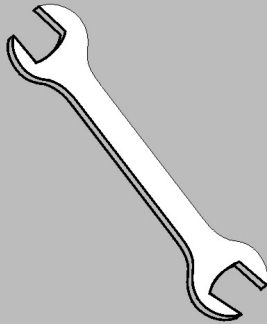


Published Manual Number/ECN: H00000023/2003332A

- Publishing System: TPAS
- Access date: 08/11/03
- Document ECN's: Latest Available



# Kit Instruction— KUCDDSS100



# Please Read

## About the Manual Identifying Information on the Cover

The front cover displays pertinent identifying information for this manual. Most important, are the published manual number (part number) /ECN (date code). Generally, when a replacement manual is furnished, it will have the same published manual number, but the latest available ECN. This provides the user with the latest information applicable to his machine. Similarly all documents comprising the manual will be the latest available as of the date the manual was printed, **even though older ECN dates for those documents may be listed in the table of contents.**

When communicating with the Milnor factory regarding this manual, please also provide the other identifying information shown on the cover, including the publishing system, access date, and whether the document ECN's are the latest available or exact.

## References to Yellow Troubleshooting Pages

This manual may contain references to "yellow pages." Although the pages containing troubleshooting procedures are no longer printed on yellow paper, troubleshooting instructions, if any, will be contained in the easily located "Troubleshooting" chapter or section. See the table of contents.

## Trademarks of Pellerin Milnor Corporation

The following, some of which may be used in this manual, are trademarks of Pellerin Milnor Corporation:

Ampsaver <sup>®</sup>	Dye-Extractor <sup>®</sup>	Gear Guardian <sup>®</sup>	Milnet <sup>®</sup>	Staph-Guard <sup>®</sup>
Autolint <sup>®</sup>	Dyextractor <sup>®</sup>	Hands-Off <sup>®</sup>	Milnor <sup>®</sup>	System 4 <sup>®</sup>
Auto-Purge <sup>®</sup>	E-P Express <sup>®</sup>	Hydro-Cushion <sup>®</sup>	Miltrac	System 7 <sup>®</sup>
Autovac	E-P OneTouch <sup>®</sup>	Mildata <sup>®</sup>	Miltron	Totaltrol <sup>®</sup>
CBW <sup>®</sup>	E-P Plus <sup>®</sup>			

## Comments and Suggestions

Help us to improve this manual by sending your comments to:

Pellerin Milnor Corporation  
Attn: Technical Publications  
P. O. Box 400  
Kenner, LA 70063-0400

Fax: (504) 469-1849

# Instructions For KUCDDSS100 2-stage Press Door Safety Switch Retrofit

MSSM0955AE/200204AV

## Preparations

### Understand and Avoid Safety Hazards



#### **DANGER: ELECTROCUTION AND ELECTRICAL BURN HAZARDS**



Contact with high voltage will electrocute or burn you. Power switches on the machine and the control box do not eliminate these hazards. High voltage is present at the machine unless the main machine power disconnect is off.

- ☞ Do not service machine unless qualified and authorized.
- ☞ Keep bystanders well clear.
- ☞ Lock off and tag out power at the main machine disconnect before servicing, or in accordance with factory service procedures.



#### **DANGER: ENTANGLE AND SEVER HAZARDS**



These operations require personnel to work in and around areas of the machine where there is a possibility of becoming entangled with electrical wiring, air tubing, or machine parts. Certain machine parts can move in such a way as to sever limbs or cause other serious injuries. In particular, the main press bell and the prepress tamper assemblies can descend with power on or off.

- ☞ NEVER climb on, touch or reach into assemblies in or above the press frame unless press main power has been locked OFF and tagged out at the external disconnect box, and then only for maintenance.
- ☞ ALWAYS ensure all personnel are clear of the press, all press side doors are closed, and all guards are in place before returning power to the machine.

**Make Press Safe For Personnel Access**—This retrofit requires that personnel enter the prepress and main press areas of the machine to check clearances, drill holes, run wires, etc. Prior to any personnel entering the machine the following must be accomplished:

1. Using appropriate manual functions, lower the prepress tamper assembly and the main press bell to their full down positions.
2. Lock off and tag out electrical power to the press at the external disconnect box.

