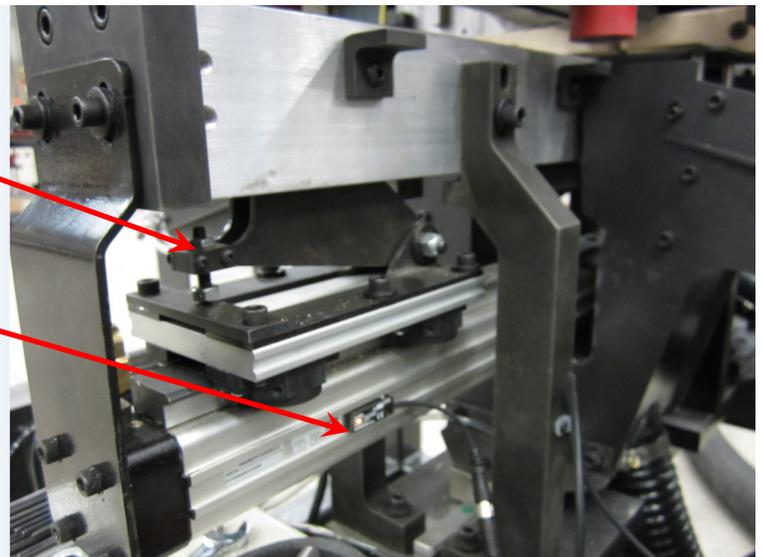
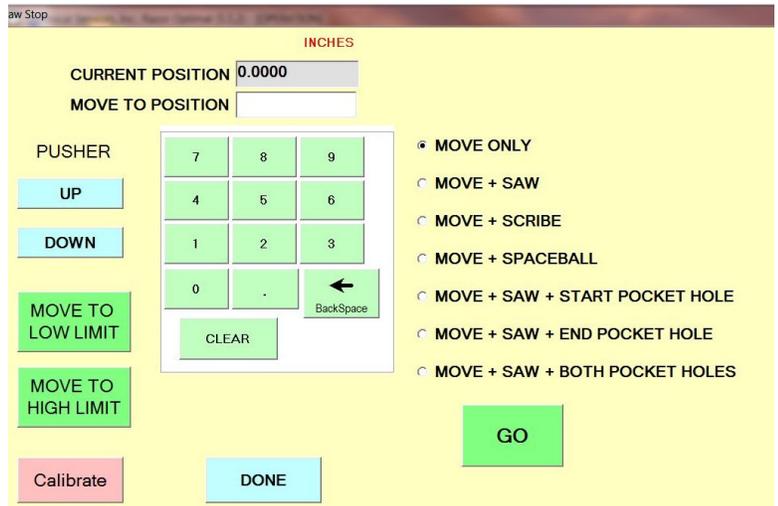


Make sure main air pressure is set to 85-95 psi. Tighten all cables going to the MDrive, especially the I/O Cable. The I/O cable is the largest of the three MDrive cables and you MUST simultaneously wiggle it and tighten it until it is all the way tight. If this cable is even slightly loose it will cause intermittent problems.

Sribing or Pocket Drill Issues

Pull the front panel off and make sure the scribe mechanism and drill slides are not obstructed with sawdust or wood pieces.

Go to SAW STOP MODE from the MAIN SCREEN and move the pusher out to 100 inches just to get it out of the way. Now place a 24" board under the top clamp and against the fence so that we can do some operations without driving the drills into the top clamp. For scribing problems, enter a value equal to the current position (100" in this case), select MOVE & SCRIBE, then press GO. The pusher won't move because it's already at 100" but the operation selected will be performed so you can watch what's going on. If the scribe moves but doesn't make a mark then adjust the scribe wheel up until a mark is made. If you're getting an error regarding the scribe in position switches, check the prox switches when the scribe head is at each end of its stroke. The LED on the switch should be on when the scribe head is at that end of the stroke. If the LED is on then go behind the machine, open the tower door, and check the LED associated with PLC inputs X22 & X-23. One of these should always be on since the scribe should always be at one end or the other. See page 3 for picture of PLC.

