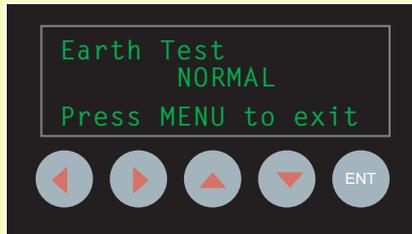
Use the ↑ or ↓ keys to scroll through the menu choices. When the desired selection is displayed, press ENT to select that option.

To return to the main menu, follow the instructions on the display. Press MENU to back out of a menu choice.

Earth Fault Testing

To check for earth faults on field wiring, select the "Earth Fault Test" from the main menu.

Connect the wires as described on the TSIT yellow label for the circuit type you are testing. The GREEN test lead is connected to earth ground, such as building steel.



To detect every earth fault, you must test the positive lead and the negative lead of a circuit independently. If there are earth faults on both positive and negative leads, it might result in a balanced condition, where no earth fault is detectable when tested as a circuit.

Connect the Red lead per the yellow label on the TSIT, and the Green lead to earth. Press the ENT key. The display shows the earth test status in real time. If the display indicates "Positive Earth Fault", you must troubleshoot and correct the earth fault. If the display indicates "Normal", disconnect the Red lead and connect the Black lead as described on the label.

When the TSIT display indicates that a circuit is NORMAL, the test leads may be moved to another circuit. This permits sequential testing of multiple circuits without any repeated menu selection.

Earth Fault Summary:

- ⇒ Navigate to “Earth Fault Test” by scrolling with the up/down arrow keys. Press ENT.
- ⇒ Connect the Red lead and the Green lead, per the instructions on the Yellow label. Test Results are displayed in real time, and are updated constantly. If the display indicates “NORMAL”, disconnect the Red lead.
- ⇒ Connect the Black lead per the Yellow label, leaving the Green lead connected. If the display indicates “NORMAL”, disconnect the Black lead.
- ⇒ If the shielded wire is used, connect the Red lead to the shield and the Green lead to the earth. The display should indicate “NORMAL”.
- ⇒ If there are multiple circuits to test, you may move on to the next one, repeating the process.
- ⇒ To test an IDNet channel with IDNet Isolators, or TrueAlarm Isolator Bases, Earth Fault Search must also be run on the IDNet channel.

IDNet

The user should have a list of IDNet devices and addresses when checking out an IDNet installation. The list can be compared against the devices found by the TSIT, making some problems easier to diagnose. The TSIT channel information can be saved in one of the 60 internal memory slots, then uploaded to a personal computer for easier review. (see the section on PC Upload.)

To test an IDNet channel with the TSIT, connect as follows:

- ⇒ **IDNet+ to Red Lead.** Connect ALL IDNet+ wiring for the channel to the Red Lead. It is important that the channel be complete when scanned.
- ⇒ **IDNet- to Black Lead.** Connect ALL IDNet- wiring for this channel to the Black Lead.
- ⇒ **Earth to Green Lead.** Connect to building steel or other earth point.

If ZAM or any 24V powered devices are present, be sure to connect the Auxiliary Power Harness. Clip the red alligator lead to the +24V wiring, the black to the 0V wiring.

The IDNet Test (Menu Selection **Run IDNet Test**) performs a series of tests on the IDNet channel. Navigate through menu options until **Run IDNet Test** is displayed, and press ENT.

This menu selection sequentially does the following:

- ⇒ Scans the channel to determine device types and addresses
- ⇒ Identifies any duplicated address setting
- ⇒ Polls every device to determine the state, for example:
 - Pull stations – Normal or Alarm?
 - ZAMs – Normal/Alarm/Open?
 - TrueAlarm – analog value/excessively dirty
- ⇒ If an earth fault exists, will attempt to isolate the fault if isolators are present.



At the completion of the test, review the summary of devices detected. Then compare it to the devices that are supposed to be installed.

Press ENT to review the results of the scan. Use the up/down arrows to scroll through the menu choices.

The choices are to review Totals, review By Address or review Errors. When reviewing By Address, the address of the device is shown in brackets. Use the up/down arrow keys to view a higher or lower address

The devices will be shown in sequence, as you scroll, with the status found by the TSIT.

To review the errors, press the menu key and use the up/down arrows to scroll to **Errors** choice. Press ENT. If multiple errors are present, the up/down keys will scroll through the list of all devices with abnormal status.



