Equipment Catalog

Metering. Leader...Since 1904
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Catalog No. 2100
TESCO Desktop Meter Station

The TESCO Desktop Meter Station is an extremely versatile piece of testing equipment. It can be used as a programming station, a single meter evaluation station, or a test bed for checking meter features and anomalies (including creep testing!). The newly designed Meter Station not only has the ability to warm-up meters, but also has optional features such as an external load (1PH) or an internal phantom load (0.5A), an optional disconnect operation (500VA XFMR), a load receptacle, or a tilt chassis. For easy operation, all options are conveniently mounted on the front panel.

To simplify your testing needs even further, the newest feature of the Desktop Meter Station is a built-in load. This means no more carrying a load box. The loads can easily be switched between 0, 5 and 30 amps (Custom loads available).

Catalog No. 2100 is form selectable (1, 2, 3, 4, 5/45, 6/36, 8, 9, 12, 14, 15, 16) and voltage selectable (120, 208, 240, 277 & optional 480). It features a zero insertion force (ZIF) socket with textured jaws, which makes the unit perfect for both the work bench and the engineer's desk. All models are designed to operate using 120VAC input and have a power rating of 200VA. The disconnect models come with a larger power supply transformer and have a power rating of 500VA.

Specifications
- **Meter Forms**: Form Selectable 1, 2, 3, 4, 5/45, 6/36, 8, 9, 12, 14, 15, 16
- **Voltages**: Voltage Selectable 120/208/240/277 VAC; 480 VAC optional; Custom voltages available
- **Dimensions**: - 12” x 10” x 11” (W x H x D) - 12” x 10” x 13” (W x H x D) (Disconnect & Built-in Load Models)

Catalog No. 2100 Options*
- **NEW FEATURE** TWACS® Communication “C” - TWACS® communications to the meter from the users TWACS® PRTU Module
- **Disconnect Operation “D”**
- **Internal Load “I” - 1/2 Amp Phantom**
- **Built-In Load “L” - 0, 5 and 30 Amps (custom loads available)**
- **Load Receptacle “R” - 120 VAC receptacle**
- **480 VAC Meter Testing “V”**
- **“Can” — Canadian units can have additional voltage selections of 347 and 600.**

Accessories
- **Pure Sine Wave Inverter**: (Catalog No. 1210)
  TESCO’s Pure Sine Wave Inverter converts 12V battery power into pure sine wave AC household power, allowing you to run loads up to 1000 watts.
Catalog No. 2210

TESCO Desktop Test Interface Station

TESCO's Desktop Test Interface Station (Catalog No. 2210) provides metering professionals with exceptional testing flexibility. The Test Interface Station is ergonomically designed for meter technicians working in a lab or a desktop, yet still rugged for field use. The Test Interface Station includes a zero insertion force (ZIF) meter socket, voltage selection, form selection, open/closed-link selection and bi-directional cabling to power a load box/test kit and connect test standard potentials. When combined with a test kit/test standard and powered via 120 VAC, the Test Interface Station creates a single position, stand-alone, meter accuracy testing device for socket based meters (both mechanical and solid-state).

The Desktop Test Interface Station, with the proper load box, boasts a 50 amp max current input and operates on voltages up to 480V. An optional built-in load is also available, which will provide 5 or 30 amps, or you could choose the internal load which provides 0.5 amps. With the optional disconnect operation (only functional when powered via 120 VAC/inverter), you'll be able to conduct all required meter testing while at your desktop (or in the field).

TESCO's Desktop Test Interface Station has all the functionality of the Desktop Meter Stations and can be used as a programming station, a single meter evaluation station, or a test bed for checking meter features and anomalies. And with the on-board meter socket, you’ll eliminate all the adapters needed for transformer-rated and self-contained testing.

All Desktop Test Interface Stations are built with the TESCO tradition of reliability.

Specifications

- **Power Source**
  120 VAC, with 10’ cord
  TESCO Field Test Kit (not included)
- **Internal Power Supply**
  - **Standard Model**: 250 VA transformer (with taps up to 480 VAC)
  - **Disconnect Model**: 500 VA transformer (with taps up to 480 VAC)
- **Meter Test Current**: 50 Amps max
- **Meter Socket Rating**: 600 Volts
- **Meter Forms**: 1, 2, 3, 4, 5/45, 6/36, 8, 9, 12, 14, 15, 16
- **Voltage**: 0, 120, 208, 240, 277, 480 (480 is optional); Custom voltages available
- **Potential Connections**: four, 5 Amp panel mount sockets (4mm sheathed banana plug connectors)
- **Current Connections**: six, 50 Amp panel mount sockets (6mm connectors)
- **Dimensions**: 12.5” x 10” x 12.5” (W x H x D)

Catalog No. 2210 Options

- Disconnect Operation “D”
- Internal Load “I” - 0.5 Amps
- 480 VAC Meter Testing “V”
- Custom Forms “F”

*Note: Some of the options may be combined into one unit. Speak with a product specialist for detailed information.*

Accessories

- **Pure Sine Wave Inverter (Catalog No. 1210)**
  TESCO’s Pure Sine Wave Inverter converts 12V battery power into pure sine wave AC household power, allowing you to run loads up to 1000 watts.
- **Custom Potential & Load Cables**

*Note: Some of the options may be combined into one unit. Speak with a product specialist for detailed information.*
Catalog No. 2199

TESCO Desktop Meter Qualification Board

Providing complete capabilities for evaluating meters and communications performance, TESCO’s 2199 Desktop Meter Qualification Board can generate any voltage and load conditions the meter may encounter in the field. Apply non-sinusoidal voltages with complex load waveforms. Perform disconnect tests and reconnect tests without worrying about being able to drive the meter’s switches.

The 2199 provides every option possible on TESCO’s 2100 Desktop Meter Station plus much more including:

- Voltages that are completely programmable from 30-480 volts
- Loads that are completely programmable from 0-50 amps
- Standard disconnect/reconnect testing
- A zero insertion force socket (electrically operated)
- The most lightweight and portable desktop meter station available

Specifications and Features

- **Voltage Drive:** 30-480V RMS, 680V PK
- **Current Drive:** 0.01A to 50A RMS, 75A PK
- Automatic Generation of all ANSI C12.20-2016 waveforms
- Arbitrary harmonically defined waveforms
- Dropped cycle testing
- Phase fully adjustable as phase or power factor (0-359.9°)
- True ZERO insertion force socket with automatic closure on meter insertion
- Disconnect/Reconnect testing is standard
- **Voltage Accuracy:** ± 0.5% above 60V
- **Current Accuracy:** ±0.5% above 0.1A
- **Fundamental Frequency:** 45-65Hz
- Power Line Carrier; Communication Testing
- No PRTU or other external equipment are needed to perform PLC communication testing
- Forward/Reverse Current
- Power Requirements: 120 VAC, 1PH, 10A. Power cord included.
- **Size:** 13.13”W x 15.50”H x 18.19”D
- **Weight:** Approximately 41 pounds

Accessories

- **Pure Sine Wave Inverter (Catalog No. 1210)**
  TESCO’s Pure Sine Wave Inverter converts 12V battery power into pure sine wave AC household power, allowing you to run loads up to 1000 watts.
The 2990 revolutionizes meter testing by providing full series parallel meter testing in a small, budget-friendly desktop package.

A fully ANSI compliant test board, the 2990 offers complete testing of all meters under the widest range of test conditions. The new waveform generator has all waveforms called out in ANSI C12.20-2015 (pub. 4/2017). All common electromechanical and solid state meters up to 50 amps can be tested with the 2990 using the single voltage and three isolated current sources.

For more than 117 years, customers have trusted TESCO for accuracy and reliability. When you think metering, think TESCO.

**Specifications and Features**

- Digital Waveform Generator
- **Voltage Drive:** 30-350V RMS, 490V PK (line to neutral)
- **Current Drive:** 0.01A to 50A RMS, 75A PK
- Arbitrary harmonically defined waveforms
- Automatic Generation of all ANSI C12.20-2016 waveforms
- Phase fully adjustable as phase or power factor
- **Voltage Setting Accuracy:** ±1.0%
- **Current Setting Accuracy:** ±1.0%
- **Fundamental Frequency:** 45-65 Hz
- **Measurement Accuracy:**
  - Voltage: ±0.02%
  - Current: ±0.02%
  - Watts: ±0.04%, ±0.02% typical
  - VA: ±0.04%, ±0.02% typical
  - VAR: ±0.04%, ±0.02% typical
  - WWHrs: ±0.04%, ±0.02% typical
  - VAHHrs: ±0.04%, ±0.02% typical
  - VARHHrs: ±0.04%, ±0.02% typical
- Demand and time-run test capabilities
- Dropped cycle testing
- **Size:** 13.13”W x 15.50”D x 18.19”H
- **Weight:** Approximately 52 pounds

**Accessories**

- **1037-STND Optical Pick-Up**
- **A-Base Test Board Adapter**
- **1180 K-Base Test Board Adapter**
- Adapter for calibrating the unit
- Diamond Support with Calibration Service
- Stand-alone calibration of the unit
- Current Setting Accuracy: ±1.0%
- **Pure Sine Wave Inverter (Catalog No. 1210)**
  TESCO’s Pure Sine Wave Inverter converts 12V battery power into pure sine wave AC household power, allowing you to run loads up to 1000 watts.
**TESCO MTB3**

**Meter Test Board**

Run standard and complex meter accuracy tests under widely varying loading conditions.

- Three-phase, multi-position accuracy test board.
- **Accuracy**: ±0.04% at unity power factor from 0.2A to 50A, ±0.02% typical (Optional 0.02% accuracy boards available upon request)
- **Current drive**: Single range 0.01 to 50A (rms), 70A (peak)
- 100 amp and 200 amp options available
- Ability to check meter response to:
  - Varying loads over long periods of time to simulate brownout and surge conditions
  - Harmonic waveforms (can download custom harmonic waveforms through PC interface)
  - Meter power on/off cycling
  - Phasor Distortion

TESCO’s Meter Test Board facilitates these meter shop functions:

- Full functional testing capability for all AMI/AMR meters
- Meter program updates
- Software revision checking for both the meter and the communications module
- Communications module troubleshooting
- Checking of problem meters for open/shorted elements

**Accessories**

- The **Catalog No. 2450-CAL-21 TESCO Pulse Blender** is used for calibrating a TESCO Multi Position Test Board (MTB).
- The **Catalog No. 2450-CAL-30 MTB Calibration Adapter** is a socket adapter designed to bring phase A, B, and C current and potentials of a TESCO Multi-Position Test Board to an external RD-30 reference standard for calibration of the Test Board.
Make-To-Order Equipment

TESCO AMI Meter Farm

Do you have new AMI meters going into the field? Or have you already deployed your new meters, but will have firmware upgrades soon? Allow us to introduce the TESCO Meter Farm, our newest offering to support your AMI Meter Deployment. The Meter Farm powers up banks of meters and runs a current load through each meter. TESCO Meter Farms are designed to serve as a cost-effective method for testing communication, functionality and firmware upgrades from your meter manufacturer(s).

The Meter Farm can be used as part of the qualification process prior to deployment, but has been more popular as a post deployment tool to allow large scale testing of all new releases of firmware over hundreds or even thousands of meter points prior to upgrading the entire system. The Meter Farm can also be used to perform long-term testing for new hardware releases prior to introducing later generation meters into the field. As with all of our products, the TESCO Meter Farm is built with the tradition of reliability and ruggedness.

Specifications

- **Meter Forms**: TESCO Meter Farm Panels are available to suit ALL meter forms.
- **Voltages**: 120, 240, 277 and 480VAC (Custom voltages available upon request)
- **Amperages**: 0.5 (Custom amperages available upon request)
- **Socket Positions**: Built to customer specifications to suit your needs
Make-To-Order Equipment

TESCO Gas Meter Farms

Gas Meter Farms are population management tools in a post-deployment AMI world and a certification tool before, during and even after an AMI deployment. Gas Meter Farms will allow the Meter Service department to track long-term performance of installed meters, assist in diagnosing issues found in the field population, and certify initial meters prior to deployment as well as future generations of meters after deployment. A properly set-up Gas Meter Farm will have test collectors and head end systems which allow testing of new firmware and hardware for this portion of an AMI system as well. Gas Meter Farms can be built to accommodate residential, commercial, and rotary meters. These farms are also a valid means for AMI functional testing of water meters.

Tests and Uses

- Long term meter performance
- Testing of all firmware and software upgrades before downloading them to meters, collectors, or even the head end
- Diagnose field issues against a control group of meters
- Test future generations of meters against a control group of initially installed meters
- Perform certification tests for new types of meters, modules and communication systems
- Perform accelerated life tests
- Track and assess any potential component failures
- Test battery recovery performance for existing and future meter generations
- Perform communication tests
- Perform download testing
Make-To-Order Equipment

TESCO Meter Test Board (MTB-3050)

An innovative meter accuracy test system offering unsurpassed functionality and ease of use. All of the features you will need to test meters today and tomorrow are standard. Run standard meter accuracy tests and complex meter accuracy tests under widely varying loading conditions with TESCO’s MTB-3050.

Features include

- Three phase accuracy test board
- **Accuracy:** 0.04% with options for 0.02% and 0.01%
- **Current Drive:** Single range 0.01 to 50A(rms), 70A (peak)
- Ability to check meter response to:
  - Varying loads over long periods of time to simulate brownout and surge conditions
  - Harmonic waveforms (can download custom harmonic waveforms through PC interface)
  - Meter power on/off cycling
  - Phasor Distortion
- **Weight:** Approximately 144 pounds

The MTB facilitates these meter shop functions:

- Full functional testing capability for all AMI/AMR meters
- Meter program updates
- Software revision checking for both the meter and the communications module
- Communications module troubleshooting
- Checking of problem meters for open/shorted elements

### Additional Features

- Automated Meter Socket
- Meter Disconnect Switch Testing
- Power Line Communication Testing
- Electronically actuated socket
- Keypad and PC software interface
- Service disconnect testing through keypad and PC software interface
- Digital Waveform Generators (per phase)
- Integrated Reference Standard
- IR port, radio, and PLC communications testing can be verified for all meters loaded into the board.
- Convenient PC Software Interface to quickly select test sequences, meter elements, and all service types is installed on every MTB-3050. Seamlessly save and export test results. Ask us about the option to interface and pass data to your system of record.

### Accessories

- The **Catalog No. 2450-CAL-21 TESCO Pulse Blender** is used for calibrating a TESCO Multi Position Test Board (MTB).
- The **Catalog No. 2450-CAL-30 MTB Calibration Adapter** is a socket adapter designed to bring phase A, B, and C current and potentials of a TESCO Multi-Position Test Board to an external RD-30 reference standard for calibration of the Test Board.
TESCO Meter Engineering Board (MEB)

Perform qualification, disconnect, communication, and advanced functional tests with TESCO’s Meter Engineering Board. With basic metrology (0.1% accuracy) TESCO’s MEB can also be used as a demand board or a time run board, as part of meter certification, or to meet regulatory testing requirements. A new socket design provides automated operation to make loading easier. All new TESCO boards include our new electronically actuated sockets.

**TESCO’S Meter Engineering Board can help with**

- Meter evaluating testing and certification
- Communications performance
- Power Line Communications testing
- Software and firmware verification
- Meter setting verification
- Meter functional testing
- Demand testing
- Time run testing
- Extended use testing
- Meter disconnect switch testing

**Specifications**

- **Voltage Drive:** 60-480V RMS, 680V PK; **Voltage Accuracy:** ± 1.0%
- **Current Drive:** 0.001A to 50A RMS, 75A PK; **Current Accuracy:** ± 1.0%
- **Arbitrary Waveform Generator,** 6kHz Bandwidth
- **Automatic Generation of all ANSI C12.20-2016 waveforms**
- **Dropped cycle testing**
- **Fundamental Frequency:** 45-65Hz

**MEB1:** applies voltage to all appropriate stabs and isolated currents to all phases of electric meters.

**MEB3:** applies true three-phase voltage and current to electric meters.
Make-To-Order Equipment

TESCO Next Gen Meter Qualification Board (MQB)

Power-up and apply load to electric watt-hour meters for functionality testing with TESCO’s multi-position Meter Qualification Boards (MQBs). These boards assist with AMI Meter Certification process and AMI meter qualification and communication testing.

