

RK Series

PUMP CONTROL PANELS



**MADE IN THE USA
BY**

CSI *controls*

Committed to Innovation



Standard Molded Sub-Door (Dead front)

The RK Series control panel has increased user safety through the use of a non-conductive molded polycarbonate inner door. This provides Space Savings and Convenient Operator Controls while isolating the user from energized components. Patent # 7,151,459 B1



Audible Alarm Circuitry

RK panels come standard with an audible piezo alarm (95 db +/-) and the exclusive side mounted "Touch to Silence" pad. With this feature the user is able to silence the audible by simply touching the decal on the side of the enclosure. This eliminates rubber boots that can leak and switches that fail due to moisture while maintaining the integrity of the enclosure. Patent # 7,075,443 B1



Inside Sub-Door

On the inside of the sub-door RK Panels have quick disconnect circuit boards for easy replacement and troubleshooting, spare fuses for alarm and control fuse replacement, and a custom RK Series screwdriver to ease servicing.



Non-Conductive Back Panel

RK Panels come standard with an injection molded back panel providing a raised platform for mounting circuit breakers, a heavy duty paralled ground lug, housing for contactors (rated at 25 FLA) and elevated terminal strip for installer friendly field wiring. Patent # 7,151,459 B1



Standard Lockable Latches

High quality stainless steel lockable latches come standard for safe and secure operation indoors or outdoors.



Standard Circuit Breakers

RK panels come standard with control & motor circuit breakers accessible through the sub door. (Can be ordered w/o circuit breakers).



Durable NEMA 4X Enclosure

The enclosure is manufactured from durable polycarbonate material and is UL Listed NEMA Type 4X rating as accepted by industry standards. It is intended for indoor or outdoor use and provides typical 4X protection against corrosion, windblown dust and rain, splashing and hose directed water while remaining undamaged by the formation of ice on the enclosure. In addition the door of the enclosure has the useful and unique ability to be removed simply by unsnapping from the hinges to allow better access for installation and service. The RK enclosure is available in Black or Gray and includes mounting feet. Also available with an optional clear door.



Digital Display Center

With Future Expansion in mind, every RK Panel has a Removable Expansion Board Face Plate to add features like: Elapsed Time Meter(s), Cycle Counter(s), Liquid Level Display in Inches, Time Dosing Fields, and many more. (See page 7 for more details)



User Safe Fuses

Each RK Panel has separate Alarm & Control Fuses Standard with Fuse Fail Indicator Lights prominently located on the Sub-Door for Simple Troubleshooting.



Alarm Light

A top mounted high intensity flashing red light with RK's variable flashing modes that is programmed to indicate the specific alarm fault comes standard. This enables service personnel to recognize specific faults before actually going to the site.

