

# CSR COMPACT INTERLOCKED ARKTITE® RECEPTACLE

## Installation & Maintenance Information

**COOPER** Crouse-Hinds

**IF 1334**

SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE

### APPLICATION

CSR compact interlocked ARKTITE receptacles are designed to provide connection and distribution of secondary electrical power (600 volts or less) between a power source and portable or stationary electrical equipment. CSR receptacles with suffix - FS also contain internal fuse blocks to provide overcurrent and short-circuit protection. The CSR Compact Interlocked Receptacles are available with style 2 grounding only. Style 2 grounding provides an extra pole for the ground connection. Refer to the Crouse-Hinds Product Catalog for a detailed description of this grounding method.

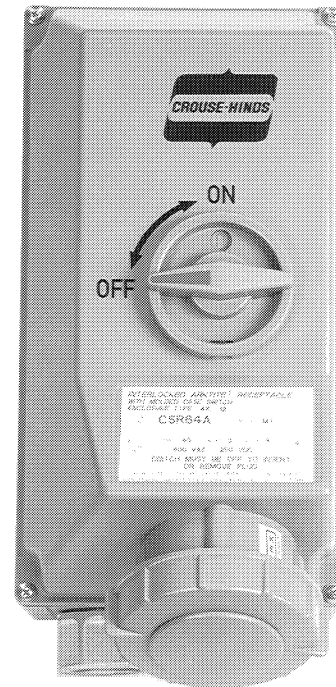
CSR Series switches are interlocked both with the enclosure cover and the ARKTITE receptacle. The switch cannot be turned on until the plug is inserted. The cover cannot be removed with the switch in the ON position and the plug engaged. The plug cannot be withdrawn unless the switch is in the OFF position.

The CSR series use standard Crouse-Hinds ARKTITE APJ or NPJ plugs of the same configuration and electrical ratings. The ARKTITE receptacle supplied with the CSR series enclosures are polarized to prevent mis-matching. Refer to the Crouse-Hinds Product Catalog for a complete listing of mating plugs.

CSR Series enclosures can be mounted on flat vertical surfaces or on the web between the flanges of I-beams. The CSR Series is designed for use in both indoors and outdoors in industrial environments where dust, dirt, chemical vapors, corrosion, moisture, or hose directed water is present. The enclosure is rated for NEMA/EEMAC 4X and 12 environmental protection.

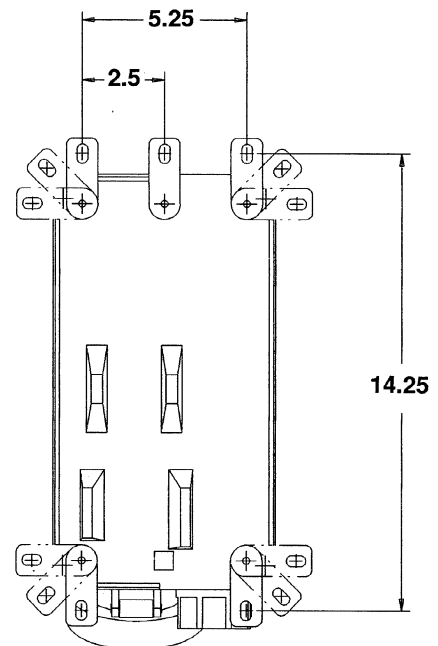
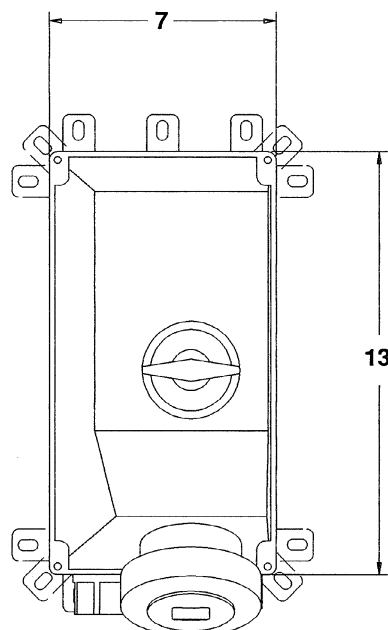
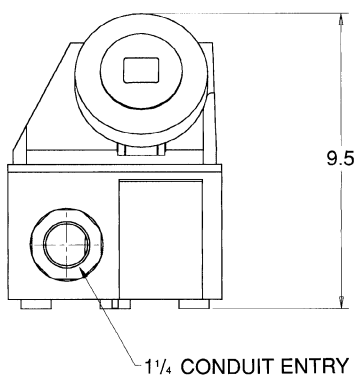
### NOTE

