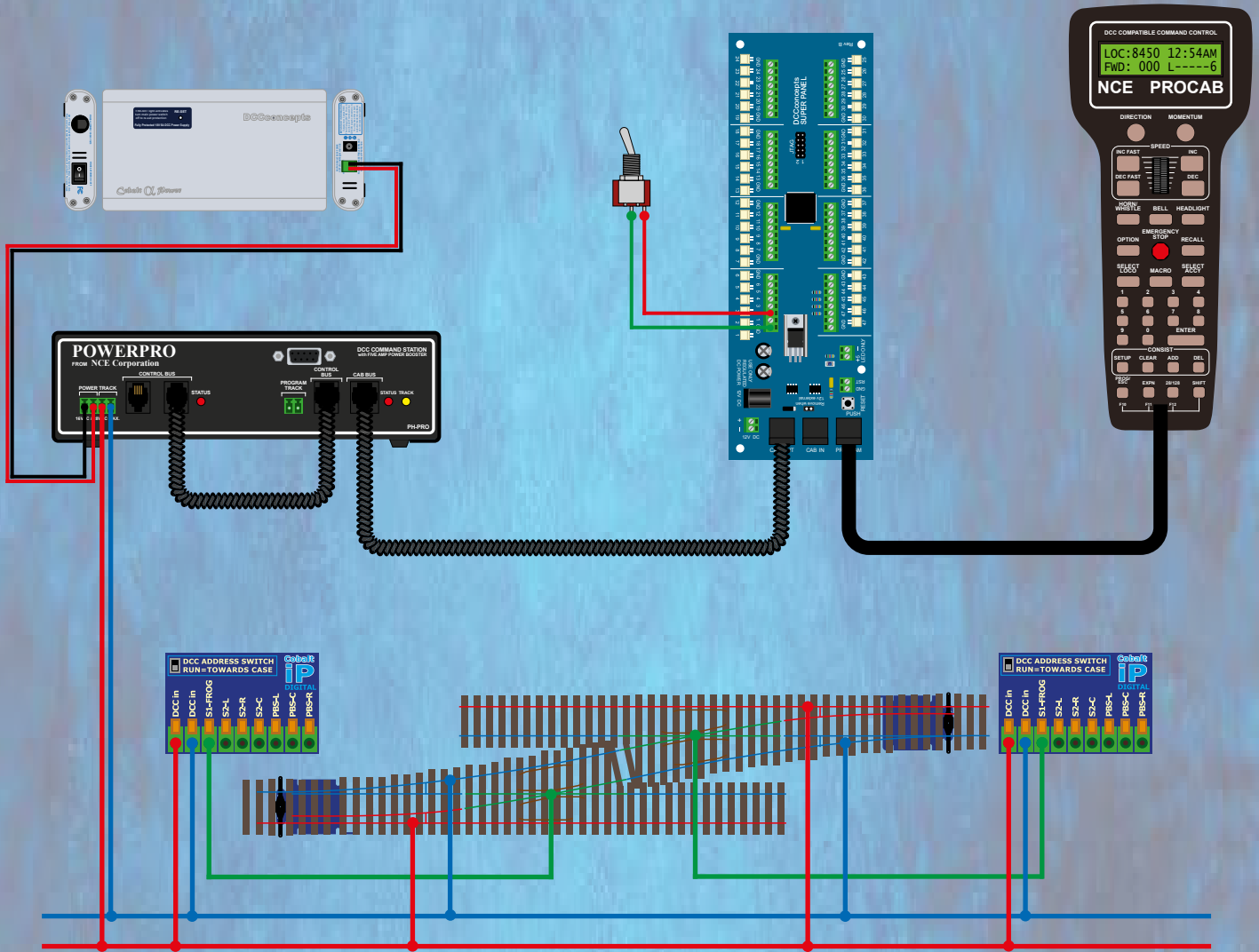# Super Panel
Sample Set-Ups

Point Motor Control - Extract

Super Panel is an extremely powerful piece of hardware and we will never be able to document all the possibles uses of the product. Over the next 4 manuals we will endeavour to show sample programming for various solutions. With a little bit of thinking they can be used as a starting point for other projects you may think of.

