
Programmable Digital Tachometer

USER MANUAL



REV. 7

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Thoroughly read and understand all information presented in this manual before using your digital control.

NOTICE:

The information contained in this manual is subject to change without notice.

LOR Manufacturing shall not be liable for errors contained herein or for consequential damages in connection with the furnishing, performance, or use of this material.

CAUTION

DISCONNECT FROM BATTERY BEFORE WELDING ON MACHINE. FAILURE TO DO THIS MAY CAUSE DAMAGE TO ELECTRONIC COMPONENTS, THUS VOIDING WARRANTY.

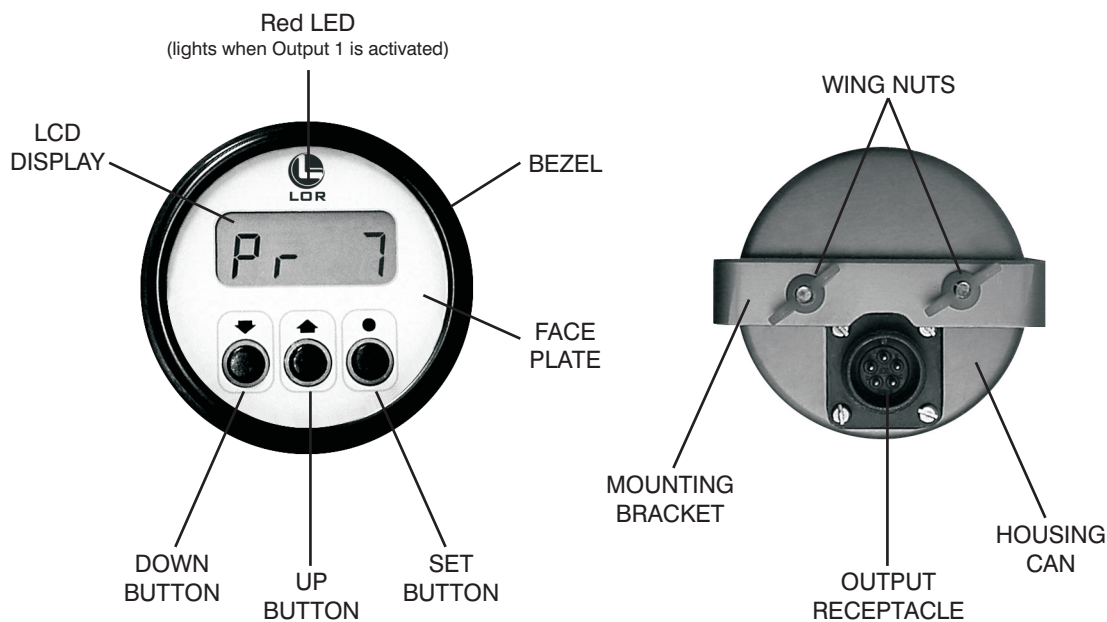
TWO YEAR WARRANTY

LOR Manufacturing Co., Inc., for two years from the date of shipment of this item from LOR Manufacturing Co., Inc. facilities, will repair or replace the item from LOR Manufacturing Co., Inc. (FOB Weidman, MI U.S.A.) if it should prove to be defective in materials or workmanship. This warranty does not cover damage resulting from mishandling in transit, vandalism, misuse, abuse, acts of nature, alteration or lack of reasonable care. LOR Manufacturing Co., Inc. does not assume, and is not responsible for any real or consequential damages from claims against the performance of our product, nor is it liable for any cost related to loss of life, property, or revenue. Further, LOR Manufacturing Co., Inc. is in no way responsible for installation of our product, and will assume no cost of reinstallation or removal. LOR Manufacturing Co., Inc. warranty is in lieu of all other warranties expressed or implied.

You should test your entire system daily to ensure that all components are working properly.

