
INSTALLATION & OPERATION

XCR-1830V LOAD CONTROL

An external 0-10 Volt DC signal is the input for these controls.

FEATURES

3 ADJUSTABLE SET POINTS

When power reaches your selected SET POINT a built-in Relay Output is activated (tripped). Relay stays tripped (latched). You choose when to reset. The characteristics of these Set Points can be changed.

ANALOG OUTPUT

Hook to the Load Meter for monitoring load, easy setup and adjustment.

EASY SETUP WITH SET READ SWITCHES

Press the SET READ Switch and the SET POINT for that Channel is displayed on the LOAD METER.

- You **know** where the SET POINT is
- Easily verify proper operation

BUILT-IN START-UP TIMER

Adjustable Timer eliminates false trips while the Motor is starting.

FILTER OUT NUISANCE TRIPS

Adjustable On-Delay Timer. Trip won't activate until the selected delay time is exceeded. The On Delay for Set 1 can be defeated.

RESET

The Control can be Reset

- Automatically — when the overload is gone.
- Remotely — with switch, relay or programmable controller
- Manually

TRIP INHIBIT

The Control can be remotely bypassed during any part of the cycle when not required.

Also Available

Remote Set Point Adjustment



NEW ADDRESS

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PHONES UNCHANGED

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SET POINT CHARACTERISTICS

REGULAR SET POINTS

The relays trip when a Set Point is reached. Set Points can be:

- High Trip — Trips when the power goes above the Set Point
- Low Trip — Trips when the power goes below the Set Point

All 3 Set Points can be Regular. Set 1 can be high or low.

COMPENSATOR™ SET POINTS

For machine tool applications such as grinder gap elimination or dull tool detection the drifts in idle or "BASELINE" power should be zeroed out.

- A limit switch or programmable controller signal tells the COMPENSATOR™ each time the machine is in the idle or "BASELINE" position.
- The COMPENSATOR™ samples this power level and retains it as a reference.
- The SET POINTS are related to this BASELINE.

In other words, the COMPENSATOR™ zeroes out the BASELINE power for each cycle. The absolute trip point changes as conditions change but always remains a fixed amount away from the BASELINE. This means no constant fine tuning. It adjusts itself. Set 1 and Set 2 can be compensated.

Adjustment Ranges for Set Points

3%-50% — Expands the adjustment range to provide more sensitivity and precision at low loads (especially for COMPENSATED Set Points)

6%-100% — For General Use

On Delay — For Set 1, the Trip Delay can be removed from the circuit for maximum response speed - useful for grinder gap elimination.

CHANGING CHARACTERISTICS

The factory settings for the characteristics are marked on the Control adjacent to the Serial Number on the side. To change them, remove the cover (4 Phillips screws) and find the 6 Position DIP SWITCH.

SWITCH POSITIONS

Set 1		Set 2	
COMPENSATED	Switch 2 OFF	COMPENSATED	Switch 6 OFF
Regular	2 ON	Regular	6 ON
High Trip	3 OFF	3%-50% Range	5 6 ON
Low Trip	3 ON	6%-100% Range	5 OFF
3%-50% Range	1 ON		
6%-100% Range	1 OFF		
Defeat On Delay	4 OFF		

Set 3 is always Regular with 6%-100% Range.

INSTALLATION

MOUNTING

The Load Control should be mounted in a control cabinet or in a protected area. The four Phillips head screws on the Control should be removed and used for attaching the mounting brackets to the Control.

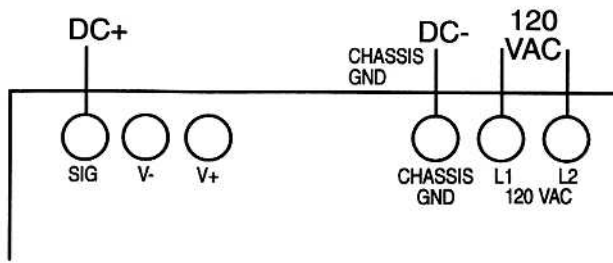
INPUT CONNECTIONS TO THE LOAD CONTROL

An external 10 Volt DC voltage provides the signal for these controls.

DC Plus to SIG Terminal
DC Common to CHASSIS GND Terminal
(No Connection on V- and V+ Terminals)

120 Volt Power

Connect to the 120VAC terminals on the Load Control. Ground the Load Control Chassis.



RELAY OUTPUTS (Terminals 7-12)

The PCR-1830 has 3 Relay Outputs

Set Point 1	Terminals 7 & 8
Set Point 2	Terminals 9 & 10
Set Point 3	Terminals 11 & 12

They can either:

- Open on Trip or Power Off
- Close on Trip or Power Off

The factory settings are marked on the Control. To Change - remove cover (4 Phillips screws) and locate the relay board.

There is a jumper for each relay.

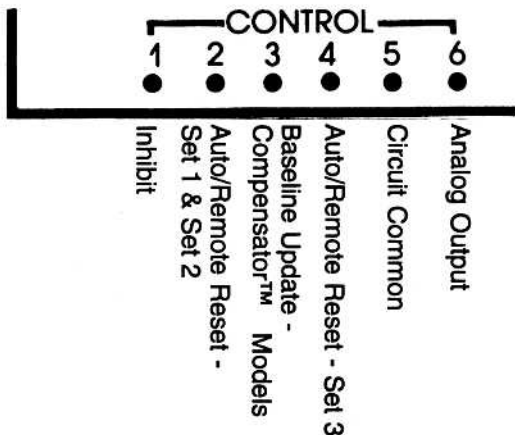
Move all 3 Jumpers • Specifications: .01 Amps to 3 Amps at 120
OOT = Open on Trip Volts AC 1/20 HP at 120
COT = Close on Trip Volts AC

HOOKING UP RESET, INHIBIT AND BASELINE

The terminals for BASELINE, RESET and INHIBIT generate a small amount of current (8-12 milliamps). To activate one of these functions you just need to connect the terminal to the circuit common (Terminal 5).

The switches or relays that you use must be suitable for low current. (Gold flashed contacts, Reed Relays, Mercury Switches, Open Collectors.)

A voltage signal from a programmable controller can also be used but it must be a sink or source/sink (30 Volt max., 12 Volt min.) When in doubt, use a reed relay.



Don't put 120 volts on Terminals 1-6! It will destroy the control.

