54100 Series, 25A
Standard or lighted handle – black nylon or clear plastic, 11/16" (17.5mm) long. Silver contacts. Mounting stem 15/32" -32 thread, 15/32" (11.9mm) long, fits panels up to 1/8" (31.8mm) thick. Includes mounting hardware: black metal facenut and nickel-plated hexnut. 25A at 12V DC. Terminals: .250" blade or 6-32 screw.

SPST

54100 On-Off

54100-01 On-Off

54101 Mom On-Off

54101-01 Mom On-Off
Up: Mom On, Down: Off. Two blade terminals.
**54109 On-Off, Illuminated**

**54109-01 On-Off, Illuminated**

---

**SPDT**

**54103 On-Off-On**

**54103-01 On-Off-On**

**54104 Mom On-Off-Mom On**

**54104-01 Mom On-Off-Mom On**

---

**DPST**

**54105 On-Off**

**54105-01 On-Off**
Up: On, Down: Off. Four blade terminals.

---

**DPDT**

**54107 On-Off-On**

**54107-01 On-Off-On**

---

**M-54111 Lighted Tip Switches 25A**
Independent illumination switches can be wired for dependent operation. Tip of handle is illuminated red in the On position, clear in the Off position. Tip of handle is illuminated Red in the On position, illuminated Clear in the Off position. Nickel-plated brass hexnut. Black plastic handle, housing and facenut. Keyway in the down position. Blade terminals. 25A at 12V DC. Plastic facenut can be replaced with black metal facenut 83252 on page 27.

**M-54111-01 SPST On-Off**
Up: On, Down: Off. Four blade terminals.

**M-54111-02 SPDT On-Off-On**
59024-000 Series 1” Paddle Handle Switches 25A
Silver contacts, 15/32”-32 thread mounting stem. Fits panels up to 1/4” (6.4mm) thick. Includes mounting hardware: black knurled facenut, hexnut. Keyway is in the down position. 1” (25.4mm) handle, black plastic, matte finish. 25A at 12V DC. Terminals: Brass 8-32 screw or .250 quick connect blade.

**SPDT**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>Terminal Configuration</th>
</tr>
</thead>
</table>

**DPST**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>Terminal Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>59024-110</td>
<td>0n-Off</td>
<td>Up: On, Down: Off. Four blade terminals.</td>
</tr>
</tbody>
</table>

**DPDT**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>Terminal Configuration</th>
</tr>
</thead>
</table>

---

**SPST**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>Terminal Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>59024-100</td>
<td>0n-Off</td>
<td>Up: On, Down: Off. Two blade terminals.</td>
</tr>
<tr>
<td>59024-144</td>
<td>Mom On-Off</td>
<td>Up: Off, Down: Mom On. Two blade terminals.</td>
</tr>
<tr>
<td>59024-200</td>
<td>0n-Off</td>
<td>Up: On, Down: Off. Two screw terminals.</td>
</tr>
</tbody>
</table>

---

**Wiring Diagrams**

See page 13.

---

* Asterisk symbols indicate: ★ Rapid ship item. ★ Available in retail clamshell pack. ★ Minimum quantity order may apply. Part numbers needed in BOX require a -BX suffix on the purchase order.
**59024-00 Freightliner Replacement Switches 25A**

Terminals are arranged to match OEM wiring connectors. With or without brackets. Silver contacts. Black phenolic switch housing with metal cap. 15/32”-32 thread mounting stem. Fits panels to .093” (2.4mm) with spacer provided, or to .25” (6.4mm) without spacer. Includes mounting hardware: black metal facenut. Keyway is in the down position. Black plastic 1” (25.4mm) handle, matte finish. Tin-plated blade terminals. 25A at 12V DC.

**With Bracket**

59024-12 SPST On-Off ★

59024-13 SPDT On-Off-On

59024-14 DPST On-Off
Up: On, Center: Off. Four blade terminals.

