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LCD-Style Decoder Box Programming Instructions

General Installation Notes:

Please read these instructions completely before beginning the installation. If you have any questions, please call.

Before beginning the installation, disconnect the negative battery cable and use wheel chocks to block the vehicle's wheels.

Make sure the engine, transmission, body, and frame are properly grounded.

All Lokar Installation Instructions can be found by visiting www.lokar.com/instructions.html.

NOTE: There are several generations of decoder boxes, and they each require different instructions. These instructions are for Lokar's LCD-style decoder box, shown in Fig. 1. If your decoder box looks different than Fig. 1, visit the Lokar website as listed above to locate the correct instructions, or contact Lokar by phone or email.

The decoder box must be mounted inside the vehicle and out of the elements.

NOTE: For the programming procedures below, you will be watching the LCD display on the decoder box, NOT the Boot Indicator or Dash Indicator lights.

Mounting The Decoder Box

The decoder box must be mounted in a dry place. When mounting this unit, keep it within reach of the wires on the LED display and the sensor. The decoder box can be mounted with two screws or double-sided tape. Be sure it is still accessible for connecting the wiring and for programming later.

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Wiring a Lokar Indicator, Sensor and Decoder Box

The Lokar sensor has a 10 foot long cable attached to it. This cable has three wires which connect to the decoder box: one red wire, one wire that can be either green or white, and one black wire. Strip 3/8" of the insulation off each of the wires. To connect the wires to the decoder box, use a small flat blade screwdriver to loosen the screw terminal.

Locate a fused (15A), switched 12V + power source that supplies power when the ignition key is in the "ON" or "RUN" position, but does not supply power when the key is off. (**NOTE: If you are going to use an optional Neutral Safety Relay, this wire will also need to supply power while the key is in the "START" position.**) Run a red wire (not supplied) from that power source to the decoder box. Join the end of that wire to the end of the red wire from the LED Indicator. Insert the joined end of those wires into the "IGNITION+" terminal on the decoder box and tighten the terminal screw.

Connect one end of a black wire (not supplied) to a solid chassis ground. Join the other end of that wire to the black wire from the LED Indicator. Insert the joined end of those wires into the "GROUND-" terminal on the decoder box and tighten the terminal screw. **Fig. 2**

NOTE: The red and black wires from the sensor should **ONLY** be connected to the terminals marked "RED" or "BLACK" on the decoder box. **DO NOT** connect either of these wires to the "IGNITION+" or "GROUND-" terminals on the decoder box.

When you are finished with this step, there will be two (2) wires connected to the "IGNITION+" terminal on the decoder box, and two (2) wires connected to the "GROUND-" terminal on the decoder box.

If installing a Lokar 3-Wire LED Indicator, **DO NOT** connect the remaining green or white wire from the LED Indicator to the decoder box until you have programmed the gear positions.

