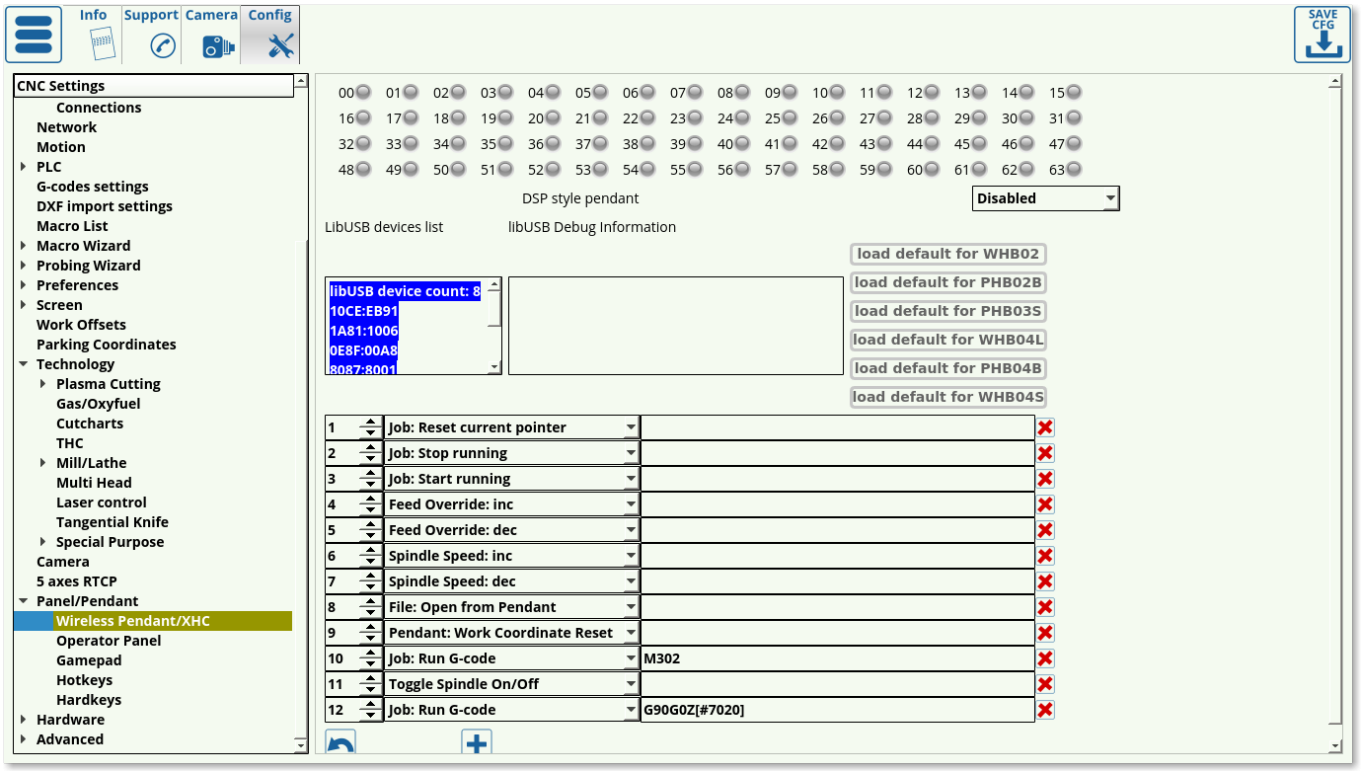
Wireless Pendants

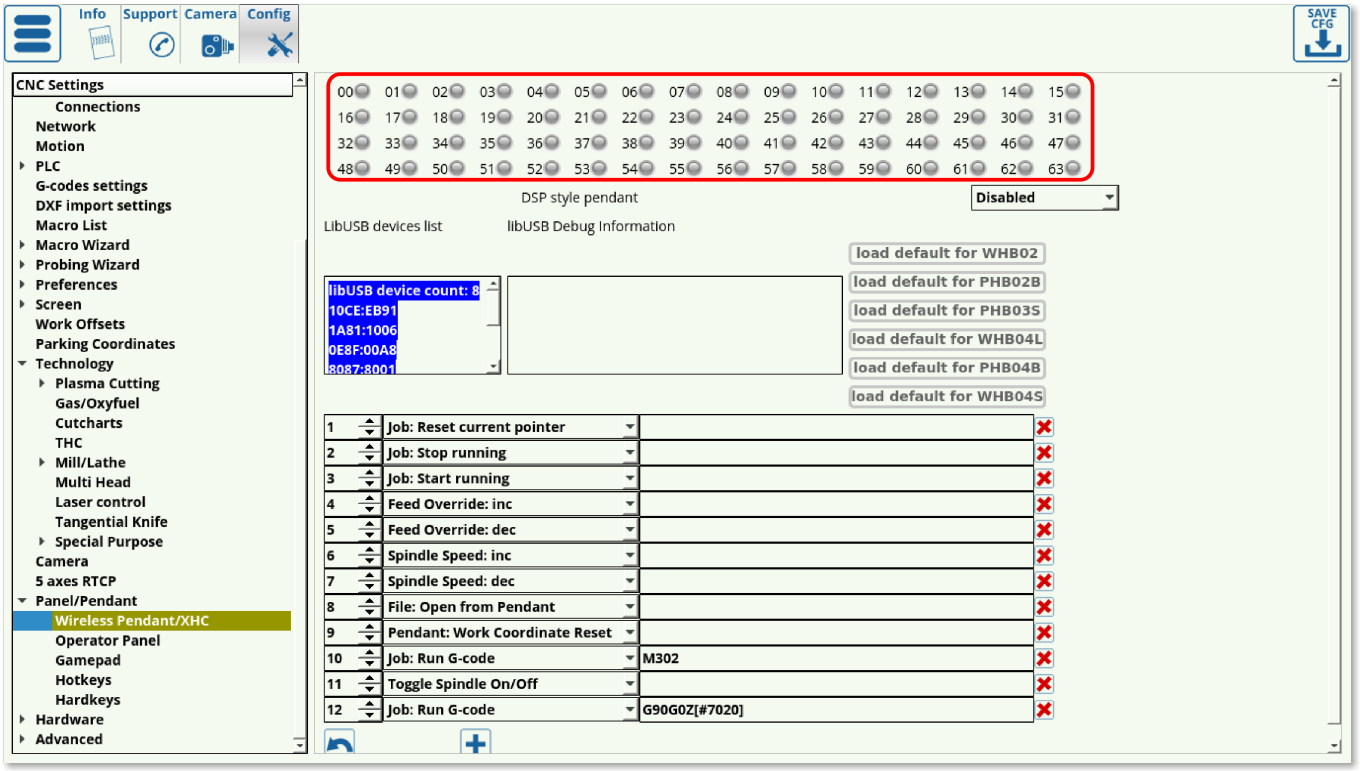
Wireless pendants are currently sold in three configurations in the myCNC Shop.