No implied warranty of merchantability or fitness for a particular purpose shall extend beyond two years from date of shipment. The liability of LOR Manufacturing Co., Inc., under any such implied warranty and under this limited warranty shall be limited to the repair or replacement of defective parts within two years of date of shipment. LOR Manufacturing Co., Inc. shall not be liable for any incidental or consequential damages. Some states do not allow limitations of incidental or consequential damages, so the above limitations or exclusions may not apply to you. This warranty gives you specific rights, and you may also have other rights which vary from state to state.

PARTS IDENTIFICATION



BUTTON FUNCTIONS

VIEW BATTERY VOLTAGE

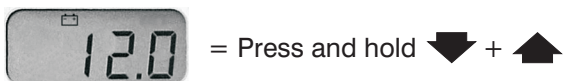
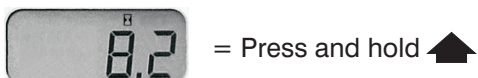
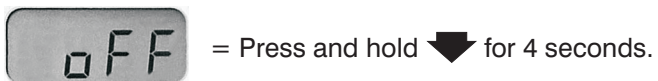



Image above is an example of a 12 Volt gauge display. Actual voltage displayed by your gauge may vary.

VIEW TOTAL HOURS



DISABLE OUTPUTS

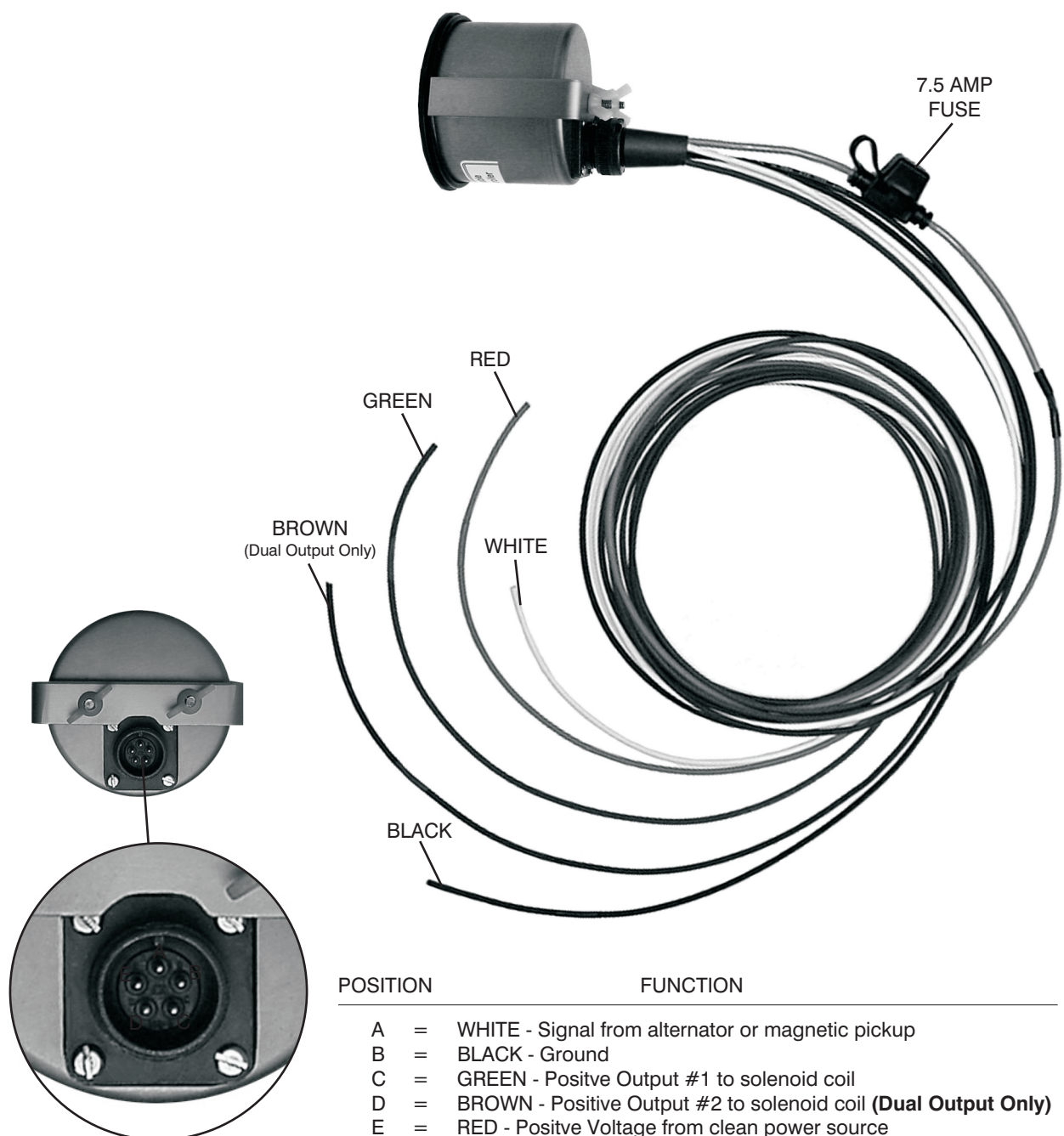


In this mode the LCD will alternate displaying engine RPMs for 9 to 10 seconds and "off" for 1 second. To revert to ENABLED OUTPUTS simply press  once.

OUTPUT WIRING

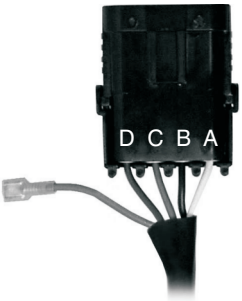
IMPORTANT: It is of the utmost importance that the digital control be connected to a clean power source. The clean power source can or could include (first choice) the accessory side of the keyswitch or (second choice) the run side of the keyswitch.

