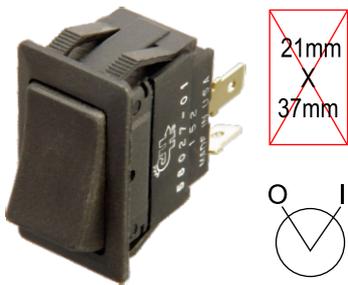
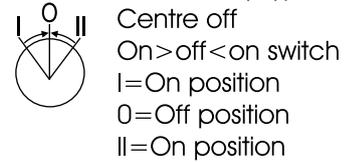
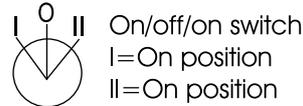
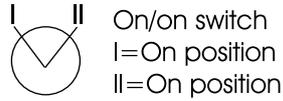
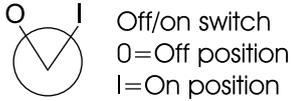


# ROCKER SWITCHES

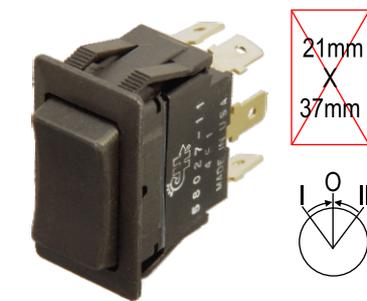
A range of popular and universal application switches for automotive use. Our range, when used in conjunction with our distribution catalogues, cover almost any application.

## Switch operation symbols explained....



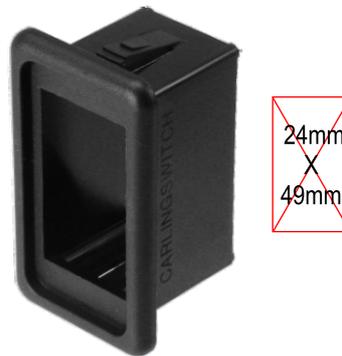
**24171**

Plain rocker switch.  
On/off (SPST)  
12VDC@25A



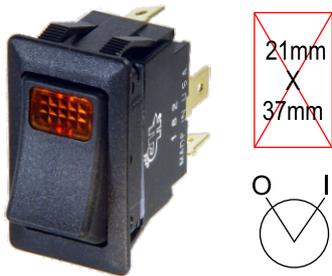
**24170**

Plain rocker switch.  
Mom. On>off<on (DPDT)  
12VDC@25A



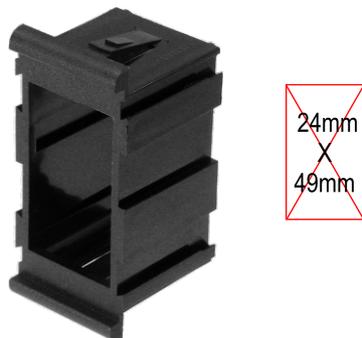
**24182**

Rocker panel.  
Single section.  
Useful for adapting into  
a larger switch cutout.  
Suits 24160 thru 24172.



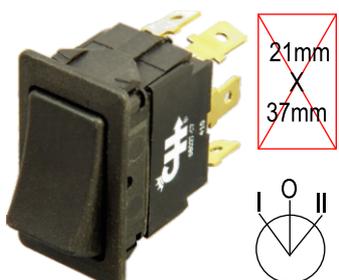
- 24160** - 12V amber
- 241601** - 24V amber
- 24161** - 12V green
- 24162** - 12V red
- 241621** - 24V red
- 24163** - 12V white
- 24164** - 12V blue

Illuminated rocker switch.  
On/off (SPST)  
12VDC@25A



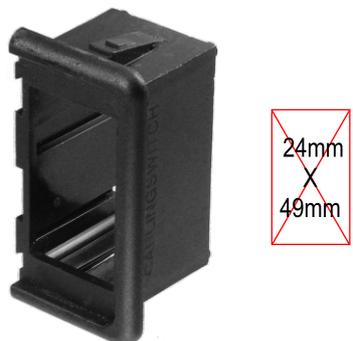
**24180**

Rocker panel.  
Interlocking centre section.  
Suits 24160 thru 24172.