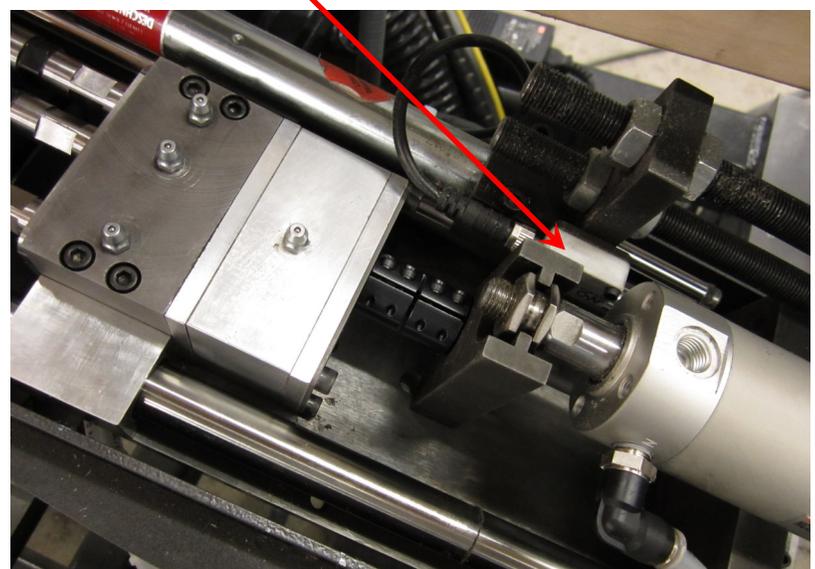
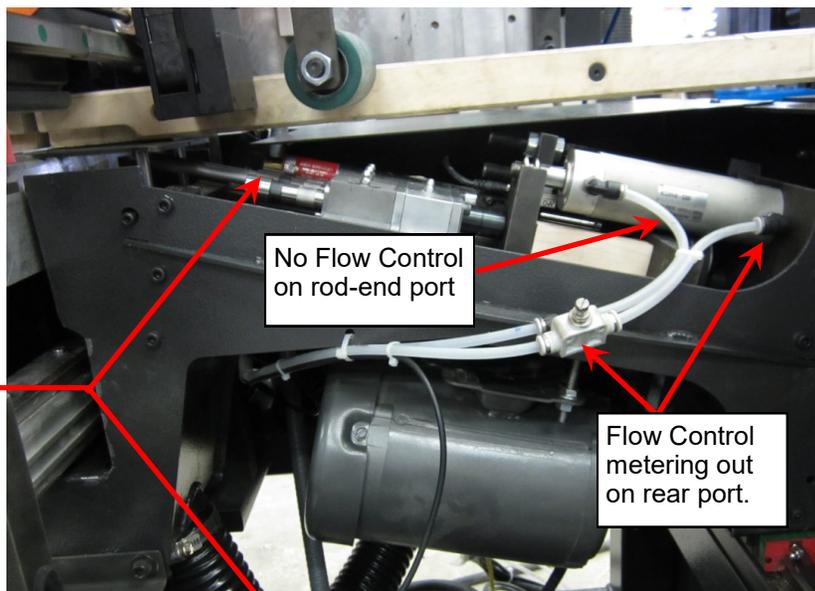


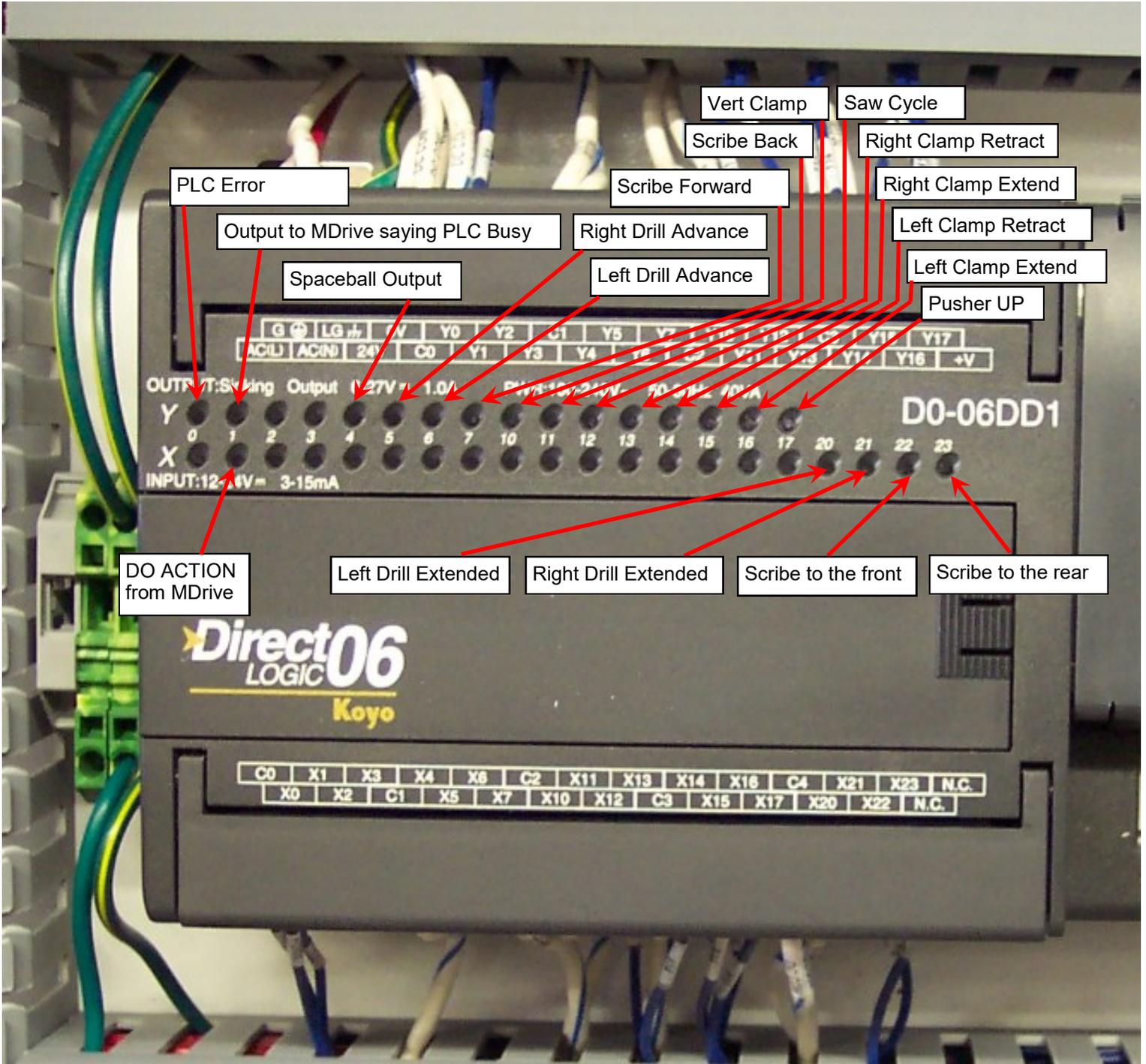
One of these should always be on since the scribe should always be at one end or the other. See page 3 for picture of PLC.

