



INSTALLATION INSTRUCTIONS:

- **FLEXIBLE SPRING-STEEL ARM SHIELDS**
- **ON/OFF MAGNET-BASE SHIELDS**
- **UNIVERSAL BALL & SOCKET SHIELDS**
- **RIGID-ARM MAGNETIC-BASE SHIELDS**



Flexible Spring-Steel Arm Shield



On/Off Magnet-Base Shield



Universal Ball & Socket Shield

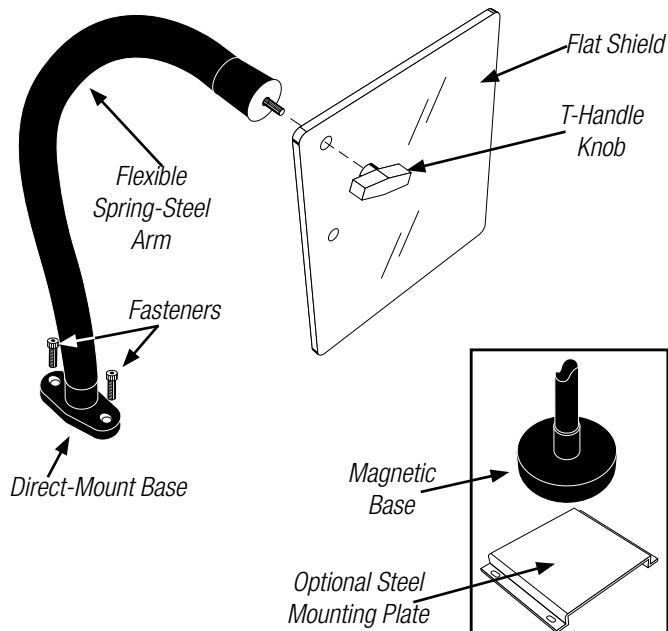


Rigid-Arm Magnetic-Base Shield

SECTION 1 —FLEXIBLE SPRING-STEEL ARM SHIELDS

Chip Shield Installation Instructions

Exploded View of Flexible-Arm Shield



Installation

1. Remove all packing material from the shield and the flexible arm. Remove the protective covering from both sides of the shield.
2. Using one of the holes in the shield, fasten the shield to the end of the flexible arm with the T-handle knob.
3. Determine the mounting location of the shield assembly.
4. Direct-mount base: Use the holes on the base to spot mounting holes where the base will be mounted. If using the socket-head cap screws, drill and tap two 1/4"-20 holes; if using the wood screws, drill small pilot holes to get the screws started. Be careful when drilling holes into the frame of a machine. Avoid internal components that could affect machine operation. Magnetic base: When mounting the shield assembly, the magnetic force should be strong enough to withstand movement of the shield. If an adequate flat, ferrous mounting surface is not available, an optional steel mounting plate (part No. FKT-1106) should be used. If the steel mounting plate is used, spot the mounting holes using the plate as a guide. Drill and tap four holes. Be careful when drilling holes into the frame of a machine. Avoid internal components that could affect machine operation.
5. Fasten/attach the base to the mounting location.
6. Bend the flexible arm and adjust the shield into the proper position for the application.

Replacement Parts

Part No.	Description
KYF036	12" Flexible Arm Only With Direct-Mount Base
KYF037	18" Flexible Arm Only With Direct-Mount Base
KYF038	12" Flexible Arm Only With Magnetic Base
KYF039	18" Flexible Arm Only With Magnetic Base
CSAA3	6" x 8" Flat Shield Only
CSAA5	10" x 12" Flat Shield Only
CSAD2	8" x 10" Concave Shield Only
CSAD3	10" x 12" Concave Shield Only
KYL012	30° Angle Shield (8" Front) Only
KYL017	30° Angle Shield (9.5" Front) Only
KYL018	90° Angle Shield Only
KYL126	30° & 90° Angle Shield (103/8" Front)
FKT083	T-Handle Knob
FKT1106	Optional Steel Mounting Plate

