



PWM P108

Programming Instructions v 3.2

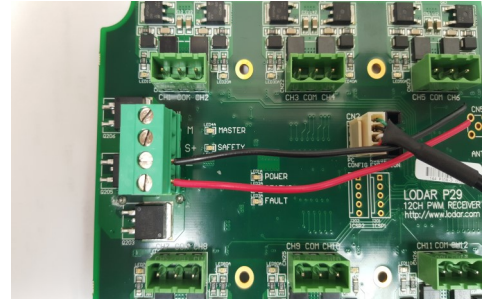
PWM Controller Software

Download / Install & Run

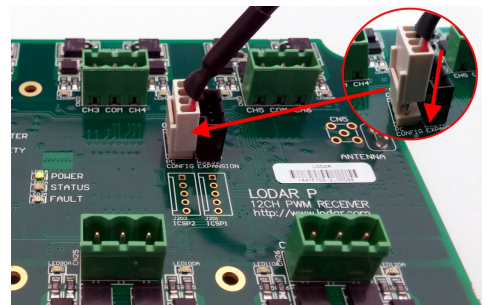
- Driver (Must be installed for software to work)
- Software
- Instructions

www.lodar.com/configuration

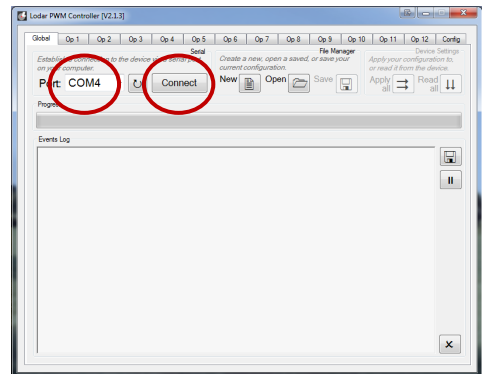
- Connect **Power** to +/- terminal plug



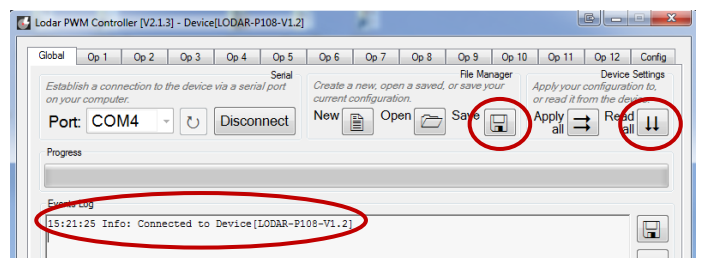
- Insert **USB plug** to PC USB port
- Attach **USB programming cable**
Driver should install automatically



- Click **Refresh** icon
- Select **Com Port** corresponding to the installed cable
- Click **Connect**



- Check **Program connection** to P108 Receiver
- **Before** changing any configuration
Click **Read All**, then Click **Save**

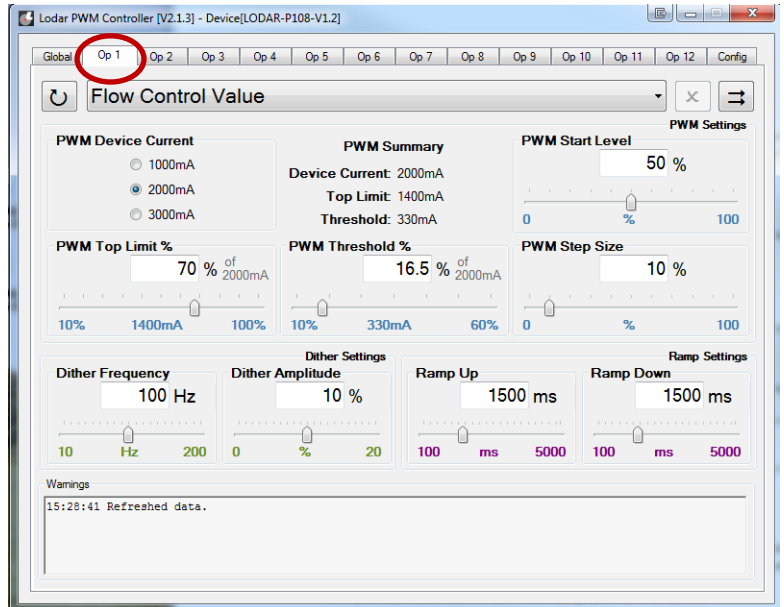


Example settings for **OP1 = CH1** on the PCB

- Click an **Output (OP)** tab

This corresponds to **Channel (CH)** number on PCB

OP1 = CH1
 OP2 = CH2
 OP3 = CH3
 etc.

