

BASEWEST

Maintenance & Calibration Manual

EPI Tester

***Goodrich P/N 3A4175-3
(BaseWest P/N 7-6026-3)***

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1.0 General

This manual provides maintenance and calibration instructions for the Goodrich P/N 3A4175-3 Electronic Pressure Indicator Tester (hereinafter “EPI Tester”). Information regarding the operation and use of the device can be found in “Goodrich Component Maintenance Manual – 4A3977 Series”.

The EPI Tester is a rechargeable, handheld instrument designed specifically for testing the electronic pressure indicator. EPI, and, the safety switch assembly SSA.



Figure 1 - EPI Tester, P/N 3A4175-3

2.0 Battery Recharging and Replacement

2.1 General

The EPI Tester is provided with a sealed, rechargeable lead acid battery. When the LOW BATTERY INDICATOR comes on (amber color), it is an indication that the internal battery requires some recovery time (from recent use) or is at a low capacity, and recharging will be required. In either case, recharging can be accomplished.

2.2 Battery Recharging

- a) Connect the battery charger, Goodrich P/N 3A4179-2 (BaseWest P/N 36-1007) to a standard 115-120VAC outlet. The charger is rated for inputs between 90-240 VAC; international users may use this battery charger on their standard AC sources with a locally-provided plug adapter.
- b) Connect the charger output plug into the recharge receptacle in the top end panel of the EPI Tester and verify that the CHARGING IN PROCESS indicator at the upper right of the P/N 3A4179-2 charger is ON (Figure 2)

- c) The battery should be left on charge until the CHARGING COMPLETE indicator at the lower right of the P/N 3A4179-2 battery charger is ON .



Figure 2 – P/N 3A4179-2 Charger

- d) After charging is completed, disconnect the charger and conduct the following tests to ensure a properly charged and functioning unit:
- Press the EPI TEST push button and verify that the RED NO-GO indicator illuminates ON. Release the push button and verify the indicator goes OFF.
 - Press the EPI TEST push button and verify that the LOW BATTERY INDICATOR remains OFF (the indicator may illuminate or flash ON momentarily when the EPI TEST push button is released).
 - Press the GND TEST push-button and verify that the green A, B, and C indicators illuminate ON, and turn OFF when the GND TEST push button is released, The Low Battery Status indicator must be OFF, while the GND TEST push-button is pressed and must not flash after the GND TEST push-button is released.
 - Press the GND TEST push-button and verify that the LOW BATTERY INDICATOR remains OFF. Verify that the LOW BATTERY INDICATOR does not illuminate momentarily or flash ON when the GND TEST push button is released.
- e) If the LOW BATTERY INDICATOR remains ON place the battery back on charge after verifying the hook-ups, and preceding steps when charging is complete. If the LOW BATTERY INDICATOR remains ON, it is possible that the battery requires replacement or repair. Attempt battery replacement first. If the situation is not corrected, return the instrument to BaseWest for repair.

2.3 Battery Replacement

The sealed, rechargeable lead acid battery, described below, should provide several years of service. If replacement is required, perform the following steps.

Battery P/N: PS-1208 or PS-1208WL
Manufacturer: Power-Sonic Corporation
Links: www.power-sonic.com
www.power-sonic.com/index.php?id=31&gr_id=40

Note: This battery may be procured directly from BaseWest as P/N 38-1007-1

- a) Separate the front and back covers by removing the four attach screws (retain for reinstallation).
- b) Disconnect the battery lead wire connector and carefully remove the battery pack from its Velcro™ retention patch, and discard the battery (Note: this battery contains lead metal; please dispose of properly).
- c) Install the new battery by pressing into the Velcro™ retention patch on the back cover as shown in the Figure 3. (Note: If the replacement battery is procured from a source other than BaseWest, install a 2 x 3" patch of Velcro™ loop (pile) material, or equivalent, on the back side of the battery prior to installation. This type of material can be procured locally from hardware stores).
- d) Connect the battery lead wire to the unit, and route the wires approximately as shown, below, to eliminate interference on closure.
- e) Close and secure the front and back covers using original hardware.
- f) Place the unit on charge per the previous instructions.

