Throttle Controller Setup Screen
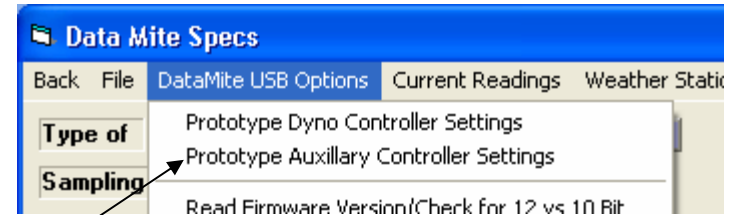
Set default settings, then click on the Tune button to send to controller (send settings via USB to controller).

Click here in DataMite Specs to bring up Throttle Controller Settings.

Controller Settings

Tune   Set Limits

Controller Settings

Controller On   Yes   Defaults

Com Port   2   Find

Proportional Setting   500

Integral Setting   .1

Derivative Setting   10

PID Control Loop, mSec   5

Display On (No)   Yes

Power Box   Silver Die Cast

Notes:
Click on the 'Defaults' button to load typical settings. Click on the 'Tune' button to program the controller with these settings. Click on the 'Set Limits' button to just change the maximum and minimum extension of the actuator, bypassing other steps.

Keep Settings   Help   Cancel   Print

Click here if you want to set the maximum and minimum extension of the actuator, and bypass the full "Tune" button 25+ steps. This is a handy way to set full throttle and closed throttle for a throttle controller after you have installed a new engine. Note: You must have done a full "Tune" at some time in the past for this button to work.

Click here to load typical default values

Click here to find which com ports your controller could be connected to.

It is typically best to use the settings by clicking on the "Defaults" button for these 4 settings.
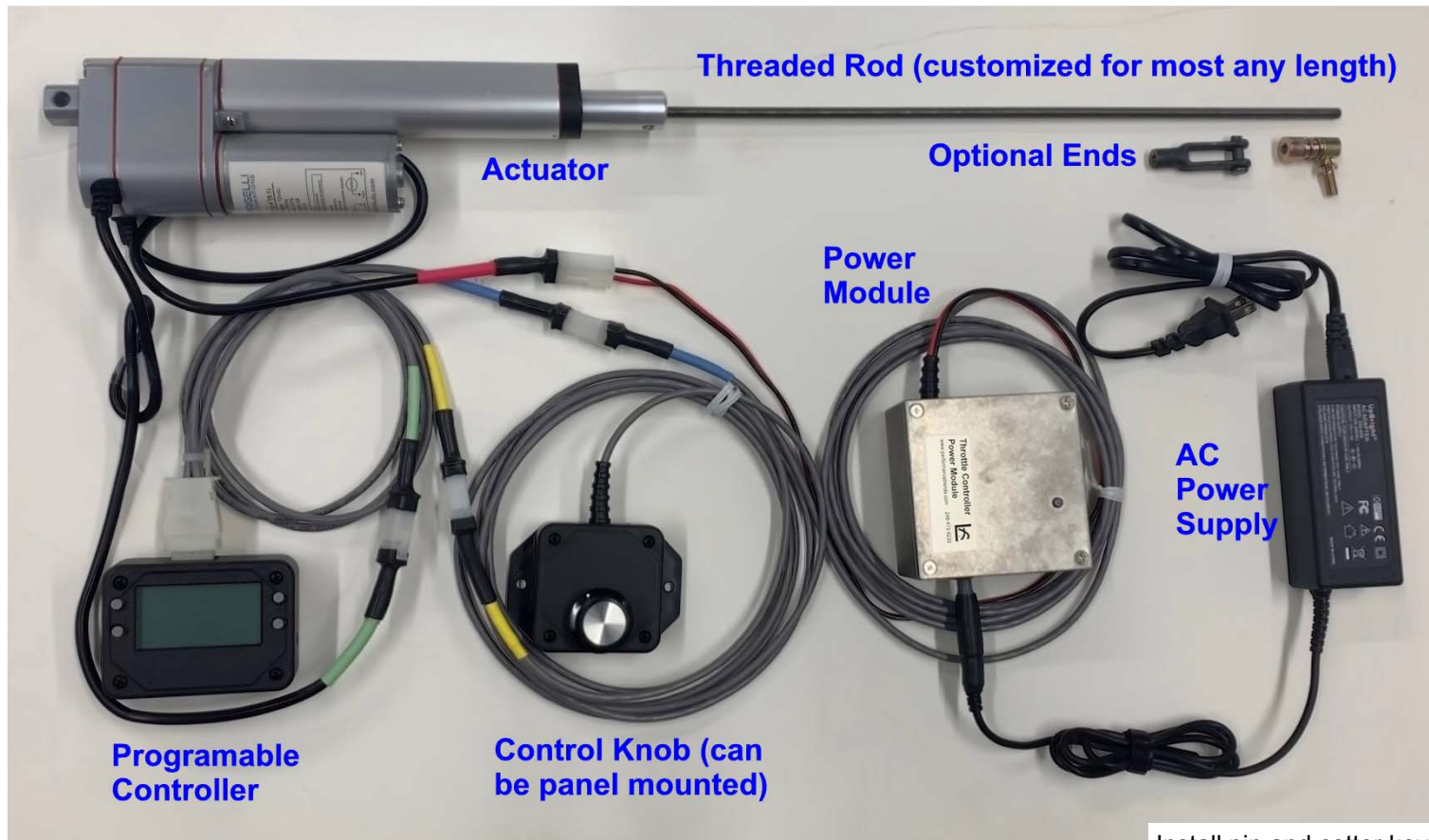
Setting Yes lets you view the control calculations on the LCD screen of the controller, and is recommended.

