ROCKFORD SYSTEMS, LLC

INSTALLATION INSTRUCTIONS FOR LATHE SHIELDS

Photo 1: Sliding *(OBSOLETE*)*

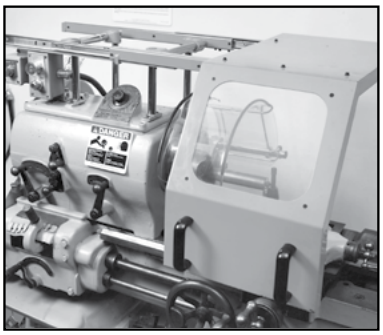

Photo 2: Crosslide-Travel

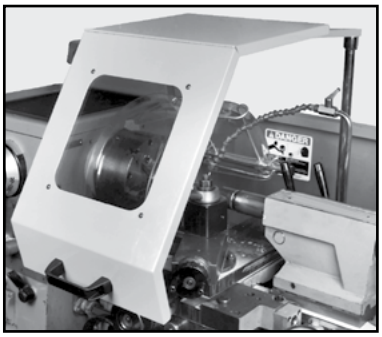

Photo 3: Small Steel *(OBSOLETE*)*

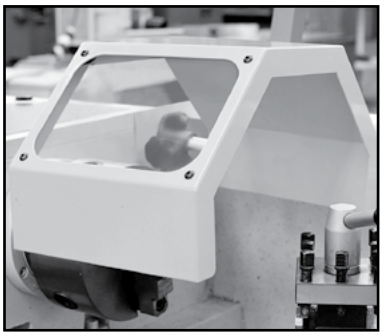

Photo 4: Large Steel

These shields are designed for machines that require protection from chips (swarf) and coolant generated at the point of operation. They also provide a barrier between the machine chuck and the operator.

5795 Logistics Parkway • Rockford, Illinois 61109 • Toll-Free 1-800-922-7533 • Phone 815-874-7891
Fax 815-874-6144 • Web Site www.rockfordsystems.com • E-Mail customerservice@rockfordsystems.com
Manual No. KSL244

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Protector Series Shields

SECTION 1 — IN GENERAL

Protector Series Shields

Safety Precautions

"⚠ DANGER" **Danger is used to indicate the presence of a hazard which WILL cause SEVERE personal injury if the warning is ignored.**

THIS SAFETY ALERT SYMBOL IDENTIFIES IMPORTANT SAFETY MESSAGES IN THIS MANUAL. WHEN YOU SEE THIS SYMBOL ⚠, BE ALERT TO THE POSSIBILITY OF PERSONAL INJURY, AND CAREFULLY READ THE MESSAGE THAT FOLLOWS.

Efficient and safe machine operation depends on the development, implementation and enforcement of a safety program. This program requires, among other things, the proper selection of point-of-operation guards and safety devices for each particular job or operation, a thorough safety training program for all machine personnel, that includes instruction on the proper operation of the machine, the point-of-operation guards and safety devices on the machine, and a regularly scheduled inspection and maintenance program.

Rules and procedures covering each aspect of your safety program should be developed and published both in an operator's safety manual, as well as in prominent places throughout the plant and on each machine. Some rules or instructions which must be conveyed to your personnel and incorporated into your program include:

⚠ DANGER **Never** place your hands or any part of your body in this machine.

⚠ DANGER **Never** operate this machine without proper eye, face and body protection.

Never operate this machine unless you are fully trained, instructed, and have read the instruction manual.

Never operate this machine if it is not working properly—stop operating and advise your supervisor immediately.

Never tamper with, rewire or bypass any control or component on this machine.

A company's safety program must involve everyone in the company, from top management to operators, since only as a group can any operational problems be identified and resolved. It is everyone's responsibility to implement and communicate the information and material contained in catalogs and instruction manuals to all persons involved in machine operation. If a language barrier or insufficient education would prevent a person from reading and understanding various literature available, it should be translated, read or interpreted to the person, with assurance that it is understood.

For maintenance and inspection always refer to the OEM's (Original Equipment Manufacturer's) maintenance manual or owner's manual. If you do not have an owner's manual, please contact the original equipment manufacturer.

Safety References

OSHA'S ACT AND FEDERAL REGULATIONS

Since the enclosed equipment can never overcome a mechanical deficiency, defect or malfunction in the machine itself, OSHA (Occupational Safety and Health Administration) has established certain safety regulations that the employers (users) must comply with so that the machines used in their plants, factories or facilities are thoroughly inspected and are in first-class operating condition before any of the enclosed equipment is installed.

1. An Act – Public Law 91 - 596, 91st Congress, S. 2193, December 29, 1970

Duties:

Sec. 5. (a) Each employer —

(1) shall furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees;

(2) shall comply with occupational safety and health standards promulgated under this Act.

(b) Each employee shall comply with occupational safety and health standards and all rules, regulations, and orders issued pursuant to this Act which are applicable to his own actions and conduct.