- **TEST / SILENCE**
- **HAND**
- **HAND**

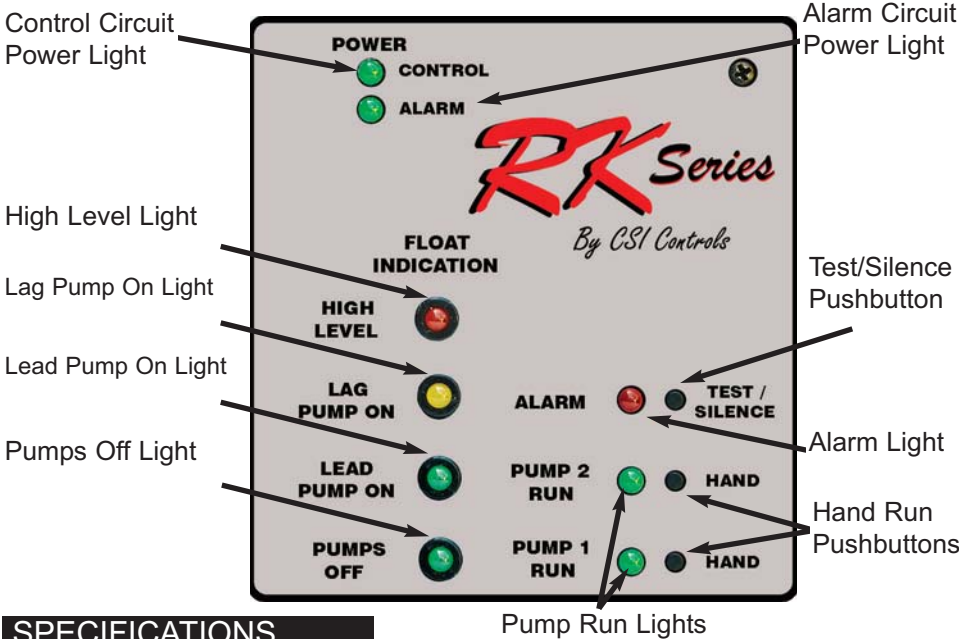
Hand Run Buttons

RK panels include push-to-run (HAND) pushbuttons for the motor starters output and a push-to-test (TEST) pushbutton for the alarm output accessible on the sub-door. The push-to-run (HAND) pushbuttons toggle their respective outputs off and on each time pushed under normal operation. However, to protect the pumps should the sump go below pump off level, the HAND pushbuttons revert to momentary contact and must be held down to maintain its respective output on. This is a safety feature that keeps the pumps from running dry.

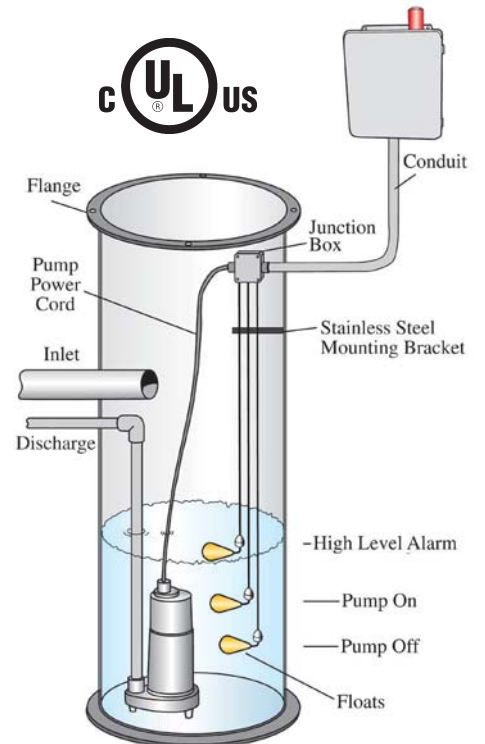


The RK Series is an innovative approach to today's pump control system requirements with standard features unmatched by most competitors. Through the use of a standard sub-door and raised backpanel the RK Series offers a revolutionary design for housing common control panel features such as circuit breakers, start components, contactors and a terminal strip. While others ask you for more dollars to cover "options", the RK Series provides many of the most requested items as standard equipment. Some of these standard features include: lockable latches, a flashing red alarm light with an electronic horn, the innovative touch to silence pad, and a control circuit board all in a NEMA 4X enclosure. In addition to unsurpassed standard features, RK offers an exclusive control circuit board. Conveniently located on the Sub-Door the float indication lights allow the user to see the status of each float and flashes should a float fail. Available in simplex and duplex single phase to three phase these innovative controllers are certain to revolutionize the industry.