In these guides we will endeavour to show you a step by step guide to some practical uses of the Super Panel.

These will include, in separate volumes:

Point Motor Control

Signal Control

Locomotive Control

Block Control

At the end of each sample we will include a complete parts list of everything we used. Please note, this is by no means the only components you could use, and the benefit of the Super Panel is its ability to interface with various types of switches and components.

Once you have programmed a few different switch types, controlling various point motors you will see the process is straight forward and logical.

It is always advisable to write out before hand, using the sheets at the end of the Super Panel User Guide, each step you are going to program. This way, you shouldn't miss out any crucial steps in your command structure.

In all these guides we will presume the Super Panel is configured correctly for the operation you wish to undertake. For example, the CAB address is correct and the range of inputs is specified. If you are unsure about any of these initial step up commands, please revisit the Super Panel User Guide and re-read the relevant pages.

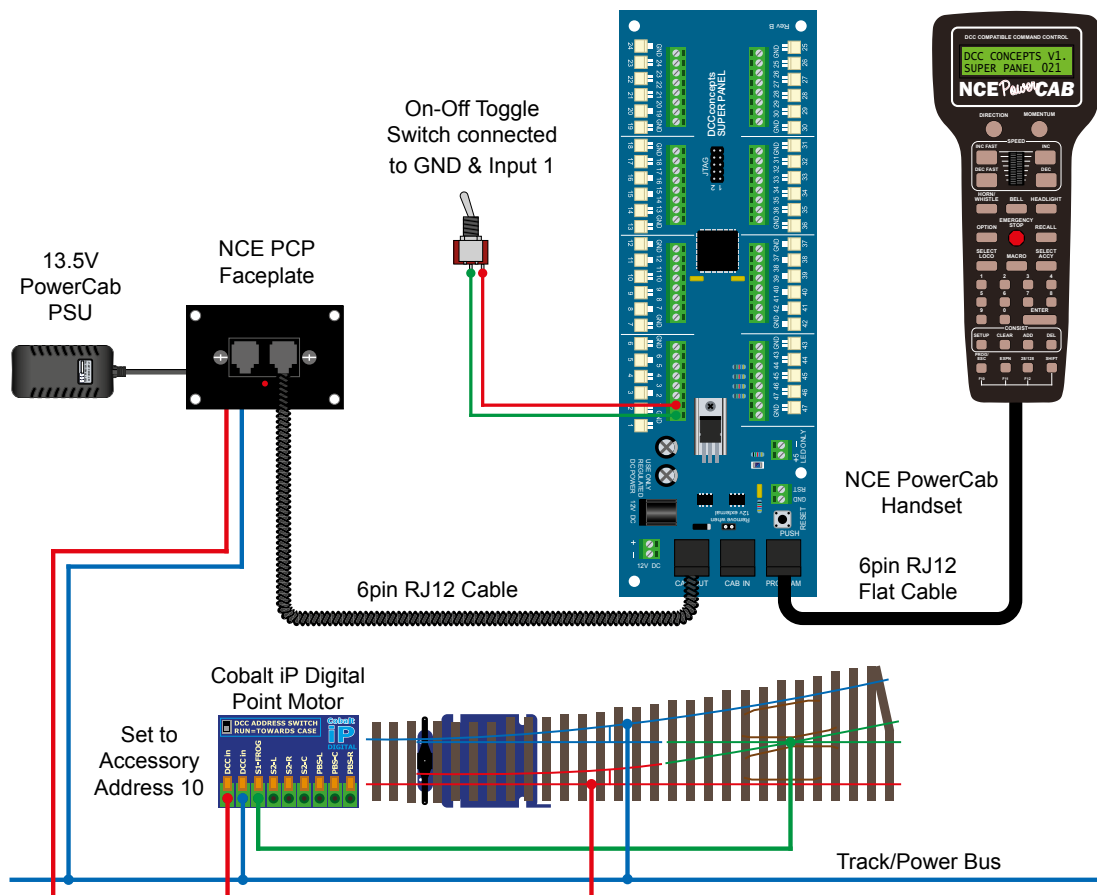You can download the full Super Panel User Guide here:

Or you can download the manual by entering this link:

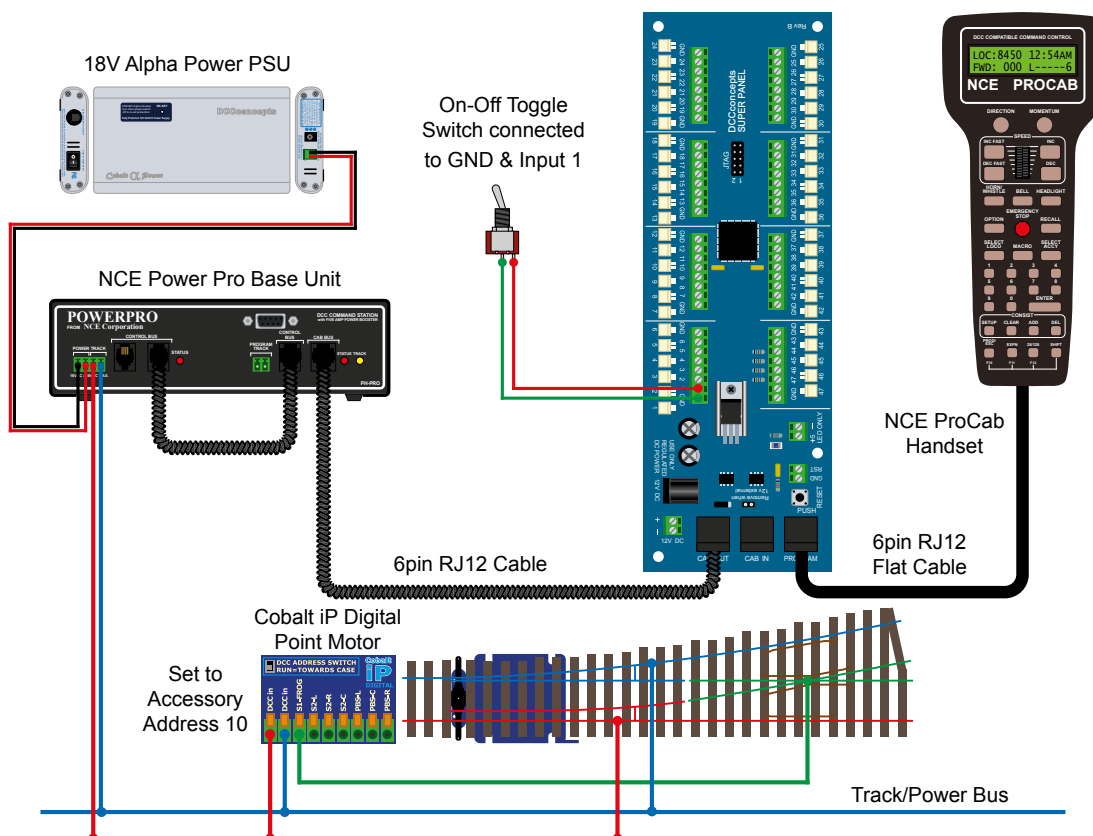# www.dccconcepts.com/manual/superpanel-full-user-guide

Single Point Control Using One On-Off Toggle Switch

Sample 1

PowerCab Programming Set Up

13.5V
PowerCab
PSU

NCE PCP
Faceplate

On-Off Toggle
Switch connected
to GND & Input 1

NCE PowerCab
Handset

6pin RJ12 Cable

6pin RJ12
Flat Cable

Cobalt iP Digital
Point Motor

Set to
Accessory
Address 10

Track/Power Bus

Power Pro Programming Set Up

18V Alpha Power PSU

On-Off Toggle
Switch connected
to GND & Input 1

NCE ProCab
Handset

NCE Power Pro Base Unit

6pin RJ12 Cable

6pin RJ12
Flat Cable

Cobalt iP Digital
Point Motor

Set to
Accessory
Address 10

Track/Power Bus

In this first section we will show how to program the Super Panel to control a single digital accessory, in this case a Cobalt iP Digital point motor from an On-Off toggle switch.

