# Super Panel Sample Set-Ups



### **Volume One**

### **Point Motor Control**

thinking outside the square

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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**

#### **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

Some general ideas to think about before moving on...

The inputs on the Super Panel we have picked are just for reference and **DO NOT** mean you **MUST** use these! You can use connect **ANY** input on the Super Panel to control pretty much any DCC accessory.

The same is true of the DCC accessory addresses we have used, these can be anything within the NRMA specified DCC accessory range of 1 to 2044.

We have tried to show samples of what we consider most common uses of the Super Panel. Again we have only just scratched the surface of what it can do, but we hope you will start to understand the programming steps required and the logical process to thinking through for the various steps needed to control various point motors.

If you have any specific point motor control questions, please have a look at the DCCconcepts Focus Forum, with a specific Super Panel area, found here:

#### www.dccconceptsforum.com/dccconcepts-superpanel-962400

Please feel free to post a question here and we will get an answer back to you promptly, all we ask is please be patient as it is complicated piece of kit.

As you become familiar with programming and the steps you need, you will realise there are various short-cuts that can be used. In this manual we have purposely shown you the long way round to programme the Super Panel. We think it is important to understand how the information is added before you start cutting corners.

Further manuals, help sheets, data sheets, uses, tips and use will be added to the Focus Forum and the DCCconcepts website in due course.

Have fun and let us know how you get on!

Chris





# Single Point Control Using One On-Off Toggle Switch



#### Single Point Control Using One On-Off Toggle Switch



#### PowerCab Programming Set Up



#### Power Pro Programming Set Up



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**:



#### Step 2

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



#### 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**:





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**.



Step 5

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, if needed. We want N/1, so leave the settings as show on the screen and then **ENTER** to finish these settings.



Step 6

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 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.



Step 8

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** 



#### Step 9

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.





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**.



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.



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 11, ENTER, 1, 1, ENTER				
Step	Keystrokes	LOW Action		HIGH Action
1	1, 10, ENTER, 1, 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.

#### Sample 1 - DCCconcepts Parts List

Qty	Part No	Description
1 x	DCC-SPL	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 Super Panel.

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.



# Dual Point Control Using One On-Off Toggle Switch



#### **Dual Point Control Using One On-Off Toggle Switch**



#### PowerCab Programming Set Up



#### Power Pro Programming Set Up



There will be cases where you need one switch to control 2 point motors, both to operate at the same time, i.e. a crossover.

Programming for the Super Panel is exactly the same as in **Sample 1**. The only difference is adding a second point motor, and giving it the same digital accessory address as the first.

The motors will need to work in opposite directions. This can be achieved by locating the motors in physically the opposite direction or, if available a reversing command on the actual point motor i.e. the 197 command on the Cobalt iP Digital point motor.

You could also get the Super Panel to send out a second command, **STEP 2** from **INPUT 1** after the first command to change the second point. Make sure you give this second point motor a different Accessory Address, say 21, so it doesn't respond to **STEP 1** of the command structure.

**STEP 2** on **INPUT 2** will send out the same commands as **STEP 1** but the direction of movement of the second point motor, Accessory Address 21, will be the opposite from **STEP 1**.

#### Have a go and see how you get on!

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 the next page for the keystrokes table for **SAMPLE 2**.

	Input No 2				
	Select the Input to Input 2 1, 1, 2, ENTER, 1, ENTER				
Step	Keystrokes	LOW Action		HIGH Action	
1	1, 20, ENTER, 1, ADD	Accessory 20 Normal		Accessory 20 Reverse	
2	1, 21, ENTER, 1, ADD	Accessory 21 Normal		Accessory 21 Reverse	
3	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.

#### Sample 2 - DCCconcepts Parts List

Qty	Part No	Description
1 x	DCC-SPL	Super Panel Control Board
1 x	DCD-ATS	Alpha Toggle Switch 6-Pack of On-Off-On Sprung Toggle Switches
2 x	DCP-CB1DiP	Cobalt iP Digital Point Motor Single Pack
2 x	DCD-ACL	RJ12 6pin Curly Cord For NCE Powercab and Cobalt Alpha
_		

2 x Left or right hand points - 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 Super Panel.

You have now configured your Super Panel to control 2 separate point motors from one On-Off toggle switches.



## Controlling Two Separate Points Using Two On-Off Toggle Switches



#### **Controlling Two Separate Points Using Two On-Off Toggle Switches**

Sample 3

#### PowerCab Programming Set Up



Power Pro Programming Set Up



This sample shows how to program two On-Off switches to control two separate point motors.

The first On-Off toggle switch is connected with the centre common to one of the Super-Panel ground connections, and the switched connection to Input 3 on the Super Panel.

The Cobalt iP Digital point motor is connected to the normal track/power bus from the Power Pro base unit, and has been assigned digital accessory address 20.

The second On-Off toggle switch is connected with the centre common to one of the Super-Panel ground connections, and the switched connection to Input 4 on the Super Panel.

The Cobalt iP Digital point motor is connected to the normal track/power bus from the Power Pro base unit, and has been assigned digital accessory address 21.