SECTION 2 —ON/OFF MAGNET-BASE SHIELDS

Chip Shield Installation Instructions

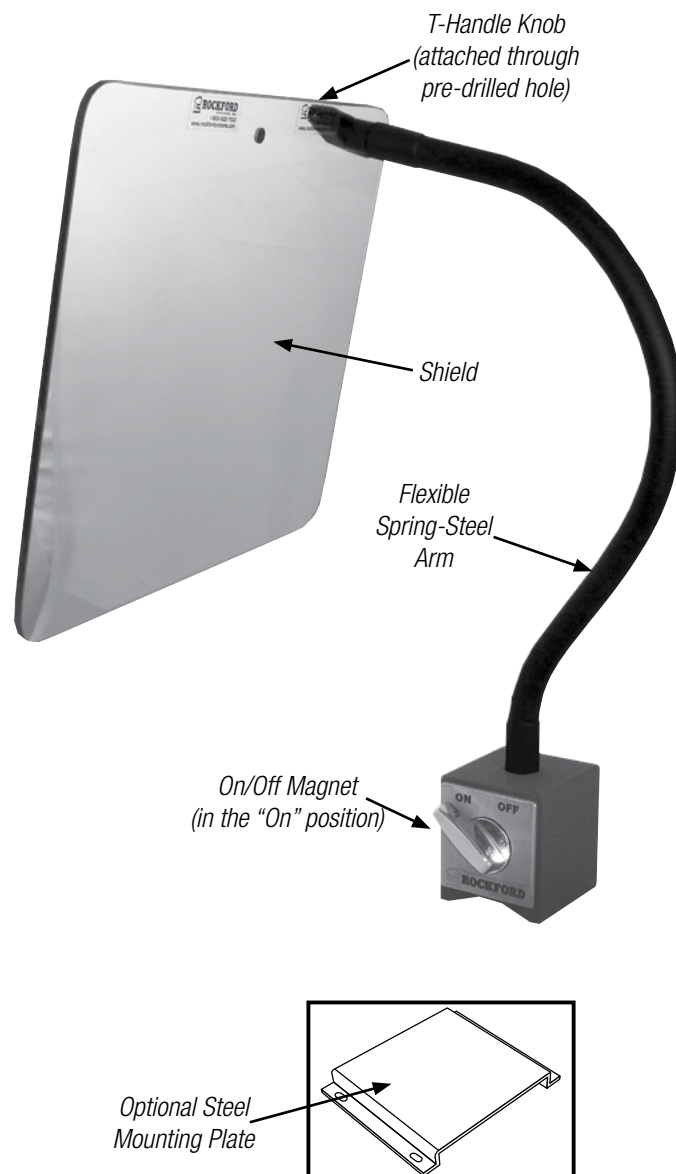
Installation

1. Remove all packing material from the shield, flexible arm and magnet. Remove the protective covering from both sides of the shield.
2. Using one of the holes in the shield, fasten the shield to the end of the flexible arm with the T-handle knob.
3. Locate a ferrous surface to place on/off magnet. If no ferrous surface is available, an optional steel mounting plate (Part No. FKT-1106) can be used.
4. Turn magnet switch from “off” to “on”.
5. Bend the flexible arm and adjust the shield into proper position for the application.
6. **Caution:** the on/off magnet has a 200-lb holding force when on and can damage electronic devices if positioned too near them.

Replacement Parts

Part No.	Description
KYF062	12" Flexible Arm For On/Off Magnet-Base Shield
KYF063	18" Flexible Arm For On/Off Magnet-Base Shield
KYF064	24" Flexible Arm For On/Off Magnet-Base Shield
CSAA3	6" x 8" Flat Shield Only
CSAA5	10" x 12" Flat Shield Only
CSAD2	8" x 10" Concave Shield Only
CSAD3	10" x 12" Concave Shield Only
KYL012	30° Angle Shield (8" Front) Only
KYL017	30° Angle Shield (9.5" Front) Only
KYL018	90° Angle Shield Only
KYL126	30° & 90° Angle Shield (103/8" Front)
KYL176	6" x 6" Flat Shield Only
KYL177	18" x 6" Flat Shield Only
FKT083	T-Handle Knob
FKT285	On/Off Magnet Base Only With M12 Tap
FKT1106	Optional Steel Mounting Plate