The display will show the lowest address of an abnormal device, and will indicate the fault.

If duplicate devices are detected, device type info may be incorrect due to the simultaneous traffic from multiple devices causing an error.



To troubleshoot duplicates, go to the TSIT Error or Duplicate menu and send a command to the device address to activate the device's LED. The devices set to the displayed address will have their LEDs lit as long as TSIT displays their address. In the example shown, any devices with LEDs at address 192 would

have the LEDs lit.

The technician can put the instrument down, but powered, and proceed to find the lighted LEDs to help repair the fault.

Other IDNet Tests

In the example given above, two Photo Sensors were both set to address 192. Let's suppose that you have gone out, located the devices by the LED, and re-addressed them. If you wish to check them to be sure there are no other problems, you could run all IDNet tests again, repeating the steps outlined earlier in this document.

If you just wish to run the Duplicate Address test, scroll through the menu choices until that selection is displayed and press ENT.

The IDNet Tests which may be run individually are:

- ⇒ Device Search (finds devices and addresses 0-255)
- ⇒ Duplicate Address (detects devices set to the same address)
- ⇒ Check Device State (Alarm, open, short, etc.)
- ⇒ Earth Fault Search (use only if ISO devices are on the loop)
- ⇒ View Found (scroll through a list of devices)

IDNet Shorts

If the tester is connected to a loop that is shorted, or has a much greater current demand than expected, it will not be able to communicate with IDNet devices. It may receive faulty data if communications are attempted. The TSIT has a warning screen when such a channel is tested. Follow the instructions on the screen. A test can be forced, in cases where the high current is due to excess IDNet devices (many more than 250). But the loop should be checked for hard shorts and stray voltages before forcing a test.

IDNAC

As with IDNet, the user should have a list of IDNAC addressable notification appliances and addresses when checking out an IDNAC installation. The IDNAC information can be saved, same as the IDNet information. Refer to the section on PC Upload.

The TSIT is connected to the IDNAC channel the same way as connection to the IDNet channel. Red to IDNAC +, Black to IDNAC-, Green to earth. If the channel has multiple T-Taps, be sure that all wires are connected for the scan. When dealing with multiple T-Taps, scan each one separately then merge the results using the PC tool.

The IDNAC Test (Menu Selection Detailed Scan) performs a series of tests on the IDNAC channel, very similar to the tests for IDNet. The TSIT will communicate with IDNAC devices, determine candela setting, detect duplicates, and determine if a device is set for Alert or Alarm operation. Any device LED can be activated from the TSIT. The TSIT will not power the appliances into alarm mode.



At the completion of the scan, review the summary of devices detected and compare to the list of devices that are supposed to be installed.

Follow the on-screen options to navigate through the menu. Press ENT to review the results of the scan. Using the up/down

arrows, navigate to the desired option. The choices are to review Totals, review Totals with Mode, review by Address, review Errors or activate the Power Option. When reviewing by address, the address of the device is shown in brackets.

Use the up/down arrows to scroll through the list of detected addresses. Note that any missing devices will be represented by gaps in the devices detected. If the scrolling goes from device address 3 to device address 5, no device was detected at address 4.



The image to the right shows information that can be displayed after executing "IDNAC Test". The device address is displayed in brackets. Beneath, the device type info indicates this is a Wall

Mount A/V, set to 15Cd and “Alarm” mode. Note the LED can be activated by pressing F1.

To review errors, press the menu key and use the up/down arrows to scroll to the Errors choice. Press ENT. If multiple errors are present, the up/down keys will scroll through the list of all devices with abnormal status. If duplicate devices are detected, device type info may not be detected because two devices at the same address may corrupt the data.



As with the IDNet devices, the TSIT sends the command to activate the device LED. In the example to the right, any device set to address 3 would have the LED ON. The installer can put the instrument down, but powered, and proceed to find the lighted LEDs to correct the address. Note that a missing address fault can often be explained by a duplicate device. It is useful to also take note of any missing devices before going out to correct duplicates.

IDNAC Tests

In the example above, two devices were set to address 003, and let's assume a device was missing from address 7. You've gone out and corrected those two errors. If you wish to check them again to make sure there are no other problems, you could run “IDNAC Test” again, or you could run the IDNAC “Quick Device Srch” which is somewhat quicker, and will detect duplicate devices. It will not detect device mode (alert or alarm) or any other configuration information and will not isolate earth faults.