#### Step 1

### To set up Switch 1 on Input 3 follow STEPS 1 to 8 from **SAMPLE 1** to configure the first switch with the first point motor on digital address 30.

We now need to set up the second switch on the Super-Panel, which is connected to Input 4 and controlling the point motor set to digital address 31.

#### Step 2

Select **1=SETUP** by pressing **1**, and then **1=SET INPUT** by pressing **1**, press the **DIRECTION** key to select **LO/HI:L** if needed and then press **ENTER**:



#### Step 3

We need to set the command for the connection on Super-Panel **INPUT 4**, so press **4** and for the **LOW/HIGH** option leave it set to **LOW**, hence **LO/HI:L** and press **ENTER**:





We have to tell the Super Panel what the device we are controlling from **INPUT 4** is. The point motor is an accessory so press **1**, then confirm the accessory number, **31**, of the motor by pressing **3** then **1** and, press **ENTER**:



Step 5

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** 





Push the **PROG/ESC** key 2 times to return to the **SET UP INPUT MENU SCREEN.** We next program the direction of the point motor, we want **N/1**, so press the **DIRECTION** key to select **N/1** if needed: and then **ENTER** to finish these settings.





We need to tell the Super-Panel what to do when the **ON-OFF** toggle switched is switched **OFF**, so from the **SETUP INPUT MENU SCREEN**, push the **DIRECTION** key to change Input 1 to look at the **HIGH/OFF** command, and press **ENTER**. Select **STEP 1** and press **ENTER**.



Step 8

As before we are controlling accessory number **31** from **INPUT 4**, so select accessory by pressing **1** and enter accessory number **31** by pressing **3** then **1**, and then press **ENTER** 



#### Step 9

This time we want the motor to move the opposite direction than before, so we want **REVERSED**/2. Press the **DIRECTION** key to select  $\mathbf{R}/2$  and then **ENTER** to finish these settings.





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**.



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.



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 the next page for the keystrokes tables for **SAMPLE 3**.

Keystroke table for Input 3:

Input No 3					
	Select the Input to Input 3 1, 1, 3, ENTER, 1, ENTER				
Step	Keystrokes	LOW Action		HIGH Action	
1	1, 30, ENTER, 1, ADD	Accessory 30 Normal		Accessory 30 Reverse	
2	0, ADD	End		End	

Keystroke table for Input 4:

Input No 4				
Select the Input to Input 4 1, 1, 4, ENTER, 1, ENTER				
Step	Keystrokes	LOW Action		HIGH Action
1	1, 31, ENTER, 1, ADD	Accessory 31 Normal		Accessory 31 Reverse
2	0, ADD	End		End

Please note: These command streams 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.

### Sample 3 - DCCconcepts Parts List

Qty	Part No	Description
1 x	DCC-SPL	Super Panel Control Board
1 x	DCD-ATS	Alpha Toggle Switch 6-Pack of On-Off-On Sprung Toggle Switches
2 x	DCP-CB1DiP	Cobalt iP Digital Point Motor Single Pack
2 x	DCD-ACL	RJ12 6pin Curly Cord For NCE Powercab and Cobalt Alpha

2 x Left or Right hand points - 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 Super Panel.

You have now configured your Super Panel to control 2 separate point motors from two separate On-Off toggle switches.

To add further switches and point motors you just repeat this process, making sure you select the correct input to the Super Panel and the correct digital address for the accessory.



### Controlling A 3-Way Point Using Three Push To Make Switches



#### **Controlling A 3-Way Point Using Three Push To Make Switches**

Sample 4

#### PowerCab Programming Set Up



#### Power Pro Programming Set Up



In this sample we will control a 3-way point with separate push to make switches. The separate routes will be each controlled from a single push to make switch on each route.

To select Route 1, we need to set Point 1, PM1 to **NORMAL** and Point 1, PM2 to **NORMAL**. To select Route 2, we need to set Point 1, PM1 to **NORMAL** and Point 2, PM2 to **REVERSED**. To select Route 3, we need to set Point 1, PM1 to **REVERSED** and Point 2, PM2 to **REVERSED**.

Step 1

First we need to set Route 1 - so setting **Point 1, PM1** first, we connect everything as per the diagram and the **START SCREEN** will appear, press **ENTER** to move to the **Main Menu**:



Step 2

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



Step 3

Set **INPUT:1** push to make switch to **LOW**, by pressing **DIRECTION** and **ENTER**, and then select **STEP:1** by pressing **ENTER**:





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**.



Step 5

We want the motor to move to the **NORMAL** or **N/1** position, so leave the settings as show on the screen and **ENTER** to save these settings. If needed, you can change from **N/1** to **R/2**, and vice-versa, by pushing the **DIRECTION** key. You are now ready to set **Point 2**, **PM2** on **INPUT 1**.



Now we need to set **Point 2**, **PM2** to work with **Route 1**. This is still **INPUT 1**, on the Super-Panel, and **STEP:2** is showing in the top right of the screen. The point motor, **PM2** is an accessory so press **1**, then confirm the accessory number, **11**, of the motor by pressing **1** then **1** and **ENTER**.





