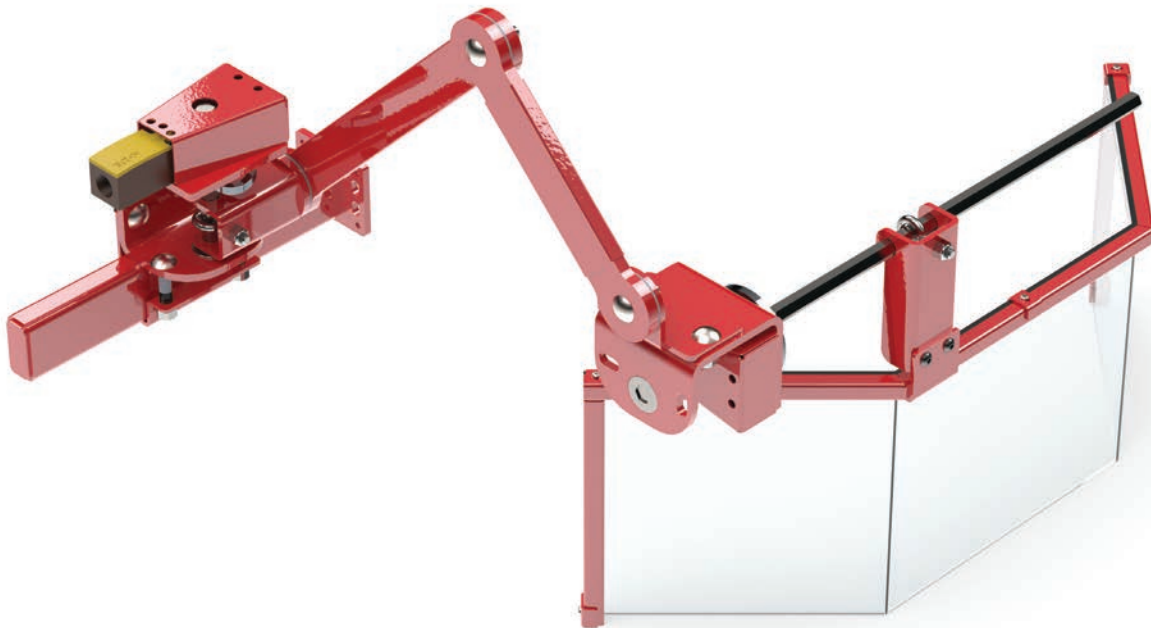




INSTALLATION MANUAL FOR PROTECTOR SERIES SHIELDS



IMPORTANT: PLEASE REVIEW THIS ENTIRE PUBLICATION BEFORE INSTALLING, OPERATING OR MAINTAINING THIS DEVICE.

PROTECTOR SERIES SHIELDS OFFERING

Protector Series Shields

SHIELD OPTIONS:



Octagonal Shield



Curved Shield



3 Sided Shield



2 Sided Shield



Flat Shield



Dual Flat Shield



Octagonal Shield
without Handle

ARM OPTIONS: *(Head and base pivots available)*



Single Pivot 3 Arms



Double Pivot 3 Arms



Single Pivot 2 Arms



Double Pivot 2 Arms



Direct Mount



Interlock



Non-Interlock

MOUNT OPTIONS:



Left Mount



Center Mount



Right Mount

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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.

SECTION 1 — IN GENERAL

Protector Series Shields

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 1910.219 (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

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

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

These publications can be obtained by contacting:

US Department of Labor
Occupational Safety and Health Administration
Washington, DC 20210 (202) 219-5257

ANSI SAFETY STANDARDS FOR MACHINES

The most complete safety standards for machine tools are published in the ANSI (American National Standards Institute) B11 series. The following is a list of each ANSI B11 Standard available at the printing of this publication.

B11.1	Mechanical Power Presses
B11.2	Hydraulic Presses
B11.3	Power Press Brakes
B11.4	Shears
B11.5	Iron Workers
B11.6	Lathes
B11.7	Cold Headers and Cold Formers
B11.8	Drilling, Milling and Boring
B11.9	Grinding Machines
B11.10	Sawing Machines
B11.11	Gear Cutting Machines
B11.12	Roll Forming and Roll Bending
B11.13	Automatic Screw/Bar and Chucking
B11.14	Coil Slitting Machines
B11.15	Pipe, Tube and Shape Bending
B11.16	Metal Powder Compacting Presses
B11.17	Horizontal Hydraulic Extrusion Presses
B11.18	Coil Processing System
B11.19	Performance Requirements for Risk Reduction Measures: Safeguarding and Other Means of Reducing Risk
B11.20	Safety Requirements for Manufacturing Systems/Cells
B11.21	Lasers
B11.22	CNC Turning Machines
B11.23	Machining Centers
B11.26	Functional Safety
B11/TR1	Ergonomic Considerations for the Design, Installation and Use of Machine Tools
B11/TR2	Mist Control
B11/TR3	Hazard ID and Control
B11/TR4	Control Reliability
R15.06	Robotic Safeguarding

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

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

NATIONAL SAFETY COUNCIL SAFETY MANUALS AND 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:

MANUALS

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, Disclaimer and Limitation of Liability

WARRANTY

Rockford Systems, LLC warrants that this product will be free from defects in material and workmanship for a period of 12 months from the date of shipment thereof. ROCKFORD SYSTEMS LLC'S OBLIGATION UNDER THIS WARRANTY IS EXPRESSLY AND EXCLUSIVELY LIMITED to repairing or replacing such products which are returned to it within the warranty period with shipping charges prepaid and which will be disclosed as defective upon examination by Rockford Systems, LLC. This warranty will not apply to any product which will have been subject to misuse, negligence, accident, restriction and use not in accordance with Rockford Systems, LLC's instructions or which will have been altered or repaired by persons other than the authorized agent or employees of Rockford Systems, LLC. Rockford Systems, LLC's warranties as to any component part is expressly limited to that of the manufacturer of the component part.

DISCLAIMER

The foregoing Warranty is made in lieu of all other warranties, expressed or implied, and of all other liabilities and obligations on the part of Rockford Systems, LLC, including any liability for negligence, strict liability, or otherwise, and any implied warranty of merchantability or fitness for a particular purpose is expressly disclaimed.

LIMITATION OF LIABILITY

Under no circumstances, including any claim of negligence, strict liability, or otherwise, shall Rockford Systems, LLC be liable for any incidental or consequential damages, or any loss or damage resulting from a defect in the product of Rockford Systems, LLC.

SECTION 1 — IN GENERAL

Protector Series Shields

KSC046

**DANGER**

ROTATING MEMBERS AND TOOLS


You are exposed to moving machine parts that can crush, dismember, and cause death.
DO NOT operate this machine without a shield(s) in place.
NEVER place your fingers, hands, or any part of your body on or near the rotating parts of this machine.
NEVER operate this machine with loose clothing, jewelry, or unrestrained long hair.
FAILURE to obey will result in loss of fingers, limbs, or it could cause death.

FLYING PARTS


You are exposed to moving machine parts that can cause eye or bodily injury due to hazardous flying chips, sparks, and coolant splash.
NEVER operate this machinery without proper eye and body protection.
FAILURE to obey will result in eye injury or severe personal injury.

ALWAYS wear proper personal protective equipment when operating this machine. This sign does not cover all dangers that could happen while operating this machine. Do not remove or cover this sign. See back for mounting instructions.

Part No. KSC046

SUGGESTED PROCEDURE FOR MOUNTING THIS SIGN

THE PURPOSE OF THIS SIGN IS TO ADEQUATELY WARN ALL PERSONNEL OF THE DANGER OF BODILY INJURY OR DEATH.

To accomplish this purpose - ALWAYS mount this sign in the following manner:

- (1) Clearly visible to the operator and other personnel
- (2) At or near eye level
- (3) PERMANENTLY fastened with bolts or rivets

NEVER OPERATE MACHINE WITHOUT THIS DANGER SIGN VISIBLE TO ALL PERSONNEL.

KSC048

OPERATOR SAFETY PRECAUTIONS
Handout for Anyone Operating This Machine
Before You Operate This Machine You Must Read and Understand These Safety Precautions

**DANGER**

ROTATING MEMBERS AND TOOLS


NEVER Place Your Hands, Clothes or Any Part of Your Body in This Machine!

FLYING PARTS


NEVER Operate This Machine Without Proper Eye and Other Body Protection!

See Reverse Side for Other Safety Precautions.

Part No. KSC-048

OVER 

**Do Not Operate This Machine Until You Read and Understand the Following Safety Precautions.**

- 1** Never operate this machine unless you understand that this machine is dangerous. Never place your hands or any part of your body in this machine which could result in the loss of fingers, limbs or even death.
- 2** Never operate this machine without the use of a point-of-operation guard, shield, or safety device that will protect you from bodily injury.
- 3** Never use a foot switch to operate this machine unless a point-of-operation guard, shield, or device is provided and properly maintained.
- 4** Never "ride" the foot pedal or foot switch. Never rest your foot on top of the foot pedal or inside the foot switch. Always remove your foot completely from the foot pedal or foot switch after each cycle and any time you are not intending to trip the machine.
- 5** Always use hand tools for feeding or retrieving material from the point of operation or any other hazardous part of the machine. Never reach through or into a hazardous area of a machine for any reason.
- 6** Never operate this machine unless you have been fully trained and have received and understand all operating instructions. Make sure you know how the machine works and how it is controlled.
- 7** Never operate this machine until you test the machine with its guard or safety device before you start or restart production. Do not begin operating the machine unless you are sure the safeguarding is adjusted properly and working correctly. If you are not sure, notify your supervisor.
- 8** Never operate this machine if it is not working properly or if you notice any unusual noise or change in the performance of the machine. Stop operating the machine immediately and advise your supervisor.
- 9** Never operate this machine with pullbacks (if furnished) unless they are adjusted properly for you. Have your supervisor demonstrate that when the ram depends, the pullbacks will pull fingers clear of any pinch points. Always wear your wristlets properly and securely.
- 10** Never operate this machine with pullbacks (if furnished) without reading and understanding the instructions. Instructions must be kept with the pullback device at all times and made available to you. Obtain, read, and follow these instructions.
- 11** Never operate this machine unless two-hand trip, two-hand control, or presence-sensing device (if furnished) is installed correctly and at the proper safety distance. Consult your supervisor if you have any questions regarding the proper safety distance.
- 12** Never operate this machine unless the light curtain (if furnished) is interfaced into the machine control system properly. Only make during the non-hazardous part of the machine cycle; blanking should be discouraged.
- 13** Never tamper with, alter, remove, or disable any component or safeguard on this machine.
- 14** Always wear safety glasses, hearing protection and any other personal protection equipment needed when operating this machine.
- 15** Never operate this machine with long hair, loose clothing or jewelry. It could become caught in part of the machine or auxiliary equipment.
- 16** Be sure all persons are clear of the machine before it is cycled, especially when multiple operators or helpers are present. Do not operate machine unless you and every operator and/or helper are protected from injury by a guard or safety device.
- 17** Always stay alert (don't daydream) and never operate this machine while under the influence of alcohol or any drug, including prescription medications.
- 18** Maintenance and Die Set-Up Personnel: Never work on this machine unless power is off and locked out, flywheel is at rest, safety blocks are used between dies, and all energy (electrical, air, hydraulic, etc.) are in a zero state.
- 19** Always be prepared if an emergency situation should arise. You should know how to stop and shut down the machine if there is a need.
- 20** Never operate this machine unless all mechanical power-transmission apparatus (flywheels, gears, etc.) and auxiliary equipment are free from hazards.

* Point of Operation - "The location in the machine tool where material is positioned and a process is performed." (ANSI B11.19)

NOTICE TO EMPLOYER: These Operator Safety Precautions must be given to all operators (including set-up people, maintenance personnel, and supervisors) of this machine. This pamphlet should also be hung on the machine readily accessible and visible to the operator. Additional precaution pamphlets are available upon request.

IMPORTANT: If a language barrier or insufficient schooling prevents a person from reading and understanding the contents of this pamphlet, you should either translate this information or have it read or interpreted to the person. Make sure that it is understood. If Spanish or French safety precaution pamphlets are required, please consult factory.

THESE PRECAUTIONS MUST BE REVIEWED DAILY.

Danger Sign(s) to be Mounted to the Machine to be KSC046 & KSC048



Accompanying this equipment are two polyethylene danger signs, Part Nos. KSC048 (11" x 8-1/2") and KSC046 (5" x 6").

If any danger sign becomes destroyed or unreadable, the sign must be replaced immediately. Contact factory for replacement danger sign(s).



Never operate this machine unless the danger sign(s) is in place.

**FOR REPLACEMENT SIGNS CALL, E-MAIL, OR FAX FACTORY
OR USE ORDER FORM TOWARDS THE BACK OF THIS MANUAL.**

Rockford Systems, LLC.

5795 Logistics Parkway

Rockford, Illinois 61109

Toll Free: 1-800-922-7533 (USA only)

Phone: (815) 874-7891

Fax: (815) 874-6144

Web Site: www.rockfordsystems.com

E-Mail: customerservice@rockfordsystems.com

(Continued on next page.)

*Rockford Systems, LLC
Call: 1-800-922-7533*

SECTION 2 — PROTECTOR SHIELD INSTALLATION

Protector Series Shields

Components in the System

Individual packages may vary in contents. However, a packing list is always enclosed showing exactly what material was shipped on this order. Please check the components actually received against this packing list. Standard components of this system are as follows:

- Installation Manual
- Danger Signs
- Mounting/Pivot System
- Optional Mounting Brackets, if applicable
- Electrical Enclosure, if applicable

Other components that may be required for a particular application are:

- E-Stop Circuit
- Power Source (85-305VAC) or (24VDC)
- Motor Starter
- Disconnect Switch
- Foot Switch
- RSS00085 Accessory Bracket Kit

General Information

PROTECTOR™ Series Shields, are high-quality, highly-featured line of robust machine safeguarding shields that maximize safety, improve productivity and reduce risk.

PROTECTOR Series Shields limit operators' contact with rotating parts, stop flying chips and debris, meet all applicable OSHA regulations and ANSI standards, and solve common cutting and turning machine guarding problems. They are designed to be permanently affixed to the machine, and are designed to swing and/or lift out of the way of the point of operation for part change-out and tooling changes/machine maintenance.

Standard Features of Protector Shields:

- Robust Construction
- Modular Design

Optional Features on Protector Shields:

- Workspace Safety Lighting
- Machine Status Lighting
- Safety Interlocks & Monitoring*

* To achieve a Category 2 rating, a safety monitoring relay can be added as a redundant level of security, monitoring the integrity of the interlocking feature so that a removed **or failed safety interlock will not permit unsafe operation of the machine.**

Preliminary Steps Before Installation

Before proceeding with the installation of the enclosed equipment, the following preliminary steps should be considered:

1. Read and make sure you understand this entire Installation Manual.
2. **Ensure that the machine is in first-class condition.** Before starting any installation it is essential that the machine be thoroughly inspected. Make sure all mechanical components and collateral equipment are in first-class operating condition. Your inspection should be in accordance with the machine manufacturer's installation and maintenance instruction manual. If you have any doubts or questions concerning the condition of the machine, contact the machine manufacturer for assistance. **Repair or replace all parts not operating properly before proceeding.**



Inspection and maintenance programs must be established and implemented to keep machines in first-class condition. Programs must include thorough inspections of each machine on a weekly basis and records kept of these inspections. Any part of the machine that is worn, damaged or is not operating properly must immediately be replaced or repaired before the machine is used.

3. Verify that the machine is in first-class condition and operating properly. Shut off all power to the machine. Padlock the disconnecting means in the "off" position and do not actuate the machine again until the installation of all package components has been completed. Lockout/tagout energy isolation procedures must also be practiced and enforced for all energy sources when installing the enclosed equipment, setting up and maintaining the machine.

(Continued on next page.)

SECTION 2 — PROTECTOR SHIELD INSTALLATION

Protector Series Shields



The operator must be protected from all hazards. All applicable sections of OSHA Section 1910.212, General Machine Safeguarding, and ANSI must be complied with on all machines where this equipment is installed.