Choose which power module you are using, black or silver die cast. See pic below.

For almost ALL CASES, the throttle controller will be using the "Silver Die Cast" Power Box. It will also be labeled "Throttle Controller Power Module".

IMPORTANT: The throttle controller is designed to work without the USB cable connected to it. It will get's it's power from Silver Die Cast box marked "Throttle Controller". However, when you click on the "Tune" or "Set Limits" buttons, the USB cable must be connected.

To program with these buttons, connect the USB cable provided and set the correct "Com Port" using the "Find" button. This will be a different port than the port used by your DataMite logger.

Once you have reprogrammed the Throttle Control, we recommend you unplug the USB cable to the throttle controller and just use power from the Silver Die Cast box marked "Throttle Controller".

Throttle Controller Installation

Threaded Rod (customized for most any length)

Actuator

Optional Ends

Power Module

AC Power Supply

Programable Controller

Control Knob (can be panel mounted)

System comes with USB cable for programming the Programable Controller. It usually comes programmed with good defaults from the factory. During normal running, it is best to disconnect the USB cable from the controller. See Important note below.

You can remove the Control Knob Pot and mount in a panel if needed.

It is recommended you install a separate overspeed or ignition kill switch. DO NOT rely on this actuator to stop the engine because it relies on AC power for it to work.

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To program with these buttons, connect the USB cable provided and set the correct "Com Port" using the "Find" button. This will be a different port than the port used by your DataMite logger.

Once you have reprogrammed the Throttle Control, we recommend you unplug the USB cable to the throttle controller and just use power from the Silver Die Cast box marked "Throttle Controller".

Hardware for attaching threaded rod

There may be a set screw inside the threaded hole that takes a 1/8" allen wrench. Tighten this screw against the actuator stem to remove any clearance.

Install pin and cotter key on end of actuator shaft. Screw in 1/4-28 threaded rod with jamb nut. Screw in threaded rod until it bottoms out on actuator shaft to take up clearance in the pin. Then tighten up jamb nut to make a very secure attachment of threaded rod on actuator.
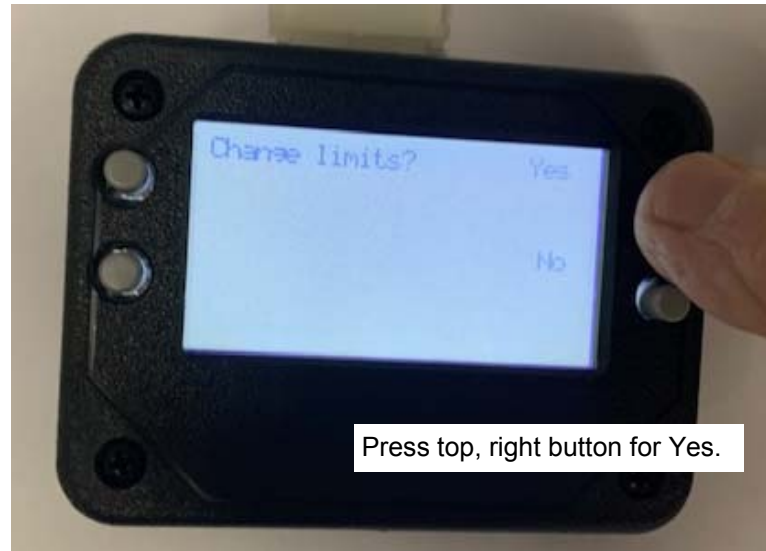
Attach other end of actuator with 1/4" bolt on a sturdy bracket you will provide.

