BCM Modules

BC Modular contains 5 BCM modules which send & respond to standard MIDI control change messages. Each of the encoders / buttons on the BCM modules can be fully edited to output value ranges suited to the various modules within the BC Modular environment.

BCM modules can be combined to give the user as much control as is needed for a given Modular patch.

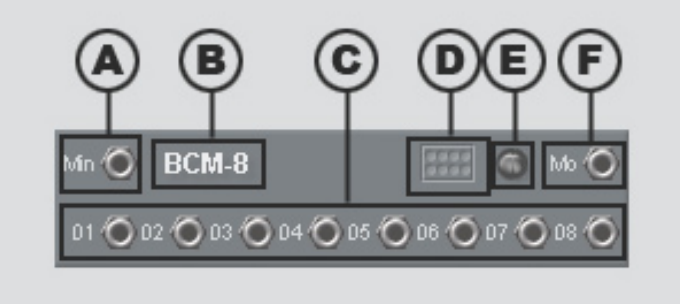
Available control configurations:

BCM-8 - 8 faders
BCM-16 - 16 buttons
BCM-24 - 24 encoders
BCM-32 - 32 encoders
BCM-48 - 32 encoders (4x8) & 16 buttons

The Module

A - MIDI In. Connect incoming MIDI signal in the Modular Shell

B - Module Name. Can be adjusted within the Customisation Panel of the Module.



C - Control Pads. Send out user defined values from the BCM module. Connect to control input pads on other BC Modular modules. Can also be connected to compatible modular II/III modules.

D - Controls Panel Button. Opens the BCM Controls Panel where edits can be made to parameters of connected Control Pads.

E - Customisation Panel Button. Opens a panel for editing the name and colour of the BCM module

F - MIDI Out. Outgoing MIDI from the BCM module. Connect to the MIDI Out of the Modular shell.

BCM Controls Panel

A - Control Select. Allows selection of Control for which parameters can be adjusted in the Control Edit Window.

B - Encoder. Sends and Recieves the assigned MIDI Control Change and Parameter Values set by user in Control Edit Window. Also responds to vertical mouse control.

C - Parameter Readout. Displays current control value within range and format assigned by user in Control Edit Window.

D - Module Name. Can be adjusted within the Customisation Panel of the Module.

E - Control Label. Can be adjusted by the user to show the name of connected Modular parameter.

F - Encoder Group Title*. Can be adjusted by user to show a name for the currently selected Encoder Group.

G - Encoder Group Select*. Allows User to select which of the 4 encoder groups is displayed. Reponds to Mouse Control & MIDI cc119.

