

CLAYTON SWITCHES AND SWITCHLOCKS



Switchlocks and Camlocks	C-2 thru C-5
Rotary Switches	C-6 thru C-7
Slide Switches	C-8 thru C-11
Rocker Switches	C-12 thru C-18
Pushbutton Switches	C-19

UNIMAX SNAP-ACTING SWITCHES



Subminiature Snap-Acting Switches	U-2
Miniature Switches	U-3
Precision Snap-Acting Switches	U-4
General Purpose Snap-Acting Switches	U-5
Reset Switches	U-5
Metal-Cased Snap-Acting Switches	U-6



Technical Information

Introduction

Welcome to C&K's new *Clayton/Unimax Short Form Catalog*. This catalog features a select group of switchlocks, camlocks and rotary, slide, rocker, pushbutton and snap-acting switches. Drawings and complete part numbers are included.

C&K is dedicated to responsive customer service, competitive prices, consistent high quality and fast delivery. We are constantly striving to improve our technology and introduce new products to become the single source for all your switch needs. For more information or one of our free full line catalogs, call (800) 334-7729 or fax (919) 553-4758.

All dimensions, operating characteristics and specifications shown in this catalog are for reference only and are subject to change without notice.

About C&K

C&K Components, Inc. is a worldwide leader in the design and manufacture of electromechanical components. Our broad product line includes electromechanical switches, trimming potentiometers, magnetic devices, membrane panels and lighted indicators.

C&K manufactures 98% of its switch line. The majority is manufactured in the U.S. at C&K's ISO 9001 registered manufacturing facilities, Newton Division, Newton, Massachusetts, and Clayton/Unimax Division, Clayton, North Carolina. Most C&K switches intended for power switching are UL and CSA approved.

Our Clayton/Unimax Division uses extensive automation and flexible cellular manufacturing methods to produce the highest quality products at unprecedented rates of delivery. Standard switch types include switchlocks, rotary, slide, rocker, pushbutton, precision snap-acting and metal-cased. In order to meet your specific application requirements, our Clayton/Unimax Division offers custom design services and value added capabilities, including wire leads, harnesses and custom markings.

Clayton/Unimax is also the exclusive North American distributor for Division 1 Rafi products. Rafi GmbH & Co., Germany, is regarded as one of the premiere switch control and component manufacturers in Europe. The Rafi product line includes RAFIX control components, keylocks, signal lamps, indicators and pushbutton, illuminated pushbutton and PCB key switches.

Our Newton Division switch line includes miniature, subminiature, ultra-miniature and surface mount toggle, rocker, lever handle, pushbutton, illuminated, slide, DIP, rotary and coded switches. Custom design services are also available.

Unsealed Switches

Many manually actuated switches are not totally sealed components. Most manufacturing and field problems experienced by users of unsealed miniature switches are caused by contamination of the internal switch contacts during assembly, i.e., during soldering and cleaning processes. Switches may become intermittent, especially in low power applications, and these intermittencies may become apparent during factory testing or later in the field. These failures may not be immediately recognized as a process problem, but are assumed to be a product deficiency. Care during soldering and cleaning can prevent most process contamination problems encountered.

Contamination can occur in both hand soldering and machine soldering processes. Hand soldering and cleaning are acceptable with properly trained personnel, small diameter solder (.030-.040 in.) and low wattage soldering irons (25-40 watts max.) Do not immerse or spray the unsealed areas of the switches with cleaners during flux removal.

Most C&K switches have epoxy terminal sealing available and are compatible with 'bottom-wash' PC board cleaning methods. Other techniques such as vapor phase and infrared reflow are recommended for sealed/process compatible switches only. These products have the required temperature and contamination resistance.



Technical Information

Agency Approvals

Most C&K switch series offer models that are suitable for power switching and are available with approvals by one or more of the following listing agencies:

-  **UL** FILE NO. E42363 (Recognized under the component program of Underwriters Laboratories Inc.)
-  **CSA** FILE NOS. LR29210 (Newton, MA-USA)
LR49546 (Clayton, NC-USA)
LR47724 (England)
LR47725 (Hong Kong)
Listed by the Canadian Standards Association as certified.
-  **VDE** FILE NO. 8869-4401
-  **SEMKO** FILE NO. 43-63118/1-6

Some switches are automatically supplied with agency approvals when ordered with the appropriate contact materials. In some series, switches have agency approvals only when specific part numbers are selected. Otherwise, no approvals appear on the switches. For specific ratings and agency approvals, see the appropriate switch section.

At C&K, we are continuously upgrading our agency certifications and adding new models and options. If the approval you require does not appear, consult our factory.

Note: 'G' contact material is electrically equivalent to 'B and Q' contact material and can be used where either dry circuit* or power conditions are encountered. However, when the dry circuit rating is exceeded, the gold plating is removed from the contact interface and the switch cannot then be used in dry circuits. 'G' contact material should be specified where UL approval is required on a switch used in a dry circuit application.

*Dry circuit = conditions where no arcing occurs during switching, i.e. 0.4 VA max. @ 20 V AC or DC max.

How To Order

Complete part numbers are provided in each section, simply select desired switch.

