1 ROCKER SWITCHES

New Generation Rocker (NGR)

DESCRIPTION

Eaton presents its New Generation Rocker (NGR) Series. This field-proven line of full sized rocker switches, initially developed for the Heavy Truck Industry is now found in a variety of vehicle related applications. The NGR offers both European styling and ergonomic design while still providing the solid durability that you have come to expect from Eaton switches. Illuminated and non-illuminated versions with either incandescent bulbs or LED's are available in either dependent or independent circuits and in a variety of popular switching circuits. The NGR also offers a variety of rocker buttons and indicators with laser-etched or pad printed icons, insertable lenses and adhesive-backed labels.

SPECIFICATIONS

Ratings:

15A @ 125V ac, 10A@ 250V ac.

15A @ 28V dc (14V dc rating).

Approvable under stringent UL and CSA standards.

For information, contact your Eaton Sales Representative.

Circuits:

1PST, 1PDT, 2PST, and 2PDT.

Maintained and momentary action.

Contact Mechanism:

Slow-make/Slow-break contact mechanism.

Butt action contact mechanism designed specifically for use on ac and low voltage dc applications.

FLEXIBLE ORDERING SYSTEM

You can order assembled switches or the switch base and actuator separately.

Use the final code in the switch base catalog number (page 1.40) to denote assembly instructions.

REFERENCE

Contact Material:

Standard Construction:

Movable — Copper alloy with silver alloy contact face button.

Stationary — Silver-plated copper alloy with silver alloy contact face button.

Mechanical Life:

250,000 operations, minimum.

Terminal Type:

Standard .250″ spade, silver-plated copper alloy.

Base Material:

High grade thermoplastic molding material.

Dielectric:

1,000V RMS, minimum.

Operating Temperature Range:

-40˚C to +85˚C (-40°F to 185°F).

Mounting Means:

Snap-in mounting with plastic bezel.

Mounting Hole:

Rectangular panel cutout 44 x 22mm (1.734 x .867″).

Panel Thickness:

1.00 to 4.00mm (.040 to .156″). Best results obtained between 1.50 and 3.00mm (.060 and .118″). On sealed versions, recommended panel thickness between 2.00 and 3.00mm (.079 and .118″).

Sealing:

Standard switch provides splash and dust resistance to IP42.The sealed version is sealed to IP67 when supplied with panel seal.

Rocker:

The standard actuator for the NGR is a clean, European-styled, two face rocker made of high quality thermoplastic material. The rocker is replaceable and snaps on and off the switch. Both the rocker and the bezel are supplied with an aesthetically pleasing matte finish. Different colors are also available, but black is standard. Rockers can be ordered separately.

Lighting:

Each switch is capable of accommodating two incandescent light bulbs or LED's for lighting purposes. A lamp or LED can be located at either end of the switch and oriented to be circuit dependent or independent. The incandescent bulbs are front replaceable. Two lamp or LED voltages, 14V dc and 28V dc are standard. For additional voltages or colors, consult your Eaton Sales Representative.

Legends:

Two legend areas are provided on the ends of each rocker of sufficient size to accommodate two lines consisting of four Helvetica Narrow 12 point characters. Legends may be non-illuminated or illuminated. The NGR offers three styles of illuminated legends.

Single Piece Back-Lit — Back-lighting is a high quality automotive/truck industry technique. The legend can appear daylight white or dead-front when non-illuminated but, depending on the back-lit color chosen, will change color when illuminated. Examples of standard back-lit legends are found on pages 1.50-1.51.

Snap-In Lenses — This rocker will have either one or two snap-in lenses in the legend areas. Legends are typically pad-printed on the lens in black or white. Snap-in lenses are available in six standard colors and can be ordered separately.

Label Rocker — This rocker has a one-piece adhesive backed label inserted into a recessed area on the face of the button. Legends can be done in several colors and be illuminated or non-illuminated. Contact your Eaton Sales Representative for suggested sources.