2. OSHA's Code of Federal Regulations, Subpart O, that an employer (user) must comply with include:

Section 1910.211 Definitions

Section 1910.212 (a) General Requirements for all Machines

Section 1910.217 Mechanical Power Presses

Section 1910.219 (b)(1) Mechanical Power-Transmission Apparatus (Flywheel and Gear Covers)

3. OSHA's 29 Code of Federal Regulations, Subpart J 1910.147 The Control of Hazardous Energy (Lockout / Tagout)

4. OSHA's Publications

a. "General Industry Safety and Health Regulations Part 1910," Code of Federal Regulations, Subpart O

b. "Concepts and Techniques of Machine Safeguarding," OSHA 3067, Revised 1992

These publications can be acquired by contacting:

US Department of Labor
Occupational Safety and Health Administration
Washington, DC 20210

ANSI SAFETY STANDARDS FOR MACHINES

The most complete safety standards for machine tools are published in the ANSI (American National Standards Institute) B11 series.

Applicable Standard

B11.6	Manual Turning Machines
B11.8	Manual Milling, Drilling, and Boring Machines
B11.9	Grinding Machines
B11.10	Sawing Machine
B11.19	Performance Requirements For Risk Reduction Measures: Safeguarding And Other Means Of Reducing Risk
NFPA 79	Electrical Standard for Industrial Machinery

These standards can be purchased by contacting:

American National Standards Institute, Inc.
11 West 42nd Street
New York, New York 10036
(212) 642-4900

OR

AMT-The Association of Manufacturing Technology
7901 Westpark Drive
McLean, Virginia 22102-4269
(703) 827-5211

NATIONAL SAFETY COUNCIL SAFETY MANUALS & DATA SHEETS

Other good references for safety on machine tools are the National Safety Council's Safety Manuals and Data Sheets. These manuals and data sheets are written by various committees including the Power Press, Forging and Fabricating Executive Committee. The following publications are available for all types of machines:

APPLICABLE MANUAL

Power Press Safety Manual - 4th Edition
Safeguarding Concept Illustrations - 6th Edition
Forging Safety Manual

DATA SHEETS

Bench and Pedestal Grinding Wheel Operations 12304-0705
Boring Mills, Horizontal Metal 12304-0269
Boring Mills, Vertical 12304-0347
Coated Abrasives 12304-0452
Cold Shearing Billets and Bars in the Forging Industry 12304-0739
Degreasing (Liquid), Small Metal Parts 12304-0537
Dies, Setup and Removal of Forging Hammer 12304-0716
Drill Presses, Metalworking 12304-0335
Drills, Portable Reamer 12304-0497
Drop Hammers, Steam 12304-0720
Electrical Controls for Mechanical Power Presses 12304-0624
Forging Hammer Dies, Setup and Removal of 12304-0716
Forging Presses, Mechanical 12304-0728
Gear-Hobbing Machines 12304-0362
Handling Materials in the Forging Industry 12304-0551
Kick (Foot) Presses 12304-0363
Lathes, Engine 12304-0264
Milling Machines, Metalworking 12304-0364
Planers, Metal 12304-0383
Power Press (Mechanical) Point-of-Operation

..... Safeguarding, Concepts of 12304-0710
Power Press Point-of-Operation Safeguarding:
.....Two-Hand Control and Two-Hand Tripping
..... Devices 12304-0714
Power Press Point-of-Operation Safeguarding:
.....Type A and B Movable Barrier Devices 12304-0712
Power Press Point-of-Operation Safeguarding:
.....Point-of-Operation Guards 12304-0715
Power Press Point-of-Operation Safeguarding:
.....Presence Sensing Devices 12304-0711
Power Press Point-of-Operation Safeguarding:
..... Pullbacks and Restraint Devices 12304-0713
Power Presses (Mechanical), Inspection and Maintenance of . 12304-0603
Power Presses (Mechanical), Removing Pieceparts from Dies in 12304-0534
Power Press, Setting Up and Removing Dies 12304-0211
Press Brakes 12304-0419
Robots 12304-0717
Saws, Metal (Cold Working) 12304-0584
Shapers, Metal 12304-0216
Shears, Alligator 12304-0213
Shears, Squaring, Metal 12304-0328
Upsetters, 12304-0721

These manuals and data sheets can be purchased by contacting:

National Safety Council
1121 Spring Lake Drive
Itasca, IL 60143-3201
(708) 295-1121

For additional safety information and assistance in devising, implementing or revising your safety program, please contact the machine manufacturer, your state and local safety councils, insurance carriers, national trade associations and your state's occupational safety and health administration.

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.

Introduction

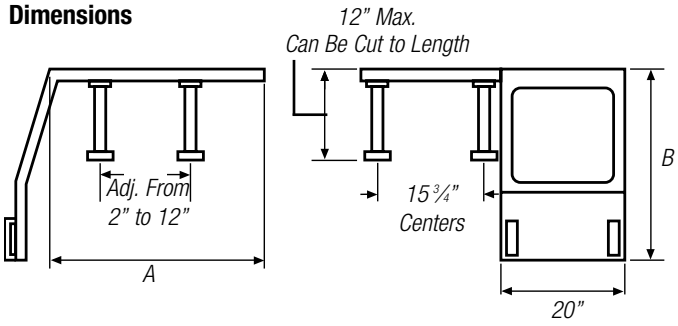
These shields are designed for lathes with chucks up to 48 inches. The ball-bearing carriage securely mounts to the headstock by four flanged mounting posts, as illustrated. The four mounting brackets are adjustable to provide easy mounting to the headstock. The mounting posts can be attached without interfering with any part of the equipment housed within the headstock.

The sliding shields slide out of the way over the headstock, allowing the operator access to the point of operation for loading and unloading workpieces, changing tooling, changing chucks, removing swarf, etc.