We next program the direction of the point motor, we want **N/1**, so press the **DIRECTION** key, if needed, to select **N/1**, and then **ENTER** to finish these settings.



Step 8

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**.





That is **INPUT 1** set, so move on to **INPUT 2**. Push the **PROG/ESC** key twice to return to the **SET UP INPUT MENU SCREEN**. Select **INPUT 2** by pushing **2** and pressing **ENTER** 





Set **INPUT:2** push to make switch to **LOW** by pressing **DIRECTION**, if needed, and then select **STEP:1** by pressing **1** and then **ENTER**, then press **1** for an accessory.



Step 11

Select accessory number **10** by pressing **1** then **0** and press **ENTER**:



#### Step 12

Confirm the **NORMAL** or **N/1** direction of the motor by pressing **ENTER**. Now we program **STEP 2** to control **Point 2**, **PM2**, by pushing **1** to select an accessory.



Step 13

Select accessory number 11 by pressing 1 and then 1 and then ENTER.





We need the motor to move in the opposite direction, so push the **DIRECTION** key to select **REVERSE** or **R**/2 and confirm by pushing **ENTER**.



#### Step 15

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**.



#### Step 16

That is **INPUT 2** set, so move on to **INPUT 3**. Push the **PROG/ESC** key twice to return to the **SET UP INPUT MENU SCREEN**. Select **INPUT 3** by pushing **3** and pressing **ENTER** 



#### Step 17

Set **INPUT:3** push to make switch to **LOW** by pressing **DIRECTION**, if needed, and then select **STEP:1** by pressing **ENTER**, then press **1** for an accessory.





Select accessory number **10** by pressing **1** then **0** and press **ENTER**:



#### Step 19

Leave the direction at **REVERSED** or **R**/2 of the motor by pressing **ENTER**. Now we program **STEP** 2 to control **Point 2**, **PM2**, by pushing 1 to select an accessory.



#### Step 20

Select accessory number 11 by pressing 1 and then 1 and then ENTER.



#### Step 21

Set the motor to **REVERSE** or **R/2**, so push the **DIRECTION** key to select **REVERSE** or **R/2**, if necessary and confirm by pushing **ENTER**.





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 4 times to return to the **SET UP MENU SCREEN**.

PowerCab Run Set Up

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.



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 the next page for the keystrokes tables for **SAMPLE 4**.

Keystroke table for Input 1:

	Input No 1				
	Select the Input to Input 1 1, 1, 1, ENTER, 1, ENTER				
Step	Keystrokes	LOW Action		HIGH Action	
1	1, 10, ENTER, 1, ENTER	Accessory 10 Normal		Not Needed	
2	1, 11, ENTER, 1, ENTER	Accessory 11 Normal		Not Needed	
3	0, ENTER		End	Not Needed	

Keystroke table for Input 2:

	Input No 2				
	Select the Input to Input 2 1, 1, 2, ENTER, 1, ENTER				
Step	Keystrokes	LOW Action		HIGH Action	
1	1, 10, ENTER, 1, ENTER	Accessory 10 Normal		Not Needed	
2	1, 11, ENTER, 2, ENTER	Accessory 11 Reverse		Not Needed	
3	0, Enter		End	Not Needed	

Keystroke table for Input 3:

Input No 3					
	Select the Input to Input 3 1, 1, 3, ENTER, 1, ENTER				
Step	Keystrokes	LOW Action		HIGH Action	
1	1, 10, ENTER, 2, ENTER	Accessory 10 Reverse		Not Needed	
2	1, 11, ENTER, 2, ENTER	Accessory 11 Reverse		Not Needed	
3	0, Enter		End	Not Needed	

Please note: These command streams use the **ENTER** key instead of the **ADD** key as there are no commands in the **HIGH** column, only commands in the **LOW** commands.

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

### Sample 4 - DCCconcepts Parts List

Qty	Part No.	Description
1 x	DCC-SPL	Super Panel Control Board
1 x	DCD-APB	Alpha Push-Button 6-Pack of Push-Button Switches
2 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 Three-Way 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 Super Panel.

You have now configured your Super Panel to control a three way point motor from three separate push to make switches.

To control further switches and point motors you just repeat this process, making sure you select the correct input to the Super Panel and the correct digital address for the accessory.



# Connecting a Cobalt S-Lever To Super Panel



#### **Connecting A Cobalt S-Lever To Super Panel**

#### Sample 5

#### PowerCab Programming Set Up



#### Power Pro Programming Set Up


When using a Cobalt S-Lever with the Super Panel, we are going to use the changeover connections on the S-Lever. So, from the middle of the wiring harness, connected the **BLACK** cable to the **GROUND** and the **BLUE** cable to the desired **INPUT**. See the diagram above for more details.

From here we program the Super-Panel in the same way as an **ON-OFF** Toggle Switch as per **SAMPLE 1**.

To match the movement of the S-Lever to the movement of the accessory, i.e. a signal, just swap the **N/1** or **R/2** direction in the **INPUT STEP** programming for the required step.

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



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 5**.

