

## OPTIONAL PALM BUTTON ASSEMBLIES

Other styles of palm buttons are available to meet the OSHA and ANSI safety standards. The following pages include options to our standard palm buttons listed throughout this catalog.

All palm buttons can be furnished:

- as individual palm buttons
- in sets of two with ring guards for two-hand trip or two-hand control
- in control bars, special boxes, or control consoles (see pages 122-124)

Ring guards, covers, or similar devices must protect the palm button from accidental activation. Anti tie-down protection is required for single-stroke, two-hand trip, and two-hand control. It should already be built-in to the control system where any of these assemblies are applied. The buttons must also be mounted at a proper safety distance according to OSHA 29 CFR 1910.217 for two-hand trip or two-hand control when applying them to mechanical power presses. ANSI also requires that they be at the calculated safety distance on many other machines.

The assemblies, which include the ring guard and mounting plate, provide protection against unintended operation. All emergency-stop buttons are latch-out type buttons.

### TOUCHDOWN!™ PALM BUTTONS

Touchdown!™ proximity palm buttons can replace existing electromechanical manually operated palm buttons or they can be used for new installations. A 115-V AC or 24-V DC connection is required for each palm button; no other parts are required. They can be used on most machines where hand initiation is required. They also meet the UL 491 standard for power-operated machine controls and systems.

These proximity palm buttons have a dual-coil design. One coil senses the operator's hand while the second coil remains inactive, allowing normal operation. If stray radio-frequency noise is present, the second coil is activated, preventing palm button operation. This feature, plus the built-in dual relay output contacts, provides control-reliable palm buttons.

Sealed housing construction and fixed sensitivity set at the factory prevents tampering.

#### Ergonomics

These palm buttons provide a solution for repetitive motion injuries, such as carpal tunnel syndrome. These buttons help reduce these types of injuries while increasing productivity.

#### SPECIFICATIONS

Output Relay .....	1 NO and 1 NC
Current Rating .....	1 A, AC or DC
Voltage Rating.....	250 V AC maximum
Supply Voltage .....	115 V AC, 45 to 60 Hz, 40 mA 24 V DC, 100 mA
Response Time.....	ON delay ≤ 60 ms OFF delay ≤ 80 ms



Part No. CTL-562



Part No. CTL-563



Part No. CTL-566

### ORDERING INFORMATION

#### STANDARD-VOLTAGE CONTACTS—115 V DC

**Part No. CTL-562**—Two gray Touchdown!™ palm buttons, palm button guards, a red emergency-stop palm button, and mounting boxes.

**Part No. CTL-563**—Two gray Touchdown!™ palm buttons, palm button guards, a red emergency-stop palm button, a yellow top-stop palm button, and mounting boxes.

**Part No. CTL-566**—Two gray Touchdown!™ palm buttons, palm button guards, a red emergency-stop palm button, a yellow return/inch up palm button, and mounting boxes.

#### LOW-VOLTAGE CONTACTS—24 V DC

**Part No. CTL-557**—Two gray Touchdown!™ palm buttons, palm button guards, a red emergency-stop palm button, and mounting boxes.

**Part No. CTL-558**—Two gray Touchdown!™ palm buttons, palm button guards, a red emergency-stop palm button, a yellow top-stop palm button, and mounting boxes.

**Part No. CTL-559**—Two gray Touchdown!™ palm buttons, palm button guards, a red emergency-stop palm button, a yellow return/inch up palm button, and mounting boxes.

## LIGHT-PUSH PALM BUTTONS

These light-push palm button assemblies can replace the standard black palm button assemblies (shown throughout this catalog) when a lighter push is required.

The run/inch palm buttons have a single plunger which provides 1 NO and 1 NC contact arrangement. The mushroom head is made of a zinc die cast and has a flat plunger. The palm button cover plate has a solid neoprene gasket which provides an oil-tight seal upon installation.

### ORDERING INFORMATION

**Part No. CTL-533**—Two chrome run/inch buttons, ring guards, and red emergency-stop palm button. The red palm button has 1 NO and 1 NC contact arrangement.

