

### SCP1000/SCP2000 Option: Portable Test Unit Model PTU-1000

The optional Portable Test Unit, Model PTU-1000, is designed to verify shaft speed and setpoint setting. The PTU-1000 will also provide confirmation of the setpoint speed for inspection purposes, or as a double-check during setup.



The PTU-1000 has two switches; Test/Tachometer Mode, and Setpoint Range Selector. It also has an LCD speed display, and a control knob for use in Test Mode.

The PTU-1000 is connected to the SCP Series Switches via a modular jack on the top board of the SCP. To access the top board of the SCP Series Switches, unscrew and remove the cover, and insert the male end of the connector into the jack.

#### Tachometer Mode:

In this Mode, the SCP Series Switches will display the speed of the monitored shaft in rpm. This is useful in determining what the setpoint speed(s) should be. To use the PTU-1000 in Tachometer Mode:

1. Set the Test/Tach switch on the PTU-1000 in Tachometer Mode.
2. Set the Test/Operate switch on the SCP Series Switch in Operate Mode. When the PTU switch is in the Tachometer Mode, the Test/Operate switch in the SCP can be in either position for tachometer output. DO NOT leave the SCP Test/Operate switch in Test Mode during operation. The SCP will not operate in Test Mode.
3. Observe the Liquid Crystal Display (LCD) of the PTU-1000 to view the actual speed of the monitored shaft in rpm.

#### Test Mode:

In Test Mode, the PTU-1000 provides a test input signal to the electronics of the SCP Series Switches. This replaces the signal generated by the sensing portion of the SCP unit. The “speed” of the test signal is adjusted using the control knob. The rpm equivalent to the test signal is shown on the LCD speed display. To use the PTU-1000 in the Test Mode:

1. Make sure the SCP Series Switch has been set up according to the calibration instructions.
2. Set the Test/Operate switch on the SCP Series Switch circuit board in Test Mode.
3. Set the Test/Tach switch on the PTU-1000 in Test Mode.
4. Set the Setpoint Range Selection switch on the PTU-1000 in the position corresponding to the Setpoint Range Selection setting on the SCP Series Switch.
5. Observe the indicator light(s) in the SCP Switch as you adjust the control knob on the PTU-1000. When the “speed” of the artificial signal is greater than the setpoint (in Under Speed Mode) the corresponding relay LED will be illuminated. When you turn the “speed” down below the setpoint of the SCP Series Switch, the LED will turn off. When you turn the “speed” back up over the setpoint setting(s), the corresponding relay LED will illuminate if the “speed” is 6% over the setpoint setting (due to the built-in hysteresis feature).
6. When the Test Mode is finished, set the Test/Operate switch on the SCP Series Switch back into the Operate Mode. If the switch is left in Test Mode, the SCP Series relays will remain de-energized. The Test/Operate switch must be in Operate Mode for the signal from the sensor in the SCP Series Switch to be activated.