**Remove The Load Doors From the Machine**— This retrofit requires that both prepress load doors be removed for access.

## Locate And Remove the Existing Wand-type Limit Switches

There are two (2) wand-type limit switches located on the upper structure of the machine near the center of the openings for the load doors. Remove each switch as follows:

1. Disconnect the electrical wiring from the limit switch. Do not remove the wires from the machine. They will be used as a guide for routing the wiring from the new proximity switch installation.
2. Remove the limit switch from the bracket.
3. Remove the bracket from the machine.

## Install New Components

**Install 07-30110 Mounting Brackets**—These brackets replace the limit switch brackets removed in the previous operation and mount in the same holes as the limit switch brackets, using 1/4" hardware as shown in Photo 1 and Figure 1.

**Install the Proximity Switches**— The proximity switches install through the 1.25 inch (32mm) hole in the brackets. Refer to Photo 1 and the accompanying illustration (Figure 1).

1. Install the 09RPS30CAS proximity switches by inserting them through the switch mounting holes in the brackets and securing with the jam nuts supplied with the switches. Be careful not to over-torque the jam nuts. Install hand tight only at this point.
2. Using the wires from the wand-type limit switches as a guide, route the wires from the two (2) proximity switches to the electrical panels. Be sure to leave enough excess wire to allow for trimming to length when the wires are finally connected to the relay to be installed later (refer to schematic W6PR2SS+ Line 14).

**Install 07-30112 Mounting Brackets**—These brackets are for additional limit switches and do not replace any existing parts. Therefore, each bracket must be located by measuring and marking locations as shown in Photos 2, 3, and 4.

**Note:** There are three (3) types of prepress doors, two (2) of which will be part of your machine depending on its specific type (centerload, rightload, leftload, etc.). These are:

- The large side door, mounted on the side opposite the electrical panels and sled drive components. This door is approximately four (4) feet (1,220mm) wide and is used only on centerload machines.
- The small side door, mounted on the side of the machine which supports the electrical panels and sled drive components. This door is approximately three (3) feet (915mm) wide and is used on all machines.
- The rear door, mounted on the rear of the machine. This door is approximately four (4) feet (1,220mm) wide and is used only on leftload or rightload machines.

1. Measure and mark the locations for the brackets on the machine structure using the dimensions shown in Photo 2. Drill two (2) 13/32 inch (10.3mm) diameter holes through the machine members using the slots in the bracket as a template.

For the large side door (centerload machines only), the bracket mounts to the machine structural member closest to the rear of the machine on which the door track is mounted.

For the small side door (all machines), the bracket mounts to the support member which is forward of the sled drive torque arm and on which the door track is mounted.

For the rear door (leftload and rightload machines only), the bracket mounts to the structural member on the rear of the machine which is on the side of the machine through which the goods enter the load chute.

2. Attach the brackets to the structural members using 3/8 inch (9.5mm) diameter hardware supplied with the kit.

**Install the Proximity Switches**— The proximity switches install through the 3/4 inch (19mm) holes in the brackets. Refer to Photo 2.

1. Install the 09RPS18CAS proximity switches by inserting them through the switch mounting holes in the brackets and securing with the jam nuts supplied with the switches. Be careful not to over-torque the jam nuts. Install hand tight only at this point.
2. Attach the 09RPTAC095 cable and connector assemblies to the proximity switches. Route the wires from the two (2) proximity switches to the electrical panels. Be sure to leave enough excess wire to allow for trimming to length when the wires are finally connected to the relay to be installed later (refer to schematic W6PR2SS+).

**Install the 07-30111 Upper Switch Targets and the 07-20942 Door Stiffeners**—These targets are mounted on the center stiffeners of the doors and removal of the existing stiffeners from the doors is required. Refer to Figure 1.

1. Remove the existing center stiffeners from the doors and retain the hardware removed. These stiffeners will not be reused.
2. Attach the two (2) 07-30111 targets to the two (2) 07-20942 door stiffeners, one (1) target per stiffener, using the 9/32 inch (7.15mm) hardware supplied with the kit.
3. Attach the 07-20942 center stiffeners to the doors using the hardware removed previously.

**Install the 07-30113 Lower Switch Targets**— These targets are mounted on the inside of the doors just above the door latches (see Photo 5).