59024-15 DPDT On-Off-On ★

59024-16 DPST On-Mom Off
Center: On, Down: Mom Off. Four blade terminals.

**Without Bracket**

59024-12 SPST On-Off ★

59024-13 SPDT On-Off-On

59024-14 DPST On-Off
Up: On, Center: Off. Four blade terminals.

59024-15 DPDT On-Off-On ★

59024-16 DPST On-Mom Off
Center: On, Down: Mom Off. Four blade terminals.

**Relays & Microrelays**

Heavy Duty 40A at 12V DC, High Power 70A at 12V DC and Microrelays 25A at 12V DC. See page 80.

**12V, 24V, 36V Rating**

Generally, Cole Hersee heavy duty 12V non-illuminated* toggle and rocker switches can be used at higher voltage but lower current.

Example: By calculation, 25A 12V switch will derate to 8.3A at 36V, or 12.5 at 24V.

This calculated de-rating gives a conservative result. 25A at 12V toggle switches* can actually be used at 15A at 24V, and 10A at 36V.

* **Exception:** This does not apply to illuminated switches. The pilot light must only be supplied with the stated voltage. Do not derate any illuminated switches.
## Toggle Switches

**HEAVY DUTY 25A**

Standard or long handle. Universal application. Silver contacts. Mounting stem is nickel-plated brass 15/32"-32 thread, 15/32" (11.9mm) long, and fits panels up to 9/32" (7.1mm) except where stated otherwise. Phenolic housing, with plated steel cap. Nickel-plated brass mounting hardware. Blade terminals: .250 quick connect. Screw terminals: 6-32 screws. 25A at 12V, 15A at 24V, and 10A at 36V DC.

### SPST

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>Terminal Type</th>
<th>Mounting Options</th>
</tr>
</thead>
</table>

### SPST Momentary

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>Terminal Type</th>
<th>Mounting Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>55020-04</td>
<td>Mom On-Off, PVC Coated</td>
<td></td>
<td>Moisture- and dirt-resistant. PVC coated and sealed with an O-ring seal in the stem. Up: Off, Down: Mom On. Two 8&quot; (203.2mm) leads.</td>
</tr>
</tbody>
</table>

### SPST, DPDT?

See page 28.

---

**Rapid ship item.**

**Available in retail clamshell pack.**

**Minimum order quantity may apply.**

**Part numbers needed in BOX require a -BX suffix on the purchase order.**

---

Cole Hersee Co. 20 Old Colony Ave, Boston, MA 02127-2467  
T 617.268.2100  F 617.268.9490  www.colehersee.com
toggle switches

**SPDT**

- **5584 On-On ★**

- **5586 On-Off-On ★**

- **55015 On-On**

- **55016 On-Off-On**

- **55016-06 On-Off-On**

- **55036 On-Off-On, PVC Coated ★**
  Up: On, Center: Off, Down: On. PVC coated housing, with three 9.5” (241.3mm) leads. Leads have tinned brass terminals. O-ring seal in the stem.

**SPDT Momentary**

- **55021 Mom On-Off-Mom On ★**

- **55021-04 Mom On-Off-Mom On**

- **55021-07 Mom On-Off-Mom On, PVC Coated ★**
  Up: Mom On, Center: Off, Down: Mom On. PVC coated housing with three 8” (203.2mm) leads. O-ring seal in the stem.

- **55021-08 Mom On-Off-Mom On, Long Handle**

- **55033-01 Mom On-Off-Mom On ★**

- **55033-02 Mom On-Off-Mom On, Long Handle**

- **55088 On-Off-Mom On ★**

**DPST**

- **5588 On-Off ★**

- **55017 On-Off ★**
  Up: On, Down: Off. Four blade terminals.