The CSR Series enclosure should be installed, inspected, operated, and maintained by qualified and competent personnel.



### DIMENSIONS

(in inches)



## RECEPTACLE INSTALLATION

### ⚠ WARNING

To avoid electrical hazard power must be turned OFF before and during installation and maintenance.

### ⚠ CAUTION

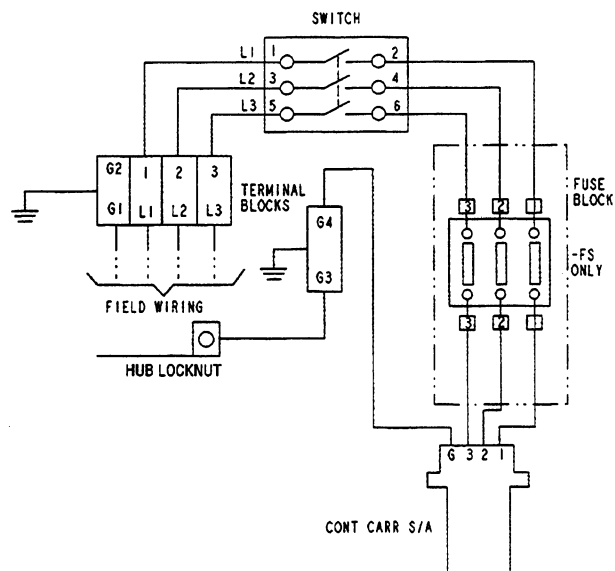
All hubs entering the enclosure must be properly grounded. The grounding terminal on the hub must be electrically connected to the grounding terminal block. All grounding must be done in accordance with the National Electrical Code and any applicable local codes.

1. The CSR enclosure includes a factory-installed 1-1/4" hub for a bottom-feed installation. The enclosure can accommodate a 1-1/4" or 1-1/2" hub for a top-feed installation. The 1-1/4" hub supplied with the enclosure may be used for a top feed installation. If a 1-1/2" hub is desired, order the appropriate hub kit shown below.

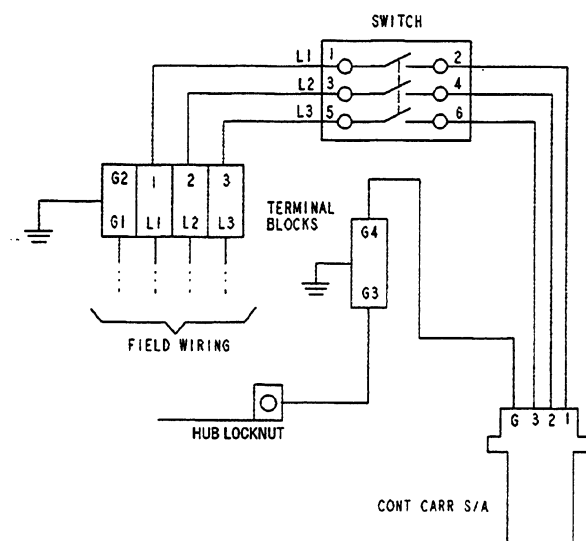
Hub size	Hub Kit	Hole Size
1-1/4"	CSR-K8	1-3/4"
1-1/2"	CSR-K3	2"