Available in functional test, series parallel, and true three-phase configurations, these boards can be banked together to provide any number of sockets required. Disconnect testing is standard on all TESCO MQBs and each socket position is designed to accommodate any meter form requested.

The new waveform generator has all waveforms called out in ANSI C12.20-2015 (published April 2017).

Optional software allows the user to program test scripts that permit users to run extended, predefined test protocols.

Specifications

- True ZERO insertion force socket with automatic closure on meter insertion.

Digital Waveform Generator
- Voltage Drive: 60–480V RMS, 680V PK.
- Current Drive: 0.001A to 50A RMS, 75A PK Options up to 320A.
- Arbitrary Waveform Generator 6 kHz Bandwidth.
- Dropped cycle testing.
- Power Factor is fully adjustable 0 to 359.9 degrees.

For three-phase MQBs voltage to voltage phase angles can be independently adjusted phase to phase as can current phase angles.

- Voltage Accuracy: ± 1.0%.
- Current Accuracy: ± 1.0%.
- Fundamental Frequency: 45–65Hz.
Make-To-Order Equipment
TESCO Three-Phase Meter Qualification Board (MQB3)

The MQB3 facilitates the following meter shop functions in high volume:
- New AMI/AMR meters settings check-out
- Meter program updates
- Software revision checking for both the meter and the communications module
- Communications module troubleshooting
- Checking of problem meters for open/shorted elements

With the MQB3, the user has the ability to check meter response to:
- Varying loads over long periods of time to simulate brown out and surge conditions
- Harmonic waveforms (can download custom harmonic waveforms through PC interface)
- Meter power on/off cycling
- Phasor distortion

Features
- Simple, electronically-controlled loading of meters
- Voltage and Current routed to the proper locations on the meter socket based on form selected
- Voltage and Current amplitude adjustable per phase at the keypad
- Current Drive: single range 0.01 to 50A(rms), 70A (peak)
- Back voltage sensing during disconnect testing
- Standard services selectable at the keypad
- User friendly 7” diagonal, 800x480, TFT color display and keypad for setup
- Phasor relationship between channels (i.e. A to B phase angle) adjustable at the keypad
- Power Factor (phase angle) adjustable at the keypad
- Service disconnect testing through keypad selection
- IR port, radio, and PLC communications testing can be completely checked out for all meters loaded into the board.
- Each MQB3 comes with a PC program that can be loaded onto a computer connected to the MQB3’s Ethernet port to replicate the functionality of the display and keyboard on multiple chassis.

THREE-PHASE METER QUALIFICATION BOARD

Apply true three-phase voltage and current to electric meters, enabling them to be tested under all possible conditions that may be encountered in the field.
Catalog No. 1180

TESCO K-Base Test Board Adapters

The TESCO K-Base Test Board Adapters allow quick, convenient testing of self-contained K-Base meters on test boards designed for socket type meters. The K-Base Test Board Adapters are designed for single phase (Catalog No. 1180-2) and polyphase (Catalog No. 1180-4) meters.

The K-Base Test Board Adapters are easy-to-use and equipped with two clamps located on the front of the adapter, which will secure the meter to the base. The adapter also has an acrylic safety shield to protect the user from any arcing that may occur.

Features
- Easy-to-use
- For use on mechanical or solid state meters
- Safety shield around the entire adapter
- Safety covers are optional

Specifications
- Single Phase Meter Forms: 2K
- Polyphase Meter Forms: 12K, 14K, 15K, 16K, 27K
- Current: 50 Amps max
- Voltage: up to 480 VAC
- Dimensions: 12” x 7-3/4” x 9-5/8” (L x W x H)
- Weight: 8 lbs.
Catalog No. 1182-3

TESCO A-Base Test Board Adapters

From time to time, you may find yourself needing to test A-Base meters. Or perhaps you will need to test them for the first time in years as part of a removal project. Well, TESCO can help!

If the quantity is small, we can test them in our shop for you.

If the quantity is larger, we have an A-Base Test Board Adapter!

Features and Specifications

- Easy-to-use
- 30 amp
- **Cat 1182** (single phase) accommodates forms 1A, 2A, 3A, and 12A
- Please contact us for other forms
- Can be used on ALL TESCO Meter Test Boards, RFL 5800s, and most WECO test boards
- **Dimensions:** approximately 7” x 4.5” x 12.5”
- **Weight:** less than 5 pounds
Catalog No. 1035

TESCO Probe and Pickup

TESCO’s Cat. 1035 Probe and Pickup combines the best of communication between a PC and a meter with the reliability of TESCO’s optical pulse pickup. No longer do you have to disconnect the pickup after doing a meter test to connect a probe when checking meter programming or disconnect switch operations to reconnect to a PC with this all-in-one device. Save time with less hassle.

COST EFFICIENT: TESCO’s Probe and Pickup is an affordable way to test, program, and read meters.

DEPENDABLE: TESCO has supplied the utility industry for more than 100 years.

EASY TO USE: To operate, simply attach the device to a meter and plug the USB cable into your PC and the DB9 connector into your TESCO Next Gen test board so communications with the meter vendor’s software and meter testing can begin. Red and green LEDs indicate communications to and from the meter as well as meter pulses while doing meter testing.

Specifications

- Splitter style plug
- Robust and durable
- Portable and convenient
- USB interface for the Probe
- Two way communication to the meter
- Program and read meter settings
- DB9 interface for meter test pulses
- Perform meter testing

PROBE AND PICKUP
CATALOG NO. 1035

Accessories

TESCO Optical Port Adapters (Catalog No. 1041-AC, 1041-CN, 1041-LG, and 1041-HY) snap on the meter cover to create a metal interface for the 1039-WP to adhere to while you program the meter from your truck. They are compatible with GE/Aclara, Centron, Landis + Gyr, Itron, and Honeywell meters.

TESCO’s Vacuum Assist (Catalog No. 1029) uses a small, quiet USB or battery powered vacuum pump to securely hold pickups and probes in place.
Catalog No. 1037-STND
TESCO Optical Pickup

TESCO’s Optical Pickup (Catalog No. 1037-STND) performs one way meter communication through the calibration LED found on most solid state meters. The Pickup senses infrared pulses from ANSI compliant meters for complete, automatic testing.

TESCO’s standard connection model is designed to work with field test standards. It utilizes an optical pickup terminal port (LEMO 4-pin connector) to allow for easy connection, while also powering the unit. To operate the TESCO Optical Pickup, simply attach it to a meter and testing will automatically begin when powered. A red LED on the head of the pickup indicates a pulse reading. A green LED indicates power to the pickup.

The TESCO Optical Pickup has the ability to connect to any meter (without the need of an adapter). Using magnets and two adjustable suction cups (one that swivels a full 360°), our pickup is designed to accommodate multiple surfaces and working heights on the meter cover. The TESCO Optical Pickup has also been designed to operate in all ambient sunlight conditions (i.e. mid-day, direct sunlight), and in extreme testing conditions (i.e. cold weather), while continuously maintaining constant, accurate results. Additionally, TESCO developed the pickup to be resistant to RF noise from established and emerging AMI technologies.

Specifications
- **Power Supply**: Via field test standard
- **Lead**: 6ft. flexible; custom lengths available
- **Connector**: LEMO 4-pin
- **Fastening**: Suction adhesion & magnetic connection
- **Optical**: Conforms to ANSI Standards
- **Mechanical**: High-impact ABS housing, dimensions conforming to ANSI Standards

Accessories
TESCO Clip-On PocketPal
Carrying Case Catalog No. 1040
The case measures 3” x 3.5” x 2.25” (W x H x D).
Catalog No. 1037-ITRN

TESCO Top of the Meter Optical Pickup

Having trouble picking up the pulse from the top of the meter? We have a solution!

TESCO's Cat. 1037-ITRN matches the curvature of the meter cover on the optical port located at the 12 o'clock position on the meter and allows easy pulse pickup from the top of the meter.

The design uses the meter cover to hold and locate the pickup directly over the pulse output (light pipe). The pickup is integrated into the curved plastic to allow the pickup to be on the surface of the cover, maximizing the signal received from even the weakest pulse outputs. The curved design also blocks ambient light making this the most effective pickup on the market for sensing the pulse output from meters with the pulse output in the 12 o'clock position.

Specifications
• Easy, reliable pulse pickup
• Blocks ambient light
• Resistant to RF noise from established and emerging AMI technologies
• Sturdy, elastic band included to securely hold unit to meter
• Select your connector from the following options:
  • 1037-ITRN-STND: 6 ft. cable with LEMO connector powered by any TESCO Test Board
  • 1037-ITRN-DTS: 2 ft. cable with DB-9 connector powered by any TESCO Test Board
  • 1037-ITRN-SA: 6 ft. cable with a DB-9 connector powered by TESCO's Cat 6330 Meter Site Analyzer
• Custom lengths available for any of the three options above
• Conforms to ANSI Standards
• High-impact ABS housing, dimensions conforming to ANSI Standards
• Senses infrared pulses from ANSI compliant meters for complete, automatic testing

Accessories
TESCO Clip-On PocketPal Carrying Case Catalog No. 1040
The case measures 3" x 3.5" x 2.25" (W x H x D).

Replacement pack of elastic bands available (5-pack)
Catalog No. 1038

TESCO Optical Probe

TESCO’s Optical Probe provides easy, two-way communication between a PC and meter.

**COST EFFICIENT:** TESCO’s Optical Probe is an affordable way to program and read meters.

**DEPENDABLE:** TESCO has supplied the utility industry for more than 100 years.

**EASY TO USE:** To operate, simply attach it to a meter and plug the USB cable into your PC and communications with the meter vendor’s software can begin. Red and green LEDs indicate communications to and from the meter.

**Specifications**
- Smaller and lighter than any other probe
- Robust and durable
- Portable and convenient
- USB interface
- Two way communication to the meter
- Program and read meter settings

**Other Tools**
TESCO offers these other products for all your meter communications needs:

- Catalog No. 1037-STND and 1037-DTS Optical Pickup for performing meter testing.
- Catalog No. 1039 Safety Disconnect Device to operate the meter disconnect through the optical probe without any external software.
Catalog No. 1029

TESCO Vacuum Assist

Frustrated by optical pickups and probes that do not stay attached to meter covers? We have a solution!

TESCO's Vacuum Assist actively generates a vacuum that attaches your TESCO optical pickup or probe to the meter and allows hands-free use for the meter tech. No more wasted time during testing or communication work when the pickup or probe falls off.

TESCO's Vacuum Assist (Catalog No. 1029) uses a small, quiet USB or battery powered vacuum pump to securely hold pickups and probes in place.

The Vacuum Assist can be used with TESCO's Pickups: Catalog No. 1037-STND or 1037-DTS.

Specifications
- Secure, robust, vacuum grip on flat meter covers
- Conveniently USB powered when USB port is available
- Compact, lightweight, rechargeable battery powered when used with Catalog No. 1037-STND or 1037-DTS
- Quiet function
- Allows meter tech hands-free flexibility of a pickup or probe to conduct testing
- On/off switch can be used with rubber gloves/PPE
- Carrying Case available

Other Tools
TESCO offers these other products for all your meter communications needs:

- Catalog No. 1037-STND and 1037-DTS Optical Pickup for performing meter testing.
- Catalog No. 1039 Safety Disconnect Device to operate the meter disconnect through the optical probe without any external software.

Compact, lightweight, rechargeable battery
Catalog No. 1040
TESCO Clip-On PocketPal

TESCO's Catalog No. 1040 Clip-On PocketPal is an easy, convenient and secure way to transport your smaller items in the field.

**Features**
- Clip-on style allows easy, hands-free transport
- Lightweight
- Secured with Velcro closure
- **Dimensions:** Approximately 3” wide, 2.25” deep and 3.5” tall

**Specifications**
Made of durable canvas, this lightweight case attaches quickly to a belt or waistband and has a Velcro closure to keep items secure in transit.

The PocketPal can be used for a number of items including:
- Catalog No. 1039 Safety Disconnect Device
- Catalog No. 1037-STND Optical Pickup
- Catalog No. 1037-DTS Optical Pickup
- Catalog No. 1038 Optical Probe
Make-To-Order Equipment

TESCO Cable Sets

TESCO can custom manufacture Cable Sets to suit both your meter shop and field needs. Cable Sets for grounding and testing can be purchased to meet your specifications for wire gauge and terminations including, but not limited to, spades, alligator clips, banana plugs, and our Catalog No. 1077 Test Plug, which is the perfect accessory for test switch interfacing.

Contact your TESCO sales representative to learn more.

CABLE SET WITH TEST PLUG
CATALOG NO. J-35-50T

CABLE SET WITH ALLIGATOR CLIPS
CATALOG NO. J-35-50C
Catalog No. 995A
TESCO Click Switch

The TESCO Test Click Switch helps simplify your testing needs and makes a great accessory to the TESCO Field Test Kit line. The 995A is a normally closed push button switch. This switch connects directly to the input BNC of any TESCO or RD/RM standard. The switch housing is stainless steel and built with the TESCO tradition of durability and ruggedness for the field. The standard switch is available four-foot in length. Custom lengths are available as well.

Features
- 995A-4 (standard switch)
- 995A-C (the "C" is your custom length in feet)
Catalog No. 6330
TESCO Meter Site Analyzer

Need an all-in-one field test kit? TESCO’s Meter Site Analyzer is the most versatile and complete tool for testing the entire functionality of transformer-rated metering installations in a convenient, portable, and ULTRA lightweight kit—only 17.8 lbs!

As a utility, the vast majority of revenue comes from large customers who have transformer-rated services. At transformer-rated sites, the opportunity for something to go wrong is much greater than at a self-contained site. 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 ensure the customer is billed correctly and you are not losing revenue, you must test the whole site, not just the meter. TESCO’s all-in-one 6330 Meter Site Analyzer gives you the most versatile site testing tool available in a small, lightweight package.

No other test system has the functionality of:
- Complete Site Verification
- CT Testing (ratio with Burden, Burden, Admittance)
- Meter Testing
- Customer Load to 20A
- Load Box to 5A
- Accuracy, Demand, Timed Register, Timed Run, Energy Delivery
- “Fast Key” Anytime Data
- Metrology Data
- Phasor Diagrams
- Live Waveforms with Recording
- Harmonics

Features:
- Voltage: 50-650V, 920V peak
- Current: 0.1-21A, 30A peak
- Connectivity:
  - Ethernet Port,
  - 4 USB A; USB B,
  - Test Pulse Pickup,
  - 3 Probe Inputs (Current or Voltage)
- Load box:
  - True three phase
  - Current 0-5A with full harmonics
- Accuracy:
  - W, WHrs: ±0.04%
  - VA, VAHrs: ±0.04% (conformance to definitions)
  - VAR, VARHrs: ±0.04% (conformance to definitions)
  - Phase: ±0.005 degrees
  - Probe Channels: ±0.05% plus probe uncertainty

Accuracy (cont):
- Probe Channels: ±0.05% plus probe uncertainty
- Voltage: ±0.02%
- Current: ±0.02%

Display:
- 7” high resolution screen
- Direct sunlight readable
- Protected screen

Case: Pelican AIR 1485 case, 18.2” x 13.9” x 6.7” Water resistant
Weight: 17.8 pounds with basic items needed in field*
*TESCO’s Lightweight Kit pictured includes 6330 unit, B00-001 Battery Pack, 1037-SA Optical Pickup, CJ0-6330-002 Current Jumpers, CCO-6330-002 Current Cable, VCO-6330-002 Voltage Cable, VTO-6330-001 Test Clips, and P01-0040-R Rogowski Current Probe.
Total weight: 17.8 lbs.
TESCO Field Test Interface Kit

TESCO's Field Test Interface Kit (Catalog No. 2200) provides metering professionals with exceptional testing flexibility. The Field Test Interface includes a zero insertion force (ZIF) meter socket, voltage and form selection, and connection points to link it with a TESCO Field Test Kit (Catalog No. 621, 630 or GA Series). When combined with a Field Test Kit and powered via inverter (commonly used on service trucks), the Field Test Interface will then power the Field Test Kit to create a single position, stand-alone, meter accuracy testing device for various socket based meters (both mechanical & solid-state). Power for the Field Test Interface can also be supplied by customer potential via TESCO Field Test Kit (no need for the inverter).

