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INSTRUMENT SELECTION

Datcon Tachometers and Tach/Hourmeters are designed to accommodate a wide range of gasoline and diesel engine applications; However, each tachometer is designed for **one specific signal source**. It is critical to determine the signal source before selecting a tachometer.

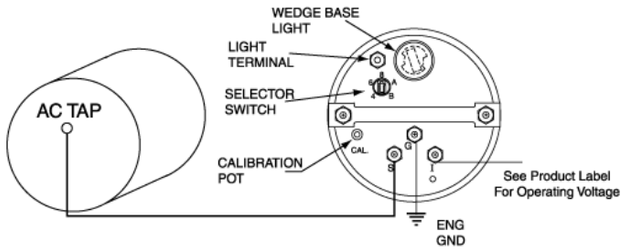
Refer to the instrument's label to determine the ***Application code*** (pulse source) of your Tachometer and proceed to the proper section of the instructions for installation and calibration information.

All 3-3/8" Datcon tachometers are compatible with 12-volt and 24-volt systems. The appropriate light kit (if used) must be installed.

INSTRUMENT MOUNTING

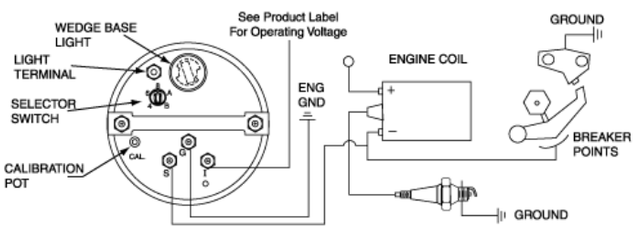
All Datcon tachometers and tach/hourmeters will fit standard SAE panel openings of 3-3/8" or Tach Mounting Kit, Part No. 71461-00. **TIP:** It is advised to connect the wiring and calibrate the unit before final mounting. Access to the rear of the unit is required for calibration.

ALTERNATOR PULSED



- Connect "S" terminal to AC Tap ("R" Term) of alternator.
- Connect "I" terminal to voltage source (12/24 volts dc, neg. gnd.)
- Connect "G" terminal to a secure ground point.
- Using a master tach, determine the actual engine rpm. Adjust the selector switch for gross calibration (close to actual engine rpm).
- Using the proper calibration tool (see instrument label), turn the calibration "pot" until actual engine rpm is indicated.
- After the fine calibration (a few seconds after the final adjustment), the tach will automatically reset (pointer will sweep around) and save the calibration set point, indicating a complete calibration.
- If the unit does not display the actual engine speed, repeat the above calibration steps.

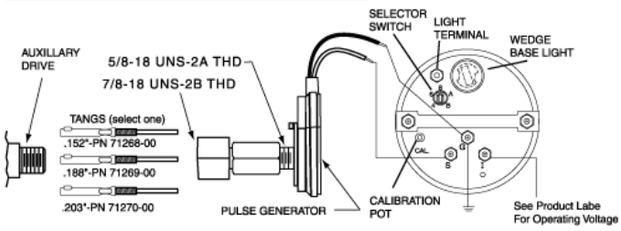
BATTERY IGNITION PULSED



NOTE: Can be used with most electronic ignition systems.

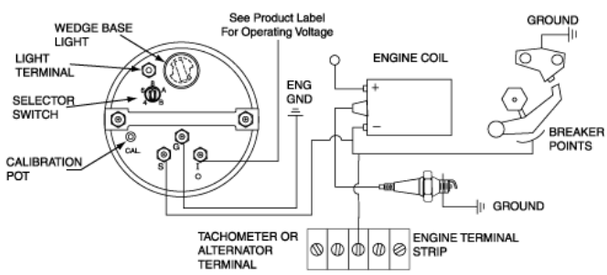
- Connect "S" terminal to negative terminal of the ignition coil.
- Connect "I" terminal to voltage source (12/24 volts dc, neg. gnd.)
- Connect "G" terminal to a suitable surface on chassis for grounding. Avoid painted or coated surfaces.
- Set selector switch to the appropriate position.
  DO NOT adjust the calibration "pot". These units are pre-calibrated during assembly.
  Position "4" = 4 cylinder, 4 cycle and 2 cylinder, 2 cycle
  Position "6" = 6 cylinder, 4 cycle and 3 cylinder, 2 cycle
  Position "8" = 8 cylinder, 4 cycle and 4 cylinder, 2 cycle