**24172**

Plain rocker switch.  
On/off/on (DPDT)  
12VDC@25A



**24181**

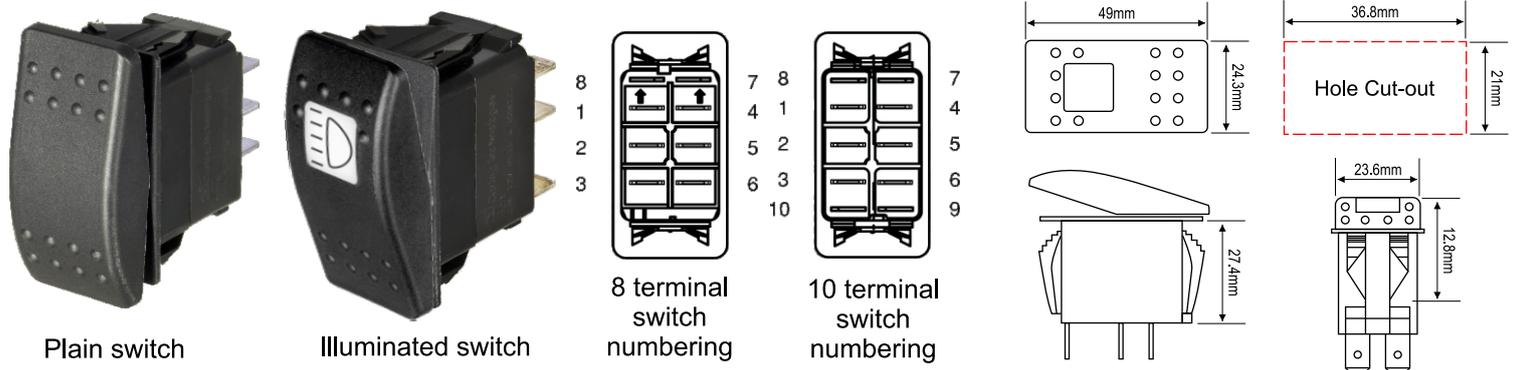
Rocker panel.  
Interlocking end section.  
Suits 24160 thru 24172.

# 420 SERIES SWITCHES

420 series Carlingswitches are designed for automotive applications from cars, trucks, tractors and industrial machines to marine or any 12V/24V application exposed to the elements. Modern styling make them ideally suited for passenger vehicles. Non illuminated switches are sold complete with a plain black actuator.

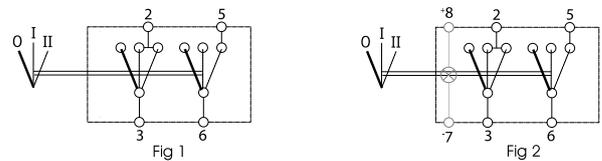
Illuminated switches are sold as two parts - the rocker switch body and an actuator. Actuators are available with a plain white illumination window that is coloured by the LED or with a range of printed decals and are replaceable without having to remove or disassemble the switch making them ideal for future field refurbishment, replacement or re-use.

- Panel cutout is 37mm x 21mm
- Panel thickness to 4mm
- Connector housings available for harness integration
- All switches are rated at 4-14VDC@20A, 15-28VDC@15A, 250VAC@10A
- Silver alloy contacts for long life
- 150,000 cycle operation minimum design life
- 12V or 24V LED illumination
- Actuators made of polycarbonate overlaid with hard wearing nylon - IP67 rating
- Panel gasket seal rated to IP68
- Actuation and illumination submersion tested to 1M for 30mins
- -40°C to +85°C working temperature range
- Meets MIL standards for corrosion, vibration, shock, dust, salt spray and thermal shock
- Meets UL standards for ignition protection for marine applications



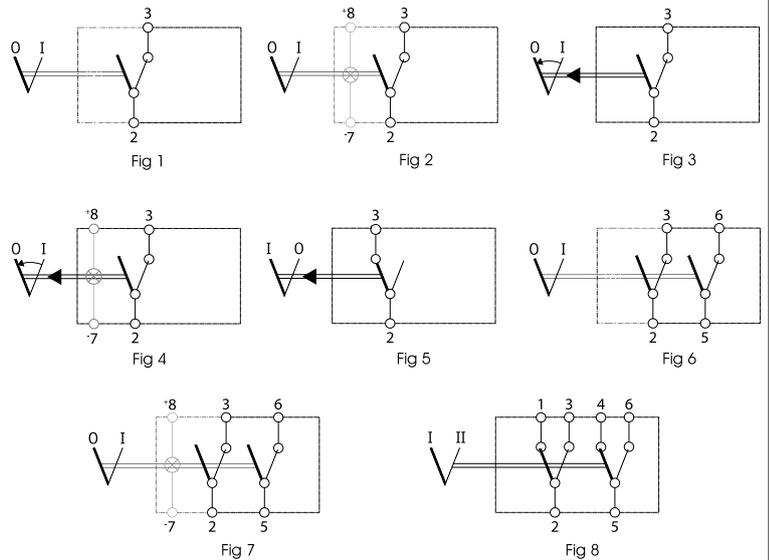
## Specialty Switches

Part No.	Description	Volt	Colour	Fig.
<b>42040</b>	Off/On+On (Collective) D.P.	-	Plain	Fig.1
<b>42041R</b>	Off/On+On (Collective) D.P.	12	Red	Fig.2