The Field Test Interface, with the proper load box, boasts a 50 amp max current input and operates on voltages up to 480V. With an optional disconnect operation (only functional when powered via 120 VAC/inverter), you'll be able to conduct all required meter testing while in the field.

TESCO's Field Test Interface has all the functionality as the Desktop Meter Stations and can be used as a programming station, a single meter evaluation station, or a test bed for checking meter features and anomalies. And with the on-board meter socket, you'll eliminate all the adapters needed for transformer-rated and self-contained testing.

The Field Test Interface is built with the TESCO tradition of reliability and ruggedness.

Specifications

- **Power Source**
  120 VAC, with detachable 10’ cord
  TESCO Field Test Kit (not included)

- **Internal Power Supply**
  - **Standard Model** - 250 VA transformer (with taps up to 480 VAC)
  - **Disconnect Model** - 500 VA transformer (with taps up to 480 VAC)

- **Meter Test Current**: 50 Amps max

- **Meter Socket Rating**: 600 Volts

- **Meter Forms**: 1, 2, 3, 4, 5/45, 6/36, 8, 9, 12, 14, 15, 16

- **Voltage**: 0, 120, 208, 240, 277, 480 (480 is optional); Custom voltages available

- **Potential In/Out Connections**: two, 5 Amp sheathed banana jacks

- **Current Connections**: six, 50 Amp multi-contact connections

- **Dimensions**: 13.3” x 14.9” x 9.8” (W x H x D)

- **Weight**:
  - **Standard Model** - 26.5 lbs.
  - **Disconnect Model** - 32 lbs.

Catalog No. 2200 Options

- Disconnect Operation “D”
- 480 VAC Meter Testing “V”
- Custom Forms “F”

Accessories

- Pure Sine Wave Inverter (Catalog No. 1210)
- Custom Potential & Load Cables

*Note: Some of the options may be combined into one unit. Speak with a product specialist for detailed information.*
Catalog No. 621

TESCO Field Test Kit

TESCO’s Catalog No. 621, light-weight, 50 Amp Field Meter Test Kit with Power Factor, has been designed to reduce the weight of field test equipment to the lowest possible limit. The carrying case is fabricated from durable powder-coated aluminum. The total weight of the meter test kit including leads and digital reference standard is only 25 lbs. The Test Kit also incorporates ample storage space for the cable set.

A 120/240/277/480 voltage change switch is provided with an “OFF” position so the load can be de-energized without the necessity of breaking connections when it is desired to make adjustments to the meter under test. The various load values are changed by manipulation of a durable rotary switch. No connections need to be changed. The unit provides a 5, 15 and 50 amp current source at full load and a 0.5, 1.5 and 5 amp current source on the light load setting. Power factor can be easily switched between 50% and 100% via a simple, durable toggle switch.

The artificial load and standard are permanently connected. The load’s internal connections allow the load selector to automatically place the proper standard coil in the test circuit. The Catalog No. 621 is designed for testing meters with an open link. For closed link meter testing, please contact us to learn about our Catalog No. 630 Closed-Link Meter Test Kit.

Specifications
- **Dimensions:** 13.5” x 9.25” x 13.5” (W x D x H)
- **Weight:** 25 lbs.
- **Voltages:** 120, 240, 277, 480 (custom voltages available)
- **Current Range:** Amperes
- **Full Load:** 5, 15, 50
- **Light Load:** 0.5, 1.5, 5
- **Power Factor:** 50%, 100%
- **Standard:** Radian

**Accessories**
- Click Switch, Catalog No. 995A
- Make-to-Order Cable Sets
- Field Bag, Catalog No. 1048
- Test Plug, Catalog No. 1077
- Test Switch Protectors, Catalog No. 6441 and 6441-C
- Test Switch Isolator, Catalog No. 1076
- Load-to-Line Jumpers, Catalog No. 200
Catalog No. 630

TESCO Closed-Link Field Test Kit

TESCO's Catalog No. 630, light weight, closed-link, 30 Amp Field Meter Test Kit with Power Factor, has been designed to reduce the weight of field test equipment to the lowest possible limit when testing electric meters without potential links or with the links closed. The unit is protected within its ergonomic carrying case by a durable powder-coated aluminum shell. The total weight of the meter test kit including leads and digital reference standard is only 30 lbs. The Test Kit carrying case also incorporates ample storage space for the cable set and other tools.

A 120/240/277/480 voltage change switch is provided with an “OFF” position so the load can be de-energized without the necessity of breaking connections when it is desired to make adjustments to the meter under test. The various load values are changed by manipulation of a durable rotary switch. No connections need to be changed. The unit provides a 5, 15 and 30 amp current source at full load and a 0.5, 1.5 and 5 amp current source on the light load setting. Power factor can be easily switched between 50% and 100% via a simple, durable toggle switch and each of the 3 phases can be de-energized without the need to disconnect the leads via independent switches.

The artificial load and standard are permanently connected. The load's internal connections allow the load selector to automatically place the proper standard coil in the test circuit. Standards can be easily removed from the unit if desired for calibration.

Specifications
- Dimensions: 13.5” x 9.25” x 13.5” (W x D x H)
- Weight: 30 lbs.
- Voltages: 120, 240, 277, 480 (custom voltages available)
- Current Range: Amperes
- Full Load: 5, 15, 30
- Light Load: 0.5, 1.5, 5
- Power Factor: 50%, 100%
- Standard: Radian

Accessories
- Click Switch, Catalog No. 995A
- Make-to-Order Cable Sets
- Field Bag, Catalog No. 1048
- Test Plug, Catalog No. 1077
- Test Switch Protectors, Catalog No. 6441 and 6441-C
- Test Switch Isolator, Catalog No. 1076
- Load-to-Line Jumpers, Catalog No. 200
Catalog No. GA-50
TESCO GA Series Field Test Kit
(with Resistive Load)

The GA Series Field Meter Test Kit with Resistive Load has been designed to reduce the weight of field test equipment to the lowest possible limit. The carrying case is fabricated from durable powder-coated aluminum. The total weight of the meter test kit including leads and digital standard is approximately 25 lbs.

A 120/240/277/480 voltage change switch is provided with an "OFF" position so the load can be de-energized without the necessity of breaking connections when it is desired to make adjustments to the meter under test. The various load values are changed by manipulation of a durable rotary switch. The switching steps are arranged so the full load value is adjacent to its corresponding light load value. In order to change from full to light load, change the switch settings on the load. No connections need to be changed.

The artificial load and standard are permanently connected. The load's internal connections allow the load selector to automatically place the proper standard coil in the test circuit. As with all TESCO loads, these are rated for continuous duty.

Specifications
• Dimensions: 13.5" x 9.25" x 13.5" (W x D x H)
• Weight: 25 lbs.
• Voltages: 120, 240, 277, 480 (custom voltages available)
• Current Range: Amperes
• Full Load: 5, 10, 15, 30, 50
• Light Load: 0.5, 1, 1.5, 3, 5
• Standard: Radian

Accessories
• Click Switch, Catalog No. 995A
• Make-to-Order Cable Sets
• Field Bag, Catalog No. 1048
• Test Plug, Catalog No. 1077
• Test Switch Protectors, Catalog No. 6441 & 6441-C
• Test Switch Isolator, Catalog No. 1076
• Load-to-Line Jumpers, Catalog No. 200
Catalog No. 1043

TESCO 10 Amp Current Transformer Burden Test Set

The Catalog No. 1043 Current Transformer Burden Test Set is a simple and inexpensive means whereby a current transformer installation may be quickly checked for many sources of trouble. The tests are made without interrupting the customer's service and while the load is on.

The instrument is essentially a multi-range ammeter with a built-in ohmic burden which is normally shunted, but which can be put in series with the meter by pressing a push button.

Extensive precautions have been taken in the design of the CT Burden Test Set. A continuous and closed path in the watt-hour meter current circuit exists at all times, and the secondary of the current transformer will not open by accident.

Features
- Current ranges selected such that a half-scale reading on any range will be a full-scale deflection on the next lowest range. Consequently, a current range can be selected which will give at least half-scale deflection.
- Large easy to read panel meter
- Four current ranges
- Six ohmic burden values
- Non-conducting molded case

Specifications
- Current Ranges: 1.25, 2.5, 5, 10 amperes
- Burden Values: 0.1, 0.2, 0.5, 1.0, 2.0, 4.0 ohms
- At the nominal current of 5 amperes, these ohmic values correspond to 2.5, 5, 12.5, 25, 50 and 100 volt ampere burden, respectively.
- Rotary Switches: The rotary switches are of the shorting or “make before break” type to prevent accidental opening of the C. T. secondary.
- Readability: The meter is a 2.5” panel instrument with a scale of 2.2” and a transparent unbreakable plastic cover for easy viewing.
- Duty Cycle: The instrument is rated for continuous duty up to the largest current value except for the burden resistors which are rated for intermittent duty.
- Case: The instrument is housed in a non-conducting black molded plastic case with white panel markings.
- Dimensions: 5.25” x 6.875” x 3.125” (W x H x D)
- Weight: 2.75 lbs.

Accessories
- Carrying Case, Catalog No. 1046
  - Overall Size: 8.5” x 4” x 7.375”
  - Weight: 1 lb.
- Test Plug, Catalog No. 1077
- Optional Leads
  - J-35-50C 6 ft. cable with copper clips
  - J-35-50T 6 ft. cable with Catalog No. 1077 Test Plug
Due to overwhelming demand, TESCO has re-introduced the 1044A (20) Amp CT Burden Test Set. This lightweight, handheld unit is a simple and inexpensive means whereby a current transformer installation may be quickly checked for many sources of trouble. The 1044A provides utilities a less expensive and more traditional option for checking larger services for potential meter circuit related issues.

Extensive precautions have been taken in the design of the CT Burden Test Set. A continuous and closed path in the watt-hour meter current circuit exists at all times, and the secondary of the current transformer will not open by accident.

Specifications
- **Current Ranges:** 1.5, 2.5, 5, 10, 20 amperes
- **Burden Values:** 0.1, 0.2, 0.5, 1.0, 2.0, 4.0, 8.0 ohms
- **Readability:** The meter is a 2.5” panel instrument with a scale of 2 3/16” and a transparent unbreakable plastic cover for easy viewing.
- **Duty Cycle:** The instrument is rated for continuous duty up to the largest current value except for the burden resistors which are rated for intermittent duty.
- **Dimensions:** 7.5” x 8.5” x 3.125” (W x H x D)
- **Weight:** 3.5 lbs.

Accessories
- Carrying Case, Catalog No. 1046D
  - **Overall Size:** 8.5” x 9” x 5” (W x H x D)
  - **Weight:** 1 lb.
- Test Plug, Catalog No. 1077
- Optional Leads
  - J-35-50C 6 ft. cable with copper clips
  - J-35-50T 6 ft. cable with Catalog No. 1077 Test Plug
Catalog No. 1047

TESCO CT Ratio/Burden Tester

TESCO’s CT Ratio/Burden Tester is a lightweight, portable and highly accurate in-service test set to assist in finding lost revenue by testing the accuracy of your meter circuits. The CT Ratio/Burden Tester can help determine if there are installations errors, loose connections, incorrect ratios, resistance buildup, open CT’s, or manufacturers defects. The CT Ratio/Burden Tester measures and displays the primary and secondary current of the CT under test and the ratio of the currents. All test data is stored in the internal memory and easily uploaded to a PC.

Features

• Lightweight, portable & easy-to-use
• Works with any CT, as long as the secondary current is less than 20A
• Internal memory to store test results (up to 500 tests)
• Easy pass/fail indicator
• Auto burden scan
• Demag

Specifications

• Current Range: CT Secondary input, 20A full scale max reading, +/- 0.25% (+/- 2 LSD), 0.1-20A
• Burden Values: 0.1, 0.2, 0.5, 1.0, 2.0, 4.0, 8.0 Ohms
• Operating Environment: 0-100° F
• Batteries: Internal, Rechargeable (will operate for 10 hours on full charge)
• Dimensions: 7.5” x 3.75” x 4.25”
• Weight: 2.5 lbs.

Accessories

• Current Cable (Catalog No. J-1044-50T) with Test Plug connector (included)
• Soft Case (included)
• Battery Charger (included)
• Current Probe Extension Cable, Catalog No. C-1047-20 (20’) & C-1047-50 (50’)
• AC Current Probe (Catalog No. 411) - 600V/600A
• AC Current Probe (Catalog No. 752) - 600V/1,000A
• AmpFlex Flexible Current Probe (Catalog No. 361) - 600V/3,000A
• Amp Litewire Fiber Optic Coupled Ammeter (Catalog No. 801) - 1-2000A
Catalog No. 326
TESCO Artificial Resistive Load

An industry staple for over 50 years, the TESCO Artificial Resistive Load has been redesigned to meet 21st century standards, making it the most cost-effective, portable and lightweight artificial load box on the market today. Developed with the same strength and reliability you have come to expect with all TESCO field test instruments, the Cat. 326 weighs only 13 lbs. and is designed for input voltages of 69V, 120V, 240V, 277V and 480V (69V is optional). The unit is built for selectable full load current taps at 2.5A, 5A, 15A, 30A, 50A and light load taps at 0.25A, 0.5A, 1.5A, 3A and 5A.

TESCO is committed to the development of all of our instruments to meet the needs of today's utility market. If you are currently using older model TESCO equipment, please contact us to learn how your product is evolving.

Specifications
- **Dimensions:** 11” x 7” x 10” (W x D x H)
- **Weight:** 13 lbs.
- **Voltages:** 69/120/240/277/480 (69V is optional); Custom voltages available
- **Current Range:** Amperes (Ammeter optional)
- **Full Load:** 2.5, 5A, 15A, 30A & 50A
- **Light Load:** 0.25, 0.5A, 1.5A, 3A & 5A
- **Warranty:** 2 Years

Accessories
- Make-to-Order Cable Sets
- Click Switch, Catalog No. 995A
- Field Bag, Catalog No. 1048
- Test Plug, Catalog No. 1077
- Test Switch Protectors, Catalog No. 6441 & 6441-C
- Test Switch Isolator, Catalog No. 1076
- Load-to-Line Jumpers, Catalog No. 200
Catalog No. 480

TESCO RC-50 Artificial Phantom Load (with Power Factor)

The RC-50 Artificial Phantom Load with Power Factor has been designed to meet the most exacting requirements. It operates from a single phase source and will deliver current at either unity or 50% power factor at all full load ranges.

Features
- Artificial Load
- Lightweight
- 50 Amps
- 50% Power Factor

Specifications
- Dimensions: 12” x 9” x 11” (W x D x H)
- Weight: 24.5 lbs.
- Voltages: 69/120/240/277/480 with protective fuse (69V is optional); Custom voltages available
- Current Range: Amperes (ammeter included)
  - Full Load: 5, 15 and 50A
  - Light Load: 0.5, 1.5 and 5A
- Rating: Continuous with forced air cooling

Accessories
- Make-to-Order Cable Sets
- Click Switch, Catalog No. 995A
- Field Bag, Catalog No. 1048
- Test Plug, Catalog No. 1077
- Test Switch Protectors, Catalog No. 6441 and 6441-C
- Test Switch Isolator, Catalog No. 1076
- Load-to-Line Jumpers, Catalog No. 200
The TESCO Phase Sequence Indicator meets the need for an instrument that makes basic phase sequence indication as easy as 1-2-3 (or 3-2-1).

Catalog No. 500 is lighter and more compact than any other indicator available. Phase sequence is simply indicated by two neon lights. One light is for phase sequence 1-2-3 and the other light is for phase sequence 3-2-1.