Options:

- Common lamp ground jumper for dual lamp units.
- Multiple LED's for daylight readability.
- Additional colors of rockers, mounting bezels, and lenses are available.
- Special circuits.
- Special ratings.
- Pad-printed legends on lens, rocker and bezel.
- Special lamps and lamp voltages.
- Dry circuit capabilities.
- Custom back-lit legends available.
- Reversing jumpers (internal).
- Gang mounting system. See page 4.27.
- Locking rocker with locking feature in "UP", and/or "DOWN" positions.
- Indicators with laser etched, or insertable lenses or adhesive labels.
- IP67 rated sealed switch.
- Polarized lock-on connectors: See page 4.26.
  - **28-5637-2** for Packard terminals.
  - **28-5940** for AMP terminals.
- Panel plug: **17-21543**.
- Replacement bulb Catalog Number:
  - 14V . . . **28-5901**.
  - 28V . . . **28-5909**.

For more information on additional options, contact your Eaton Sales Representative.

Approvals:

Approvable under stringent UL and CSA standards. For information, contact your Eaton Sales Representative.

Sealed NGR Switch with Decorative Rocker

Palm Guard Top with Decorative Rocker

NGR Indicator

NGR Switch with Locking Rocker

New Generation Rocker Switches (continued)

HOW TO ORDER — SWITCH BASE/INDICATOR BASE

To determine your **Complete Catalog Number,** you must start with the appropriate **Base Prefix** and add the appropriate **Code Letters** and/or **Numbers** as in the example below:

Add each appropriate **Number** or **Letter...**								...to get to your **Complete Catalog Number**
Base Prefix	Circuit Number	Frame Style	Frame Color	Switch Contact Plating	"A" Lamp Type and Color	"B" Lamp Type and Color	Rocker Assembled	Complete Catalog Number
NGR	**1501**	**1**	**B**	**N**	**A**	**0**	**Y**	**NGR15011BNA0Y**
NGRIND	**—**	**—**	**—**	**—**	**A**	**0**	**—**	**NGRINDA0**

SWITCH BASE/INDICATOR BASE SELECTION TABLE

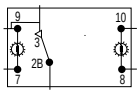
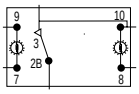
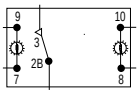
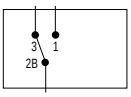
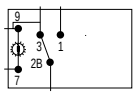
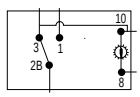
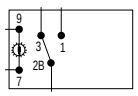
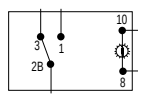
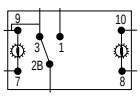
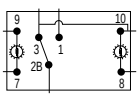
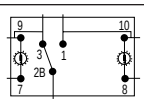
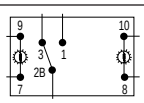
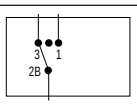
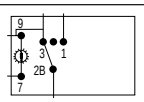
Switch Series (Unsealed)	Circuit and Lamp Configuration	LETTERS AND NUMBERS — ADD TO BASE CIRCUIT NUMBER											
		Frame Style		Frame Color		Switch Contact Plating ❶		"A" Lamp: Type and Color		"B" Lamp: Type and Color		Rocker Assembled	
		Style	Code	Color	Code	Plating	Code	Type and Color	Code	Type and Color	Code	Assembled	Code
SWITCH BASE								**SWITCH BASE**					
NGR	See pages 1.41-1.45. Circuits show lighting options available.	Rocker and Paddle Frame	1	Black	B	Standard	N	No Lamp	0	No Lamp	0	Yes	Y
		Palm Guard Top	2			High Rated	T	14V dc Incand. Clear	A	14V dc Incand. Clear	A	No	N
		Palm Guard Bottom	3			Gold	G	28V dc Incand. Clear	B	28V dc Incand. Clear	B	(To Order Rocker Button, see pages 1.46-1.47)	
		Panel Seal and Internal Seal	S					14V LED Red	R	14V LED Red	R		
		Locking Rocker Locks in DOWN Position	G					14V LED Green	G	14V LED Green	G		
		Locking Rocker Locks in UP and DOWN Positions	D					14V LED Amber	Y	14V LED Amber	Y		
		Locking Rocker Locks in UP Position	F					28V LED Red	K	28V LED Red	K		
		Internal Seal	T					28V LED Green	L	28V LED Green	L		
								28V LED Amber	T	28V LED Amber	T		
								28V LED Blue	X	28V LED Blue	X		
INDICATOR BASE ❷													
NGRIND												N/A	