1. Using the dimensions of Photo 5, locate, mark, and drill (2) 13/32 inch (10.3mm) diameter holes through the door using the holes in the target as a template.
2. Attach the targets to the doors using the 3/8 inch (9.5mm) diameter hardware supplied with the kit.
3. Reinstall the doors onto the machine. Slide the doors up and down carefully while checking to make sure that the targets and the proximity switches do not make physical contact with each other.

## **Check And Set Clearances Between Proximity Switches And**

**Targets**— In this next series of steps, the 1/4 inch (6.35mm) clearance between the proximity switches and their respective targets will be set. It will be necessary to use some sort of gauge such as a plastic block of the proper thickness to facilitate this process.

1. Loosen the two (2) screws holding the proximity switch bracket. Insert the gauge between the upper proximity switch and its target and adjust the bracket to achieve the proper clearance. Tighten the screws holding the bracket. Tighten the jam nut on the proximity switch, being careful not to apply too much force to the switch body. Repeat for other door.
2. Loosen the two (2) screws holding the lower proximity switch bracket and adjust the bracket until the face of the proximity switch is centered to the target. Tighten the screws. Insert the gauge between the lower proximity switch and its target. The initial gap will be greater than 1/4 inch (6.35mm). Adjust the target's distance from the proximity switch by shimming between the target and the door with washers of appropriate thickness, or adjusting the proximity switch's jam nuts, or both. Tighten the jam nuts securing the proximity switch to the bracket, being careful not to apply too much force to the switch body. Repeat for the other door.

**Install Electrical Components**— In this operation, the 12 VDC control transformer, 3PDT relay, and relay terminal block will be installed and connected to the proximity switches. Refer to the press electrical manual and electrical schematics W6PRSMCA and W6PR2SS+.

Summary of required operations:

- Add relay CRSD, located in the low voltage control box.
- Add transformer, located in the voltage control box.
- Remove old limit switch wiring.
- Wire relay CRSD per schematic.

1. Lock off and tag out electric power at the external disconnect box.
2. Layout and mark the location of the transformer to be added to the control box. Drill mounting holes for the transformer and clearance holes for transformer wiring as required using the transformer as a template.
3. Layout and mark the location for the 09B321A relay terminal block. Drill mounting and wiring clearance holes as required.
4. Wire the relay terminal board and transformer per schematic W6PR2SS+.

**Note:** The voltage on the top line of schematic W6PR2SS+ is 120 VAC. The 120 VAC for the transformer should be tied to schematic W6PRSMCA Line 14. Cut the wire going to pin 7 on CRS+S. Splice this wire, using a white cap, to the transformer. There should be three (3) wires coming out of the white cap: one for pin 7; one for the transformer; and the original wire.

5. Secure and route wires as required.
6. Mount the relay terminal block to the low voltage board at any convenient location. Insert the new 09C01DDD37 3PDT relay into the socket. Mark the tag on the inside of the electric box door to show the new relay location for future reference.