Power Option

The Power Option allows the user to power down the line after a test is performed to save battery power.

Once this option is selected the user will have access to all the test results but will no longer be able activate device LEDs.

To return to a normal state and regain the ability to activate device LEDs, the user must repeat the scan.

X-Talk Test

X-TALK is shorthand for Cross-Talk. Cross-Talk is interference between two signals, such as IDNet/MAPNET channels. The X-TALK test measures the impedance between the POSITIVE lead of two IDNet channels. Coupling can be caused by capacitive, resistive or inductive impedance between two electrical signals. The greater the coupling between two electrical signals is, the greater the likelihood of communications errors.

To Test	Connect
IDNet	RED lead to +IDNet wiring of Channel "A"
	BLACK lead is not connected to field wiring
	GREEN lead to +IDNet wiring of Channel "B"
Test Results are displayed and indicate the severity of the coupling between the channels	
LOW Coupling - Best Result. Indicates no cross-talk between the channels tested	
MODERATE Coupling - Indicates that coupling is adequate to cause some communications errors. The level of cross-talk would usually not be visible at the front panel, because the panel re-tries when a communications error takes place. If the re-try is successful, the panel will ignore the comms error and will not indicate any fault.	
HIGH Coupling - Indicates that coupling between the two IDNet channels is too severe for reliable communications	

To initiate the X-TALK Test, navigate to the X-TALK screen. Connect the wires as shown in the table. Press ENT. The test results are displayed when the XTALK Test is complete. To test a different cable pair, move the Green wire to the +IDNet of the next channel, press menu, then when X-TALK Test is displayed, press ENT. The X-TALK test may be conducted on two IDNet channels (connect IDNet+ as described in the table). It may also be used between RUI and IDNet, or IDNet and IDNAC.



Troubleshooting X-Talk Failure

Capacitive coupling is increased when the physical distance between two conductors is very close over a long distance.

Things that increase coupling:

- ⇒ Insulation integrity is reduced by nicked or cut insulation. Exposed conductors can have increased capacitance to other conductors. Especially earth. If shielded wire is used, it is very important to maintain the integrity of the insulation and to prevent the shield from contacting earth. Keep the drain wire insulated as close to the termination as possible.
- ⇒ Single conductor wire, such as THHN, coupling to other THHN conductors and to conduit more than the coupling to the other conductor in the pair. THHN or similar single conductor wires are not recommended for IDNet or MAPNET, except for IDNet+ card used with 4100U, 4100ES, and 4010ES.

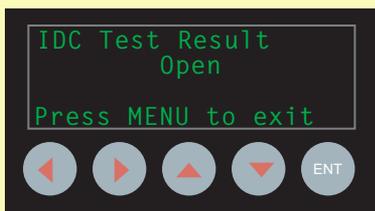
Inductive Coupling is caused by the electromagnetic field of a signal interfering with the electrical signal on an adjacent conductor. Inductive coupling interference is worse when a current changes rapidly in amplitude. Signals that cause interference from inductive coupling include Strobes and Voice NACs. Shielded wiring can eliminate inductive coupling by breaking the path of the inductive field.

Resistive Coupling is usually caused by exposed conductors. Moisture and contamination can create a conductive path to other conductors. Often, this will be shown with the earth fault test. Nicked or cut insulation, combined with moisture and contamination can result in electrical paths between wires.

Test IDC/zone

Test conventional Initiating Device Circuits with this menu selection. At the top level menu, navigate to [Test IDC/zone] with the up/down arrow keys and press ENT to select the IDC test.

If the leads are not connected to IDC wiring, the display should show the results of the test as "Open", indicating that there is no End of Line Resistor between the red and black leads.



The screen is updated constantly, so the tester will display the state of the circuit (Normal, Open, Short) without any further menu commands. This makes it easy to test multiple IDC by moving the wires from one circuit to another.

Connect the Red Lead to the IDC+ wire, and the Black Lead to the IDC- wire. Connect the Green Lead to earth. The TSIT should display "Normal".

Possible causes for open circuit faults are missing smoke or heat detectors, or a missing end-of-line resistor.

Possible causes for short circuits are activated pull-stations, detectors in alarm or shorted wiring.

Test NAC/Signal

Test conventional Notification Appliance Circuits with this menu selection. At the top level menu, navigate to [Test NAC/signal] with the up/down arrow keys and press ENT to select the NAC test.