- **55017-02 On-Off**

- **55033-02 Mom On-Off-Mom On, Long Handle ★**

**DPDT**

- **5590 On-On ★**

- **5592 On-Off-On ★**

- **55018 On-On ★**

- **55019 On-Off-On ★**

- **55057 On-Off-On, Long Handle ★**

**DPDT Momentary**

- **55054 Mom On-Off-Mom On ★**

- **55054-04 Mom On-Off-Mom On, Long Handle**

- **55065-02 Mom On-Off-Mom On, Long Handle ★**
**55065-03 Mom On-Off-Mom On ★**

**55081 On-Off-Mom On**

**55094* Mom On-On-Off, Ignition/Start**

**DPDT Reversing Polarity**
*Forward/reverse switches for use with permanent magnet motors.*

**55018-01 On-On**

**55046 Mom On-Off-Mom On ★**
Up: Mom On, Center: Off, Down: Mom On. Four blade terminals.

**55046-06 Mom On-Off-Mom On, Long Handle**

**Reversing Polarity Switches**
For changing the direction of permanent magnet motors.

**Toggle Switches (Section B)**
- 55018-01 On-On
- 55046 Mom On - Off - Mom On
- 55046-06 Mom On - Off - Mom On

**Rotary Switches (Section D)**
- 90005-03 Mom On - Off - Mom On
- 90005-01 Mom On - Off - Mom On. Keyed

**Rocker Switches (Section A)**
- 57014-03 Mom On - Off - Mom On
- 58027-18 Mom On - Off - Mom On

**Saves Batteries**
No more dead batteries! Low Voltage Disconnect Switches automatically disconnect non-critical loads when battery voltage is low; automatically reconnect when battery is being charged. See page 85 and 86.

**13-pole**
12300 socket and 12301 plug provide six additional circuits within the dimensions of a standard 7-pole connector! See page 137.
toggle switches

B6 ON -OFF

Down: Off, Up: On. Standard or ball handle. In chrome plated brass or nickel-plated brass handle, facenut and mounting stem. Silver contacts. Mounting stem has 15/32"-32 thread, 15/32" (11.9mm) long, and fits panels up to 9/32" (7.2mm) thick. Screw or blade terminals, or wire leads. Phenolic housing with plated steel frame. Keyway is in the down position. 10A at 12V DC.

5568 Ball Handle, Two 6" Leads
5570 Standard Handle, Two 6" Leads
55012 Ball Handle, Two Blade Terminals
55013 Standard Handle, Two Blade Terminals

Chrome-Plated Brass Handle

M-484 Standard Handle, Two Screw Terminals BP ★
Also available by special order as a panel assembly. (M-515-01, M-516-01, M-517.)

M-493 Ball Handle, Two Screw Terminals BP

M-584 Standard Handle, Two 6" Leads BP ★

M-586 Standard Handle, Two Blade Terminals

Ball handle: 3/8" (9.52mm) long. Standard handle: 11/16" (17.46mm) long.

Nickel-Plated Brass Handle

5507 Ball Handle, Two Screw Terminals

5558 Standard Handle, Two Screw Terminals BP ★

551001 SPST Mom On-Off
Up: Mom On, Center: Off. Two blade terminals.

551800 SPST On-Off ★
Up: On, Center: Off. Two screw terminals.

551801 SPST Mom On-Off
Up: Mom On, Center: Off. Two screw terminals.

551802 SPDT On-Off-On

551805 DPST On-Off
Up: On, Center: Off. Four screw terminals.

551800 Series Heavy Duty & Extra Heavy Duty Switches 20A and 30A
Universal application. Diecast housing. For stem- or bracket-mounting. 15/32"-32 thread mounting stem, with keyway.

Brackets: .170" (4.3mm) diameter holes, 1.72" (43.7mm) on centers. Fits panels up to 3/16" (4.8mm) thick. Chrome plated brass handle, 1 1/16" long (27.0mm). Steel screw or blade terminals. Plated steel hexnut.

Heavy Duty
20A at 6-12V DC.