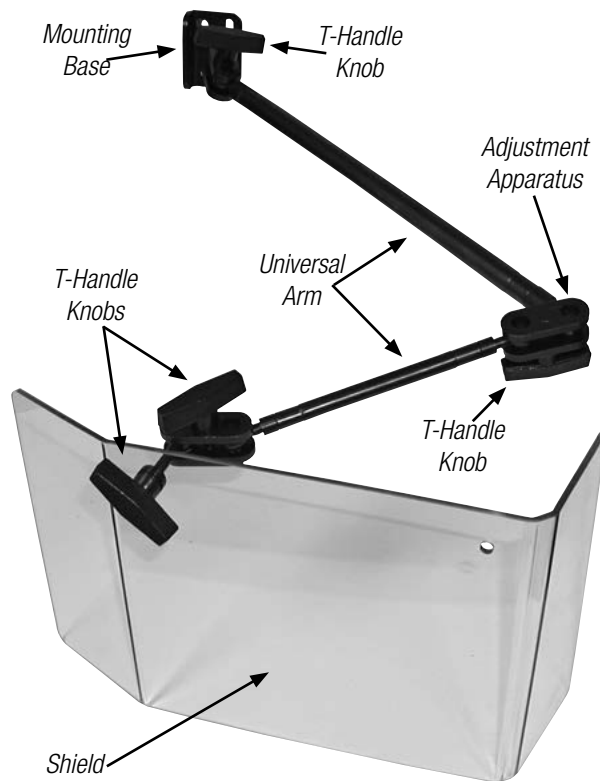
On/Off Magnet-Base Shield



SECTION 3 —UNIVERSAL BALL & SOCKET SHIELDS

Chip Shield Installation Instructions

Universal Ball & Socket Shield



Replacement Parts

Part No.	Description
CSAA3	6" x 8" Flat Shield Only
CSAA5	10" x 12" Flat Shield Only
CSAD2	8" x 10" Concave Shield Only
CSAD3	10" x 12" Concave Shield Only
KYL012	30° Angle Shield (8" Front) Only
KYL017	30° Angle Shield (9.5" Front) Only
KYL018	90° Angle Shield Only
KYL126	30° & 90° Angle Shield (103/8" Front)
KYF054	21" Universal Arm
KYF055	31" Universal Arm
KYF056	44" Universal Arm
FKT083	T-Handle Knob

Installation

1. Remove all packing material from the shield and the universal arm. Remove the protective covering from both sides of the shield.
2. Locate the mounting base.
3. Determine the mounting location of the base. The mounting location would normally be slightly above and behind the area where the shield will be used. It can be mounted to the frame or column on either side of the machine.
4. A special bracket may need to be fabricated when installing the universal arm because of the frame construction of the machine. Mounting should be rigid enough to withstand movement of the shield.
5. Locate the mounting holes using the universal arm bracket as a guide.
6. Use the mounting holes on the bracket to spot the holes. Drill and tap two holes using a 5/32" drill bit. Be careful when drilling holes into the frame of the machine. Avoid internal components that could affect machine operation.
7. Fasten the arm to the machine using two screws (not furnished).
8. Each shield has a hole in the corner(s) so the arm can be conveniently mounted on either side of the machine. Determine which hole on the shield will be used and attach the arm to it by tightening the provided T-handle knob.
9. Place the shield in the proper position for the application and tighten the T-handle knobs securely. The arm allows the shield to be moved easily into or out of position by using the T-handle knobs.

NOTE: Do not overtighten the T-handle knobs as this could permanently damage the universal arm and prevent it from holding in position.

