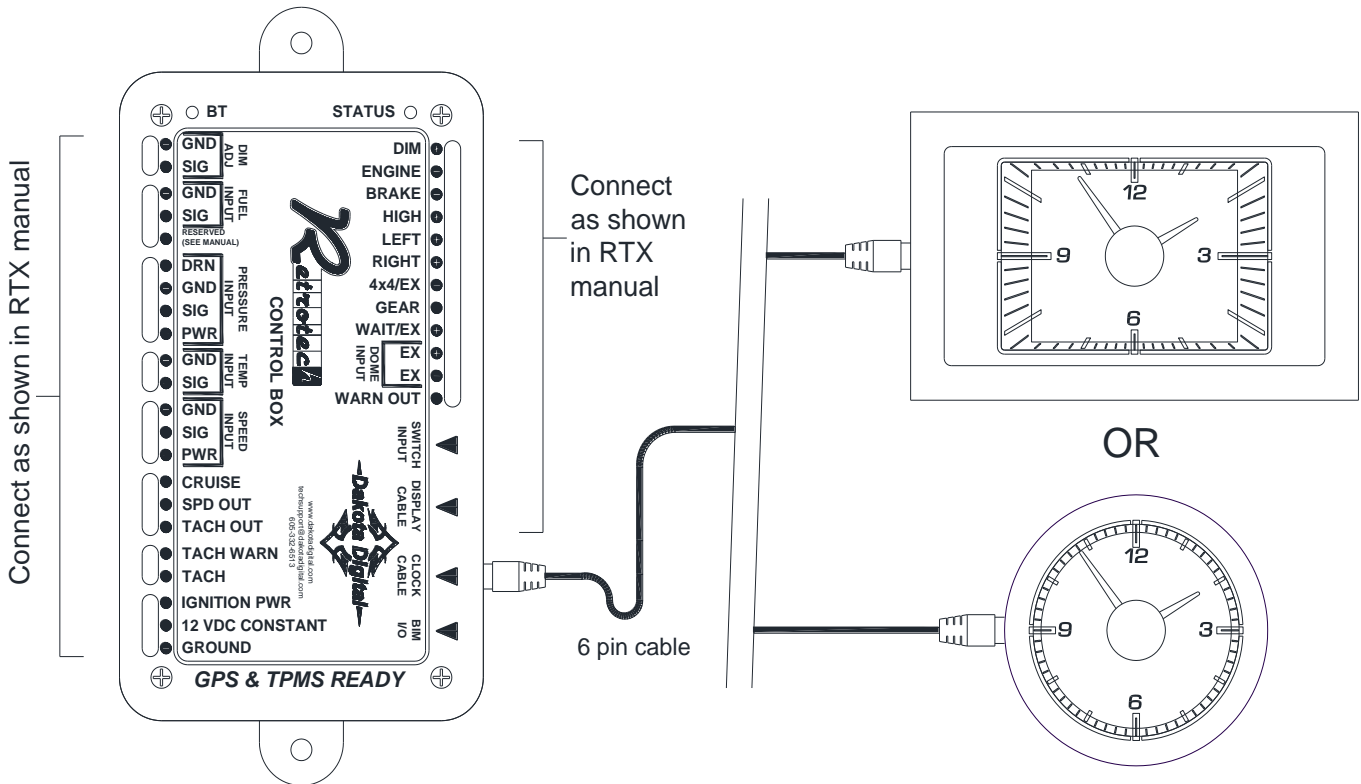




OPERATION MANUAL FOR RLC-xxx clocks

Analog Clock module for use with RTX systems

CONNECTION DIAGRAM:



WIRING:

The RLC clock is NOT a stand alone unit. Connection to an RTX control box is required to operate the RLC clock.

A 6 pin cable comes with the kit to connect the RLC to the clock connector on the RTX control box. This cable provides all the needed signal and power connections for the RLC from the control box.

NOTE: Some RTX systems come with an integrated RLC unit. These systems will have the 6 pin connector located on the back of the system.

OPERATION:

CONNECTING POWER:

When power is first connected to the RLC, the hands on the clock will move quickly around the dial until they point to 12:00 to calibrate the location of the clock hands. After calibration, the RLC will begin to keep time from 12:00 until the time is updated by the RTX control box.

KEY OFF/ON MODE:

When the key is turned off, the RLC will use its internal clock to keep track of time and move the hands accordingly. When the key is turned on, the RLC will update its time using data it receives from the RTX system. If this time is different than the time on the RLC, the clock hands will move rapidly either ahead or back to adjust to this new time.

Large differences in time that cause fast hand movement can be caused by several things. If the constant power is lost on the RTX control box, its clock will reset. If the time is provided by a BIM expansion module, constant power loss to this module will cause a clock reset. If the BIM expansion module providing time becomes disconnected from or is reconnected to the BIM connector on the RTX control box, the internal time of the control box may change.

SETTING THE CLOCK:

The RLC will automatically set itself to match the time of the RTX system. When the key is turned on, it will adjust the clock hands to match the time on the RTX system.

To adjust the time on the RTX system, turn the key on. If the clock is not shown in the message center, tap the right switch until it is shown. Tap the left switch until the focus arrow is beside the clock. Hold either switch. The display will show "HOLD TO SET". When "RELEASE" is displayed, release the switch. The hours will begin flashing. Tap the right switch to increase the hours, tap the left switch to decrease the hours. Press and hold either switch to save the hours. The minutes will flash. Tap the right switch to increase the minutes, tap the left switch to decrease the minutes. Press and hold either switch to return to normal operation.

NOTE: The RLC may not track every change when setting but will update to match the RTX over time while the key is on.

ADJUSTING DIAL BRIGHTNESS:

The illumination for the RLC clock dial and hands is controlled by the color and brightness level of the RTX control box. To adjust the color and brightness level, use the RTX control box setup menu. Different color and brightness levels can be set for day time and night time (based on the DIM line to the RTX control box.) For more details on illumination settings, see the RTX operations manual.

TROUBLESHOOTING:

Problem	Possible cause	Solution
Clock time never changes	Bad connection	Check that the clock cable is not damaged and is securely connected to RLC and control box
	No constant power on RTX box	Check for +12v with key off on constant power terminal on RTX control box
Backlights always on when key on, clock hands not keeping time	Bad connection on RLC cable	Check RLC cable connections and look for damage to cable.
Clock hands spin to 12:00 every time key turned on	RTX control box constant power terminal connected to switched power not constant	Connect RTX control box constant terminal to a circuit that has constant +12v with key off
OR		
Clock doesn't keep track of time when key is off		
Clock will not adjust time to match RTX system time	Bad connection on RLC cable	Check RLC cable connections and look for damage to cable.
OR		
Clock lighting not matching rest of system		
Backlights flash continually with the key on and time doesn't change.	RLC internal clock is damaged or not functioning properly	Call Dakota Digital for RMA number to return product for repair

RLC Specifications	
SUPPLY	
Voltage Range (BAT)	8 to 18 V
CURRENT DRAW (BAT)	
IGN off	Approximately 0.5 mA
IGN on	< 75 mA

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 Limited Lifetime 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 for the lifetime of the original vehicle it was installed in, 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 diagnosis, 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. Dakota Digital assumes no responsibility for loss of time, vehicle use, owner inconvenience nor related expenses.

Dakota Digital will cover the return standard freight once the product has been evaluated for warranty consideration, however the incoming transportation is to be covered by the owner.

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. 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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