

# FIELD MEMO

11/30/98

## PROCEDURE TO VERIFY PROPER OPERATION OF MONARCH TACHOMETERS AND REMOTE OPTICAL SENSORS

### MOST COMMON CONSIDERATIONS

1. CHECK BATTERIES - Weak or Dead Batteries? Batteries installed improperly? Install new batteries correctly and try operation of Tachometer again.
2. REFLECTIVE TAPE - Tachometers must be used with the same Reflective Tape as originally supplied. The part number of the Reflective Tape is MONARCH T-5\*, 5 foot roll, 1/2 inch wide. The Reflective Tape must be located on a radial line on the end of the shaft or less than 50% of the circumference when located on the side of the rotating shaft for one pulse per revolution. (\* or T-5WP (waterproof))
3. ON TARGET INDICATOR - The Tachometer must be held steady so the "on target indicator" locks on and does not blink on and off while trying to take a measurement. The "on target indicator" on the PHASAR-LCD is the plus (+) sign to the left of the numbers. The "on target indicator" on a PHASAR-LED display is a decimal point on the right side of the display. The "on target indicator" on a TACH-4A and POCKET-TACH is a bullseye symbol on the display.
4. OPERATING DISTANCE/ANGLE - The user did not read the instruction manual and tried to operate the Tachometer outside of the distance range printed in the instruction manual. The operating distance for the PHASAR, TACH-4A and ROS (Remote Optical Sensor) is up to 36 inches (24" w/T5-WP) and a 45° angle from either side of the reflective target. The POCKET-TACH may be operated up to 30 inches and 30° from either side of the reflective target.
5. OPTIC LENS DIRTY - Clean Plastic lens with water on a damp cloth.

### HOW TO VERIFY CORRECT OPERATION

1. Press and hold "on button", view light at lens end of Tachometer. The light must be bright white not orange color or burnt out. If lamp is burnt out, Tachometer or ROS must be returned for repair.
2. Aim Tachometer or ROS at a fluorescent light from a distance of at least 3 feet and up to 20 feet away from a 4 foot lamp, the correct reading will be  $7200 \pm 2$  (60 cps x 60 sec x 2 = 7200). For 50 Hz. the reading will be  $6000 \pm 2$ . The Tachometer calibration cannot change and there is no adjustment possible or necessary with the instrument.

NOTE: New energy efficient lamps will not allow this light test - find an old style fluorescent lamp in the building that reads 7200.

### SUMMARY

When a Tachometer has a bright white light output and has passed the fluorescent light calibration check, THERE IS NOTHING WRONG WITH THE TACHOMETER OR ROS. Suggest trying a new piece of Reflective Tape, holding steady and aiming from the correct distance to obtain the actual RPM.