Where the voltages are symmetrical and equal, one light will always be out. When testing unsymmetrical voltages (such as two phase wires and the neutral of a Y system) one light will be bright and the other dim; the phase sequence will be indicated by the brighter light.

The TESCO Phase Sequence Indicator can be used on polyphase voltages from 115V to 600V, at 60 cycles. The instrument is completely self-contained and does not require a range-changing switch. There are no moving parts and the two leads are permanently attached to the body. The three electrodes are conspicuously numbered to facilitate phase identification.

The instrument is extremely easy to use. The lead with the clip (#2) is attached to one phase terminal. The insulated prod (#1) is then touched to the second phase terminal and the prod (#3) on the end of the instrument body is touched to the third phase wire: the positions of the prods can be quickly interchanged to reverse the indication.

The body of the instrument is made of insulating material and measures 1 inch (2.54 cm.) in diameter and 6 3/8 inches (16.17 cm) long overall. The total weight including leads is four ounces (.114 kilos), making it convenient to pack for every job.
Catalog No. 646

TESCO Phase Angle Meter

The TESCO Phase Angle Meter is a self-contained portable device which requires no auxiliary equipment for its operation. It furnishes a quick and direct method of checking relay and instrument connections.

The TESCO Phase Angle Meter shows the angular relationship between one voltage and one current and is useful in switchgear (generator synchronizing) and metering (Power Factor) applications. The unit can also be used to measure the prevailing power factor in each phase of a polyphase watt-hour meter installation.

Features
- Input powered—no batteries
- Rugged construction for field use
- Panel Display, viewable from a distance
- Ease of determining changing phase relationship

Variants
- Voltages from 15 - 480 VAC
- Currents 1 to 10 Amp Taps
- Custom inputs available
TESCO's Catalog No. 1035 Probe and Pickup combines the best of communication between a PC and a meter with the reliability of TESCO's optical pulse pickup. No longer do you have to disconnect the pickup after doing a meter test to connect a probe when checking meter programming or disconnect switch operations to reconnect to a PC with this all-in-one device. Save time with less hassle.

**COST EFFICIENT:** TESCO's Probe and Pickup is an affordable way to test, program, and read meters.

**DEPENDABLE:** TESCO has supplied the utility industry for more than 100 years.

**EASY TO USE:** To operate, simply attach the device to a meter and plug the USB cable into your PC and the DB9 connector into your TESCO Next Gen test board so communications with the meter vendor's software and meter testing can begin. Red and green LEDs indicate communications to and from the meter as well as meter pulses while doing meter testing.

### Specifications
- Splitter style plug
- Robust and durable
- Portable and convenient
- USB interface for the Probe
- Two way communication to the meter
- Program and read meter settings
- DB9 interface for meter test pulses
- Perform meter testing

### Accessories
- TESCO Optical Port Adapters (Catalog No. 1041-AC, 1041-CN, 1041-LG, and 1041-HY) snap on the meter cover to create a metal interface for the 1039-WP to adhere to while you program the meter from your truck. They are compatible with GE/Aclara, Centron, Landis + Gyr, Itron, and Honeywell meters.

TESCO's Vacuum Assist (Catalog No. 1029) uses a small, quiet USB or battery powered vacuum pump to securely hold pickups and probes in place.
TESCO's Optical Pickup (Catalog No. 1037-STND) performs one way meter communication through the calibration LED found on most solid state meters. The Pickup senses infrared pulses from ANSI compliant meters for complete, automatic testing.

TESCO's standard connection model is designed to work with field test standards. It utilizes an optical pickup terminal port (LEMO 4-pin connector) to allow for easy connection, while also powering the unit. To operate the TESCO Optical Pickup, simply attach it to a meter and testing will automatically begin when powered. A red LED on the head of the pickup indicates a pulse reading. A green LED indicates power to the pickup.

The TESCO Optical Pickup has the ability to connect to any meter (without the need of an adapter). Using magnets and two adjustable suction cups (one that swivels a full 360°), our pickup is designed to accommodate multiple surfaces and working heights on the meter cover. The TESCO Optical Pickup has also been designed to operate in all ambient sunlight conditions (i.e. mid-day, direct sunlight), and in extreme testing conditions (i.e. cold weather), while continuously maintaining constant, accurate results. Additionally, TESCO developed the pickup to be resistant to RF noise from established and emerging AMI technologies.

**Specifications**

- **Power Supply**: Via field test standard
- **Lead**: 6ft. flexible; custom lengths available
- **Connector**: LEMO 4-pin
- **Fastening**: Suction adhesion & magnetic connection
- **Optical**: Conforms to ANSI Standards
- **Mechanical**: High-impact ABS housing, dimensions conforming to ANSI Standards

TESCO Clip-On PocketPal
Carrying Case Catalog No. 1040
The case measures 3” x 3.5” x 2.25” (W x H x D).
Catalog No. 1037-ITRN

TESCO Top of Meter Optical Pickup

Having trouble picking up the pulse from the top of the meter? We have a solution!

TESCO’s Catalog No. 1037-ITRN matches the curvature of the meter cover on the optical port located at the 12 o’clock position on the meter and allows easy pulse pickup from the top of the meter.

The design uses the meter cover to hold and locate the pickup directly over the pulse output (light pipe). The pickup is integrated into the curved plastic to allow the pickup to be on the surface of the cover, maximizing the signal received from even the weakest pulse outputs. The curved design also blocks ambient light making this the most effective pickup on the market for sensing the pulse output from meters with the pulse output in the 12 o’clock position.

Specifications
- Easy, reliable pulse pickup
- Blocks ambient light
- Resistant to RF noise from established and emerging AMI technologies
- Sturdy, elastic band included to securely hold unit to meter
- Select your connector from the following options:
  - **1037-ITRN-STND**: 6 ft. cable with LEMO connector powered by any TESCO Test Board
  - **1037-ITRN-DTS**: 2 ft. cable with DB-9 connector powered by any TESCO Test Board
  - **1037-ITRN-SA**: 6 ft. cable with a DB-9 connector powered by TESCO’s Cat No. 6330 Meter Site Analyzer
- Custom lengths available for any of the three options above
- Conforms to ANSI Standards
- Senses infrared pulses from ANSI compliant meters for complete, automatic testing

Accessories
- TESCO Clip-On PocketPal
- Carrying Case Catalog No. 1040
  - The case measures 3” x 3.5” x 2.25” (W x H x D).
- Replacement pack of elastic bands available (5-pack)
Catalog No. 1038

TESCO Optical Probe

TESCO’s Optical Probe provides easy, two-way communication between a PC and meter.

COST EFFICIENT: TESCO’s Optical Probe is an affordable way to program and read meters.

DEPENDABLE: TESCO has supplied the utility industry for more than 100 years.

EASY TO USE: To operate, simply attach it to a meter and plug the USB cable into your PC and communications with the meter vendor’s software can begin. Red and green LEDs indicate communications to and from the meter.

Specifications
- Smaller and lighter than any other probe
- Robust and durable
- Portable and convenient
- USB interface
- Two way communication to the meter
- Program and read meter settings

Other Tools
TESCO offers these other products for all your meter communications needs:

Catalog No. 1037-STND and 1037-DTS Optical Pick-Up for performing meter testing.

Catalog No. 1039 Safety Disconnect Device to operate the meter disconnect through the optical probe without any external software.
Catalog No. 1029

TESCO Vacuum Assist

Frustrated by optical pickups and probes that do not stay attached to meter covers? We have a solution!

TESCO’s Vacuum Assist actively generates a vacuum that attaches your TESCO optical pickup or probe to the meter and allows hands-free use for the meter tech. No more wasted time during testing or communication work when the pickup or probe falls off.

TESCO’s Vacuum Assist (Catalog No. 1029) uses a small, quiet USB or battery powered vacuum pump to securely hold pickups and probes in place. The Vacuum Assist can be used with TESCO’s Pickups: Catalog No. 1037-STND or 1037-DTS.

**Specifications**
- Secure, robust, vacuum grip on flat meter covers
- Conveniently USB powered when USB port is available
- Compact, lightweight, rechargeable battery powered when used with Catalog No. 1037-STND or 1037-DTS
- Quiet function
- Allows meter tech hands-free flexibility of a pickup or probe to conduct testing
- On/off switch can be used with rubber gloves/PPE
- Carrying Case available

**Other Tools**
TESCO offers these other products for all your meter communications needs:

Catalog No. 1037-STND and 1037-DTS Optical Pickup for performing meter testing.

Catalog No. 1039 Safety Disconnect Device to operate the meter disconnect through the optical probe without any external software.
Catalog No. 1039

TESCO Safety Disconnect Device

Safely disconnect or reconnect power using the meter’s remote disconnect from the palm of your hand.

TESCO’s portable safety disconnect device allows you to safely disconnect power using the meter’s remote disconnect from the palm of your hand without removing the meter from the socket.

COST EFFICIENT: Perform Disconnect Testing without the need for more expensive test equipment in the lab.

EASY TO USE: The device recognizes which meter manufacturer it is connected with and will light up when you align the device with the meter, letting you know it is working.

SAFE and SECURE: Utilities download a security password through a PC interface to the Safety Disconnect Device.

CONVENIENT and PORTABLE: TESCO’s ergonomic design fits in the palm of your hand during use, and can be stored in a toolbox in your work truck.

Features
- Compatible with GE/Aclara, Landis+Gyr, and Itron meters with a disconnect.
- Open the remote disconnect switch on meters with an optical port
- Close the remote disconnect switch on meters with an optical port
- Leave the meter in the socket during disconnect/reconnect
- Allow meter to be installed with switch open, for safety and arcing (allowing the installer to set the meter without worry of fault on load side)
- Save time and money sending techs out in the field
- LEDs show status of Safety Disconnect Device
- Read date and time of open/close along with meter serial number, or meter ID
- Read data out via USB interface for data logs, times, voltage, etc.

Other Uses
TESCO’s Safety Disconnect Device can also be used for emergency situations like a residential or commercial fire when emergency responders are trying to enter the structure. Using password protected data from the local utility, emergency responders can easily shut the power off to enter the structure.
Catalog No. 1039-WP

Safety Disconnect and Wireless Probe

Tired of taking multiple trips from the work truck to the meter site? TESCO’s Safety Disconnect and Wireless Probe allows you to program meters from the convenience of your work truck.

TESCO’s Wireless Optical Probe provides easy, two-way communication between a PC and meter with wireless convenience up to 1200 ft.

COST EFFICIENT: TESCO’s Wireless Optical Probe is an affordable way to program and read meters.

EASY TO USE: To operate, simply attach it to a meter and communications with the meter vendor’s software can begin. An RF Wireless dongle plugs into USB port on a computer and is paired to the probe. Red and green LEDs indicate communications to and from the meter.

CONVENIENT: Program meters from the convenience of your work truck within 1200 ft.

DEPENDABLE: TESCO has supplied the utility industry for more than 100 years.

Features

- Communicate wirelessly to probe from any PC up to 1200 feet away
- 2.4 GHz radio frequency transmitter/receiver
- Robust and durable
- Portable and convenient
- USB interface
- Two way communication to the meter
- Program and read meter settings
- FCC and IC approved communication
- Not compatible with any meter that will not accept standard ANSI C12.18 optical port communications or has third party circuitry that prohibits optical port.

TESCO’s Catalog No. 1039-WP comes with a Catalog No. 1039, Catalog No. 1040, wireless dongle, and USB cable. Select a TESCO Optical Port Adapter (Catalog No. 1041-AC, 1041-LG, 1041-CN, and 1041-HY) The 1039-WP is compatible with GE/Aclara, Landis + Gyr, Itron, Centron, and Honeywell meters with a disconnect.
**Catalog No. 1031**

**KYZ Indicator and Tester**

More than just an indicator, TESCO's KYZ Indicator and Tester Catalog No. 1031-C3 (3-wire) and Catalog No. 1031-C6 (6-wire) can also be used to perform accuracy testing of KYZ pulses on all TESCO Next Generation Test Equipment.

TESCO's KYZ Indicator and Testers can be used as a pulse input using the same pickup connection on the front panel of all TESCO Next Generation Test Equipment.

You can check for KYZ pulses on the following TESCO Test Equipment:

- Meter Engineering Boards (MEBs)
- Meter Test Boards (MTBs or MTB-3050)
- Desktop Meter Test Station (2990)

The Catalog No. 1031-C3 and Catalog No. 1031-C6 can be used as an indicator on any of TESCO's Next Generation Equipment including MEBs, MTBs, MTB-3050s, Catalog No. 2990, Meter Qualification Board (MQB) and Desktop Meter Qualification Board (Catalog No. 2199).

**Features**

- Comes in either a 3-wire or 6-wire set up
- Can decide between seeing only Y or Z pulses, or both
- Color-coded alligator clips
- Red and green LED indicators
Catalog No. 1040

TESCO Clip-On PocketPal

TESCO’s Catalog No. 1040 Clip-On PocketPal is an easy, convenient and secure way to transport your smaller items in the field.

Features:
- Clip-on style allows easy, hands-free transport
- Lightweight
- Secured with Velcro closure
- Dimensions: Approximately 3” wide, 2.25” deep and 3.5” tall

Specifications:
Made of durable canvas, this lightweight case attaches quickly to a belt or waistband and has a Velcro closure to keep items secure in transit.

The PocketPal can be used for a number of items including:
- Catalog No. 1039 Safety Disconnect Device
- Catalog No. 1037-STND Optical Pickup
- Catalog No. 1037-DTS Optical Pickup
- Catalog No. 1038 Optical Probe
Catalog No. 1041-AC, 1041-CN, 1041-HY and 1041-LG

TESCO Optical Port Adapters

Not all meter covers are created equal. You may need a metallic interface on your meter cover to properly use a meter probe or pickup. Well, TESCO has solved that issue with our Optical Port Adapters.

TESCO Optical Port Adapters (Catalog No.1041-AC for GE/Aclara meters Catalog No. 1041-CN for Centron meters, Catalog No. 1041-HY for Honeywell meters and Catalog No.1041-LG for Landis+Gyr meters) These adapters snap onto the meter cover to provide a metal interface attachment for various optical pickups and probes.

**Features**
- Easily snaps on the meter cover
- Creates a metal interface for pickups and probes to work with the meter
- Durable construction

**Related Products**
- TESCO's Catalog No.1039-WP Wireless Probe provides easy, two-way communication between a PC and meter with wireless convenience up to 1200 ft. The Catalog No. 1039-WP comes with a Catalog No.1040 Clip-On PocketPal Carrying Case and one Catalog No. 1041 adapter.
- Catalog No.1037-STND Optical Pickup
- Catalog No. 1037-DTS Optical Pickup
- Catalog No. 1038 Optical Probe
As a leading manufacturer of test switches and instruments for testing electric metering installations for over 100 years, TESCO's line would not be complete without our Test Switch Isolator.

Our Test Switch Isolator is perfect for isolation of an open test jack. It's available in an ergonomic design with a handle and manufactured with the same TESCO durability and ruggedness that you have come to expect. This isolator is a perfect compliment to our Catalog No. 1077 Test Plug and Catalog No. 6441 & 6441-C Test Switch Protectors.

TESCO is committed to the development of all of our instruments to meet the needs of today's utility market. If you are currently using older model TESCO equipment, please contact us to learn how your product is evolving.
TESCO has newly redesigned our Test Plug for use with all test switch current test jacks, making testing quicker, safer and more accurate. Frequently used for in-service CT burden testing and current injection when testing watt-hour meters, the Test Plug eliminates the possibility of opening current transformer secondaries. It’s compact and polarized with convenient terminals for fastening leads. The Test Plug may also be used as an insulating plug.

**Features**
- 40 Amp Rating (with appropriate leads)
- Contour Molded Housing (for ease of use with insulated gloves)
- Works with most test switches and jacks
TESCO Cable Sets

TESCO can custom manufacture Cable Sets to suit both your meter shop and field needs. Cable Sets for grounding and testing can be purchased to meet your specifications for wire gauge and terminations including, but not limited to, spades, alligator clips, banana plugs, and our Catalog No. 1077 Test Plug, which is the perfect accessory for test switch interfacing.