Sub-Door Control Center



Typical Simplex Float Installation



SPECIFICATIONS

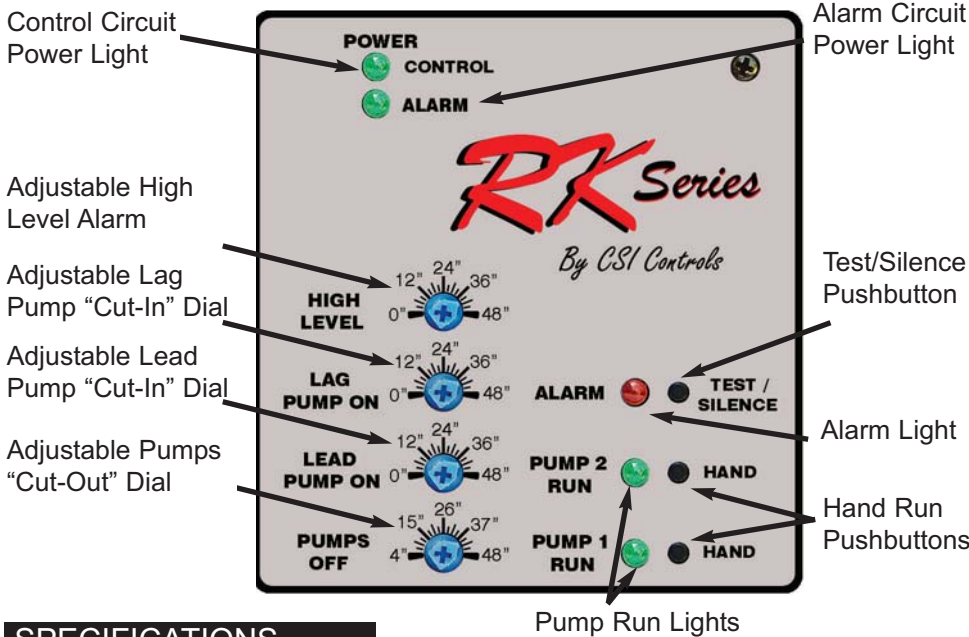
Available in Simplex & Duplex	Duplex Includes alternator & lag pump time delay
Enclosure Dimensions	12" X 10" X 6"
Overall Dimensions	14.5" X 12" X 7.5"
Enclosure	Nema 4X with Molded Mounting Feet
Alarm Piezo	95 db with "Touch to Silence" circuitry
Float Status Lights	Displayed on Sub-Door
Flashing Red Alarm Beacon	Provides 360° Visual Display
Weight	10.8 lbs.
25 amp "DP" Heavy Duty Definite Purpose Contactors	
Non-Conductive Injection Molded Sub-Door	
Blown Fuse Status Lights	
UL 508A Listed	
Includes 20' Mechanical Floats (3 for simplex, 4 for Duplex)	
Maximum 2 HP - (12 FLA)	
3 Year Limited Warranty	

Patents (# 7,075,443 B1) (# 7,151,459 B1)

Pressure Activated

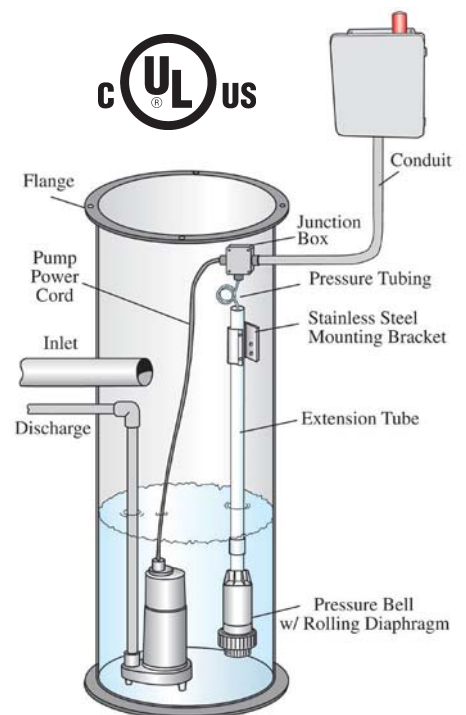


Sub-Door Control Center



Using our proprietary pressure bell, these ground breaking liquid level systems allow the user to change all settings and adjustments outside of confined space with no electrical level system components in wet areas, no cords to tangle or adjust, no mercury, no mechanical switches to fail, no probes to corrode, and no venting required. The pressure bell is non-electric and transmits a pressure only signal to the controller. No voltage from the level-sensing device enters the wet well. As the water level rises in the basin, pressure is created in the pressure bell sending an air pressure only signal to the controller. In fact, installation of the pressure bell is as simple as mounting the bell and connecting it to the control panel using the provided 1/4" poly tubing (50ft comes standard). Through the use of a control circuit board conveniently located on the Sub-Door, this system allows the user to adjust all settings at precise levels in inches by simply turning a knob. Amazingly, these systems are priced comparable to standard float systems!

