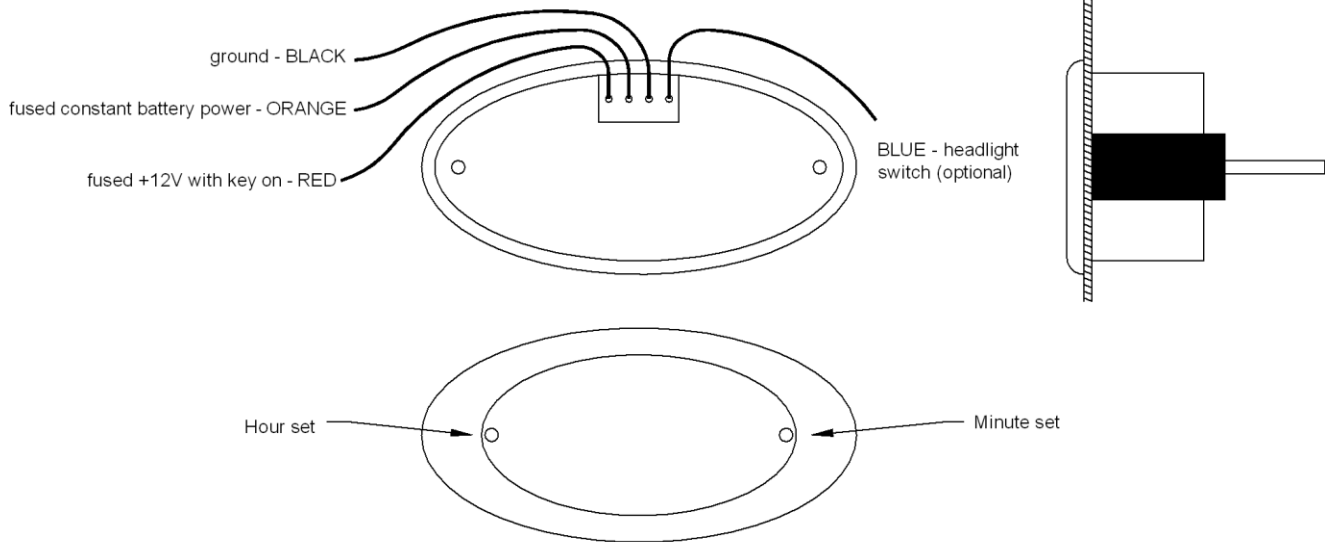# ION-16 DIGITAL CLOCK

**Wiring:**

RED       -       connect to fused, switched 12 volt power.  (An accessory terminal will work for this.)
ORANGE   -       connect to fused, constant battery power.
BLUE      -       Night Dimming:  connect to the head light switch.
BLACK    -       connect to a main ground location



**Mounting:**

The gauge requires an oval hole 1-7/16" high x 3-1/16" wide.  It should be inserted into the opening from the front and the 2 L-clamps will be installed from the back.  Tighten a nut on each of the L-clamps 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".

**Operation:**

The gauge needs the red, orange, and black wires connected to operate.  The red wire should have switched 12 volt power from an ACC. point on the fuse panel.  The orange wire should have constant 12 volt power.  The black wire should be connected to a good ground point.  When the blue wire has 12 volts, it will dim the display for night viewing.

**Setting the time:**

Using a small, thin object such as a toothpick or pin, press "set" buttons through front lens access holes.  The access holes are on the left and right sides of the lens.  Left "set" button advances hours, right "set" button advances minutes.  Each time that you make a change to either the hours or minutes, the seconds are reset to zero.

**Adjusting the accuracy:**

The clock is accurate to +/-2 minutes a month as it is sent.  It can be tuned for better accuracy if desired.  Press and hold both of the set buttons for several seconds.  The clock will display "C  0".  The "C" indicates that it is in the calibration mode and the second number is the current calibration value.  The calibration value indicates the number of seconds to add or subtract each day.  The clock can be adjusted from +7 sec/day to -7 sec/day.  Press the minute set button to change the cal value.  Press the hour set button to return to normal clock operation.

# Troubleshooting guide.

| Problem | Possible cause | Solution |
|---|---|---|
| Clock will not light up | Red wire does not have power. | Connect to a location that has power when the key is on. |
| | Orange 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 orange to +12V power. |
| | Clock is damaged. | Return clock for repair. (see instructions) |
| Clock will not turn off when the key is off. | The red and orange wires are reversed. | Connect the red to switched power, the orange to constant power. |
| Clock lights up, but does not read correctly. | Loose connection on orange power wire. | Reconnect orange 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. | Orange wire does not have constant power. | Connect to a location that has power when the key is on or off. |
| | Loose connection on orange power wire. | Reconnect orange wire. |
| | Poor ground connection. | Move ground to different location |
| 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) |

## 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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