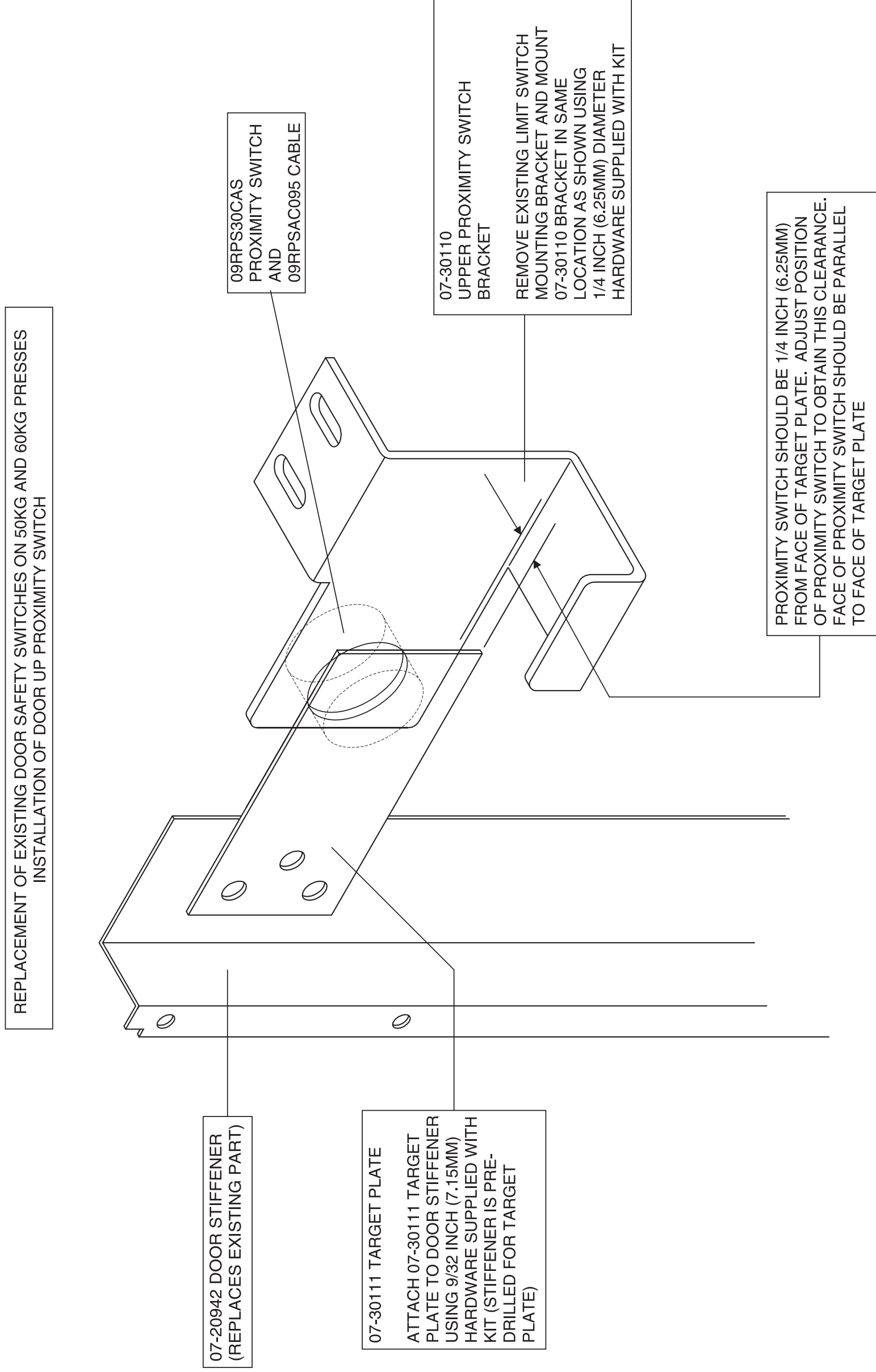
7. Re-mount the board to the control box. Make sure that all grounding points make good electrical contact.
8. Connect the relay contacts per schematic W6PR2SS+. Lines 3 and 4.

**Test The System**— Before applying press power, ensure that both doors are in the fully-down (closed) position and latched and all personnel not directly involved with testing the press are stationed well clear of the press.

1. Turn on press power at the main disconnect.
2. Energize the press.
3. Observe control panel light ELD (Sliding Doors Open). Light should be OFF.
4. Open one of the sliding doors. Light ELD should go ON. Close and latch the door. Light ELD should go OFF.
5. Open the other sliding door. Light ELD should go ON. Close and latch the door. Light ELD should go OFF.
6. At the main control panel, switch the press to MANUAL operation and turn the Sliding Door Bypass keyswitch to BYPASS, so press may be operated with doors open. Open one of the sliding doors. Using appropriate manual functions, move the prepress tamper through a complete up and down cycle. This is to verify that the press can be operated manually with the prepress doors in the open position. Close and latch the door.
7. Repeat the previous step for the other door.

## **Installation Complete**

1. Replace all machine guards and secure all electric box doors.
2. Return the press to normal (automatic) operation.
3. If there is a problem, contact Technical Support at (504) 467-9591.

