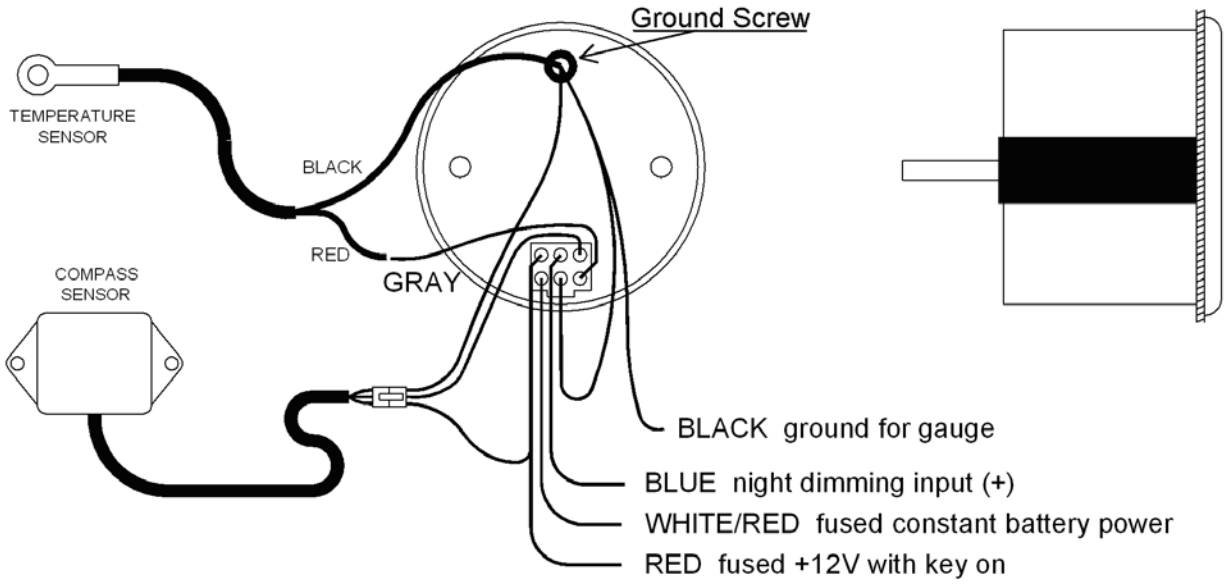
Odyssey
Manufactured by Dakota Digital

Series II
ODYR-17-1/SLX-17-1 CLOCK WITH COMPASS AND TEMP



Operation:

The white/red wire should be connected to a constant 12 volt feed to keep the time. The red wire should be connected to a 12 volt accessory feed. The case provides the gauge ground. Connect the ring terminal from the black wire to a screw at the top rear of the case. Attach the loose end of the black wire to a main vehicle ground and also the temp sensor black wire. When the blue wire has 12 volts, it will dim the display for night viewing. The gray wire attaches to the temp sensor red wire. The 3-pin plug will mate into a connector from the compass sensor.

The push button on the front of the display switches between the three different display screens and is also used for calibration. The three display screens are clock, compass, and temp all displayed at the same time; clock only in tall format; compass and temp only in tall format. Pressing and releasing the switch while the ignition key is on will switch between the different screens.

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 1-1/2". Gauge depth including the mounting studs is 2-3/8".

POWER

Connect the red wire from the main harness to accessory power from the ignition switch. This will light up the display. Connect the white/red wire from the main harness to constant 12 volt power. This will keep the time while the key is off.

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 gauge to not operate properly.

GROUND

The black wire is the main ground for the gauge. A poor ground connection can cause improper or erratic operation. The black wire loops over to the top screw on the back of the case. This ensures a good case ground connection.

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.

TEMPERATURE SENSOR CONNECTION

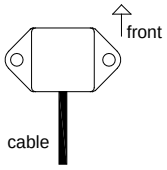
The sender must be Dakota Digital part SEN-15-1. Sending units from other manufacturers will cause incorrect readings. The red wire on the sensor connects to the gray wire on the clock. The black wire connects to the black wire or the case of the clock.

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 " – ". If the SND terminal is shorted to ground, the display will show "---".

For the 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. The air temperature gauge will operate and read correctly between the temperature range of -39 - 255° F (-39 - 125°C).

COMPASS SENSOR CONNECTION

The 3-pin connector from the sensor mates to the 3-pin connector from the display harness. The sensor needs to be mounted with the two mounting tabs down. It should be mounted as flat as possible to make sure it can provide accurate readings. Do not mount it next to any high current wires or electric motors since they may cause incorrect readings. The higher in the vehicle it can be mounted, the more accurate the readings will be.
The compass will display one or two letters to indicate the current direction the sensor is pointed. Large steel objects such as bridges can cause incorrect headings. If the compass detects a disturbance it will freeze the current heading and highlight the display. If the compass display is always highlighted, even in open areas, then the compass will need to be calibrated. This is described in the "Setting the time and calibrating gauge" section.