Before starting any installation work. Run the machine in a normal operating sequence to determine proper operation. Do not install on a machine that does not function properly. When the machine is operating satisfactorily, shut off the power with the disconnect switch and do not operate the machine again until installation is complete. Use of a lockout device and padlock on the disconnect handle must be used during this period.



The maintenance and inspection section in this manual cannot be all-inclusive for maintaining machines. Always refer to the original machine manufacturer's maintenance manuals or owner's manual. If you do not have an owner's manual, please contact the original equipment manufacturer.

INSTALLATION MANUAL

Included with every shipment is an installation manual, danger sign(s), and electrical schematics. These publications must be available and fully understood before any retrofit installation begins. Please notify Rockford Systems, LLC immediately if there are any questions about the components received.

DANGER SIGNS - PART NUMBERS KSC046 & KSC048

It is imperative that these signs be firmly attached to the machine in a location readily visible to all personnel. Suggested mounting instructions are shown on the reverse side of this sign. These signs must be the first thing mounted to prevent any possibility that it might be overlooked. If either sign becomes destroyed or unreadable, it must be replaced immediately. Contact factory for replacement and do not operate the machine until the danger signs are in place.

Mechanical Installation

1. Remove all packing materials from the Shield and its Mounting Assembly.
2. Confirm the Shield is configured in the best possible mounting orientation (Right or Left-Hand) for the intended safeguarding application. If reversal is desired, please contact Rockford Systems Customer Service at 800-922-7533 or customerservice@rockfordsystems.com.
3. Locate the Mounting Assembly on the machine as desired to allow placement of the Shield for providing the best protection and operation. (See Section 4 MECHANICAL ILLUSTRATIONS, Figures 2.1 thru 2.9 for various options)
Note: Shield may be removed during this step to facilitate working with the Mounting Assembly)
4. Refer to Drawing KSL303 for mounting options using Optional Bracket Kit RSS00041, which is shipped loose.
5. Drill and tap holes for the Mounting Assembly, either on a suitable surface of the machine, or a dedicated, rigid piece of equipment located for the purpose of mounting the Shield. Make sure the holes do not interfere with gears, shafts, etc., and the assembly is located so it allows for proper operation of the machine and shield.
6. Bolt the Mounting Assembly to the mounting surface using 3/8 or 10mm bolts. (Bolts not furnished.)
7. Complete Mounting Assembly set-up and verify proper operation per drawing KSL304.
8. Reinstall Shield, if removed during Step 3, make final positional adjustments. In some instances, the Shield mounting yoke may be a partial tooth off from hanging as desired, in these cases the final angle may be fine-tuned by adjusting the bracketry as noted. (See Section 4 MECHANICAL ILLUSTRATIONS, Figures 2.10 & 2.11).
9. Verify complete, correct motion of Shield, and complete final tightening of all hardware.
10. Mounting Posts (See Figure 2.4, Item A) and Shield Mounting Hex Bar (See Figure 2.4, Item B) may be trimmed, if desired, after final adjustments are made and proper operation has been verified.
11. Complete installation by performing any wiring needed per the Electrical Installation section of this manual and verifying proper operation of the Protector Shield.

SECTION 2 — PROTECTOR SHIELD INSTALLATION

Protector Series Shields

OTHER OPTIONAL COMPONENTS (Not part of package unless specifically ordered)

MAIN POWER DISCONNECT SWITCH

A main power disconnect switch may have been supplied in the package shipment. This switch is designed to disconnect the primary voltage to the machine and lock it out. Please refer to the enclosed wiring schematics for proper wiring of this switch.

All main power disconnect switches must be capable of being locked only in the OFF position.

If the machine already has a main power disconnect switch, it must be checked for the “locking off” and lockout feature. If this is not possible, or an electrical disconnect switch is not provided, then you must obtain and install a proper disconnect switch. (To purchase a disconnect switch, please contact Rockford Systems, LLC)

MOTOR STARTER

A motor starter may have been supplied in this shipment. The main purpose of this starter is to drop out the main drive motor and power to the controls when a power failure occurs. The Protector Shield interlock, if equipped, must be tied into a motor starter. (For safety reasons do not run a separate line to the control. Please refer to the enclosed wiring schematics for proper wiring of this starter.)

It is important that the motor starter is engineered and constructed in such a way that:

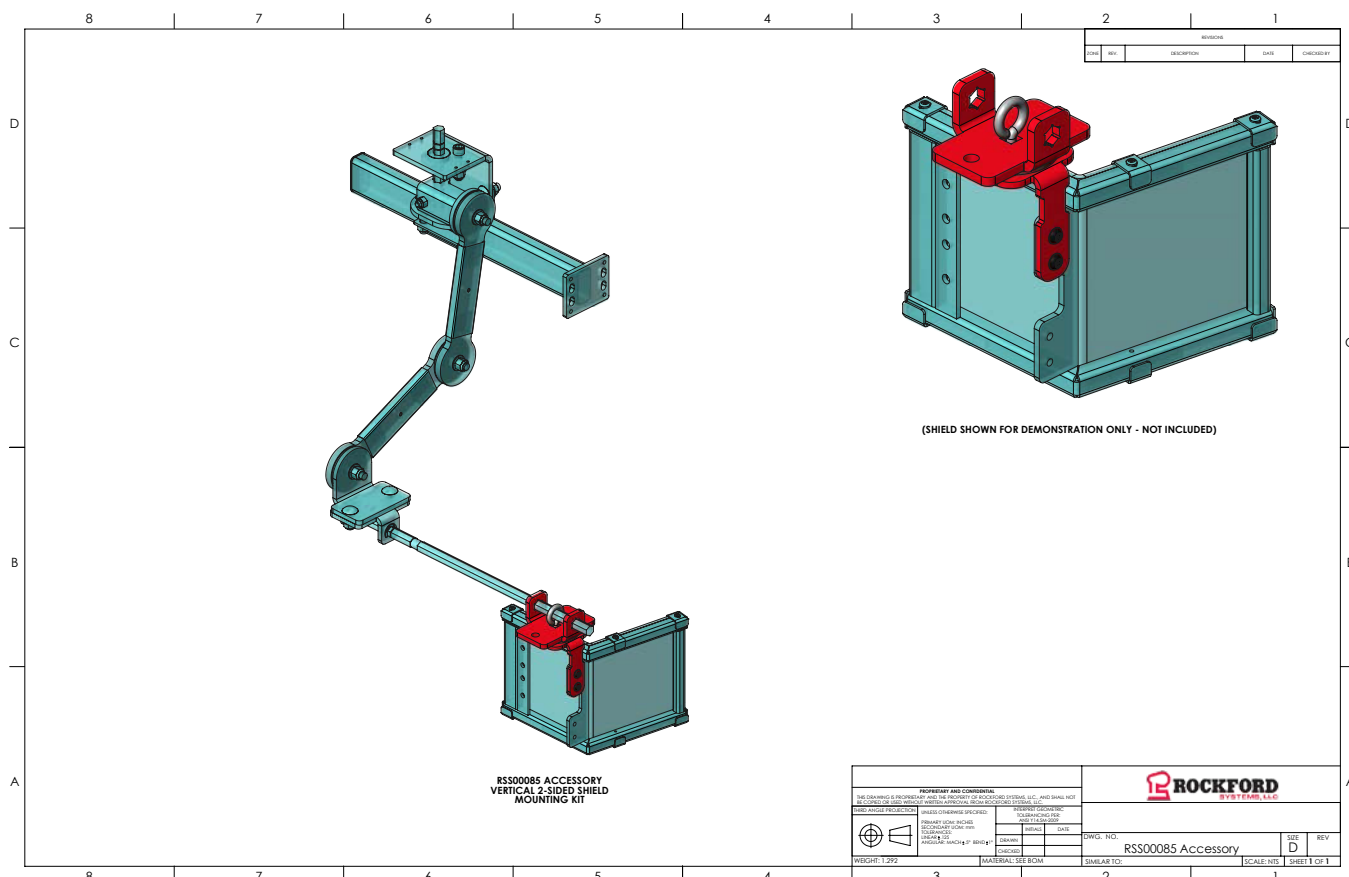
The motor start button shall be protected against accidental operation.

The motor starter shall incorporate a type of drive motor starter that will disconnect the drive motor from the power source in event of control voltage or power source failure, and require operation of the motor start button to restart the motor when voltage conditions are restored to normal.

These requirements are normally met by using a magnetic motor starter. This starter (if furnished) operates with a 120 VAC coil. Refer to the electrical schematics supplied for details on wiring the starter and associated motor start/stop push buttons.

RSS00085 ACCESSORY VERTICAL BRACKET KIT FOR 2-SIDED SHIELDS

Particularly useful for applications like a band saw. Contact Rockford Systems to order.



(Continued on next page.)

SECTION 2 — PROTECTOR SHIELD INSTALLATION

Protector Series Shields

Electrical Installation

1. Begin the Electrical Installation by determining a suitable location to mount the enclosure on, or near, the machine.
2. Following the appropriate set of Wiring Diagrams (See Section 5 WIRING DIAGRAMS) for the equipment being installed, complete the electrical installation using industry standard best practices.
3. All wiring must be affixed permanently and securely, assuring that no wiring can be pinched during operation or caught up in moving parts. Special care must be taken to ensure that the Protector Shield can be rotated fully without the wiring being pinched or pulled.
4. Finalize the installation by verifying proper operation of the equipment before placing the machine back into service.

For technical specifications of the electrical components please visit our website via the following links:

https://www.rockfordsystems.com/wp-content/uploads/PROTECTOR-SERIES-SHIELDS_Technical-Specifications_JBox-Monitored.jpg

https://www.rockfordsystems.com/wp-content/uploads/PROTECTOR-SERIES-SHIELDS_Technical-Specifications_JBox-Toggled.jpg

https://www.rockfordsystems.com/wp-content/uploads/PROTECTOR-SERIES-SHIELDS_Technical-Specifications_JBox-Relay.jpg

SECTION 3 — PROTECTOR SHIELD OPERATION

Protector Series Shields

Protector Shield Operation

The Protector Shields product line is a very comprehensive array of products, available in many configurations, ranging from simple shields, to models providing auxiliary lighting, and also models featuring machine interlocks with available safety relay monitoring. The level of operational criteria will vary, dependent on which equipment is being installed.

SIMPLE SHIELD – NON-ELECTRICAL:

- To complete this installation, you will want to verify that the shield and mounting equipment are rigidly and permanently affixed to the machine.
- The shield should be positioned in a way that best provides protection required for safely operating the machine.
- The shield and the machine should be fully operational with no interference between them; any controls to run the machine should be accessible with the shield in-place.

MANUAL LED OPERATION:

- To operate LED lighting in the shield, turn the power switch on the Junction Box to the On position.

NOTE: Lighting operation is manual, and independent of machine position. There is no LED color change, relative to position, on these models.

PROTECTOR SHIELDS WITH LED/INTERLOCK SWITCH(S):

- Shield must be in place for machine to run.
- White LEDs will operate any time power is supplied to the enclosure and the shield is in the run position.

NOTE: If the power is coming from the machine, you would have to turn on the machine to turn on power to the LEDs, if the power comes from a source external to the machine, then the light will come on independent of the machine.

- Moving the shield away from the run position will stop the machine and change the LED color to Red.
- Models using multiple interlocks must stop the machine and change LED color if either switch is moved from the operating position.
- Any switch failure will prevent the machine from running.
- The machine must not restart automatically when the shield is returned to operating position. (the white LED's will turn back on before the reset is complete)

NOTE: Additional motor starter or anti-restart devices SHALL BE required when incorporating interlocking devices into the Protector Series Shields in order to ensure safe and compliant operation.

PROTECTOR SHIELDS WITH LED/INTERLOCK SWITCH(S) AND MONITORING:

- All of the operation parameters are the same as above, with the addition of Safety Monitoring
- Achieves a Category 2 rating, a safety monitoring relay is added as a redundant level of security, monitoring the integrity of the interlocking feature so that a removed or failed safety interlock will not permit unsafe operation of the machine.

SECTION 4 — MECHANICAL ILLUSTRATIONS

Protector Series Shields

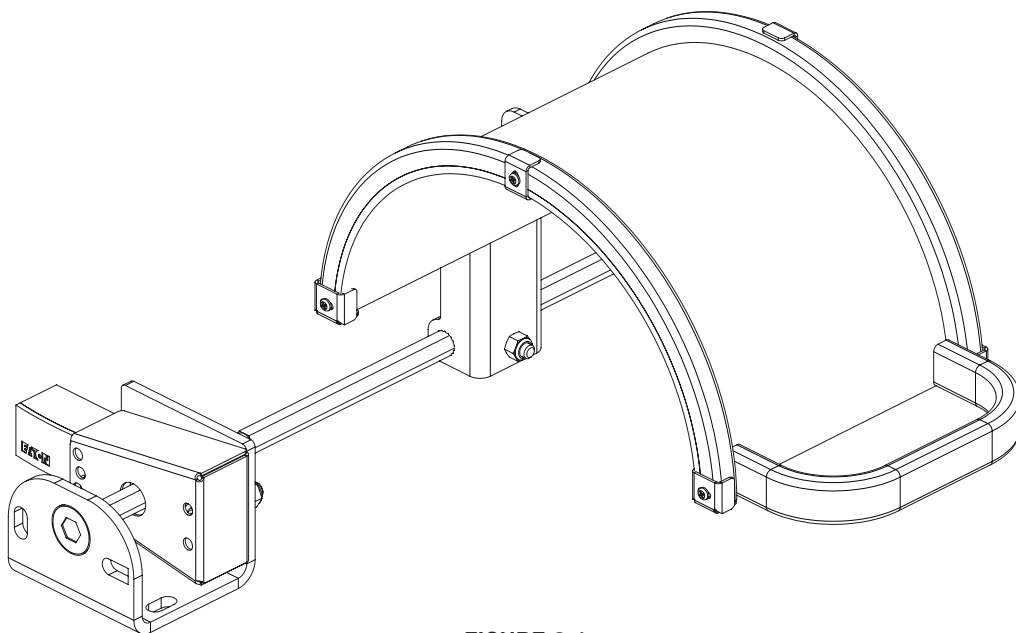


FIGURE 2.1
(DIRECT MOUNT)

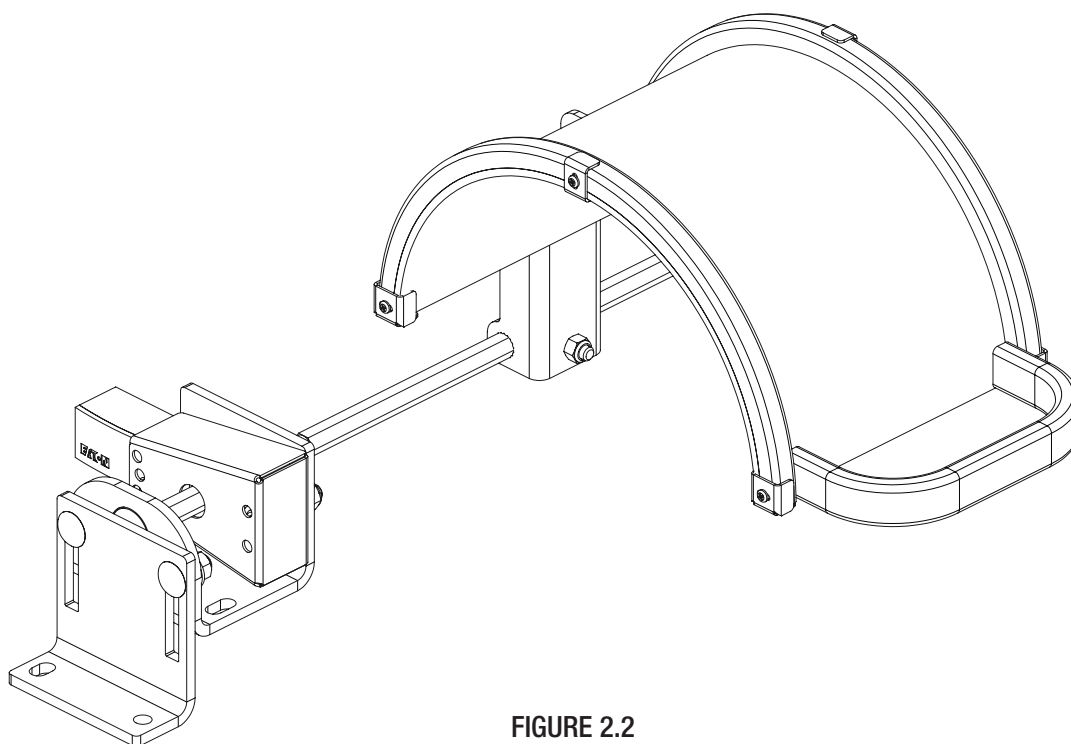


FIGURE 2.2
(OPTIONAL RS00041 KIT – SHIPPED LOOSE)