Input No 10						
Select the Input to Input 10 1, 10, ENTER, 1, ENTER						
Step	Keystrokes	LOW Action		HIGH Action		
1	1, 10, ENTER, 1, 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.

#### Power Pro Run Set Up

## Sample 5 - DCCconcepts Parts List

Qty	Part No.	Description
1 x	DCC-SPL	Super Panel Control Board
1 x	DCP-CBS	Cobalt S-Lever
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 Super Panel.

You have now configured your Super Panel to control a three way point motor from three separate push to make switches.

To control further S-Levers and point motors you just repeat this process, making sure you select the correct input to the Super Panel and the correct digital address for the accessory.



## Connecting Alpha Switch-i To Super Panel & Alpha Mimic



### **Connecting Alpha Switch-i To Super Panel & Alpha Mimic**

#### Sample 6

#### PowerCab Programming Set Up



#### **Power Pro Programming Set Up**



When connecting the Alpha Switch-i to the Super Panel you need to use two switches, one for each direction of the point motor. The **BLACK** switch connection is connecting to the **GROUND** on the Super-Panel and the **RED** to the required **INPUTS** - in this case, 11 and 12.

The incorporated LEDs on the switches are controlled and powered by the **Alpha Mimic Board**. The output address from the Alpha Mimic is set to match the **ACCESSORY NUMBER** of the defined device on the SUPER PANEL input

To match the movement of the Alpha Switch-i to the movement of the accessory, i.e. a point motor, just swap the **N/1** or **R/2** direction in the **INPUT STEP** programming for the required step, or swap the red connections to the **INPUT** on the Super Panel.

We will look in more detail at controlling the Alpha Mimic Panel in a future manual. It can be used to do some fun things, for example controlling street lights and engine shed lights on a timed sequence.

#### Step 1

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



#### Step 2

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



#### Step 3

As the Alpha Switch-i is a push to make switch, it can only be configured in **LOW** or **ON**, so leave the **LO/HI** at **L**. Next select **INPUT:11**, the Super Panel input you have connected the switched terminal from the Alpha Switch-i to, by pressing **1** then **1** and **ENTER**, and then select **STEP:1** by pressing **ENTER**:





We have to tell the Super Panel what the device we are controlling from **INPUT 11** is. The point motor is an accessory so press **1**, then confirm the accessory number, **30**, of the motor by pressing **3** then **0** and **ENTER**.



Step 5

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.





We next need to tell the Alpha Mimic Panel to change the required LED to show the direction of the point on our control panel. We do this by sending a second accessory command using the required LED output on the Alpha Mimic Panel, in this case **1**. So press **1** for an accessory, and enter **0** and **1** to select accessory address 1 on the Alpha Mimic Panel and press ENTER.





We next program the direction or in this case the colour of the LED on the Alpha Mimic Board, either N/1 - GREEN or R/2 - RED. 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.

Note - as the Alpha Switch-i switches are dual colour, the other switch will be showing the opposite colour to what you have selected in Step 2 of this command. If they are showing the wrong colour, change the direction of the command from **N/1** to **R/2** or vice versa using the **DIRECTION** key.



Step 8

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

### Step 9

We need to enter the command structure for the second Alpha Switch-i. So from the **SETUP INPUT MENU** enter 12 by pressing 1 and then 2, and then press **ENTER** to select the input the Alpha Switch-i is connected to.





As the Alpha Switch-i is a push to make switch, it can only be configured in **LOW** or **ON**, so leave the **LO/HI** at **L.** Select **STEP:1** by pressing **ENTER**, and push **1** to select an accessory.



#### Step 11

We have to tell the Super Panel what the device we are controlling from **INPUT 12** is, which is a point motor, so confirm the accessory number, **30**, of the motor by pressing **3** then **0** and **ENTER**.



#### Step 12

We need to program the direction of the point motor. We want the opposite direction from Input 11, which was **N/1** so push the **DIRECTION** and select **R/2** - switched, and press **ENTER** to finish these settings.



#### Step 13

We next need to tell the Alpha Mimic Panel to change the required LED to show the direction of the point on our control panel. Press 1 for an accessory, and enter 0 and 1 to select accessory address 1 on the Alpha Mimic Panel and press ENTER.



We next program the direction or in this case the colour of the LED on the Alpha Mimic Board, either N/1 - GREEN or R/2 - RED. This is done by using the DIRECTION key. We want R/2, so leave the settings as show on the screen and then ENTER to finish these settings.

Note - as the Alpha Switch-i switches are dual colour, the other switch will be showing the opposite colour to what you have selected in Step 2 of this command. If they are showing the wrong colour, change the direction of the command from **N/1** to **R/2** or vice versa using the **DIRECTION** key.



#### Step 15

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 ENTER. Push the PROG/ESC key 2 times to return to the SET INPUT 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





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 6**.