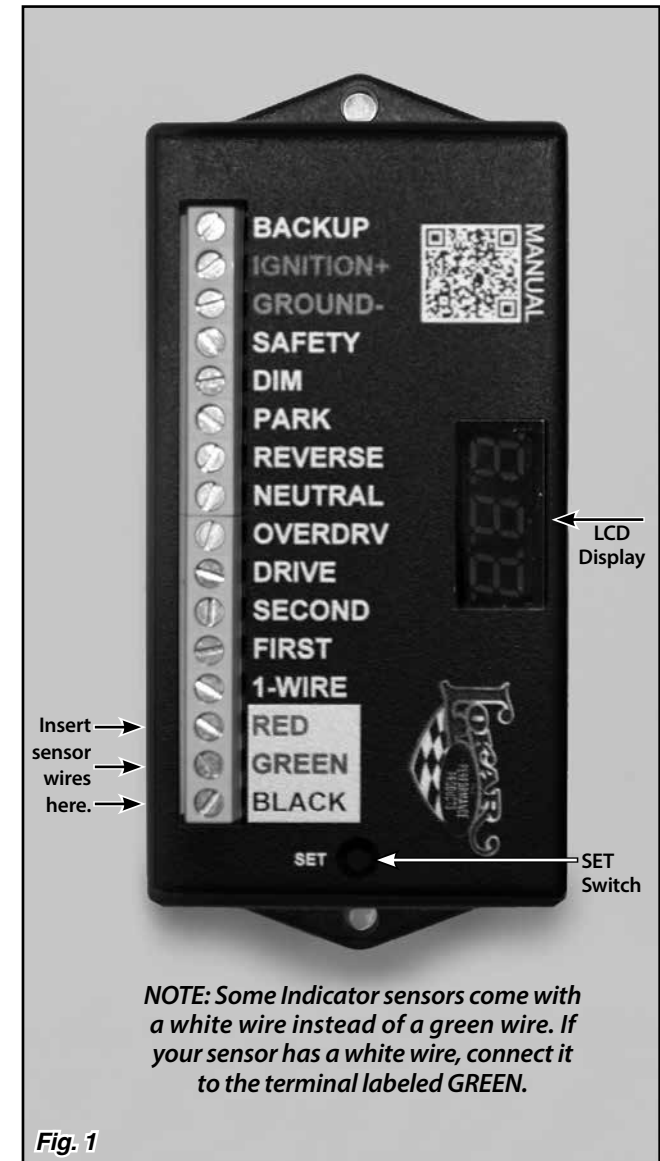


Fig. 1

LCD-Style Decoder Box Programming Instructions

Programming The Gear Positions

Programming is done using the push-button SET switch on the top of the decoder box and watching the 3-digit LCD display on the decoder box.

The programming sequence must be completed without interruption for the settings to be saved. If you stop or turn the key off at any point during the programming sequence, you will have to start over from the beginning.

If -E- is showing on the display it indicates the sensor did not move while trying to program a new gear position.

Step 1: Place the transmission in Park and make sure the key is off. Reconnect the negative battery cable.

Step 2: Press and hold the SET switch. **Fig. 16** Turn the ignition key on while holding the SET switch down. The display will show *SEt*.

Step 3: Release the switch. The display will now show the current output setting, either *L* for ground outputs or *H* for 12V+ outputs. Tap the SET switch to change between the output types. Lokar Indicators require ground outputs, so set the decoder box to *L* if you are using a Lokar brand Indicator. Most other brand indicators require 12v+ outputs, so set it to *H* for most others (check your indicator manufacturer's instructions).

Step 4: Once you have the correct output setting, press and hold the SET switch for about three seconds until the display goes blank. This will save the output setting.

Step 5: Release the SET switch when the display goes blank. The display will now show *P-L* for **PARK** with ground outputs or *P-H* for **PARK** with 12V+ outputs.

Step 6: Press and hold the SET switch for about three seconds until the display goes blank.

Step 7: Release the SET switch. The display will show *r-L* for **REVERSE** with ground outputs or *r-H* for **REVERSE** with 12V+ outputs.

Step 8: Shift the transmission to **REVERSE**.

Step 9: Press and hold the SET switch for about three seconds until the display goes blank.

Step 10: Release the SET switch. The display will show *n-L* for **NEUTRAL** with ground outputs or *n-H* for **NEUTRAL** with 12V+ outputs.

Step 11: Shift the transmission to **NEUTRAL**.

Step 12: Press and hold the SET switch for about three seconds until the display goes blank.

Step 13: Release the SET switch. The display will show *o-L* for **OVERDRIVE** with ground outputs or *o-H* for **OVERDRIVE** with 12V+ outputs.

The following steps are specific to the type of transmission you have.

For GM TH350, TH400, or TH200; Ford C4 and C6; and all Chrysler transmissions:

Step 14: Press and release the SET switch one time.

Step 15: The display will show *d-L* for **DRIVE** with ground outputs or *d-H* for **DRIVE** with 12V+ outputs.

Step 16: Shift the transmission to Drive.

Step 17: Press and hold the SET switch for about three seconds until the display goes blank.

Step 18: Release the SET switch. The display will show *2-L* for **SECOND** with ground outputs or *2-H* for **SECOND** with 12V+ outputs.

Step 19: Shift the transmission to Second gear.

Step 20: Press and hold the SET switch for approximately 3 seconds, until the display goes blank.

Step 21: Release the SET switch. The display will show *1-L* for **FIRST** with ground outputs or *1-H* for **FIRST** with 12V+ outputs.

Step 22: Shift the transmission to First gear.

Step 23: Press and hold the SET switch for approximately 3 seconds, until the display goes blank.

Step 24: Release the SET switch, and *don* should show on the display. If it does not, press and release the SET switch until it does. **When don shows up on the display, press and hold the SET switch until the display goes blank.**

Step 25: Following the wiring diagram in **Fig. 2** for your type of Indicator, connect the rest of the wires from the LED Indicator to the decoder box.

For GM 700-R4, 4L60, 4L60E, 4L80E, or 200-4R:

Step 14: Having programmed Park through Neutral as described earlier, shift the transmission to Overdrive.

Step 15: Press and hold the SET switch for approximately 3 seconds, until the display goes blank.

Step 16: Release the SET switch. The display will show *d-L* for **DRIVE** with ground outputs or *d-H* for **DRIVE** with 12V+ outputs.