Typical Simplex PAC Installation



SPECIFICATIONS

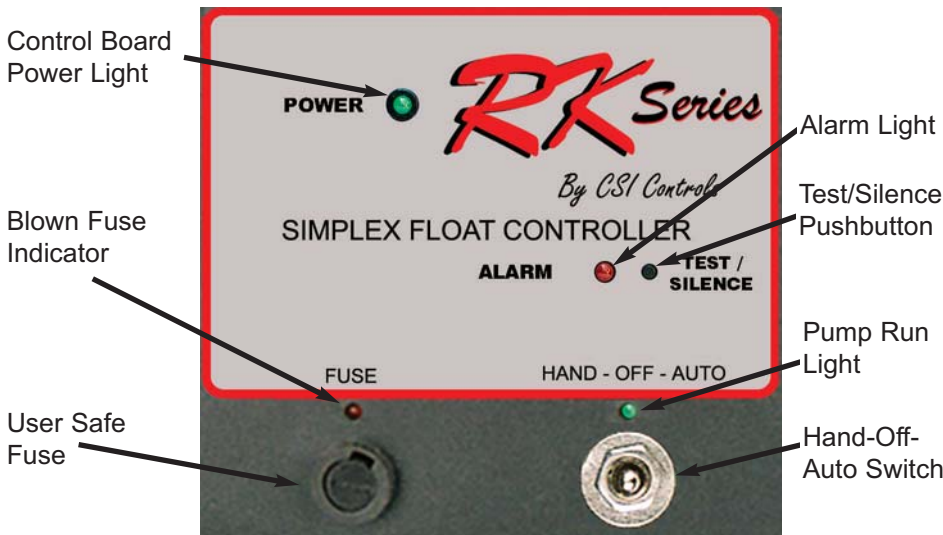
Available in Simplex & Duplex	Duplex Includes alternator & lag pump time delay
Enclosure Dimensions	12" X 10" X 6"
Overall Dimensions	14.5" X 12" X 7.5"
Enclosure	Nema 4X with Molded Mounting Feet
Alarm Piezo	95 db with "Touch to Silence" circuitry
Battery Back-Up	9 VDC for alarm horn
Flashing Red Alarm Beacon	Provides 360° Visual Display
Weight	10.8 lbs.
25 amp "DP" Heavy Duty Definite Purpose Contactors	
Non-Conductive Injection Molded Sub-Door	
Blown Fuse Status Lights	
UL 508A Listed	
Includes Pressure Bell & 50' of Tubing	
Maximum 2 HP - (12 FLA)	
3 Year Limited Warranty	

Patents (# 7,075,443 B1) (# 7,151,459 B1) (# 6,595,051 B1)

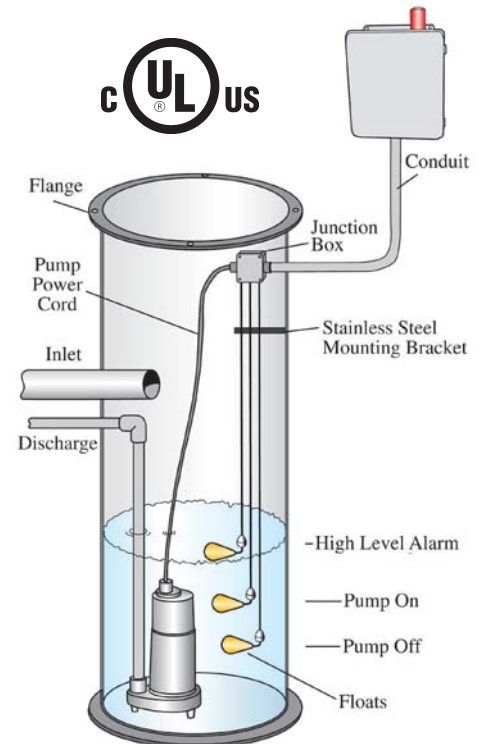


For those who don't need all the features of the standard RK Series, the "E" Series provides a feature packed control for price sensitive markets. Like the standard RK Series, the "E" Series comes standard with a NEMA 4X enclosure and poly molded inner door to isolate users from line voltage. This provides safety unmatched by our competitors in an aggressively priced simplex panel. The "E" Series also uses the proprietary "Touch to Silence" pad that is standard on all RK pump controllers along with power, alarm, and pump run LEDs. The H-O-A switch is an industry standard toggle switch and an Alarm test button with auto reset and alarm fuse is also standard. To keep this panel at a competitive price the "E" Series does not have the float status lights that come on the standard RK float panel. Although this series does not provide as many extras it will still accept an RK DDC module to provide Elapsed Time and Cycle Counting with a plug in module. See page 7 for more information about the DDC module.