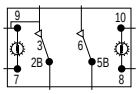
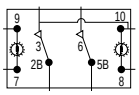
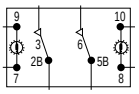
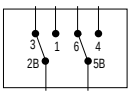
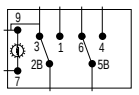
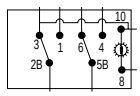
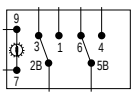
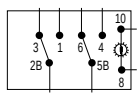
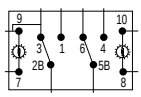
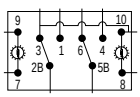
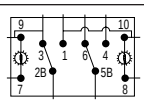
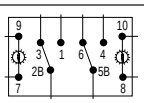
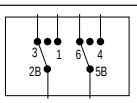
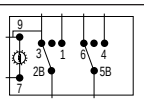
❶ **Switch Contact Construction Plating**
N = Standard (Recommended for use on loads up to 12 Amps @ 14V dc).
T = High Rated (Recommended for use on loads greater than 12 Amps @ 14V dc).
G = Gold (Recommended for use on dry circuit / low level switching).

❷ See pages 1.48-1.49 to order indicator caps and lenses. To order a complete indicator, see page 1.48.

New Generation Rocker Switches (continued)

STANDARD CIRCUIT DIAGRAMS ❶

Circuit Number	Schematic (Shown in UP Position)	Circuit with Rocker in		
		UP Position	CENTER Position	DOWN Position
SINGLE POLE				
1525		MOM. ON	NONE	OFF
		2B-3-9	—	—
1526		MOM. ON	NONE	OFF
		2B-3-10	—	—
1528		MOM. ON	NONE	OFF
		2B-3	—	—
1003		ON	NONE	ON
		2B-3	—	2B-1
1541		ON	NONE	ON
		2B-3-9	—	2B-1
1542		ON	NONE	ON
		2B-3-10	—	2B-1
1543		ON	NONE	ON
		2B-3	—	2B-1
1544		ON	NONE	ON
		2B-3	—	2B-1
1545		ON	NONE	ON
		2B-3-9	—	2B-1
1546		ON	NONE	ON
		2B-3-10	—	2B-1
1547		ON	NONE	ON
		2B-3-9	—	2B-1-10
1548		ON	NONE	ON
		2B-3	—	2B-1
1004		ON	OFF	ON
		2B-3	—	2B-1
1561		ON	OFF	ON
		2B-3-9	—	2B-1

Circuit Number	Schematic (Shown in UP Position)	Circuit with Rocker in		
		UP Position	CENTER Position	DOWN Position
DOUBLE POLE				
2525		MOM. ON	NONE	OFF
		2B-3-9 5B-6	—	—
2526		MOM. ON	NONE	OFF
		2B-3-10 5B-6	—	—
2528		MOM. ON	NONE	OFF
		2B-3 5B-6	—	—
2003		ON	NONE	ON
		2B-3 5B-6	—	2B-1 5B-4
2541		ON	NONE	ON
		2B-3-9 5B-6	—	2B-1 5B-4
2542		ON	NONE	ON
		2B-3-10 5B-6	—	2B-1 5B-4
2543		ON	NONE	ON
		2B-3 5B-6	—	2B-1 5B-4
2544		ON	NONE	ON
		2B-3 5B-6	—	2B-1 5B-4
2545		ON	NONE	ON
		2B-3-9 5B-6	—	2B-1 5B-4
2546		ON	NONE	ON
		2B-3-10 5B-6	—	2B-1 5B-4
2547		ON	NONE	ON
		2B-3-9 5B-6	—	2B-1-10 5B-4
2548		ON	NONE	ON
		2B-3 5B-6	—	2B-1 5B-4
2004		ON	OFF	ON
		2B-3 5B-6	—	2B-1 5B-4
2561		ON	OFF	ON
		2B-3-9 5B-6	—	2B-1 5B-4

❶ For additional circuit diagrams, contact your local Eaton Sales Representative.