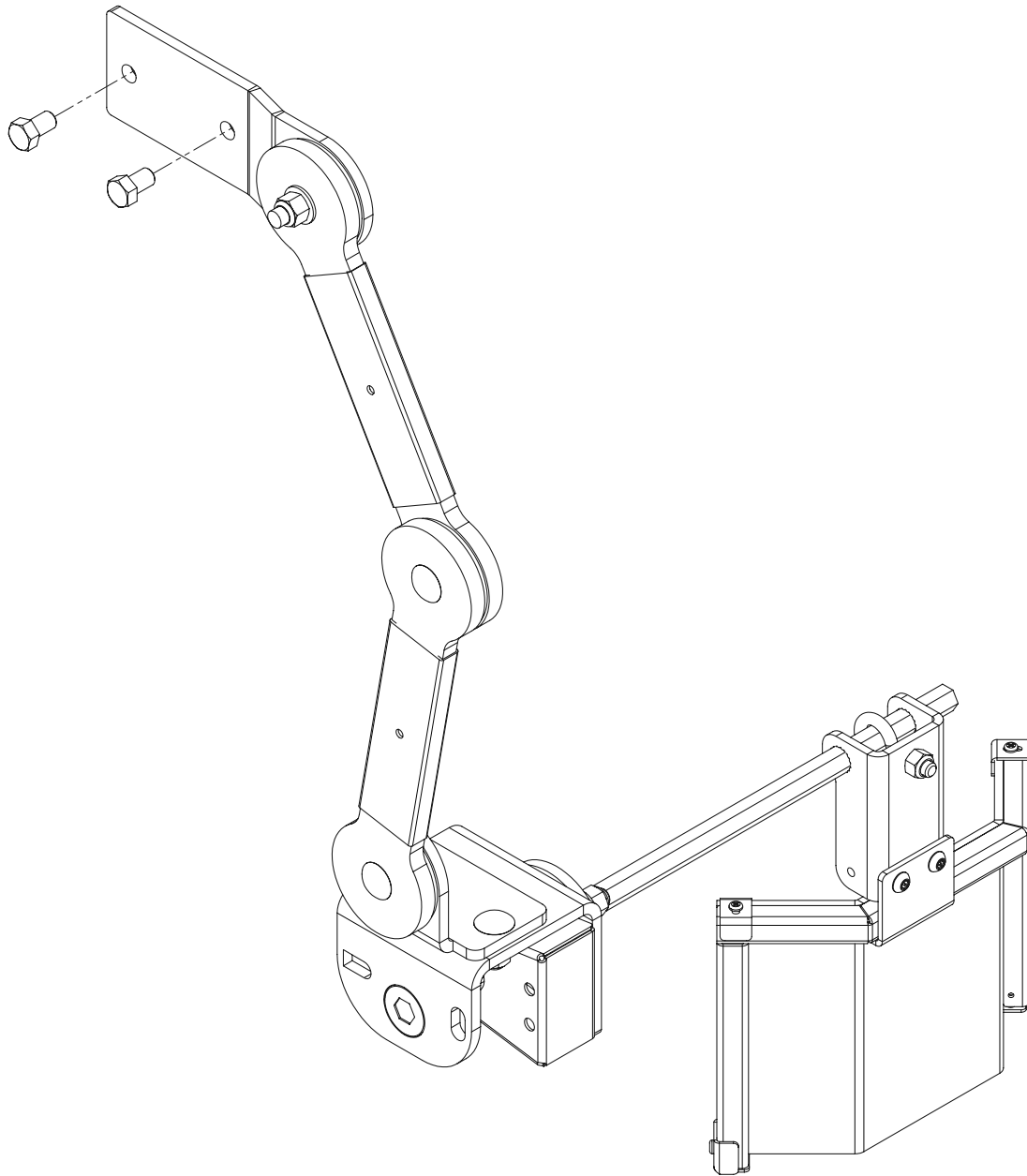


FIGURE 2.3
(DIRECT MOUNT ARM)

SECTION 4 — MECHANICAL ILLUSTRATIONS

Protector Series Shields

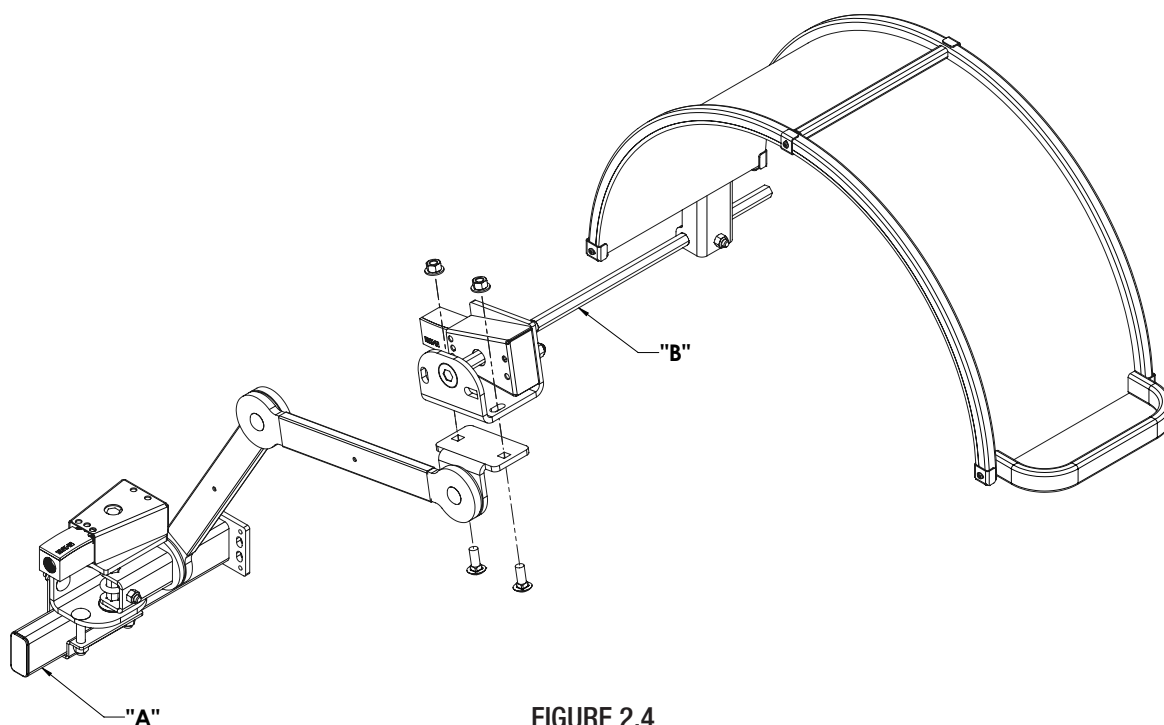


FIGURE 2.4
(POST-MOUNTED, DOUBLE PIVOT, HORIZONTAL SHAFT)

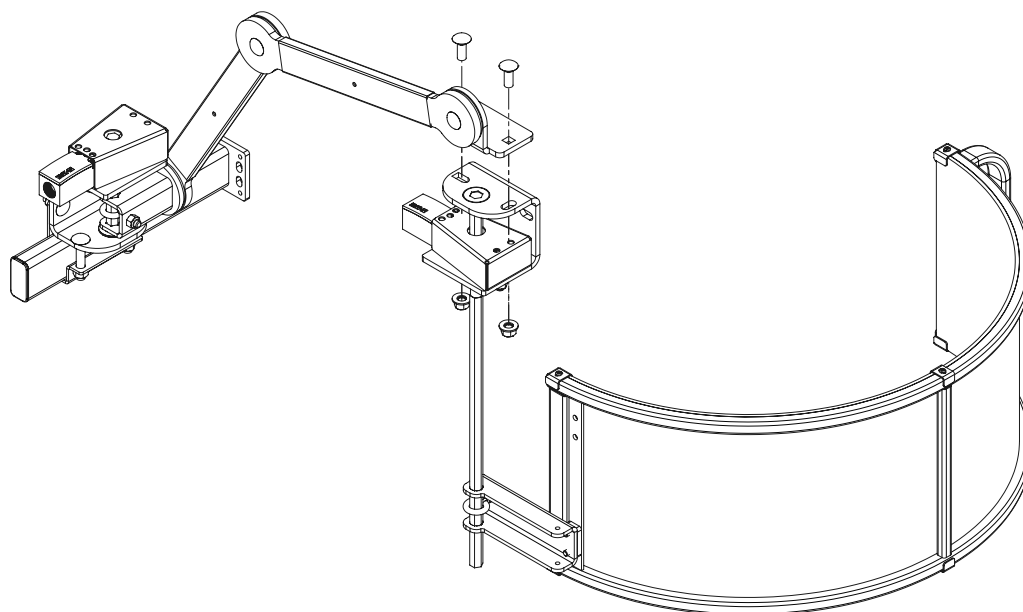


FIGURE 2.5
(POST-MOUNTED, DOUBLE PIVOT, VERTICAL SHAFT)

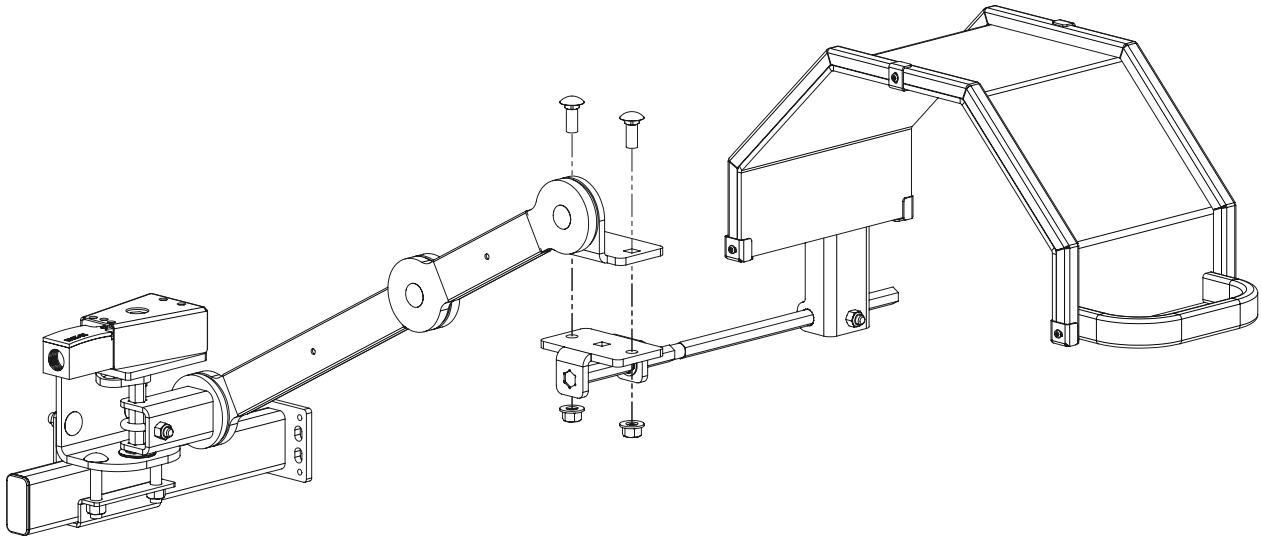


FIGURE 2.6
(POST-MOUNTED, SINGLE BASE PIVOT, HORIZONTAL SHAFT)

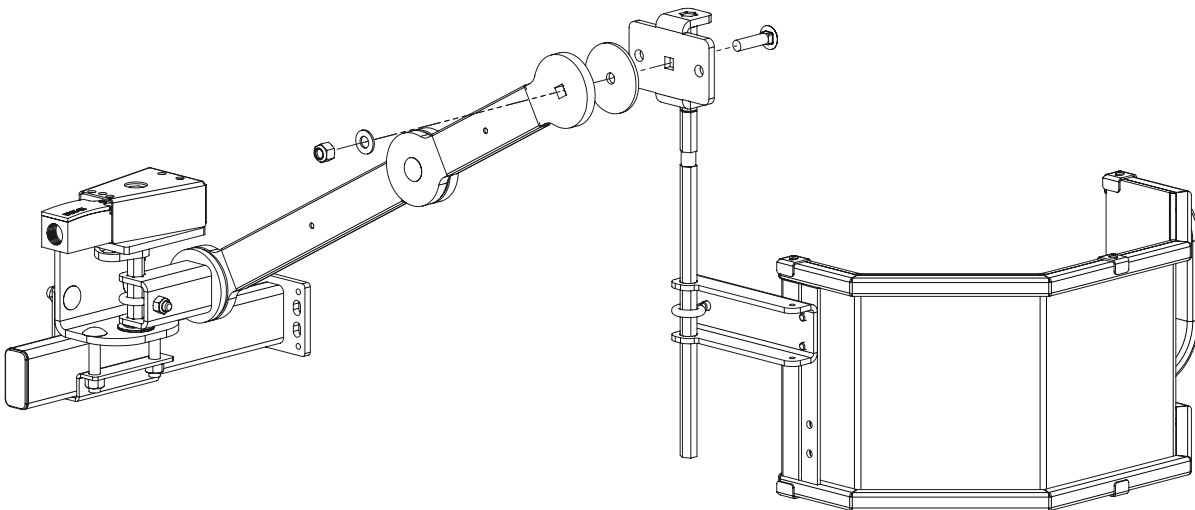


FIGURE 2.7
(POST-MOUNTED, SINGLE BASE PIVOT, VERTICAL SHAFT)

SECTION 4 — MECHANICAL ILLUSTRATIONS

Protector Series Shields

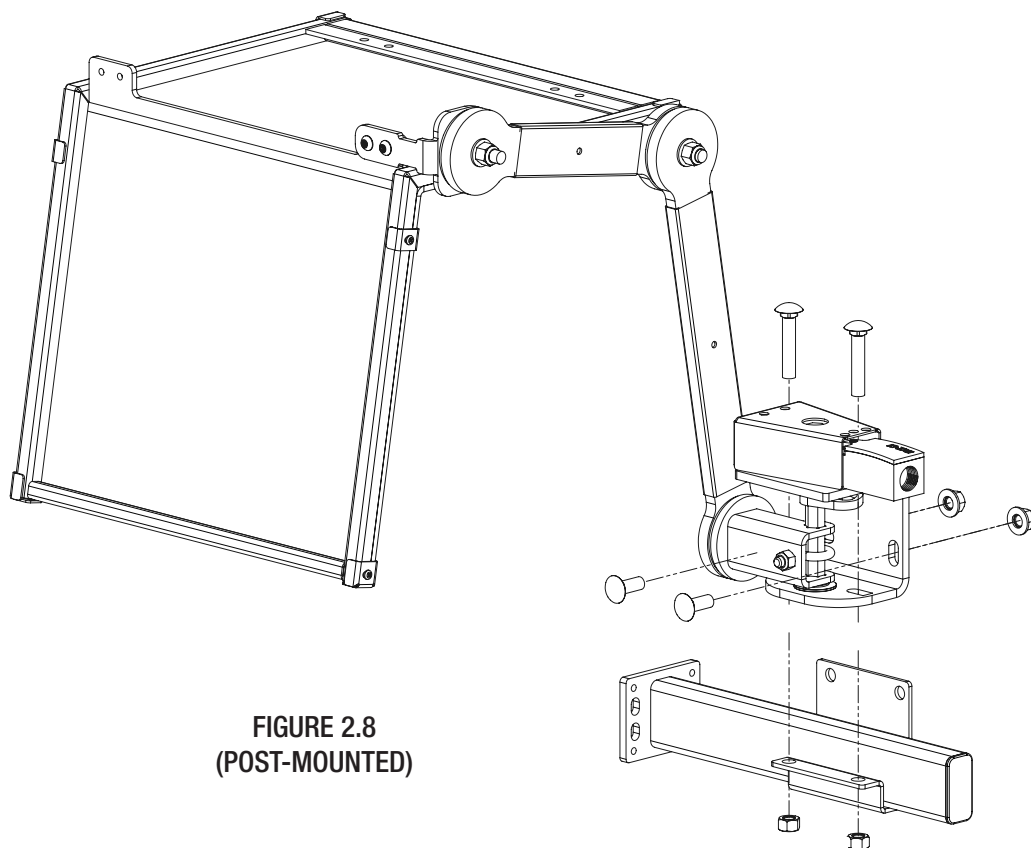


FIGURE 2.8
(POST-MOUNTED)

