

TAMPER-RESISTANT KEYSWITCH

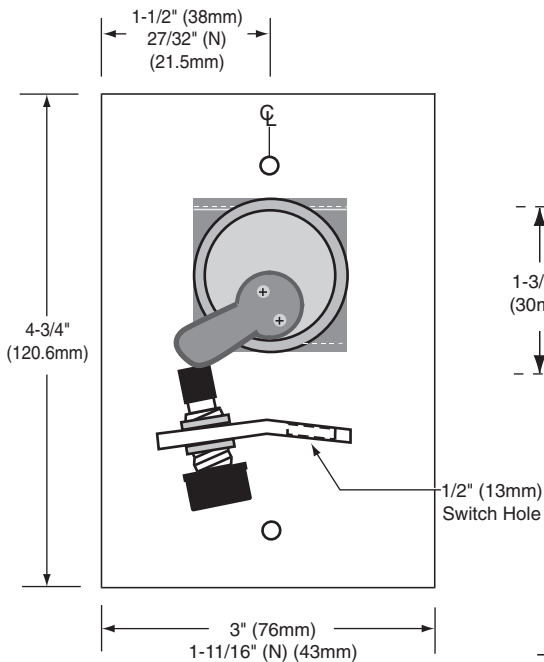


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Instructions

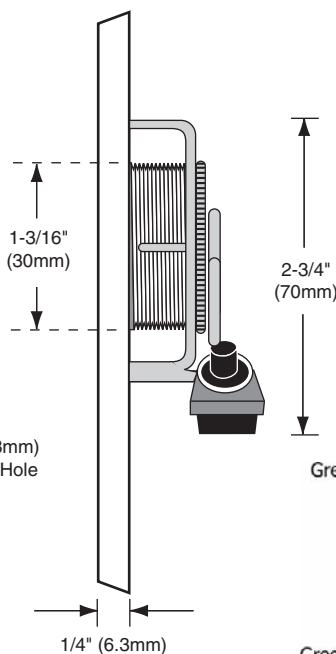
1. Remove the components from the box and read these instructions carefully in order to assemble correctly.
2. Place the mortise cylinder (optional) 1-1/8" cylinder length complete with straight or clover cam through the 1-3/16" hole in the center of the aluminum faceplate.
3. Mount the cylinder/switch bracket on the reverse side of the faceplate (see below) making sure that the teeth are positioned inside the grooves along the cylinder, then attach the cylinder nut to fasten.
4. Insert the switch(es) into the 1/2" holes located on the bracket below the cylinder. For ideal installation thread the top nut an 1/8" down and tighten bottom nut using a 9/16" wrench.
5. Make wire connections as required (see wire connection figure below).
6. Fasten faceplate assembly to electrical box with the tamperproof 6-32 machine screws supplied with the spanner hand tool (also supplied).

Rear Profile

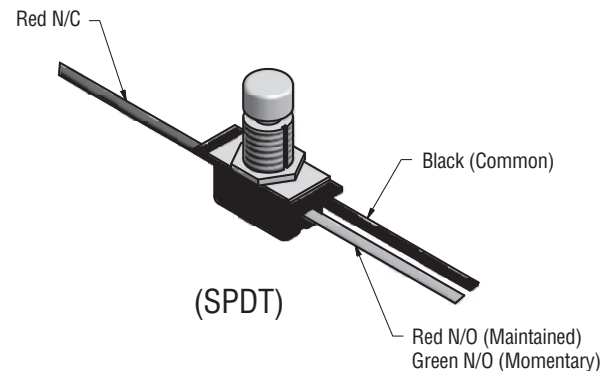


(N) = Narrow Style 960N

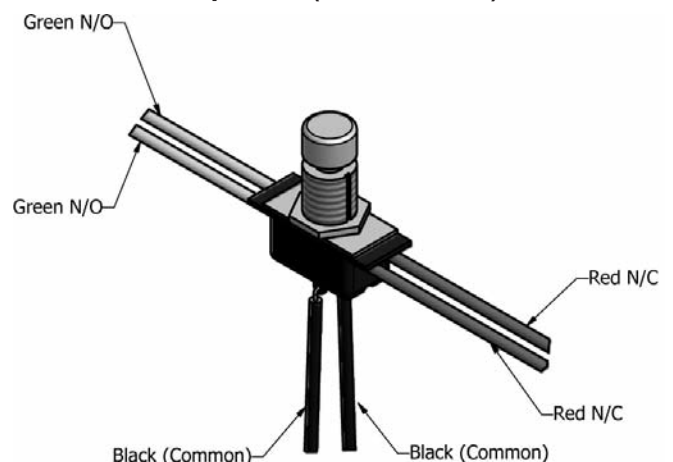
Side Profile



Wire Connection



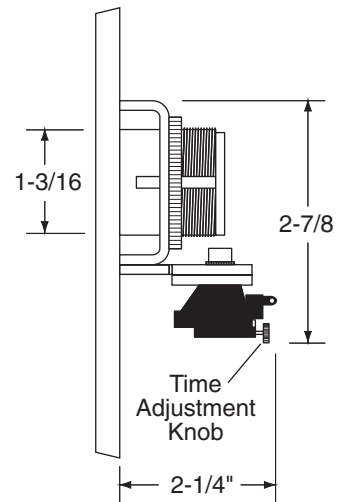
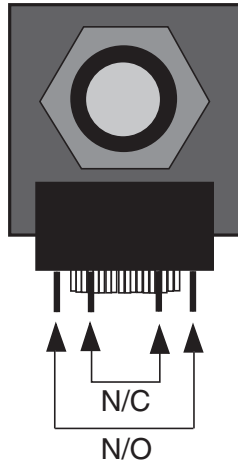
Optional (DPDT Switch)