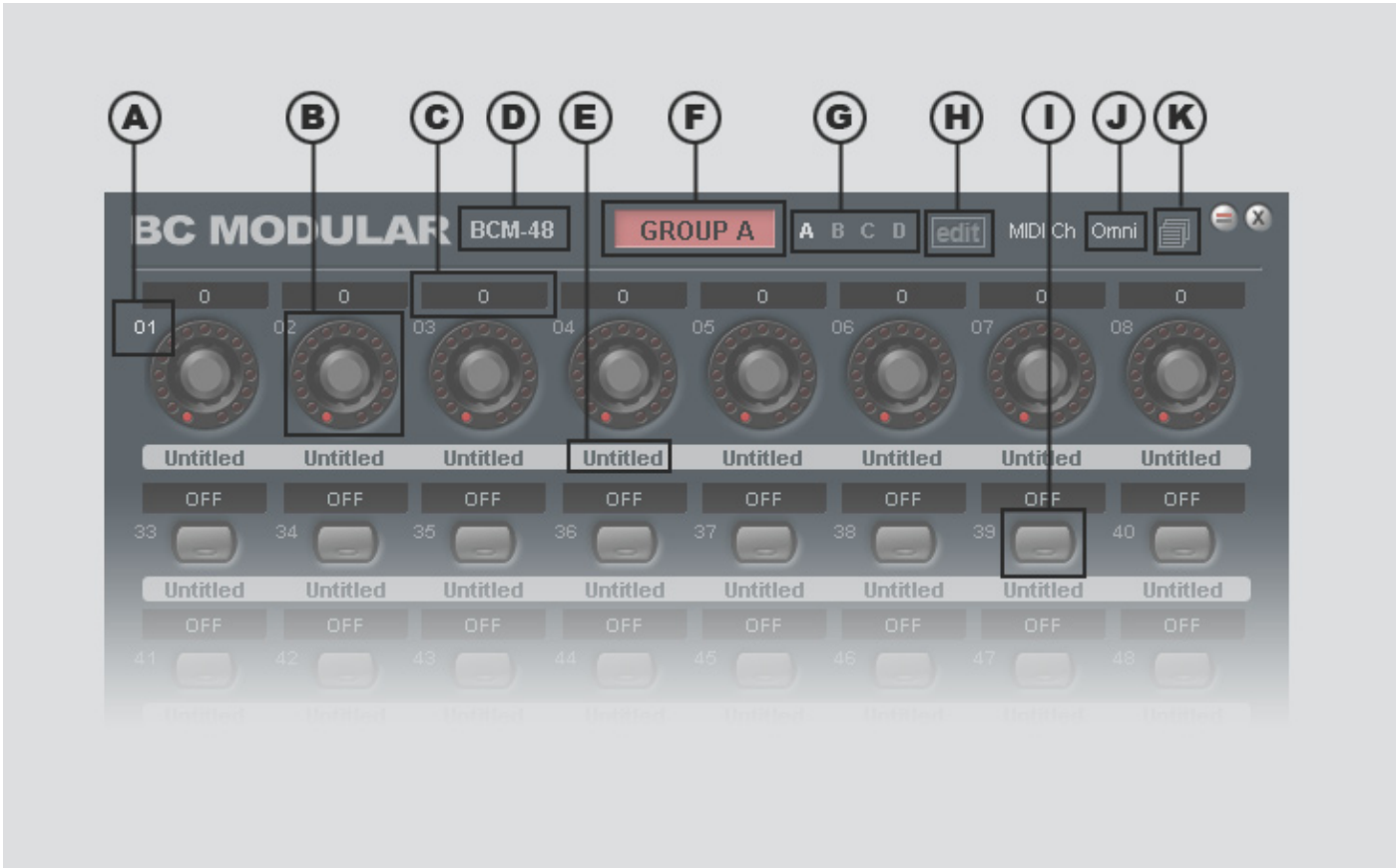
H - Control Edit Button. When selected shows the Control Edit Panel.

I - Button. Sends and Recieves the assigned MIDI Control Change and Parameter Values set by user in Control Edit Window. Also responds to mouse button.

J - MIDI Channel. Selects the MIDI channel on which the BCM module should send & recieve. Responds to vertical mouse Control.

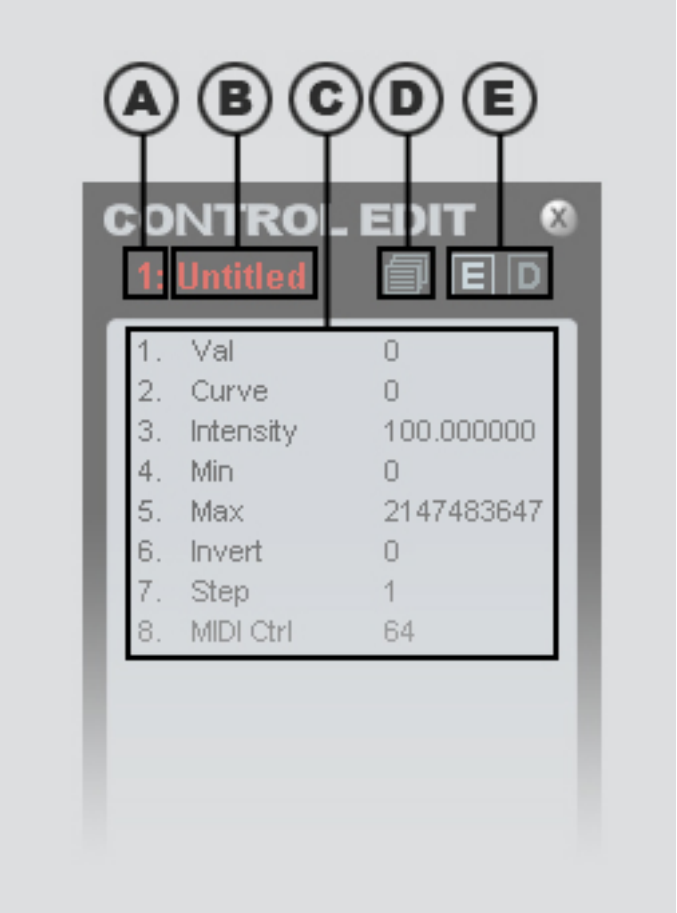
K - Main Presets Button. Shows the main Preset list for the BCM module. Main Presets store and recall all parameter settings in both the BCM Controls and Control Edit Panels.

