MCL-4000 SERIES 1-7/8" LED OIL TEMPERATURE GAUGE rev. A
MCL-4073S/R

MCL-4073 S/R	Function
RED	fused +12V with key on
RED/WHITE	not used
BLUE	night dimming input (+)
BLACK	ground for gauge
GREEN	function wire, touch to +12V for setup
GRAY	temperature sender input
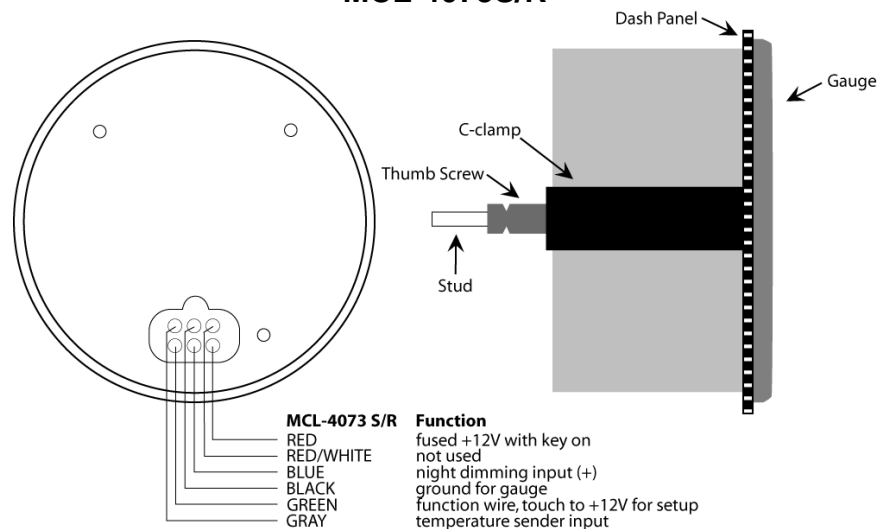
- Selectable ranges (0°F to 310°F) or (-17°C to 154°C) with SEN-1041
  (32°F to 404°F) or (0°C to 205°C) with SEN-1043
  (22°F to 301°F) or (-5°C to 149°C) with SEN-1044
- User adjustable high temperature warning point
- Optional display dimming feature

MOUNTING

The MCL-4000 series gauge requires a round hole 1-7/8" 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 approximately 1-3/8". Gauge depth including the mounting studs is about 2-1/8".

TEMPERATURE GAUGE SETUP

The green wire in the harness is used to enter setup and change/select settings. This is done by powering the green wire with +12V or releasing it. To power the green wire, touch the wire to a +12V source. To release the wire, remove the green wire from the source. The gauge moves through the setup in the following order:

Software code > Sender selection > High temperature warning > done
default settings: 30F (SEN-1041)   202°F high warning point

1. Make sure the key is off so the gauge is not powered.
2. Power the green wire while turning the key on.
3. The display will show "Lt1", this is the software code. (Newer software versions may have a different code.)

4. Release the green wire. The display will read "Snd" (temperature sender selection).
5. Power and release the green wire. The currently selected temperature sender type is displayed. The options are as follows:

"30F" °F SEN-1041	"15C" °C SEN-1041
"40F" °F SEN-1043	"20C" °C SEN-1043
"29F" °F SEN-1044	"14C" °C SEN-1044

6. Power and release the green wire until your temperature sender is displayed.
7. Power and hold power to the green wire to store the sender setting.

8. "HI" (high temperature warning) will be displayed. Release green wire.

9. Power and release the green wire to adjust the high temperature warning point.
10. Power and hold power to the green wire to store the high temperature warning point.

POWER *RED WIRE*
> 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 *BLACK WIRE AND RING TERMINAL*
> The black wire is the main ground for the gauge. A poor ground connection can cause improper or erratic operation. Connect the ring terminal to one of the mounting studs after the clamp has been installed before the thumb nut is screwed on to secure the gauge.

TEMPERATURE SENSOR *GREY WIRE*
> The gray wire connects to the temperature sensor. DO NOT use Teflon tape on the sender threads as the sender grounds through the threads to a body ground. Using Teflon tape will prevent body grounding and will cause an error in the temperature reading. If the sender mounting prevents body grounding (i.e. mounting into plastic fittings) a grounding wire will need to be clamped to the body of the sender and connected to a good ground.

FUNCTION WIRE *GREEN WIRE*
> The function wire (green wire) is used to change settings on the gauge as described above in the setup section. This is done by touching and removing the wire to +12V.

NIGHT DIMMING *BLUE WIRE*
> Your display system has a dimming feature that reduces 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. The blue wire can be connected to +12v through a switch to allow the dimming feature to be turned on or off. To have the system at full brightness all of the time, leave the blue wire disconnected.

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.
Gauge displays or flashes "EEE".	Gray wire is not connected properly.	Check connection from gray wire to sender.
	Sender has poor / no ground.	Check for good sender ground, remove any sealant tape for the threads of sender.
	Temperature is lower than range of sensor.	This occurs at temperatures below freezing. Once in range, correct temperature will be displayed.
Gauge displays or flashes "---".	Grey wire is shorted to ground.	Check grey wire for breaks in insulation or pinched areas.
	Temperature is above range of sender.	Take action to prevent further heating. If common problem, use higher temperature sender.
Gauge always flashes.	High warning point set too low.	Adjust the high warning point using the setup menu.
Gauge will not dim.	Blue wire is not connected correctly.	Check wiring. Blue wire should have 12 volts when dimming is desired.
Gauge remains dim at all times.	Blue wire is getting power all of the time.	Connect blue wire to +12v through a switch or leave unconnected.
Gauge will not go into the SETUP mode.	Green wire is not powered at key on.	Make sure to touch the green wire to a +12V source when turning on key.
		Check to make sure the point where the green wire is touched does have +12V using a voltmeter.
Gauge displays "Er" followed by a number or letter.	Some of the setup data has been lost or corrupted.	Reset all settings in the SETUP menu to ensure they are correct.
Gauge does not read correctly.	Incorrect sender type selected.	Select correct sender type using SETUP menu.

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.

⚠️**WARNING:** This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

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