960 Keyswitch Wiring Instructions

960 Pneumatic Time Delay Installation

- 1-4. Same as momentary and maintained switches steps 1 to 4 (see page 1).
5. Make wire connections as shown below.



6. Fasten faceplate assembly to electrical box with the tamperproof 6-32 machine screws (supplied) with the spanner hand tool (supplied).

Specifications

Time Range: 125 to 250 seconds
Switch Rating: 10AMP @ 125/250VAC
Terminals: Solder type
Temperature Range: +15° to 120°F (-9° to +49°C)

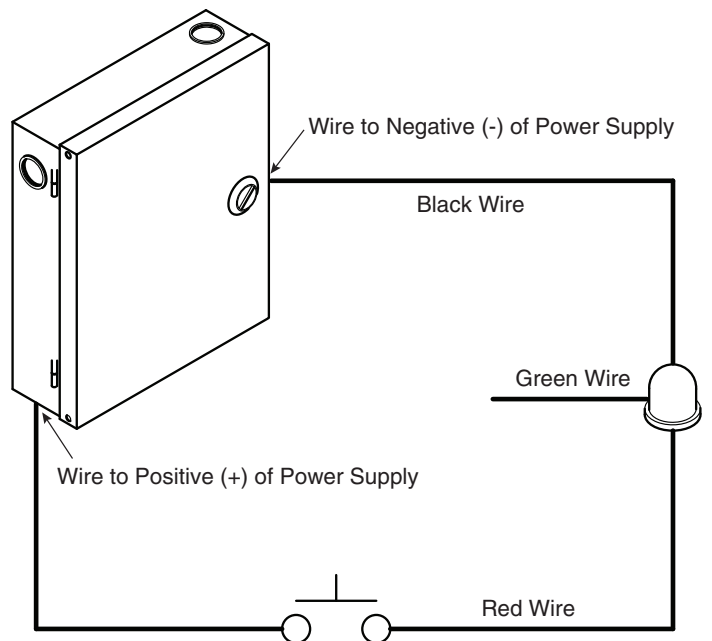
To Decrease Time Delay:

Use slot screwdriver and turn time adjustment knob counter clockwise.

To Increase Time Delay:

Use slot screwdriver and turn time adjustment knob clockwise.

960 Bi-Color LED Installation



NOTE: To wire LED for green light instead of red light — disconnect red wire from switch point and connect green wire.

Description	Switch Mode	Switch Configuration	Switch Rating	Standard Finish
960-MO Key Switch	Momentary Action	SPDT N/O & N/C	3A @ 125 VAC – UL 1A @ 250 VAC – UL	28 or 40
960-TD Key Switch	Adj. Delay 2-60 sec	SPDT N/O & N/C	10A @ 125-250 VAC – UL	28 or 40
960-MA Key Switch	Maintained Action	SPDT N/O & N/C	3A @ 125 VAC – UL 1A @ 250 VAC – UL	28 or 40

NOTE: Specifications are subject to change without notice.

960 Installation Instructions (Continued)

9 Series Time Delay Wiring Schematic

Dipswitch Function

S1 = In OFF position, the relay is activated at the beginning of the cycle. In ON position the relay is activated at the end of the cycle.

S2 = In OFF position the cycle starts on initial contact closure. In ON position the cycle starts after removal of contact closure.

S3 = In OFF position the selected time is in seconds. In ON position the selected time is in minutes.