To check the drills, select MOVE & DRILL, enter a number equal to the current position, and press GO.

The carriage will not move but the drills will cycle. Make sure you have a board under the top clamp so the drills don't drill into it. With the front cover off you can watch the feed rate of the drills. If it's too fast or slow, adjust the Kinechek feed regulator. Make sure that the air line exiting from the rod end of the drill feed cylinder DOES NOT have a flow control. If you're getting a timeout error because the drills are not making it to the top of the stroke, the problem may be that the drill slide upper prox switch is not being made. When the drills are at the top of stroke, check to see that the LED on the prox is lit.

If the prox is lit but you still get the error, go back behind the machine, open the tower enclosure door, and check the LED associated with input X-20 for the left drill, X-21 for the right drill. When the prox is made, the LED should be on. See page 3 for picture of PLC. If the machine has been sitting idle for a while, the slides may be stuck. If this is the case, kill the power and disconnect the air and pry the slide loose from its lower position. Once you have freed the slide then the air cylinder will be able to operate it during normal operation.





PLC Error

Output to MDrive saying PLC Busy

Spaceball Output

Right Drill Advance

Left Drill Advance

Scribe Forward

Scribe Back

Vert Clamp

Saw Cycle

Right Clamp Retract

Right Clamp Extend

Left Clamp Retract

Left Clamp Extend

Pusher UP

DO ACTION from MDrive

Left Drill Extended

Right Drill Extended

Scribe to the front

Scribe to the rear

Direct06
LOGIC
Koyo

DO-06DD1

GND	LG	V	Y0	Y2	C1	Y5	Y7	Y9	Y11	Y13	Y15	Y17	
AC1L	AC1N	24V	C0	Y1	Y3	Y4	Y6	Y8	Y10	Y12	Y14	Y16	+V

OUTPUT: Sinking Output	24V	1.0A	PLV: 100-240V	50-500Hz	10VA																	
Y	0	1	2	3	4	5	6	7	10	11	12	13	14	15	16	17	20	21	22	23		
X																						
INPUT: 12-24V	3-15mA																					

C0	X1	X3	X4	X8	C2	X11	X13	X14	X16	C4	X21	X23	N.C.
X0	X2	C1	X5	X7	X10	X12	C3	X15	X17	X20	X22	N.C.	

If one pocket drill doesn't extend when it is supposed to, first watch the valve bank on the back of the machine to see if the indicator light for the malfunctioning drill is being lit. If it is being lit when the drill is supposed to be cycling, that means that the controller is sending the signal and that the valve is getting the signal. Either the valve is stuck (unlikely) or that the bushings on the pocket drill slide have seized up. This can happen if the machine sits idle for a while. Just use a pry bar to pop the slide loose and re-start the machine. See pictures on the next page.