Contact your TESCO sales representative to learn more.

CABLE SET WITH TEST PLUG
CATALOG NO. J-35-50T

CABLE SET WITH ALLIGATOR CLIPS
CATALOG NO. J-35-50C
Catalog No. 995A

TESCO Click Switch

The TESCO Test Click Switch helps simplify your testing needs and makes a great accessory to the TESCO Field Test Kit line. The 995A is a normally closed push button switch. This switch connects directly to the input BNC of any TESCO or RD/RM standard. The switch housing is stainless steel and built with the TESCO tradition of durability and ruggedness for the field. The standard switch is available 4ft. in length. Custom lengths are available as well.

Features
- 995A-4 (standard switch)
- 995A-C (the "C" is your custom length in feet)
TESCO's Universal SmartPole Meter Boxes are the approved method to install an ANSI C136.41 socket based meter to your streetlight pole. These SmartPole Meter Boxes can mount streetlight meters, meter telecommunication devices, or meters for any other pole-mounted services using this form factor.

TESCO's new SmartPole Meter Boxes use a 3-pin adapter and are approved for use with overhead services connected to powered pole attachments whether they be internally or externally mounted.

TESCO's SmartPole Meter Box, Catalog No. 701, is designed for smart meters and can be strapped to either a wood or metal pole with the included pole strap kit. The smart meter (not included) is secured to the box with a meter seal lockable strap and is rated for up to 5A self-contained operation.

TESCO's new Smart Pole Meter Disconnect Box, Catalog No. 702, combines the required fused disconnect switch along with the same socket and lockable security strap as the Catalog No. 701.

**Features**
- Marine-Grade High Density Polyethylene (HDPE) Hold Down Strap
- Pole Bracket—Pole Strap Kit included
- 3-Pin Receptacle
- Tamper Resistant 1/4” Seal Location
- Riveted Weather Sealed Strap Latch
- Ground/Bonding Lug
- NEMA 3R Enclosure

**Related Products**

Catalog No. 1184 Streetlight Meter Adapter
Power up photocell meters to test communications, on/off control and meter accuracy.
With 5G deployment, communication providers are requiring larger new services on utility poles that need to be metered. TESCO's Catalog No. 703 Transformer-Rated SmartPole Meter Disconnect Box provides the infrastructure to meter these services.

TESCO’s Transformer-Rated SmartPole Meter Disconnect Box has been created to mount communications provider equipment and node meters on a utility pole.

This meter assembly contains a 100:5 CT and is designed for smart meters and can be strapped to either a wood or metal pole. The smart meter (not included) can be secured to the box with a standard meter box seal.

This assembly is for use with meters rated up to 5A. Current up to 60A (fuses supplied by customer)

Catalog No. 703-120 for 120V 2-Wire Single Phase Applications
Catalog No. 703-240 for 240V 2-Wire Single Phase Applications

Features
- Powder Coated G-90 Galvanized Steel
- Marine-Grade High Density Polyethylene (HDPE) Hold Down Strap
- 4-Pin Receptacle
- Tamper Resistant 1/4" Seal
- Ground/Bonding Lug
- NEMA 3R Enclosure

Related Products
Cat. No. 701 and 702 SmartPole Meter Boxes: For lower amperage SmartPole metering installations where a CT isn't required.

Cat. No. 1184 Streetlight Adapters: Power up photocell meters to test communications, on/off control and meter accuracy.
Catalog No. 220

TESCO Demand Seals

TESCO Demand Seals are self-locking, tamper indicating and designed for easy application and removal from electronic & electro-mechanical meters.

Features
- Durable HDPE or Polypropylene body and highly resistant acetal locking, for total security
- Non-slip grips to enable better control
- Thin shaft will pass through most latch mechanisms
- Sturdy hinge and beveled opening for one-hand closing
- Quick removal by twisting break-point on shaft
- Custom colors available
- Custom imprinting (company logo, barcode)
- Sequential numbering (7 digit max)

Specifications
- **Standard Colors:**
  - Red (Catalog No. 220-1)
  - Green (Catalog No. 220-2)
  - Blue (Catalog No. 220-3)
  - Orange (Catalog No. 220-4)
  - Yellow (Catalog No. 220-5)
  - Custom Color (Catalog No. 220-6-Color)
- **Printing:** Laser printing; sequential numbering or barcode, Customer ID or logo
- **Material:**
  - Body: HDPE or Polypropylene
  - Locking Chamber: Acetal
- **Dimensions:**
  - Printing Tag: 1” x 0.5”
  - Width (when locked): 1.5”
  - Shackle Diameter: 0.1”
- **Packaging:** 200/Bag, 1,000/Box, 5,000/Carton
- **Weight:** 4.7 lbs./Box, 23.5 lbs./Carton
Catalog No. 221
TESCO Acrylic Padlock Meter Seals

TESCO Acrylic Seals are a low-cost solution, providing a tamper-evident padlock seal. The clear acrylic core is molded over a colored acrylic shell and is designed to reveal tampering. Combined with a stainless steel hasp, TESCO meter seals are ideal for outdoor use. TESCO Meter Seals have a high level of customization, which includes colors, imprinting and barcoding. Customization is available at standard pricing rates.

**Features**
- Durable clear acrylic body, with one piece construction
- Tamper resistant & tamper indicating design
- Weather resistant
- Custom colors available
- Custom imprinting (company logo, barcode)
- Sequential numbering (7 digit max)

**Specifications**
- **Colors:**
  - Red (Catalog No. 221-1-xx)
  - Grey (Catalog No. 221-2-xx)
  - Blue (Catalog No. 221-3-xx)
  - Orange (Catalog No. 221-4-xx)
  - Yellow (Catalog No. 221-5-xx)
  - White (Catalog No. 221-6-xx)
  - Custom Colors (Catalog No. 221-7-xx-Color)
- **Base Style:**
  - Square Base (SB available in quantities of 50,000 or more)
  - Round Base (RB)
- **Printing:**
  - Laser printing
  - Sequential numbering or barcode
  - Customer ID or logo
- **Material:**
  - **Body:** Acrylic
  - **Hasp:** Stainless Steel (standard); Galvanized (upon request)
- **Packaging:**
  - 1,000/Box, 5,000/Carton (All orders must be in quantities of 1,000)
- **Weight:** 11.3 lbs./Box, 56.5 lbs./Carton

**ACRYLIC PADLOCK METER SEALS CATALOG NO. 221**

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<th>Seal Material</th>
<th>Seal Color</th>
<th>Base Style</th>
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<td>RB = Round Base</td>
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<td>6 = White</td>
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<td>7 = Custom</td>
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</tbody>
</table>

**Nomenclature**

221-1-RB

TESCO - THE EASTERN SPECIALTY COMPANY
Canal Street & Jefferson Avenue · Bristol, PA 19007 · Phone: 215-228-0500 · Fax: 215-781-0508
www.tescometering.com
TESCO Polypropylene Padlock Meter Seals

TESCO Polypropylene Seals are a low-cost solution, providing a tamper-evident padlock seal. The polypropylene (or HDPE) body and stainless steel hasp make TESCO Meter Seals ideal for outdoor use. TESCO Meter Seals have a high level of customization, which includes colors, imprinting and barcoding. Customization is available at standard pricing rates.

**Features**
- Durable polypropylene or HDPE (for colder climates) body, with one piece assembly
- Tamper resistant design
- Weather resistant
- Custom colors available
- Custom imprinting (company logo, barcode)
- Sequential numbering (7 digit max)

**Specifications**
- **Colors:**
  - Red (Catalog No. 222-1-xx)
  - Grey (Catalog No. 222-2-xx)
  - Blue (Catalog No. 222-3-xx)
  - Orange (Catalog No. 222-4-xx)
  - Yellow (Catalog No. 222-5-xx)
  - White (Catalog No. 222-6-xx)
  - Custom Colors (Catalog No. 222-7-Color)
- **Base Style:**
  - Square Base (SB available in quantities of 50,000 or more)
  - Round Base (RB)
- **Printing:**
  - Laser printing
  - Sequential numbering or barcode
  - Customer ID or logo
- **Material:**
  - **Body:** Polypropylene or HDPE
  - **Hasp:** Stainless Steel (standard); Galvanized (upon request)
- **Packaging:**
  - 1,000/Box, 5,000/Carton (All orders must be in quantities of 1,000)
- **Weight:** 9.2 lbs./Box, 46 lbs./Carton
TESCO Cable Seals

TESCO Cable Seals are used primarily for securing CT and PT cabinets in addition to metering enclosures. TESCO Cable Seals are flexible, tamper-proof, user-friendly and customizable. Our Cable Seals are available with a range of cable diameters from 1/16” to 1/5” and customized lengths to suit any application.

Features

- Highly resistant, irreversible steel locking mechanisms with high pulling loads
- 1/16” to 1/5” cable diameter, non pre-formed galvanized aircraft cable, will splay when cut to prevent re-insertion
- Tamper evident and impact resistant
- High level of customization - cable lengths, imprint, sequential numbering

Specifications

- Casing: Aluminum Alloy
- Locking Mechanism: Heat-treated, high carbon steel
- Springs: Heat-treated spring steel
- Cable: Galvanized aircraft cable
- Cable Diameter:
  - 1/16” (Catalog No. 223-1)
  - 1/8” (Catalog No. 223-2)
  - 1/5” (Catalog No. 223-3)
- Cable Length: Standard 12” (Custom lengths available)
- Standard Colors:
  - Red
  - Blue
- Printing: (three lines of text maximum)
  - Customer’s Logo: Alphanumeric, engraved or stamped
  - Identification Serial Numbers: 7 digits alphanumeric, or 6 digit bar code in black on white
- Tensile Strength:
  - 1/16”: Above 440 lbs. (pulling load)
  - 1/8”: Above 1322 lbs. (pulling load)
  - 1/5”: Above 4200 lbs. (pulling load)
- Packaging: 200 seals per carton (minimum order requirement - 5,000 seals)
Catalog No. 224

TESCO “T” Seals

The TESCO “T” Seal is a locking device for electric meter covers. The “T” Seal can be easily installed and removed without any tools. The curved base is stamped “SEALED”, and is scored to fracture if tampered with. “T” Seals can be customized with up to five letters stamped on the flag. Double-sided stamping is also available.

Specifications

- **Material:**
  - Aluminum

- **Colors:**
  - Gold Anodized (Catalog No. 224-1)
  - Red (Catalog No. 224-3)
  - Blue (Catalog No. 224-4)

- **Packaging:**
  - 1,000/Bag
TESCO's Load-to-Line Jumpers allow the utility to perform meter maintenance without interruption of service to the downstream occupant. TESCO Jumpers are rated for 200 amps continuous duty and are made from a durable 1/8 thick tin plated copper with a durable insulating material covering everything except the blades.

The TESCO Load-to-Line Jumpers are available in four different configurations:

- **Catalog No. 200**: Standard 200 Amp
- **Catalog No. 200-LP**: Low-Profile 200 Amp
- **Catalog No. 200-3**: Standard 320 Amp
- **Catalog No. 200-3LP**: Low-Profile 320 Amp

**Specifications**

- **Rating**: 200/320 Amps continuous duty
- **Material**: Tin plated copper with an insulated cover
- **Packaged**: 1 per package
TESCO’s “H” Jumpers allow utilities to bridge meter sockets while one leg of the service is inoperable. TESCO “H” Jumpers are rated for 200 amps continuous duty and are made from a durable 1/16” thick tin plated copper with a durable insulating material covering everything except the blades.

**Specifications**
- **Dimensions:** 3” x 3.625” x 0.75”
- **Rating:** 200 amps continuous duty
- **Material:** Tin plated copper with an insulated cover
- **Packaged:** 1 per package
TESCO A-Base Jumpers allow meter technicians to jump either customer-load or test-load on A-Base meter installations. TESCO A-Base Jumpers are equipped with alligator-clip connectors and are available in either 10 gauge wire, which is rated for 30 amps, or 8 gauge wire, which is rated for 75 amps.

TESCO also offers Potential Jumpers, which are equipped with crocodile-clip connectors and are available in 18 gauge wire and rated for 5 amps/600 volts.

TESCO jumpers are built with the tradition of reliability and ruggedness. For more information, contact your local sales representative.

**Specifications**

**A-Base Jumper Wire/Rating:**
- Catalog No. 202: 10 Gauge, Rated at 30 Amps
- Catalog No. 202-8AWG: 8 Gauge, Rated at 75 Amps
- Catalog No. 202-4AWG: 4 Gauge, Rated at 100 Amps
- Cable Length: 24” Standard (custom lengths available)

**Potential Jumper Wire/Rating:**
- Catalog No. 203: 18 Gauge, Rated at 5 Amps; 600 Volts
- Cable Length: 24” Standard (custom lengths available)
TESCO Fused Jumper Sets

TESCO understands that every meterman is not created equally. The same goes for their tools and testing equipment! That's why TESCO is offering Fused Jumpers in various combinations, based on your preferences. Customization includes color, test clip style, and cable length. And, for those who really don't want to go through the process of selecting all the pieces, we've put together a standard Fused Jumper Set just for you (Catalog No. 204).

TESCO Fused Jumpers are primarily used to jump potential from phase-A to phase-B and to phase-C on the meter side of the safety test switch.

The Standard Fused Jumper Set (Catalog No. 204), which is rated for CAT III testing, consists of:

1. Qty 1 - Fused Test Lead, 4mm, Fused, Red, 1000V, Cat III, 8A max, 6.875” long (TESCO Part No. 8012-10707-22)
2. Qty 1 - Fuse, 1.6A, 6.3x32mm, 50KA AIC, 1000V AC, UL (TESCO Part No. 8012-10702)
3. Qty 1 - Large Jaw Test Clips (alligator style), 4mm, Red, 1000V, Cat III, 32A (TESCO Part No. 8012-10703-22)
4. Qty 2 - Large Jaw Test Clips (alligator style), 4mm, Black, 1000V, Cat III, 32A (TESCO Part No. 8012-10703-21)
5. Qty 1 - Test Lead, 4mm, Stackable, Black, M/F both ends, 600V, Cat III, 15A max, 10” long (TESCO Part No. 8012-10704-025-21)

Optional Parts
6. Retractable Test Clips with Steel Jaw, 4mm, Black, 1000V, Cat IV, 20A (TESCO Part No. 8012-10705-21)
7. Retractable Test Clips with Steel Jaw, 4mm, Red, 1000V, Cat IV, 20A (TESCO Part No. 8012-10705-22)
8. Qty 1 - Test Lead, 4mm, Stackable, Red, M/F both ends, 600V, Cat III, 15A max, 10” long (TESCO Part No. 8012-10704-025-22)

Do you need CAT IV testing capability? We offer that too. Ask us how.

Fused Jumper Sets are available in red, black or red/black combination. Other colors may require a minimum purchase. Spare fuses are available in 10-packs.
TESCO Horn Bypass Jumpers are used on self-contained meter services, to temporarily supply a customer's power while the meter is removed from service. The Jumpers have a high-tension design, which firmly grip the horn bypass on a meter socket. TESCO Horn Bypass Jumpers are constructed of 4-AWG heavy-duty copper wire and rated at 600V/100A. The two copper connectors at each end of the wire are fully insulated for added safety.

All TESCO jumpers are built with the tradition of reliability and ruggedness.

**Specifications**
- **Jumper Wire/Rating**: 4 Gauge, Rated at 600 Volts / 100 Amps (continuous); 150 Amps (30 minutes max)
- **Cable Length**: 26” standard (custom lengths available)
- **Connectors**: high-tension 2.5” copper connectors, insulated
- **Weight**: Approximately 1 lb.
- **Packaging**: 1 per package
Catalog No. 277

TESCO Meter Socket Jumper Covers

TESCO’s Meter Socket Jumper Covers offer a safe and easy method of bypassing a meter socket. The Jumper Covers can be used with either ring-less or ring-style meters and are designed to take the place of the normal electric meter.