**Part No. CTL-534**—Two chrome run/inch buttons, ring guards, red emergency-stop palm button, and yellow top-stop palm button. The red and yellow palm button each have 1 NO and 1 NC contact arrangement.

**Part No. CTL-538**—Two chrome run/inch buttons, ring guards, red emergency-stop palm button, and yellow return/inch-up palm button. The red and yellow palm button each have 1 NO and 1 NC contact arrangement.



Part No. CTL-533



Part No. CTL-534



Part No. CTL-538

## ARTICULATED PALM BUTTONS

These palm button assemblies have articulated chrome palm buttons and are offered in 24-V DC low-voltage or 115-V AC standard-voltage contacts. The low-voltage buttons are specifically designed for use with solid-state controls **only** and should not be used with relay-based controls. These ergonomic, heavy-duty palm buttons can be operated at any angle and are easy to push. The buttons are chrome plated and the guards are made of steel. The buttons provide 1 NO and 1 NC contact arrangement.



Part No. CTL-547



Part No. CTL-548



Part No. CTL-550

### STANDARD-VOLTAGE CONTACT RATINGS

Maximum Voltage .....600 V AC/DC  
Typical Operating Force.....3.7 lb (center), 2.7 lb (perim.)

### LOW-VOLTAGE CONTACT RATINGS

Minimum Voltage DC.....5 V, 1 mA  
Maximum Voltage DC .....48 V, 0.1 A  
Maximum Voltage AC .....240 V, 0.4 A  
Typical Operating Force.....3.7 lb (center), 2.7 lb (perim.)

### ORDERING INFORMATION

#### STANDARD-VOLTAGE CONTACTS—115 V AC

**Part No. CTL-547**—Two articulated chrome run/inch buttons with ring guards, mounting boxes, and red emergency-stop palm button.

**Part No. CTL-548**—Two articulated chrome run/inch buttons with ring guards, mounting boxes, red emergency-stop palm button, and yellow top-stop palm button.

**Part No. CTL-550**—Two articulated chrome run/inch buttons with ring guards, mounting boxes, red emergency-stop palm button, and yellow return/inch-up palm button.

#### LOW-VOLTAGE CONTACTS—24 V DC

**Part No. CTL-541**—Two articulated chrome run/inch buttons with ring guards, mounting boxes, and red emergency-stop palm button.

**Part No. CTL-542**—Two articulated chrome run/inch buttons with ring guards, mounting boxes, red emergency-stop palm button, and yellow top-stop palm button.

**Part No. CTL-544**—Two articulated chrome run/inch buttons with ring guards, mounting boxes, red emergency-stop palm button, and yellow return/inch-up palm button.

Rockford Systems, Inc.

Call Toll-Free 1-800-922-7533

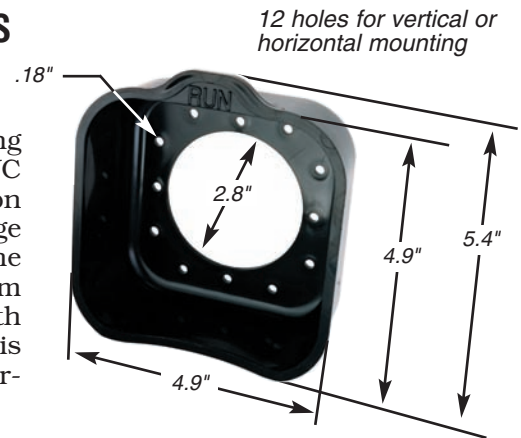
Fax 815-874-6144

## REPLACEMENT PARTS FOR PALM BUTTON ASSEMBLIES

### UNIVERSAL RUN BUTTON RING GUARD

Part No. CTK-006

This palm button ring guard is the way to protect new and existing run palm buttons from accidental operation. This high-impact PVC plastic palm button ring guard can be used with most palm button brands. The large square ring shape allows the operator to change hand position as well as use other surfaces of the hand to cycle the machine. This ring guard resists deterioration that can occur from cutting oils and other types of lubricants that come in contact with it. This ring guard has a relief for the wrist, and the word run is molded into the top of the ring guard. Four 1¼" screws are furnished with each ring guard.



