

# PISTON CONTROLS

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# Thumb Pistons Lit and Unlit

## FEATURES:

- Lighted and standard models
- Patented design that allows either single or double touch operations
- Separate and distinguishable feels for each of the two touches
- Fine silver contacts, ensuring utmost reliability
- Flat button face for ease of engraving
- Five button colors available:
  - white (a stark white that matches electronic keyboards),
  - Off White (a dull white that matches traditional stops and knobs, like Hesco white)
  - Ivory (a yellowed, brownish white that matches aged ivory)
  - Black
  - Red



## SPECIFICATIONS:

### DIMENSIONAL:

*Total Length:* .875" , including contact pins.

*Total Diameter:* .770" , including mounting flange.

*Piston Length:* .560"

*Mounting:* Press fit into 11/16" hole.

### MECHANICAL:

*Piston Travel:* .0625" to first contact; .140" to second contact.

*Operating Pressure:* 6 ounces to first contact; 16 ounces between first contact to second contact.

*Life:* 400,000 operations.

### ELECTRICAL:

*Contact Material:* Fine silver (99.99%).

*Contact Resistance:* .1 ohm maximum after 25,000 operations with no load.

*Contact Current:* 1 amp maximum.

*Contact Voltage:* 50 volts maximum.

### LAMP (5 VOLT):

*Brightness:* 0.15 MSCP (mean spherical candle power)

*Current:* 0.060 amps at 5 volts DC  
0.057 amps at 4 volts DC

*Voltage:* 4 volts DC recommended as maximum to limit internal heat buildup

and prolong lamp life

*Life:* 2,000 hours at 5 volts DC  
29,000 hours at 4 volts DC

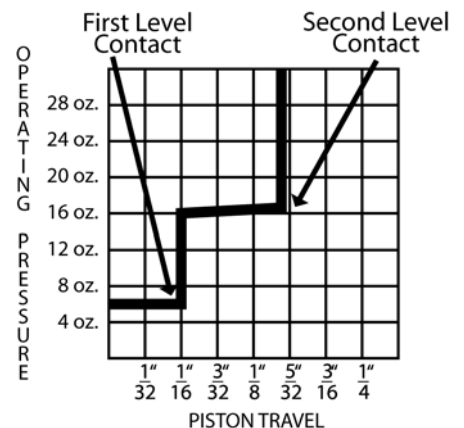
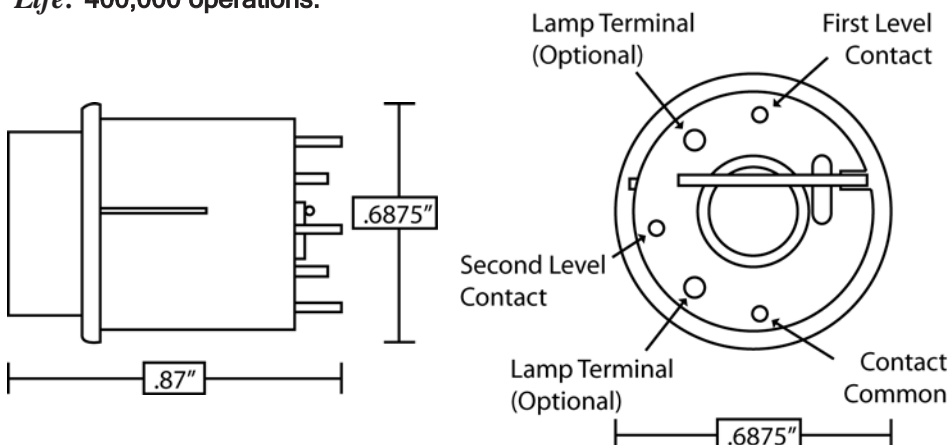
### LAMP (18 VOLT):

*Brightness:* 0.15 MSCP (mean spherical candle power)

*Current:* 0.027 amps at 18 volts DC  
0.023 amps at 14.4 volts DC

*Voltage:* 14.4 volts DC recommended as maximum to limit internal heat buildup and prolong lamp life

*Life:* 2,000 hours at 18 volts DC  
29,000 hours at 14 volts DC



# Toe Studs

## FEATURES:

- Available in two finishes:
  - Rich, durable Chrome
  - Elegant Brass with protective clear coating
- Sturdy construction
- Smooth, quiet operation
- Flush mounting
- Anti-slip Pyramidal vinyl insert
- Black felt bushing



## SPECIFICATIONS:

### ELECTRICAL: (STANDARD CONTACTS)

*Contact Material:* Silver plated phosphor bronze.