DIMENSION CHART

Part No.	A	B	Chuck Diameter
MAJ700	26”	21”	28”
MAJ800	27-1/4”	23”	32”
MAJ100	29-1/2”	27”	40”
MAJ120	33-1/4”	30-3/4”	48”

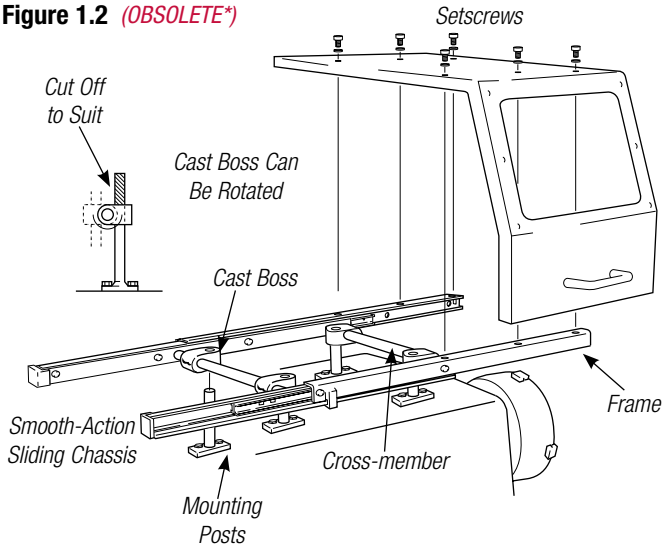
Figure 1.1 *(OBSOLETE*)*
Dimensions



Installation

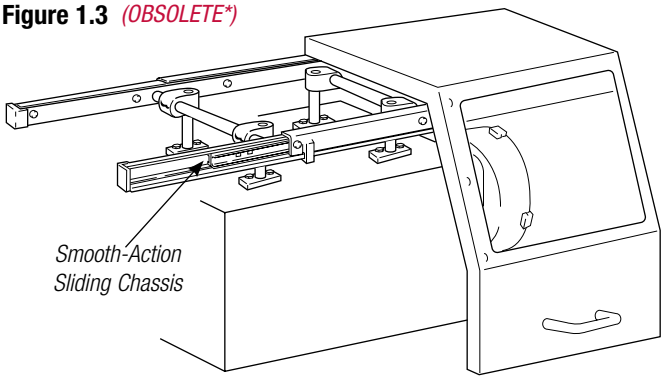
1. Remove all packing material from the shield and its mounting assembly.
2. Select the mounting location of the shield by measuring the distance from the headstock of the lathe to the point the shield must travel. **Make sure the underside of the shield clears the chuck.** Cut the mounting posts to length, if required.
3. Drill and tap holes for the mounting posts. Make sure the holes do not interfere with gears, shafts, etc., and the assembly is located so it allows the shield to slide back far enough to expose the chuck.
4. The posts can be attached anywhere along the length of the crossmembers. They also can be mounted to the right or left by sliding or rotating the cast bosses. The cast bosses clamp to the crossmember and mounting posts (see Figure 1.2).

Figure 1.2 *(OBSOLETE*)*



This drawing illustrates how easily the four mounting posts attach to the headstock of the lathe. It also shows how the sliding shield mounts to the rails of the ball-bearing carriage.

Figure 1.3 *(OBSOLETE*)*



5. Bolt the four mounting posts to the headstock. (Bolts not furnished.)
6. Position the frame onto the posts.
7. With the frame positioned on the posts, attach the shield to the frame using the six socket setscrews provided (see Figure 1.2). Make sure access to the machine controls is not blocked.

REPLACEMENT WINDOW

Part No.	Replacement Polycarbonate Window For:
MAW001	MAJ700
MAW002	MAJ800
MAW003	MAJ100
MAW004	MAJ120

When installing, allow enough clearance to ensure the shield or any of its parts will not be hit by normal movements of the chuck, crosslide, workpiece, etc.

Introduction

Mounting brackets are supplied separately for any of the shields found on pages 5-7. These brackets mount to the headstock of the lathe. Fasteners are not furnished. The transparent and small steel shields are attached to a zinc-plated extension tube which fits into these mounting brackets.

There are two principal types of mounting brackets available. Type A (Figure 2.1) is used for mounting to the top or the side of the headstock. Type B (Figure 2.2) is used for mounting to the face of the headstock.

For difficult mounting conditions, the Type A1 bracket (Figure 2.3) may be used. This bracket incorporates a telescopic height adjustment and can be swivelled up to an angle of 90° as required.

Figure 2.1
Type A Bracket
Part No. LXS650
For mounting to the top or side of the headstock.

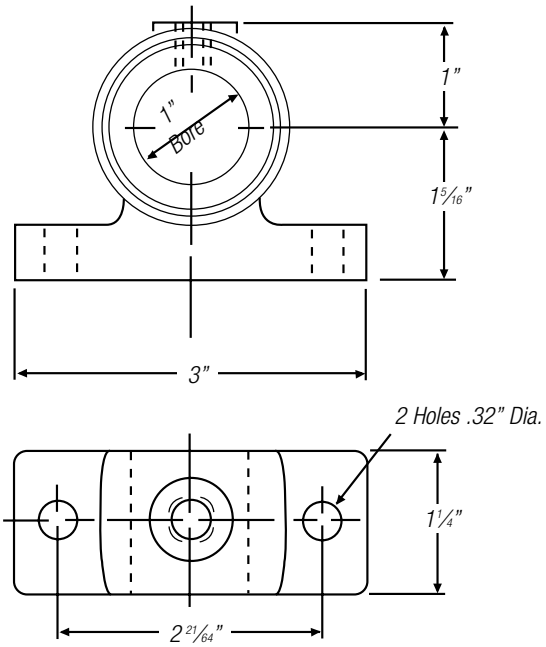


Figure 2.2
Type B Bracket
Part No. LXS652
for mounting to the face of the headstock.

