Nordskog Performance Products

DP10003 "Create-a-Dash"

****Read through all instructions completely before beginning the installation. ***

NOTE: Disconnect battery cables to prevent accidental contact with any *live* wires.

1) Using a piece of thin cardboard or construction paper, make a cutting template by tracing the mounting area for the digital panel on the back side of the dash.

2) Before continuing any further, cut out the six instrument outlines from the enclosed paper template. Tape these onto the panel template you created to make sure that there is enough area for mounting all units. **NOTE: You must leave enough room around the perimeter of the instruments for four to six mounting screws (due to the varying sizes and thickness of dashboards, these fasteners are not supplied with the panel).**

3) Using the template, trace the shape onto the enclosed backing plate (this is the piece of Plexiglas that is NOT see-through).

4) Using a slow speed electric or hand-held scroll saw, cut out the backing plate. Use a fine flat file to help smooth and refine any curves or sharp edges. Double check that the backing plate fits correctly into the dash location where the digital panel assembly is to be installed.

5) Locate adequate positions for the four to six mounting fasteners around the perimeter of the backing plate (make sure not to impede the mounting areas for the instruments). Drill and mount the backing plate to assure a good fit.

6) Once the backing plate is completely finished and you are absolutely sure of its fit, use it as a template to trace and cut out the Plexiglas faceplate. Determine the mounting screw size and, using the appropriate drill size (do not exceed 3/16"), mark and drill it for the four to six mounting screws. Use 600 grit wet and dry sandpaper to smooth any rough edges.

7) Lay out the circuit board assemblies on the backing plate in the desired configuration. Using them as templates, mark and drill the backing plate using a 9/64" bit. Use the enclosed screws, plastic spacers and locking nuts to mount the assemblies with the instruments facing the dashboard.

8) Using a 9/32" drill, open up the mounting holes in the backing plate and install the enclosed shouldered bushings so that the shoulder is seated against the back side (These bushings act as spacers to prevent the instrument components from being damaged against the face plate).

9) Making sure not to pinch any wires, assemble the backing plate and faceplate into the dash. Carefully adhere to the following wire instructions.

LED DIGITAL FUEL LEVEL GAUGE

THIS GAUGE DOES NOT READ IN GALLONS.
IT DISPLAYS THE AMOUNT OF FUEL REMAINING
IN PERCENTAGE FROM 0 TO 99%.

CONNECT THE BLACK WIRE TO A GOOD CHASSIS GROUND.
CONNECT THE RED WIRE TO AN ACCESSORY
FUSE OR THE IGNITION SWITCH CIRCUIT.
CONNECT THE YELLOW WIRE TO THE FUEL
LEVEL SENDING UNIT. IT IS ADVISABLE,
THAT YOU MAKE SURE THE FUEL SENDING UNIT
IS PROPERLY GROUNDED TO THE CHASSIS.
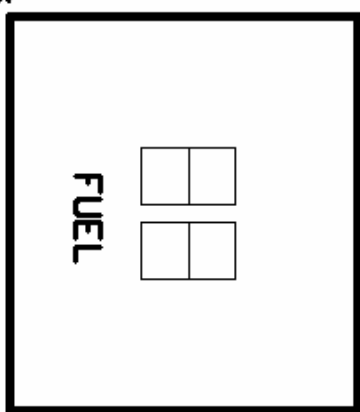
THE PURPLE/DIMMER WIRE WILL DIM THE GAUGE
BRIGHTNESS BY 50% WHEN THIS WIRE RECEIVES +12 VOLTS.
IF THIS WIRE IS CONNECTED TO THE VEHICLE'S HEADLIGHTS
OR PARKING LIGHTS, THIS WILL SERVE AS AN AUTOMATIC DIMMER.
IF YOU DO NOT WANT THIS FEATURE, THEN CONNECT THE PURPLE
WIRE DIRECTLY TO GROUND FOR MAXIMUM BRIGHTNESS.

TO CALIBRATE THIS FUEL LEVEL GAUGE:
- FORD/CHRYSLER 73-10 OHM DON/T CUT EITHER WIRE LOOPS.
- GM 0-90 OHM CUT BLUE LOOP ONLY.
- VDO 0-180 OHM CUT BOTH WIRE LOOPS.
- STEWART WARNER/UNIVERSAL 240-33 OHM CUT ORANGE LOOP
  ONLY.