Setting up the wireless pendant

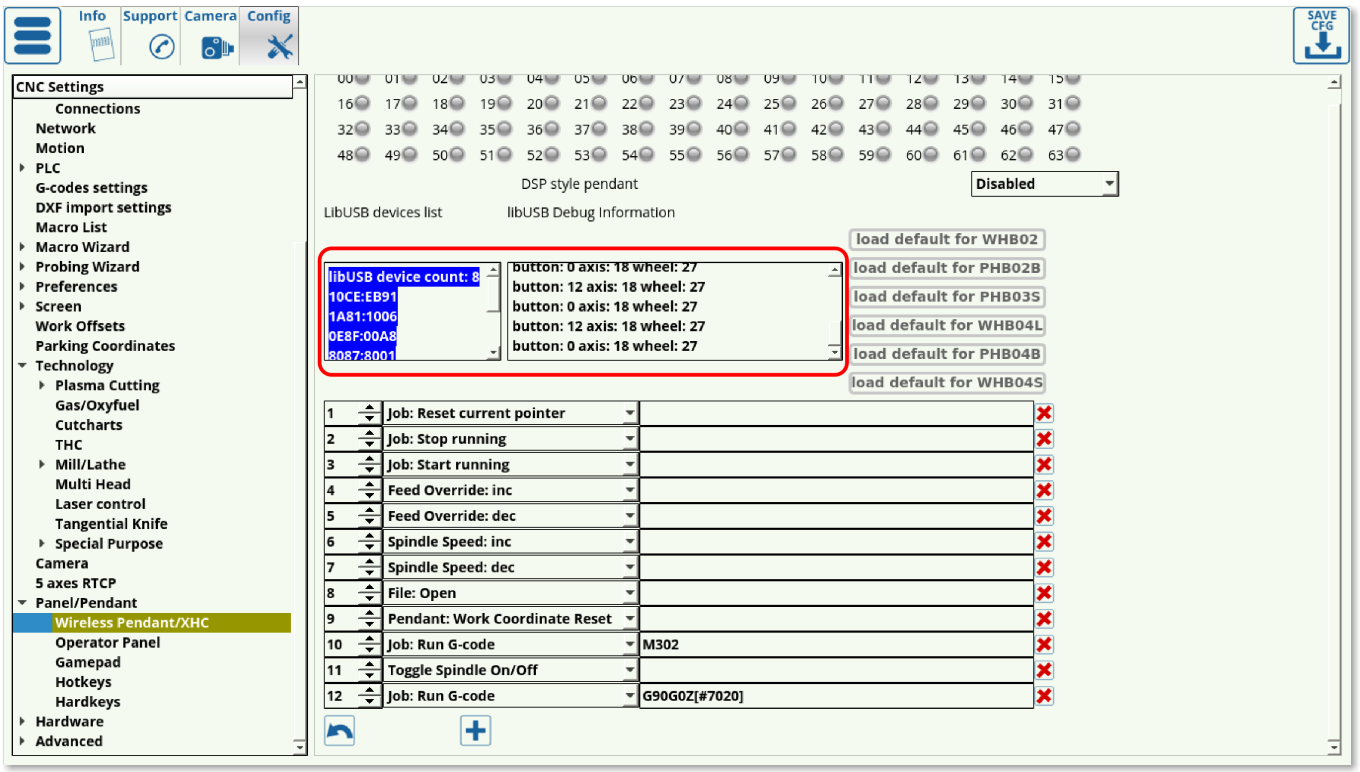
Upon opening Settings > Config > Panel/Pendant > Wireless Pendant/XHC, the user is presented with the following screen:



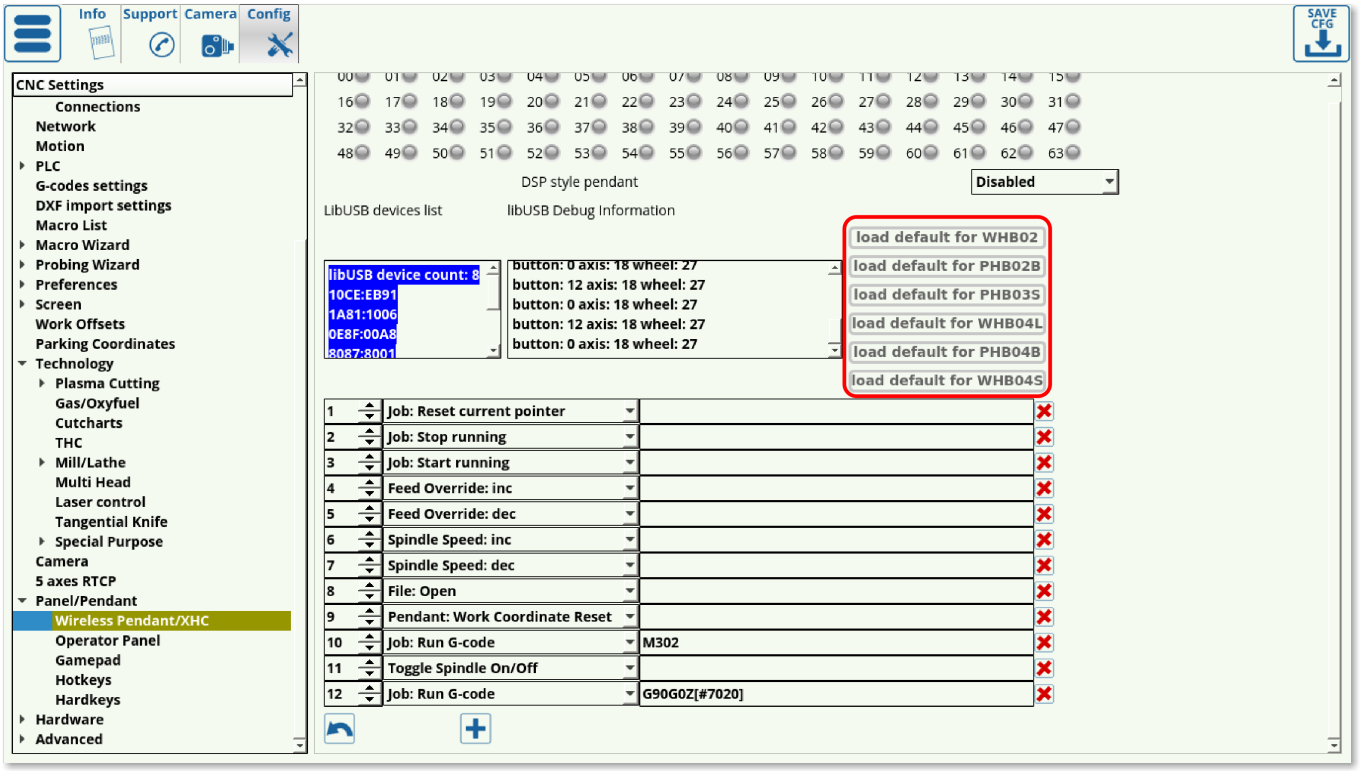
- The indicators at the top of the page serve to visually point out the pendant button which is being pressed. There indicators will light up green when the corresponding button is pressed:



- DSP style pendant should be disabled if the controller is used with a screen. This setting, when set to PHB-04B disables a number of on-screen buttons as well as blocks a few of the pendant commands. It is recommended to keep this setting disabled unless strictly necessary, as it is designed for a purely pendant-oriented interface.
- The Device List lists the available devices, while the libUSB Debug information lists the messages that the pendant sends to the computer:



- It is possible to load the default button configurations from some of the popular wireless pendants available, as listed on the right side of the screen:



Assignable actions

If the pendant used is not listed in the defaults list, or the user wants to re-assign some of the button actions, the following options are available:

Option	Description
CNC Action	This brings up a preset action (listed in MyCNC Actions list). These are preset actions, and the majority of items further on the list can be done simply by inputting the relevant text into the CNC Action field. Whether to use CNC Actions or to simply choose one of the items below is left to the user.
CNC Variable: Switch	This switches some global variable between set values. Example of syntax: 1000/33;22;11 where 1000 is the variable, and 33, 22, and 11 are the values the variable will switch between upon each button press or input
CNC Variable: Toggle	This toggles the specified variable On and Off. Example of syntax: 1001
CNC Variable: Clear	Clears a global variable
CNC Variable: Set	Command to set the variable
CNC Variable: Assign	Writes the variable from the Global Variables list. Example of syntax: /1001
File: Open	Open a file from the host computer (brings up the dialog window)
File: Open DXF/HPGL	Open a DXF/HPGL file from the folders specified in Preferences > Common
File: Refresh	Refresh the program file
Hardware: Direct Binary Set	Directly sets a binary to be ON
Hardware: Direct Binary Clear	Sets a binary to be OFF. For example, upon inputting 15 into the field, the 15th binary will be flipped ON

Option	Description
Hardware: Direct DAC Set	Sets the DAC. For example, input 0/160. Here, 0 is the channel number (always 0 for DAC), while 160 is the value in units. NOTE: The value displayed in the diagnostics panel in myCNC software displays the DAC value in volts, not units. Conversion is necessary based on the voltage of the power source used.
Hardware: Direct PWM Set	Sets the Pulse Width Modulation. For example, 1/1600. Here, the 1 is the channel number for PWM, and 1600 is the value PWM is set to
Hide: Custom Widget by name	Hide the custom widget
Job: Play 1 line	Run through a single command line (next line)
Job: Play 1 line backwards	Run through a single command line (previous line)
Job: Back to path	Return back to the cutting path
Job: Skip forward	Move forward in the command program
Job: Skip backward	Move backward in the command program
Job: Skip forward 10	Skip 10 lines forward
Job: Skip backward 10	Skip 10 lines backward
Jog: X-	Jog in the negative x-axis direction
Jog: X+	Jog in the positive x-axis direction
Jog: Stop X	Stop the jog in the X-direction
Jog: X- Y-	Jog in the negative x, negative y direction
Jog: X- Y+	Jog in the negative x, positive y direction
Jog: X+ Y-	Jog in the positive x, negative y direction
Jog: X+ Y+	Jog in the positive x, positive y direction
Jog: All stop	Stop jog for all axes
Jog: Shift Set	Jog: Shift and Jog: Ctrl both refer to the settings window in Panel/Pendant > Hotkeys. The shift set indicates that the Shift button has been pressed, which will control the Jog Overspeed
Jog: Shift Clear	Indicates that the shift button has been released
Jog: Shift Toggle	Toggles the shift button on and off
Jog: Ctrl Set	Indicates that the control button has been pressed
Jog: Ctrl Clear	Indicates that the control button has been released
Jog: Ctrl Toggle	Toggles the control button
Jog Override: inc	Increase the jog override
Jog Override: dec	Decrease the jog override
Key press	Simulates a key press to be sent to the host computer
Key release	Simulates a key release
(Dlg)Key Press	Simulates a dialog key press, such as Shift, Enter, Delete, 0-9, etc
Move to toolpath	Move back to the toolpath
Parking position: Save	Save the current position as the parking position
Parking position: Move to	Move to the parking position
Pendant: Axis (*)	Switches through all the available axis values on repeat (continuously looping through the values as the button is pressed)
Pendant: Mul (*)	Switches through all available step size values on repeat (continuously looping through the available step size values)
Pendant: Wheel CW	Record the input as wheel moving clockwise
Pendant: Wheel CCW	Record the input as wheel moving counter-clockwise