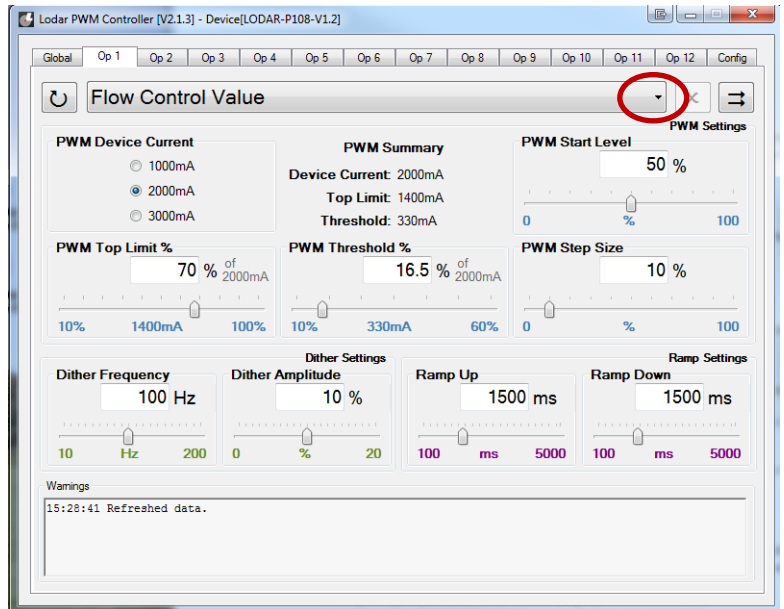


- Select Valve

Flow Control Valve (Page 3)

or

Directional Control Valve (Page 4)



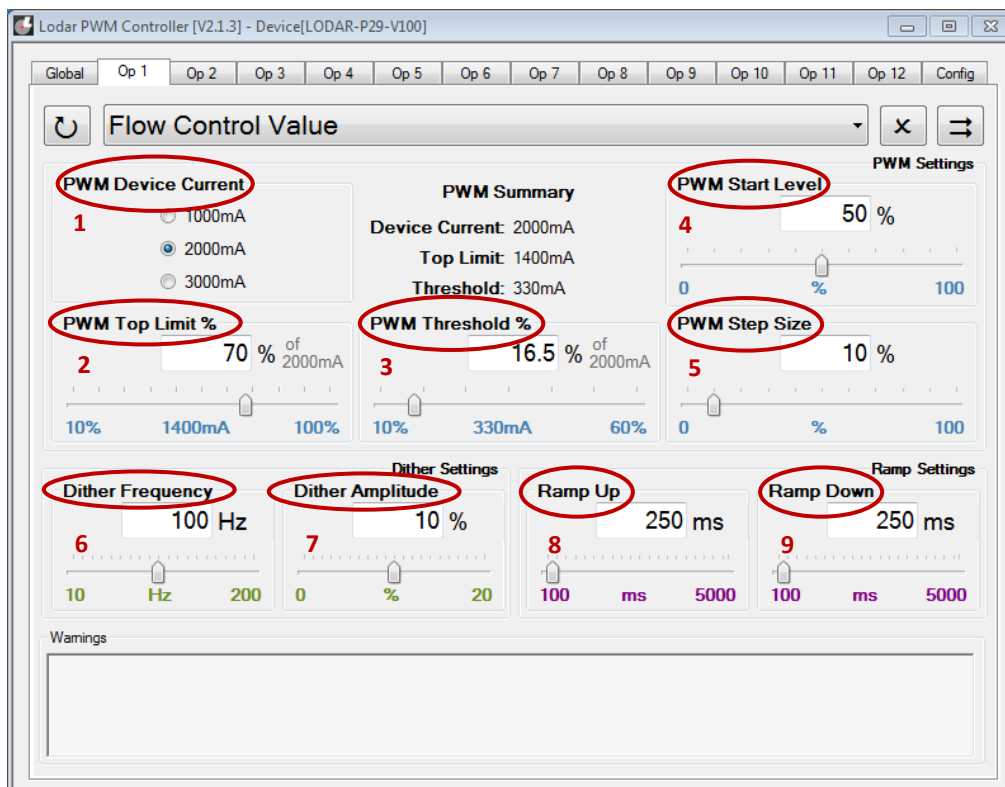
Directional Control Valve (Momentary)

Will **ONLY** operate while holding down a button, within the values set.