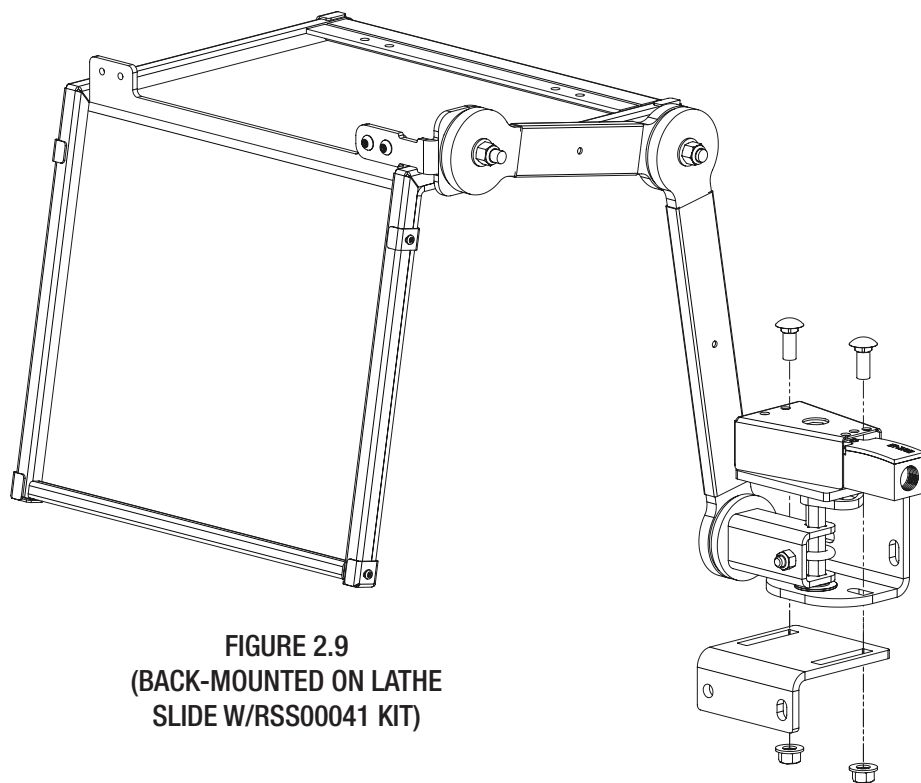
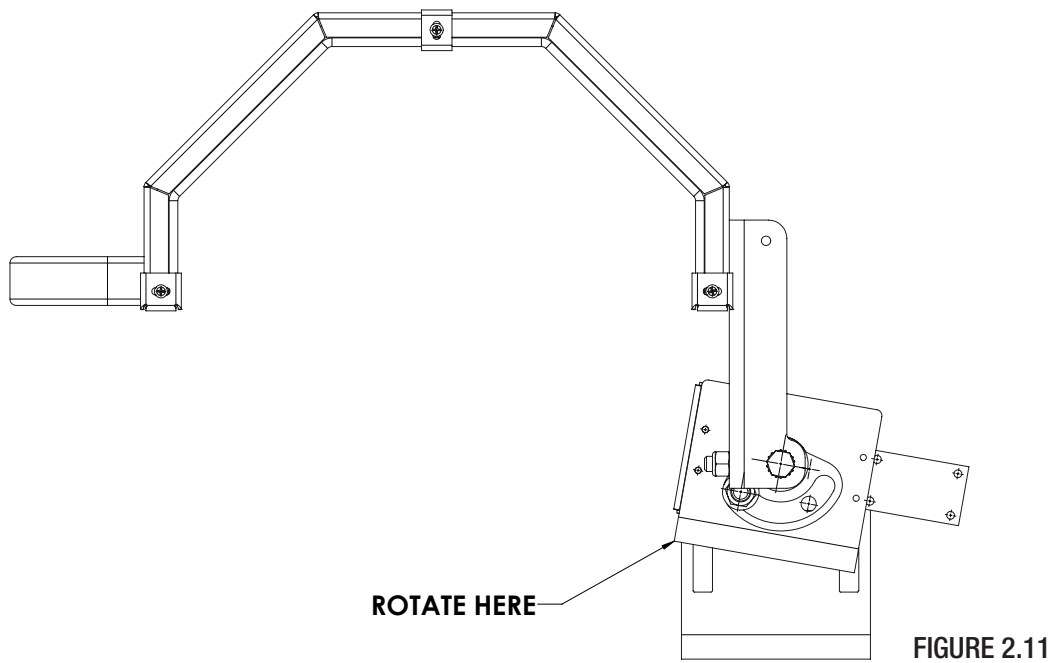
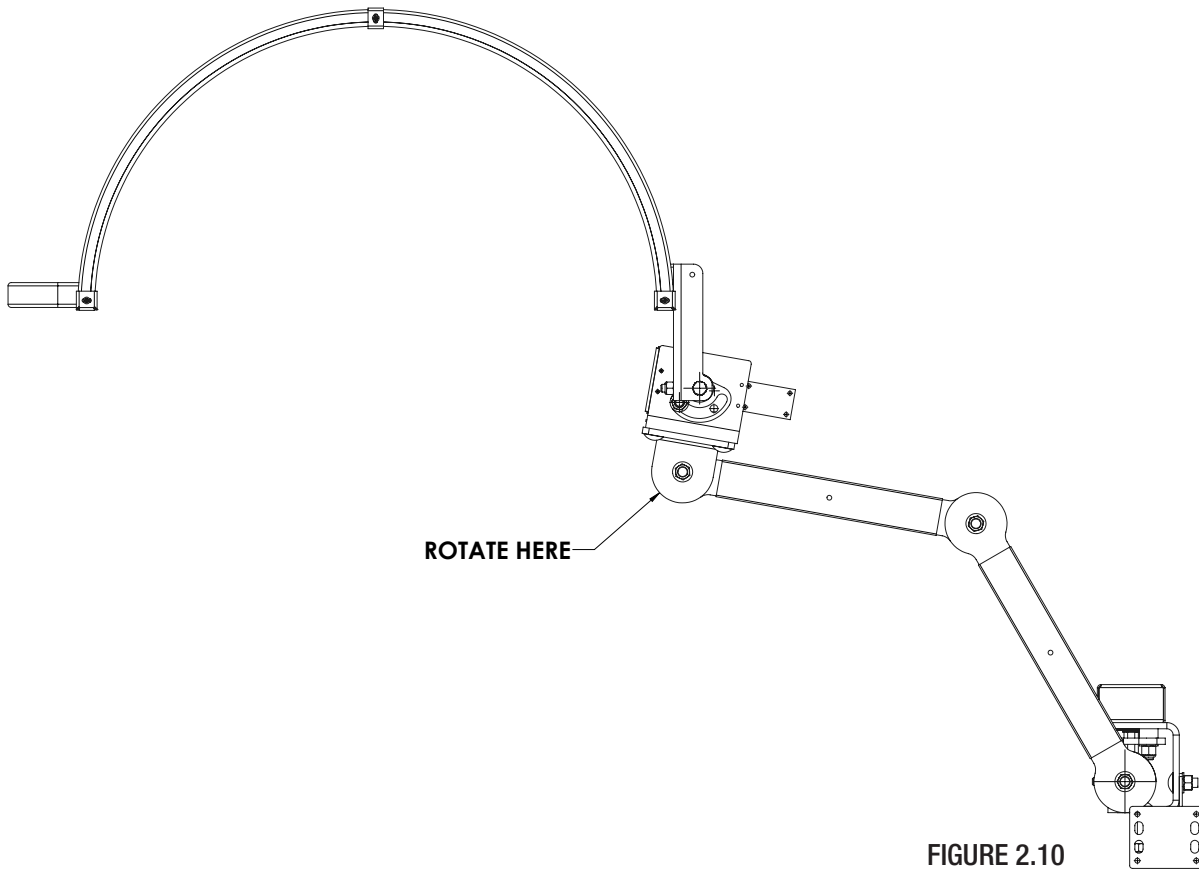
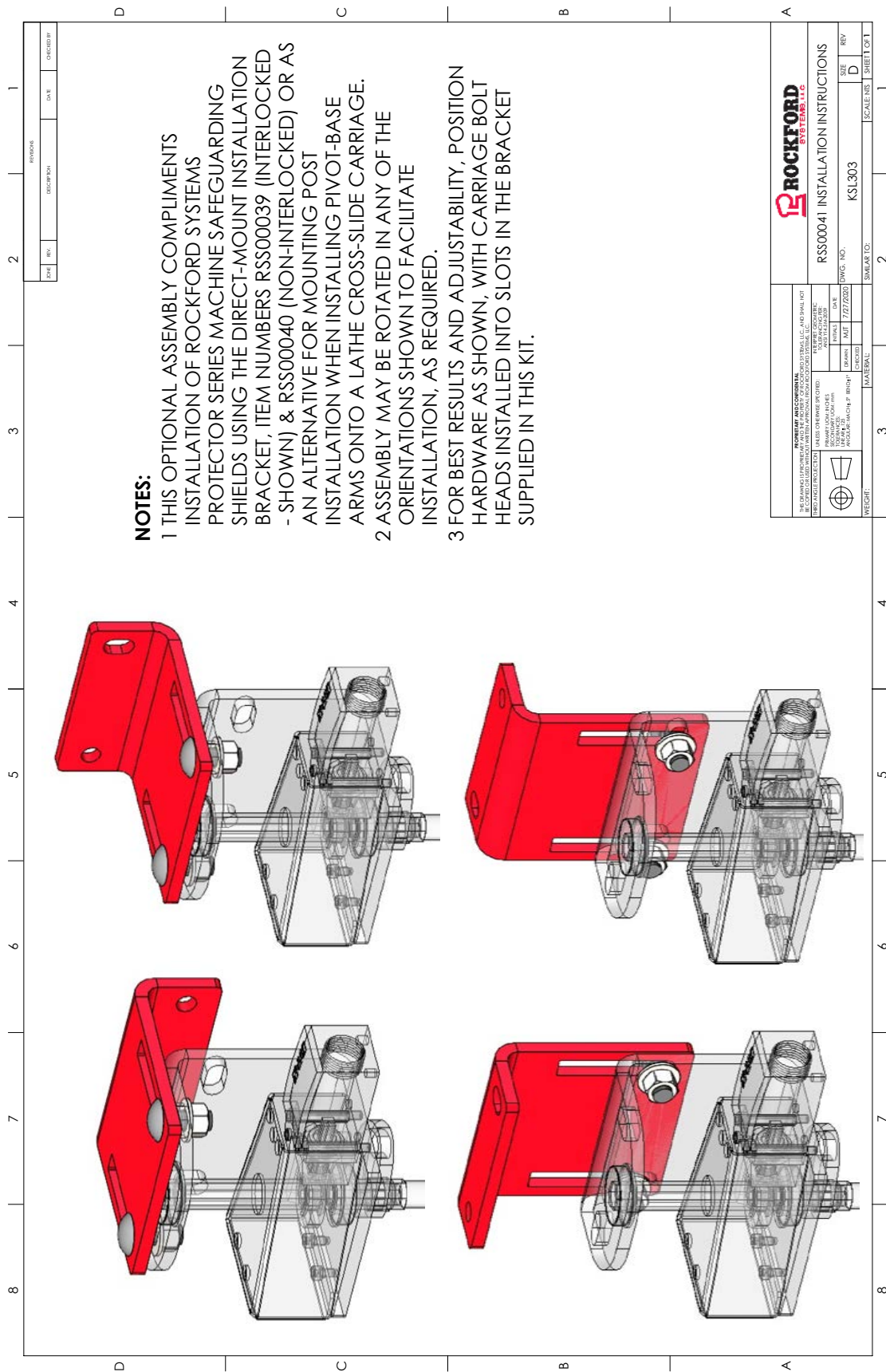


FIGURE 2.9
(BACK-MOUNTED ON LATHE
SLIDE W/RSS00041 KIT)



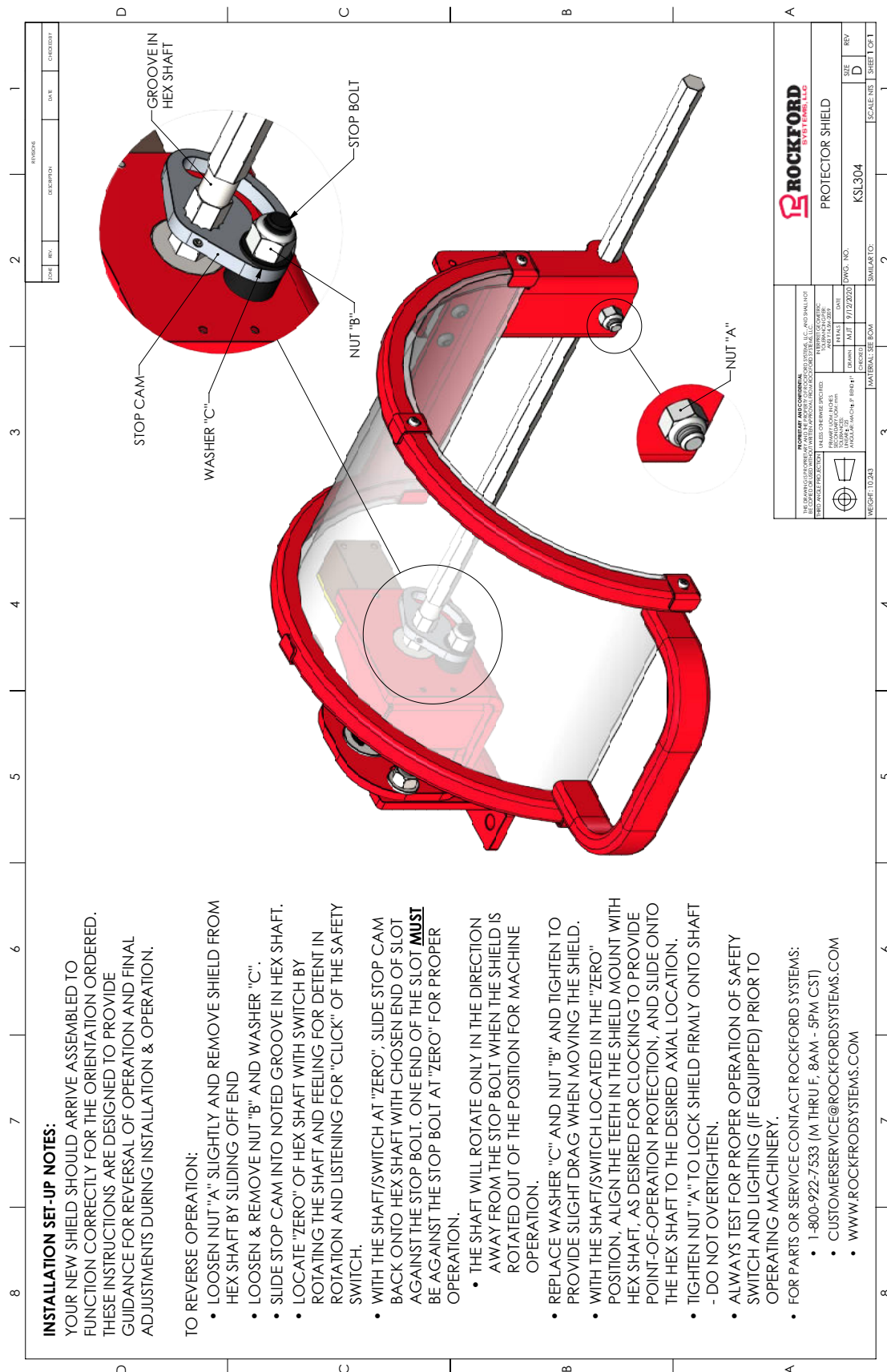
SECTION 4 — MECHANICAL ILLUSTRATIONS

Protector Series Shields



SECTION 4 — MECHANICAL ILLUSTRATIONS

Protector Series Shields



SECTION 5 — WIRING DIAGRAMS

Protector Series Shields

Description of Protector Shield Product	Enclosure Type	Shield Diagram	Motor Starter Diagram
Basic Shield - No LED Lighting or Interlock	None	None	None
1 White/Red LED Light - 1 Interlock	LSJB1INTR	RSS00074	Top Generic Motor Starter
2 White/Red LED Lights - 1 Interlock	LSJB1INTR	RSS00075	Top Generic Motor Starter
1 White/Red LED Light - 2 Interlocks	LSJB1INTR	RSS00076	Top Generic Motor Starter
1 Interlock w/ LED Lighting & Monitoring	LSJB1INTM	RSS00076	Top Generic Motor Starter
2 White/Red LED Lights - 2 Interlocks	LSJB1INTR	RSS00077	Top Generic Motor Starter
2 Interlocks w/ LED Lighting & Monitoring	LSJB1INTM	RSS00077	Top Generic Motor Starter
1 White LED Light - No Interlock	LSJB1T	RSS00078	None
2 White LED Lights - No Interlock	LSJB1T	RSS00079	None
1 Interlock - No LED Lighting	None	RSS00080	Bottom Generic Motor Starter
2 Interlocks - No LED Lighting	None	RSS00081	Bottom Generic Motor Starter

