

PM1340GT VFD Control Basic Single Relay Wiring Diagram for Hitachi WJ200

Note: VFD P24 Max. current is 100mA, the relay and LED PWR light is ~90mA.

Incandescent bulbs draw too much power.

Relay: 784-4C-24D (4 pole, 24 VDC)

Relay Socket: 784-4C-SKT-1

PWR light LED 24 VDC or use a lighted JOG Switch GCX1202-24L Green pushbutton, 22mm metal, momentary SW with guard

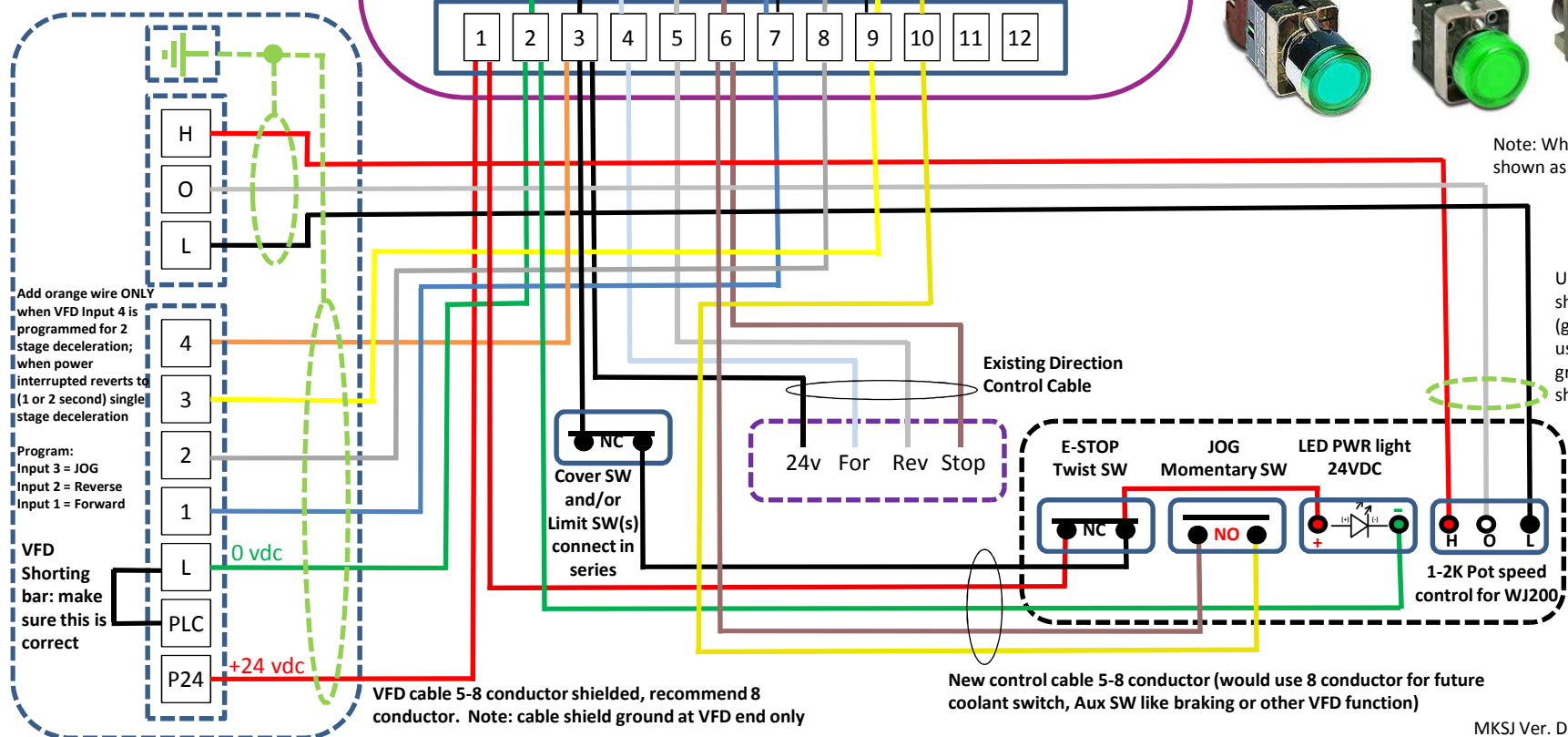
Or LED pilot light indicator: GCX1232-24L