551001 SPST Mom On-Off
Up: Mom On, Center: Off. Two blade terminals.

551800 SPST On-Off ★
Up: On, Center: Off. Two screw terminals.

551801 SPST Mom On-Off
Up: Mom On, Center: Off. Two screw terminals.

551802 SPDT On-Off-On

551805 DPST On-Off
Up: On, Center: Off. Four screw terminals.

★ Rapid ship item. BP Available in retail clamshell pack. ★ Minimum order quantity may apply. Part numbers needed in BOX require a -BX suffix on the purchase order.
551806 DPDT On-Off-On

M-594 SPST On-Off
Up: On, Center: Off. Two screw terminals.
Golden dichromate dip housing, brass terminals.

M-595 SPDT On-Off-On
Golden dichromate dip housing, brass terminals.

Extra Heavy Duty
30A at 6-12V DC, 15A at 24-36V DC. Silver-plated contacts.
551840 SPST On-Off BP ★
Up: On, Center: Off. Two screw terminals.

551841 SPST Mom On-Off
Up: Mom On, Center: Off. Two screw terminals.
This universal switch can also be used to control day signaling lamps.

551842 SPDT On-Off-On ★

551843 SPDT On-Off-Mom On

551844 SPDT Mom On-Off-Mom On ★

551845 DPST On-Off
Up: B-2, Center: Off. Four screw terminals.

551846 DPDT On-Off-On ★

551849 SP3C On-On-Off
This universal switch can also be used to control headlamps and Park & Tail lamps.

551850 SPDT On-On

12V, 24V 36V Rating
Generally, Cole Hersee heavy duty 12V non-illuminated* toggle and rocker switches can be used at higher voltage but lower current.
Example: By calculation, 25A 12V switch will derate to 8.3A at 36V, or 12.5A at 24V.
This calculated de-rating gives a conservative result. 25A at 12V toggle switches* can actually be used at 15A at 24V, and 10A at 36V.
*Exception: This does not apply to Illuminated switches. The pilot light must only be supplied with the stated voltage. Do not derate any illuminated switches.

551851 SPST On-Mom Off
Up: Mom Off, Center: On. Two screw terminals.
This universal switch can also be used to control night signaling lamps.

551852 SP2C On-On-Off
This universal switch can also be used to control heaters/defrosters. Supplied without resistors.

551855 SP1C Mom Off-On-Off
Up: Mom Off, Center: On, Down: Mom Off. Two screw terminals. This universal switch can also be used to control signaling and marker lamps.

551861* SP2C On-Off

551862 DP2C Mom On-Run-Off
Up: Mom S-S, Center: Open, Down: Off M-M. Four screw terminals. This universal switch is primarily used to control magneto ignition. For battery ignition see 59071 and 55094 on page 25.

*Rapid ship item. ⭐ Available in retail clamshell pack. ★ Minimum order quantity may apply. Part numbers needed in BOX require a -BX suffix on the purchase order.
Silver contacts. 15/32” - 32 thread mounting stem. .46” (11.9mm) long, mounts in panels up to 9/32” (7.1mm) thick. Nickel-plated brass handle: standard .687” (17.5mm) or long 1.5” (38.1mm). Brass blade terminals. Black phenolic housing with metal frame. Nickel-plated brass hardware. Keyway is in the down position. 25A at 12V DC, except as noted.

55058-01 4-Pole, 4-Circuit Headlamp Switch

55064 DPDT 4-Circuit Headlamp Switch

55071 DP 2-Circuit Marker Lamp Switch

55093 DPDT Two-Speed Heater Fan Switch ★

55015-03 3-Way Lighting Switch
SPDT On-On. See sidebar below. Three blade terminals.

3- and 4-Way Lighting
3-way lighting permits a light (or set of lights) to be controlled from two switches usually mounted in different locations. Similarly, 4-way lighting enables control from three switch locations.