SECTION 5 — ENCLOSURE WIRING DIAGRAMS


Protector Series Shields

LSJB1INTM

Page Number	Revision	Date	Created by	Description	Location	Function
<u>01</u>	0	8/3/2021	EPH	Drawings list	L1	F1
<u>02</u>	9	8/3/2021	EPH	Enclosure Schematic	L1	F1
<u>03</u>	9	8/3/2021	EPH	Main electrical closet	L1	F1
<u>04</u>	0	8/3/2021	EPH	Bill Of Materials by Part Number (Add all lengths in QTY, Show Assemblies)	L1	F1

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MACHINE:
Interlocked with Monitoring

DESCRIPTION:
Lighted Shield Junction Box
Interlocked with Monitoring
Drawings list

REVISION

PROPOSAL: XXXXX

DRAWING NUMBER: LSJB1INTM

DATE: 3/18/2020

CHANGED CORD GRUPS TO F5035

CHANGED CORD GRUPS TO F5031

RENAME COM TO N1

CHANGES

DATE: 3/18/2020

1 / 4

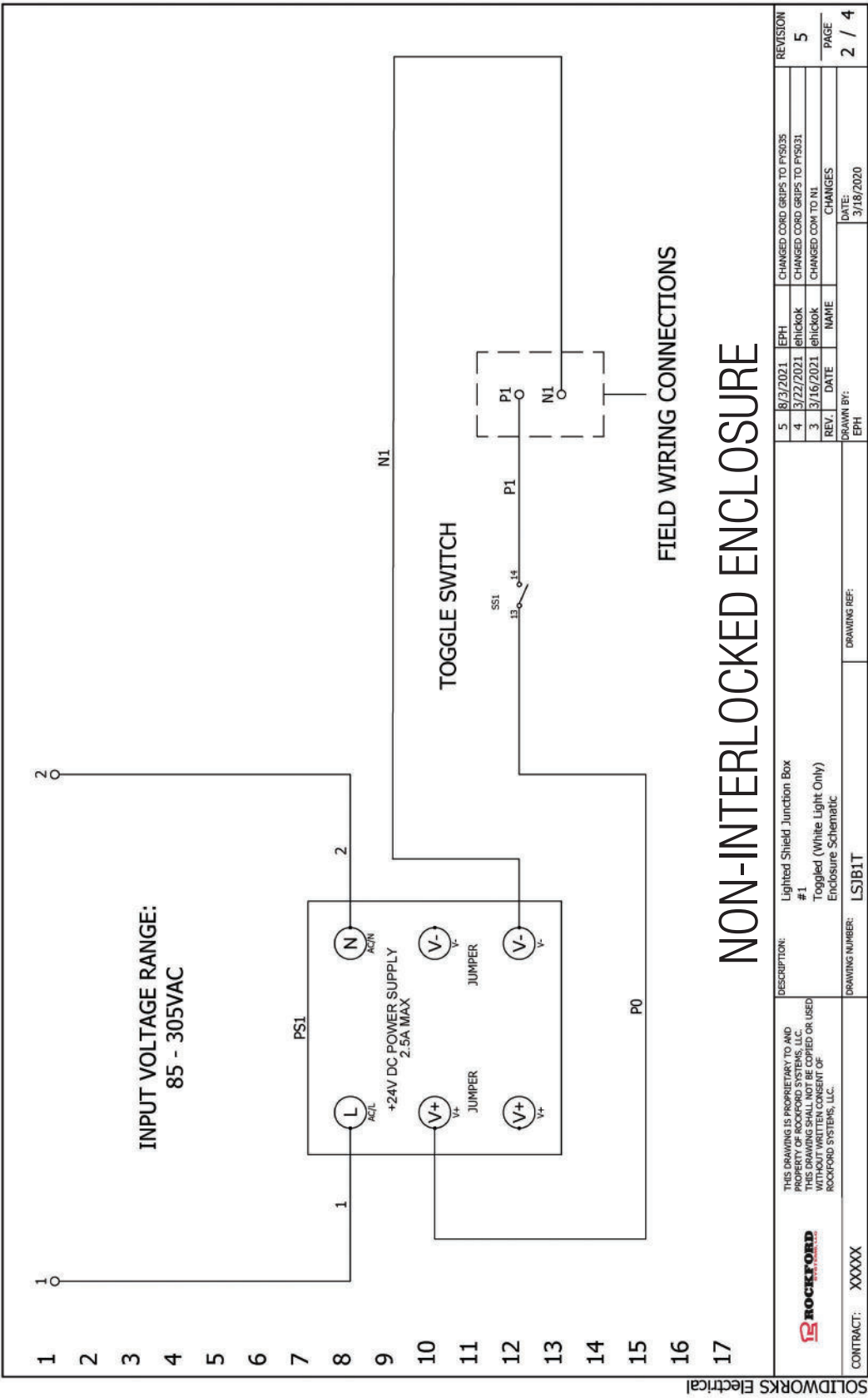
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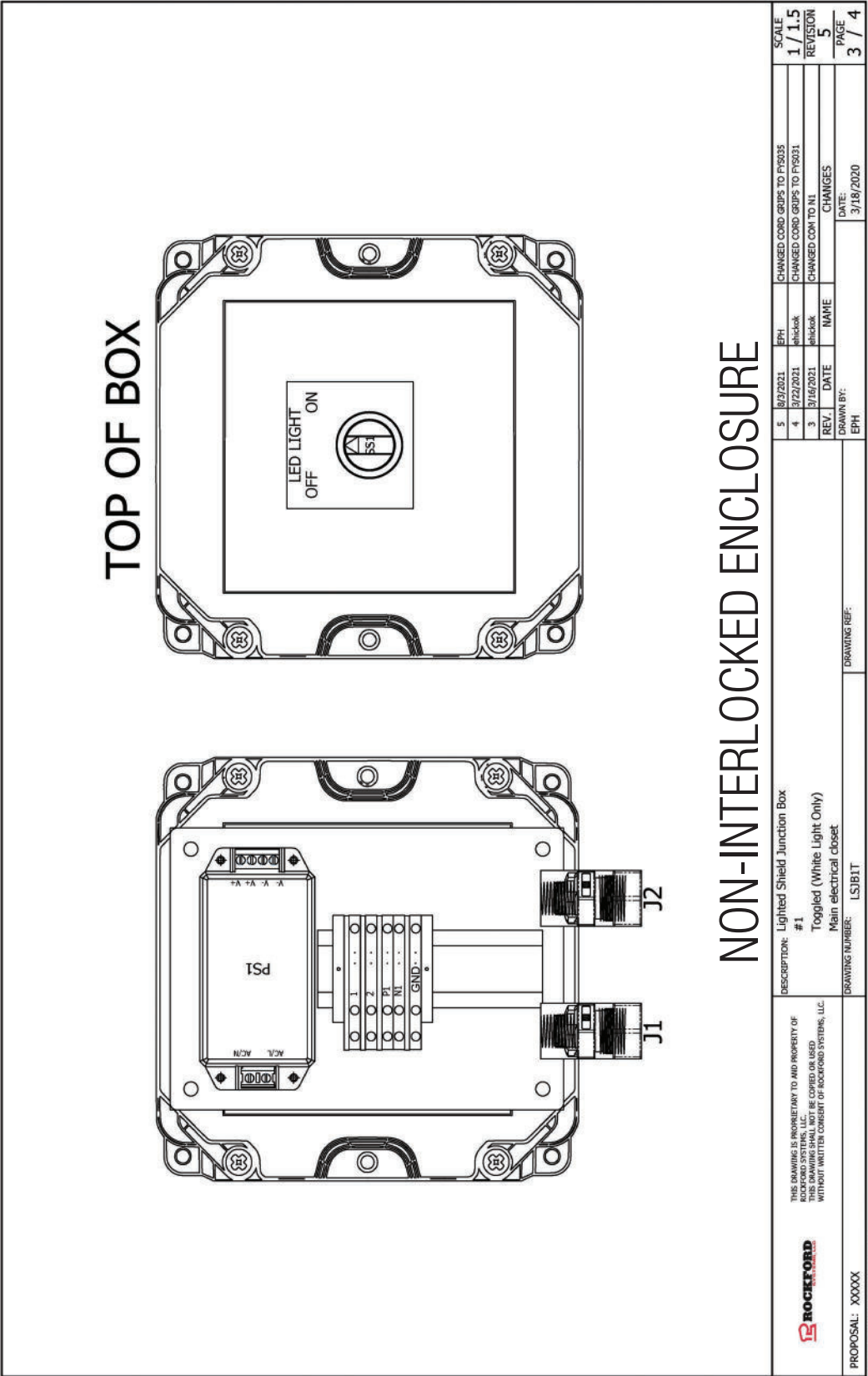
SECTION 5 — ENCLOSURE WIRING DIAGRAMS

Protector Series Shields



SECTION 5 — ENCLOSURE WIRING DIAGRAMS

Protector Series Shields




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SECTION 5 — ENCLOSURE WIRING DIAGRAMS

Protector Series Shields

Item No	Part Number	Quantity	Reference Designator	Description	Assembly
1	CCC084	4	X1 1, X1 2, X1 N1, X1 P1	Passthrough Terminal block, 1x2 push-in connections, gray	
2	CCC086	1	X1 GND	Ground Terminal block, green/yellow, 1x2 push-in connections	
3	CCY055	4	L1	35mm DIN Rail Perforated	
4	CCY117	2	X1	Terminal end stop, grey, clip-on, for DIN rails 35mm	
5	CCY118	4	X1	Terminal end plate, grey	
6	CTM500	1	SS1	TAG, BLANK GRAY	
7	FSK043	4	F1	4-40 PH PAN SCREW 1/2"	
8	FSK063	4	F1	#10 x 1/2" phillips pan head aggressive thread zinc	
9	FYS035	2	J1, J2	Cord grip, 1/2" NPT, Plastic, Gray, Range: 0.157-0.354, UL LISTED	
10	KCD115	1	L1	INTERLOCKED SHIELD PANEL 5" X 7" WITH PRE DRILLED MOUNTING HOLES	
11	KCM047	1	L1	Junction Box, Screw Cover, PVC, Molded Mounting Feet, 6 x 6 x 6	
12	RYL152	1	PS1	AC/DC POWER SUPPLY - 1 OUTPUT - 24V @ 2.5A - 60W - MODULE	
13	TSSPST	1	SS1	Changeover switch, With thumb-grip, maintained, 1 N/O, 2 positions, Bezel: titanium	

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		REV. 5 8/3/2021 EPH		CHANGED CORD GRIPS TO FYS035	
		REV. 4 3/22/2021 EPH		CHANGED CORD GRIPS TO FYS031	
		REV. 3 3/16/2021 EPH		CHANGED COM TO N1	
		REV. 2 3/16/2021 EPH		CHANGES	
		DRAWN BY: DATE: 3/18/2020		PAGE 4 / 4	

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SECTION 5 — ENCLOSURE WIRING DIAGRAMS


Protector Series Shields

LSJB1INTR

Page Number	Revision	Date	Created by	Description	Location	Function
01	8	7/16/2021	nmcdonald	Drawings list	L1	F1
02	8	7/16/2021	nmcdonald	Enclosure Schematic	L1	F1
03	8	7/16/2021	nmcdonald	Main electrical closet	L1	F1
04	0	8/3/2021	EPH	Bill Of Materials by Part Number (Add all lengths in QTY, Show Assemblies)	L1	F1

INTERLOCKED ENCLOSURE

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MACHINE:
Interlocked with Relay

DESCRIPTION:
Lighted Shield Junction Box
Interlocked with Relay
Drawings list

REVISION

REV	DATE	NAME	CHANGES
8	7/16/2021	nmcdonald	GROUPS TO F19035
7	6/16/2021	EPH	CHANGED RELAY TO RCL370
6	3/22/2021	phillips	CHANGED CORD GROUPS TO F19031

DATE: 3/18/2020

1 / 4

PROPOSAL: XXXXX

CUSTOMER: Rockford Systems, LLC

DRAWING NUMBER: LSJB1INTR

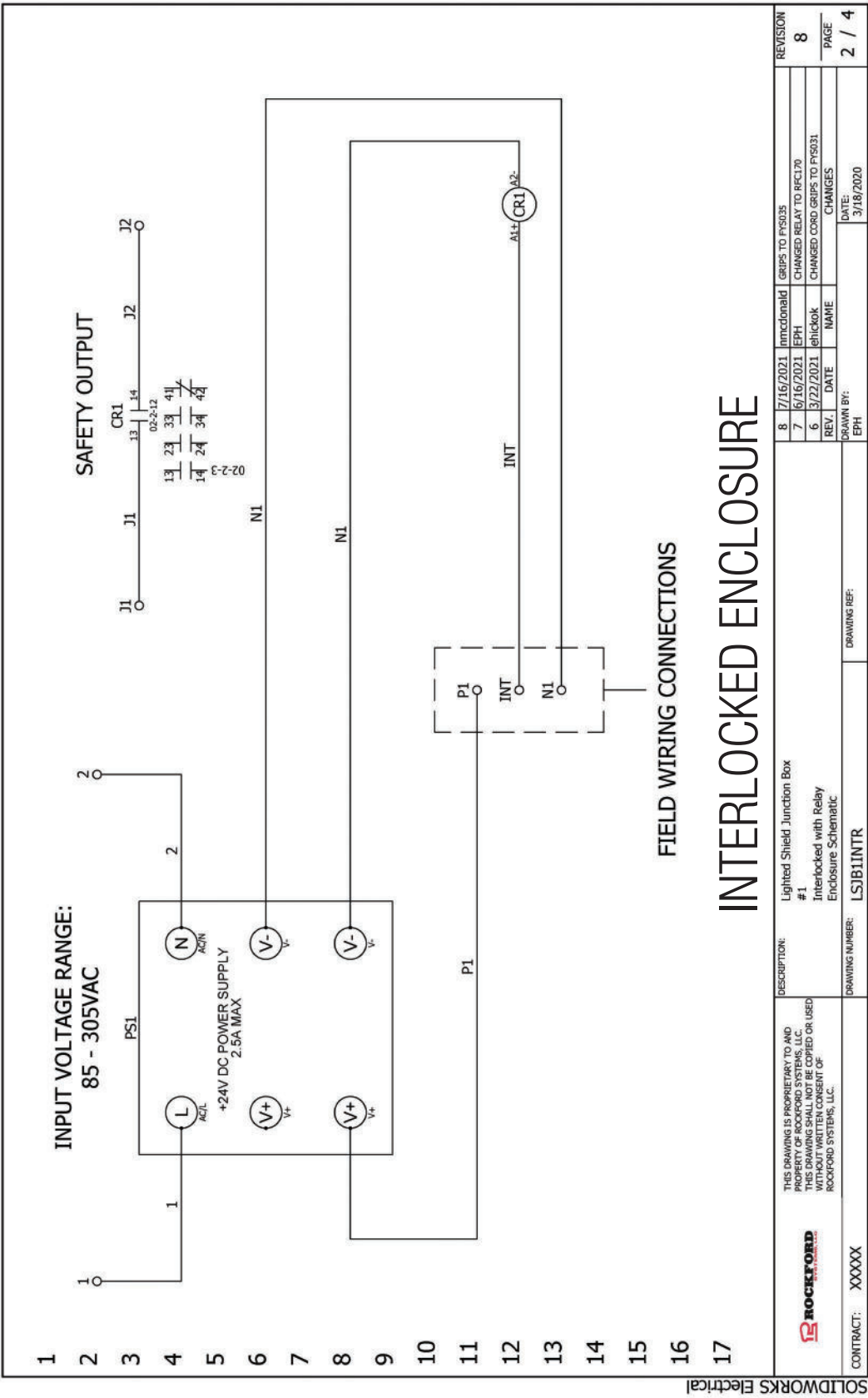
DRAWN BY: EPH

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SECTION 5 — ENCLOSURE WIRING DIAGRAMS