Specifications
- UV stabilized plastic
- UL 94-5VA flame rating
- UL 414 approved
- Fiberglass reinforced polycarbonate

Features
- 320 Amp capacity (class A meter sockets)
- Sturdy handle for easy removal
- 4-Jaw designed for 1S, 2S or 12S meter forms (Catalog No. 277-4)
- 6-Jaw designed for 14S, 15S or 16S meter forms (Catalog No. 277-6)
Catalog No. 250

TESCO Meter Disconnect Sleeves

TESCO's Disconnect Sleeves provide a fast and safe solution to leave a watt-hour meter in place but electrically disconnected from the socket. They act as insulating sheaths, temporarily disconnecting the blades of the meter from the receiving socket, when interruption of the electrical service is desired.

Our Meter Disconnect Sleeves are suitable for use on most meters, as they have sufficient width to accommodate blades of different sizes. They are also easily identifiable with two bright red stripes printed on the inside of the sleeve.

Specifications

- **Dielectric Strength:** 4500V
- **Dimensions:** 1.4” x 0.86” x 0.014” (W x H x D)
- **Wall Thickness:** 0.005”
- **Material:** Mylar®
- **Packaging:** 1 Gross (144 pieces)

Note: TESCO Meter Disconnect Sleeves are intended for one-time use only.
Catalog No. 275 & 276
TESCO Meter Socket Blank-Out Covers

TESCO Blank-Out Covers are the perfect solution for meter boxes that require a meter to be removed from service while still maintaining a safe environment. TESCO covers are made from UV stabilized plastic and fiberglass reinforced polycarbonate. They fit virtually every socket for single phase electric meters, including 320A meter sockets.

TESCO Blank-Out Covers are available with blades or without blades and in either clear or gray.

Knowing that it’s a TESCO product, you can be certain it’s made with the same ruggedness and durability that you’ve come to expect.

All TESCO Blank-Out Covers are manufactured in the USA.

Features
- UV stabilized plastic
- UL 94-5Va flame rating
- Fiberglass reinforced polycarbonate
- Universal fit for virtually every socket for single phase electric meters, including 320A meter sockets
- Suitable for all climate conditions

Options
- Catalog No. 275 - With Blades, Clear
- Catalog No. 275-G - With Blades, Gray
- Catalog No. 276 - Without Blades, Clear
- Catalog No. 276-G - Without Blades, Gray
TESCO Meter Test Switches

TESCO introduced the original Meter Test Switch in the early 1920's. Today, TESCO's line of Test Switches has been redesigned with the intention to combine the best features of tried and proven switching methods with improvements in materials and construction.

All of the current carrying parts are bright tin plated to prevent corrosion. Good operating contact is assured on periodic meter tests, even when the switch has been idle for long periods of time in an unfavorable atmosphere.

The switches are open knife-blade. Of the two current switch poles in each circuit one is provided with an automatic shorting jaw and the other has a shunted jack which will receive a Test Plug (Catalog No. 1077).

The Test Switches are rated at 60 amperes, 600 volt, meet all applicable EEI, ANSI C12.9, NEMA & H-Q safety standards and are UL recognized.

We offer 2-10 pole test switches and custom manufacture each order to your specifications.

Unless otherwise specified, the insulated switch blade knobs will be furnished in red for potential and in black for current. Any other combination of colors is available.

**Features**
- UL recognized
- Lightweight construction
- 600 Volt insulation, 60 Amp capacity
- Manufactured from flame-retardant materials
- Non-breakable, glass-filled polycarbonate base
- Non-breakable, clear polycarbonate cover
- Captive cover nuts, knurled for easy finger tightening
- Captive wing nuts optional
- High-strength thermoplastic switch handles
- Color-coded switch handles optional
- Easily replaceable switch assemblies
- Standard mounting dimensions
- Any pole arrangement up to 10 poles available
- All current carrying components are bright tin plated to prevent corrosion
- Rugged one-piece jaw ensures long life, durability, and reliable contact
- Easy to adapt or repair in the field
Make-To-Order Equipment

TESCO Back Connected Test Switches

Let TESCO be your source for all of your test switch needs, even the smaller quantities or “special applications.” TESCO can provide your Back Connected Test Switches for either substation application or replacements for other, older applications you may have.

Designed so the switch is mounted on one side of a panel and insulated studs project from the opposite side of the switch, TESCO’s Back Connected Test Switch allows wiring to be connected to those rear-projecting studs.

Features and Specifications

- Typically offered as a ten (10) pole switch, however other sizes are available as well
- Lightweight construction
- 600 Volt, 30 Amp capacity
- Meets all applicable ANSI C12.9 Standards for Test Switches
- Durable and self-extinguishing base and cover
- Unless otherwise specified, the insulated switch blade knobs will be furnished in red for potential and in black for current. Any other combination of colors is available.
- Secured with wing nuts
- High-strength thermoplastic switch handles
- Sturdy switch assemblies epoxied into base
- Standard mounting dimensions
- Reversed potentials available
- All current carrying components can be supplied with tin plating, nickel plating or no plating
- Rugged, one-piece jaw ensures long life, durability and reliable contact
Make-To-Order Equipment

TESCO Transformer-Rated Pre-Wired Meter Enclosures

TESCO Pre-Wired Meter Enclosures are built with the TESCO tradition of quality and durability. These enclosures are designed for use in commercial and industrial metering installations where voltage ratings of 480 and above are required. The enclosures are available with either ring or ring-less, single-piece, or two-piece covers. They can be pre-wired between the test switch and socket to meet your exact specifications.

TESCO Pre-Wired Meter Enclosures are UL Listed.

Specifications

- **Meter Sockets**: 4, 5, 6, 8, 10, 11, 13 and 15 terminal sockets available
- **Material**: Electrical phenolic and plated copper
- **Test Switches**: 4 - 10 pole configurations available, built to customers specifications for layout, connector options and handle color coding. Available in either plated or unplated material. Rated to 600 Amps. Available with and without clear or black Lexan covers.
- **Enclosures**: 16GA Powder Coated Steel
- **Ground Stud**: Pem-type stud with lock washer and hex nut
- **Knock Outs**: Six - 0.75” x 1” x 1.25” in bottom, back & sides; one 0.25” x 0.625” x 0.875” in bottom
- **Available Cover Options**: Single piece and two piece sealing
  - **Options**: Ring and ring-less
- **Wiring**: To customer specifications.
Make-To-Order Equipment

TESCO Transsockets

TESCO Single & Three-Phase Transsockets offer the flexibility of a single enclosure for current transformer metering and allow mounting of current transformers and a test switch. By combining the meter socket and transformer cabinet, TESCO provides a cost-effective metering solution.

TESCO Transsockets are available with 4, 5, 6, 8, 10, 11, 13 or 15 terminal meter sockets, with services up to 600 amps. TESCO Transsockets are suitable for overhead and underground service and are pre-wired to your specifications, with your choice of current transformers and voltage transformers (if applicable).

Specifications

- **Meter Sockets**: 4, 5, 6, 8, 10, 11, 13 & 15 terminal meter sockets available
- **Test Switches**: 1 - 10 pole configurations available, built to customers specifications for layout, connector options and handle color coding. Available in either plated or un-plated material. Rated to 600 Amps. Available with and without clear or black Lexan covers.
- **Enclosures**: 14GA Powder Coated Galvanized Steel (16GA Cover); Aluminum enclosure also available
- **Enclosure Dimensions**: 24” x 33” x 12” Standard (custom enclosures available)
- **Ground Stud**: Pem-type stud with lock washer and hex nut
- **Knock-Outs**: Four knock-outs (3”+3.5”+4”). Three located on the bottom; One located on the back
- **Hub Openings**: Two hub openings (4”), with cover plates
- **Wiring**: To customers specifications

Contact a TESCO product specialist to discuss your Transsocket specifications.
TESCO Test Switch Protectors

With safety always being a concern while working with electrical boxes, you can depend on TESCO’s Test Switch Protectors (Catalog No. 6441 and 6442) to alleviate any uncertainty. This was developed to provide temporary protection of the test switch and to address the rising concern that the terminals of the test switch are exposed while you're working in the box. The test switch protectors can prevent incidental contact with live terminals or contact with tools.

TESCO’s Test Switch Protectors are constructed with clear, flexible PVC with a voltage rating of 2500V. The Test Switch Protectors will fit any brand of test switch, regardless of manufacturer, up to 10-pole. The Test Switch Protectors are available in a 10-pole configuration (Catalog No. 6441) and a 7-pole configuration (Catalog No. 6442).

Both Test Switch Protectors have an optional feature that allows the test switch protector to be mounted to the test switch itself (Catalog No. 6441-C and 6442-C). This provides extended protection for times when the meter box may be opened for prolonged periods of time.
As a leading manufacturer of test switches and instruments for testing electric metering installations for over 100 years, TESCO's line would not be complete without our Test Switch Isolator.

Our Test Switch Isolator is perfect for isolation of an open test jack. It's available in an ergonomic design with a handle and manufactured with the same TESCO durability and ruggedness that you have come to expect. This isolator is a perfect compliment to our Catalog No. 1077 Test Plug and Catalog No. 6441 & 6441-C Test Switch Protectors.

TESCO is committed to the development of all of our instruments to meet the needs of today's utility market. If you are currently using older model TESCO equipment, please contact us to learn how your product is evolving.
TESCO has newly redesigned our Test Plug for use with all test switch current test jacks, making testing quicker, safer and more accurate. Frequently used for in-service CT burden testing, and current injection when testing watt-hour meters, the Test Plug eliminates the possibility of opening current transformer secondaries. It’s compact and polarized with convenient terminals for fastening leads. The Test Plug may also be used as an insulating plug.

**Features**

- 40 Amp Rating (with appropriate leads)
- Contour Molded Housing (for ease of use with insulated gloves)
- Works with most test switches and jacks
TESCO Meter Manager Software automates metering, field and shop operations while helping metering managers make better business operational decisions. TESCO realized the need for business software focusing on metering over twenty years ago. TESCO’s development team currently consists of 19 software engineers and developers and continues to expand.

TESCO’s software interfaces with competitors’ software and hardware, as TESCO understands that our software and hardware are not the only products in use by the industry. In addition, TESCO’s Meter Manager Modules also provide a hardware interface for field and shop equipment, providing a complete solution for our customers. There is no competitor on the market that has the combination of software and metering expertise that TESCO has.

Each Module is written specifically to support metering operations. No Module has been adapted for use from some niche outside of metering. TESCO has the only software written exclusively for metering professionals, by metering professionals. TESCO has worked tirelessly to create a uniform set of Modules written on the same software base for every customer in North America. An enhancement for one customer is an enhancement for every customer. At the same time, every customer has every module configured for their use and their reporting requirements.

The TESCO Meter Manager Software Suite consists of separate modules which can be purchased individually or separately depending on your specific needs.

**Meter Manager Modules**
- Meter Shop (ordering, receiving, testing, accepting & retiring)
- Meter Inventory (tracking on non-installed meters)
- Meter Records (all attributes and ancillary devices associated with a meter)
- In-Service Testing (Random sample testing)
- Personal Protective Equipment & Tool Tracking Management
- Field & Site Verification (includes timekeeping, scheduling, and routing)
TESCO Field Fast Software Module

TESCO Field Fast is a software package that interfaces to TESCO field test kits. It provides direct control of the standard in the test kit, allowing the user to quickly and conveniently enter the settings for a test. It also contains tables of standard meter configurations and test sequences. The user may select a standard meter type from a list, which then auto-populates the meter attributes. If your organization normally runs a standard series of tests, such as Full Load then Light Load, you can pre-configure the software with these, and the user selects a standard sequence, and will be prompted to run each test.

The TESCO Field Fast Software Module is designed for use with all of the TESCO lightweight field test kits to improve productivity in the field. This Windows-based application will run on any hand held unit using Windows, such as the Panasonic U1 or any Windows laptop computer. Test results will be displayed and can be saved from multiple test locations for upload to your meter records systems when the meter technician returns to the shop. If your technicians are using bar code scanners, the test parameters can be automatically set with a simple scan of the meter bar code.
TESCO Meter Shop Services

Did you know that TESCO provides Meter Shop Services? Yes, it's true! Actually, we've been offering these services for a number of years. Our testing facility is state-of-the-art and completely done in-house. We can handle one meter or 100,000 meters. We can also come to your facility to do the testing there.

TESCO understands the need for quick turnaround and has both the manpower and systems in place to meet customer demands. TESCO offers competitive “per meter” pricing at rates which allow for a budgeted and timely completion of the project or commission work.

TESCO has warehouse space to accommodate hundreds of thousands of meters (we have handled over two million meters for one customer with over one million of them in our warehouses for several months) and has space available for immediate expansion, if required, to suit your needs. Our loading dock and meter processing area are large enough to accommodate several truckloads of meters per day, if necessary. No matter how large or small your testing needs are, we can handle the job!

Here's a list of the types of Meter Shop Services we offer:

**Accuracy Testing of New or Used Meters**
Utilities need to ensure the accuracy of all meters for revenue and billing purposes. All meters, regardless of technology and design, are required to meet national ANSI standards for meter accuracy and operation prior to being installed or if required by commission regulation after removal.

**Acceptance (Functional) Testing**
In addition to accuracy testing, utilities receiving new Smart meters must also confirm additional functionality. The programs and settings in the meter will conform to the latest release as the meter configurations, firmware, and programs typically change over the course of a Smart meter deployment and post-deployment.

**Disconnect Testing**
Smart meters with a disconnect feature have the ability to remotely disconnect/reconnect power to a dwelling. A sampling of each new delivery is typically made to confirm proper functionality of these disconnect devices.

**Retirement Testing & Recycling**
This testing verifies the accuracy of the meter being removed from service. TESCO also includes a picture of the final reading as well as a read verification to ensure no issues with the customer’s final bill. The picture, final reading, and accuracy test can all be saved to a single record and all of this information, or a subset of this information, can be configured for transfer to the customer’s system of record.

**Certification Testing**
The purpose of this test is to ensure accuracy, reliability and safety of smart meters. The testing ensures that all meters are subject to the same standards and requirements.

**Re-Flashing/Re-Programming**
Smart meters that need to have their settings, programs, passwords and security features reset. Once reset, an acceptance test is completed to ensure the meter is functioning properly.
Custom Equipment

TESCO has a wide range of experience and a proven track record in the design and assembly of custom equipment for metering operations. TESCO's experience ranges from single workstation semi-automated equipment to fully integrated meter handling systems, meter cleaning systems, and even automated meter testing systems. Our engineers, designers, technicians, and project managers, working together with representatives from your company, provide the team effort necessary to achieve the best solution for your particular needs.

TESCO can supply instrumentation to automate a test or monitor a process. Site planning, safety factors, logistics, power requirements and ease of maintenance are carefully considered in the design phase and fully integrated into the production of your systems.

All systems are run and debugged under production conditions prior to shipping. As part of TESCO's total solutions approach, TESCO provides factory installation and start-up assistance; operator training; mechanical and electrical field service and complete documentation along with factory warranty.
Equipment Rebuild

Working with a thin budget? There are times when new equipment just isn’t an option for some customers. That’s why we offer the opportunity to rebuild older equipment – both TESCO and non-TESCO equipment. It’s both a cost effective method and a solution to your testing needs.

TESCO can completely modify and enhance your equipment and include any features that can make your testing procedures smoother. Imagine getting the equipment you need, improving productivity and getting meters to the field faster – all at a fraction of the cost of new equipment!
Catalog No. 1500

TESCO Training Board

The TESCO Training Boards were designed to create different problematic installation scenarios that a meterman may encounter at an installation. The Training Boards are comprised of three independent meter sockets (Forms 1S, 2S and 12S) on the front of the board (trainee side). The back of the Training Board has three control panels, one for each socket, with switches that will create the different scenarios, in which the trainee must troubleshoot. TESCO Training Boards are the perfect solution for training new employees or to use as a refresher for senior metermen.

TESCO Training Boards can be customized to include other features, additional meter sockets, or different meter forms.