3-WAY LIGHTING

4-WAY LIGHTING

Part numbers needed in BOX require a -BX suffix on the purchase order.
M-597 Marine Emergency Cutoff

Weather-resistant switch provides added safety for boat operators. The lanyard connects the boater to a switch which kills the ignition circuit if the boater falls overboard, or is at an unsafe distance from the controls, thus preventing a dangerous runaway situation. Unlike other devices, the M-597 can be turned on again if need be by a boater other than the operator.

Switch can be installed either in boat systems that require a grounded emergency stop, or in systems that have an open circuit emergency stop. The switch works on virtually any powerboat with an inboard or outboard motor. Full wiring instructions are included. For safety, this switch should only be installed by a technically competent person.

Switch housing dimensions 2 3/4" x 2" (69.9 x 50.8mm) requires a space of 1/2" (12.7mm) behind the panel, and mounts in a 1 1/2" (38.1mm) diameter hole. Rubber coated toggle switch is sealed to IP-66 to protect against salt spray and water ingress. Strong self-retracting coiled lanyard has a clip for attachment to the operator. 10A at 12-24V DC.

59071 Mom On-On-Off
Down: Off, Center: On 4&5, Up: Mom On 1, 4&5. White plastic handle. Three blade terminals.

55094* Mom On-On-Off

5543 SPST On-Off In Recessed Plate
5558 switch mounted in 5543-15 recessed plate to prevent damage or accidental actuation inside a trailer or other location. Plate fits into a 2" dia (50.8mm) panel hole. Depth is 1.75" minimum (44.5mm). Two screw terminals.

55089 SPST Light Duty Grounding Switch
Up: Off, Down: On. Terminal is grounded to switch frame. Mounts with two hexnuts into panels up to .189" (4.8mm) thick. One blade terminal. Standard handle. 5A at 12V DC.
Switch Guards

Switch guards help prevent accidental actuation of a toggle switch and protect it from damage.

Typical uses:

- **Switch is in a vulnerable position** – like a light switch in a truck cargo section.
- **Switch controls a vital function** that must not be accidentally operated – like the hose return switch on an oil truck.
- **Switch is important, but infrequently used** – like an emergency switch.

Cole Hersee switch guards give you a choice of protection from the simple flanged faceplate to the recessed faceplate, or the complete protection of the 82468 flip cover. For complete lockout protection of electrical circuits, we recommend rotary Master Disconnect Switches with lockout/tagout protection, such as 2484 with 24505.

### 82465 Walled Faceplate Switch Guard

Guard is easily added to an already installed switch, providing lateral mechanical protection. For switches with 15/32” diameter mounting stems with a keyway. Stamped On, Off. 1” x 2.125” (25.4 x 54.0mm). Two .140” (3.6mm) mounting holes 1.87” (47.6mm) on centers.

### 5543-15 Recessed Faceplate Switch Guard

Faceplate only; does not include switch. Needs to be countersunk in a 2” (50.8mm) hole. 3 3/16” (81.0mm) diameter with three 7/32” (5.6mm) holes on a 2 3/4” (69.9mm) diameter circle. Requires a clearance depth of .890” (22.6mm), not including clearance for a switch. Other colors, metals and finishes are available on special order. Contact Cole Hersee.

---

### 82468 Flip Cover Switch Guard

Provides the maximum protection, and can be easily added to an already installed switch by unscrewing and replacing the facenut. Spring-loaded snap action cover returns the switch to the ‘safe’ position when closed, and secures it there. Rugged red melamine cover is colorfast at temperature extremes and is resistant to most contaminants, like fuel oil. Other colors are available by special order. Recommended for use with standard 11/16” toggle handle Off-On or On-On switches with a keyway in the bushing. Steel faceplate with black glossy finish.

- Height closed 1.08” (27.4mm); height open 1.71” (43.5mm).
- 1.80” (45.8mm) long x .67” (17.0mm) wide. Mounting hole diameter .47” (11.9mm). Accepts switches with standard 15/32” diameter mounting stems.

