



Series II ODYR-14 & SLX-14 AIR TEMPERATURE

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 2-1/16" gauge size.
- A warning feature that flashes the gauge readout when outside operating limits.
- User adjustable warning points.
- Microprocessor stabilized readings.
- Quick-Start feature to provide accurate readings quickly after being powered up.
- Night dimming with lens label lighting.
- Non-Glare, high contrast lens.
- High Visibility VFD display for sunlight readability.

Operation:

The PWR terminal should be connected to a 12 volt accessory feed. The case provides the gauge ground. Connect a ground wire to the screw at the bottom rear of the case. When the DIM terminal has 12 volts, it will dim the display for night viewing. The SND terminal is the temperature sender input. The black wire from the sensor should be connected to the gauge case along with the main ground wire. The red wire from the sensor should be connected to the SND terminal. **The sender must be Dakota Digital part SEN-15-1.** Sending units from other manufacturers will cause incorrect readings.

The sensor will measure the temperature where its probe is located. The sensor has a 12' two wire cable to connect it to the gauge. This cable can be shortened or additional wire can be added. If additional wire is added, the added wire pair should be twisted and polarity of the wires should be carefully noted. If the probe temperature is below -39° the display will show "—". If a sender is not connected properly, the display will show "EEE". If the SND terminal is shorted to ground, the display will show "---".

For outside temperature sensing, the best location will be in the front grill or another location at the front of the vehicle where it will have good air flow while the vehicle is moving. Do not mount the sensor too close to the engine or exhaust. Doing so will cause the temperature reading to be much higher than the actual outside temperature. Please note that with the sensor mounted in the front grill the temperature will be very accurate while the vehicle is moving, but the temperature will rise when the vehicle is sitting still. This is due to the engine heat radiating forward.

For inside temperature sensing, keep the sensor away from heating and A/C vents. Having these blowing on the sensor will cause inaccurate readings of the actual vehicle cabin temperature. Also keep sensor away from any heat generating electrical components.

The air temperature gauge will operate and read correctly between the temperature range of -39 - 255° F (-39 - 125°C). The gauge has a user adjustable low and high warning level. This can be set to indicate when the temperature is outside a set range.

Wiring:

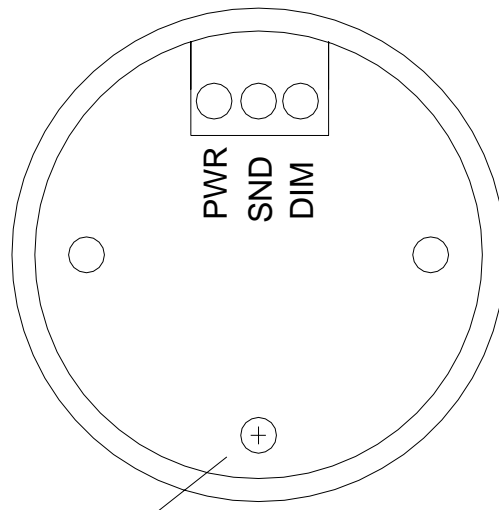
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|------------|---|---|
| PWR | - | connect to 12 volt power. (An accessory terminal will work for this.) |
| DIM | - | connect to the tail light circuit. |
| SND | - | connect to the temperature sensor red wire. |
| Gauge case | - | connect to a main ground location |
| Sensor RED | - | to gauge SND terminal. |

Sensor BLACK - to gauge case.

Setting the warning limits and sender setup:

The SND terminal is used to enter and change the warning settings. You will need a wire connected to the SND terminal that can be momentarily grounded while you watch the gauge. The headlights should be off or the DIM terminal unhooked so that it does not interfere with the setup.