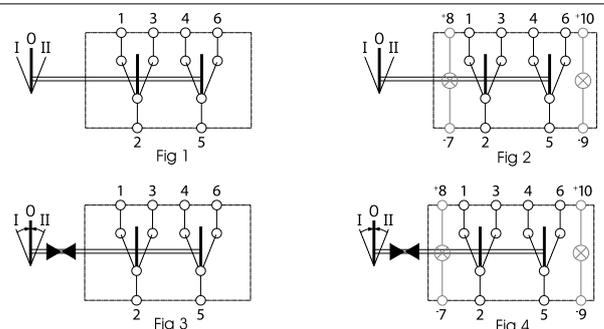
## Two Position Switches

Part No.	Description	Volt	Colour	Fig.
<b>42010</b>	Off/On S.P.	-	Plain	Fig.1
<b>42011A</b>	Off/On S.P.	12	Amber	Fig.2
<b>42011G</b>	Off/On S.P.	12	Green	Fig.2
<b>42011R</b>	Off/On S.P.	12	Red	Fig.2
<b>42012A</b>	Off/On S.P.	24	Amber	Fig.2
<b>42012G</b>	Off/On S.P.	24	Green	Fig.2
<b>42012R</b>	Off/On S.P.	24	Red	Fig.2
<b>42020</b>	Off<On Momentary N.O.	-	Plain	Fig.3
<b>42021R</b>	Off<On Momentary N.O.	12	Red	Fig.4
<b>42022R</b>	Off<On Momentary N.O.	24	Red	Fig.4
<b>42050</b>	On<Off Momentary N.C.	-	Plain	Fig.5
<b>42030</b>	Off/On D.P.	-	Plain	Fig.6
<b>42031A</b>	Off/On D.P.	12	Amber	Fig.7
<b>42031R</b>	Off/On D.P.	12	Red	Fig.7
<b>42032A</b>	Off/On D.P.	24	Amber	Fig.7
<b>42032R</b>	Off/On D.P.	24	Red	Fig.7
<b>42060</b>	On/On D.P.	-	Plain	Fig.8



## Three Position Switches

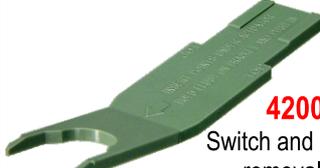
Part No.	Description	Volt	Colour	Fig.
<b>42080</b>	On/Off/On D.P.	-	Plain	Fig.1
<b>42081GG</b>	On/Off/On D.P.	12	Green	Fig.2
<b>42081RR</b>	On/Off/On D.P.	12	Red	Fig.2
<b>42082RR</b>	On/Off/On D.P.	24	Red	Fig.2
<b>42090</b>	On>Off<On D.P.	-	Plain	Fig.3
<b>42091RR</b>	On>Off<On D.P.	12	Red	Fig.4
<b>42092RR</b>	On>Off<On D.P.	24	Red	Fig.4



# 420 SERIES ACTUATORS & ACCESSORIES

420 series accessories include connector housings to allow integration with harnesses. Use terminal 21500 with these housings. All two position switches use 8 terminal connectors - all three position switches use 10 terminal connectors. Dual indicators use LEDs for illumination and are voltage specific. The removal tool is used to remove actuators and switches.