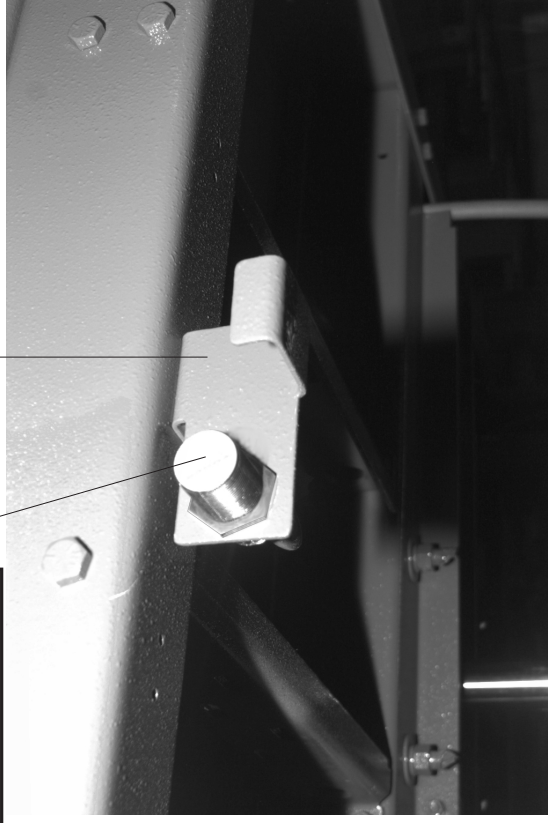


MSSM0955AE/200204AV FIGURE 1



REPLACEMENT OF DOOR SAFETY SWITCHES ON 50KG AND 60KG PRESSES

09RPS30CAS PROX SWITCH



07-30110 BRACKET

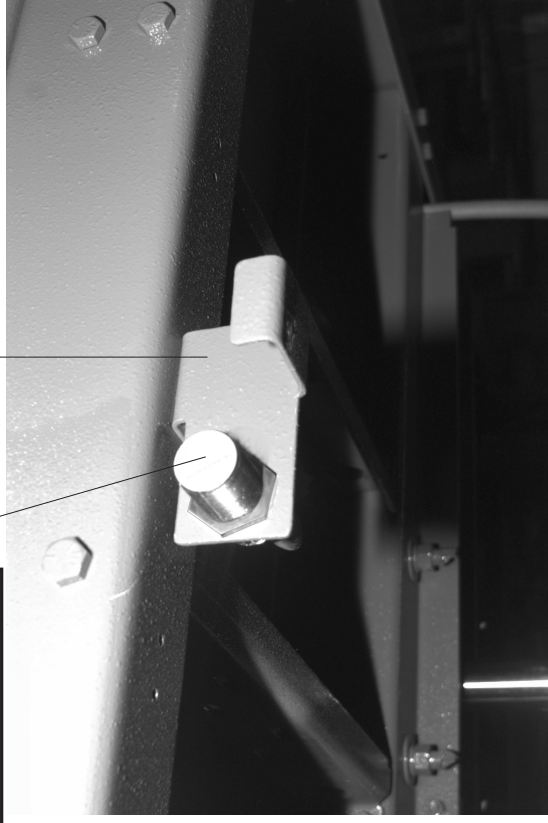


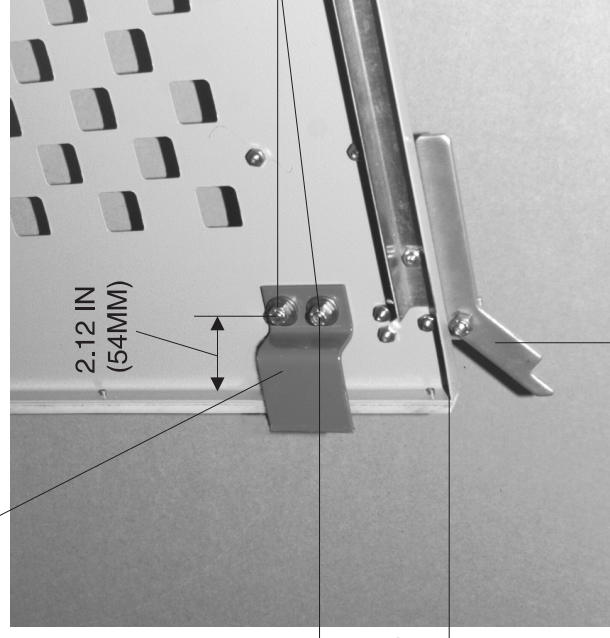
PHOTO 1

09RPS18CAS PROXIMITY SWITCH WITH 09RPTAC095 CABLE



PHOTO 2

07-30113 TARGET PLATE



DOOR LATCH (REFERENCE)