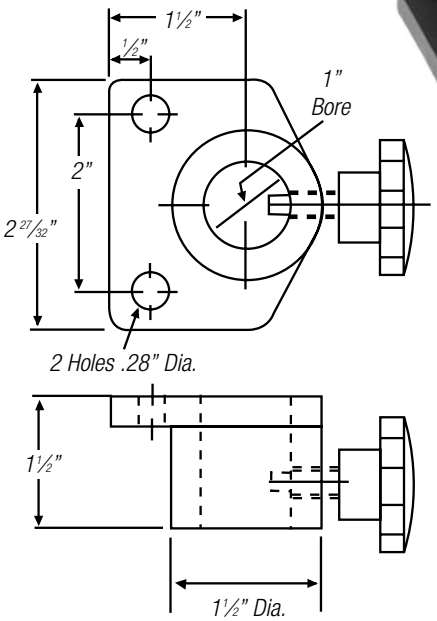
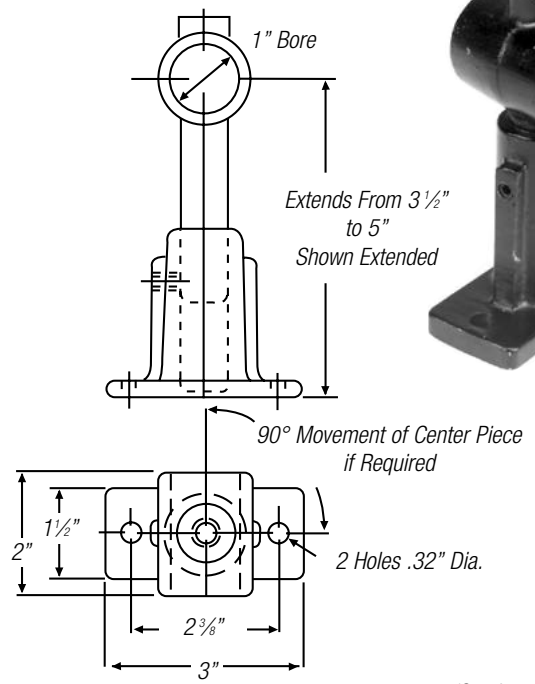


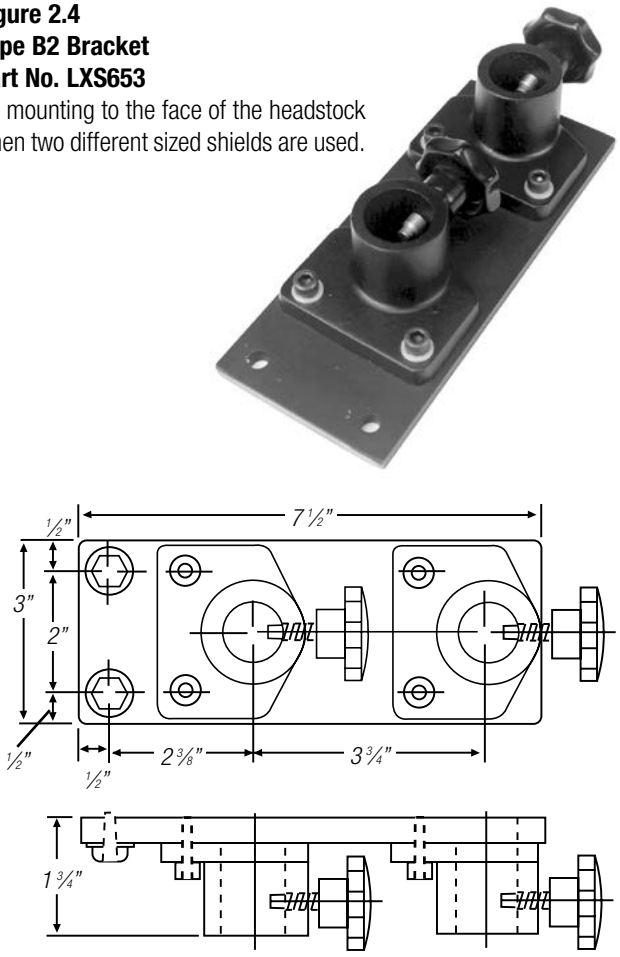
Figure 2.3
Type A1 Bracket
Part No. LXS651
for extended mounting to the top or side of the headstock.



(Continued on next page.)

