Odyssey
Manufactured by Dakota Digital

Series II
ODYR-01-1, ODYR-01-2, SLX-01-1, & SLX-01-2
PERFORMANCE SPEEDOMETER

Introduction:

The Odyssey Series II gauges from Dakota Digital, Inc. incorporates the reliability and quality of our standard gauges, along with several unique features and easy mounting. These features include:

- Industry standard 3-3/8" gauge size.
- Push button speedometer calibration.
- Million mile odometer.
- Resettable trip mileage.
- Resettable service mileage.
- 0-60 timer.
- High speed recall.
- Gear shift indicator. (requires GSS-1000 sender).
- Microprocessor stabilized readings.
- Night dimming with lens label lighting.
- Non-Glare, high contrast lens
- High Visibility VFD display for sunlight readability.

WIRING COLOR CODE FOR GAUGE:

RED	+12 volt power with key on
BLACK	ground for gauge
PURPLE	high beam indicator
ORANGE	left turn indicator
GREEN	right turn indicator
GRAY	speed signal input
WHITE/RED	speed sensor power out (if required)
BROWN	gear shift sender input
BLUE	night dimming

POWER

Connect the red wire from the main harness to accessory power from the ignition switch.

Never connect this to a battery charger alone. It needs to have a 12 volt battery connected to it. Battery chargers have an unregulated voltage output that will cause the system to not operate properly.

GROUND

The black wire is the main ground for display system. A poor ground connection can cause improper or erratic operation.

TURN SIGNAL & HIGH BEAM INDICATORS

The right turn, left turn, and high beam indicators are activated by 12 volts at their respective hook-up wires. The right turn signal wire is green, the left turn signal wire is orange, and the high beam wire is purple. These can be connected to the same wires that the indicator lights would be connected to. The display system wire colors may not match the wire colors in your electrical wire harness.

SPEEDOMETER

The gray wire connects to the vehicle speed sensor. For two wire pulse generators attached to a speedometer cable, attach one wire from the sensor to the speedometer ground and connect the other to the gray wire. If the signal is being shared by a cruise control or ECM, make sure they all use a common ground for the pulse generator.

For inductive pickup's, connect one terminal from the pickup to ground and connect the other terminal to the gray wire on the gauge.

For 3 wire Hall-effect sensors, refer to the installation instructions for the sensor to determine wire color code. Most 3 wire sensors use the following color code: RED – power, BLACK – ground, WHITE – speed signal. Connect the speed signal wire to the gray wire on the gauge, connect the speed power wire to the white w/red stripe, and connect the speed ground wire to the black wire.

For speed sensor integrated into a vehicle wiring harness, consult a service manual to determine the color code and location of the speedometer signal.

The speedometer is fully adjustable and calibration is discussed below.

SPEEDOMETER CALIBRATION

Failure to calibrate the speedometer may cause your odometer mileage to increase very rapidly.

The speedometer calibration is done using the function switch. The speedometer can be calibrated two different ways. The first method is to place the unit in auto-cal mode and drive exactly one mile (one km for metric). The second method is to place the unit in adjust mode and the speed reading can be moved up or down while driving.

METHOD 1, AUTOCAL

1. Make sure the key is off so the gauge is not powered.
2. Press and hold the function switch.
3. Turn the key on. With the switch still held, start the engine. The display will show " -- ".
4. Release the function switch. The display will switch between "AUtO" (auto cal) and "AdJ". The odometer will show "SELECt"
5. When "AUtO" is displayed press the function switch. This will place the unit in auto calibration mode.
6. Release the function switch. The odometer display will show all zeroes.
7. Drive exactly one mile (or 1km). The odometer will show the number of signal pulses received from the speed sensor.
8. Press and release the function switch. The calibration value will be calculated and stored. The gauge will now restart in normal mode with the new speed calibration.

METHOD 2, ADJUST SPEED

1. Make sure the key is off so the gauge is not powered.
2. Press and hold the function switch.
3. Turn the key on. With the switch still held, start the engine. The display will show " -- ".
4. Release the function switch. The display will switch between "AUtO" (auto cal) and "AdJ" (adjust). The odometer will show "SELECt"
5. When "AdJ" is displayed press the function switch. This will place the unit in calibration adjustment mode.
6. Release the function switch. The display shows the speed and the odometer will show "AdJUSt"
7. Drive at a known speed. Following another vehicle that is driving at a constant, known speed can do this.
8. Press the function switch. The speed reading will begin increasing until the function switch is released. The next time the function switch is pressed, the speed reading will begin decreasing until it is released.
9. Once the speedometer is reading correct release the function switch. The new calibration will be saved if no adjustments are made for 7-10 seconds.

FUNCTION SWITCH

The function switch on the front of the speedometer allows access to all of the mileage and performance information. Pressing and releasing the function switch toggles through the different displays. The display sequence is as follows:

ODOMTR	>	000000	odometer mileage
TRIP	>	T 000.0	trip meter mileage
HI SPD	>	HI 00	high speed recall
60 TIM	>	60 00.0	0-60mph time
SERVIC	>	S 0000	miles since last service
GEAR	>	current gear position	

The gear display is only available when a GSS-1000 universal gear shift sender is connected to indicate what gear the automatic transmission is in.

