

TX-2 4" and 4-1/2" Tachometer Instructions

CAUTION:
 1 DO NOT handle coil wires when engine is running. High voltage is sometimes present.
 2. DO NOT try to splice directly into a spark plug wire. This will damage tachometer.
 3. Wear eye protection.

Note: On some A/C power applications, users opt to install a small gell cell +12v battery pack within the application, to allow the tachometer to playback without the engine running.

- Hook up the Red +12V to a small battery pack with an inline switch to disconnect power when not in use. The gel cell ground should be connected to chassis ground. Hook up the YELLOW wire to the A/C source to provide power to tachometer while the engine is running. Tachometer will run off A/C power while the engine is running to preserve battery life and switch to D/C power from battery pack when the engine is off.

(Red) **D/C PWR** +12V DC voltage power. For applications with 12v battery power on board. For A/C applications this wire is not needed.
 (Yellow) **A/C PWR** >9V AC voltage power. If your application does NOT have onboard battery, hook this up to your AC power source.

Current Draw = 0.2 Amp
 5 Amp Inline Fuse Recommended

Ignition coil or tachometer output. (White)
 NOTE: For A/C PWR applications tie this wire to the YELLOW wire and connect them to the A/C charging circuit.

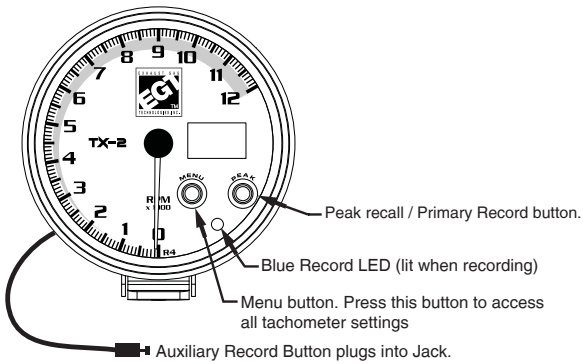
(Brown) Ground Chassis or neg Battery.

(Blue/White) +12Volt lighting

(Red/Black) +12Volts GPS Hot Start
 +12 Volts constant power (25 micro-amp draw)

GPS Antenna
 The GPS antenna is waterproof and magnetic. Mount GPS antenna with as much view of sky as possible.

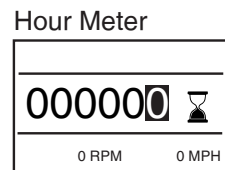
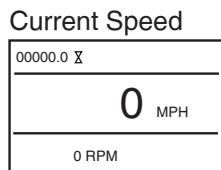
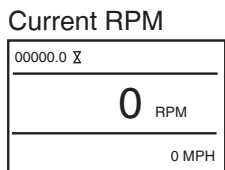
Mounting the Tachometer:
 Both the 4 inch and 4-1/2 inch versions of the tachometer include a threaded spin lock ring for mounting inside a dashboard hole.
 The 4-1/2" version also includes a pedestal mount bracket for mounting on top or outside of the dashboard.



The TX-2 recording tachometer is designed to work on a wide variety of ignition systems with both A/C and D/C power sources. The electronic circuit board inside is voltage spike protected, if you happen to connect it up incorrectly you will not damage the tachometer (the tachometer will simply not work).
 Incoming voltage pulse signals on the WHITE wire can range from 0.5 to 300Volts allowing it to sense almost any type of ignition pulse.
 When mounting the tachometer, make sure the back of tachometer where the wires exit is not directly exposed to wet conditions. The front of the tachometer is water resistant.
 Use a soft cloth to clean the window with warm soapy water or window cleaner.

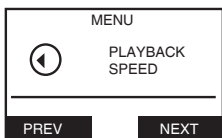
LCD Monitoring Views

Use the Auxiliary button to toggle between current Speed, RPM, or Hour Meter.



Setup Instructions

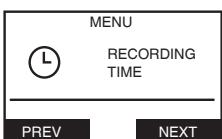
Playback Speed



1. Momentary press the menu button to access the menus.
2. Press and hold the Settings Button (right button)
3. Toggle next until playback speed is selected.
4. Press and hold EITHER button to enter menu.
5. Toggle up/down to select either 1:1 or 1:3.
6. At desired playback speed after couple seconds setting is saved

1:1 Is played back in real time
 1:3 is played back in 1/3 speed.
 Use this menu to select how fast you would like the tachometer to playback your run.

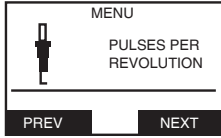
Record Time Menu



1. Momentary press the menu button to access the menus.
2. Press and hold the Settings Button (right button)
3. Toggle next until recording time is selected.
4. Press and hold EITHER button to enter menu.
5. Toggle up/down to select from 1, 5, 10, or 20 minutes.
6. At desired recording time after couple seconds setting is saved

1 minute = 100 samples / second
 5 minutes = 20 samples / second
 10 minutes = 10 samples / second
 20 minutes = 5 samples / second

Pulse Per Rev Setup. (PPR)



1. Momentary press the menu button to access the menus.
2. Press and hold the Settings Button (right button)
3. Toggle next until Pulse per Revolution menu is selected.
4. Press and hold EITHER button to enter menu.
5. Toggle up/down though available pulses per rev.
6. At desired Pulse Per Rev after couple seconds setting is saved

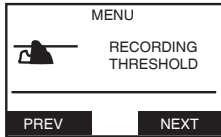
Note: The PPR is used to calculate how many ignition pulses per revolution of the engine.