**Features**

- **Service Selector Switch**
  - 120/240V 3-wire service
  - 120/208V 3-wire service

- **Invert Wiring Switch**
  - NORMAL: connects the service power to the LINE side jaws of the meter socket
  - INVERT: connects the service power to the LOAD side of the meter socket

- **Back-Feed (2 & 4) Switches**
  - These switches will connect the service voltage present at the LINE side jaws to the LOAD side jaws to simulate back-feed to the meter socket

- **Ground Fault (2 & 4) Switches**
  - These switches when placed in the FAULT position will connect the meter socket LOAD jaws to ground to simulate a ground fault

- **Load (2 & 4) Switches**
  - These switches will add a nominal 0.5A load to the meter socket

- **Miss-Wire Switch**
  - This switch will simulate the missing neutral wire at jaw 3 (socket terminal 3) of the socket. Without this connection the meter will not power up. Placing the switch in the MISSING position will open the connection to jaw 3
Catalog No. 3100-L

TESCO Hot Socket Simulator

The TESCO Hot Socket Simulator gives you the ability to investigate meter failure issues related to hot socket phenomenon. The Simulator is equipped with one 2S meter socket with four jaws, one of which is the heated jaw. The arcing/heating apparatus can be moved to any of the four jaws (jaw 1 is the standard). Additional arcing/heating elements can be provided as an option for multiple hot jaws on the existing socket.

The TESCO Hot Socket Simulator records temperature and other pertinent data through the plastic deformation phase of meter failures. The Simulator has selectable loads and adjustable arcing.

The TESCO Hot Socket Simulator has been designed with safety in mind. The simulation chamber is interlocked and must be closed to initiate the start of a test. All power is terminated if the chamber doors are opened. A polycarbonate impact resistant shield is used to enclose all simulations. A temperature output alarm can also be set to a desired cut-off temperature.

Features
- Ability to simulate a hot socket in line and load jaws through controlled arcing (frequency, gap size) or cartridge heater (temperature control)
- Easily replaceable jaw and socket parts
- Temperature recorded at stab with non-contact pyrometer with a digital display and thermocouple signal output
- Selectable loads (5A, 10A, 15A, 20A, 25A)
- Adjustable arcing gap size, 0.03” (0.8mm) and 0.015” (0.4mm) cams provided (other sizes available)
- Screw adjustment of gap size for non-vibration arcing
- Fixture is on locking casters for ease of mobility

Options
- Ability to program vibration periods and "at rest periods"
- Ability to program duration and intensity of vibration
- Ability to gather data on secondary blade temperatures
TESCO knows what it's like to have thousands of meters lying around. Storing meters in the original packaging isn't always the best option. So, we've decided to make it a little easier to store the meters you use the most frequently. Introducing the TESCO Meter Rack (Catalog No. 749).

The TESCO Meter Rack can hold up to 72 meters (36 on each side), and is built tough with steel construction, and a 2000 lbs. capacity. For easy mobility, the Meter Cart is equipped with four casters (two swivel and two rigid).

**Specifications**
- **Meter Capacity**: 72 (36 per side)
- **Weight Capacity**: 2000 lbs.
TESCO Meter Lab Services

TESCO’s Meter Lab Services gives our utility customers, meter manufacturers, as well as other metering vendors, a better understanding of “cause & effect” scenarios. The TESCO engineering team has worked together to develop protocols, test theories, and research materials on various industry topics.

TESCO Meter Lab Services have included:

- ANSI testing
- Simulated UL testing
- Safety testing - Hot socket issues, causes, simulation
- Safety testing - Meter water penetration testing
- Safety testing - Meter failure root cause & analysis
- Statistical investigation and analysis of field phenomenon
- Effects of magnets on solid state meters
- Specific functional issues related to AMI & meter manufacturers
- Meter certification & performance testing
- Meter qualification testing
- Meter functionality/communication test protocol & evaluation
- Calibration services

TESCO Meter Lab Services offers utilities the opportunity to investigate specific issues related to their meters and/or metering department. These investigations often result in lab equipment, which TESCO will then install at our customer’s facility. To discuss a custom meter lab service (or product), please contact TESCO at (215) 228-0500.

The TESCO Meter Shop & Meter Lab Services Facility Includes:

- Multi-Position Meter Test Boards (MTBs)
- Multi-Position Meter Qualification Boards (MQBs)
- Multi-Position Re-Programming Boards
- Demand Test Boards
- Single-Position Watt-Hour Test Boards
- Individual Engineering Stations (Desktop Meter Stations, Single-Position Meter Qualification Boards)
- Meter Scrapping Facility (electromechanical, solid-state, polycarbonate covers, glass covers)
- Knopp Transformer Test Equipment
- Electronics Lab
- Water/Rain Simulation Lab & Testing Facility
- High Pot Testing Facility
- Thermal Testing Facility
- Hot Socket Simulation Equipment
- Environmental Chamber
AMI Support

In addition to Meter Services, TESCO also provides AMI Support. This enhances our capability of fulfilling any metering service or support a utility may need.

Here's a list of the types of AMI Support and Meter Services we offer. (If you don’t see the service that you need, just give us a call):

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<td>• Certification Testing</td>
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Meter Engineering Support

TESCO’s Engineering Support group works with every customer to evaluate, document, and plan how to best utilize both new and existing resources. Following is a list of the types of Engineering Support we provide.

**Meter Shop Layout**
TESCO provides meter shop layout services to electric, gas and water meter shops. We have significant experience in the application of Good Manufacturing practices and Lean Manufacturing principles to manufacturing operations, and we have successfully applied these to numerous meter shop operations throughout the country.

**Equipment Specifications**
The Equipment or System Selection Process starts with an evaluation of existing operations and the development of a System Requirements document. This document is then used to identify potential suppliers and solicit bids for the equipment or system. TESCO then works with the client to evaluate and select the most appropriate equipment or system.

**Facility Relocation**
Moving a facility and dealing with its impact on production can be an extremely risky endeavor for any company. TESCO will develop a new facility layout along with a detailed schedule and coordinate a move plan to minimize the impact on day to day operations.

**Statistical Sampling**
TESCO has developed in-service meter test plans for electric, gas, and water utilities. We have also assisted several Utility Commissions in re-writing their in-service meter testing regulations. Whether your needs are developing a new program or developing a one-time program to research a particular performance issue, we can develop a plan for you.

**Quality Systems**
Quality Systems are developed to monitor and continually improve the performance of key processes. Eliminating process variability is critical to developing predictable results. TESCO can analyze your meter shop operations and develop a plan of action to eliminate errors and defects. Six Sigma techniques can be used to analyze process performance, to understand process capability, and to develop solutions to eliminate variability. TESCO can assist in building the foundation for continual improvement by eliminating the sources of quality problems.

**Project Management**
TESCO provides complete project management services for implementing operational improvements including scheduling, equipment procurement, installation management, and project cost control. TESCO not only can develop process, equipment, and layout improvements, but we can help you implement them quickly and efficiently.

**Field Services**
TESCO has worked with electric utilities to provide field personnel to perform meter programming and installation services in support of AMR installations of Commercial and Industrial customers. This work has included the scheduling, tracking, and data reporting of new installations as well as installations that need to be revisited for updated programming.
Catalog No. 250

TESCO Meter Disconnect Sleeves

TESCO's Disconnect Sleeves provide a fast and safe solution to leave a watt-hour meter in place but electrically disconnected from the socket. They act as insulating sheaths, temporarily disconnecting the blades of the meter from the receiving socket, when interruption of the electrical service is desired.

Our Meter Disconnect Sleeves are suitable for use on most meters, as they have sufficient width to accommodate blades of different sizes. They are also easily identifiable with two bright red stripes printed on the inside of the sleeve.

Specifications
- **Dielectric Strength:** 4500V
- **Dimensions:** 1.4” x 0.86” x 0.014” (W x H x D)
- **Wall Thickness:** 0.005”
- **Material:** Mylar®
- **Packaging:** 1 Gross (144 pieces)

Note: TESCO Meter Disconnect Sleeves are intended for one-time use only.
Catalog No. 251, 252, 253 and 254

TESCO Service Disconnect Adapters/Shield

TESCO’s Service Disconnect Adapter (Catalog No. 251) disconnects customer load, while maintaining power to the meter. The meter continues reading and communicating for AMR/AMI operations, while disabling service on the load side. For utilities that do not want to maintain power to the meter, TESCO also offers a non-energized version (Catalog No. 252). The non-energized Service Disconnect Adapter has highly durable plastic jaw blades in place of the plated copper jaw blades.

Utilities that require the meter to be energized but also tilted at a 45° angle, can use Service Disconnect Catalog No. 254.

The TESCO Service Disconnect Adapters are constructed of UV stabilized plastic, fiberglass-reinforced polycarbonate, and have a UL-94-5VA flame rating.

Specifications
- UV stabilized plastic
- UL 94-5VA flame rating
- Fiberglass reinforced polycarbonate
- 1.5” stand-out dimension
- Plated Copper Jaw Blades (Catalog No. 251 and 254)
- Plastic Jaw Blades (Catalog No. 252)

TESCO also offers a Service Disconnect Shield (Catalog No. 253), which gives meter technicians a quick visual indication of disconnected service by tilting the meter 45°. The Service Disconnect Shield is a cost effective way to safely and easily disconnect power, while leaving the meter on-site. The TESCO Service Disconnect Shield is for use with 1S & 2S Meter Forms only.
Catalog No. 275 and 276
TESCO Meter Socket Blank-Out Covers

TESCO Blank-Out Covers are the perfect solution for meter boxes that require a meter to be removed from service, while still maintaining a safe environment. TESCO covers are made from UV stabilized plastic and fiberglass reinforced polycarbonate. They fit virtually every socket for single phase electric meters, including 320A meter sockets.

TESCO Blank-Out Covers are available with blades or without blades and in either clear or gray.

Knowing that it’s a TESCO product, you can be certain it’s made with the same ruggedness and durability that you’ve come to expect.

All TESCO Blank-Out Covers are manufactured in the USA.

Features
• UV stabilized plastic
• UL 94-5Va flame rating
• Fiberglass reinforced polycarbonate
• Universal fit for virtually every socket for single phase electric meters, including 320A meter sockets
• Suitable for all climate conditions

Options
• Catalog No. 275 - With Blades, Clear
• Catalog No. 275-G - With Blades, Gray
• Catalog No. 276 - Without Blades, Clear
• Catalog No. 276-G - Without Blades, Gray
TESCO’s Meter Socket Jumper Covers offers a safe and easy method of bypassing a meter socket. The Jumper Covers can be used with either ringless or ring-style meters and are designed to take the place of the normal electric meter.

**Specifications**
- UV stabilized plastic
- UL 94-5VA flame rating
- UL 414 approved
- Fiberglass reinforced polycarbonate

**Features**
- 320 Amp capacity (class A meter sockets)
- Sturdy handle for easy removal
- 4-Jaw designed for 1S, 2S or 12S meter forms (Catalog No. 277-4)
- 6-Jaw designed for 14S, 15S or 16S meter forms (Catalog No. 277-6)
CATALOG NO. 300-2

TESCO Hot Socket Gap Indicator

The TESCO Hot Socket Gap Indicator is used to determine if a meter socket jaw has become worn-out and unsafe for continued use. The Gap Indicator determines unsafe holding force on meter socket jaws based on laboratory testing.

Features
- Easy-to-use design
- Determines unsafe holding-force on meter socket jaws based on laboratory testing
- Blade spring force was designed to effectively determine a minimum unsafe threshold
- Insulated plastic body (Rated 3000 V)
- Tin-plated spring steel blade used to withstand daily use/travel/vibration
- No maintenance required
- Calibrated for five years or 1,000,000 sockets (whichever occurs first)

The TESCO Hot Socket Gap Indicator is quick, easy-to-use and has a rugged, non-conductive insulated shell. The mechanical tool engages the jaws of a meter socket and will indicate a gap or significant loss of jaw pre-load. Total estimated time of testing four jaws is less than 30 seconds. Even minor gaps can result in electrical arcing, resulting with a more serious problem, failure, or electrical fire.

Note: If feasible, service should be disconnected. Regardless of whether the service has been disconnected or is live, personal protective equipment (PPE) should always be used while operating.

Accessory

Catalog No. 302 HSGI Calibration Fixture. Since the Hot Socket Gap Indicator (HSGI) is calibrated for five years, some of those original units are due to be recalibrated. TESCO introduces a calibrated and traceable HSGI Calibration Fixture. In three simple steps, you can verify the calibration of your HSGI in the meter shop!
TESCO Socket Safety Clip

TESCO’s Socket Safety Clip has been designed to give meter technicians a way to temporarily reassure that a hot socket will not affect a faulty meter socket jaw. The danger zone of a meter socket jaw is 5 lbs. of holding force. At 5 lbs., arcing can occur, resulting in a more serious problem, failure, or electrical fire. The Socket Safety Clip improves the holding force of a meter socket jaw to close to 20 lbs. and can withstand temperatures beyond 400 degrees F/204.4 degrees C. This temporary solution simply clips around the jaws of a meter socket until the socket can be replaced.

The TESCO Socket Safety Clip gives utilities an alternate option to disconnecting the service. The Socket Safety Clip is intended for one-time use and is recommended for each jaw, regardless of the quantity of faulty jaws per meter socket.

**Features**
- Single-piece, injection molded with non-conductive, highly-durable, high-temperature plastic
- Improves holding force to 20 lbs. per meter socket jaw
- Temporary solution to alleviate disconnecting service
- UL-94 VO Flame Rating

**Specifications**
- **Packaging**
  - Catalog No. 301-40: 40 pieces
  - Catalog No. 301-200: 200 pieces

**Note:** TESCO Socket Safety Clips are a temporary solution when repair is needed. The Socket Safety Clips can remain installed on good meter sockets for improving the holding force. The Socket Safety Clips are intended for one-time use only.
The Catalog No. 304 Basic Hot Socket Repair Kit provides the tools and components you need to repair the most common 200 amp services. These kits are small and portable, making it easy and convenient to keep in a work truck.

Catalog No. 304 Basic Kit includes:

- 1 - Anchor 200A Socket Block Equiv
- 1 - Durham 200A Socket Block Equiv
- 1 - Milbank 200A Socket Block Equiv
- 1 - L+G, Siemens, B&C 200A Socket Block Equiv
- 1 - Superior 200A Socket Block Equiv
- 2 - Large SS Swinging Latch—Cover Repair
- 2 - Small SS Swinging Latch—Cover Repair
- 2 - SS Permanent Latches—Socket Can Repair
- 7 - Blade Guides
- 6 - Terminals (jaws not tapped)
- 1 - Gasket for meter to cover, round 5-6”
- 1 - 5-pack Socket Safety Clips
- 1 - 1/4” Steel Hole Seal
- 1 - 3/4” Steel Hole Seal
- 1 - Rivet Kit
- 1 - 1/2” Nut Driver
- 1 - Hex Nut Driver Set with Handle
- 6 - #10x1-12” Hex Head Metal Screws
- 6 - #10x1” Hex Head Self Tapping
- 1 - Protective Aluminum Carrying Case

Size: approximately 12 3/4” x 10” x 6 3/8”
Weight: approximately 10 lbs

Replacement Kits

Once you discover the most common components needed in your service territory, replacement kits can be purchased for these components in bulk. Every component provided in both the Basic and Pro Hot Socket Repair Kit may be purchased as part of a bulk pack along with replacement tools and cases.

Accessories

TESCO Field Bag Catalog No. 1048
The Field Bag measures 16” x 8.75” x 7.5” (L x H x D)
Catalog No. 305

TESCO Pro Hot Socket Repair Kit

The Catalog No. 305 Pro Hot Socket Repair Kit provides the tools and components for the most common 200 amp services as well as 100 amp and 60 amp components to repair older boxes. Also included is the famous TESCO Hot Socket Gap Indicator and a 40-pack of TESCO Socket Safety Clips. This kit will give you the greatest number of options possible to fix any service needing repair.

