



OUR EXPERIENCE • YOUR SOLUTION

Gems Sensors & Controls | One Cowles Road | Plainville, CT 06062-1198
Telephone: 860.747.3000 | Fax: 860.747.4244 | www.GemsSensors.com

Supplemental Conditions of Return Authorization by Gems/West for West, PMA, CAL Products

The following conditions are in addition to all terms and conditions of sale already outlined through your sales agreement with West Control Solutions.

We will not process any returns received without an authorization RA number provided by Gems/West regardless of the reason for the return.

All RA requests must be from the distributor or customer from which the original order was placed with West. Gems/West cannot determine original purchase using serial number.

We will not provide a return authorization without either of the following: your original PO number or our West order number. See above.

We will not provide a return authorization without all device serial numbers or printed date codes.

We will not provide a return authorization if the serial number or date code is outside of the documented warranty period.

All part numbers and serial numbers or date codes must match the devices received.

We will not provide a return authorization without a fully detailed and specific description of the fault or defect (reason for return). Entries such as (or similar to) the following will not receive authorization: "not working" "bad controller" "unit failed" "does not operate/function/control", etc. It is the responsibility of the distributor to determine specific fault descriptions with their customer.

We will only evaluate & test based on the specific reason for return provided by the customer. Any additional or different information attached to, or included with, the returned units will not be considered, and all no-fault/non-warranty fees will still be applied.

New units returned for credit must be in unopened condition with original unmarked/undamaged packaging and all documents included.

Upon completion of the online RA request form and receiving RA authorization, the customer acknowledges review of these supplemental conditions and of the following sources & testing checklist.

Please review the following guide prior to submitting your RA request. All products returned that are found to have been damaged at the customer's location, that are outside the warranty period, or where there was no fault or defect found are charged a mandatory \$50 evaluation fee per unit. Fees will be treated as debits on the customer's account and may result in future credit holds if not promptly paid. This guide is to help you detect the most common occurrences of no-fault and customer damage and diagnose the root cause to help prevent possible evaluation fees. It is recommended, regardless of the reason for return, to bench-test and confirm fault descriptions on all units prior to requesting RA authorization.



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Common No Fault Found & Customer Damage
Possible sources and testing checklist:

Input Failure:

Possible Source	Test
Bad thermocouple/sensor or wiring	Program J or K type thermocouple and short input terminals with wire will show appx ambient temperature
Wrong input parameters	Confirm programmed input parameters including input type, upper and lower scale limits
Damage: CJC/input circuit components damaged	Close inspection of circuit board components could reveal physical damage (burns) possibly caused by overvoltage/overcurrent. This can be a result of spike, surge, or electrical noise. Special attention to location nearest input terminals.

Wrong Temperature:

Possible Source	Test
Wrong input type programmed	Confirm correct input type, upper and lower scale limits, and Celsius/Fahrenheit parameters
Thermocouple wired backwards	Review positive and negative wires are connected to correct terminals
Input value offset programmed	Confirm there has not been an offset programmed for input configuration. Refer to user's manual for menu parameters related to offset.
Damage: CJC/input circuit components damaged	Close inspection of circuit board components could reveal physical damage (burns) possibly caused by overvoltage/overcurrent. This can be a result of spike, surge, or electrical noise. Special attention to location nearest input terminals.



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Will Not Tune:

Possible Source	Test
Programmed for on-off control	Review control settings and change to proportional (PID) control if needed
Device in manual control	Review control settings and change to automatic control behavior if needed
Device in self-tune or tune at setpoint mode	Review tune settings to stop and disable alternative tuning method if needed
Process value too close to setpoint	Review upper & lower input scale and raise target setpoint greater than 5% of total input scale range.
Input scale range too small	Review upper & lower input scale range levels and increase total range

Can't Adjust Setpoint:

Possible Source	Test
Device in manual control	Review control settings and change to automatic control behavior if needed
Device in self-tune or tune at setpoint mode	Review tune settings to stop and disable any tuning process currently running
Setpoint locked	Check any parameter settings for locking set point adjustment or disabling setpoint display
Profile/Ramp-Soak Program currently running	Stop any profiles/programs currently running and disable profile control if needed
Limit device or indicator	Confirm device is controller, limit requires setpoint adjust via menu parameter, indicator has no setpoint adjustment

Control Issues / Will Not Hold Temp:

Possible Source	Test
Device in manual control	Review control settings and change to automatic control behavior if needed



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Device in self-tune or tune at setpoint mode	Review tune settings to stop and disable any tuning process currently running
Programmed for on-off control	Review control settings and change to proportional (PID) control if needed
Incorrect PID settings	Perform automatic tuning functions and fine tune the PID parameters as needed to suit the application
Incorrect cycle time setting	Adjust the cycle time parameter to suit the application, following guidelines outlined in user's manual
Output not working	See all sources and tests below

Output not working / No Heat or Cool:

Possible Source	Test
Incorrect settings	Many parameters affect output behavior, review all settings regarding output and control
Output card not fitted/Wrong output card	Check that the desired output card is installed via physical inspection & info menu (for modular controllers)
Using wrong output terminals or output type	Via menus, verify output types used and refer to user's manual for correct output terminal locations
No power through relay	All mechanical relays are dry-contact and require user supplied voltage
Damage: Blown output	Close inspection of circuit board components could reveal physical damage (burns) possibly caused by overvoltage/overcurrent. This is usually a result of a spike or surge, but electrical noise can also be an issue. Wiring voltage to the output terminals of an SSD or linear output could also cause damage.
All of the above	Test output terminals with multimeter to detect continuity/voltage/current using on/off control and adjusting the setpoint above and below displayed temperature. Follow "Input Failure - Bad thermocouple/sensor or wiring" procedure above for ambient temp display.



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No Power/Display Blank/All Segments Lit/Stuck in Boot-up:

Possible Source	Test
Damage: Main resistor/PCB components damaged (No power / Blank Display)	Voltage/current spike or surge can result in damage to the main resistor or to smaller circuit board components causing the unit to not power up at all. Close inspection of all PCB components can reveal physical burns/damage.
Damage: Main resistor/PCB components damaged (Stuck in boot-up / All 8's)	Voltage/current spike or surge and even electrical noise can result in damage to the main resistor or to smaller circuit board components causing the unit to get stuck in the boot up process or show all segments lit (all 8's). Close inspection of all PCB components can reveal physical burns/damage.
Damage: Low Voltage Device	For both above conditions, it is very common for these to occur on models designated for low power supply voltage. Pay special attention to the required supply voltage when evaluating returns with these fault descriptions.