*Contact Resistance:* .2 ohm maximum after 25,000 operation with no load.

*Contact Current:* 1 amp maximum.

*Optional Contacts:* Available for heavy current applications.

### MECHANICAL:

*Piston Travel:* .125"

*Operating Pressure:* 5.5 pounds.

*Life:* 200,000 operations.

### FINISH:

*Chrome:* Copper flash, heavy nickel base, chrome plating.

*Brass:* Clear two-stage protective coating over heavy brass plating.

### DIMENSIONAL:

See diagrams:

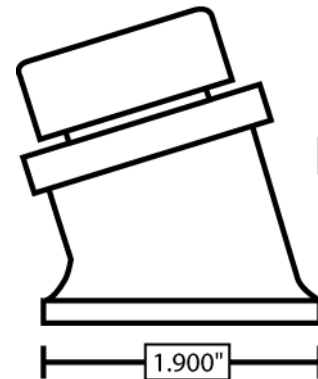
### TOE STUD PLATES



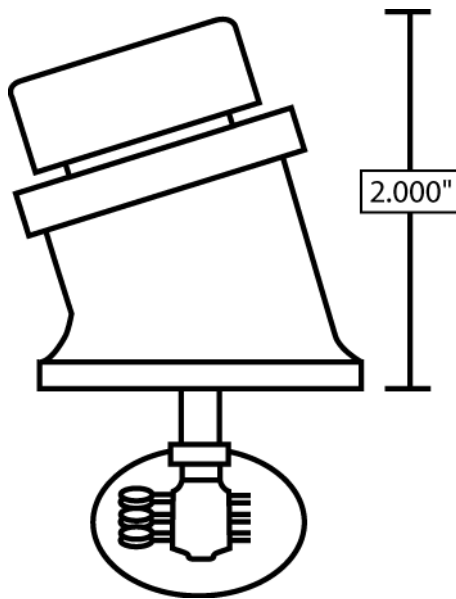
3/4"  
by  
1 3/4"



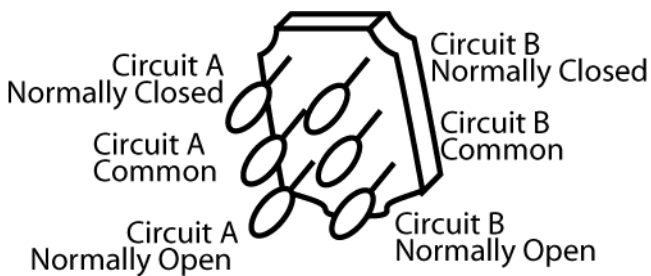
1/2"  
by  
1 1/2"



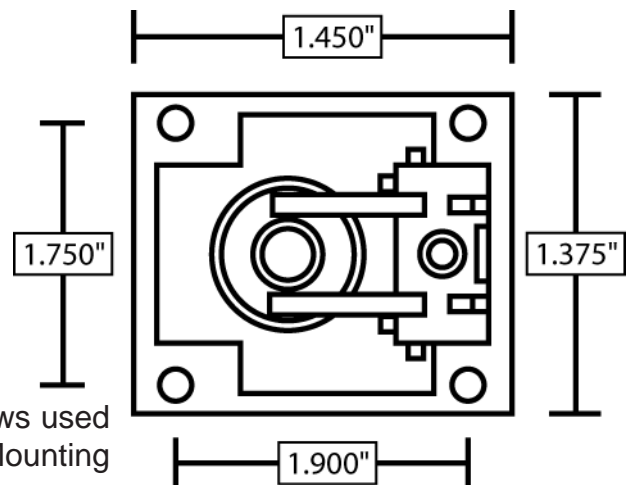
Standard Contacts



Optional Contacts



#4 Screws used for Mounting



Syndyne Corporation