The On-Off toggle switch is connected with the centre common to one of the Super Panel ground connections, and the switched connection to Input 1 on the Super Panel.

The Cobalt iP Digital point motor is connected to the normal track/power bus from the NCE system, and has been assigned digital accessory address 10.

One thing to note is that the switched input on the Super Panel could be any of the 47 physical inputs, we are just using Input 1 as a starting point, but the switch could easily be connected to Input 32. The same for the DCC accessory address of the point motor, SuperPanel is happy to control any recognised address or addresses on your DCC system.

Step 1

Connect everything as per the above diagram and the **START SCREEN** will appear, press **ENTER** to move to the **Main Menu**:
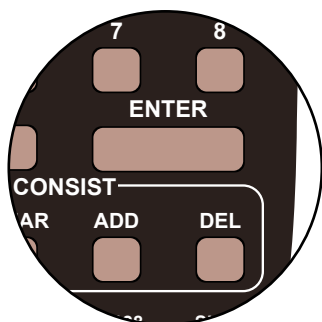
Start Screen

Press
ENTER

```
DCC CONCEPTS V1.
SUPER PANEL 025B
```
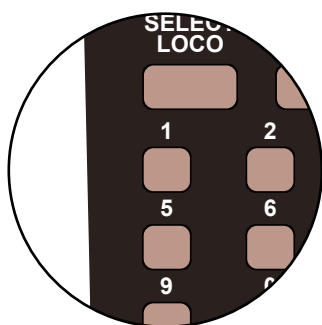
```
1=SETUP 2=REVIEW
3=TEST OPERATION
```

Step 2

Select **1=SETUP** by pressing **1**, and then **1=SET INPUT** by pressing **1**:
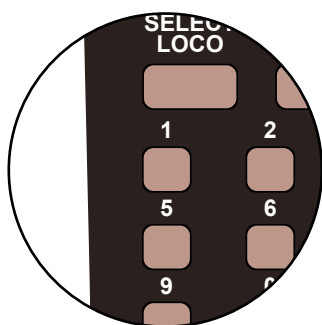
Press
1
THEN
Press
1

```
1=SETUP INPUT
2=SETUP CONFIG
```

```
SETUP INPUT MENU
INPUT:1  LO/HI:L
```

Step 3

First we set what the switch will do when it is **LOW** or **ON**, so leave the **LO/HI** at **L**. Next select **INPUT:1,** the Super Panel input you have connected the switched terminal from the toggle switch to, by pressing **1** and **ENTER**, and then select **STEP:1** by pressing **ENTER**:
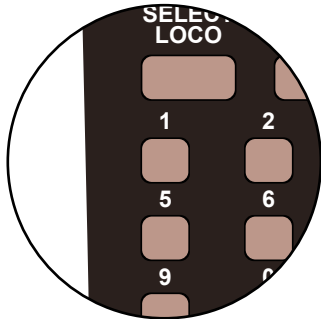
Press
1
THEN
ENTER
THEN
ENTER

```
INPUT:1  LOW
STEP: 1
```

```
INP:1  L STEP:1
1=ACCY 2=MACRO >
```

We have to tell the Super Panel what the device we are controlling from **INPUT 1** is. The point motor is an accessory so press **1**, then confirm the accessory number, **10**, of the motor by pressing **1** then **0** and **ENTER**.

Press
1

Then Press
1

Then Press
0

Then Press
ENTER

```
INP:1  L STEP:1
ACCY NUMBER:10
```

```
INP:1  L STEP:1
NORM/REV : N/1
```

We next program the direction of the point motor, either **N/1** - straight or **R/2** - switched. This is done by using the **DIRECTION** key. We want **N/1**, so leave the settings as show on the screen and then **ENTER** to finish these settings.