Setting Throttle Limits without Computer

Note: All settings other than the maximum and minimum actuator movement must be set with the Dyno DataMite software in DataMite specs screen. Click on DataMite USB Options at top of the screen, then Auxiliary Controller.

Press and hold both left buttons for about 1 second to start process.

Typically the controller comes from the factory with these settings already loaded. Then you do not have to use the Dyno DataMite software for anything.
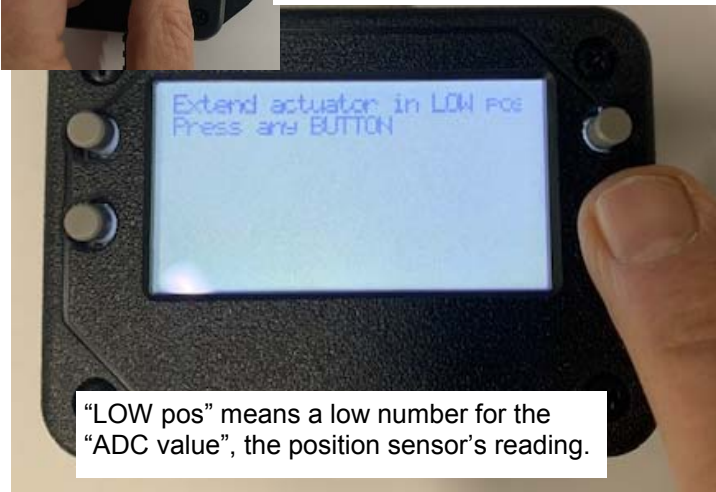
You can just manually set the extension limits using these buttons.


Press top, right button for Yes.

Adjust knob to extend actuator to the lowest position you want to use, like throttle fully closed or open, depending on your setup. Then press button to lock in this position.

"LOW pos" means a low number for the "ADC value", the position sensor's reading.

Adjust knob to retrace actuator to the highest position you want to use, like throttle fully closed or open, opposite of first setting. Then press button to lock in this position.
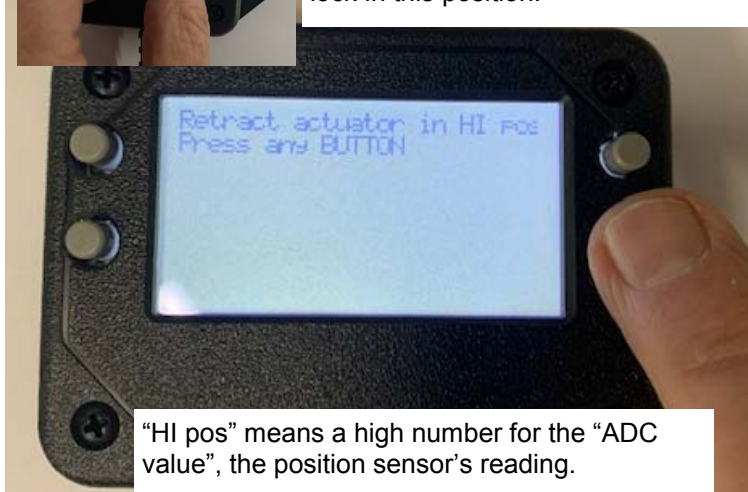
"HI pos" means a high number for the "ADC value", the position sensor's reading.

Screen will return to normal Control Screen.

Using Battery Power instead of Power Supply Power

The throttle controller typically comes with an AC power supply that outputs 12 VDC power. Occasionally, this combination may produce some slight delay in the actuation, and the LCD screen may dim during this delay. That typically indicates that control would be better if a battery power source was used instead of the AC to DC power supply.

Alternate power connector to replace AC to DC power supply.

Connect these 2 wires to your 12 volt battery, red to + 12 volts (17 volts max), and black to ground.

Standard power from AC to DC power supply. Lock hinged tab to lock connectors in place. Here lock is shown open. Unplug this connector and plug in battery power connector to switch to battery power supply.