### TOUCHDOWN!™ PALM BUTTON

Part No. CTL-555—Standard Voltage (115 V AC, 45-60 Hz, 40 mA)

Part No. CTL-553—Low Voltage (24 V DC, 100 mA)

This **ergonomic** run/inch palm button can replace the black or chrome palm buttons described previously. The palm button has a solid neoprene gasket which provides an oil-tight seal upon installation. The contact arrangement is 1 NO and 1 NC.



### CHROME PALM BUTTON

Part No. CTC-737

This heavy-duty, **light-push**, single plunger run/inch palm button provides 1 NO and 1 NC contact arrangement. This 2¼" button is constructed of zinc cast and has a flat plunger. The palm button cover plate has a solid neoprene gasket which provides an oil-tight seal upon installation. This palm button can replace the black palm button described below when a lighter push is required. The force required to operate this button is 2.5 lb.



### ARTICULATED CHROME PALM BUTTON WITH GUARD

Part No. CTC-746—Standard Voltage

Part No. CTC-751—Low Voltage

This ergonomic, heavy-duty palm button provides 1 NO and 1 NC contact arrangement. The palm button is chrome plated and the guard is made of steel. The straight-push force required to operate this button is 3.7 lb.



### BLACK PALM BUTTON

Part No. CTC-726

This standard heavy-duty, single plunger run/inch palm button provides 1 NO and 1 NC contact arrangement. This 2¼" button is mushroom shaped. The palm button cover plate has a solid neoprene gasket which provides an oil-tight seal upon installation. The force required to operate this button is 4.3 lb.



### YELLOW TOP-STOP PALM BUTTON

Part No. CTC-727

This heavy-duty, single plunger yellow top-stop palm button provides 1 NO and 1 NC contact arrangement. This 2¼" button has a mushroom-shaped plunger. The palm button cover plate has a solid neoprene gasket which provides an oil-tight seal upon installation. The force required to operate this button is 4.3 lb.



## REPLACEMENT PARTS FOR PALM BUTTON ASSEMBLIES (continued)

### YELLOW RETURN/INCH-UP PALM BUTTON

#### PART NO. CTC-740

This heavy-duty, single plunger yellow return/inch-up palm button provides 1 NO and 1 NC contact arrangement. This 2¼" button has a mushroom-shaped plunger. The palm button cover plate has a solid neoprene gasket which provides an oil-tight seal upon installation. This button is used to return/inch-up the ram on hydraulically or pneumatically operated machines. The force required to operate this button is 4.3 lb.



### RED EMERGENCY-STOP PALM BUTTON WITH LOCKOUT

#### PART NO. CTC-736

This heavy-duty, single plunger red emergency-stop palm button provides 1 NO and 1 NC contact arrangement. This 2¼" button has a mushroom-shaped plunger with a spring latch that keeps the button latched down when pushed. A release is incorporated. It also has provisions for attaching a padlock to the latch. The palm button cover plate has a solid neoprene gasket which provides an oil-tight seal upon installation. The force required to operate this button is 12.5 lb.



#### ELECTRICAL RATINGS FOR ALL BUTTONS (EXCEPT TOUCHDOWN™ AND ARTICULATED) —HEAVY-DUTY ANSI 600/NEMA 300

Normal Potential	Normal Current	Inrush Current
110 to 120 V AC*	6.0 A	60.0 A
220 to 240 V AC*	3.0 A	30.0 A
440 to 480 V AC*	1.5 A	15.0 A
550 to 600 V AC*	1.2 A	12.0 A
115 to 125 V DC**	2.2 A	—
230 to 250 V DC**	1.1 A	—

\*Power factor of 0.35 or less

\*\*Inductive loads as specified in Section 125 of Industrial Control Devices, Controllers and Assemblies, ANSI/NEMA ICS 2-1988

### MOUNTING BOXES (WITH ¾" NPT THREADED HUBS)

#### Part No. CTK-004

A single-hub mounting box is supplied with all palm button assemblies. It is used when wire terminates at this box. It can also be used when remote mounting electrical cut-off systems or duplex power outlets.