Introduction (continued)

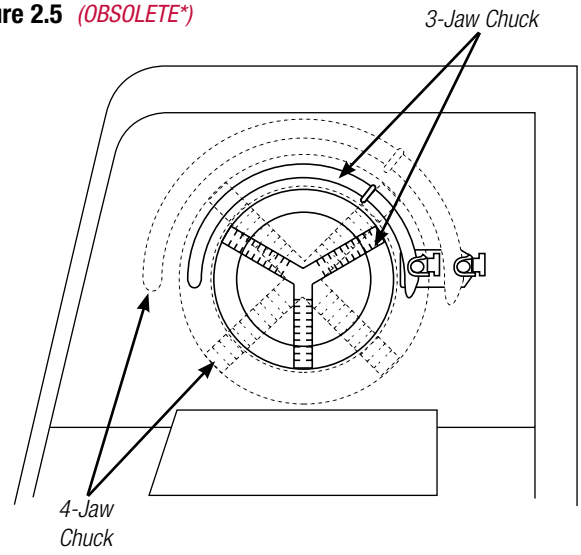
Figure 2.4
Type B2 Bracket
Part No. LXS653
for mounting to the face of the headstock when two different sized shields are used.



The Type B2 bracket (Figures 2.4 and 2.5) has a two-socket mounting. It can be fastened to the face of the headstock where shields with different diameters are used. It accommodates 3-jaw and 4-jaw chucks. The inner socket is used for the 3-jaw, smaller chuck shield. When changing over to a larger, 4-jaw chuck, the shield is removed from the inner socket and replaced by a larger diameter shield inserted into the outer socket. This accommodates the 4-jaw chuck.

Full dimensions, showing the shield in relation to the chuck, are illustrated in Figure 6.2 on page 8.

Figure 2.5 *(OBSOLETE*)*



The electrical interlocking bracket assembly (Figure 2.6) includes the Type B bracket for mounting to the face of the headstock. This bracket assembly has an interlock switch that can be interlocked to the lathe's motor starter circuit. In most cases, the normally open contact of the switch is used. The cam is then positioned on the mounting rod of the shield so it pushes the wheel of the switch and holds the contact closed while the shield is down in position. When the shield is lifted up, the contact of the switch is opened, which causes the machine to stop.

Introduction

These lathe shields mount and travel with the crosslide for protection when machining long workpieces. The steel structure provides protection from flying chips and coolant. The window permits visibility into the point of operation. The front portion of the shield hinges up for access. This shield is ideal for lathes with long beds. Special sizes are available on request.

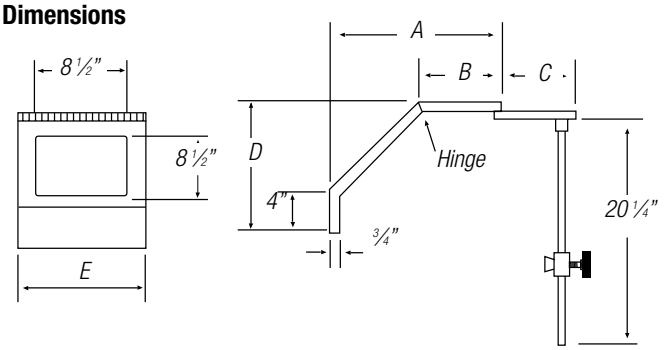
Installation

1. Remove all packing material from the shield and its mounting assembly.
2. Select the mounting bracket location on the crosslide of the machine and spot holes. Make sure the holes do not interfere with gears, shafts, etc. (A mounting bracket is not part of the assembly. It must be ordered separately—see pages 3-4 for choices.)
3. Drill and tap two holes for the mounting bracket. (See pages 3-4 for bracket dimensions or use the bracket as a template.)
4. Fasten the mounting bracket to the crosslide of the lathe using Allen-head fasteners (not furnished).
5. Assemble the shield to the mounting rod with the fasteners provided. See Figure 3.2.
6. Slide the mounting rod into the mounting bracket and tighten at the desired height.

DIMENSION CHART

Part No.	A	B	C	D	E
TXS100	17"	8"	10"	12"	12"
TXS200	23"	11"	12"	14-1/2"	13-3/4"

Figure 3.1
Dimensions

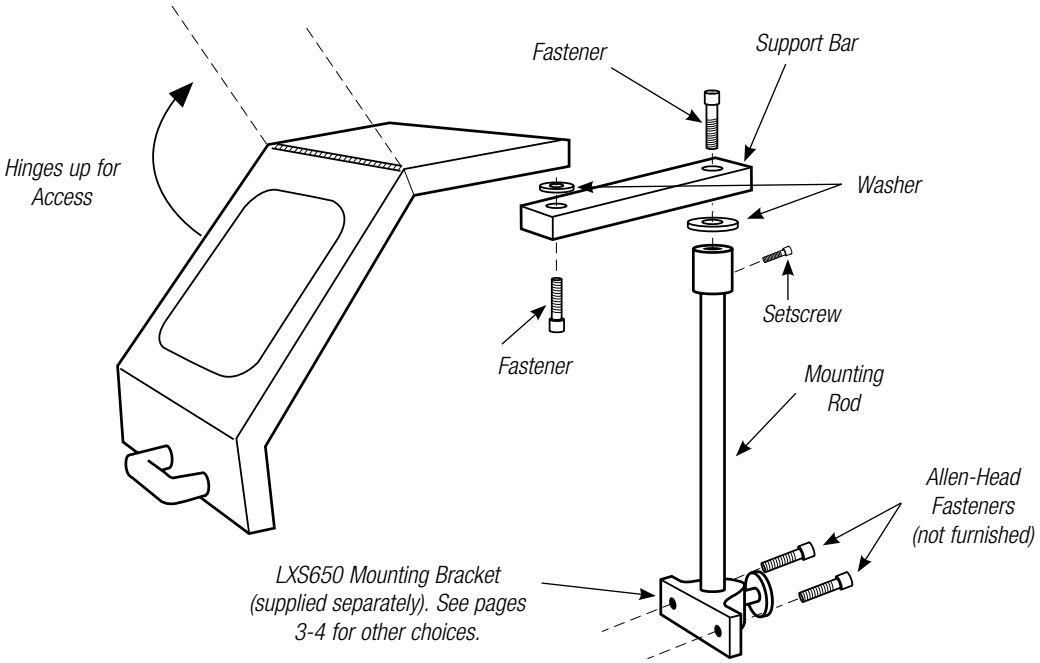


REPLACEMENT PARTS

Part No.	Description
TXW000	Replacement Polycaronate Window
TXR000	Mounting Rod and Support Bar