SECTION 4 —RIGID-ARM MAGNETIC-BASE SHIELDS

Chip Shield Installation Instructions

Installation

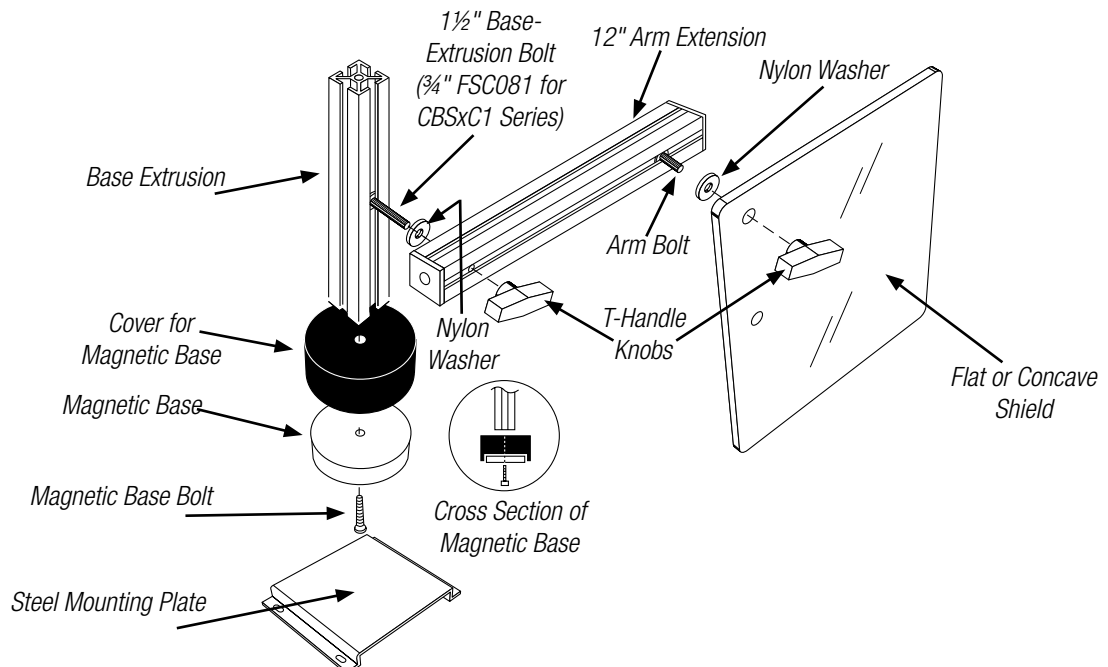
1. Remove all packing material from the shield and the mounting assembly. If the shield is a flat shield, remove the protective covering from both sides of the shield.
2. Locate the magnetic base and the mounting plate for the shield.
3. Attach the cover to the magnetic base, using the furnished screw.
4. Locate the 8" base extrusion. Attach the magnetic assembly to the tapped end of this extrusion and tighten the screw.
5. For CBS-xC1B shields only: Locate the furnished washer, knob, and the 12" arm extension. Place the washer on the base-extrusion bolt. Place the bolt in the hole on the 12" arm extension. Attach the knob to the bolt and tighten.
6. Locate the second washer, the shield, and the second knob. Place the washer on the arm bolt. Determine which hole on the shield will be used and place the bolt through it. Attach the knob to the bolt and tighten.
7. Determine the mounting location of the base. If the steel mounting plate is required, follow steps 8 through 10. If not, go to step 11.
8. When mounting the shield, the magnetic force should be strong enough to withstand movement of the shield. If it isn't, the steel mounting plate should be used.
9. If the steel mounting plate is used, spot the mounting holes using the plate as a guide.

10. Drill and tap four holes. Be careful when drilling holes into the frame of the machine. Avoid internal components that could affect machine operation. Fasten the mounting plate to the machine using the four furnished screws.
11. If using the magnetic base, please note that the magnet is very strong. Determine the location for the base. Attach the base to the machine in the desired location.
12. Use the knobs to adjust the shield for proper positioning for the application.

Replacement Parts

Part No.	Description
FKT099	8" Base Extrusion
FKT100	12" Arm Extension
FKT083	T-Handle Knob
FKT694	Magnetic Base
FKT125	Cover for Magnetic Base
FKT1106	Steel Mounting Plate
CRBLT14C1.5PCSZ	1½" Base Extrusion Bolt
CRBLT14C.75FCSZ	¾" Arm Bolt
SHCS14C1.75PCSZ8	Magnetic Base Bolt
FKT755	Nylon Washer
CSAA3	6" x 8" Flat Shield Only
CSAA5	10" x 12" Flat Shield Only
CSAA7	14" x 16" Flat Shield Only
CSAD2	8" x 10" Concave Shield Only
CSAD3	10" x 12" Concave Shield Only

Exploded View of CBSxC1B Magnetic-Base Shield



SECTION 5 —OTHER CONSIDERATIONS

Chip Shield Installation Instructions

Using the Shield

The shield is intended to deflect objects such as chips (swarf) and splashing coolant. For protection, position the shield between the point of operation and the operator. Make sure it will not be hit by normal movements of the machine and its parts (machine table, chuck, rotating handles, etc.). During loading or setup of workpieces, the shield can be swung aside.

Maintenance

These shields are made of polycarbonate which was selected for its strength and durability under impact. Although it will scratch if mistreated, it can be kept clear with appropriate care.