FUEL

RED - +12 VOLTS
BLACK - GROUND
PURPLE - DIMMER/+ 12 VOLTS TO DIM
YELLOW - FUEL LEVEL SENDER

RED

BLACK

PURPLE

YELLOW

Co:	NORDSKOG PERFORMANCE PRODUCTS	
Title: FUEL LEVEL WIRING		
Board:		Revision: A
Author:		Size: A
Date:		Sheet 1 of 1

LED DIGITAL OIL PRESSURE GAUGE 0 TO 99PSI

THIS GAUGE WILL ONLY WORK WITH AN INTELLITRONIX OIL SENDER PART NUMBER TH8014.

CONNECT THE BLACK WIRE TO A GOOD CHASSIS GROUND.

CONNECT THE RED WIRE TO AN ACCESSORY FUSE OR THE IGNITION SWITCH CIRCUIT.

CONNECT THE ORANGE WIRE TO THE OIL PRESSURE SENDING UNIT.

DO NOT USE TEFLON THREAD SEALER TAPE ON THE SENDING UNIT.

THIS WILL CAUSE A GROUND PROBLEM AND THE GAUGE WILL READ INACCURATELY. IT IS HIGHLY ADVISABLE TO GROUND THE GAUGE AT THE ENGINE CLOSE TO THE OIL SENDER.
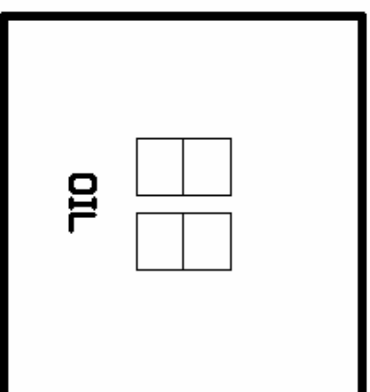
THE PURPLE WIRE IS TO DIM THE GAUGE BRIGHTNESS FOR NIGHTTIME DRIVING. IF YOU DO NOT WANT THIS FEATURE THEN CONNECT THE PURPLE WIRE TO GROUND. TO ACTIVATE THE DIMMER, THE PURPLE WIRE MUST RECEIVE +12 VOLTS. IF YOU CONNECT THE PURPLE WIRE DIRECTLY TO YOUR HEADLIGHTS OR PARKING LIGHTS, THE GAUGE WILL AUTOMATICALLY DIM WHEN YOU TURN ON YOUR LIGHTS.

OIL

RED

BLACK

PURPLE

ORANGE

RED - +12 VOLTS

BLACK - GROUND

ORANGE - OIL PRESSURE SENDER

PURPLE - DIMMER/+ 12 VOLTS TO DIM

NORDSKOG PERFORMANCE PRODUCTS
1120 YARNELL PLACE
OXNARD, CA 93033
TECHNICAL QUESTIONS 805-483-2411
MONDAY THROUGH FRIDAY 8AM TO 5PM PST

Co: NORDSKOG PERFORMANCE PRODUCTS		
Title: OIL PRESSURE WIRING		
Board:		
Author:		Revision: A
Date:	Size: A	Sheet 1 of 1

Nordskog Performance Products

Digital Performance Speedometer

Congratulations on purchasing a Nordskog Performance instrument! We pride ourselves on producing the finest automotive and marine instruments available today.

Your electronic speedometer has the capability to display your speed as well as your mileage traveled (odometer). It also has the ability to track your trip distance, record and display the highest speed you obtained as well as your 0-60 mph and ¼ mile elapsed times. Your speedometer will also allow you to adjust your readings (through electronic recalibration) to different tire or gear sizes.

Your speedometer comes with factory set defaults and must be recalibrated for your specific application. To accomplish this, you must locate a measured mile of highway where you can safely start and stop your vehicle. By running the vehicle over this measured distance, your speedometer will learn how many pulses your speedometer sensor is outputting in this measured distance. It will then use this acquired data to calibrate itself for accurate reading.