As with the IDC test, the NAC test updates in real-time once the test has been selected.

Because of the reverse-polarity activation of Notification Appliances, the NACs must be tested in the Standby condition.

Connect the Red Lead to the -NAC Alarm wire. Connect the Black Lead to the +NAC Alarm wire. Connect the Green Lead to earth.

The TSIT will detect two 10k EOLRs on the circuit as a Short condition.

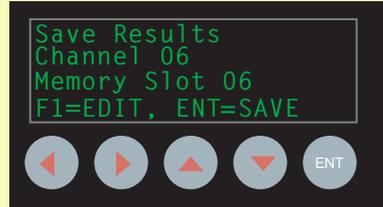
For Short circuits, also check that devices are not wired backwards.

For Open circuits, check to make sure the EOLR is intact.

Saving IDNet and IDNAC Test Results

IDNet and IDNAC test results can be saved to one of the 60 memory slots. Each slot can be tagged with a 20-character name for easy recall at a later time. To save test results, select Save Channel Data from the main menu. The first available memory slot will be displayed.

The second line on the LCD contains a 20-character, user editable name for the data being saved. The cursor (underline character) is under the first letter of the name. To enter a new name, use the ↑ or ↓ keys to change the character and the left/right arrow keys to move the cursor.



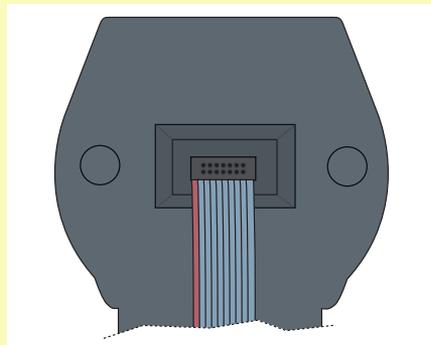
Pressing the F2 key clears the remainder of the line from the cursor position to the end (including the character at the cursor). If you want to save the results to a different channel, press the F1 key. Brackets will surround the slot number and the ↑ or ↓ keys are used to select the desired slot number (1-60). Press ENT to save to this new slot. Note that the TSIT allows you to override a previously filled memory slot using this method.

Recalling Test Results

Previously saved tests are recalled for review by selecting Recall Saved Data from the main menu. Use the ↑ or ↓ keys to select the memory slot to recall then press ENT. The contents of this memory slot are loaded into main memory for review.

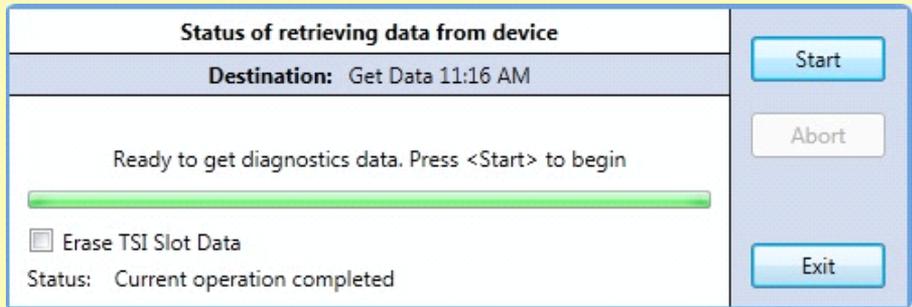
Upload to PC

Once IDNet and IDNAC test data is saved to one of the memory slots, it may be uploaded to the TrueSTART Analyzer PC software for review. Attach the download harness, 733-794, to the connector on the back of the TSIT. Orient the connector so that the striped edge is on the left. The other end of the cable is a DB9 connector, which attaches to an RS232 port on your PC.



A USB to RS232 adapter is provided in case the PC does not have RS232 ports.

Start the analyzer software on the PC and press the “Upload” button on the button bar.



Press the Start button to begin the data upload. The progress bar indicates the status of the upload and the TSIT display will also indicate that an upload is in progress. All 60 slots of information will be transferred to the PC. If the “Erase Data” checkbox is checked, the TSIT will automatically erase the contents of the memory slots once the upload is completed. If the box is unchecked, the TSIT memory contents will not be erased.

System Settings

The System Settings menu option includes menu choices that allow you to view information, clear memory slots and set TSIT options.