1. Remove coolant, chips, or debris periodically.
2. Using a clean sponge or soft clean cloth, wash with mild soap or detergent and lukewarm water.
3. Rinse well with clean water.
4. Hairline scratches or minor abrasions can be removed or minimized using a mild car polish such as paste wax. A wax coating also makes cleaning easier.

When many shields are used in a plant, spare shields can be kept on hand and exchanged periodically. The shields can be removed from the machines, carefully washed, and exchanged at a later date.



Do Not rub or wipe with dirty shop towels or scrape with a blade.



Do Not use gasoline, benzine, acetone, or carbon tetrachloride on the shield.



Do Not use cleaners or powders that contain abrasives or “dry rub” abrasive dust to remove coolant, lubricant, and chips.

SECTION 5 —OTHER CONSIDERATIONS

Chip Shield Installation Instructions

Warranty

9. Limited Warranties.

9.1. (i) Subject to Section 8.1(ii) below, Rockford Systems makes to Customer the following sole and exclusive warranties with respect to Goods:

(a) with respect to Goods that are manufactured based on Customer specifications, at the time of shipment by Rockford Systems, the Goods sold under the Agreement that are manufactured by Rockford Systems pursuant to such specifications conform to such specifications set forth in the applicable Order Documentation; and

(b) at the time of shipment by Rockford Systems, the Goods sold under the Agreement that are manufactured by Rockford Systems are free from defects in material and workmanship.

(c) Rockford Systems's warranty is for a period of 1 year, and begins from date of shipment from Rockford Systems to the original purchaser.

This warranty does not include accessories, parts or equipment sold hereunder that are manufactured by someone other than Rockford Systems.

(ii) Every claim by Customer against Rockford Systems for breach of warranty with respect to the Goods shall be deemed waived by Customer unless written notice thereof is received by Rockford Systems within fifteen (15) days after discovery.

9.2. If Rockford Systems breaches either of the warranties set forth in Section 8.1(i) above, and written notice thereof is received by Rockford Systems from Customer within the applicable time period specified in Section 8.1(ii) above, Customer's sole and exclusive remedy and Rockford Systems's only obligation shall be, as Rockford Systems in its sole and exclusive judgment shall determine, the replacement of the nonconforming Goods, or an adjustment to the purchase price for the nonconforming Goods or the repair of the nonconforming Goods. All transportation charges related to replacement or repair of Goods shipped to Rockford Systems's plant or facility (or other place at Rockford Systems's direction) shall be prepaid by Customer. Rockford Systems shall be responsible for reasonable transportation charges back to Customer for Goods that have been replaced or repaired by Rockford Systems. Any replacement Goods or repaired Goods shall be subject to these Terms and Conditions.

9.3. THE EXPRESS WARRANTIES SET FORTH HEREIN ARE THE ONLY WARRANTIES APPLICABLE TO THE SALE OF GOODS BY ROCKFORD SYSTEMS TO CUSTOMER PURSUANT TO THE AGREEMENT, AND THEY EXCLUDE ALL OTHER EXPRESS, ORAL OR WRITTEN WARRANTIES, AS WELL AS ANY WARRANTIES IMPLIED BY LAW WITH RESPECT TO THE GOODS, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PURPOSE, NOTWITHSTANDING ANY DISCLOSURE TO ROCKFORD SYSTEMS OF THE INTENDED USE OF THE GOODS.

9.4. Rockford Systems's warranties under Section 8.1(i) are void if repairs or modifications of the Goods are made by anyone other than Rockford Systems. Without limitation of the foregoing, Rockford Systems assumes no responsibility for and shall have no obligations to Customer because defects in any materials furnished by, or any faulty workmanship provided by, any party other than Rockford Systems.

9.5. Rockford Systems reserves the right to improve its products through changes in design or material without being obligated to incorporate such changes into products of prior manufacture. Customer cannot rely on any such changes as proof of insufficiency or inadequacy of prior designs of the Goods or material contained in the Goods.

9.6. If Customer grants to an end user of the Goods (or any other customer of Customer) any warranty that is greater in scope or time than the warranty and claims period stated herein, Rockford Systems shall not be liable beyond the scope of the limited warranty, the claim period, the damages and the remedies provided for under this Section.

9.7. Solely to the extent transferable, Rockford Systems assigns and transfers to Customer the original manufacturer's warranty on Goods sold hereunder that are not manufactured by Rockford Systems.



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