### Handle Extensions

Rigid plastic extension snaps over standard or ball handled toggle switches, extending a standard handle to 1 7/8” (47.6mm) long. Enables switches to be easily color-coded. Packed 10 of each color per package.

- 81271 Red
- 81272 Yellow
- 81273 Black
- 81261* Fluorescent Green
- 81262 Fluorescent Blue
- 81263 Fluorescent White

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* Rapid ship item.  Available in retail clamshell pack.  Minimum order quantity may apply.  Part numbers needed in BOX require a -BX suffix on the purchase order.
toggle switches

**Toggle Boot Seals**
Durable silicone rubber bonded to a standard 15/32”-32 thread nickel plated brass hexnut. When the nut is tightened to the stem of a toggle switch, the rubber forms an O-ring seal with the panel. Full boots completely cover a standard 11/16” (17.5mm) handle. Boot seals protect switches from moisture and dirt; colored boots provide color-coding for ready identification of switches.

**Terminal Blade Adapter**
55023-10
Attaches to a No. 6 screw terminal, converting to a standard 1/4” wide blade terminal. Brass.
100 pieces per package.

**Faceplates**
Fit all toggle switches with standard 15/32” diameter mounting stem and keyway.

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>8250 Nickel-Plated</td>
<td>B❼</td>
</tr>
<tr>
<td>8250-01 Black</td>
<td>B❼</td>
</tr>
<tr>
<td>8250-02 Blue</td>
<td>B❼</td>
</tr>
<tr>
<td>8250-03 Clear</td>
<td>B❼</td>
</tr>
<tr>
<td>8250-04 Green</td>
<td>B❼</td>
</tr>
</tbody>
</table>

**Half-Boot Seal**
81255
Allows any length of handle to protrude, yet seals tightly to handle. Suitable for all toggle switches in this catalog excepting paddle handle switches in section B3.

**83252 Black Facenut**
Brass facenut, black finish.
For 54100 series switches, to replace plastic facenut.

**Economical**
Illuminated tip toggle switches M-54111-01 and M-54111-02 combine the properties of a switch and a pilot light. Switch tips are illuminated White when Off – which makes it easier to locate in the dark. When the switch is On, the tip is illuminated Red.

[More information about Accessory Products]

Rapid ship item. A❼ Available in retail clamshell pack. B❼ Minimum order quantity may apply. Part numbers needed in BOX require a -BX suffix on the purchase order.
**SPST SPDT DPST DPDT**

*SP and DP refer to single pole and double pole, ST and DT refer to single throw and double throw.*

**Pole** refers to the number of circuits controlled by the switch:
- SP switches control only one electrical circuit.
- DP switches control two independent circuits (and act like two identical switches that are mechanically linked).

Do not confuse ‘pole’ with ‘terminal’. The DPST switch, for example, has four terminals, but it is a DP, not a 4P switch.

**Throw** refers to the extreme position of the actuator:
- ST switches close a circuit at only one position.
- The other position of the handle is Off.
- DT switches close a circuit in the Up position, as well as the Down position (On-On). A DT switch can also have a center position (frequently On-Off-On).

The following switch diagrams illustrate the most common types of toggle and rocker switch.

**SPST On-Off**

Only one of the loads can be energized at a time.

**SPDT On-Off**

Both load terminals can be energized at the same time. They are independent of each other and could be of different voltages.

**SPDT On-On**

Functions like two separate SPDT switches operated by the same actuator. Only two loads can be On at a time.

**DPST On-Off**

Functions like two separate SPDT switches operated by the same actuator. Only two loads can be On at a time.

**DPDT On-Off-On**

Functions like two separate SPDT switches operated by the same actuator. Only two loads can be On at a time.

**Single pole/throw and double pole/throw switches are by far the most common switches, but triple and quadruple configurations are also available. They are commonly denoted 3PST, 3PDT, 4PDT, etc. For our switches of this type, see Rotary Switches, section D1.**