** - Only available on BCM-48*



BCM Control Edit Panel

The Control Edit Window is where control and associated parameter readout behaviour can be edited, stored and recalled for future use.



A - Control Number. Displays the number of the currently selected control for editing.

B - Control Label. Shows the name of the currently selected parameter for editing. Can be edited either here or on the BCM Controls Panel.

C - Edit Page. Shows parameters for the currently selected Encoder, Button or Display. Values can be adjusted by selecting them with the mouse and entering a replacement value with the computer keyboard.

D - Control Presets Button. Opens the Control Presets List. Control Presets contain all parameter values (except MIDI Control assignment) for the currently selected control. Some control preset examples are provided in the BC Modular package.

E - Encoder/Display Buttons. Allow selection of Encoder / Parameter Readout pages for editing. When a button is the selected control on the BCM Controls Panel, the Encoder Page (E) will change to a Button Page (B).

Editing Encoders

Having chosen an encoder for editing and selected the Encoder Page in the Control Edit Panel. You will be presented with the following:

1 - Val. Shows the current value within the specified control range which will be output from the associated control pad on the BCM module. Can be adjusted manually or will update automatically when you move the selected encoder.

2 - Curve. A curve can be assigned to the encoder. Options are 0: Linear, 1: Exp, 2: Log, 3: Exp Bi-Polar, 4: Log Bi-Polar.

3 - Intensity. Adjusts the Intensity of the chosen curve between 2.000000 and 2147483647.000000

4 - Min. Sets the minimum value of the Encoder. Can be set to a value between -2147483647 and 2147483646. Must be set lower than the maximum value.

5 - Max. Sets the maximum value of the Encoder. Can be set to a value between -2147483646 and 2147483647. Must be set higher than the minimum value.

6 - Invert. When set to 1 this inverts the control. A value of 0 gives normal operation.

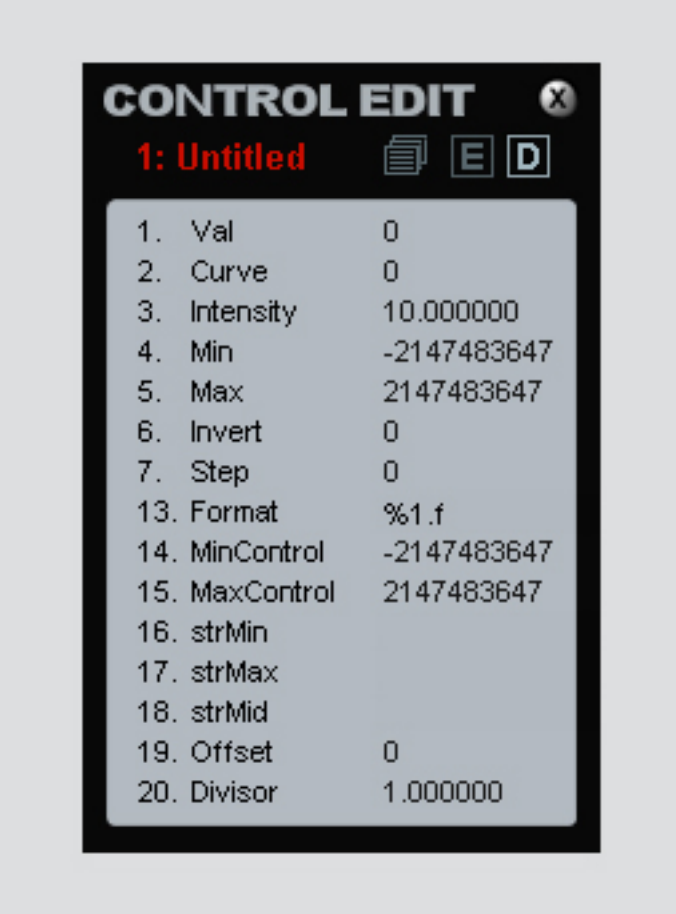
7 - Step. Sets a step size for mouse control. Can be set between 1 and 2147483647.

8 - MIDI Ctrl. Assigns a MIDI cc number to the selected encoder. The encoder will send and respond to this MIDI Control Change.

BCM Control Edit Panel

Editing Encoders - Parameter Readout

Once your encoder is set up, if you select the Display Page in the Control Edit Panel, you will be presented with the following:



1 - Val. Shows the current value within the specified control range which will be output from the associated control pad on the BCM module.

2 - Curve. A curve can be assigned to the Readout. Options are 0: Linear, 1: Exp, 2: Log, 3: Exp Bi-Polar, 4: Log Bi-Polar.