When installing, allow enough clearance to ensure the shield or any of its parts will not be hit by normal movements of the chuck, crosslide, workpiece, etc.

Figure 3.2
Exploded View



Introduction

These small steel chuck shields are fabricated of 18-gauge steel and can be used on smaller lathes that have chucks up to 18 ¼" in diameter. Each shield is furnished with a 1" x 13" mounting rod which can be cut to length if required. This mounting rod is fastened to the headstock of the lathe using a mounting bracket (must be ordered separately—see pages 3-4). The mounting rod is also used to hinge the entire shield. The shield can be lifted and swung up from the operator for quick and easy access to the chuck and the part being machined.

Installation

1. Remove all packing material from the shield and its mounting assembly.
2. Select the mounting bracket location and spot holes on the machine. Make sure the holes do not interfere with gears, shafts, etc. (A mounting bracket is not part of the assembly. It must be ordered separately—see pages 3-4 for choices.)
3. Drill and tap two holes for the mounting bracket. (See pages 3-4 for bracket dimensions or use the bracket as a template.)
4. Fasten the mounting bracket to the headstock of the lathe using Allen-head fasteners (not furnished).
5. Slide the shield onto the mounting rod and tighten the setscrews. See Figure 4.1.
6. Slide the mounting rod into the mounting bracket and tighten the knob. See Figure 4.1.

Note: Maintenance instructions for the polycarbonate window are on page 9.

Figure 4.2 *(OBSOLETE*)*
Dimensions

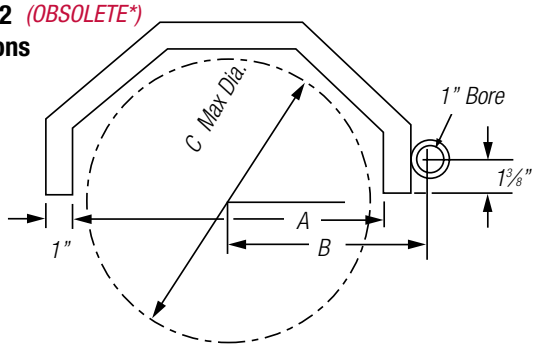
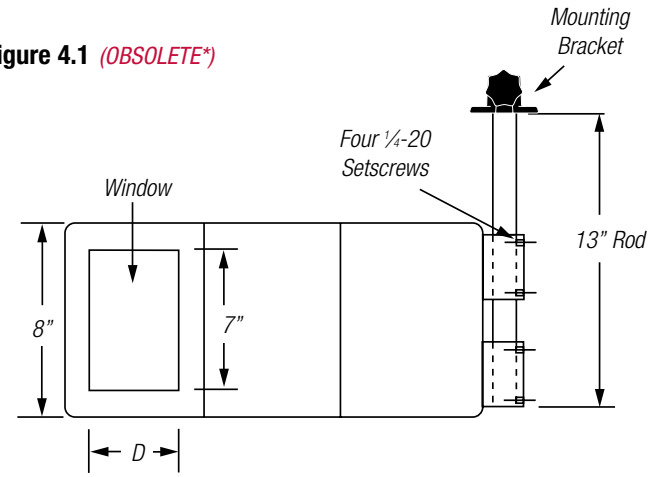


Figure 4.1 *(OBSOLETE*)*



DIMENSION CHART

Part No.	A	B	C	D
TPS300	12"	7-1/2"	11"	14-3/4"
TPS400	15-1/2"	9-1/4"	14-1/2"	6-1/4"
TPS500	19-1/4"	11-1/2"	18-1/4"	8"

REPLACEMET PARTS

Part No.	Description
FKT160	13" Mounting Rod
TPW003	Replacement Window for TPS300
TPW004	Replacement Window for TPS400
TPW005	Replacement Window for TPS500

When installing, allow enough clearance to ensure the shield or any of its parts will not be hit by normal movements of the chuck, crosslide, workpiece, etc.

Introduction

These large steel chuck shields are double-hinged for access to the chuck. The front hinged portion can be swung up for workpiece changes and the entire shield can be hinged back for changing chucks. The rear mounting rod hinges the entire shield. This shield is furnished with a mounting rod, a mounting plate, and a support bar.

Installation

1. Remove all packing material from the shield and its mounting assembly.
2. Select the mounting bracket location on the machine. Make sure the holes do not interfere with gears, shafts, etc.
3. Spot and drill holes in the mounting plate; spot, drill and tap holes in the headstock of the lathe.
4. Fasten the mounting bracket to the headstock of the lathe. (Fasteners not furnished.)
5. Remove the outside guide bushing from the mounting rod. See Figure 5.1.
6. Slide the shield onto the mounting rod; return the guide bushing and tighten the setscrews.
7. Spot, drill and tap holes for the support bar. Attach the support bar to the face of the headstock. When the shield is in its normal operating position, it rests on the support bar. Due to the variation in headstock dimensions, a specially fabricated support bar may be required.