#### To install a Top-Feed Hub:

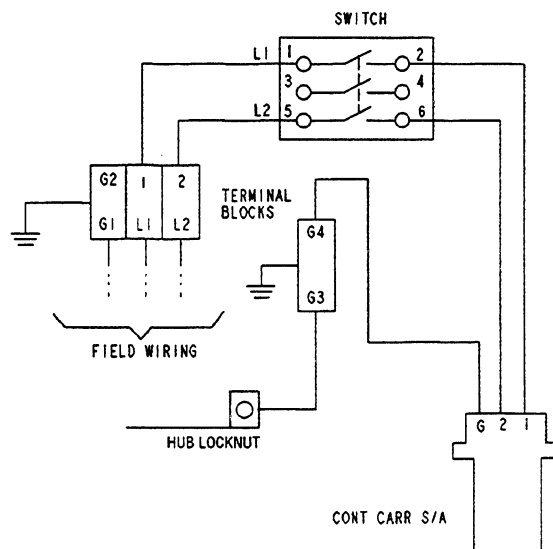
- A. Remove factory installed 1 1/4" hub and factory installed ground wire that attaches from the ground lug on the hub to the G3 ground block.
  - B. Seal the bottom opening with the hole plug supplied. Push the ring end of the bead-chain tether on the hole plug before pressing the plug into the bottom opening.
  - C. Drill a new top hub opening using the appropriate pilot holes molded into the top endwall.
  - D. Install hub into new top hub opening, being sure to tighten securely for watertight integrity.
  - E. Re-install ground wire between hub ground screw and G@ ground block. Torque ground connections to 22 in./lb.
2. Select a mounting location that will provide suitable strength and rigidity to support the enclosure. The CSR enclosure can be mounted in a vertical position with receptacle pointing down or in an overhead horizontal position with receptacle cover facing down.
  3. Remove the cover of the enclosure by loosening the four captive cover screws.
  4. Mount the enclosure box by one of the following two methods:
    - Directly to a flat surface with four #10 screws through the holes in the enclosure interior located adjacent to the cover screw holes.
  - OR
  - With the four mounting feet included with the CSR enclosure. If using the mounting feet, attach the mounting feet to the enclosure with the metric screws included. The mounting feet can be attached at increments of 45° angles. On the top side of the enclosure, one of the mounting feet may be attached in the center if necessary to clear a top-feed hub. Use four 5/16" bolts to mount the enclosure to a flat surface.
  5. Attach the field ground wire to the G1 terminal (See Figure 1) on the grounding terminal block. (See Table 1 for wire size information.) For top-feed units, run field wiring under DIN rail and loop up to terminal blocks, forming a drip loop for condensation.



60 Amp - 4 Pole Wiring Diagram



30 Amp - 4 Pole Wiring Diagram



30 Amp - 3 Pole Wiring Diagram

FIGURE 1

TABLE 1

Amps	Terminal	Wire Size	Torque
30	Power	8 - 22 AWG	13 lb.- in.
	Ground	6 - 16 AWG	16 lb.- in.
60	Power	4 - 14 AWG	22 lb.- in.
	Ground	4 - 10 AWG	22 lb.- in.

6. Attach the field wiring to terminals labeled L1, L2, L3 as appropriate for the installation. (See Figure 1) (See Table 1 for wire size information). Maintain color code consistency per your plant wiring scheme. Select appropriate terminal for phase and neutral conductors. Color or mark factory wiring for neutral conductor. For top-feed units, run field wiring under DIN rail and loop up to terminal blocks, forming a drip loop for condensation.

**⚠ CAUTION**

To avoid electric shock hazard, fuse conductors on ungrounded supply lines only. Do not fuse grounded neutral conductors. Use of dummy fuses for grounded neutral conductors is required.

**⚠ CAUTION**

To avoid fire hazard use copper conductors only with an insulation rating of 75°C min. Size conductors for 60°C ampacity.