This setting can be changed at any time, so experiment until it is right.

For example:

- 8 cylinder (single coil) 4 stroke, engine typically is 4 PPR.
- MSD ignitions are usually 1 PPR.
- Most snowmobile stock ignitions are 2,3,4 or 6 PPR.

Recording Threshold



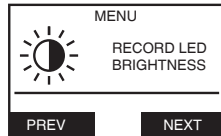
1. Momentary press the menu button to access the menus.
2. Press and hold the Settings Button (right button)
3. Toggle next until recording threshold is selected.
4. Press and hold EITHER button to enter menu.
5. Toggle up/down to move pointer to desired RPM.
6. At desired recording threshold after couple seconds setting is saved

Recording Threshold is the RPM the engine must exceed before the tachometer starts to record. So for example, if you select an RPM of 4500RPM the tachometer will start to record after the RPM passes this point. Once RPM has exceeded this point, the recording will start. This allows the user to press the record button while staging at the starting line and not worry about the loss of recording time while staging.

Setting the RPM threshold at 0 will turn this feature off and start recording as soon as the record button is pressed.

Note: If threshold RPM is setup, pressing the record button will flash the blue LED to indicate that the recording feature has been initiated but NOT recording until threshold RPM is breached. Once this occurs the blue LED will turn solid blue indicating recording has started.

Record LED Brightness

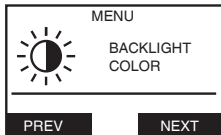


1. Momentary press the menu button to access the menus.
2. Press and hold the Settings Button (right button)
3. Toggle next until RECORD LED BRIGHTNESS is selected.
4. Press and hold EITHER button to enter menu.
5. Toggle up/down to select from 0-4 settings
6. At desired record LED brightness after couple seconds setting is saved

0 = Record LED is OFF
1=Lowest brightness
4= Highest brightness.

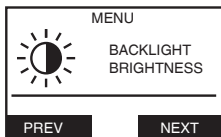
As you toggle through brightness settings you will see the record LED light change in brightness.

Back Light Color



1. Momentary press the menu button to access the menus.
2. Press and hold the Settings Button (right button)
3. Toggle next until record BACKLIGHT COLOR menu is selected.
4. Press and hold EITHER button to enter menu.
5. Toggle UP/DOWN until color is selected.
6. At desired color after couple seconds setting is saved

Back Light Brightness



1. Momentary press the menu button to access the menus.
2. Press and hold the Settings Button (right button)
3. Toggle next until BACKLIGHT BRIGHTNESS is selected.
4. Press and hold EITHER button to enter menu.
5. Toggle up/down to select brightness settings
6. At desired backlight brightness after couple seconds setting is saved

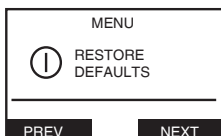
Help



1. Momentary press the menu button to access the menus.
2. Press and hold the Settings Button (right button)
3. Toggle next until 'HELP' is selected.
4. Press and hold EITHER button to enter Help menu.
5. Support contact info and firmware version will be displayed.

If you need assistance please contact:
Exhaust Gas Technologies
1-800-348-4678
www.exhaustgas.com

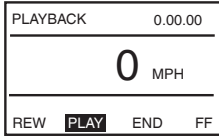
Restore



1. Momentary press the menu button to access the menus.
2. Press and hold the Settings Button (right button)
3. Toggle next until 'RESTORE DEFAULTS' is selected.
4. Press and hold EITHER button to enter the restore menu.
5. Press and hold the respective (YES or NO) button to restore the factory settings.

For troubleshooting and technical support purposes, you can restore the Tachometer to the Factory Default settings.

Playback Menu



1. Momentary press the menu button to access the menus.
2. Press and hold the playback Button (left button)
3. Run will start to play back at set playback speed (1:3 or 1:1)
4. Use buttons to toggle between menu items.
5. To exit run select END.

REW- press and hold this button to rewind run. Momentary press this button to step back through the run 1/100th of second.

PLAY/ PAUSE - press this button to play or pause the run.

END- exits run. Run is stored until next run is recorded.

FF- press and hold this button to fast forward run. Momentary press this button to step through run 1/100th of second.

Recording Runs

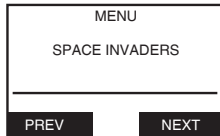
One run can be stored up to 60 seconds, 5 minutes, 10 minutes, or 20 minutes in length.

To record a run press the Record/Peak button on the front of gauge or press the auxiliary button (included) for 2 seconds. The recording will start and Blue LED will turn on.

Note: If threshold RPM is setup. The blue light will flash to indicate that the recording is armed and ready to start once RPM passes threshold RPM. The LED will turn solid blue.

Run will be stored (even if power is turned off) until next run is recorded. The new run will then overwrite old data.

Bonus: Space Invaders



1. Momentary press the menu button to access the menus.
2. Press and hold the Settings Button (right button)
3. Toggle next until 'SPACE INVADERS' is selected.
4. Press and hold EITHER button to Launch 'Space Invaders'.

Just for fun, we have included the classic game Space Invaders. While you are waiting for your turn to take a run on the track, you can pass the time defending the earth from an extra terrestrial threat.

Use the MENU and PEAK buttons to move left and right. Attach the auxiliary button to the back of the Tachometer and use it to fire back at the Space Invaders.

For Technical Support:

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