After installing your speedometer according to the installation instructions, with the ignition on or your car running, it should immediately exhibit the default display (figure 1): the first green light bar, the odometer display (small "0") and speedometer display (large "0"). If, for any reason, your instrument does not show this display, please thoroughly re-check all of your connections and try it again. If the problem persists, please contact us for assistance. In the right hand corner of the face, you will also notice a small recall pushbutton. This will be used to calibrate and read all of the data involved with your speedometer. The unit is also equipped with wires that allow you to add an external recall button which can be mounted in a location which is easily reached during operation of the vehicle (Earlier models are not equipped with the wires. Please contact us if you have an earlier model and wish to have the wires installed).

THE FOLLOWING INSTRUCTIONS WILL INFORM YOU ON HOW TO CALIBRATE YOUR SPEEDOMETER. TO INSURE THAT IT IS DONE CORRECTLY, IT IS IMPARITIVE THAT YOU READ THROUGH THE INSTRUCTIONS COMPLETELY BEFORE YOU ATTEMPT TO PROGRAM OR OPERATE YOUR SPEEDOMETER!

Calibration
1.) While stopped at the beginning of the measured mile with your vehicle running, press and hold down the pushbutton on the face until the odometer displays "HI-SP" (figure 2). **IMMEDIATELY** release the button.
2.) On its own, the gauge will cycle through the performance data that it records in the following order "0-60," "1/4," "CAL." (figures 2 thru 5). While "CAL" is being displayed, quickly tap the

pushbutton one time. This will put the speedometer in the program mode and "PROG" will be displayed (figure 6) **(YOU MUST BE EXTREMELY CAREFUL TO TAP THE PUSHBUTTON QUICKLY AND NOT HOLD IT DOWN.** If you miss stopping the display at "CAL", simply repeat the step). With "PROG" displayed, the speedometer is now waiting to record the data that will be accumulated over the measured mile.

3.) When you are ready to begin driving, quickly tap the pushbutton one time. The speedometer will display "CAL" and the odometer will show "0" (figure 5). Begin driving the vehicle at a safe speed (the level of speed is not important) through the measured mile. As you move, the odometer will begin showing the speedometer pulses as they are being calculated.

4.) At the end of the mile, bring the vehicle to a safe stop and quickly tap the pushbutton one time. The odometer will now display the number of speedometer pulses that were registered over the distance **(NOTE: If the number displayed is 12,800, your stock speedometer sensor does not put out a pulse per mile count between 2000 and 32,000. If the number displayed is 8000, the default setting, the pulses per mile were not recorded and steps 2-4 must be repeated.)**.

5.) The odometer will continue to display the pulse reading for a few seconds. Once it reverts to the default mode (figure 1), your speedometer has been calibrated and is ready for operation.

Trip Distance

A single tap of the recall button will show the trip distance mileage in the odometer display. A decimal point will appear to in the odometer to indicate that you are in the trip odometer mode. Holding down on the button for a few seconds in this mode will clear the trip distance. To return to the default odometer display, tap the recall button. The decimal point will disappear to indicate that you are in the default odometer display.

## Recording and Viewing Performance Data

To begin recording Performance Data (High speed, ¼ mile elapsed time and 0-60 mph elapsed time), execute the following:

1. Before each run your car must be at a complete stop at the starting position.
2. Press and hold the pushbutton until "HI-SP" is displayed (figure 2) and then **IMMEDIATELY** release the button. On its own, the gauge will cycle through the performance data that it records in the following order "0-60", "1/4'", "CAL" (figure 2-5).
3. At the end of your desired run, safely bring the vehicle to a complete stop.
4. Repeat step 2 to view the data gathered from this run. While stopped, you can view this data as many times as you wish. However, once it finishes scrolling one time, the memory is ready to record new data for the ¼ mile and 0-60 mph elapsed times and will begin once the vehicle starts moving. The highest speed measured over multiple runs will be retained in memory. To gather new data, repeat steps 1 thru 4.

If you wish to clear out all of the performance data and gather new data before each run, press and hold the pushbutton. Continue to hold the pushbutton as it cycles through the performance data. At the end it will say "RESET" and all of the performance data will then be cleared from memory (This will not affect your stored calibration value or the odometer reading.). Turning off the gauge then turning it back on can also clear the performance data.

