

Expanded I/O Cable for G4 Inverter Drive w/PWB

This is the most basic expanded I/O solution for G4 CNC machines with printed wiring board (PWB) in the spindle drive cabinet. PN 995-07-424.

This cable provides the following additional M-functions for your OmniTurn:

Outputs:

M17/M18, M21/M22, M23/M24, M27/M28 (set/reset)

Suitable for 12VDC relays; sink 100ma.

Inputs:

M91/M92, M93/M94 (open/short), M95

M91: Wait for HDR111-1 & -2 to be "off"

M92: Wait for HDR111-1 & -2 to be "on"

M93: Wait for HDR110-1 & -2 to be "off"

M94: Wait for HDR110-1 & -2 to be "on"

These M-codes stop the program until an input is "on" or "off". This is useful for coordinating activity for an auto-loader. The OmniTurn 'waits' (the program stops, like M00 or M01) until the input is in the correct state.

Relay closure to 0VDC (COM) sets the input "on".

The input is "off" when the relay is open.

M95:

Conditional jump to subroutine

M95: will cause the program to jump to subroutine 1 if

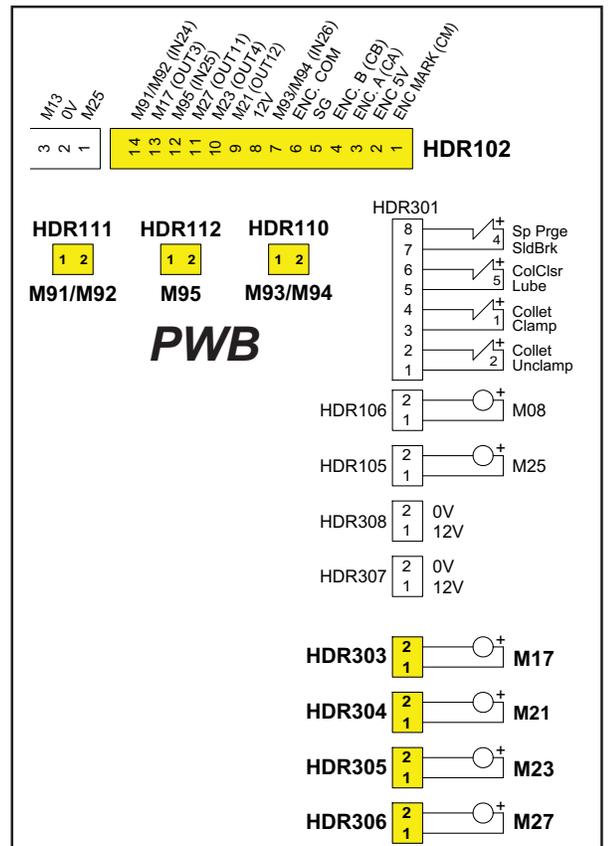
HDR112-1 & -2 are shorted together. The condition must exist before the command is executed. Use dwell (G04) if necessary to insure that the state of the input is stable before the program executes the M95 command.

At right is an excerpt of the PWB showing the seven 2-station headers where the I/O is accessible.

Three IDC connectors are included, for wiring to the inputs at HDR's 110 - 112 (M91, M93, M95).

Pre-wired relays are available: PN 994-39-001. These will connect to HDR's 303 - 306 (M17, M21, M23, M25).

If more than one relay is needed, DIN rail is recommended: PN 994-13-001.

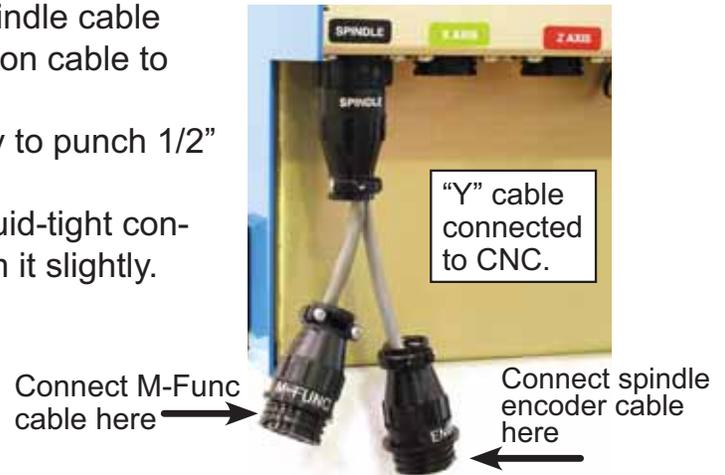


To install Y-Cable and M-Function Cable

The M-Function cable routes from Y-Cable on CNC to HDR102 on printed wiring board (PWB) in spindle electronics cabinet. Temporarily disconnect Spindle cable from back of CNC. Connect Y-cable to Spindle connection. Reconnect Spindle cable to Spindle connector on Y-cable. Connect M-Function cable to M-Func connector on "Y" cable.

At spindle electronics cabinet, it may be necessary to punch 1/2" knock-out in cabinet at location shown below.

Red connector *will* pass through the nut for the liquid-tight connector, you may have to squeeze the nut to deform it slightly.



Latest spindle-drive cabinets have pre-punched hole at this location; if there is no hole, punch 1/2" knock-out (7/8" diameter) to provide access.