Step 17: Shift the transmission to Drive.

Step 18: Press and hold the SET switch for about three seconds until the display goes blank.

Step 19: Release the SET switch. The display will show *2-L* for **SECOND** with ground outputs or *2-H* for **SECOND** with 12V+ outputs.

Step 20: Shift the transmission to Second gear.

Step 21: Press and hold the SET switch for approximately 3 seconds, until the display goes blank.

Step 22: Release the SET switch. The display will show *1-L* for **FIRST** with ground outputs or *1-H* for **FIRST** with 12V+ outputs.

Step 23: Shift the transmission to First gear.

Step 24: Press and hold the SET switch for approximately 3 seconds, until the display goes blank.

Step 25: Release the SET switch, and *don* should show on the display. If it does not, press and release the SET switch until it does. **When don shows up on the display, press and hold the SET switch until the display goes blank.**

Step 26: Following the wiring diagram in **Fig. 2** for your type of LED Boot or Dash Indicator, connect the rest of the wires from the Indicator to the decoder box.

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For Ford AOD, 4R70W, and AODE:

Step 14: Press and release the SET switch one time.

Step 15: The display will show *d-L* for **DRIVE** with ground outputs or *d-H* for **DRIVE** with 12V+ outputs.

Step 16: Shift the transmission to Overdrive.

Step 17: Press and hold the SET switch for about three seconds until the display goes blank.

Step 18: Release the SET switch. The display will show *2-L* for **SECOND** with ground outputs or *2-H* for **SECOND** with 12V+ outputs.

Step 19: Shift the transmission to Drive.

Step 20: Press and hold the SET switch for approximately 3 seconds, until the display goes blank.

Step 21: Release the SET switch. The display will show *1-L* for **FIRST** with ground outputs or *1-H* for **FIRST** with 12V+ outputs.

Step 22: Shift the transmission to First gear.

Step 23: Press and hold the SET switch for approximately 3 seconds, until the display goes blank.

Step 24: Release the SET switch, and *don* should show on the display. If it does not, press and release the SET switch until it does. **When *don* shows up on the display, press and hold the SET switch until the display goes blank.**

Step 25: Following the wiring diagram in **Fig. 2** for your type of Indicator, connect the rest of the wires from the LED Indicator to the decoder box.

Changing the LED Colors and Intensity

NOTE: The following procedure **ONLY APPLIES** to Lokar 3-Wire Indicators. Lokar 6-Wire and 7-Wire indicators cannot change color or intensity.

Step 1: To enter the color setup mode, put the transmission in Park and turn the ignition key to ON, but do not start the engine.

Step 2: With the ignition ON, press and hold the SET switch on the decoder box until *CLL* is shown on the display.

Step 3: Release the SET switch. The display will show *P-L* and the **PARK** position will be illuminated on the LED Boot or Dash gear Indicator.

Step 4: The **PARK** position on the Indicator will now be lit with the current color setting for **PARK**. To change the color, tap the SET switch (less than one second). The **PARK** position on the Indicator will cycle to the next color in this order: red, green, blue, magenta, cyan, and orange. Continue tapping the SET switch until the **PARK** position on the Indicator is lit with the desired color.

Step 5: Once the **PARK** position on the Indicator is lit with the desired color, press and hold the SET switch to save the setting for **PARK**.

Step 6: Release the SET switch. The display will now show *r-L* and the **REVERSE** position on the Indicator will now be lit with the color setting for **REVERSE**.