1. To enter the set mode, turn the key on with the SND wire not grounded. The gauge will display "SEt".
2. Ground the SND wire. The gauge will display "F" for Fahrenheit or "C" for Celsius. (If you wait too long the gauge will exit the setup routine and you will need to repeat step #1).
3. Release the SND wire. Each time you momentarily ground the SND wire the temperature unit will change.
4. When the desired unit value is displayed, keep the SND wire grounded for about 2 seconds. The gauge will display "HI".
5. Release the SND wire. The gauge will display a number between 118 - 232 (48 - 112C).
6. Each time you momentarily ground the SND wire the number will change.
7. When the desired high warning value is displayed, keep the SND wire grounded for about 2 seconds. The gauge will display "LO".
8. Release the SND wire. The gauge will display a number between -40 - 75 (-40 - 24C).
9. Each time you momentarily ground the SND wire the number will change.
10. When the desired low warning value is displayed, keep the SND wire grounded for about 2 seconds. The gauge will display "--".
11. Turn the key off.



FOR GROUND CONNECTION

Mounting:

The gauge requires a round hole 2-1/16" 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. Gauge depth to the back of the case is 1". Gauge depth including the mounting studs is 1-7/8".

Troubleshooting guide.

Problem	Possible cause	Solution
Gauge will not light up	PWR terminal does not have power. The gauge case is not getting a good ground. Gauge is damaged.	Connect to a location that has power. Connect the ground to a different location. Return gauge for service. (see instructions)
Gauge lights up, but does not read correctly.	Loose connection on SND terminal. Poor ground connection. Voltage or wiring problem in vehicle wiring harness. Gauge is damaged.	Reconnect wire. Move ground to different location Check wiring harness for loose or damaged wires. Gauge must be returned for service. (see instructions)
Gauge lights up, but displays "Er0".	Gauge is damaged.	Check wire for damaged insulation. Replace if necessary. Replace sender.
Gauge lights up, but displays "___".	SND terminal is shorted to ground. Sender is damaged.	Replace sender. Connect SND terminal on gauge to sender terminal.
Gauge lights up, but displays "EEE".	Sender is not connected to gauge. Wire between gauge and sender is broken. Sender is damaged. Gauge is damaged.	Test and replace wire. Replace sender. Return gauge for service. (see instructions)
Gauge lights up, but displays "Er4".	Gauge's temp unit setup needs to be reset.	See "Setting sender setup" in the manual.
Gauge lights up, but displays "Er5".	Gauge warning points need to be reset.	See "Setting the warning limits" in the manual.
Gauge flashes constantly.	Warning limits are not set properly. Air temp is too high or too low.	Reset warning limits. Check sensor location.
Gauge will not dim.	DIM terminal is not connected correctly.	Check wiring connections.
Gauge remains dim at all times.	DIM terminal is getting power all of the time. Battery is very low. Gauge is damaged.	Connect DIM wire to location that only has power when the headlights are on. Recharge or replace vehicle battery. Return gauge for service. (see instructions)

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.

Technical specifications

Minimum operating voltage	-	7 volts
Maximum operating voltage	-	17 volts
(operating at or near maximum voltage for an extended time can damage unit)		
Maximum temperature reading	-	255°F (125°C)
Gauge Resolution	-	1°F (1°C)
Gauge accuracy	-	±2°F (±1°C)
Typical current draw (@ 13.8V)	-	0.2 A

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.

This Warranty is in lieu of all other express warranties or liabilities. ANY IMPLIED WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY, SHALL BE LIMITED TO THE DURATION OF THIS WRITTEN WARRANTY. ANY ACTION FOR BREACH OF ANY WARRANTY HEREUNDER INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY MUST BE BROUGHT WITHIN A PERIOD OF 24 MONTHS FROM DATE OF ORIGINAL PURCHASE. IN NO CASE SHALL THE COMPANY BE LIABLE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES FOR BREACH OF THIS OR ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, WHATSOEVER. No person or representative is authorized to assume for the Company any liability other than expressed herein in connection with the sale of this product.

The Company does not warrant that this product cannot be compromised or circumvented. THE EXTENT OF THE COMPANY'S LIABILITY UNDER THIS WARRANTY IS LIMITED TO THE REPAIR OR REPLACEMENT PROVIDED ABOVE AND, IN NO EVENT, SHALL THE COMPANY'S LIABILITY EXCEED THE PURCHASE PRICE PAID TO THE PURCHASER FOR THE PRODUCT.

Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of 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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