

INSTRUCTION SHEET

275243 ZERO PRESSURE SIMULATOR

CERTIFICATION

Granville-Phillips Company certifies that this product met its published specifications at the time of shipment from the factory.

LIMITED WARRANTY

This Granville-Phillips Company product is warranted against defects in materials and workmanship for one year from the date of shipment. Granville-Phillips Company will, at its option, repair or replace or refund the selling price of an item which proves to be defective during the warranty period provided the item is returned to Granville-Phillips Company together with a written statement of the problem.

Defects resulting from or repairs necessitated by misuse of the equipment or any cause other than defective materials or workmanship are not covered by this warranty. NO OTHER WARRANTIES ARE EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. GRANVILLE-PHILLIPS COMPANY IS NOT LIABLE FOR CONSEQUENTIAL DAMAGES.

General Description

The 275243 Zero Pressure Simulator is a lithium battery powered electronic circuit which simulates a Granville-Phillips 275 gauge tube at vacuum when connected to any model 275 gauge controller. The purpose of the Zero Pressure Simulator is to verify that the "VAC" potentiometer is adjusted as per original factory specification. Note that the Zero pressure Simulator can only verify controller "VAC" adjustment. Should there be any shift in the gauge tube zero pressure output, system accuracy can still be in error. The calibration procedure as given in the 275 Instruction Manual is the preferred method of adjusting the "VAC" potentiometer if system pressure less than 1×10^{-4} Torr can be obtained. **CAUTION: When used with 375001 controller "VAC" should be set to 7.2 mTorr.**

Operating Instructions

1. Disconnect the gauge tube cable at the gauge tube end and connect the Zero pressure Simulator in its place. **NOTE:** When the pushbutton is not depressed, the simulator is inoperative and the resultant reading is meaningless. This reading has no bearing on the zero reading obtained when the button is depressed.

2. Depress the momentary pushbutton switch and while depressing observe the controller zero indication. For an analog controller adjust the "VAC" potentiometer for a meter zero indication. For a digital controller adjust the "VAC" potentiometer for a zero indication with the range LED lit or just flashing.

Maintenance

Under normal use the Zero Pressure Simulator is designed to give many years of dependable service. The internal lithium battery has a rated shelf life of 10+ years and a capacity equal to over 400 hours of operation.

To test for performance, insert the prods of a digital voltmeter through the two holes in the shield and contact pins 1 and 3. With the Zero Pressure Simulator connected to an operating system, depress the switch and observe the voltage. Pin 1 should read + .375 volts DC with respect to pin 3. A reading of + .373 VDC to + .377 VDC is acceptable for a zero reading.

If the voltage is outside these limits the Zero Pressure Simulator may be calibrated by removing the set screw from the side port which allows access to an internal potentiometer. This can be adjusted to produce the desired + .375 VDC. No other maintenance is required.