PULSE GENERATOR - P.N. 71267-00



- Run both sender wires to the tachometer and connect one wire to the "S" terminal and the other wire to the "G" terminal along with the ground wire. The sender wires have no polarity.
- Connect "I" terminal to voltage source (12/24 volts dc, neg. gnd.)
- Connect "G" terminal to a suitable surface on chassis for grounding. Avoid painted or coated surfaces.
- Set selector switch to the appropriate position.
  DO NOT adjust the calibration "pot". These units are pre-calibrated during assembly.
  Position "4" = .5:1 Auxiliary Drive Ratio to crank
  Position "6" = 1:1 Auxiliary Drive Ratio to crank
  Position "8" = 2:1 Auxiliary Drive Ratio to crank

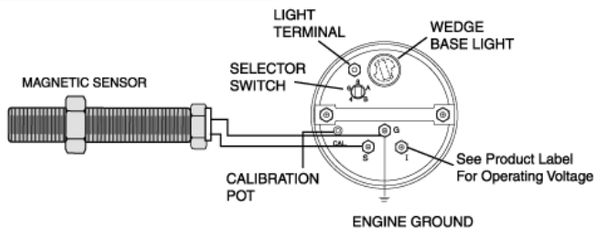
10&12-POLE FLYWHEEL ALT/BATTERY IGNITION



NOTE: Can be used with most electronic ignition systems.

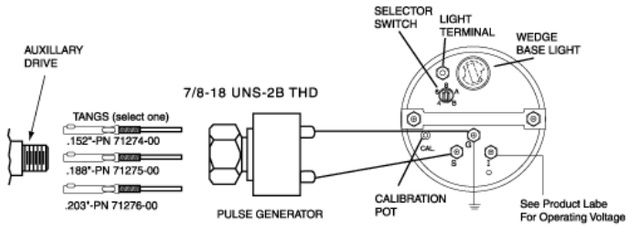
- Connect "S" terminal to negative terminal of the ignition coil.
- Connect "I" terminal to voltage source (12/24 volts dc, neg. gnd.)
- Connect "G" terminal to a suitable surface on chassis for grounding. Avoid painted or coated surfaces.
- Set selector switch to the appropriate position.
  DO NOT adjust the calibration "pot". These units are pre-calibrated during assembly.
  Position "4" = 4 cylinder, 4 cycle and 2 cylinder, 2 cycle
  Position "6" = 6 cylinder, 4 cycle and 3 cylinder, 2 cycle
  Position "8" = 8 cylinder, 4 cycle and 4 cylinder, 2 cycle
  Position "A" = 10-pole direct-drive flywheel alternator
  Position "B" = 12-pole direct-drive flywheel alternator

MAGNETIC SENSOR PULSED



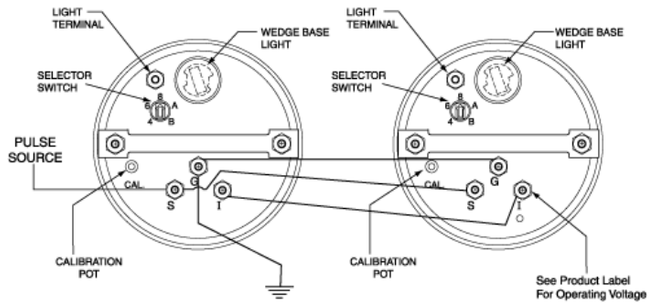
- Connect "S" terminal to one lead of magnetic sensor. (remaining lead to "G" terminal
- Connect "G" terminal to a secure ground point.
- Connect "I" terminal to voltage source (12/24 volts dc, neg. gnd.)
- Using a master tach, determine the actual engine rpm. Adjust the selector switch for gross calibration (close to actual engine rpm).
- Using the proper calibration tool (see instrument label), turn the calibration "pot" until actual engine rpm is indicated.
- After the fine calibration (a few seconds after the final adjustment), the tach will automatically reset (pointer will sweep around) and save the calibration set point, indicating a complete calibration.
- If the unit does not display the actual engine speed, repeat the above calibration steps.
- Applicable sender part numbers:
- 71256-00 3/4-16 x 3.4" long, 71255-00 3/4-16 x 1.9" long, 71544-00 5/8-18 x 1.9" long, 71545-00 5/8-18 x 3.4" long