Press
DIRECTION

THEN

Press
ENTER

```
INP:1  L STEP:1
NORM/REV : N/1
```

```
INP:1  L STEP:2
1=ACCY 2=MACRO >
```

We always finish the command line with an **END** command, then the Super Panel knows it has reached the end of this particular sequence. So press **0** to select **END** and press **ENTER.** Push the **PROG/ESC** key 2 times to return to the **SET INPUT MENU SCREEN**
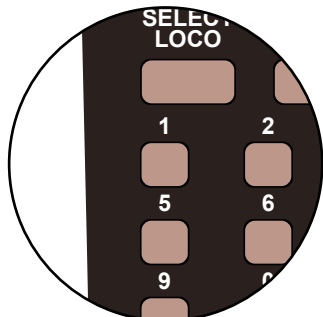
Press
0

THEN

Press
ENTER

```
INP:1  L STEP:2
END: PRESS ENTER
```

```
INP:1  L STEP:3
1=ACCY 2=MACRO >
```

Press **ENTER.** Push the **PROG/ESC** key 2 times to return to the **SET INPUT MENU SCREEN**

We now need to program the Super Panel to recognise what happens when the switch is in the **HIGH** or **OFF** position. We are already on **INPUT:1** so to select the high area push the **DIRECTION** key and press **ENTER.** Select **STEP:1** by pressing **ENTER** again.

Press
DIRECTION

Then Press
ENTER

Then Press
ENTER
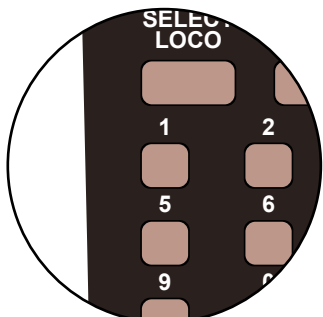
```
SETUP INPUT MENU
INPUT:1  LO/HI:L
```

```
SETUP INPUT MENU
INPUT:1  LO/HI:H
```

```
INPUT:1  HIGH
STEP: 1
```

We want to control the same point motor, which is accessory number 10, so first select the accessory instruction by press **1** and then accessory number 10 should still be shown on the screen, accept this by pressing **ENTER**
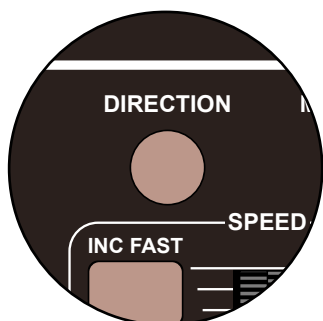
Press
1

THEN

Press
ENTER

```
INP:1  H STEP:1
1=ACCY 2=MACRO >
```

```
INP:1  H STEP:1
ACCY NUMBER:10
```

We want the point motor to move in the opposite direction this time, **R/2** - switched. This is done by using the **DIRECTION** key and then **ENTER** to finish these settings.

Press
DIRECTION

THEN

Press
ENTER

```
INP:1  H STEP:1
NORM/REV : N/1
```

```
INP:1  H STEP:1
NORM/REV : R/2
```

As before we always finish the command line with an **END** command, then the Super Panel knows it has reached the end of this particular sequence. So press **0** to select **END** and press **ENTER.**


Press
0

THEN

Press
ENTER

```
INP:1  H STEP:2
END: PRESS ENTER
```

```
INP:1  H STEP:3
1=ACCY 2=MACRO >
```

Push the **PROG/ESC** key 4 times to return to the **SET UP MENU SCREEN**

Before you can run your program from the SuperPanel you need to reconnect the NCE system to the appropriate input on either the Super Panel or your faceplate. If you have two NCE PowerCab or ProCab handsets you can leave one handset connected to the faceplate or CAB BUS and one to the PROGRAM port at all times, saving you from unplugging an plugging constantly.