A clean power source is the result of filtering unwanted voltage spikes and EMF. Spikes can be prevented by the installation of clamping diodes at their source (coils).




OPTIONAL ADAPTER CABLES

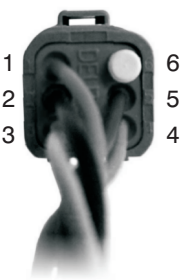
WITH WEATHER-PACK CONNECTOR




POSITION	COLOR	FUNCTION
	BROWN	Positive Output #2 to solenoid coil (Dual Output Only)
D	GREEN	Positive Output #1 to solenoid coil
C	RED	Positive voltage from <u>clean</u> power source
B	BLACK	Ground
A	WHITE	Signal from alternator or magnetic pickup



WITH DEUTSCH CONNECTOR



POSITION	COLOR	FUNCTION
1	RED	Positive voltage from <u>clean</u> power source
2	BLACK	Ground
3	WHITE	Signal from alternator or magnetic pickup
4	GREEN	Positive Output #1 to solenoid coil
5	BROWN	Positive Output #2 to solenoid coil (Dual Output Only)
6	n/a	n/a




PROGRAMMING

SINGLE OUTPUT MODELS

START

1. Press and hold  +  while turning ignition key to “ON” position.

Continue to hold until display reads 
Release buttons.

2. Press the  button once.

Release button.

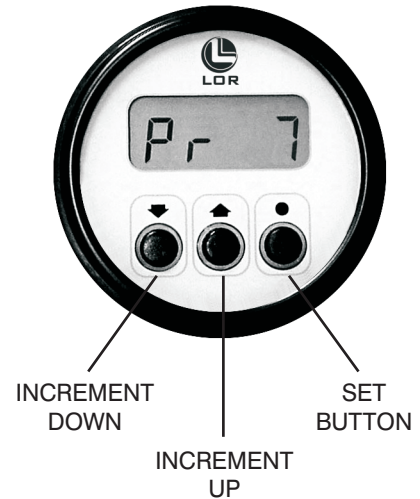
3. Use the  or  button to set the HI RPM Value.

Press the  button.

4. Use the  or  button to set the Lo RPM Value.

Press the  button.


DONE



DUAL OUTPUT MODELS

START

1. Press and hold  +  while turning ignition key to “ON” position.

Continue to hold until display reads 
Release buttons.