Keystroke table for Input 11:

Input No 11					
Select the Input to Input 11 1, 11, ENTER, 1, ENTER					
Step	Keystrokes	L	OW Action	HIGH Action	
1	1, 30, ENTER, 1, ENTER	Accessory 30 Normal		Not needed	
2	1, 0, 1, ENTER, 1, ENTER	Accessory 1 Normal		Not needed	
3	0, ENTER		End	Not needed	

Keystroke table for Input 12:

Input No 12					
Select the Input to Input 12 1, 12, ENTER, 1, ENTER					
Step	Keystrokes	LOW Action		HIGH Action	
1	1, 30, ENTER, 2, ENTER	Accessory 30 Reverse		Not needed	
2	1, 0, 1, ENTER, 2, ENTER	Accessory 1 Reverse		Not needed	
3	0, ENTER		End	Not needed	

Please note: These command streams use the **ENTER** key instead of the **ADD** key as there are no commands in the **HIGH** column, only commands in the **LOW** commands.

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

## You have now configured your Super Panel to control a way point motor from two Alpha Switch-i push buttons.

To control further Alpha Switch-i switches and point motors you just repeat this process, making sure you select the correct input to the Super Panel and the correct digital address for the accessory.

## Sample 6 - DCCconcepts Parts List

Qty	Part No.	Description				
1 x	DCC-SPL	Super Panel Control Board				
1 x	DCD-ASi-RG.6	Alpha Switch-i Red/Green 6 Pack				
1 x	DCD-MLCD	Alpha Mimic Digital Layout LED Lighting Control Set				
1 x	DCP-CB1DiP	Cobalt iP Digital Point Motor Single Pack				
1 x	Left or Right hand point - various makes can be used					
Vario	/arious 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 Super Panel.



## Route Setting With 3 Point Motors, 4 Push Buttons and A Super Panel



## Route Setting With 3 Point Motors, 4 Push Buttons and A Super Panel

#### Sample 7

#### PowerCab Programming Set Up



#### **Power Pro Programming Set Up**



The Super Panel comes into its own when you need to control multiple accessories with one switch. A classic model railway example is route setting for a storage yard.

In the diagram above you can see we have 4 push to make switches used to select 4 different routes. Each route is selected via 3 point motors - hence push one button and the Super Panel changes the required motors to the route selected.

Before we start programming the Super Panel we need to work out a logic table for the direction of each point motor with each button push to each required route. It would not be difficult to add LED indication to a control panel as well, but more on that in a later guide.

The table below allows us to see exactly the position of each point before we start programming. If you had a large storage yard with many more points and switches, creating the table first will speed up the programming process on the Super Panel.

	Point Motor Position				
Route	Point Motor 1	Point Motor 2	Point Motor 3		
Acc Number	20	21	22		
Route 1	Normal	N/A	N/A		
Route 2	Reversed	Reversed	N/A		
Route 3	Reversed	Normal	Reversed		
Route 4	Reversed	Normal	Normal		

We will program each push button, one at a time.

#### Step 1

First we need to set **Route 1** - so setting **Point Motor 1**, first, we connect everything as per the diagram and the **START SCREEN** will appear, press **ENTER** to move to the **Main Menu**:





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



#### Step 3

Set **INPUT:1** push to make switch to **LOW**, by pressing **DIRECTION** and **ENTER**, and then select **STEP:1** by pressing **ENTER**:



#### Step 4

The point motor is an accessory so press 1, then confirm the accessory number, **20**, of the motor by pressing **2** then **0** and **ENTER**.



#### Step 5

We want the motor to move to the **NORMAL** or **N/1** position, so leave the settings as show on the screen and **ENTER** to save these settings.





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 ENTER. Push the PROG/ESC key 3 times to return to the SET INPUT MENU SCREEN

That is the route for Push Button 1 set. We don't need to set the other point motor position for this switch as the push to make switch is only ever used to set Point Motor 20 in this one direction.

Now we will set **Route 2** - so setting **Point Motor 1** and **Point Motor 2**.



Select **1=SETUP** by pressing **1**, and then **2=SET INPUT** by pressing **2** then press **ENTER**.



#### Step 8

Set **INPUT:2** to **LOW**, by pressing **DIRECTION**, if needed, and then select **STEP:1** by pressing **ENTER**:





The point motor is an accessory so press 1, then confirm the accessory number, **20**, of the motor by pressing **2** then **0** and **ENTER**.



#### Step 10

We want the motor to move to the **REVERSE** or **R/2** position, so change the settings as show on the screen using the **DIRECTION** key and **ENTER** to save these settings.



#### Step 11

We now need to enter the commands for the second point motor, so it is an accessory so press 1, then confirm the accessory number, **21**, of the motor by pressing **2** then **1** and **ENTER**.



#### Step 12

We want the motor to move to the **REVERSE** or **R/2** position, so leave the settings as show on the screen and **ENTER** to save these settings.





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 ENTER. Push the PROG/ESC key 3 times to return to the SET INPUT MENU SCREEN

That is the route for Push Button 2 set. We don't need to set anything for point motor 3's position for this switch as the push to make switch is only ever used to set Point Motors 20 and 21 in this one direction.