## Accessories

 <p><b>42001RR</b> Dual 12V red Indicator</p> <p><b>42002RR</b> Dual 24V red Indicator</p>	 <p><b>42000</b> Switch/panel blank</p>	 <p><b>24180</b> Rocker panel centre section</p>	 <p><b>24181</b> Rocker panel end section</p>	 <p><b>24182</b> Rocker panel single section</p>
 <p><b>42005</b> Connector housing suit 8 terminal switches</p> <p><b>42006</b> Connector housing suit 10 terminal switches</p>	 <p><b>42009</b> Switch and actuator removal tool</p>			

## Actuators and Decals

 <p><b>421000</b> Plain Black</p>	 <p><b>421007</b> Fan</p>	 <p><b>421014</b> Side Markers</p>	 <p><b>421021</b> Windscreen Wiper</p>	 <p><b>421028</b> Demister</p>	<p><b>YARD</b></p> <p><b>421035</b> 'Yard'</p>
 <p><b>421001</b> Searchlight</p>	 <p><b>421008</b> Windscreen Washer</p>	 <p><b>421015</b> Headlamps</p>	 <p><b>421022</b> Worklamp</p>	 <p><b>421029</b> Auxiliary Fuel</p>	<p><b>PTO</b></p> <p><b>421036</b> 'PTO'</p>
 <p><b>421002</b> Horn</p>	 <p><b>421009</b> Spot Lamp</p>	 <p><b>421016</b> Increase Speed</p>	 <p><b>421023</b> Left Arrow</p>	<p><b>AUX</b></p> <p><b>421030</b> Auxiliary</p>	 <p><b>421037</b> Tail Gate</p>
 <p><b>421003</b> Service Lamps</p>	 <p><b>421010</b> High Beam</p>	 <p><b>421017</b> Hazard Lamps</p>	 <p><b>421024</b> Strobe Beacon</p>	 <p><b>421031</b> Front Lamps</p>	 <p><b>421038</b> Arrow Down/Up</p>
 <p><b>421004</b> Air Filter</p>	 <p><b>421011</b> Air Conditioner</p>	 <p><b>421018</b> Dome Lamp</p>	 <p><b>421025</b> Left Worklamp</p>	 <p><b>421032</b> Rear Lamps</p>	 <p><b>421099</b> Unprinted White</p>
 <p><b>421005</b> Fog Lamp Warning</p>	 <p><b>421012</b> Transmission Temp</p>	 <p><b>421019</b> Rotating Beacon</p>	 <p><b>421026</b> Right Worklamp</p>	 <p><b>421033</b> Arrow Up</p>	
 <p><b>421006</b> Differential Lock</p>	 <p><b>421013</b> Fog Lamps</p>	 <p><b>421020</b> Water Temp</p>	 <p><b>421027</b> Engine Oil Pressure</p>	 <p><b>421034</b> Reverse Lamp</p>	

ENG switches are a drop in replacement for SWF equivalents and are designed for automotive applications from cars and trucks to tractors and industrial machines or any 12V/24V application not exposed to the elements.

The illumination function is separate to the switching circuit and is therefore optional and highly configurable.

All switches & indicators are supplied with a 24V globe fitted and a 12V globe included in the packaging where relevant.

All switches & indicators require the use of an insert over the illumination opening. See 'Inserts' sections for more options.

All switches are rated at 4-14VDC@16A and 15-28VDC @ 8A. Panel cutout is 44.1mm x 22.1mm

**Lighting positions** - Switches can display illumination in different modes. This is useful where a switch is required to be dull in the 'off' position and bright in the 'on' position. They can also be ordered to operate in dull or bright mode exclusively.

When illumination is required, order the part number with the corresponding illumination mode:

A=Bright illumination in any switch position.

B=Dull illumination in any switch position

C=Dull illumination in off position and bright illumination in on position(s)

The dull effect is obtained through a mechanical 'shading' of the globe in the dull position. Only 1.2W globes should be used.



Basic switch



Assembled switches



Assembled 6 hole mounting panel

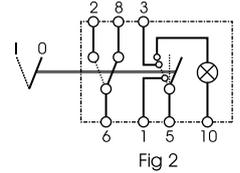
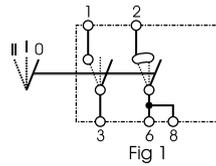


Basic indicator

### Specialty Switches

Mode

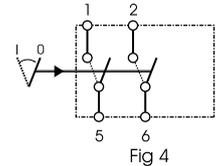
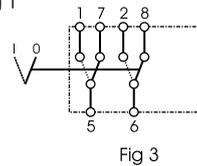
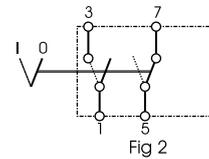
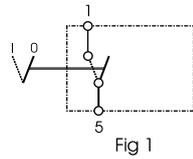
<b>444137</b> Off/On+On (Collective) D.P.	C	Fig.1
<b>444191</b> Hazard	-	Fig.2