Sub-Door Control Center



Typical Simplex Float Installation



SPECIFICATIONS

Available in Simplex Only	
Enclosure Dimensions	12" X 10" X 6"
Overall Dimensions	14.5" X 12" X 7.5"
Enclosure	Nema 4X with Molded Mounting Feet
Alarm Piezo	95 db with "Touch to Silence" circuitry
Flashing Red Alarm Beacon	Provides 360° Visual Display
Weight	10.8 lbs.
25 amp "DP" Heavy Duty Definite Purpose Contactors	
Non-Conductive Injection Molded Sub-Door	
Blown Fuse Status Light	
UL 508A Listed	
Includes two 20' Mechanical Floats	
Maximum 2 HP - (12 FLA)	
3 Year Limited Warranty	

Patents (# 7,075,443 B1) (# 7,151,459 B1)

Display Options



Typical RK Series Panel Illustrating Display Location on Sub-Door



Digital Display Center (DDC)



Digital Interface Board (DIB)

Display Features:

The RK Series Displays are available factory installed or as an accessory that can be easily field installed. Installing either display is as simple as removing the factory installed removable face plate and inserting the new or upgraded display from the back side of the sub-door. Once installed, the displays enable viewing of panel information such as Elapsed Run Time Meters and Cycle Counters for each pump. Pressure Activated panels also display the current liquid level depth in inches. Incorporating a timed dosing display transforms a basic level control panel into a programmable time dose panel. Timed dosing provides capabilities such as: Pump Run Time, Pump Off Time, Override Pump Run Time, Override Pump Off Time, and more (Time Dosing functionality varies between the DDC & DIB). The RK Series Displays are constantly being improved with new features. Please consult the factory or website periodically for the most up to date available features.

The RK Series displays are currently available in two versions - the Digital Display Center (DDC), and the Digital Interface Board (DIB). The DDC display utilizes a (4) four character LED display screen while the DIB incorporates a two line 16 character display screen providing a more complete read out for the user.

DDC Features:

- 4 Character LED Display
- Works with PAC or Float Panels
- Simplex or Duplex Panels
- Elapsed Time Meter(s)
- Cycle Counter(s)
- Lead Pump Selector (Duplex Panels)
- Liquid Level Read Out (PAC Panels)
- Low Level Alarm Option

Additional DIB Features:

- 32 Character LCD Display
- High Level Counter
- More Advanced Time Dosing
- On-Screen Alarm Annunciation
- Pump Failure Alarm (Duplex Panels)
- Alarm History (last 3 alarms)
- On-Screen Level Setpoint Read Out (PAC Panels)
- Three Auxiliary 120V AC Inputs

About CSI Controls ...

A major strength of our product line is the custom control panel. CSI manufactures alarms and controls that are unsurpassed in design, workmanship, and overall quality. From our manufacturing facility in Ashland, Ohio, we manufacture virtually any control panel imaginable. However, we pride ourselves on continually offering innovative products to the wastewater industry. Our engineering team is constantly developing new products to revolutionize the industry and the RK Series is no exception to this ongoing task. This series is like nothing ever seen in the wastewater industry. Through the use of molded polycarbonate and proprietary technology RK offers the most user friendly, safest, best designed, and most complete panel for the money in today's market.

Bill Chandler, President

What Customers are Saying About CSI

"We have worked with several panel shops over the years and CSI has offered the best service and quality we have found. They have worked hard to help us obtain business which is good for both parties. Thanks CSI"

Jim Hicks, Hughes Supply

"The innovative new products that CSI continues to develop, like the Pressure Activated Controls, keep my company ahead of my competition. CSI provides training and technical support for their products, which helps my sales and service personnel as well as our customers. It is good to work with a company that is an industry leader."

Bob Tilton, Williamson Electric

Warranty

Chandler Systems Inc., warrants to the original consumer that its products shall be free from defects in material or workmanship for 3 years after the date of purchase for the entire RK product line, and will repair or replace any units with such defects. Warranty is void if units are improperly applied, improperly installed, if it has been disassembled, modified, abused or tampered with. Chandler Systems Inc. is not liable for damages from lightning or severe weather. All items replaced under this warranty must be returned to CSI, or such place as designated by CSI.



CSI Controls

220 Ohio Street • Ashland, Ohio 44805
800-363-5842 • 419-281-5767 • fax: 419-289-2535
csi@zoominternet.net • www.chandlersystemsinc.com