1   2   3   4   5   6

1	2	3	4	5	6
0 MPH 0.	0 MPH HI-SP	.0 MPH 0-60	.0 MPH 1 2 4	CAL MPH 0.	0 MPH PROG
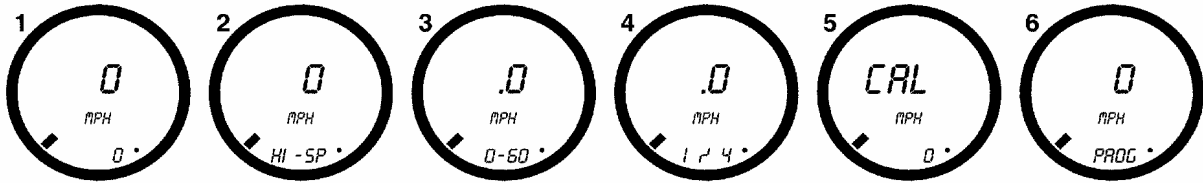
Wiring Instructions

This speedometer requires the use of a pulse generating signal sensor to operate. If the speedometer in your vehicle is driven by a cable you must purchase our sensor #S9013. Carefully follow the wiring instructions on the back of this page.

In order to isolate the signal wire from electrical noise interference, we recommend that you use the twisted shield cable enclosed with this kit to connect to your sensor. Be sure to run the cable as far away from the ignition system and any voltage or signal carrying wires as possible, particularly spark plug wires. For best results, we also recommend the use of resistor-type spark plugs and spark plug wires that are in good working condition.

Identify the signal wire from your sensor located on the transmission (this is the tan wire on the S9013 sensor) and, using the twisted shield cable included, connect it to the gray sensor input wire on the speedometer. In some instances, as an alternate to the transmission-mounted sensor, you may connect to the speedometer sensor wire on the back of your existing speedometer or cruise control. *Note: A 10' length of twisted shielded pair cable is provided with this kit. This cable is provided to shield the speedometer signal wire from picking up electrical noise, which would interfere with the proper function of your speedometer. If your speedometer displays some unusual values when the engine is running, it is recommended that this cable be used. Run your speedometer signal and ground wire from the sender through this cable to the speedometer. The shield (bare uninsulated wire) should only be grounded at the sender.*

Connect the **purple wire** to a headlight power wire (a wire that supplies current to the headlights). This enables the display on your gauge to dim for better nighttime viewing. DO NOT CONNECT THIS WIRE TO THE HEADLIGHT DIMMING WIRE. Connecting to this rheostat type of switch will cause the gauge to malfunction. If you choose not to utilize the dimming feature, connect the purple wire to ground.

Connect the **black wire** to a good engine ground (chassis or wire wall grounds can often be inadequate).

Connect the **red wire** to a 12 volt source which is adequately fused and turns on and off with the ignition switch.

If you wish to utilize a remote mount recall button, attach the two thin 26 gauge **white wires** to a momentary normally open switch (not supplied). These wires should not come in contact with any type of power source.

