“The Shutter Relay”

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Introduction

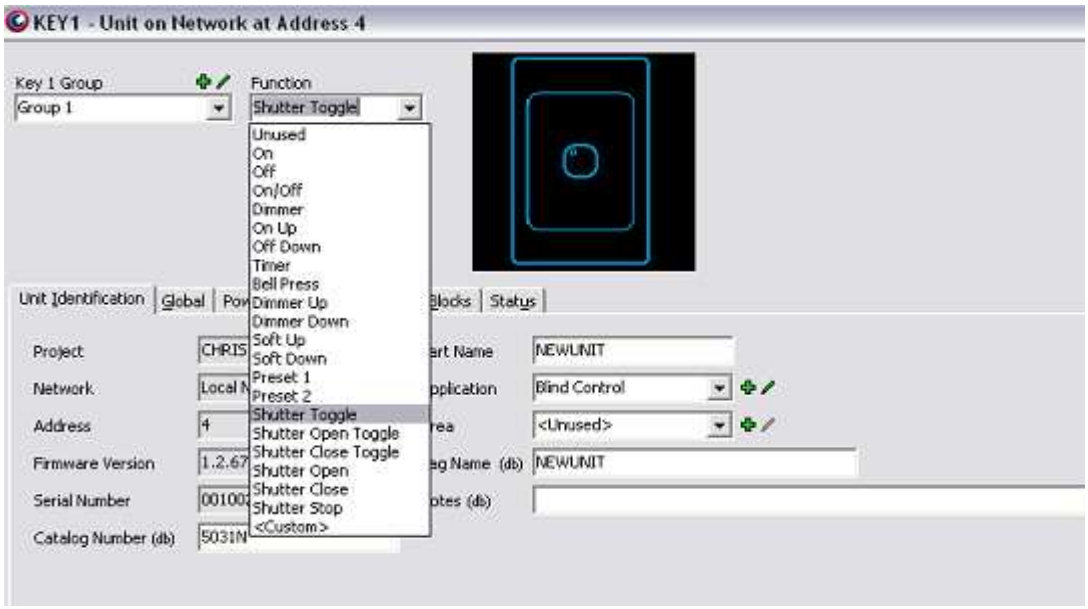
The new shutter control relay incorporates a level of smarts never before seen in a C – Bus relay!! In fact it can work in two entirely different ways. Here are some tips on how to get the most out of the relay in any situation.

Level Translation Mode

This setting gives the user limited functionality and is designed as basic operations, the keys are predefined giving a choice of 1, 2 or 3 button operation of a blind a follows:

	Shutter Macro Function	Duty Cycle
One Key Operation	shutter toggle	Open, Stop, Close…
Two Key Operation	shutter open toggle	Open, Stop…
	shutter close toggle	Close, Stop…
Three Key Operation	shutter open	Open
	shutter close	Close
	shutter stop	Stop

* Please note when using level translation mode the motor must have a cut out because the relay will always run for the full failsafe time, this will happen even if the relay is restarted after the blind is stopped midway open or closed.



When using a touch screen the Shutter Macro Functions may be emulated using the Preset and the Ramp Off key functions, select the Ramp Rate to be slightly less than the failsafe time for correct operation of the ramp off key. Select the group address and the shutter relay and enter the preset levels as below;

Shutter Macro Function	Key Micro Function	Equivalent PICED Key Function and Level
Shutter Toggle	Recall 1	Preset Level = 98%
Shutter Open Toggle	Recall 1	Preset Level = 99%
Shutter Close Toggle	Recall 2	Preset Level = 1%
Shutter Open	Recall 1	Preset Level = 100%
Shutter Close	Ramp Off	Off Down
Shutter Stop	Recall 2	Preset Level = 2%

Scenes:

Scenes may be created by including the relevant groups preset to levels as above. When creating the Shutter Close scene set the level of the groups to Off or 0%.

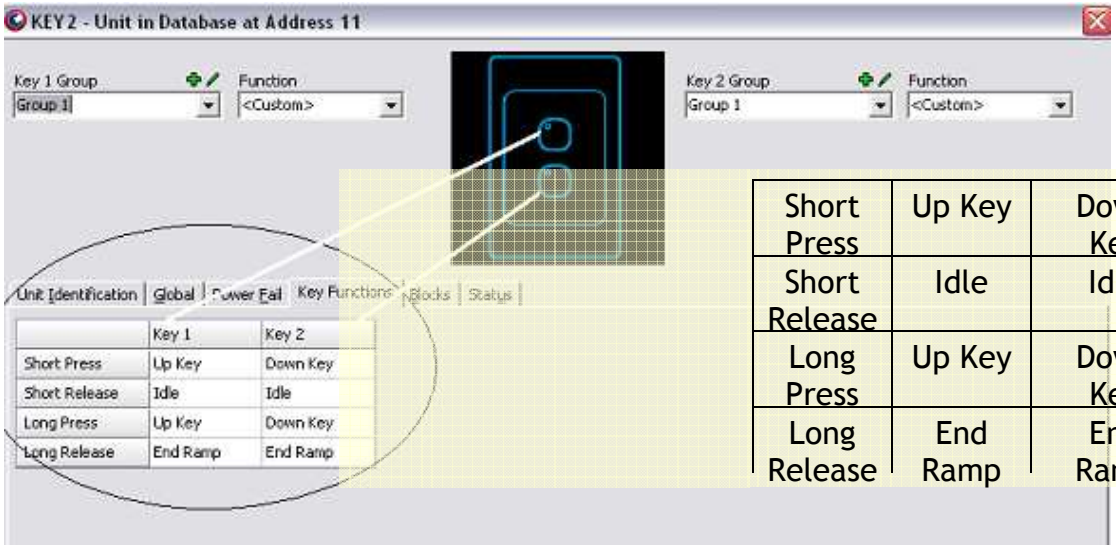
Proportional Mode

When Proportional Mode is enabled, Input units controlling this unit should use standard lighting key functions instead of the supplied predefined “Shutter” functions, and the Relay’s fail safe time needs to be slightly longer than the controlling units ramp1 time.