Single Hub



#### Part No. CTK-003

A double-hub mounting box is supplied with all palm button assemblies. It is used when wires are required to go through the box and on to another mounting box.

Double Hub



### MOUNTING BOXES FOR TOUCHDOWN!™ PALM BUTTONS ONLY

Part No. CTK-038—Deep single-hub mounting box

Part No. CTK-039—Deep double-hub mounting box

## FOR RELAY-LOGIC CONTROLS ONLY

### CONTROL MONITOR—Part No. RFY-014

This control monitor can be furnished as a replacement part for relay-logic controls and two-hand control for most any operation.

This unit is designed specifically for two-hand, anti tie-down applications. It is an off-delay timer relay with immediate dropout produced by the opening of an external contact. The timer is adjustable from 0 to 7 seconds. This time can be used for the concurrent time between pushing the buttons for two-hand control.

Output consists of 1 NO and 1 NC heavy-duty contacts. These are electrically independent for versatility of application. Proper application can provide self-monitoring.

This device can be readily applied in control circuits for most machines requiring two-hand control for operator safety.



**ELECTRICAL RATINGS**—Input: 120 V AC, 60 Hertz; Contact Rating: 250 V AC, 10 A

## FLEXIBLE-ARM LAMPS

These flexible-arm lamps can be used to light the point of operation of machines or most any work area where additional light is needed. The heavy-duty, flexible arms are made of spring steel and are covered with vinyl to protect them from grease, oil, and contaminants that would weaken their holding power. They offer virtually unlimited adjustment possibilities and long-term holding power.

All lamps are UL-listed with the C-UL US listing mark, which indicates compliance with both United States and

Canadian requirements. The lamps have 6' cords with grounded plugs (120 V). The lamp shade is made of high-impact polycarbonate that is resistant to denting, chipping, and cracking. It has a double wall that keeps the outer wall from getting too hot,

allowing adjustment of the lamp while in use. A bright conical reflector directs the light to where it is needed. Each lamp uses a 100-watt-maximum regular incandescent bulb (not included). An innovative, finned aluminum heat sink keeps the toggle switch cool for a long switch life. Optional accessories for the lamp include a wire guard that can be snapped onto the front rim of the shade to protect the bulb, and a magnifier attachment that can mount directly to the shade with a 2" x 4", 2-power glass lens. Please note that the wire guard and the magnifier attachment cannot be used together.

The flexible arms on the lamps come with three styles of mounting base: direct, C-clamp, or magnetic. The direct-mount base can be fastened directly to any flat surface with two ¼" fasteners (included). The C-clamp base can be mounted to a table or ledge up to 1¾" thick. The magnetic base consists of a 3"-diameter magnet with 100-lb holding force. If an adequate flat, ferrous mounting surface is not available, an optional steel mounting plate can be permanently attached to any flat surface to hold the magnetic base. (Fasteners not included.)



Direct-Mount Base

### ORDERING INFORMATION

Part No.	Description
RAL-504	Lamp With 18" Flexible Arm and Direct-Mount Base
RAL-505	Lamp With 24" Flexible Arm and Direct-Mount Base
RAL-506	Lamp With 18" Flexible Arm and C-Clamp Base
RAL-507	Lamp With 24" Flexible Arm and C-Clamp Base
RAL-508	Lamp With 18" Flexible Arm and Magnetic Base
RAL-509	Lamp With 24" Flexible Arm and Magnetic Base

### OPTIONAL ACCESSORIES

Part No.	Description
RAL-510	Wire Guard That Snaps Onto Shade to Protect the Bulb
RAL-511	Magnifier Attachment With 2" x 4", 2-Power Glass Lens
FKT-214	3½" x 4½" Steel Mounting Plate for Magnetic Base