Protector Series Shields



Protector Series Shields



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			7	6/16/2021	EPH	CHANGED RELAY TO REC170	1/1.5
			6	3/22/2021	elrick	CHANGED COND GROUPS TO F19031	REVISION
			REV.	DATE	NAME	CHANGES	8
			DRAWN BY: EPH			DATE: 3/18/2020	PAGE
PROPOSAL: XXXXX	DRAWING NUMBER: L501INTR		DRAWING REF:			3 / 4	


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SECTION 5 — ENCLOSURE WIRING DIAGRAMS

Protector Series Shields

ItemNo	Part Number	Quantity	Reference Designator	Description	Assembly
1	CCC084	7	X1 1, X1 2, X1 INT, X1 J1, X1 J2, X1 N1, X1 P1	Passthrough Terminal block, 1x2 push-in connections, gray	
2	CCC086	1	X1 GND	Ground Terminal block, green/yellow, 1x2 push-in connections	
3	CCY055	4,3	L1	35mm DIN Rail Perforated	
4	CCY117	2	X1	Terminal end stop, grey, clip-on, for DIN rails 35mm	
5	CCY118	6	X1	Terminal end plate, grey	
6	FSK043	4	F1	4-40 PH PAN SCREW 1/2"	
7	FSK063	4	F1	#10 x 1/2" phillips pan head aggressive thread zinc	
8	FYS035	2	J1, J2	Cord grip, 1/2" NPT, Plastic, Gray, Range: 0.157-0.354, UL LISTED	
9	KCD115	1	L1	INTERLOCKED SHIELD PANEL 5" X 7" WITH PRE DRILLED MOUNTING HOLES	
10	KCM047	1	L1	Junction Box, Screw Cover, PVC, Molded Mounting Feet, 6 x 6 x 6	
11	RFC170	1	CR1	FORCE GUIDED RELAY & SOCKET, 3NO/1NC, 24V DC	
12	RYL152	1	PS1	AC/DC POWER SUPPLY - 1 OUTPUT - 24V @ 2.5A - 60W - MODULE	

INTERLOCKED ENCLOSURE

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	Interlocked with Relay Bill Of Materials by Part Number (Add all lengths in QTY, Show Assemblies)										7/16/2021		Imcdonald					
											6/16/2021		EPH		CHANGED RELAY TO RCL70		8	
											3/22/2021		delick		CHANGED CORD GRPS TO FYS031			
DRAWING NUMBER: LSB1INTR		DRAWING REF:		REV.		DATE		NAME		CHANGES		PAGE						
												4 / 4						
						DRAWN BY:				DATE:		3/18/2020						
						EPH												

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SECTION 5 — ENCLOSURE WIRING DIAGRAMS


Protector Series Shields

LSJB1INTM

Page Number	Revision	Date	Created by	Description	Location	Function
01	0	8/3/2021	EPH	Drawings list	L1	F1
02	9	8/3/2021	EPH	Enclosure Schematic	L1	F1
03	9	8/3/2021	EPH	Main electrical closet	L1	F1
04	0	8/3/2021	EPH	Bill Of Materials by Part Number (Add all lengths in QTY, Show Assemblies)	L1	F1

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MACHINE:
Interlocked with Monitoring

CUSTOMER: Rockford Systems, LLC

DESCRIPTION:
Lighted Shield Junction Box
Interlocked with Monitoring
Drawings list

DRAWING NUMBER: LSJB1INTM

REV: 9
DATE: 8/3/2021
DRAWN BY: EPH

CHANGES
DATE: 3/18/2020

9
8/3/2021
EPH
CHANGED CORD GRUPS TO F5035

8
3/22/2021
ephsack
CHANGED CORD GRUPS TO F5035

7
3/16/2021
ephsack
RENAME COM TO N1

REVISION
9

PAGE
1 / 4

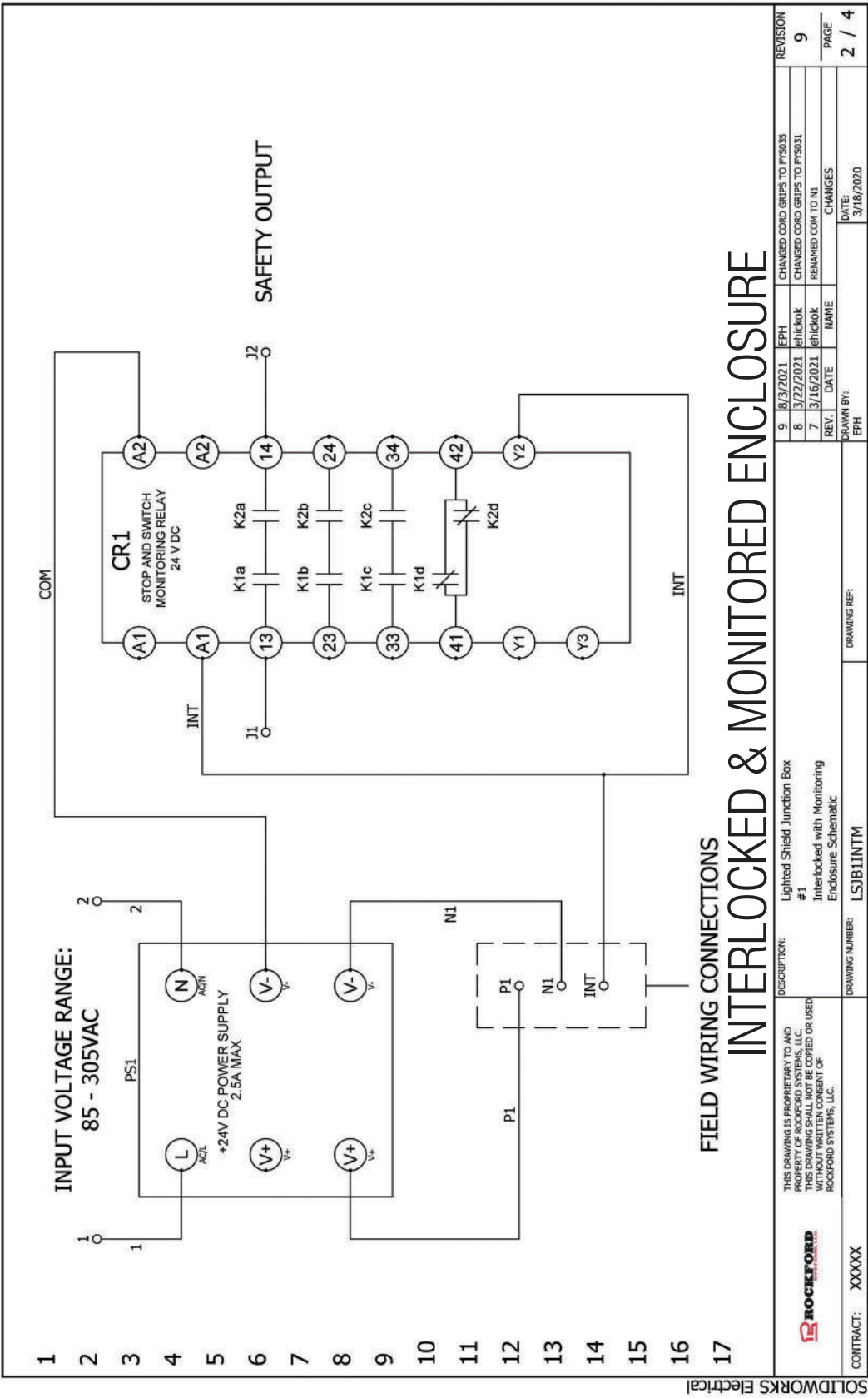
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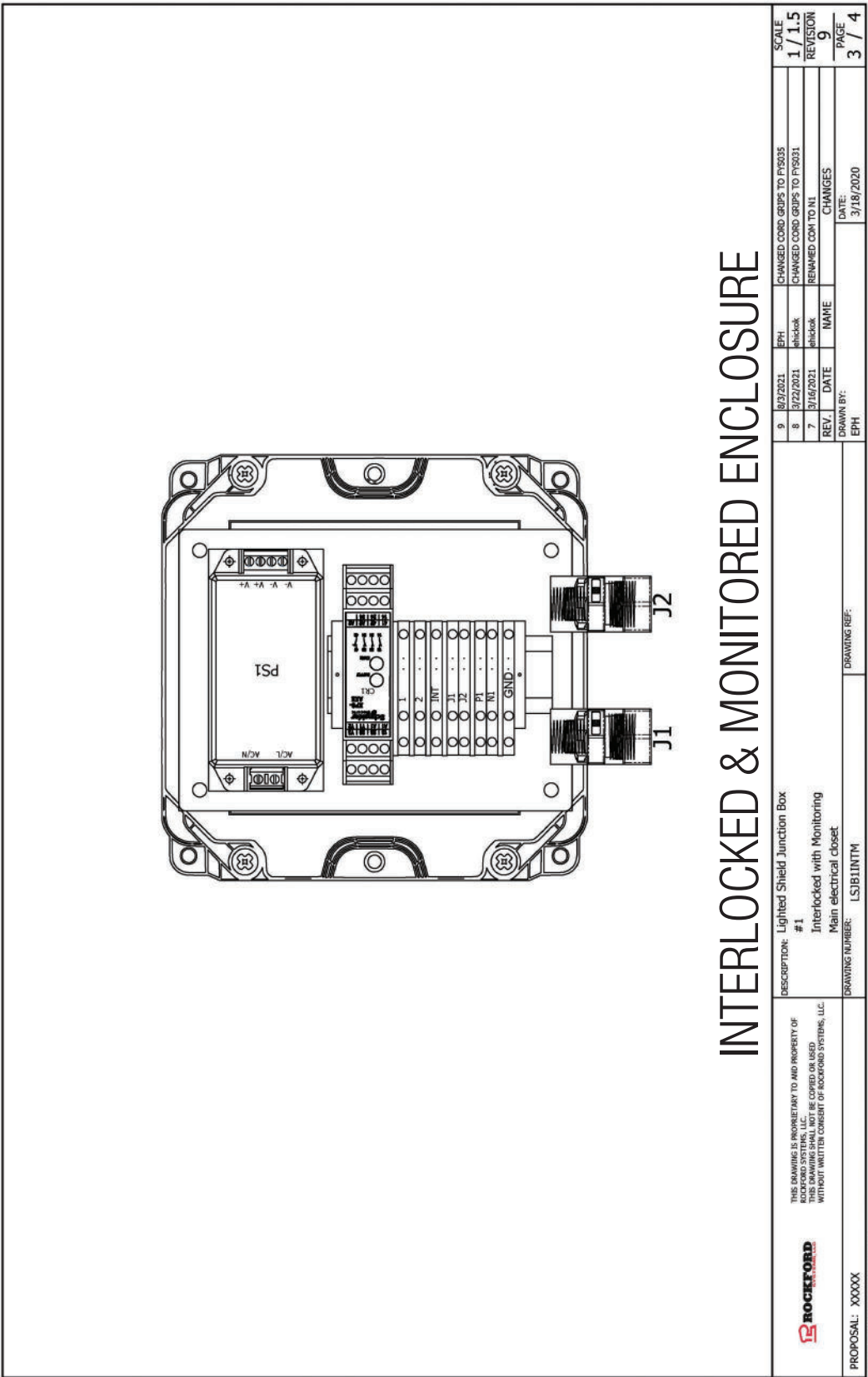
SECTION 5 — ENCLOSURE WIRING DIAGRAMS

Protector Series Shields



SECTION 5 — ENCLOSURE WIRING DIAGRAMS

Protector Series Shields




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SECTION 5 — ENCLOSURE WIRING DIAGRAMS

Protector Series Shields

ItemNo	Part Number	Quantity	Reference Designator	Description	Assembly
1	CCC084	7	X1 1, X1 2, X1 INT, X1 J1, X1 J2, X1 N1, X1 P1	Passthrough Terminal block, 1x2 push-in connections, gray	
2	CCC086	1	X1 GND	Ground Terminal block, green/yellow, 1x2 push-in connections	
3	CCY055	4	L1	35mm DIN Rail Perforated	
4	CCY117	2	X1	Terminal end stop, grey, clip-on, for DIN rails 35mm	
5	CCY118	6	X1	Terminal end plate, grey	
6	FSK043	4	F1	4-40 PH PAN SCREW 1/2"	
7	FSK063	4	F1	#10 x 1/2" phillips pan head aggressive thread zinc	
8	FYS035	2	J1, J2	Cord grip, 1/2" NPT, Plastic, Gray, Range: 0.157-0.354, UL LISTED	
9	KCD115	1	L1	INTERLOCKED SHIELD PANEL 5" X 7" WITH PRE DRILLED MOUNTING HOLES	
10	KCM047	1	L1	Junction Box, Screw Cover, PVC, Molded Mounting Feet, 6 x 6 x 6	
11	RFT159	1	CR1	Stop and Switch Monitoring Relay - 24 V DC	
12	RYL152	1	PS1	AC/DC POWER SUPPLY - 1 OUTPUT - 24V @ 2.5A - 60W - MODULE	