Now we will set Route 3 - so setting Point Motor 1, Point Motor 2 and Point Motor 3

#### Step 14

Select **1=SETUP** by pressing **1**, and then **3=SET INPUT** by pressing **3** and then **ENTER**:



Step 15

Set **INPUT:3** to **LOW**, by pressing **DIRECTION**, if needed, and then select **STEP:1** by pressing **ENTER**:





The point motor is an accessory so press 1, then confirm the accessory number, **20**, of the motor by pressing **2** then **0** and **ENTER**.



#### Step 17

We want the motor to move to the **REVERSE** or **R/2** position, so leave the settings as show on the screen and **ENTER** to save these settings.



#### Step 18

We now need to enter the commands for the second point motor, so it is an accessory so press 1, then confirm the accessory number, **21**, of the motor by pressing **2** then **1** and **ENTER**.



#### Step 19

We want the motor to move to the **NORMAL** or **N/1** position, so change the settings as show on the screen using the **DIRECTION** key and **ENTER** to save these settings.





We now need to enter the commands for the third point motor, so it is an accessory so press 1, then confirm the accessory number, **22**, of the motor by pressing **2** then **2** and **ENTER**.



Step 21

We want the motor to move to the **REVERSE** or **R/2** position, so change the settings as show on the screen using the **DIRECTION** key and **ENTER** to save these settings.



Step 22

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 ENTER. Push the PROG/ESC key 3 times to return to the SET INPUT MENU SCREEN

# That is the route for Push Button 3 set. This route uses all three point motors in various positions. If you unsure of the point motor direction you can always go back to the route table at the start of the sample.

Now we will set **Route 4** - so setting **Point Motor 1**, **Point Motor 2** and **Point Motor 3** 



Select **1=SETUP** by pressing **1**, and then **4=SET INPUT** by pressing **4** and then **ENTER**:



Step 24

Set **INPUT:4** to **LOW**, by pressing **DIRECTION**, if needed, and then select **STEP:1** by pressing **ENTER**:



#### Step 25

The point motor is an accessory so press 1, then confirm the accessory number, **20**, of the motor by pressing **2** then **0** and **ENTER**.



#### Step 26

We want the motor to move to the **REVERSE** or **R/2** position, so leave the settings as show on the screen and press **ENTER** to save these settings.





We now need to enter the commands for the second point motor, so it is an accessory so press 1, then confirm the accessory number, **21**, of the motor by pressing **2** then **1** and **ENTER**.



#### Step 28

We want the motor to move to the **REVERSE** or **R/2** position, so leave the settings as show on the screen and **ENTER** to save these settings.



#### Step 29

We now need to enter the commands for the third point motor, so it is an accessory so press 1, then confirm the accessory number, **22**, of the motor by pressing **2** then **2** and **ENTER**.



#### Step 30

We want the motor to move to the **NORMAL** or **N/1** position, so change the settings as show on the screen using the **DIRECTION** key and **ENTER** to save these settings.





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 ENTER. Push the PROG/ESC key 3 times to return to the SET INPUT MENU SCREEN

# That is the route for Push Button 4 set. This route uses all three point motors in various positions. If you unsure of the point motor direction you can always go back to the route table at the start of the sample.

To add further point motors and push switches you would just repeat these commands and change the appropriate Super Panel input numbers, point motor DCC accessory addresses and directions of motor travel at the relevant points.

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

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 7**.

### Power Pro Run Set Up

Keystroke table for Input 1:

Input No 1					
Select the Input to Input 1 1, 1, ENTER, 1, ENTER					
Step	Keystrokes	L	OW Action	HIGH Action	
1	1, 20, ENTER, 1, ENTER	Acces	sory 20 Normal	Not Needed	
2	0, ENTER		End	Not Needed	

Keystroke table for Input 2:

Input No 2					
Select the Input to Input 2 1, 1, 2, ENTER, 1, ENTER					
Step	Keystrokes	LOW Action		HIGH Action	
1	1, 20, ENTER, 1, ENTER	Accessory 20 Normal		Not Needed	
2	1, 21, ENTER, 2, ENTER	Accessory 21 Reverse		Not Needed	
3	0, ENTER		End	Not Needed	

Keystroke table for Input 3:

Input No 3						
	Select the Input to Input 3 1, 1, 3, ENTER, 1, ENTER					
Step	Keystrokes	LOW Action		HIGH Action		
1	1, 20, ENTER, 2, ENTER	Accessory 20 Reverse		Not Needed		
2	1, 21, ENTER, 1, ENTER	Accessory 21 Normal		Not Needed		
3	1, 22, ENTER, 2, ENTER	Acces	sory 22 Reverse	Not Needed		
4	0, Enter		End	Not Needed		

Keystroke table for Input 4:

Input No 4						
	Select the Input to Input 4 1, 1, 4, ENTER, 1, ENTER					
Step	Keystrokes	LOW Action		HIGH Action		
1	1, 20, ENTER, 2, ENTER	Accessory 20 Reverse		Not Needed		
2	1, 21, ENTER, 1, ENTER	Accessory 21 Normal		Not Needed		
3	1, 22, ENTER, 1, ENTER	Acces	sory 22 Normal	Not Needed		
2	0, Enter		End	Not Needed		

Please note: These command streams use the **ENTER** key instead of the **ADD** key as there are no commands in the **HIGH** column, only commands in the **LOW** commands.