NOTE: For CSR units ordered with fusing option (suffix - FS), fuses are not supplied. 30 Amp units use Bussmann Class J fuses, 30 Amp max. rating. 60 Amp units use Littelfuse Class CC fuses, 35 to 50 Amp rating.

7. Test wiring for correctness with continuity checks, and for unwanted grounds with an insulation resistance tester.
8. Ensure operating handle is in OFF position and place cover over enclosure.
9. Tighten four cover screws to 25 lb.- in.
10. Before turning on power to CSR enclosure, check interlock mechanism for proper operation as follows:
  - A. Confirm that switch can not be turned to ON position without having plug engaged.

**NOTE**

Do not exert excessive pressure on handle when trying to turn switch on without plug engaged. Internal interlock mechanism will be damaged.

- B. Insert mating Crouse-Hinds Arktite plug that has been fitted with the plastic clamping ring.
- C. Engage locking ring fully, drawing plug tight against receptacle face.

**NOTE**

Plug must be fully drawn tight into receptacle to insure watertight seal and proper operation of interlock mechanism.

- D. Turn handle to ON position
- E. Confirm plug cannot be withdrawn while switch is ON
- F. Turn switch OFF
- G. Dis-engage plug clamping ring
- H. Withdraw plug

**NOTE**

Inspect plug clamping ring periodically and replace promptly if broken or damaged order p/n:  
 CSR K2 for 60A  
 CSR K5 for 30A

**PLUG CLAMPING RING INSTALLATION**

A plug locking ring is provided that must be installed on the mating Crouse-Hinds Arktite plug to insure proper operation between plug and interlock receptacle.

**NOTE**

Interlock unit can be damaged if locking ring is not used.

1. Disassemble Arktite plug and remove factory installed locking ring. This may require you to un-wire an existing installed plug.
2. Slide new one-piece plastic locking ring into position to replace the factory locking ring that has been removed.
3. Re-assemble plug.

**MAINTENANCE**

**⚠ WARNING**

To avoid electrical shock always disconnect primary power source before opening enclosure for inspection or service

1. Frequent inspection should be made to ensure proper and safe operation. A schedule for maintenance checks should be determined by the environment and frequency of use. It is recommended that it should be inspected at least once a year. Crouse-Hinds recommends an Electrical Preventative Maintenance program as described in the National Fire Protection Association Bulletin NFPA 70B.
2. Perform visual, electrical, and mechanical checks on all components on a regular basis.
  - Visually check for undue heating as evidenced by discoloration of wires or other components, damaged or worn parts, or leakage evidenced by water or corrosion in the interior.
  - Electrically check to make sure that all connections are clean and tight.

- Mechanically check that all parts are properly assembled, the interlock is working and operating mechanisms move freely.
3. Replacement fuses:
- 30 Amp units use Class J fuses, 30 Amp max. rating (Bussmann recommended)
  - 60 Amp units use Class CC fuses, 35 to 50 Amp rating (Littelfuse recommended)

## REPLACEMENT PARTS

<b>Catalog Number</b>	<b>Description</b>
CSR-K9	CSR64A Cover Assembly
CSR-K10	CSR34A Cover Assembly
CSR-K11	CSR33A Cover Assembly
CSR-K12	60 Amp Spring Cap
CSR-K13	30 Amp Spring Cap
CSR-K14	CSR64A Replacement Contact Carrier
CSR-K15	CSR33A Replacement Contact Carrier
CSR-K16	CSR34A Replacement Contact Carrier
CSR-K17	60 Amp Switch
CSR-K18	30 Amp Switch
CSR-K19	30 Amp Fused Switch
CSR-K20	CSR64A FS Cover Assembly

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*All statements, technical information and recommendations contained herein are based on information and tests we believe to be reliable. The accuracy or completeness thereof are not guaranteed. In accordance with Crouse-Hinds "Terms and Conditions of Sale", and since conditions of use are outside our control, the purchaser should determine the suitability of the product for his intended use and assumes all risk and liability whatsoever in connection therewith.*

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