NORDSKOG PERFORMANCE PRODUCTS
1120 YARNELL PLACE
OXNARD, CA 93033

TACH

PUSH BUTTON MOMENTARILY TO RECALL HIGH RPM
PUSH BUTTON FOR 6 SECONDS TO ERASE HIGH RPM
HIGH MEMORY DATA WILL BE LOST IF POWER IS SHUT OFF TO TACH
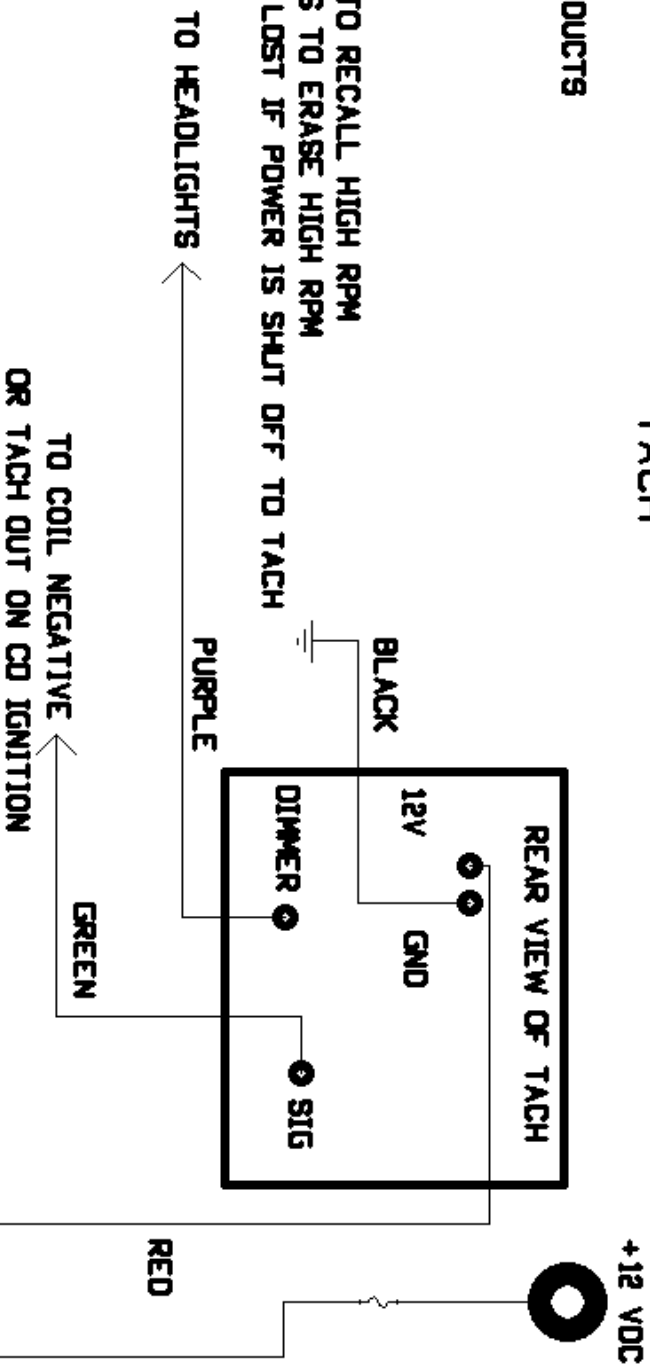
DO NOT CONNECT TO COIL IF USING A CAPACITIVE DISCHARGE IGNITION!

TO HEADLIGHTS

TO COIL NEGATIVE
OR TACH OUT ON CD IGNITION

RED - +12 VOLTS
BLACK - GROUND
GREEN - TACH INPUT, CONNECT TO COIL - OR TACH OUT OF IGNITION SYSTEM
PURPLE - AUTO DIMMER, CONNECT THIS WIRE TO EXISTING HEADLIGHT WIRING.
22 GAUGE WHITE WIRES ARE FOR A REMOTE NORMALLY OPEN PUSHBUTTON
INCLUDED) TO PERFORM THE ABOVE FUNCTIONS.

THE PURPLE WIRE CUTS THE BRIGHTNESS IN HALF WHEN IT RECEIVES
12 VOLTS. DO NOT CONNECT THIS TO THE DIMMER SWITCH.

IF YOU DO NOT WANT THIS FEATURE THEN CONNECT THE PURPLE WIRE
TO GROUND.

TECHNICAL QUESTIONS CALL 805-483-2411

REAR VIEW OF TACH

PURPLE

BLACK

12V

GND

DIMMER

GREEN

SIG

IGNITION SWITCH

RED

+12 VDC

Co:	NORDSKOG PERFORMANCE PRODUCTS		
Title:	TACH WIRING DIAGRAM		
Board:		Revision: A	
Author:		Size: A	
Date:		Sheet 1 of 1	

# LED DIGITAL VOLTMETER

VOLTMETER RANGE   8 - 25 VOLTS DC

THIS GAUGE DOES NOT REQUIRE A SENDING UNIT.

DO NOT CONNECT THE RED WIRE DIRECTLY TO THE BATTERY, OR THE GAUGE WILL ALWAYS BE TURNED ON.

THE ACCESSORY FUSE OR IGNITION SWITCH CIRCUIT WOULD BE A GOOD LOCATION.