PULSE GENERATOR - P.N. 71266-00



- Run both sender wires to the tachometer and connect one wire to the "S" terminal and the other wire to the “G” terminal along with the ground wire. The sender wires have no polarity.
- Connect "I" terminal to voltage source (12/24 volts dc, neg. gnd.)
- Connect "G" terminal to a suitable surface on chassis for grounding. Avoid painted or coated surfaces.
- Set selector switch to the appropriate position.
  DO NOT adjust the calibration “pot”. These units are pre-calibrated during assembly.
  Position "4" = .5:1 Auxiliary Drive Ratio to crank
  Position "6" = .75:1 Auxiliary Drive Ratio to crank
  Position "8" = 1:1 Auxiliary Drive Ratio to crank
  NOTE: Verify the switch setting with the label on the unit, as specifications may vary.

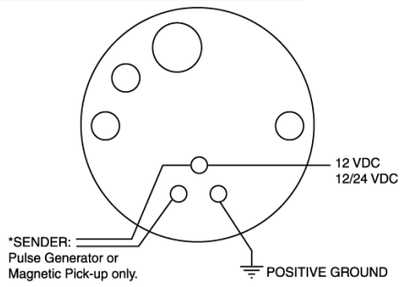
DUAL TACHOMETER INSTALLATIONS



To install two tachometers using the same signal source, follow the wiring instructions for the correct signal source, then extend all three wires to the additional tachometer.

NOTE: If necessary, synchronization is possible by using the proper calibration tool (see instrument label) to turn the calibration "pot" until synchronization is achieved.

POSITIVE GROUND APPLICATIONS



NOTE: Only magnetic pick-up and pulse generator tachometers may be used for positive ground applications.

CAUTION: DO NOT ground either sender lead.

32 VOLT APPLICATIONS

32-volt applications require that lead wire P/N 71781-01 be attached to the “I” terminal of tachometer and positioned away from the sender lead wire. If lighting is desired, the 24-volt kit must be installed.

LIGHTING INFORMATION

All Datcon tachometers and tach/hourmeters have provisions for optional lighting. Select the proper light kit based on either 12-volt or 24-volt electrical system.

- Use P/N 71224-00 for 12-volt operation and P/N 71224-01 for 24-volt operation.

TROUBLESHOOTING INFORMATION

- The needle not on zero:
  When the tachometer is not powered, the needle can move freely and will likely not be on zero. When the tachometer is powered (without the engine running), the pointer should be very close to zero. If it is not close to zero, there is a problem with power or ground, or the unit is defective.
- When the engine is running the pointer does not move:
  1. No signal is present at the “S” terminal. Check all signal wiring.
  2. Faulty sender. Replace sender.
  3. Improper tachometer selection for signal type. Example – using a magnetic sensor driven tachometer with an alternator signal. Verify tachometer selection.
  4. Faulty unit. Replace tachometer.
- When the engine is running the pointer pegs at maximum rpm:
  1. Improper tachometer selection for signal type. Example – using an alternator driven tachometer with a magnetic sensor signal. Verify tachometer selection.
  2. Faulty unit. Replace tachometer.

WARRANTY INFORMATION

THIS PRODUCT PROVIDES A TWO (2) YEAR LIMITED WARRANTY

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INSTALLATION INSTRUCTIONS

TACHOMETERS and TACH/HOUR METERS