When installing, allow enough clearance to ensure the shield or any of its parts will not be hit by normal movements of the chuck, crosslide, workpiece, etc.

Figure 5.2
Dimensions

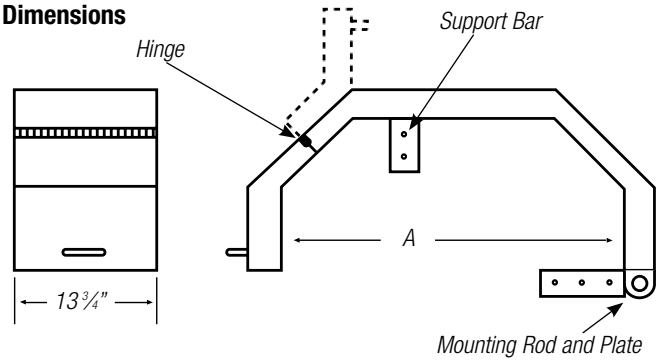
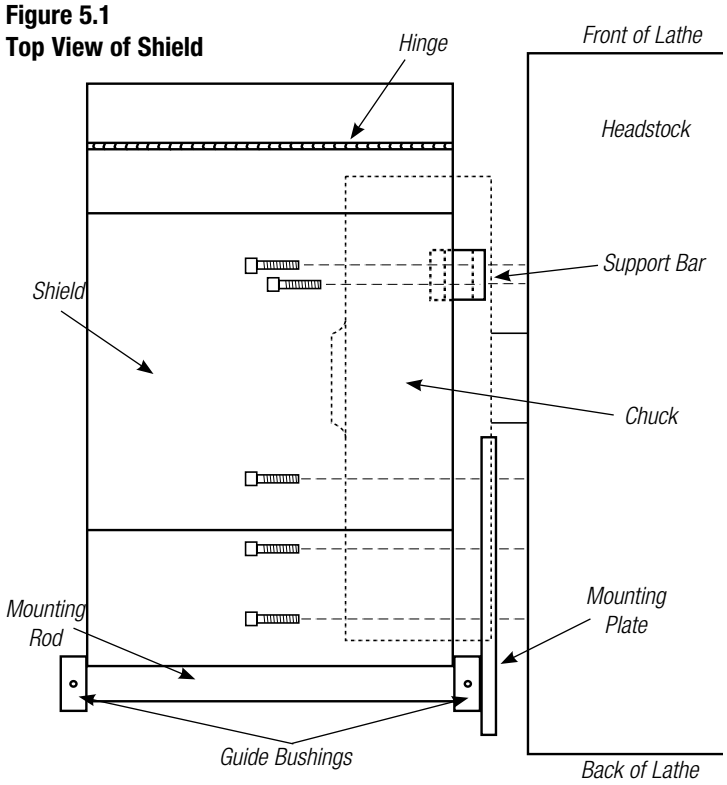


Figure 5.1
Top View of Shield



Part No.	A
TPS600	24"
TPS800	32"
TPS120	47-1/2"

REPLACEMET PARTS

Part No.	Description
LGR000	Mounting Rod and Plate
LGR001	Support Rod

(Continued on next page.)

Using the Shields

These shields are intended to deflect objects such as chips and coolant. For protection, position the shield between the point of operation and the operator. Make sure the shield will not be hit by normal movements of the chuck, crosslide, workpieces, etc. During loading or setup of workpieces, the shield can be swung out of the way.

Note: Always make sure the shield is installed and maintained in first-class condition to meet the applicable OSHA (Occupational Safety and Health Administration) or ANSI (American National Standards Institute) standards.

Maintenance of the Polycarbonate

The transparent portions of 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 the following 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.

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.

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.

When operating any turning machine (lathe), the operator must be properly trained and must wear proper personal protective equipment such as safety glasses with side shields, safety clothing, and safety shoes. The operator must not wear loose clothing, must not have unrestrained long hair, and must not wear jewelry.

When installing any shield, allow enough clearance to ensure the shield or any of its parts will not be hit by normal movements of the chuck, crosslide, workpiece, etc.

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.

(Continued on next page.)

* OBSOLETE SHIELDS & REPLACEMENT SHEILDS

LXS Series Lathe Chuck Shields are **Marked for Discontinuation** until inventory is depleted. Replacement transparent shields will be supported and supplied through January 1, 2024 or until inventory is depleted.

The LXS Series Shield will be replaced with The Protector™ Series Shields.

The Protector™ Series Shields are offered as curved, octagonal, interlocked, and interlocked and lighted forms.