Each of the displays are described in more detail here:

ODOMTR

The odometer keeps track of and stores the miles driven. No power is required to maintain the memory stored internally. The odometer has a range of 0 – 999,999miles.

TRIP

The trip odometer keeps track of miles driven since the last reset. The trip mileage is reset to zero by pressing and holding the function switch while the trip mileage is displayed. The trip mileage has a range of 0 – 999.9 miles.

HI SPD

The high speed recall keeps track of the highest speed reached. This is reset to zero each time the speedometer is turned on and can also be reset by pressing and holding the function switch while the hi speed is displayed.

60 TIM

The 0-60 timer times how long it takes to go from 0mph to 60mph. The timer is reset to zero each time the speed goes to zero and starts as soon as the vehicle begins moving. If the time reaches 25.5 seconds before the speed gets to 60 the timer will stop.

SERVIC

The service mileage can be used to keep track of the miles traveled since the last oil change or service. It is reset to zero by pressing and holding the function switch while the service mileage is displayed. The service mileage has a range of 0-9,999 miles.

GEAR

The gear shift display will show the current gear the transmission is in when used with a GSS-1000. The brown wire from the gauge should connect to the "First" terminal on the GSS-1000. Refer to the GSS-1000 instructions for sensor setup. The gear labels are "PARK", "REVRSE", "NEUTRL", "OVRDRV", "DRIVE", "SECOND", and "FIRST". If the gear is changed while another function is being displayed, the readout will automatically switch to the gear display for a few seconds.

NIGHT DIMMING

Your display system has a dimming feature that dims the display intensity. Normally the system is at full brightness for daytime viewing. When the blue wire has 12 volts the display intensity will be reduced. Connect this to a park light or tail light circuit, then whenever the headlights are on the display will dim. To have the system at full brightness all of the time leave the blue wire disconnected.

MOUNTING:

The gauge requires a round hole 3-3/8" in diameter. It should be inserted into the opening from the front and the U-clamp will be installed from the back. Tighten the two nuts on the U-clamp so that the gauge is secure.

Troubleshooting guide.

Problem	**Possible cause**	**Solution**
Gauge will not light up	Red wire does not have power.	Connect to a location that has power.
	Black wire is not getting a good ground.	Connect ground to a different location.
	Gauge is damaged.	Return gauge for repair. (see instructions)
Gauge lights up, but displays "Spd" "Err"	Speed calibration is invalid	Gauge must be recalibrated (see instructions).
Gauge lights up, but displays just "Err" only	Gauge is damaged.	Return gauge for repair. (see instructions)
Gauge lights up, but speed will only show zero.	Gray wire is not connected properly.	Check connection from gray wire to. speed signal wire.
	Speed sensor not grounded properly.	Move ground to different location, preferably close to speedometer ground.
	Speed sensor is not being turned by transmission.	Check cable connection between sensor and transmission. Sensor can be tested by spinning the cable with a drill.
	Gauge is not calibrated	Gauge must be recalibrated (see instructions).
Speed reading is erratic or jumps around.	Speed sensor wire is loose or broken.	Check all wire connections and inspect wire for breaks.
	Cable is loose or broken.	Check cable between sensor and transmission.
	Poor ground connection.	Check ground connection on speedometer and sensor.
Speed reading is incorrect.	Gauge is not calibrated correctly.	Gauge must be calibrated (see instructions).
Gauge will not dim.	Blue wire is not connected correctly.	Check wiring connections. Blue wire should have 12 volts with headlights on.
Gauge remains dim at all times.	Blue wire is getting power all of the time.	Connect blue wire to location that only has power when the headlights are on.

SERVICE AND REPAIR

DAKOTA DIGITAL offers complete service and repair of its product line. In addition, technical consultation is available to help you work through any questions or problems you may be having installing one of our units. Should you ever need to send the unit back for repairs, please package the product in a good quality box along with plenty of packing material. Ship the product by UPS or insured Parcel Post. Be sure to include a complete description of the problem, your full name and address (street address preferred), and a telephone number where you can be reached during the day. An authorization number for products being returned for repair is not needed. Do not send any money. We will bill you for the repair charges. Any returns for warranty work must include a copy of the dated invoice or bill of sale.

ODYSSEY SERIES DIGITAL GAUGE LIMITED WARRANTY

DAKOTA DIGITAL (the Company) warrants to the ORIGINAL PURCHASER of this product that should it, under normal use and condition, be proven defective in material or workmanship within 24 MONTHS FROM THE DATE OF PURCHASE, such defect(s) will be repaired or replaced (at the Company's option) without charge for parts or labor directly related to repairs of the defect(s).

To obtain repair or replacement within the terms of this Warranty, the product is to be delivered with proof of warranty coverage (e.g. dated bill of sale), name, address, phone number, and specification of defects, transportation prepaid, to the factory. This Warranty is valid for the original purchaser only and may not be transferred.

This warranty does not cover nor extend to damage to vehicle electrical system. This Warranty does not apply to any product or part thereof which in the opinion of the Company has been damaged through alteration, improper installation, mishandling, misuse, neglect, or accident.

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Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation if incidental or consequential damage so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

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