- System Settings > Backlight Timer
- > Battery Selection
- > Clear Memory
- > Software Revision

Backlight Timer

The TSIT LCD backlight automatically turns on whenever a key is pressed. The Backlight Timer setting controls how long the TSIT will keep the backlight on after a key-press. The possible settings are 0-60 seconds, where 0 is always on. Leaving the backlight always on is not recommended while running from the internal battery.

A TSIT may be equipped with either an LED or LCD. If LED, no backlight will be present, and this selection has no effect on operation.

Battery Selection

This setting allows you to select the number of cells for the TSIT internal lithium-ion or lithium-polymer battery. You can select either a 4-cell (14.4 - 14.8V) or 5-cell (18-18.5V). The standard battery that is supplied with the TSIT is a 4 -cell, 1200 mAh. The default setting is 4-cell.

Be sure that the meter is set for the correct size battery. If your meter will not stay ON, it is possibly set for a 5 cell battery, but has a 4 cell battery installed. The cut-off voltage for the 5-cell battery is the operating voltage for the 4-cell. It might be necessary to power the TSIT from the AC adapter, and change the menu option if the unit will not power ON from a fully charged 4-cell battery.

Clear Memory

The contents of any or all memory slots can be cleared with this menu choice. Use the ↑ or ↓ keys to select the slot to erase, or select “Clear All” to erase all memory slots. The ENT key must be pressed twice to erase the memory. The second key-press is a confirmation of the requested operation.

Software Revision

This menu screen displays the TSIT software revision.

Battery Charger

The battery charger supplied with the TSIT is for a Lithium Ion, 4 cell battery. The charger will recharge the standard battery in about 4 hours. The green LED indicates that the battery is fully charged. The red LED indicates that the battery is charging.

To charge the battery:

- ⇒ Press the power OFF switch
- ⇒ Remove the battery compartment (squeeze tabs on the sides)
- ⇒ Unplug and remove the battery from the TSIT
- ⇒ Connect the charger to an AC power source
- ⇒ Connect the battery to the charger
- ⇒ The battery is fully charged when the red LED is OFF and the green LED is ON.

The charger is rated for 100-240 VAC, 50-60 Hz. It is supplied with a US plug. For use in other countries, a local wall outlet adapter must be used (not supplied).

IDNet Device Types

Type	Description
4009A4	4009A - 4 NACs, no repeater
4009A8	4009A - 8 NACs, no repeater
R4009A4	4009A - 4 NACs, with IDNet repeater
R4009A8	4009A - 8 NACs, with IDNet repeater
ADRPUL	Addressable Pull Station
MBZAM	Class B Monitor ZAM
MAZAM	Class A Monitor ZAM
IAM	IAM
KACPUL	KAC Pull Station
SECIAM	Security Monitor IAM
CANPUL	2-Stage Pull Station
RIAM	Relay IAM
SIGIAM	Signal IAM
IDNETISO	IDNet Isolator
POWERISO	IDNet Power Isolator
RELEASE	Suppression Release Peripheral
TRIAM	Relay IAM with T-sense input
FRIAM	Relay IAM with unsupervised feedback input
MLPTIO	Multi-Point I/O module
PHOTO	TrueAlarm photoelectric sensor (standard base)
SPHOTO	TrueAlarm photoelectric sensor (sounder base)
RPHOTO	TrueAlarm photoelectric sensor (relay base)
IPHOTO	TrueAlarm photoelectric sensor (isolator base)
QPHOTO	TrueAlarm quick-connect photoelectric sensor
ION	TrueAlarm ionization sensor (standard base)
SION	TrueAlarm ionization sensor (sounder base)
RION	TrueAlarm ionization sensor (relay base)
IION	TrueAlarm ionization sensor (isolator base)
HEAT	TrueAlarm heat sensor (standard base)
SHEAT	TrueAlarm heat sensor (sounder base)
RHEAT	TrueAlarm heat sensor (relay base)
IHEAT	TrueAlarm heat sensor (isolator base)
COMBO	TrueAlarm photo/heat sensor (standard base)
SCOMBO	TrueAlarm photo/heat sensor (sounder base)
RCOMBO	TrueAlarm photo/heat sensor (relay base)
ICOMBO	TrueAlarm photo/heat sensor (isolator base)
MCOP	TrueAlarm photo/CO sensor (standard base)
MCOPS	TrueAlarm photo/CO sensor (sounder base)

IDNet Device Types (continued)