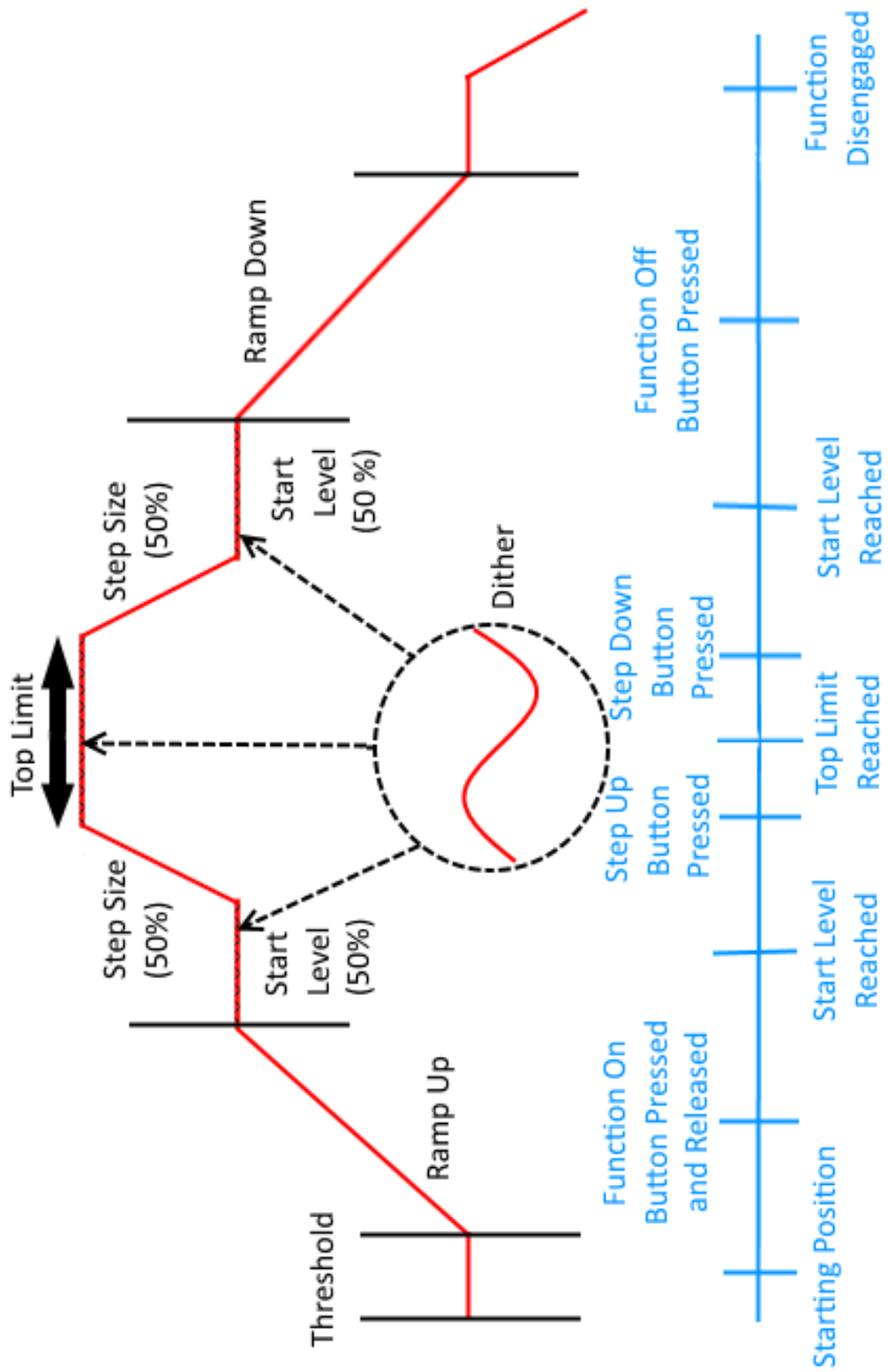
Flow Control Valve (Latching)

Continuously operational within the values set.