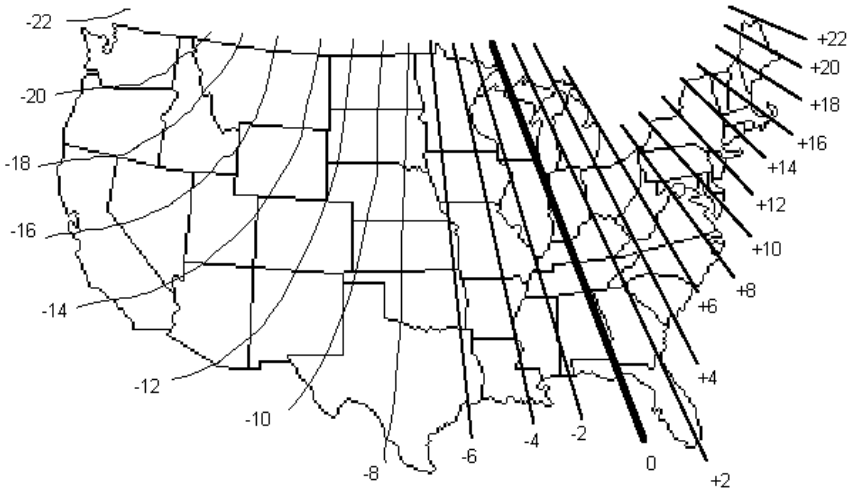


Setting the time and calibrating gauge:

The switch on the front of the lens is used for adjusting the time, setting up the temperature unit, and . At any time during the setup you can turn the key off and all of the changes you made will be saved. The next time the key is turned on the display will light up normally.

1. To enter the set mode, hold the switch in while turning the key on. The gauge will display the time and day of week with the minutes selected.
2. Press and release the switch to increment the minutes. Press and hold the switch in to move to the hours.
3. While the hours are selected, press and release the switch to increment it. Press and hold the switch to move to the time adjustment.
4. The display will now show a number from -7 to +7 and "cal". This is the current time adjustment setting. Pressing and releasing the switch will increment the value. A setting of zero does no adjustment, +2 adds two seconds per day (slows the clock down), -3 subtracts three seconds per day (speeds the clock up), and so forth. When the desired adjustment setting is displayed, press and hold the switch. The display will now change to the true north adjustment.
5. The display will show the current heading offset in degrees from -31 to +31 and "N cal". This is used to compensate for the difference between magnetic north and true north as well as for errors in the positioning of the compass sensor. This offset will vary for different parts of the country. Refer to the map on the following page for the recommended setting for your area. Press and release the switch to change the offset, press and hold the switch to save the setting.
6. The display will show the current temperature unit, either F or C. Press and release the switch to change the setting, press and hold the switch to move to the compass setup.
7. The final setup display will allow calibration of the compass to compensate for the magnetic field created by the cycle it is installed into. The display will initially show "- -". To exit the setup routine, press and hold the switch with the dashes displayed. Press and release the switch to change to the "CAL" selection. To begin the compass calibration, press and hold the switch with "CAL" displayed. (make sure the engine is running before starting the calibration).

8. The display will still show “CAL” and the “turning arrow” will go away. Once the switch is released the “turning arrow” will come back on and flash. Drive the vehicle in four large, slow, complete circles, first two counter-clockwise circles, then two clockwise circles.
9. Once you have finished the circles, press and release the switch. The compass calibration will be saved and the display will go back to normal operation.



True north calibration chart for the United States

Troubleshooting guide.

Problem	Possible cause	Solution
Clock will not light up	Ignition key is not on.	Make sure the key is on.
	Red wire does not have power.	Connect to a location that has power only when the key is on.
	White/Red wire does not have power.	Connect to a location that has power all of the time.
	Black wire is not getting a good ground.	Connect ground to a different location.
	Power is reversed.	Connect black to negative ground, red and white/red to +12V power.
	Clock is damaged.	Return clock for repair. (see instructions)
Clock will not turn off when the key is off.	The red wire has constant power.	Connect the red to switched power, the white/red to constant power.
Clock lights up, but does not read correctly.	Loose connection on white/red power wire.	Reconnect white/red wire.
	Poor ground connection.	Move ground to different location
	Time is not set.	Set time. (see instructions)
	Clock is damaged.	Return clock for repair. (see instructions)
Clock will not keep time.	White/red wire does not have constant power.	Connect to a location that has power when the key is on or off.
	Loose connection on white/red power wire.	Reconnect white/red wire.
	Poor ground connection.	Move ground to different location
	Time adjustment needs to be set.	See “Setting the time”. Step 8 changes the fine tuning.
Clock will not dim.	Blue wire is not connected correctly.	Check wiring connections.
Clock 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.
	Battery is very low.	Recharge or replace vehicle battery.

	Clock is damaged.	Return clock for repair. (contact factory)
Gauge will not display the temperature.	Temp sensor is not connected correctly.	Check sensor connections to gauge.
Temperature readout shows "---".	Gray wire is shorted to ground.	Check connections to gray wire.
	Sensor harness is pinched or shorted.	Inspect sensor harness for damage.
	Sensor temperature is below -39F.	Warm sensor up and watch for change.
	Sensor is damaged.	Return sensor for repair. (see instructions)
Temperature reads in C Instead of F.	Blue wire was powered before the white/red was connected.	Make sure the blue wire does not have power all of the time.

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	-	250°F (125°C)
Temperature accuracy	-	±2°F (±1°C)
Clock accuracy	-	±2 minute per month (±0.5 with adjustment)
Compass accuracy	-	±2 degrees (external disturbances can cause higher errors)
Standby current draw (key off)	-	0.007 A
Typical current draw (@ 13.8V)	-	0.15 A

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 products. Please read through the Troubleshooting Guide. There, you will find the solution to most problems. **Should you ever need to send the unit back for repairs, please call our technical support line, (605) 332-6513, to request a Return Merchandise Authorization number.** 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 the RMA number on the package, and include a complete description of the problem with RMA number, your full name and address (street address preferred), and a telephone number where you can be reached during the day. Any returns for warranty work must include a copy of the dated sales receipt from your place of purchase. Send no money. We will bill you after repair.

Dakota Digital 24 Month Warranty

DAKOTA DIGITAL 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 Dakota Digital's option.

This warranty does not cover nor extend to damage to the vehicle's systems, and does not cover removal or reinstallation of the product. 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 expressed 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. No person or representative is authorized to assume, for Dakota Digital, any liability other than expressed herein in connection with the sale of this product.

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