

POWERDYNE[®] CONTROLS INSTALLATION

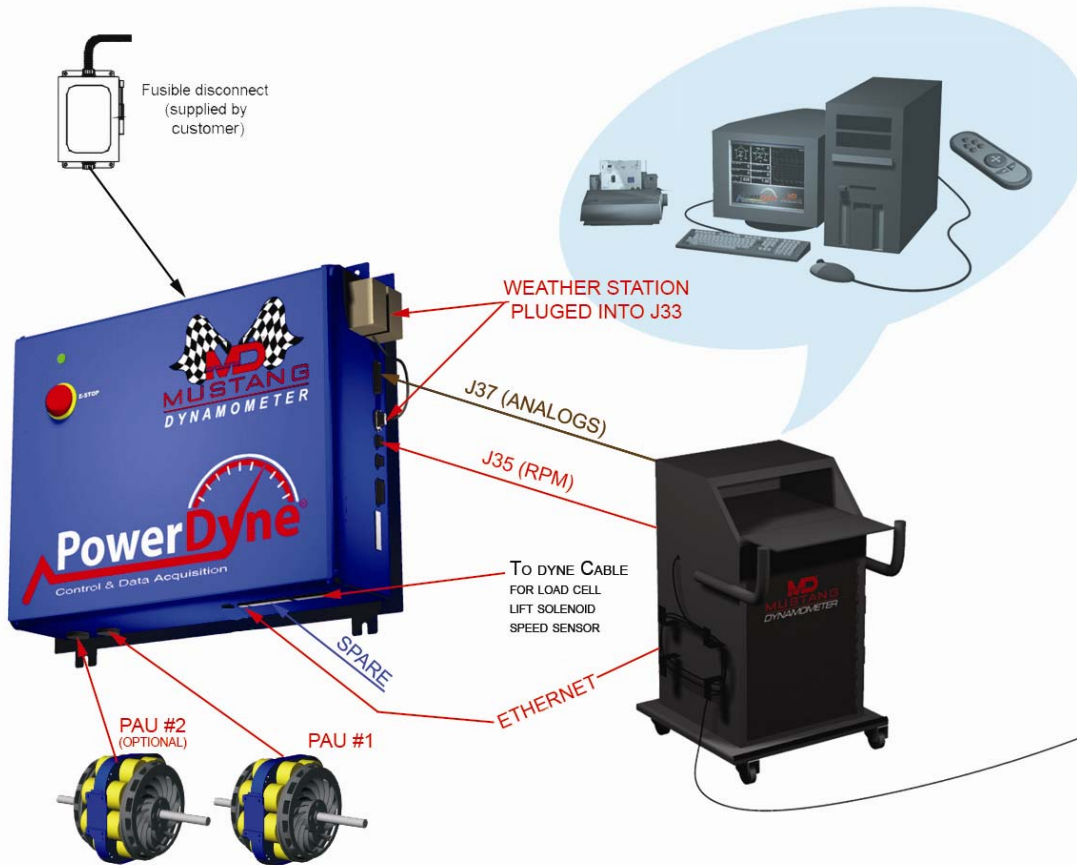


Fig. 4.7.1

This section will be complete step-by-step procedure for installing the control systems for your new dynamometer. This section will only describe the physical or mechanical installation, for software instructions please refer to the PowerDyne[®] PC manual located on the back-up CD.

Things you will need:

- ✓ First you will need to have a fusible disconnect (this is not supplied by Mustang Dynamometer.) This disconnect must be able to supply 230VAC, single phase, 40 Amps. 60Hz to the PowerDyne[®] control box.
- ✓ Cable from the fusible disconnect to the PowerDyne[®] control box. (This is not supplied by Mustang Dynamometer.)
- ✓ Hardware for mounting the PowerDyne[®] control box.
- ✓ Standard set of hand tools
- ✓ Verify the distance between where you dynamometer is installed to where the control box is installed (there is a 30 foot cable that has to be routed between the control box and the dynamometer). The cables are shown in fig. 4.7.2 on page 3

With the above steps completed, and the PowerDyne[®] box mounted. Route the cable from the fusible disconnect to the top of the PowerDyne[®] control box and connect as shown in fig 4.7.1. Do not power-up the control box at this time.



Take the “dummy” load cell out by removing the large bolts from the upper and lower load cell brackets. Attach the load cell on the lower bracket first. Upon completion, attach the load cell to the upper bracket. Tighten both bolts to 50 ft.-lbs. Torque the eyelet bolt jam nuts to 200 in.-lbs. DO NOT OVER TIGHTEN! NOTE: Position the load cell so the wire is on the side opposite the Power Absorbing Unit.

Now connect the dyne harness cable to the bottom of the PowerDyne® control box labeled “TO DYNE” using a small screwdriver connect the square 3-prong connector to the air lift solenoid attached to the bottom of the control box, route the remaining connectors to the dyne and attach the 3-pin female connector to the speed magnetic pickup. Then attach the 4-pin female connector to the load cell.

Route the PAU cable from the dyne to the bottom of the PowerDyne® control box, labeled PAU.

Install main air supply line to the lift solenoid located on the bottom of the control box. This air supply must have an in line air dryer and must be regulated between 80-120 psi.

Push the plastic air line into the output of the lift solenoid then route the airline to the dynamometer, and connect to the “Y” connector located near the center of the dynamometer. This will conclude the attachments that need to go from the control box to the dyne. The remaining cables go from the control box to the roll-around cart.

Now for the roll-around cart set-up, first unpack the computer from its box, and place it on the bottom shelf of the roll-around cart. Plug the 3-prong female power cord into the back of the PC and route the other end to the power strip located on the second shelf of the cart. Unpack the monitor and attach the base to the monitor, this should snap into place. On top of the roll-around cart there are 4 Phillips head screws, these are for the monitor clamp; loosen the screws and slide to the outside of the cart. Position the monitor in the center and slide the clamp over the base and tighten the 4 screws. Connect the monitor cable to the back of the monitor and route to computer and plug into the proper spot on the pc. Connect the power cord to the back of the monitor and to the power strip located on the second shelf. Unpack the keyboard and mouse and follow instructions provided in box. Connect the analog cable from “J37” on the side of the control box to the back of the roll-around cart. Now connect the RPM cable from “J35” on the control box to the back of the cart. The blue Ethernet cable goes from the port labeled “ETHERNET” on the bottom of the control box to the back of the pc (looks like a phone jack only wider).



Fig 4.7.2