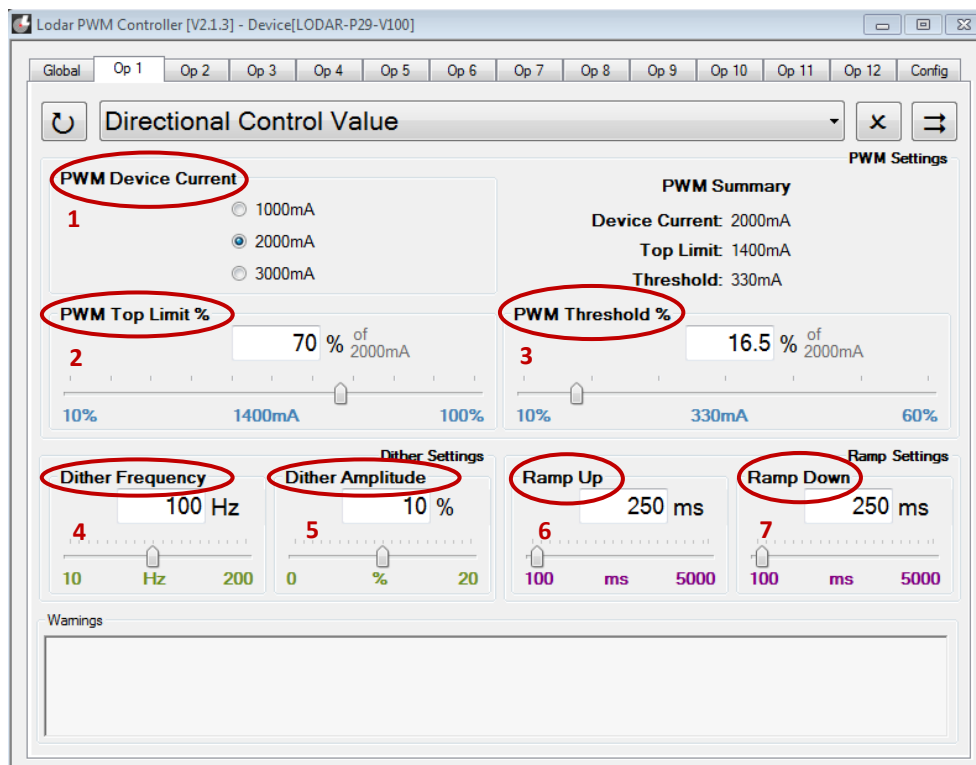
- 1 • **Select Device Current** - Normally set at 2000mA
- 2 • **Select Top Limit %** - Maximum amount the valve will need.
A value of **1400mA** (70% of 2000mA) is shown below for the **maximum amount** of flow for the selected valve.
- 3 • **Select Threshold %** - Minimum amount of current the valve will need to start flowing.
A value of **330mA** (16.5% of 2000mA) is shown below for the **minimum amount** of flow for the selected valve.
- 4 • **Select Start Level (Flow Control ONLY)** - Level the valve starts at when button is toggled **ON**
E.g. 50% valve will set the valve at 50% of the **Threshold %** and **Top Limit %** values.
- 5 • **Select Step Size (Flow Control ONLY)** - Percentage level valve steps when the + and - buttons are pressed.
A 10% valve will give 10 steps between the values of **Threshold %** and **Top Limit %**
- 6 • **Select Dither Frequency** - Speed the valve will Dither / Wobble, preventing sticking. Normally set at 100Hz.
- 7 • **Select Dither Amplitude** - Level of Dither / Wobble, preventing sticking. Normally set at 10%.
- 8 • **Select Ramp Up Time** - Amount of time for valve to open from Threshold to the Top limit % (set above).
In the example above, this will take 1500ms (1.5 Seconds). This is useful as a “soft start” function.
- 9 • **Select Ramp Down Time** - Amount of time for valve to close to the Threshold limit value (set above).
In the example above, this will take 1500ms (1.5 Seconds). This is useful as a “soft stop” function.



