



UDYLITE Power Supplies

Process Electronics Corporation

100 Brickyard Road
Mount Holly, NC 28120
Phone: (704) 827-9019
Fax: (704) 827-9595

ISOLATED UNIVERSAL 2 CHANNEL TRANSCEIVER (OR-10235-00)

Channel 1 – 4-20mA IN: 0 – 5V OUT
Channel 2 – 4-20mA IN: 0 – 5V OUT
Channel 3 – 0 – 5V IN: 4-20mA OUT
Channel 4 – 0 – 5V IN: 4-20mA OUT

COMPUTER CONTROL SETUP 4-WAY CONTROL

This product has been setup and calibrated in the factory by a qualified Electrical Technician. However, it may require further calibration due to differences in controlling components, i.e. PLC and computer reading feedback.

EQUIPMENT REQUIRED: Digital Multimeter (DMM-1)

VOLTAGE COMMAND AND FEEDBACK CHANNEL 1

SETUP

- Load rectifier with light to medium load. No more than 75% of capacity.
- Red lead to V+ on rectifier terminal strip.
- Black lead to V- on rectifier terminal strip.
- Set meter to read DC volts. (This is to monitor actual voltage being supplied by the rectifier)
- Calculate a table before adjusting.

Example:

<u>Comp. Reading</u>	<u>Actual Volts</u>	<u>%</u>	<u>Comment</u>
0	0	0	
3	3	25	Zero Set-Point
6	6	50	
9	9	75	Span Set-Point
12	12	100	

PROCEDURE

1. Set computer command to maximum voltage.
2. Verify maximum voltage on DMM-1.
3. Adjust TR2 (span command) until DMM-1 reads maximum voltage.
This adjusts command of the computer (4-20mA) to correspond to command of the rectifier (0-5VDC).
4. Adjust TR6 (span feedback) until computer reads maximum voltage.
5. Set computer to 25% of maximum voltage.
6. Adjust TR1 (zero command) until DMM-1 reads 25% of voltage.
7. Adjust TR5 (zero feedback) until computer reads 25% of maximum voltage.
8. Follow steps 1 through 7 until no further adjustments are required.

CURRENT COMMAND AND FEEDBACK CHANNEL 2

SETUP

- Load rectifier with a maximum load.
- Red lead to A+ on rectifier terminal strip.
- Black lead to A- on rectifier terminal strip.
- Set DMM-1 to read millivolts DC. This is to monitor actual amperage of the rectifier. The 0-50mV on DMM-1 is directly proportional to 0-max. Amperage value.
- Calculate a table before adjusting.

Example:

<u>0-50mV</u>	<u>Actual Amps</u>	<u>%</u>	<u>Comment</u>
0.0	0	0	
12.5	625	25	Zero Set-Point
25.0	1250	50	
37.5	1875	75	Span Set-Point
50.0	2500	100	

PROCEDURE

1. Set computer command to maximum current.
2. Verify maximum amperage (50mV) on DMM-1.
3. Adjust TR4 (span command) until DMM-1 reads 50mV.
This adjusts command of the computer (4-20mA) to correspond to command of the rectifier (0-5VDC).
4. Adjust TR8 (span feedback) until computer reads maximum amperage.
5. Set computer to 25% of maximum current.
6. Adjust TR3 (zero command) until DMM-1 reads 12.5mV.
7. Adjust TR7 (zero feedback) until computer reads 25% of maximum amperage.
8. Follow steps 1 through 7 until no further adjustments are required.

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