PowerCab Run Set Up
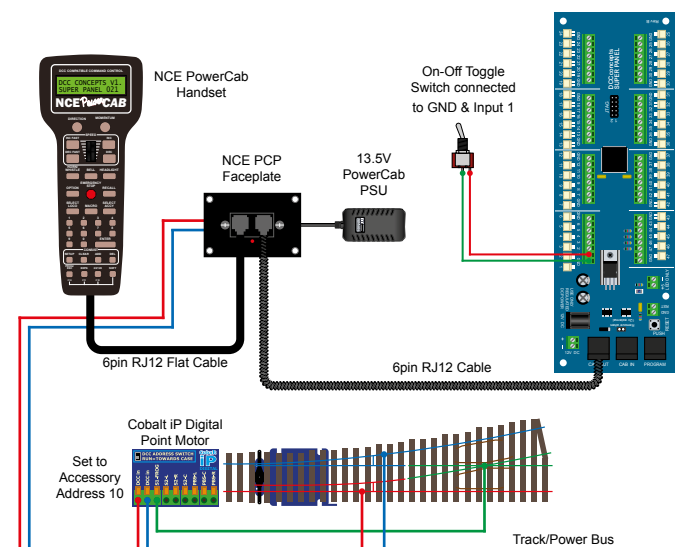
Power Pro Run Set Up
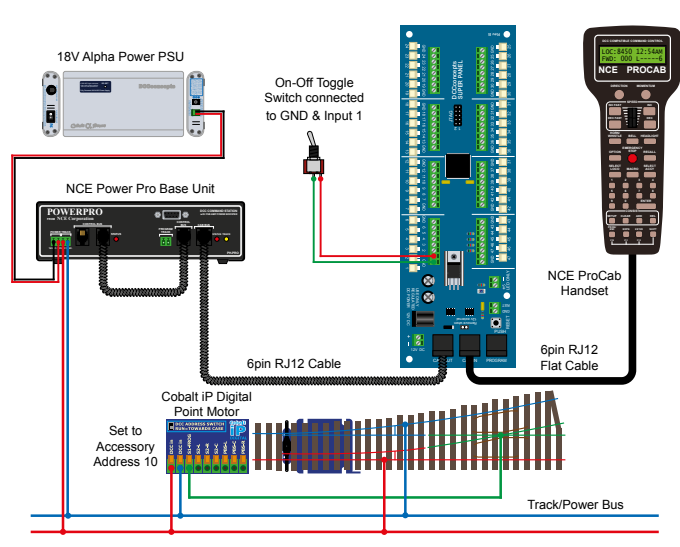
Once you become familiar with programming the Super Panel you may find it easier to write out the commands in tabular form so that you can check your logic. This can then be used to input commands to the Super Panel quickly through the NCE keypad - see below for the keystrokes table for **SAMPLE 1.**

Input No 1			
Select the Input to Input 1		**1, 1, ENTER, 1, ENTER**	
Step	**Keystrokes**	**LOW Action**	**HIGH Action**
1	**1, 10, ENTER, ADD**	**Accessory 10 Normal**	**Accessory 10 Reverse**
2	**0, ADD**	**End**	**End**

Please note: This command stream use the **ADD** key instead of the **ENTER** key to duplicate the opposite action in the **HIGH** column when entering data in the **LOW** column, or vice versa.

See the bottom of Page 39 - 7.1 ACCY - 1 = Accessory Number in the full Super Panel User Guide for more information on how to achieve this.

You have now setup your first switch to an input to control a digital accessory on your Super Panel! We will now move on to some more complex solutions.

Sample 1 - DCCconcepts Parts List

Qty	Part No	Description
1 x	Super Panel	Super Panel Control Board
1 x	DCD-ATS	Alpha Toggle Switch 6-Pack of On-Off-On Sprung Toggle Switches
1 x	DCP-CB1DiP	Cobalt iP Digital Point Motor Single Pack
2 x	DCD-ACL	RJ12 6pin Curly Cord For NCE Powercab and Cobalt Alpha
1 x	Left or right hand point - various makes can be used	

Various cable and connectors

Don't forget, you will also need an NCE system, either a PowerCab or PowerPro, to be able to program and run the SuperPanel.

This has been an extract from a forth coming user guide on Point Motor Control, in which we will show you how to use various switches to control various point motors in common model railway situations.

Please don't hesitate to contact us with any questions on or about Super Panel.