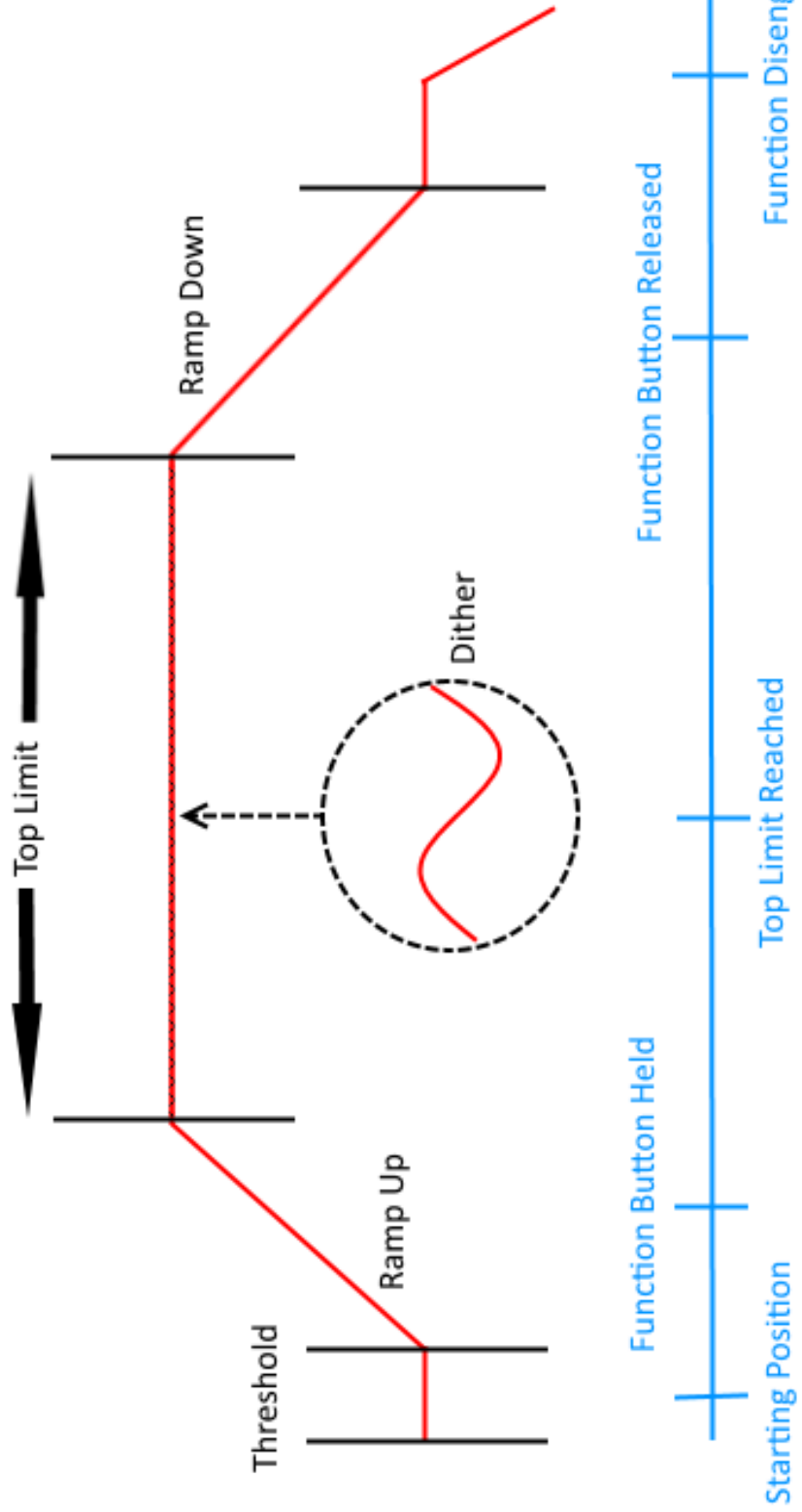
Flow Control Valve Diagram

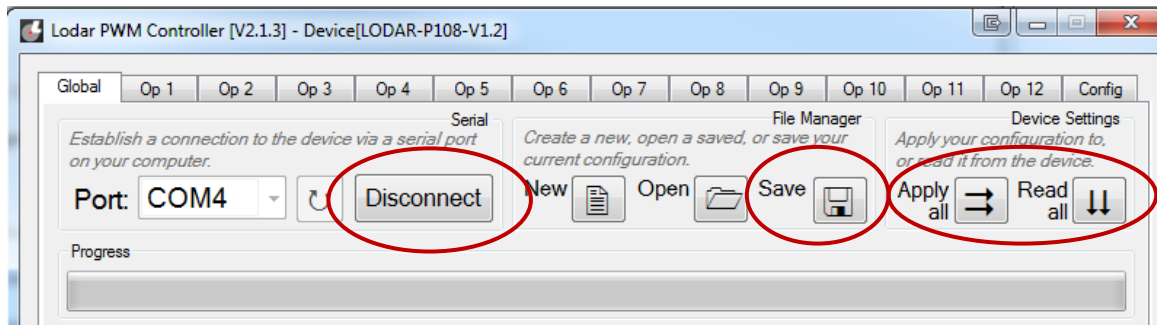


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Directional Control Valve Diagram





To copy changed unit settings

- Click **Save** when all outputs are configured and select a name for your profile.
- Click **Apply All** to update the unit with your new configuration.
- Click **Disconnect** when you have finished updating the configuration of the receiver and remove the cable from the PCB.
- Your **PWM controller** is now configured.

Technical & Programming Queries

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PLEASE READ CAREFULLY BEFORE USING THE PWM CONTROLLER SOFTWARE

Values shown in examples are standard Lodar Ltd factory settings.

This unit comes supplied with default settings set by Lodar Ltd which may or may not be suitable for use on your equipment. It is the responsibility of the user/operator to check the suitability of any pre-set or altered values for any use on their equipment. Failure to ensure this may result in damage to equipment or injury to personnel.