This mode gives the user much flexibility allowing custom control of blinds. On a 2 gang switch we can have full control over the blind using the settings below. (Group 1 is the group on our Shutter Relay). The buttons will function in the following manner;

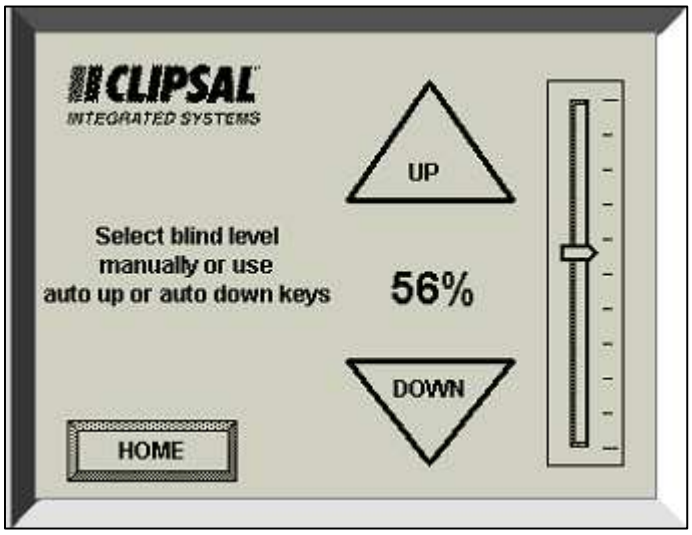
- Press and hold either up or down to take the blinds to desired level.

- A short press of up will raise the blinds to “OPEN” (100%). A short press of down will lower the blinds to “CLOSE” (0%). To stop the blinds at a specific level press and hold the same button briefly and the blinds will stop.



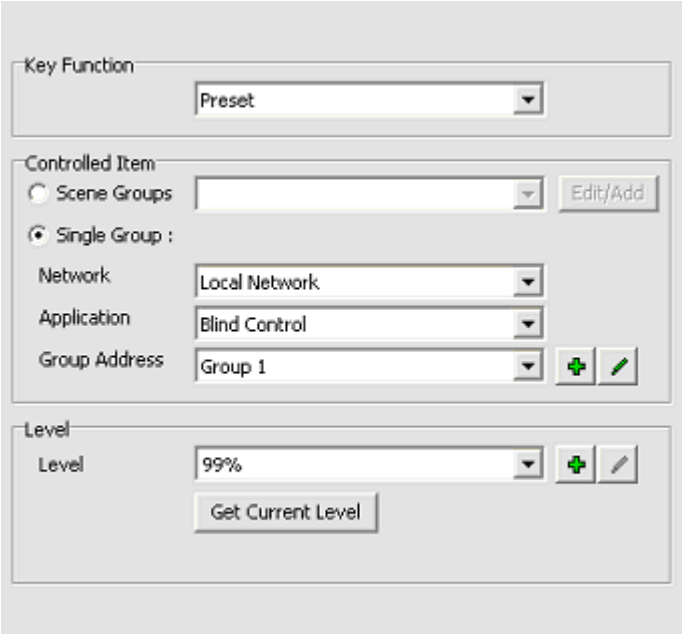
Short Press	Up Key	Down Key
Short Release	Idle	Idle
Long Press	Up Key	Down Key
Long Release	End Ramp	End Ramp

A touch screen can be programmed to control blinds with either buttons or sliders,



The slider is programmed as a “slider key function” controlling the group of the blind assigned to the shutter relay.

Automatic open (“Up”) and close (“Down”) buttons have also been included on the touch screen. When programming these buttons use the Preset function but note that the shutter control relay in proportional mode recognises 100% percent as a C-Bus “ON” and 0% as C-Bus “OFF”. The ability to stop the blind motion will be lost if these are used on a key because the relay starts it’s timing over and runs the motor for the full fail safe time. To avoid this the level for “ON” must be set to 99% and the level for “Off” set to 1% as per image



With these settings the relay will remember where it is regardless if controlled by the buttons or sliders.

N.B. In our testing the blind will not successfully recognise position change commands if they are issued from separate input units. Eg; If you have two inputs with preset positions on them and you send the blind to 60% from one input and then attempt to send it to 80% from the other input, it will not understand the relative change and will open all the way.

Scenes:

Scenes may be created by including the appropriate groups with the required levels in a key input or touch screen.

Shutter Relay and Voltage Free Controllers:

If we have a 3-wire voltage free controller built into the blind and we wish to automate it we can by using the Shutter Relay as shown below. It is important to note the relay is powered by C-Bus so the Active and Neutral are only supply for the Output terminals and should not be connected to mains unless the load requires a mains supply. The details for mains loads are in the installation guide.