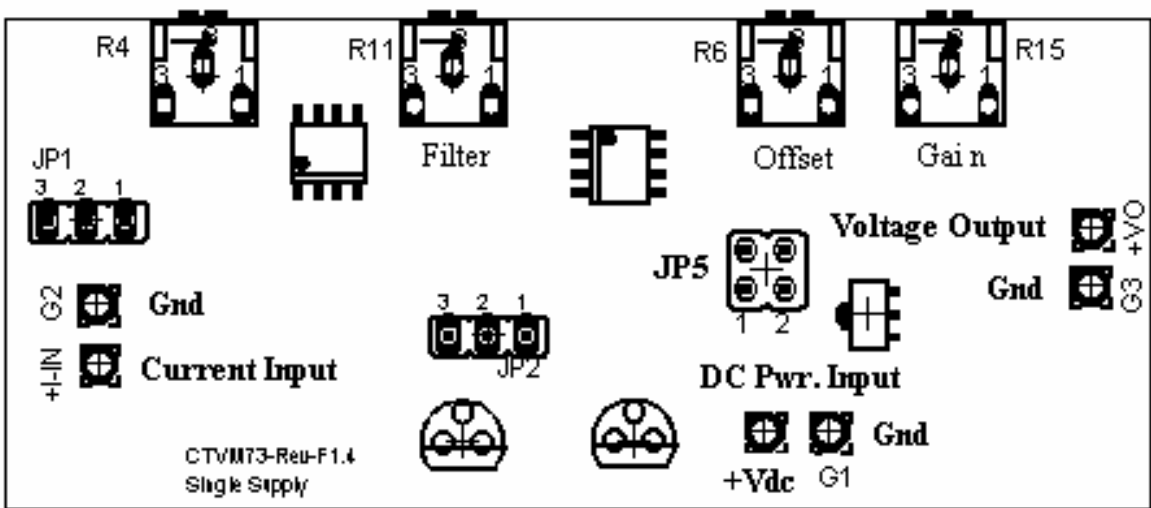


The CTVM PCB and connections from your current source to the CTVM input must be completely shielded! Insufficient shielding will increase the noise-signal ratio which will result in inaccurate CTVM output.

CTVM73...S Single Supply Current to Voltage Converter Module



Jumper Descriptions:

	Location	Enable	Disable
JP5-1 ... Pre-Amp Low Pass filter	JP5-1	On	Off
JP5-2 ... Post-Amp Low Pass filter	JP5-2	On	Off

Continue to next page for Gain and offset adjustment procedure ...

RDM-Apps Setup – PCB Rev. Fxx ... Ctmv73 Single Supply Current to Voltage Converter Module

Gain / Offset Adjustment Procedure:

Required Conditions:

- 1.) Ctmv Module must have required DC power applied.
- 2.) Allow Ctmv module to warm up for at least 3 mins. Before continuing to the procedure.

Procedure:

- 1.) Connect your current source to the CTVM input. Set the current source to zero current out and then adjust R6 (offset) until the CTVM output is approximately 0V. Note - you can also connect the CTVM input to ground (BNC shield) using a high value resistor to approximate zero input current.
- 2.) With a known current applied to the CTVM input adjust R15 (Gain) until the output voltage corresponds to the applicable gain. For example, if 500pA is applied to the CTVM input and the desired gain is 100pA/V (Input/Output) then adjust R15 until the output is approximately 5V.

Note(s): you will probably have to repeat procedure steps 1 and 2 a couple of times to assure proper calibration. If the Gain adjustment potentiometer is set to one of the extreme top or bottom extents extremely high or low gain states can occur which may cause confusion when making sequential offset and gain adjustments. Also, we advise you adjust the gain using an input current that is a mid-range value. For example, if the desired gain is 100pA/V (Input/Output) and the maximum output is 10V then apply 500pA to the CTVM input and adjust the gain so the CTVM output is 5V. You can conversely do this using a -500pA and -5V, respectively.

Pre-Amp Low Pass Filter Adjustment:

Adjust R11 to the desired cut-off frequency. Typical adjustment range is 5Hz to 20Hz. For AC input signals greater than 1Hz remove both J5-1 & JP5-2 to disable both the Pre and Post Amp. filters. Also, you will probably have to verify if the Gain & Offset adjustments are correct. Do not adjust R11 potentiometer to either extreme mechanical extents.

Pre-Amp Offset adjustment (R4):

R4 should only require adjustment once to ensure all Pre-amp output is above Gnd. This is usually set by the manufacturer.