MCOI	TrueAlarm ionization/CO sensor (standard base)
MCOIS	TrueAlarm ionization/CO sensor (sounder base)
MCOH	TrueAlarm heat/CO sensor (standard base)
MCOHS	TrueAlarm heat/CO sensor (sounder base)
MCOPH	TrueAlarm photo/heat/CO sensor (standard base)
MCOPHS	TrueAlarm photo/heat/CO sensor (sounder base)
ANAMON	4-20ma Analog Monitor ZAM
STANDARD BASE	Standard TrueAlarm base (no head inserted)
SOUNDER BASE	TrueAlarm sounder base (no head inserted)
RELAY BASE	TrueAlarm relay base (no head inserted)
ISOLATOR BASE	TrueAlarm isolator base (no head inserted)
CO BASE	TrueAlarm CO sensor base (no head inserted)
CO SOUNDER BASE	TrueAlarm CO sensor base with sounder (no head inserted)
UNKNOWN DEVICE	Unrecognized device type

IDNet Error Messages

Type	Description
INVALID ADDRESS	A device was found at one of the following addresses: 0, 251-255. The IDNet channel only supports addresses 1-250.
DUPLICATE ADDRESS	More than one device was found set to the same address.
OUT OF RANGE	A TrueAlarm sensor was found to have an analog value that is out of range. This is most likely a dirty sensor heat. Replace or clean the head.
HEAD MISSING	A sensor head is not installed in a TrueAlarm base.
UNKNOWN DEVICE	The TSIT has encountered a device that it is unable to recognize. This occurs for several reasons: <ul style="list-style-type: none"> ⇒ More than one device is set to the same address (run a duplicate address test). ⇒ Bad device. ⇒ A newer device type was found that is not supported by the version of your TSIT software.

IDNAC Device Types

Type	Description
HORN	Audible appliance
STROBE	Visual appliance
A/V	Audio/Visual appliance
ISO	Isolator

IDNAC Error Messages

Type	Description
DUPLICATE	2 or more device set to the same address
NO ANSWER	A device that previously communicated no longer does.
OPEN	Other port is open (Applicable to Isolators only)
SHORT	Other port is shorted (Applicable to Isolators only)

IDNAC Configuration Information

Configuration Information	Information Displayed on the TSIT	Definition
Audio Output Level (AOL)	Hi	High
	Lo	Low
	FACP	FACP controlled AOL
Candela Rating	15Cd	15 Candela
	20Cd	20 Candela
	30Cd	30 Candela
	75Cd	75 Candela
	75WP Cd	75 Weatherproof Candela
	110Cd	110 Candela
	135Cd	135 Candela
	185Cd	185 Candela
	FACP Cd	Candela configured by FACP
Lens Color	Clear	Clear lens cover
	Color	Colored lens cover
Mode	ALERT	Alert mode
	ALARM	Alarm mode
Mount	CEIL	Ceiling mount
	WALL	Wall mount
Style	Indoor	Indoor device
	Weatherproof UL	UL Weatherproof devices
	Weatherproof ULC	ULC Weatherproof devices
Tone	Broadband	Broadband Tone

TrueSTART Data Analyzer

The TrueSTART Data Analyzer is a Windows PC application that allows you to upload test data from the TSIT for easier review, archiving, and report generation.

Installing the Software

Simply insert the TrueSTART Data Analyzer CD into your computer's CD or DVD drive and the installer will automatically start. If it does not automatically start, use Windows Explorer to open the CD folder and double-click on the file "setup.exe". You must accept the license agreement to install the Analyzer software. A Simplex/TrueSTART program group will be created allowing you to easily run the program from the Windows start menu.

Once you start the software, refer to the built-in help in the TrueSTART data analyzer tool for details on uploading and reviewing the data, and generating reports.

Replacement Parts

These replacement parts for the TrueStart and the TrueSTARTII instruments may be ordered from stock:

SKU	Description
TSI-24V	TSI/TSIT 24 V wall-wart
TSI-BATTERY	TSI/TSIT 24 V battery
TSI-CHARGER	TSI/TSIT battery charger
TSI-PROTECT	TSI/TSIT case protector
TSI-TLEADS	TSI/TSIT test leads
TSI-AUX	TSI/TSIT AUX power harness
TSI-BAG	TSI/TSIT tool bag
TSI-USB	TSI/TSIT USB to RS232 adapter



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