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

### Sample 7 - DCCconcepts Parts List

Qty	Part No.	Description
1 x	DCC-SPL	Super Panel Control Board
1 x	DCD-APB	Alpha Push-Button 6-Pack of Push-Button Switches
3 x	DCP-CB1DiP	Cobalt iP Digital Point Motor Single Pack
2 x	DCD-ACL	RJ12 6pin Curly Cord For NCE Powercab and Cobalt Alpha

3 x Left or Right hand points - 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 Super Panel.

You have now configured your Super Panel to control a fiddle yard entrance using three point motors and 4 push to make switches.



## Controlling A Double Slip Using Four Push To Make Switches



### **Controlling A Double Slip Using Four Push To Make Switches**

#### Sample 8

#### PowerCab Programming Set Up



### Power Pro Programming Set Up



In this sample we will control a double slip with four separate push to make switches. The separate routes will be each controlled from a single push to make switch.

To select Route 1, we need to set Point 1, PM1 to **NORMAL** To select Route 2, we need to set Point 1, PM1 to **REVERSED** To select Route 3, we need to set Point 1, PM2 to **REVERSED** To select Route 4, we need to set Point 1, PM2 to **NORMAL** 

#### Step 1

First we need to set Route 1 - so setting **Point 1, PM1** first, we connect everything as per the diagram and the **START SCREEN** will appear, press **ENTER** to move to the **Main Menu**:



Step 2

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



#### Step 3

Set **INPUT:1** push to make switch to **LOW**, by pressing **DIRECTION** and **ENTER**, and then select **STEP:1** by pressing **ENTER**:





The point motor is an accessory so press 1, then confirm the accessory number, **30**, of the motor by pressing **3** then **0** and **ENTER**.



Step 5

We want the motor to move to the **NORMAL** or **N/1** position, so leave the settings as show on the screen and **ENTER** to save these settings. If needed, you can change from **N/1** to **R/2**, and vice-versa, by pushing the **DIRECTION** key.



Step 6

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** 





Now we need to set Route 2 on **Point 1, PM1**, by pushing **2** to start the second command string.



#### Step 8

The point motor is an accessory so press **1**, then confirm the accessory number, **30**, as it is still the same point motor as before we need to control, by pressing **3** then **0** and **ENTER**.



#### Step 9

We want the motor to move to the **REVERSE** or **R/2** position, so change the settings from what is shown on the screen using the **DIRECTION** key and press **ENTER** to save these settings.



#### Step 10

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** 





Now we need to set Route 3 on **Point 2**, **PM2**, by pushing **3** to start the third command string.



#### Step 12

The point motor is an accessory so press **1**, then confirm the accessory number, **31**, as it is still the same point motor as before we need to control, by pressing **3** then **1** and **ENTER**.



#### Step 13

We want the motor to move to the **NORMAL** or **N/1** position, so change the settings from what is shown on the screen using the **DIRECTION** key and press **ENTER** to save these settings.



#### Step 14

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** 





Finally, we need to set Route 4 on Point 2, PM2, by pushing 4 to start the fourth command string.



#### Step 15

The point motor is an accessory so press **1**, then confirm the accessory number, **31**, as it is still the same point motor as before we need to control, by pressing **3** then **1** and **ENTER**.



#### Step 17

We want the motor to move to the **REVERSE** or **R/2** position, so change the settings from what is shown on the screen using the **DIRECTION** key and press **ENTER** to save these settings.



#### Step 18

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** 



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 8**.

Keystroke table for Input 1:

Input No 1					
Select the Input to Input 1 1, 1, ENTER, 1, ENTER					
Step	Keystrokes	L	OW Action	HIGH Action	
1	1, 30, ENTER, 1, ENTER	Acces	sory 30 Normal	Not Needed	
2	0, ENTER		End	Not Needed	

Keystroke table for Input 2:

Input No 2					
Select the Input to Input 2			1, 1, 2, ENTER, 1, ENTER		
Step	Keystrokes	LOW Action		HIGH Action	
1	1, 30, ENTER, 2, ENTER	Accessory 30 Reverse		Not Needed	
2	0, ENTER	End		Not Needed	

Keystroke table for Input 3:

Input No 3					
	Select the Input to Input 3		1, 1, 3, ENTER, 1, ENTER		
Step	Keystrokes	LOW Action		HIGH Action	
1	1, 31, ENTER, 1, ENTER	Accessory 31 Normal		Not Needed	
2	0, ENTER	End		Not Needed	

Keystroke table for Input 4:

Input No 4					
Select the Input to Input 4			1, 1, 4, ENTER, 1, ENTER		
Step	Keystrokes	LOW Action		HIGH Action	
1	1, 31, ENTER, 2, ENTER	Accessory 31 Reverse		Not Needed	
2	0, ENTER	End		Not Needed	

Please note: These command streams use the **ENTER** key instead of the **ADD** key as there are no commands in the **HIGH** column, only commands in the **LOW** commands.