### Two Position Switches

Mode

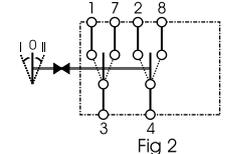
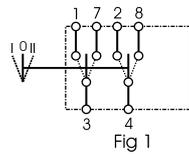
<b>444001</b> On/Off S.P.	A	Fig.1
<b>444006</b> On/Off S.P.	C	Fig.1
<b>444039</b> On/On S.P. (or exclusive D.P.)	C	Fig.2
<b>444111</b> On/On D.P.	C	Fig.3
<b>444131</b> On>Off D.P.	B	Fig.4
<b>444239</b> On/On D.P. (Locks in off pos.)	C	Fig.3



### Three Position Switches

Mode

<b>444054</b> On/Off/On D.P.	B	Fig.1
<b>444059</b> On>Off<On D.P.	B	Fig.2



### Accessories

<b>611503</b> Dual indicator lamp assembly	Fig.1
<b>613328</b> Pilot lamp plug housing	Fig.2
<b>694801</b> Mounting panel centre section	Fig.3
<b>694802</b> Mounting panel end section	Fig.4
<b>695502</b> Mounting panel. 3 hole bezel	Fig.5
<b>695902</b> Mounting panel. 6 hole bezel	*
<b>696273</b> Hole blank for switches/indicators	Fig.6
<b>696289</b> Switch plug housing	Fig.7
<b>696710</b> Globe holder with 24v globe fitted	Fig.8
<b>21500</b> Terminal to suit 613328 & 696289	-

\* Same as Fig.5 but 6 hole.

**Note: This is a condensed range - many other switch configurations are available upon request.**

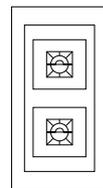


Fig 1



Fig 2

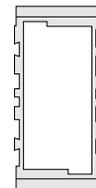


Fig 3

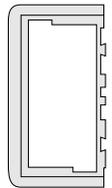


Fig 4

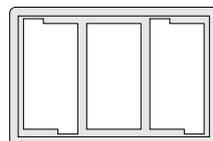


Fig 5



Fig 6

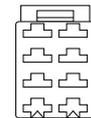


Fig 7

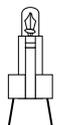
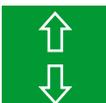
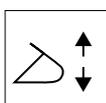
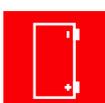


Fig 8

# 444 SERIES INSERTS & DECALS

Below is the condensed range of inserts/decals used in the 444 series switches and indicators. They are compatible with competitor brands and some are orientated for horizontal mounting. All inserts/decals are keyed to orientate correctly to follow industry standards. Where a plain, non-illuminated switch is required use a black insert.

					
<b>896650</b> Green blank	<b>894441</b> TV	<b>896641</b> Interior light	<b>896191</b> Hazard	<b>896106</b> Socket	<b>895969</b> Slow
					
<b>896615</b> Red blank	<b>894442</b> Monitor	<b>896189</b> Headlight	<b>896228</b> Beacon	<b>896120</b> Preheat	<b>895971</b> Fast
					
<b>896610</b> Yellow blank	<b>896186</b> Music	<b>896169</b> Headlight	<b>896426</b> Beacon	<b>895425</b> Fuel	<b>894709</b> Speed control
					
<b>896320</b> Orange blank	<b>896301</b> Window lift	<b>896648</b> High beam	<b>892916</b> Beacon	<b>896171</b> Oil	<b>896338</b> Decelerator
					
<b>895620</b> Blue blank	<b>896122</b> Window	<b>896313</b> Worklamp - Left	<b>896196</b> Horn	<b>895199</b> Oil	<b>893045</b> Axle lock
					
<b>896620</b> Black blank	<b>896194</b> Door	<b>894767</b> Worklamp - Right	<b>895137</b> Mirror heater	<b>895101</b> Temperature	<b>894402</b> PTO
					
<b>892022</b> Heat/Vent	<b>896603</b> Wiper/Washer	<b>894461</b> Indicator - Left	<b>896123</b> Test	<b>895194</b> Brake	<b>895409</b> Raise/Lower
					
<b>896101</b> Air conditioner	<b>896627</b> Windscreen Washer	<b>894460</b> Indicator - Right	<b>896153</b> Battery/Charge	<b>895148</b> Brake	<b>895177</b> Trailer
					
<b>894700</b> Fan	<b>896625</b> Wiper	<b>895200</b> Double indicator	<b>896123</b> Battery/Charge	<b>896173</b> Park	<b>892518</b> Raise/Lower
					
				<b>894434</b> Stop	<b>892906</b> Tailgate