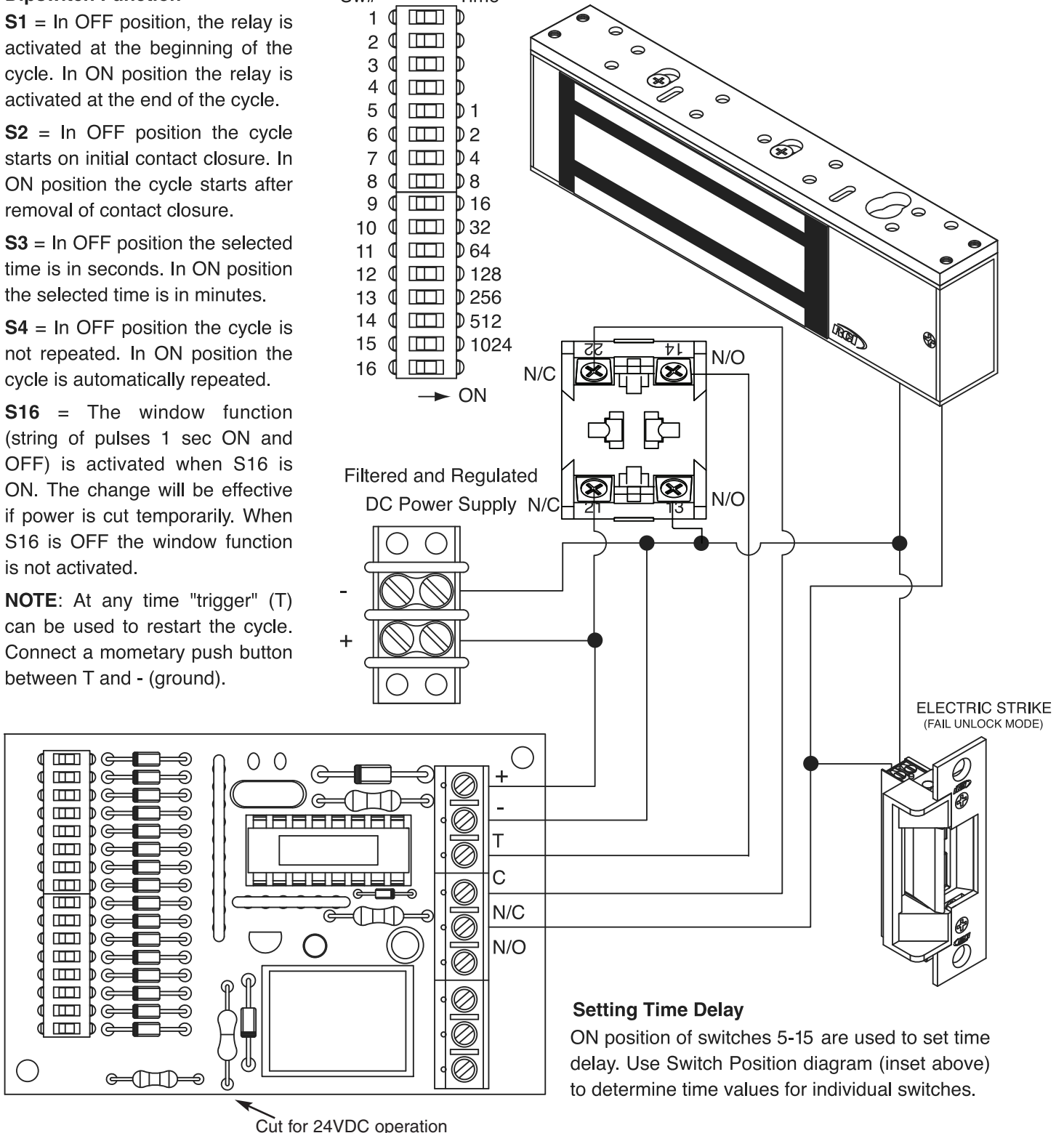
S4 = In OFF position the cycle is not repeated. In ON position the cycle is automatically repeated.

S16 = The window function (string of pulses 1 sec ON and OFF) is activated when S16 is ON. The change will be effective if power is cut temporarily. When S16 is OFF the window function is not activated.

NOTE: At any time "trigger" (T) can be used to restart the cycle. Connect a momentary push button between T and - (ground).

Sw#	Time
1	
2	
3	
4	
5	1
6	2
7	4
8	8
9	16
10	32
11	64
12	128
13	256
14	512
15	1024
16	

→ ON



Setting Time Delay

ON position of switches 5-15 are used to set time delay. Use Switch Position diagram (inset above) to determine time values for individual switches.

REFERENCE CHART

WIRE GAUGE SELECTION



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Total One-Way Length of Wire Run (ft.)	Load Current @ 24V							
	1/4A	1/2A	3/4A	1A	1-1/4A	1-1/2A	2A	3A
100	24	20	18	18	16	16	14	12
150	22	18	16	16	14	14	12	10
200	20	18	16	14	14	12	12	10
250	18	16	14	14	12	12	12	10
300	18	16	14	12	12	12	10	—
400	18	14	12	12	10	10	—	—
500	16	14	12	10	10	—	—	—
750	14	12	10	10	—	—	—	—
1000	14	10	10	—	—	—	—	—
1500	12	10	—	—	—	—	—	—

Total One-Way Length of Wire Run (ft.)	Load Current @ 12V							
	1/4A	1/2A	3/4A	1A	1-1/4A	1-1/2A	2A	3A
100	20	18	16	14	14	12	12	10
150	18	16	14	12	12	12	10	—
200	16	14	12	12	10	10	—	—
250	16	14	12	10	10	10	—	—
300	16	12	12	10	10	—	—	—
400	14	12	10	—	—	—	—	—
500	14	10	10	—	—	—	—	—
750	12	10	—	—	—	—	—	—
1000	10	—	—	—	—	—	—	—
1500	10	—	—	—	—	—	—	—

Wire Gauge Chart courtesy of Electronic Locking Devices by John L. Schum