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

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.



You have now configured your Super Panel to control a double slip using 4 push to make switches.

To control further single or double slips and point motors you just repeat this process, making sure you select the correct input to the Super Panel and the correct digital address for the accessory.

## Sample 8 - DCCconcepts Parts List

Qty	Part No.	Description
1 x	DCC-SPL	Super Panel Control Board
1 x	DCD-APB	Alpha Push-Button 6-Pack of Push-Button Switches
2 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 Double Slip - 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 Super Panel.



## Controlling Two Separate Solenoid Points Motors Using Two On-Off Toggle Switches


### Controlling Two Separate Solenoid Points Motors Using Two On-Off Toggle Switches

#### Sample 9

### PowerCab Programming Set Up



## Power Pro Programming Set Up



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When controlling solenoid point motors, with an appropriate DCC accessory control board, a DCD-ADS-2SX in this case, you have to remember to add a **DELAY** command into your programming structure. This is because the solenoid controller will have a capacitor discharge unit, a CDU, to power the solenoid motor and will need time to recharge after being fired.

In the real world you may accidentally select the wrong switch on your control panel and need to move the same point immediately back to its original position. Without the **DELAY** command in the structure this action may be missed by the decoder unit and the action not completed.

#### Step 1

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



Step 2

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



#### 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:13**, the Super Panel input you have connected the switched terminal from the toggle switch to, by pressing **1** and **3** and **ENTER**, and then select **STEP:1** by pressing **ENTER**:





The point motor is an accessory so press **1**, then confirm the accessory number, **50**, as it is still the same point motor as before we need to control, by pressing **5** then **0** and **ENTER**.



Step 5

We want the motor to move to the **NORMAL** or **N/1** position, so leave the settings as show on the screen and press **ENTER** to save these settings.



#### Step 6

Now we need to add the **DELAY** command, which is stored in the **OTHER** sub menu. Press **5** and then **1** 



#### Step 7

The **DELAY** command is structured in either *multiples of a quarter of a second* or *4 second* blocks. To have a delay of 1 second we need to enter 4 x 1/4 seconds. Leave the screen as it is with the Q showing, press the **INC** and **DEC** keys to toggle between the Q and 4 second screen if needed, and press **ENTER**. Next enter 4 and press **ENTER** to confirm this command.



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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** 



Push the **PROG/ESC** key 1 time to return to the **SET INPUT MENU SCREEN** 

#### Step 9

We now need to set the **HIGH** commands, or what the Super Panel does when the switch is switched *off*. So, press the **DIRECTION** key to select the high commands and press **ENTER**.



#### Step 10

The point motor is an accessory so press **1**, then confirm the accessory number, **50**, as it is still the same point motor as before we need to control,by pressing **5** then **0**.



#### Step 11

We want the point motor to travel in the opposite direction, so press the **DIRECTION** key and press **ENTER** to confirm.





Now we need to add the **DELAY** command, which is stored in the **OTHER** sub menu. Press **5** and then **1** 



#### Step 13

Leave the screen as it is with the Q showing, press the **INC** and **DEC** keys to toggle between the Q and 4 second screen if needed, and press **ENTER**. Next enter 4 and press **ENTER** to confirm this command.



#### Step 14

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** 



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

# To program the second switch, just repeat STEP 3 to STEP 14, replacing the Super Panel input number with 14 and changing the point motor DCC accessory address to 51, otherwise everything else is the same.

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 9**.

Keystroke table for Input 13:

Input No 13							
Select the Input to Input 13			1, 1, 13, ENTER, 1, ENTER				
Step	Keystrokes	LOW Action		HIGH Action			
1	1, 50, ENTER, 1, ADD	Accessory 50 Normal		Accessory 50 Reverse			
2	5, 1, ENTER, 4, ADD	1 Second Delay		1 Second Delay			
3	0, ADD	End		End			

Keystroke table for Input 14:

Input No 14							
	Select the Input to Input 14		1, 1, 14, ENTER, 1, ENTER				
Step	Keystrokes	LOW Action		HIGH Action			
1	1, 51, ENTER, 1, ADD	Accessory 51 Normal		Accessory 51 Reverse			
2	5, 1, ENTER, 4, ADD	1 Second Delay		1 Second Delay			
3	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.

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





# Sample 9 - DCCconcepts Parts ListQty Part No.Description

- 1 x DCC-SPL Super Panel Control Board
- 1 x DCD-ATS Alpha Toggle Switch 6-Pack of On-Off-On Sprung Toggle Switches
- 1 x DCD-ADS-2SX 2 Channel Accessory Decoder CDU Solenoid Drive & Digital Relay SX
- 2 x DCD-ACL RJ12 6pin Curly Cord For NCE Powercab
- 2 x Left or Right hand points various makes can be used
- 2 x Solenoid point motors 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 Super Panel.

You have now configured your Super Panel to control two solenoid point motor from 2 Channel Accessory Decoder using 2 toggle switches.

To control further toggle switches and point motors you just repeat this process, making sure you select the correct input to the Super Panel and the correct digital address for the accessory.