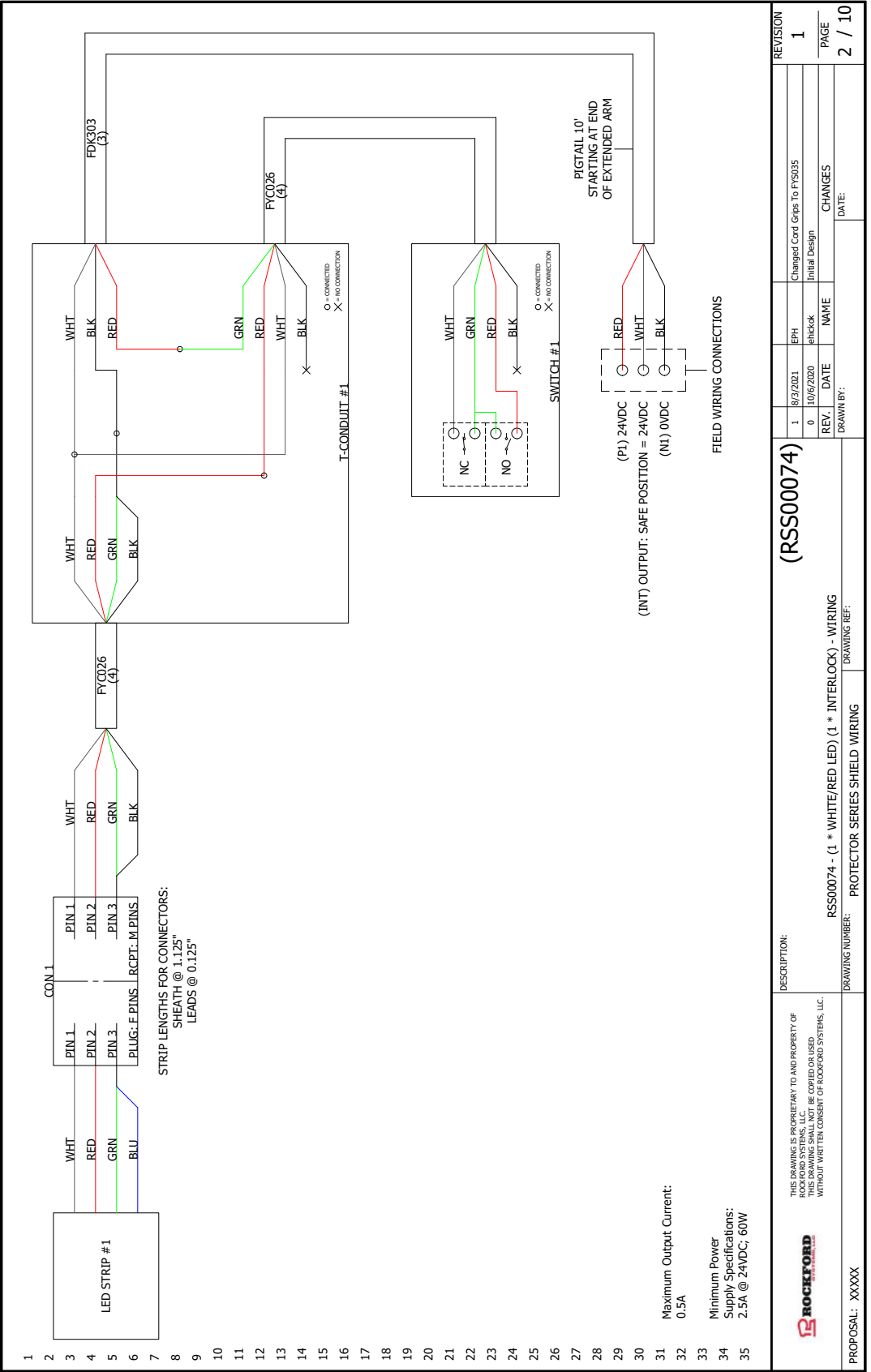
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<div></div> <div>THIS DRAWING IS PROPRIETARY TO AND PROPERTY OF ROCKFORD SYSTEMS, LLC. NO REPRODUCTION OR USE WITHOUT WRITTEN CONSENT OF ROCKFORD SYSTEMS, LLC.</div>	DESCRIPTION:		Lighted Shield Junction Box #1				9	8/3/2021	EPH	CHANGED CORD GRIPS TO FYS035	REVISION
			Interlocked with Monitoring Bill Of Materials by Part Number (Add all lengths in QTY, Show Assemblies)				8	3/22/2021	ephsack	CHANGED CORD GRIPS TO FYS035	
	DRAWING NUMBER: LSI11INTM						7	3/16/2021	ephsack	RENAMED CORD TO N1	
							REV.	DATE	NAME	CHANGES	
							DRAWN BY:		DATE:		
PROPOSAL: XXXXX			DRAWING REF:				EPH		3/18/2020		4 / 4

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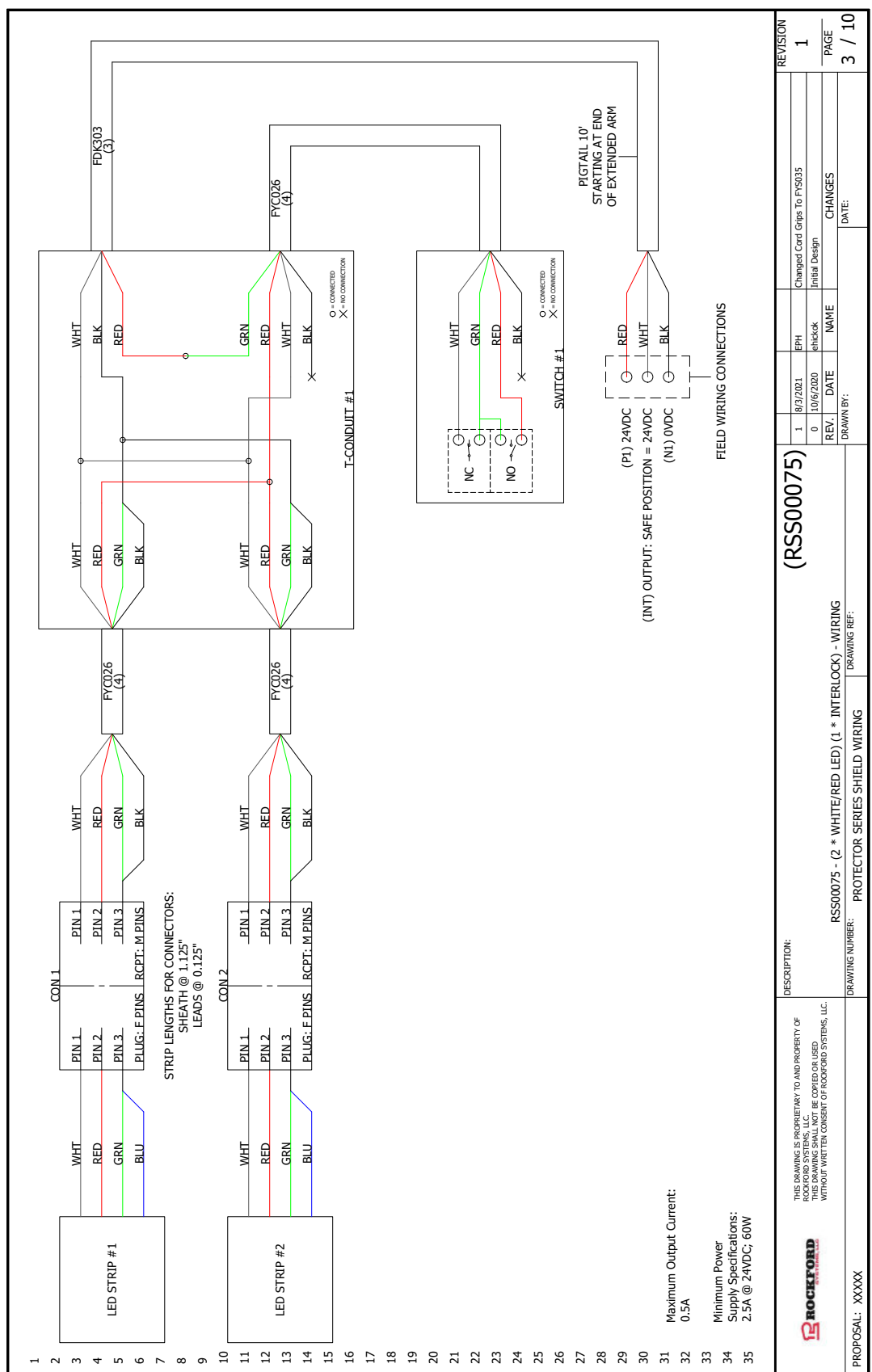
SECTION 5 — SHIELD WIRING DIAGRAMS