3 - Intensity. Adjusts the Intensity of the chosen curve between 2.000000 and 2147483647.000000

4 - Min. Sets the minimum value of the Readout. Can be set to a value between -2147483647 and 2147483646. Must be set lower than the maximum value.

5 - Max. Sets the maximum value of the Readout. Can be set to a value between -2147483646 and 2147483647. Must be set higher than the minimum value.

6 - Invert. When set to 1 this inverts the Readout. A value of 0 gives normal operation.

7 - Step. Sets a step size for mouse control. Can be set between 1 and 2147483647.

13- Format. Sets the format of the Readout e.g. - '%1.2f Hz' .can give a readout of '10.56 Hz'.

14- MinControl - Sets the minimum Control Val to which the readout will respond. Below this point the readout will invert.

15- MaxControl - Sets the maximum Control Val to which the readout will respond.

16- strMin - Assigns a Text String to be displayed at the minimum value. (e.g. 'Left')

17- strMax - Assigns a Text String to be displayed at the maximum value. (e.g. 'Right')

18- strMid - Assigns a Text String to be displayed at Control Midpoint. (e.g. 'Center')

19- Offset. - sets an Offset amount in relation to the Control Val to be calculated for the Readout.

20- Divisor. - sets an amount which the Control Val should be divided by for the Readout.

Note - Encoders will always respond to and send out the full 0-127 Control Change range over MIDI. This way the ranges for encoders / faders on your MIDI controller don't need to be adjusted

BCM Control Edit Panel

Editing Buttons

Having chosen a button for editing and selected the Button Page in the Control Edit Panel. You will be presented with the following:

1 - Selected. Shows the current value within the specified control range.

2 - Output Val. Shows the value for the selected point in the control range, which will be output from the associated control pad on the BCM module.

3 - Val1. Sets the maximum value of the control range (0-127).

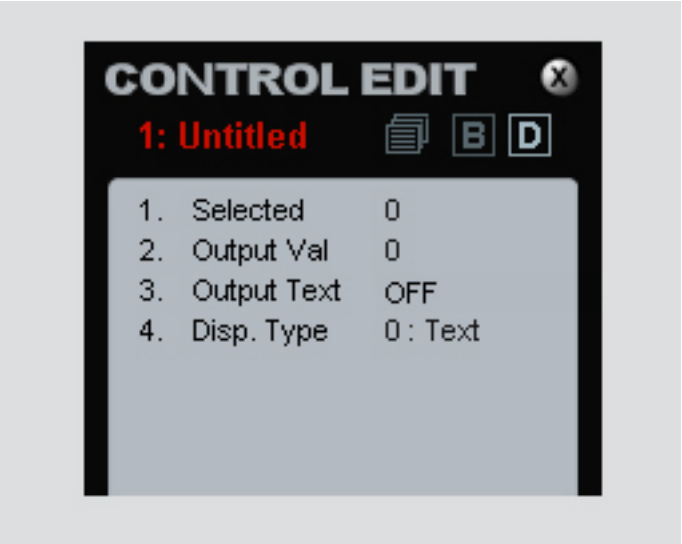
4 - Val2. Sets the minimum value of the control range (0-127).

5 - Mode. Sets the type of button to be used. Options are - 0: toFF (toggle off), 1: t on (toggle on), 2: InC (Increment)

6 - MIDI Ctrl. Assigns a MIDI cc number to the selected button. The button will send and respond to this MIDI Control Change.

Editing Buttons - Parameter Readout

Once your button is set up, if you select the Display Page in the Control Edit Panel, you will be presented with the following:



1 - Selected. Shows the current value within the specified control range.

2 - Output Val. Shows the value for the selected point in the control range, which can be shown on the Parameter Readout. Updates with 'Output Val' on button edit page.

3 - Output Text. Shows a Text String for the selected point in the control range, which can be shown on the Parameter Readout

4 - Disp. Type. Selects whether Ouput Val or Output Text will be shown on Parameter Readout. Options - 0: Text, 1: Val

Note - Unlike Encoders, Buttons will only respond to and send out the between a Control Change range defined by Val1 & Val2. In other words, the CC ranges on your MIDI controller and settings for Val1 & Val2 will need to be set to match

Another option is to use Mode2 - InC, set Val1 to 127 and Val2 to 0. Then using a fader or rotary instead of a button on your MIDI controller. This way, you can make use of the Button editing options to define a different value or text string for each of the 128 steps.