THE PURPLE WIRE IS TO DIM THE GAUGE BRIGHTNESS FOR NIGHTTIME DRIVING. IF YOU DO NOT WANT THIS FEATURE THEN CONNECT THE PURPLE WIRE TO GROUND. TO ACTIVATE THE DIMMER, THE PURPLE WIRE MUST RECEIVE +12 VOLTS. IF YOU CONNECT THE PURPLE WIRE DIRECTLY TO YOUR HEADLIGHTS OR PARKING LIGHTS, THE GAUGE WILL AUTOMATICALLY DIM WHEN YOU TURN ON YOUR LIGHTS.
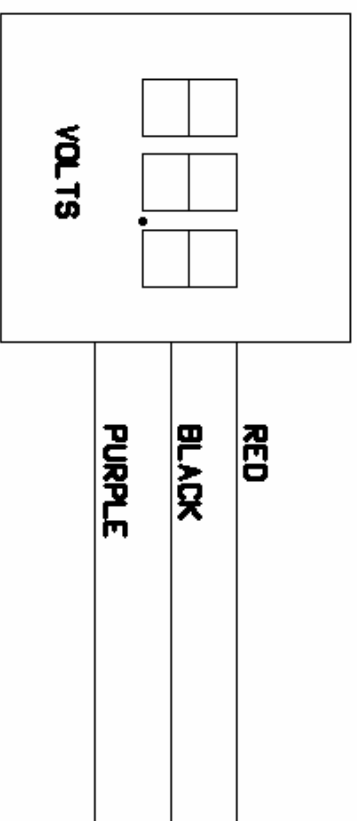
CONNECT THE BLACK WIRE DIRECTLY TO THE ENGINE BLOCK !

VOLTS

RED

BLACK

PURPLE

RED - +12 VOLTS

BLACK - GROUND

PURPLE - DIMMER/+ 12 VOLTS TO DIM

Co:	NORDSKOG PERFORMANCE PRODUCTS	
Title: VOLTMETER WIRING		
Board:		Revision: A
Author:		Size: A
Date:		Sheet 1 of 1

NORDSKOG PERFORMANCE PRODUCTS
1120 YARNELL PLACE
OXNARD, CA 93033
TECHNICAL QUESTIONS 805-483-2411
MONDAY THROUGH FRIDAY 8AM UNTIL 5PM PST
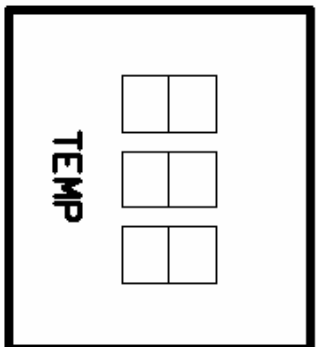
LED DIGITAL TEMPERATURE GAUGE

NORDSKOG PERFORMANCE PRODUCTS
1120 YARNELL PLACE
OXNARD, CA 93033

TECHNICAL QUESTIONS 805-483-2411
MON THRU FRI 8AM TO 5 PM PST

CONNECT THE BLACK WIRE TO A GOOD CHASSIS GROUND.
THERE MUST BE A GOOD GROUND BETWEEN THE GAUGE AND
THE TEMPERATURE SENDING UNIT.

CONNECT THE RED WIRE TO A FUSED ACCESSORY OR THE
IGNITION SWITCH CIRCUIT.

CONNECT THE BLUE WIRE TO THE TEMPERATURE SENDING UNIT.

The purple/dimmer wire will cut the
brightness by 50% when the wire receives
+12 volts. If this wire is connected to the
headlights, this will serve as the dimmer.
This feature was added so the gauges will
not be distracting at night. If you do not
want this feature, then you should connect
the purple wire to ground for max brightness.

Do not use Teflon tape on the sending unit,
because the sending unit housing needs to
be grounded to operate properly.

TEMP

RED

BLACK

PURPLE

BLUE

RED - +12 VOLTS
BLACK - GROUND
PURPLE - DIMMER/+ 12 VOLTS TO DIM
connect to headlights to activate
BLUE - TO TEMP SENDER

Co:	NORDSKOG PERFORMANCE PRODUCTS	
Title:	TEMP GAUGE WIRING	
Board:		Revision: A
Author:		Size: A
Date:		Sheet 1 of 1