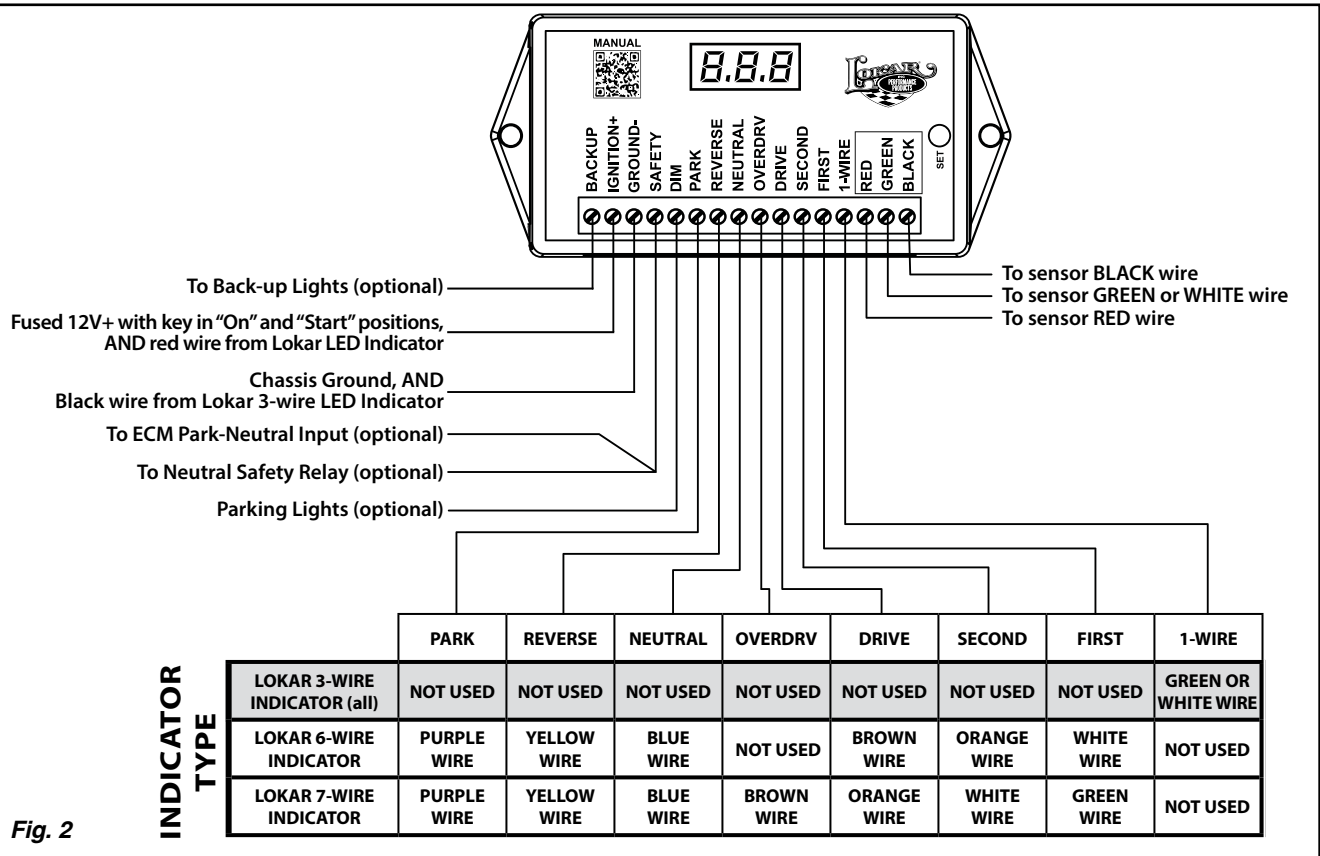


Fig. 2

Step 7: Follow the above procedure for each gear position, tapping the SET switch to cycle through to the desired color on the Indicator, holding the SET switch to save the setting, and releasing the SET switch to advance to the next gear position. When you reach **OVERDRIVE** on 3-speed applications, press and hold the SET switch to skip that position and proceed to the **DRIVE** setting.

Step 8: Once the color for all gear positions has been programmed, the display will show *INT*, and the **PARK** position on the Indicator should be on.

Step 9: Tapping the SET switch (less than one second) will now cycle through eight intensity (brightness) settings on the Indicator. Watch the **PARK** position on the Indicator, and **when the desired intensity (brightness) is found, press and hold the SET switch until the display turns off (approximately three seconds)**. The intensity for the Indicator is now set.

Step 10: Release the SET switch. The decoder box has now exited the Color and Intensity setup mode.

Optional Features and Wiring (For All Transmissions)

NOTE: You must complete the "Programming the Gear Positions" section before connecting the wiring for any of the "OPTIONAL" sections below.

OPTIONAL: Connecting The Park/Neutral Signal To An ECM

If your vehicle is fuel injected and the ECM requires a signal when the transmission is in either Park or Neutral, the neutral safety terminal on the decoder box can be used. The SAFETY terminal provides a ground when the transmission is in Park or Neutral. This can be connected to the ECM to pass vehicle inspection. The SAFETY terminal can be used for both a neutral safety and an ECM signal at the same time.

OPTIONAL: Connecting Backup Lights To The Decoder Box

If your vehicle already has a backup light switch, then you do not need to connect anything to the BACKUP terminal. If you do not have a backup light switch and will be using backup lights on your vehicle, then connect the hot side of the backup lights to the terminal marked BACKUP. This circuit is designed to supply up to 15 amps.

OPTIONAL: Enabling the Indicator's "DIM" Function

If you want the Indicator's LEDs to dim at night, locate a wire or terminal that only has power when your parking lights or headlights are on. Connect a wire from that wire or terminal to the "DIM" terminal on the decoder box.