Catalog No. 305 Pro Kit includes:

- 1- Anchor 200A Socket Block Equiv
- 1- Durham 200A Socket Block Equiv
- 1- Milbank 200A Socket Block Equiv
- 1- L+G, Siemens, B&C 200A Socket Block Equiv
- 1- Superior 200A Socket Block Equiv
- 1- Anchor 125A Socket Block Equiv
- 1- 60A-100A Round Socket Blocks
- 2- Large SS Swinging Latch—Cover Repair
- 2- Small SS Swinging Latch—Cover Repair
- 2- SS Permanent Latches—Socket Can Repair
- 7- Blade Guides
- 6- Terminals (jaws not tapped)
- 1- Gasket for meter to cover, round 5-6”
- 1- TESCO Cat No. 300 Hot Socket Gap Indicator
- 1- TESCO Socket Safety Clips 40-pack, Cat No. 301-40
- 1- 1-1/4” Steel Hole Seal
- 1- 3/4” Steel Hole Seal
- 1- Rivet Kit
- 1- 1/2” Nut Driver
- 1- Hex Nut Driver Set with Handle
- 1- 1000V Insulated 3-Piece Screw Driver Set
- 6- #10x1-1/2” Hex Head Metal Screws
- 6- #10x1” Hex Head Self Tapping
- 1- Protective Aluminum Carrying Case

Approximately 12-3/4”x10”x6-3/8” and 12 pounds

Replacement Kits

Once you discover the most common components needed in your service territory, replacement kits can be purchased for these components in bulk. Every component provided in both the Basic and Pro Hot Socket Repair Kit may be purchased as part of a bulk pack along with replacement tools and cases.

Accessories

TESCO Field Bag Catalog No. 1048
The Field Bag measures 16” x 8.75” x 7.5” (L x H x D)
As a leading manufacturer of test switches and instruments for testing electric metering installations for over 100 years, TESCO's line would not be complete without our Test Switch Isolator.

Our Test Switch Isolator is perfect for isolation of an open test jack. It's available in an ergonomic design with a handle and manufactured with the same TESCO durability and ruggedness that you have come to expect. This isolator is a perfect compliment to our Catalog No. 1077 Test Plug and Catalog No. 6441 and 6441-C Test Switch Protectors.

TESCO is committed to the development of all of our instruments to meet the needs of today's utility market. If you are currently using older model TESCO equipment, please contact us to learn how your product is evolving.
Catalog No. 1039

TESCO Safety Disconnect Device

Safely disconnect or reconnect power using the meter’s remote disconnect from the palm of your hand.

TESCO’s portable safety disconnect device allows you to safely disconnect power using the meter’s remote disconnect from the palm of your hand without removing the meter from the socket.

COST EFFICIENT: Perform Disconnect Testing without the need for more expensive test equipment in the lab.

EASY TO USE: The device recognizes which meter manufacturer it is connected with and will light up when you align the device with the meter, letting you know it is working.

SAFE and SECURE: Utilities download a security password through a PC interface to the Safety Disconnect Device.

CONVENIENT and PORTABLE: TESCO’s ergonomic design fits in the palm of your hand during use, and can be stored in a toolbox in your work truck.

Features
• Compatible with GE/Aclara, Landis+Gyr, and Itron meters with a disconnect.
• Open the remote disconnect switch on meters with an optical port
• Close the remote disconnect switch on meters with an optical port
• Leave the meter in the socket during disconnect/reconnect
• Allow meter to be installed with switch open, for safety and arcing (allowing the installer to set the meter without worry of fault on load side)
• Save time and money sending techs out in the field
• LEDs show status of Safety Disconnect Device
• Read date and time of open/close along with meter serial number, or meter ID
• Read data out via USB interface for data logs, times, voltage, etc.

Other Uses
TESCO’s Safety Disconnect Device can also be used for emergency situations like a residential or commercial fire when emergency responders are trying to enter the structure. Using password protected data from the local utility, emergency responders can easily shut the power off to enter the structure safely.

SAFETY DISCONNECT DEVICE
CATALOG NO. 1039

Accessories
TESCO Clip-On PocketPal Carrying Case Cat. No. 1040 The case measures 3” x 3.5” x 2.25” (W x H x D).
Catalog No. 1039-WP

Safety Disconnect and Wireless Probe

Tired of taking multiple trips from the work truck to the meter site? TESCO’s Safety Disconnect and Wireless Probe allows you to program meters from the convenience of your work truck.

TESCO’s Wireless Optical Probe provides easy, two-way communication between a PC and meter with wireless convenience up to 1200 ft.

COST EFFICIENT: TESCO’s Wireless Optical Probe is an affordable way to program and read meters.

EASY TO USE: To operate, simply attach it to a meter and communications with the meter vendor’s software can begin. An RF Wireless dongle plugs into USB port on a computer and is paired to the probe. Red and green LEDs indicate communications to and from the meter.

CONVENIENT: Program meters from the convenience of your work truck within 1200 ft.

DEPENDABLE: TESCO has supplied the utility industry for more than 100 years.

Features
- Communicate wirelessly to probe from any PC up to 1200 feet away
- 2.4 GHz radio frequency transmitter/receiver
- Robust and durable
- Portable and convenient
- USB interface
- Two way communication to the meter
- Program and read meter settings
- FCC and IC approved communication
- Not compatible with any meter that will not accept standard ANSI C12.18 optical port communications or has third party circuitry that prohibits optical port.

TESCO’s Catalog No. 1039-WP comes with a Catalog No. 1039, Catalog No. 1040, wireless dongle, and USB cable. Select a TESCO Optical Port Adapter (Catalog No.1041-AC, Catalog No.1041-LG, Catalog No.1041-CN, and Catalog No. 1041-HY) The 1039-WP is compatible with GE/Aclara, Landis + Gyr, Itron, Centron, and Honeywell meters with a disconnect.
Catalog No. 1040

TESCO Clip-On PocketPal

TESCO’s Cat. 1040 Clip-On PocketPal is an easy, convenient and secure way to transport your smaller items in the field.

Features:
- Clip-on style allows easy, hands-free transport
- Lightweight
- Secured with Velcro closure
- Dimensions: Approximately 3” wide, 2.25” deep and 3.5” tall

Specifications:
Made of durable canvas, this lightweight case attaches quickly to a belt or waistband and has a Velcro closure to keep items secure in transit.

The PocketPal can be used for a number of items including:
- Catalog No. 1039 Safety Disconnect Device
- Catalog No. 1037-STND Optical Pickup
- Catalog No. 1037-DTS Optical Pickup
- Catalog No. 1038 Optical Probe

CLIP-ON POCKETPAL
CATALOG NO. 1040
Not all meter covers are created equal. You may need a metallic interface on your meter cover to properly use a meter probe or pickup. Well, TESCO has solved that issue with our Optical Port Adapters.

TESCO Optical Port Adapters (Catalog No. 1041-AC for GE/Acclaro meters Catalog No. 1041-CN for Centron meters, Catalog No. 1041-HY for Honeywell meters and Catalog No. 1041-LG for Landis+Gyr meters) These adapters snap onto the meter cover to provide a metal interface attachment for various optical pickups and probes.

**Features**
- Easily snaps on the meter cover
- Creates a metal interface for pickups and probes to work with the meter
- Durable construction

**Related Products**
- TESCO's Catalog No.1039-WP Wireless Probe provides easy, two-way communication between a PC and meter wireless convenience up to 1200 ft. The Catalog No. 1039-WP comes with a Catalog No.1040 Clip-On PocketPal Carrying Case and one Catalog No. 1041 adapter.

- Catalog No.1037-STND Optical Pickup
- Catalog No. 1037-DTS Optical Pickup
- Catalog No. 1038 Optical Probe
TESCO has newly redesigned our Test Plug for use with all test switch current test jacks, making testing quicker, safer and more accurate. Frequently used for in-service CT burden testing and current injection when testing watt-hour meters, the Test Plug eliminates the possibility of opening current transformer secondaries. It’s compact and polarized with convenient terminals for fastening leads. The Test Plug may also be used as an insulating plug.

Features
- 40 Amp Rating (with appropriate leads)
- Contour Molded Housing (for ease of use with insulated gloves)
- Works with most test switches and jacks
RF Meter
Catalog No. 1120
TESCO RF Meter

The TESCO RF Meter combines all the features needed for fast, accurate measurements of electromagnetic fields. This instrument was designed to measure RF, but also has the ability to measure electric and magnetic fields.

The RF (Radio/Microwave) setting can detect up to three billion Hz (3 GHz), which lets you gauge radio-wave power, cellular phone equipment, microwave and many types of RF emitting household and industrial equipment. The RF setting detects vertical electric fields parallel to the long axis of the meter. The range of the meter is 10V/m to 1 KV/m (0.026 mW/cm² to 260 mW/cm²) and is frequency-flat from 100 KHz to 2.5 GHz. Accuracy is +/-30%. The RF Meter's primary use is to detect ON-AIR status of transmitters (or to detect concealed transmitters), to check AMI meters, microwave ovens or other microwave equipment for leakage, and to look for RFI sources.

The Radio/Microwave section has a small L-shaped antenna in the front. The signal is amplified and converted to a power density magnitude, calibrated at typical home microwave oven frequency (2 GHz). The RF Meter reads 0 to 1 milliwatt/square centimeter. The resolution at the bottom of the range is 0.01 mW/cm². A radio wave strength of 0.01 mW/cm² has 0.006 KV/m and 0.2 milligauss, respectively, of electric and magnetic field (RMS averaged), while a strength of 1 mW/cm² corresponds to 0.06 KV/m and 2 milligauss. Typical accuracy is within a factor of two. Variations may be caused by reflections off the user’s hand and body.

Specifications
- **Frequency Range**: 50 MHz - 3000 MHz (3 GHz)
- **Range Resolution**: 1 mW/cm² / 0.01 mW/cm²
- **Accuracy**: 0.5x to 2x of reading
- **Settings**
  - A: Magnetic Field (0 - 100 milligauss range)
  - B: Magnetic Field (0 - 3 milligauss range)
  - C: Electric Field
  - RF: Radio/microwave (mW/cm²)
- **Dimensions**: 5.0 x 2.6 x 2.4 in (129 x 67 x 62 mm)
- **Weight**: 8 oz
- **Battery**: 9 Volt alkaline (40 hour life) / Low Battery indicator
TESCO Test Switch Protectors

With safety always being a concern while working with electrical boxes, you can depend on TESCO’s Test Switch Protectors (Catalog No. 6441 and 6442) to alleviate any uncertainty. This was developed to provide temporary protection of the test switch and to address the rising concern that the terminals of the test switch are exposed while you’re working in the box. The test switch protectors can prevent incidental contact with live terminals or contact with tools.

TESCO’s Test Switch Protectors are made of clear, flexible PVC with a voltage rating of 2500V. The Test Switch Protectors will fit any brand of test switch, regardless of manufacturer, up to 10-pole. The Test Switch Protectors are available in a 10-pole configuration (Catalog No. 6441) and a 7-pole configuration (Catalog No. 6442).

Both Test Switch Protectors have an optional feature that allows the test switch protector to be mounted to the test switch itself (Catalog No. 6441-C and 6442-C). This provides extended protection for times when the meter box may be opened for prolonged periods of time.
Catalog No. 6450

TESCO CT/PT Bus-Bar Safety Protector

The TESCO CT/PT Bus-Bar Safety Protector has been developed to assist in the safe disconnect of a hot sequenced current transformer. After service is disconnected, the TESCO CT/PT Bus-Bar Safety Protector is slid over the bus-bar of the load side of the transformer and prevents accidental connection and/or arcing.

The CT/PT Bus-Bar Safety Protector is constructed of highly durable, flexible PVC and is rated at 1500 volts.

Features
- Highly Durable, Flexible PVC
- Rated at 1500V
- Fits CT transformer bus-bars 1/8” x 1-1/4” up to 9/32” x 2-3/8”
Catalog No. 865

TESCO Transformer Polarity Checker

This instrument is used to check the correctness of polarity markings on transformers. In operation, the two leads carrying the test current are connected to one of the transformer windings. The other two leads from the indicating meter are connected to the other winding.

When the push button is depressed, DC current from a small dry cell flows through the transformer winding. The momentary induced voltage in the other winding causes the center-zero milliammeter to deflect in one direction. When the push button is released, the reverse induced voltage causes an opposite deflection.

The leads with the polarity marks are attached to the transformer terminals having polarity marks. If the latter is correct, the meter will deflect to the right when the button is depressed, and to the left when it is released. Incorrect polarity will cause the meter deflections to be the reverse of the above.

The polarity checker can be used on all types of transformers through a great range of sizes. It will operate equally well on small electronic and instrument transformers, metering transformers, both potential and current, and large power transformers. A sensitivity control adjusts the current to suit the size of the transformer to be checked.

In addition to checking the polarity of a single transformer by itself, this device can be used to check out the correctness of the wiring in a transformer rated meter installation.

To use the polarity checker for this purpose, connect the test current leads to the isolated primary of one of the instrument transformers, either potential or current. The indicating meter leads are then connected to various terminals on the test switch or meter.

The small panel meter requires no calibration, and the size D dry cell is easily and quickly replaced.

Specifications

- **Power:** one D size dry cell
- **Size:** 3.75” x 6.25” x 2.75”
- **Weight:** 1.6 lbs.

Accessories

- Carrying Case, Catalog No. 901
Catalog No. 900

TESCO Service Ground Test Set

This device has been designed to check the condition of the ground connection on a secondary service. If for any reason the ground connection has a resistance, this can be immediately detected by the Test Set.

The instrument consists essentially of a voltmeter which can be shunted by a resistance of 60 ohms. The voltmeter is of the suppressed zero type with a double range, from 65 to 130, or from 130 to 260, and can be used for checking service voltage independently of the ground test.

When making the ground test, connect one lead to a live 120V leg of the service and the other lead to the ground connection. Depress the range button marked “130 V.” The voltmeter will indicate the prevailing voltage. Then depress the button marked “Ground Test.” Two amperes will now flow through the shunt resistor and the ground return. If the resistance of the ground is zero, then there should be no change in the reading of the voltmeter. But if the ground connection has measurable resistance, then part of the IR drop will be across the ground, leaving less across the shunt resistor, and the reading of the voltmeter will drop.

The suppressed zero magnifies the visible effect of the voltage drop and also facilitates reading of the actual voltage on a small meter of this type. Scale divisions are in increments of two volts in terms of the low range, four volts on the high range. To assist in making a rapid check of the condition of the ground, the voltmeter scale is divided into colored sectors as follows:

- Red 65 to 86 Volts
- Yellow 86 to 106 Volts
- Green 106 to 130 Volts

The 86 and 106 volt points correspond, respectively, to ground resistance of 24 and 8 ohms. In addition to checking service grounds, the Test Set can be used to check the condition of potential transformers on transformer rated metering installations. The current drain at 120 volts is 2 amperes, which will place a burden of 240 voltamperes on the secondary of the potential transformer. Any excessive deflection of the voltmeter will then indicate a condition requiring further investigation.

Specifications
- Size: 6.5” x 4.125” x 2.625”
- Weight: 1.375 lbs.

Accessories
- Carrying Case, Catalog No. 901
Catalog No. 450

TESCO Safety Headlamp

Explosion/Spark Proof UL Class 1/Division 1 Certified. Lifetime Warranty!

TESCO’s Safety Headlamp brings new meaning to the term safety. Class 1 locations are areas where flammable gases may be present in sufficient quantities to produce explosive or flammable mixtures. Division 1 areas are where explosive or flammable materials usually exist under normal conditions. The TESCO Safety Headlamp is certified for both!

Specifications
- **Power:** 80 Lumens
- **Lamp:** 1 Max Bright LED
- **Burn Time:** 121 hours
- **Batteries:** 3 AAA Alkaline (included) or Lithium
- **Weight:** 3.7 oz.
- **UL Rating:** Approved
- **UL Temp Code:** T4
- **Waterproof**
- **High, medium & low output modes**
- **Regulated for constant output**
- **Includes rubber strap for hard hat use, along with industrial 3M Dual Lock™ and a nylon strap for use as a standard headlamp**