2. Press the  button once.

Release button.


3. Use the  or  button to set the HI RPM Value.

Press the  button.

4. Use the  or  button to set the Lo RPM Value.

Press the  button.

5. Use the  or  button to set the value for the BACK-UP TIME.

Increments are in tenths of a second (example:  = 3 tenths of a second).

Press the  button.

DONE

RESTORING FACTORY SETTINGS

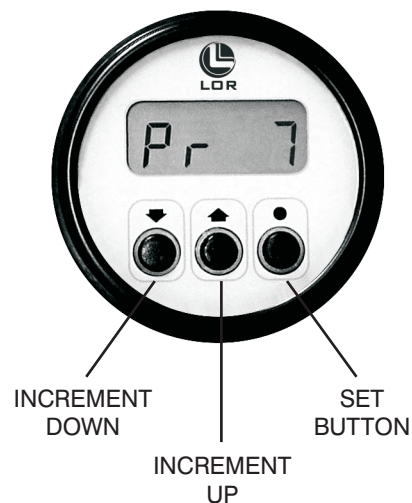
START

Press and hold  +  while turning ignition key to “ON” position.

Continue to hold until display reads “DEF”

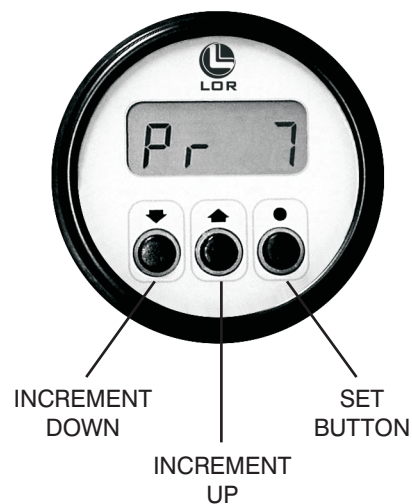
Release buttons.

DONE



SCROLL FEATURE

The Scroll Feature briefly displays each of the OEM Program settings once. This allows the user to view every parameter without risking an inadvertent programming change.



START

Press and hold  while turning ignition key to “ON” position.


Release buttons.

After each of the OEM Program settings have been displayed once, the gauge reverts back to normal operation.

DONE

TROUBLE SHOOTING

NOTE: Test Lights are not acceptable for trouble shooting electronic equipment because they can't give an accurate indication of what is happening. We suggest using a Digital Multi-meter such as the Radio Shack p/n 22-805 or the Fluke p/n 112.

PROBLEM:	CAUSE:	SOLUTIONS:
No display	Gauge not getting power. Gauge not properly grounded.	Check continuity of RED wire to clean power source. Check 7.5 Amp fuse. Check continuity of BLACK wire to ground connection.
Feed does not re-engage after stopping.	Engine RPM not reaching HI set point on gauge.	Check for stretched or out of adjustment throttle cable - it may not allow engine to reach HI RPM setting. Check HI RPM setting on gauge to make sure it is not set too close to the top RPM of engine. (HI setting should be 150-200 RPM below top engine RPM.)
	Engine not running. WHITE wire not connected. Open connection in WHITE wire. No Signal from Alternator. No Signal from Magnetic Pick-up. Magnetic Pick-up open.	Normal operating condition. Check connection of WHITE wire to Alternator or Magnetic Pick-up. Check continuity of WHITE wire from connector at gauge to Alternator or Magnetic Pick-up. Check for at least 3.5 VAC output at idle and 10-12 VAC at HI RPM. Check for 6-7 VAC at idle and 17-20 VAC at HI RPM. Remove, clean off Magnetic Pick-up and re-adjust pick-up per manufacturer specification. Check resistance of Magnetic Pick-up. Datcon = 130-150 ohms (Should not be an open circuit.)
Gauge won't set properly.	Error made during programming sequence.	Restore Factory Settings. See page 5 of this manual.

For further technical assistance call **1-866-644-8622**.