Protector Series Shields

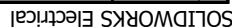


RSS00074 — 1 WHT/RED LED — 1 INTERLOCK

— 2 WHT/RED LED — 1 INTERLOCK



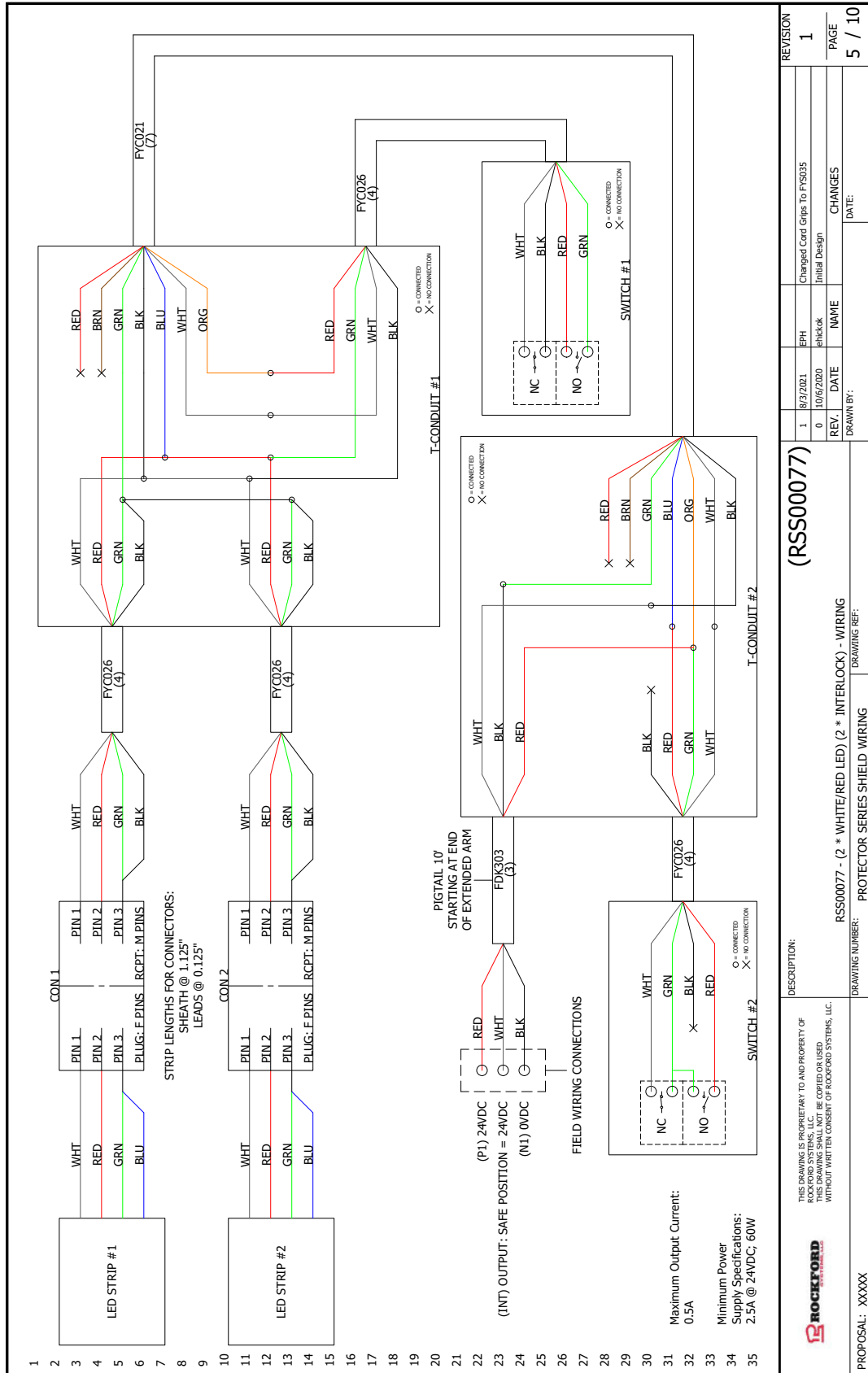
Protector Series Shields



RSS00076 — 1 WHT/RED LED — 2 INTERLOCK

SECTION 5 — SHIELD WIRING DIAGRAMS

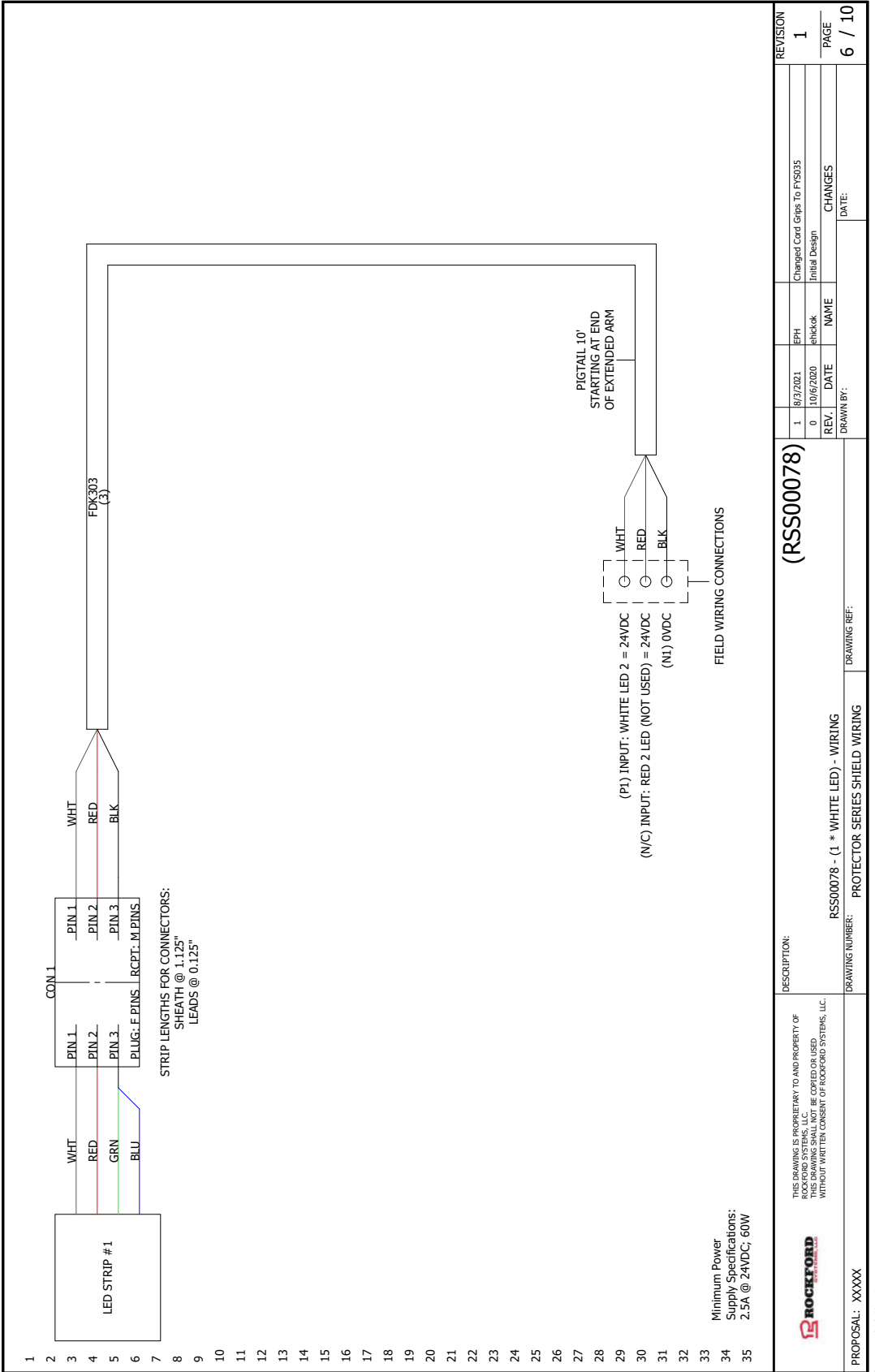
Protector Series Shields



RSS00077 — 2 WHT/RED LED — 2 INTERLOCK

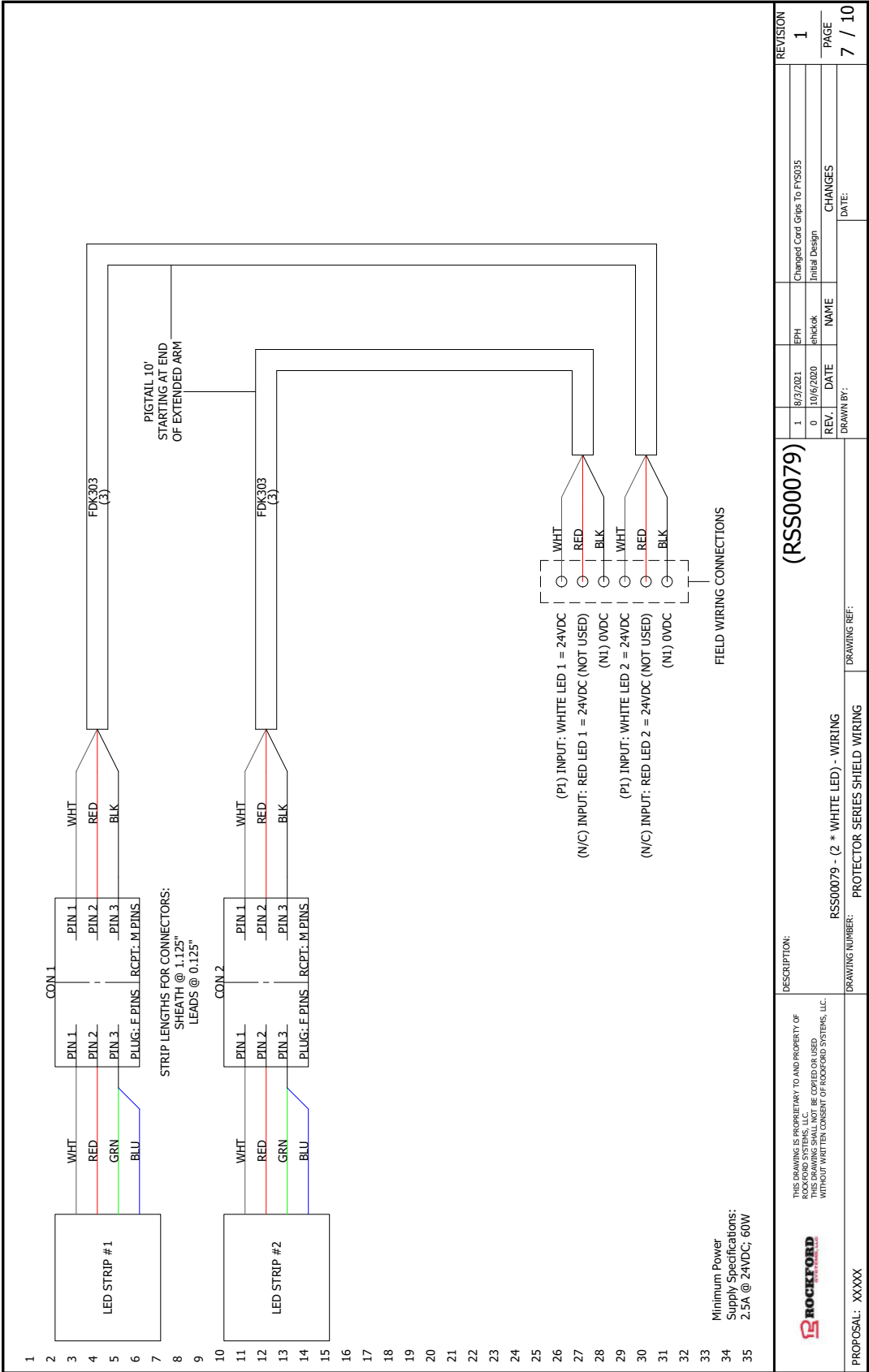
SECTION 5 — SHIELD WIRING DIAGRAMS

Protector Series Shields



RSS00078 — 1 WHITE LED

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PROPOSAL: XXXXX		DRAWING NUMBER: PROTECTOR SERIES SHIELD WIRING		PAGE	
		DRAWING REF:		6 / 10	
		DRAWN BY:		CHANGES	
		DATE:		DATE:	
		REV.		NAME	
		1		8/3/2021	
		0		10/6/2020	
		EPH		ehickok	
		Changed Cord Grips To F15035		Initial Design	

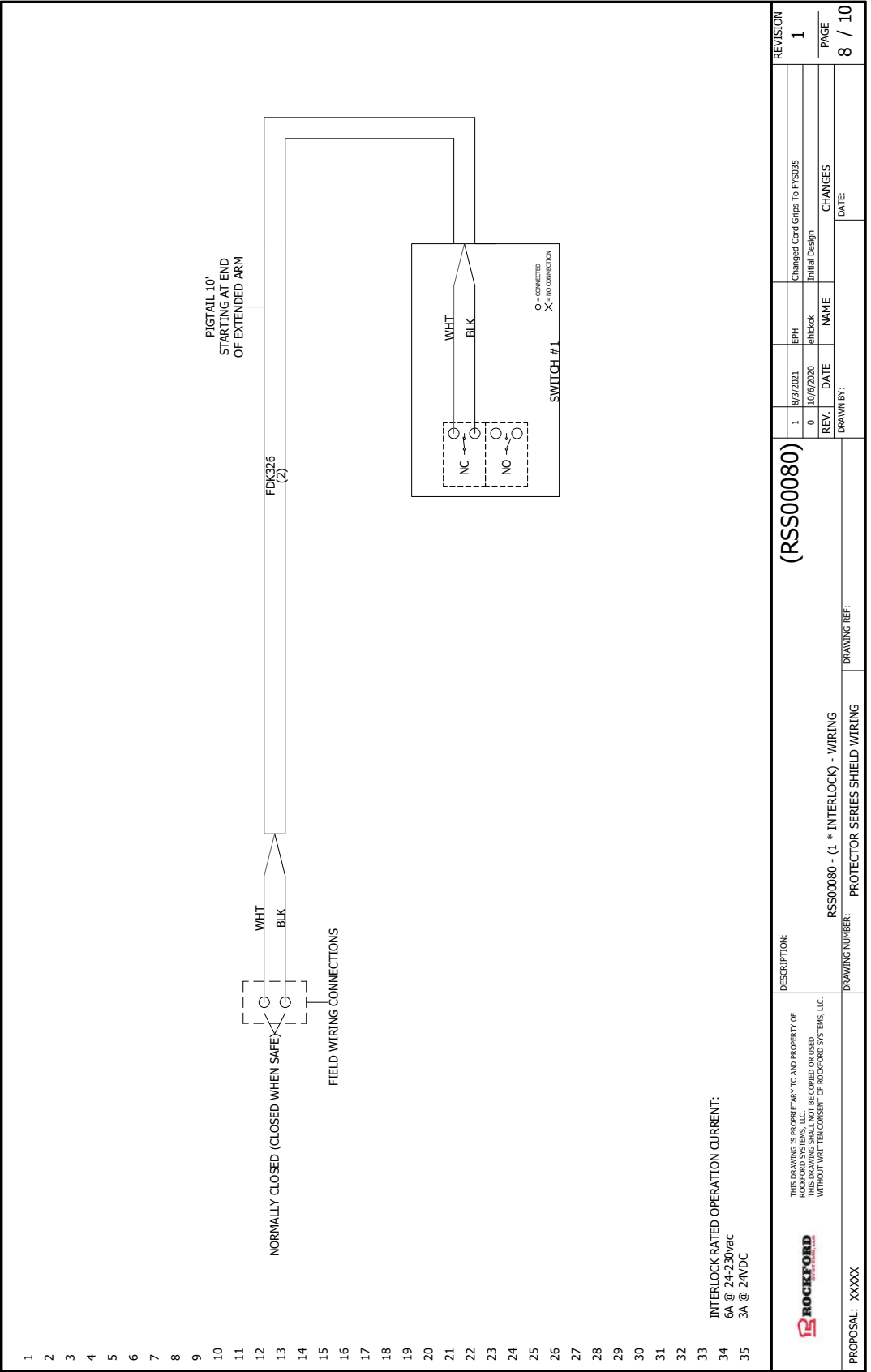


DESCRIPTION:		(RSS00079)		REVISION	
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DRAWING NUMBER:		PROTECTOR SERIES SHIELD WIRING		PAGE	
PROPOSAL: XXXXX		DRAWING REF:		7 / 10	
				CHANGES	
				DATE	
				NAME	
				DRAWN BY:	
				REV.	
				0	
				10/6/2020	
				JEHICKOK	
				8/3/2021	
				JEH	
				1	
				Changed Cord Grips To F15035	

RSS00079 — 2 WHITE LED

SECTION 5 — SHIELD WIRING DIAGRAMS

Protector Series Shields

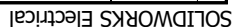


RSS000080 — 1 INTERLOCK

Protector Series Shields



Protector Series Shields



SECTION 6 — REPLACEMENT PARTS

Protector Series Shields

PART NUMBER	DESCRIPTION
RSS00008	CLIP RETAINER CENTER POLY .177"
RSS00009	CLIP RETAINER END POLY .177"
RSS00024X7X6	POLY SHIELD FLAT 7"X6"
RSS00024X9X8	POLY SHIELD FLAT 9"X8"
RSS00024X14X12	POLY SHIELD FLAT 14"X12"
RSS00024X16X14	POLY SHIELD FLAT 16"X14"
RSS00034X0800	POLY SHIELD 3-SIDED 8" X 6"
RSS00034X1600	POLY SHIELD 3-SIDED 16" X 8"
RSS00034x2400	POLY SHIELD 3-SIDED 24" X 9"
RSS00034X2800	POLY SHIELD 3-SIDED 28" X 12"
RSS00037OCT0600X0800	POLY SHIELD OCTAGONAL 6" X 8"
RSS00037OCT0900X0800	POLY SHIELD OCTAGONAL 9" X 8"
RSS00037OCT1200X0800	POLY SHIELD OCTAGONAL 12" X 8"
RSS00037OCT1600X0800	POLY SHIELD OCTAGONAL 16" X 8"
RSS00037OCT2000X1000	POLY SHIELD OCTAGONAL 20" X 10"
RSS00037OCT2400X1000	POLY SHIELD OCTAGONAL 24" X 10"
RSS00037OCT2800X1000	POLY SHIELD OCTAGONAL 28" X 10"



SECTION 6 — REPLACEMENT PARTS

Protector Series Shields

PART NUMBER	DESCRIPTION
RSS00047RND12X8	POLY SHIELD ROUND 12"X8"
RSS00047RND16X8	POLY SHIELD ROUND 16"X8"
RSS00047RND20X10	POLY SHIELD ROUND 20"X10"
RSS00047RND24X10	POLY SHIELD ROUND 24"X10"
RSS00047RND28X10	POLY SHIELD ROUND 28"X10"
RSS00055X600X600	POLY SHIELD 2-SIDED 6" X 6"
RSS00055X1400X1200	POLY SHIELD 2-SIDED 14" X 12"
RSS00055X1600X1400	POLY SHIELD 2-SIDED 16" X 14"
RSS00027X700	COVER LED FLAT 7"
RSS00027X900	COVER LED FLAT 9"
RSS00027X1400	COVER LED FLAT 14"
RSS00027X1600	COVER LED FLAT 16"
LEDRW3PTW	LED 3" RED/WHITE PRE-WIRED W/PLUG
LEDRW6PTW	LED 6" RED/WHITE PRE-WIRED W/PLUG
LEDRW14PTW	LED 14" RED/WHITE PRE-WIRED W/PLUG
LEDRW20PTW	LED 20" RED/WHITE PRE-WIRED W/PLUG
LEDRW26PTW	LED 26" RED/WHITE PRE-WIRED W/PLUG



SECTION 6 — REPLACEMENT PARTS

Protector Series Shields

PART NUMBER	DESCRIPTION
LEDRW32PTW	LED 32" RED/WHITE PRE-WIRED W/PLUG
LEDRW38PTW	LED 38" RED/WHITE PRE-WIRED W/PLUG
LEDRW50PTW	LED 50" RED/WHITE PRE-WIRED W/PLUG
CMC615	SWITCH SAFETY 1NO/1NC
TSSPST	SWITCH POWER LED ONLY - NON-INTERLOCK
RFC157FP	SAFETY RELAY INTERLOCKED ONLY
RFT159	SAFETY RELAY INTERLOCKED AND MONITORED
RYL152	AC/DC POWER SUPPLY 24V
CMK001	BLACK PLASTIC WIRING TEE ADAPTOR



SECTION 6 — REPLACEMENT PARTS

Protector Series Shields

LAYOUT OF PROTECTOR SHIELD INSTALLATION

**MAKE YOUR SKETCH HERE FOR YOUR MACHINE,
NOTING THE LOCATION OF THE PROTECTOR SHIELD PARTS AND
COMPONENTS TO BE INSTALLED ON YOUR MACHINE**

SECTION 7 — ORDER FORM

Protector Series Shields

This instruction manual references signs and literature available for your machines. This order form is for your convenience to order additional signs and/or literature as needed. (This order form is part of your installation manual so please make a copy of it when ordering.)

Company _____

Address _____

City _____ State _____ Zip _____

Phone _____ Fax _____

Name _____ Purchase Order No. _____ Date _____

Part No.	Description	Quantity Required
KSL305	MANUAL INSTALLATION PROTECTOR SHIELD	_____
KSC046	SIGN DGR ROT COMP ENGLISH	_____
KSC046S	SIGN DGR ROT COMP SPANISH	_____
KSC046F	SIGN DGR ROT COMP FRENCH	_____
KSC048	SIGN OPER SAFETY PREC ENGLISH	_____
KSC048S	SIGN OPER SAFETY PREC SPANISH	_____
KSC048F	SIGN OPER SAFETY PREC FRENCH	_____

For prices and delivery, please use address, phone or fax number listed on the front cover of this manual.

Your Signature _____ Date _____

SECTION 8 — PRODUCT RETURN

Protector Series Shields

To return material for any reason contact the sales department in our organization at 1-800-922-7533 for an R.M.A. Number. All returned materials shipments must be prepaid. Complete this form and send with material to 5795 Logistics Parkway, Rockford, IL 61109-2695. Make sure the R.M.A. Number is plainly identified on the outside of the shipping container.

Company _____

Address _____

City _____ State _____ Zip _____

Phone _____ Fax _____

Contact Name _____ Representative _____

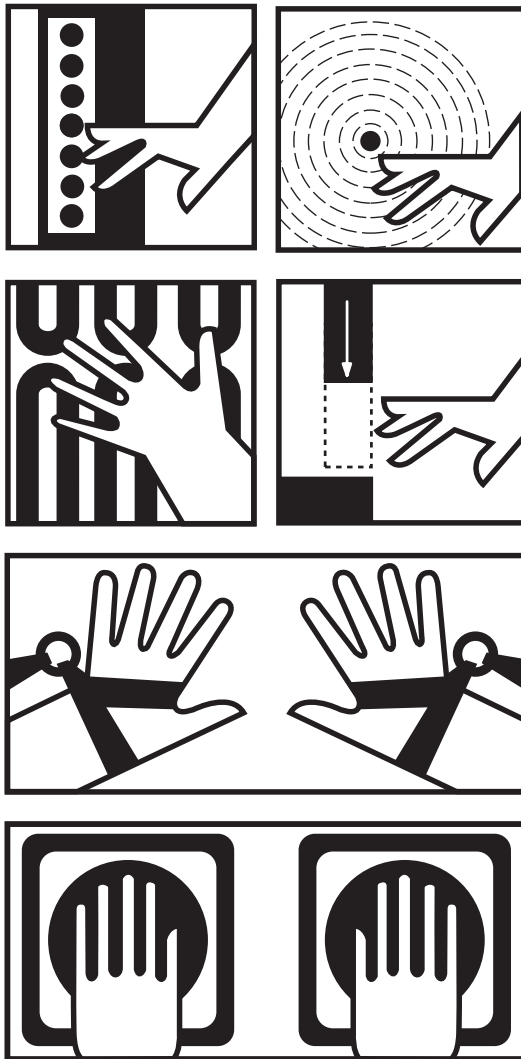
Items Authorized To Return on R.M.A. No. _____ **Original Invoice No.** _____ **Date** _____

Part No.	Serial No.	Description
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Service Requested: ☐ Full Credit ☐ 25% Restocking ☐ Repair & Return ☐ Warranty Replacement

Reason for return (describe in detail):

Return Materials Authorized by _____ Date _____



5795 Logistics Parkway
Rockford, Illinois 61109
Toll Free 1-800-922-7533 (USA Only)
Phone (815) 874-7891
Fax (815) 874-6144

Web Site: www.rockfordsystems.com
E-Mail: customerservice@rockfordsystems.com