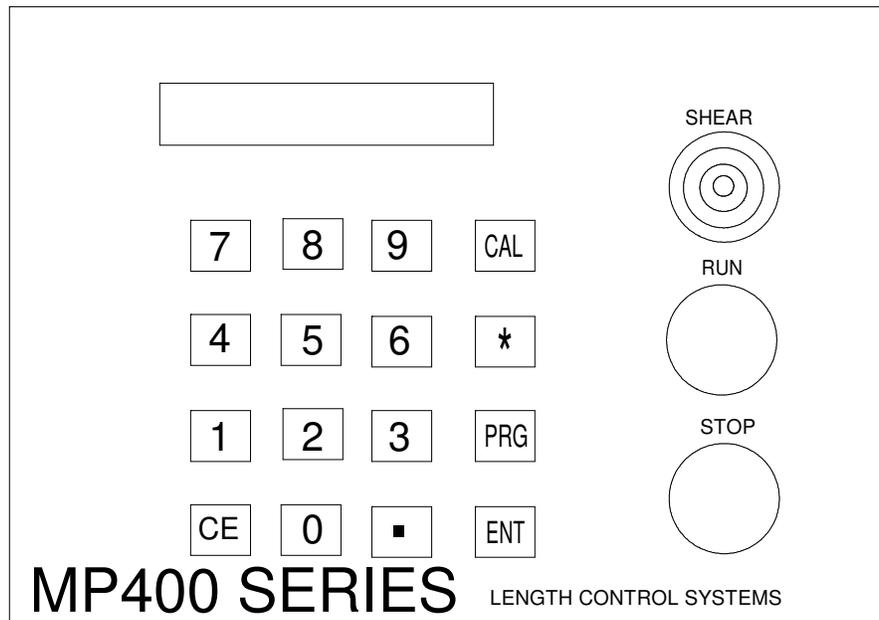


# AMS Controls Model MP450Z



## Push button and Front Panel Selector Switches

### SHEAR

The SHEAR button is an illuminated switch and the light will come on when the material is at the correct position and ready to be sheared. Pressing the SHEAR button at this point will cut the part and place the line back into FORWARD, running the next part length.

### Run

Press the RUN button when first starting a JOB or to continue a JOB if the STOP button has been pressed.

### Stop

The STOP button will halt the line

## **OFF / ON (Located on the Bottom of the Unit)**

This switch will turn the controller on and off.

## **Toggle Switch (Located Inside the Controller on the Back of the Circuit Board)**

This toggle switch allows the operator to choose between viewing the part length in either feet and inches or metric millimeters.

### **Note:**

**There is 115 V on the inside of the controller box. Do not open the controller box unless the power is disconnected from the controller. Just turning the ON / OFF switch to the OFF position will not remove the 115 V from the inside of the controller.**

## **Keypad**

Press the CAL (Calibration) key to configure the MP450Z Length Controller to your machine. The calibration procedure will ensure accurate length parts. The CAL key will also display the footage totalizer if it is pressed again (the display will read "TOTAL RUN").

To reset the totalizer to zero, press the CE key when the footage is displayed, and then enter 1984 (1,9,8,4, and then ENT) in response to the prompt "ENTER CODE TO CLEAR TOTAL".

Press the PRG key to program a job in response to the flashing prompts for the Job Number, Quantity, and Length. (Refer to the Programming Instructions section for further details).

Press the ENT key to enter or store the values programmed for the Job Number, Quantity, and Length.

Press the CE (Clear Entry) key to clear or erase an entry.

Press the (\*) "asterisk" key when you have completed programming the desired quantities and lengths and want to exit the program mode.

# Calibration Parameters

## Procedure

When the MP450Z is installed, the following calibration parameters must be programmed to configure the controller for your machine.

Press the CAL key to display the Calibration Parameters. Press the ENT key to store the programmed value or to step through these parameters. Press the PRG or (\*) key to exit the calibration.

## Part Length

Enter a part length (the longer the better), in response to the prompt "ENTER LENGTH FOR CAL". **The maximum length that can be programmed is 40 feet.**

## Shear

After the calibration length has been entered, the MP450Z will display "LOAD COIL, CYCLE SHEAR". Load a coil using the customer provided JOG switch and with the material slightly past the shear, press the SHEAR button. The SHEAR button at this time will only clear the encoder count and will not manually cycle the shear. If the customer does not have a manual shear installed on the machine, the calibration piece that is created will have to be trimmed on another line.

## Start the Line

The MP450Z will display "PRESS RUN, LINE WILL START". Press the RUN button and the machine will now start, produce one part of the calibration length, turn the FORWARD output off, and turn on the SHEAR LIGHT. The shear will now fire when the SHEAR LIGHT is pressed.

## **Measure the Part**

Press the STOP button, carefully measure the part produced, and enter the measured part length in response to the prompt, "ACTUAL MEASURED LENGTH". The MP450Z is now calibrated. Calibration should typically be required only once at the beginning of the day.

### **Note:**

**If the controller reads "ERROR: CAL AGAIN" when trying to calibrate the controller, you must clear the memory of the controller before you can re-calibrate it.**

## **Clearing Controller Memory**

To reset the memory on the controller, turn the device off and press the "5" key while turning the controller on. Sometimes severe thunderstorms or power surges will cause the MP450Z's memory to be lost or altered, resulting in erratic controller operation. If this is suspected, erase the memory and then re-calibrate the controller.

### **Caution:**

**Clearing the controller memory will clear out all jobs that are programmed into your controller. Ensure that this data is recorded elsewhere prior to clearing memory.**

## **Loading A Coil**

After the MP450Z has been calibrated, additional coils can be loaded using the following procedure:

### **Procedure**

#### **Jog**

Use the customer supplied JOG switch to load the coil into the machine and move the material slightly past the cutoff.

## Shear

Push the SHEAR button to set the MP450Z length counter to zero. If a customer supplied manual shear is installed, trim the part. If a manual shear is not installed the first piece must be trimmed by another method. The machine is now ready to produce parts.

## Job Programming

### Procedure

Up to 50 different quantities and lengths can be programmed into the MP450Z using the following procedure: first press the PRG key. The MP450Z will display flashing prompts for “#” (Job Number), “QTY” (Quantity), and “LENGTH”.

### Job Number

Enter a JOB NUMBER from 1 through 50.

### Quantity

Enter a QUANTITY up to 999.

### Length

Enter a LENGTH up to 999 feet and 11.999 inches.

### Pause After Job

The MP450Z will then flash the message “PAUSE AFTER JOB #xx” (where xx is the Job Number just programmed), followed by YES or NO. Pressing any number key will change the response between YES and NO. Enter NO if you want the machine to change lengths “on-the-fly” and run the following job without stopping.

Enter YES if you want the machine to halt automatically after the job number entered. To restart the machine after an automatic halt, press the RUN button.

#### **Note:**

**To increase productivity, additional jobs can be programmed “on-the-fly” while the machine is running previously programmed jobs.**

## Starting the Machine

To start the machine after a job has been programmed, press the RUN button. The machine can be halted at any time by pressing the STOP button. The machine will also halt automatically when all programmed jobs are completed.

**Note: If the encoder is counting in the negative direction, use the other plug on the two plug connection located on the back of the board on the inside of the controller. Be sure to pay attention to the wire colors so the plug is not connected upside down.**