I use a 5KΩ Speed pot: ECX2300-5K



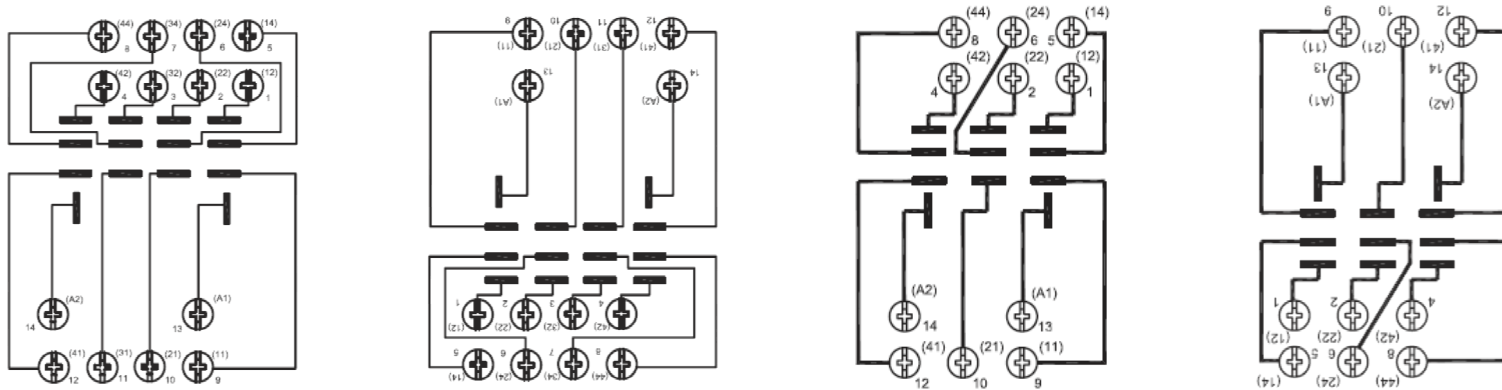
Note: White wire shown as grey

Use 4 conductor shielded cable (green wire is not used). Do not ground cable shield on this end



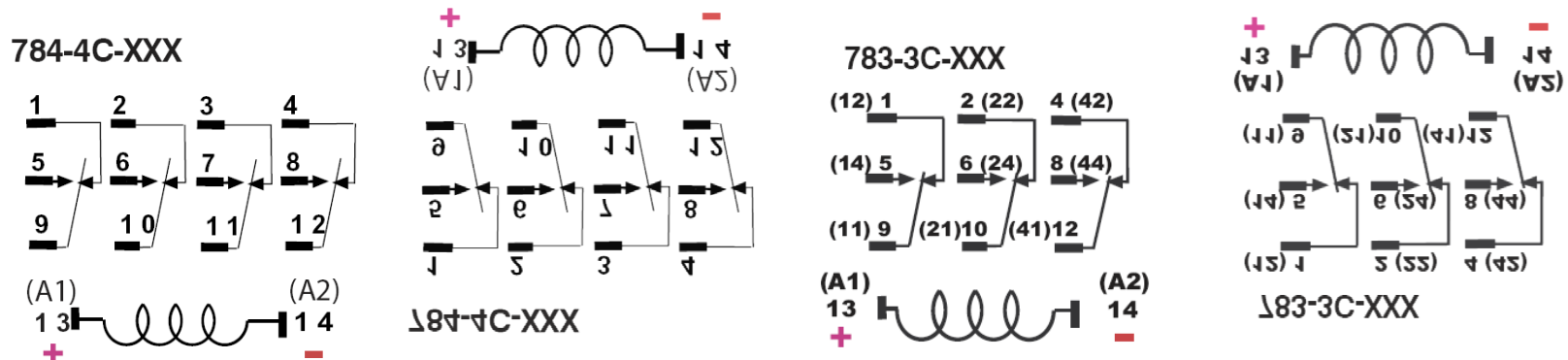
New control cable 5-8 conductor (would use 8 conductor for future coolant switch, Aux SW like braking or other VFD function)

Relay base/sockets views looking down



Note that relay connections in sockets is different then the relay, connect via the labeled numbers on the socket screw terminals. Note proper polarity and orientation of diodes and LEDs, the banded side is the (-) cathode

Relay socket connections; Relay base connections are different (see terminals corresponding numbers above)



AUTOMATION DIRECT

E-Stop control panel #1

GCX1131 Pushbutton, 22mm metal, latch with twist-to-release, 40mm mushroom operator, 1 N.C. contact block. **\$12.50**

Jog Button Green with clear guard guarded shield around the button, with separate green LED light used to indicate power

GCX1202-24L Pushbutton, 22mm metal, momentary, LED illuminated, green, 24 VAC/DC, flush operator with colored plastic ring, 1 N.O. contact block. F/R requires additional NC switch blocks. **\$19.50**

Speed potentiometer

ECX2300-5K 22mm potentiometer with 5 Kohm resistance, black handle. Legend plate ECX2640 sold separately **\$36.50**. I have plenty of spare small 5K pots if you want instead.

ECX2640 22mm legend plate for potentiometer with 0% to 100% marking **\$3.50**

Alternate is 1K or 2K 2-4W potentiometer with knob (eBay, Mouser Electronics, etc.), ~\$5-10

Additional Switch blocks if needed.

ECX1040-5 CONTACT BLOCK 22mm 5/PK N.O. GREEN FOR GCX SERIES ONLY **\$15**

ECX1030-5 CONTACT BLOCK 22mm 5/PK N.C. RED FOR GCX SERIES ONLY **\$15**

Relays and socket mount #1:

783-4C-24D Ice cube control relay, 24 VDC coil voltage, 4PDT, 15A contact rating, with LED indicator and push-to-test button. Purchase 783-3C-SKT mounting socket separately. **\$8.25**

783-4C-SKT RELAY SOCKET FOR 783 SERIES **\$4.50**

Misc: Control cable 22G 4 wire (multi wire flexible, depends on the number of controls; 3 wire for pot, 4-7 wire between control box and VFD for commands) shielded cable to connect the speed pot (use 3 wires) to the VFD, and control box and VFD. Control Cable Minimum of 6 wire 22G cable to control pendant. 14G 4 conductor (3 wire + ground) between VFD and motor, preferably shielded, but regular 4 conductor will work. Should be 600V rating.

SEOOW or SOOW Flexible portable cord, Type SEOOW, 3 or 4 conductors, 12AWG (2HP 240 VAC) up to 25', 600V maximum, -50 to 105 degrees C, fully annealed stranded copper conductors, rated for outdoor use, oil-resistant and water-immersible, 20 foot coil **\$22.50**

You will need assorted connectors and spades