LXS300 — 10" Diameter

**Marked for Discontinuation*

Replacement Options Below

LXS400 — 14" Diameter

**Marked for Discontinuation*

Replacement Options Below

Basic Protector:

RSSD3XR000X120
- Octagonal, 12" x 8"
- Right Mount
- Direct Mount w/o Interlock
- 12" Offset
- No Enclosure

RSSE1XR000X120
- Curved, 12" x 8"
- Right Mount
- Direct Mount w/o Interlock
- 12" Offset
- No Enclosure

RSSD4XR000X120
- Octagonal, 16" x 8"
- Right Mount
- Direct Mount w/o Interlock
- 12" Offset
- No Enclosure

RSSE2XR000X120
- Curved, 16" x 8"
- Right Mount
- Direct Mount w/o Interlock
- 12" Offset
- No Enclosure

Interlocked Protector:

RSSD3XR000L120
- Octagonal, 12" x 8"
- Right Mount
- Direct Mount w/Interlock
- 12" Offset
- No Enclosure

RSSE1XR000L120
- Curved, 12" x 8"
- Right Mount
- Direct Mount w/Interlock
- 12" Offset
- No Enclosure

RSSD4XR000L120
- Octagonal, 16" x 8"
- Right Mount
- Direct Mount w/Interlock
- 12" Offset
- No Enclosure

RSSE2XR000L120
- Curved, 16" x 8"
- Right Mount
- Direct Mount w/Interlock
- 12" Offset
- No Enclosure

Interlocked + LED Protector:

RSSD3LR000L122
- Octagonal, 12" x 8" w/LED
- Right Mount
- Direct Mount w/Interlock
- 12" Offset
- Lighted – Interlocked Enclosure

RSSE1LR000L122
- Curved, 12" x 8" w/LED
- Right Mount
- Direct Mount w/Interlock
- 12" Offset
- Lighted – Interlocked Enclosure

RSSD4LR000L122
- Octagonal, 16" x 8" w/LED
- Right Mount
- Direct Mount w/Interlock
- 12" Offset
- Lighted – Interlocked Enclosure

RSSE2LR000L122
- Curved, 16" x 8" w/LED
- Right Mount
- Direct Mount w/Interlock
- 12" Offset
- Lighted – Interlocked Enclosure

(Continued on next page.)

LXS500 — 18" Diameter

**Marked for Discontinuation*

Replacement Options Below

LXS600 — 24" Diameter

**Marked for Discontinuation*

Replacement Options Below

LXS700 — 28" Diameter

**Out of Stock*

Replacement Options Below

Basic Protector:

RSSD5XR000X120

- Octagonal, 20" x 10"
- Right Mount
- Direct Mount w/o Interlock
- 12" Offset
- No Enclosure

RSSE3XR000X120

- Curved, 20" x 10"
- Right Mount
- Direct Mount w/o Interlock
- 12" Offset
- No Enclosure

RSSD6XR000X120

- Octagonal, 24" x 10"
- Right Mount
- Direct Mount w/o Interlock
- 12" Offset
- No Enclosure

RSSE4XR000X120

- Curved, 24" x 10"
- Right Mount
- Direct Mount w/o Interlock
- 12" Offset
- No Enclosure

RSSD7XR000X120

- Octagonal, 28" x 10"
- Right Mount
- Direct Mount w/o Interlock
- 12" Offset
- No Enclosure

RSSE5XR000X120

- Curved, 28" x 10"
- Right Mount
- Direct Mount w/o Interlock
- 12" Offset
- No Enclosure

Interlocked Protector:

RSSD5XR000L120

- Octagonal, 20" x 10"
- Right Mount
- Direct Mount w/Interlock
- 12" Offset
- No Enclosure

RSSE3XR000L120

- Curved, 20" x 10"
- Right Mount
- Direct Mount w/Interlock
- 12" Offset
- No Enclosure

RSSD6XR000L120

- Octagonal, 24" x 10"
- Right Mount
- Direct Mount w/Interlock
- 12" Offset
- No Enclosure

RSSE4XR000L120

- Curved, 24" x 10"
- Right Mount
- Direct Mount w/Interlock
- 12" Offset
- No Enclosure

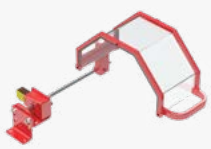
RSSD7XR000L120

- Octagonal, 28" x 10"
- Right Mount
- Direct Mount w/Interlock
- 12" Offset
- No Enclosure

RSSE5XR000L120

- Curved, 28" x 10"
- Right Mount
- Direct Mount w/Interlock
- 12" Offset
- No Enclosure

Interlocked + LED Protector:

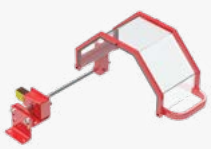


RSSD5LR000L122

- Octagonal, 20" x 10" w/LED
- Right Mount
- Direct Mount w/Interlock
- 12" Offset
- Lighted – Interlocked Enclosure

RSSE3LR000L122

- Curved, 20" x 10" w/LED
- Right Mount
- Direct Mount w/Interlock
- 12" Offset
- Lighted – Interlocked Enclosure

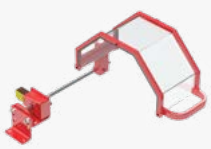


RSSD6LR000L122

- Octagonal, 24" x 10" w/LED
- Right Mount
- Direct Mount w/Interlock
- 12" Offset
- Lighted – Interlocked Enclosure

RSSE4LR000L122

- Curved, 24" x 10" w/LED
- Right Mount
- Direct Mount w/Interlock
- 12" Offset
- Lighted – Interlocked Enclosure



RSSD7LR000L122

- Octagonal, 28" x 10" w/LED
- Right Mount
- Direct Mount w/Interlock
- 12" Offset
- Lighted – Interlocked Enclosure

RSSE5LR000L122

- Curved, 28" x 10" w/LED
- Right Mount
- Direct Mount w/Interlock
- 12" Offset
- Lighted – Interlocked Enclosure