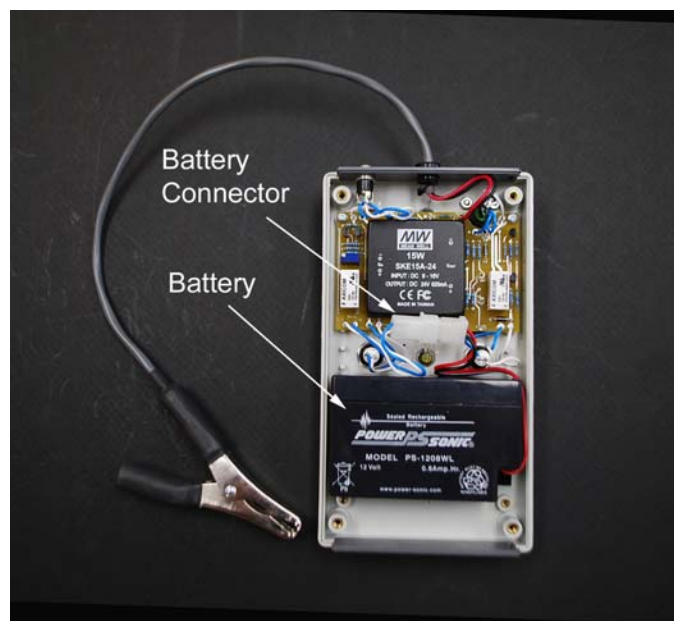


Figure 3 - Battery Replacement

3.0 Care and Maintenance

3.1 The EPI Tester is a sensitive electronic instrument; it should be treated and protected with appropriate care.

- **Do not drop or crush the instrument**
- **Do not apply external electrical inputs, except AC charger**
- **Keep instrument away from all fluids**
- **Protect from extreme temperatures, weather/rain, extended UV radiation**

3.2 The device is designed for handheld use in a shop and field environment but is not designed to withstand a drop to the ground or to survive excessive compression loads.

3.3 The device is not water resistant; protect from exposure, accordingly.

3.4 Surface cleaning with a cloth slightly dampened with alcohol is recommended. Use of solvents or cleaners is not recommended.

3.5 Unauthorized field repairs are not recommended, and may void warranty. It is recommended that the devices be returned for repair or servicing.

4.0 Calibration

4.1 General

Local, user-calibration is encouraged; calibration by BaseWest is not required. User calibration with a NIST-traceable multimeter may meet the user's calibration objectives without requiring outside NIST-traceable calibration services.

4.2 Required Items

- Digital multimeter in current calibration
- DC Power supply, capable of providing in excess of 10VDC on load.
- Test cable, BaseWest P/N 7-6909-1

4.3 Calibration Procedures

- a) Disconnect the battery at the battery connector (Figure 3).
- b) Connect the test cable 7-6909-1 to the instrument under test, the DC power supply, and the digital multimeter as indicated in Figure 4. Be sure to observe polarity on connection to DC power supply - Red (+), Black(-).

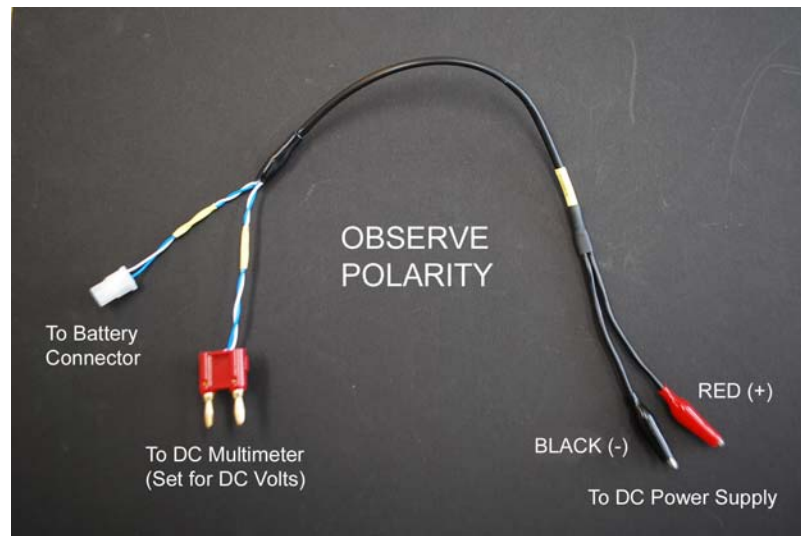


Figure 4 - Test Cable

- c) Adjust DC power supply until the digital multimeter reads an output of 10VDC.
- d) Adjust the trimpot (Figure 5) to the lowest setting necessary to illuminate the LOW BATTERY INDICATOR at DC power supply input of 10.0 volts.

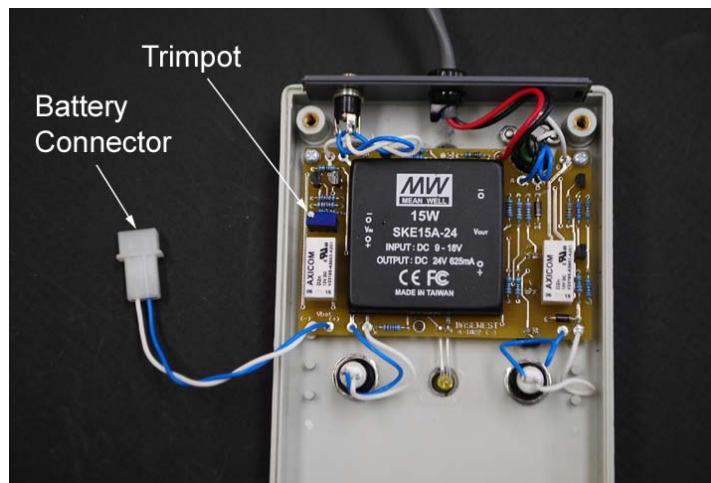


Figure 5 - Calibration References

- e) Increase the voltage above 10VDC and adjust voltage downward slowly to verify that the LOW BATTERY INDICATOR illuminates ON at the 10.0 VDC threshold.
- f) Repeat the functional test procedures of Section 2.2 (d) and (e) to verify proper function of the instrument.