Option	Description
Pendant: Mul increment	Designed for pendants which lack a dedicated step size switch. This will increase the step size.
Pendant: Mul decrement	Designed for pendants which lack a dedicated step size switch. This will decrease the step size.
Pendant: Axis change +	Changes the axis to the next axis available
Pendant: Axis change -	Changes the axis to the previous axis available
Pendant0: x0.001-1	Sets the increment for the machine movements which is controlled by the software pendant (older versions of the software have a pendant widget which can be used as a substitute for a pendant control)
Pendant0: Axis off	This turns off the selected axis in the software pendant widget (older version of the software)
Pendant0: Axis X-C	Sets the axis that the software widget pendant will be sending commands to
Pendant: Work coordinate Half	Takes the pendant work coordinate (in the axis specified on the pendant) and halves it
Pendant: Work coordinate Reset	Resets the work coordinate specified in the pendant axis
PLC: Run procedure	Run a PLC procedure (if multiple controllers are present, this defaults to the master controller)
PLC: Run external unit procedure	Run a PLC procedure on a slave controller. The syntax for the command will be as follows: controller number / command / variable (for example, 0x01/M74/#7009)
Run Numpad	This brings up a numpad for a specific variable/item into which the user can then type in a value. The user can set this to bring up the numpad for any device variable/gvariables/screen items. Example of syntax: cnc-gvariable-5522 - this will bring a numpad typing into which will change the value for the Global Variable #5522 (step size)
Show: Pendant control widget	Brings up the pendant control widget in the myCNC software
Select axis	Select the particular axis
Show: Widget	Shows a particular widget, such as Library Shape, Diagnostics, Config, etc
Feed overdrive: inc	Increase the feed overdrive
Feed overdrive: dec	Decrease the feed overdrive
Feed overdrive: Set %	Set the feed overdrive as a percentage of the default (100%)
Spindle Speed: inc	Increase the current spindle speed
Spindle Speed: dec	Decrease the current spindle speed
Spindle Speed: set	Set the current spindle speed
Tie Toolpath Position to current work position	Used on control programs with a large number of parts, this allows to tie the toolpath position to the current work position. Effectively, this allows to cut out a small part of the control program anywhere on the sheet, by simply specifying the position of the toolpath - extremely useful for small remainders of metal sheets which can still fit one of the parts of a larger control program file.
Toggle Machine/Work DRO (if applicable)	A setting for pendants which only show one coordinate system at a time (machine or program coordinate). This allows to switch between the two coordinate systems - used only on select controllers.
Toggle Jog enable/disable	Turn jog on and off
Toggle Jog mode unlimited/step	Switch between the unlimited and a set step jog for machine movements

Option	Description
Toggle Soft Limits enable/disable	Turn the soft limits (specified in Inputs/Outputs/Sensors > Limits) on and off
Toggle Flood on/off	Turns the liquid cooling (flood) ON and OFF
Toggle Spindle on/off	Toggle whether the spindle is currently ON or OFF
Toggle Spindle CCW on/off	Toggle the spindles CCW rotation ON or OFF
Toggle Constant Velocity on/off	CV (constant velocity) is described in MyCNC Constant Velocity Mode (CV) manual
Toggle Virtual Keyboard	Brings up the virtual keyboard up on the screen, or hides it if already present.
Toggle: custom widget by name	Specifies a custom widget to bring up on the screen (or close it if already displayed).
View: Zoom In	Zoom in on the control program visualization
View: Zoom Out	Zoom out on the control program visualization
View: Fit to window	Fit the entire view into the visualization window
Work coordinate: Set	Set the work coordinate (using the specified axis value from the user panel, NOT the typical pendant control)
Work coordinate: Reset	Reset the work coordinate (from user panel)
Work Coordinate: 1/2	Half the work coordinate (from user panel)

These options allow the user to edit every button on their pendant control to their particular configuration if required. For simple pendants included in the defaults list, it is usually recommended to use the default settings.