PHOTO 5

3.25 IN (82.5MM) FROM TOP OF SIDE TO CENTER OF BRACKET

07-30112 LOWER PROXIMITY SWITCH BRACKET  
DRILL TWO (2) 0.406 IN (10.3MM) DIAMETER HOLES THROUGH FRAME USING 07-30112 BRACKET AS A TEMPLATE  
ATTACH USING 0.406 IN (10.3MM) DIAMETER SCREWS, NUTS, AND WASHERS SUPPLIED WITH KIT

PHOTO 3

DRILL TWO (2) 0.406 IN (10.3MM) DIA HOLES USING 07-30113 TARGET AS A TEMPLATE

INSTALL USING 0.406 IN (10.3MM) DIAMETER SCREWS, NUTS, AND WASHERS SUPPLIED WITH KIT

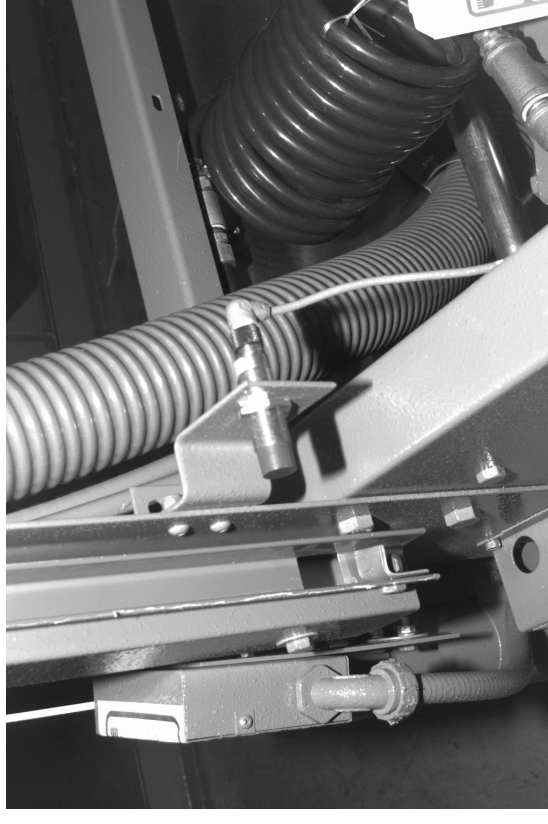
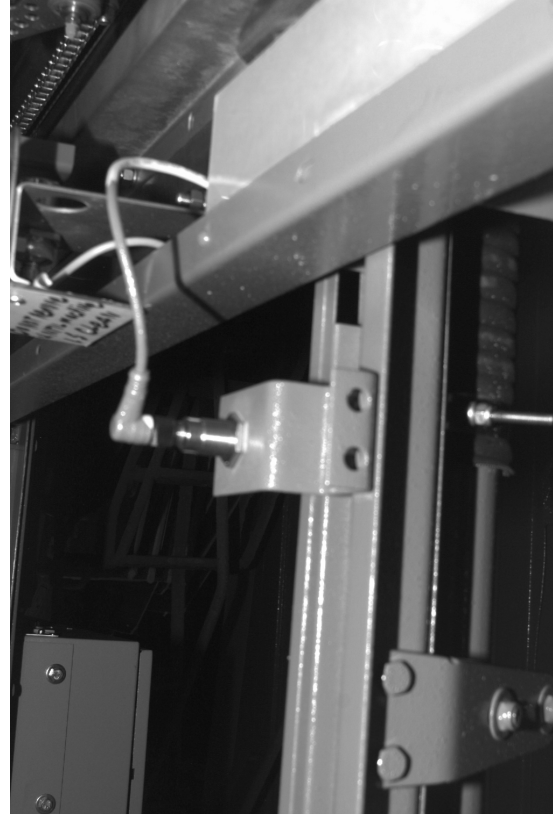


PHOTO 4





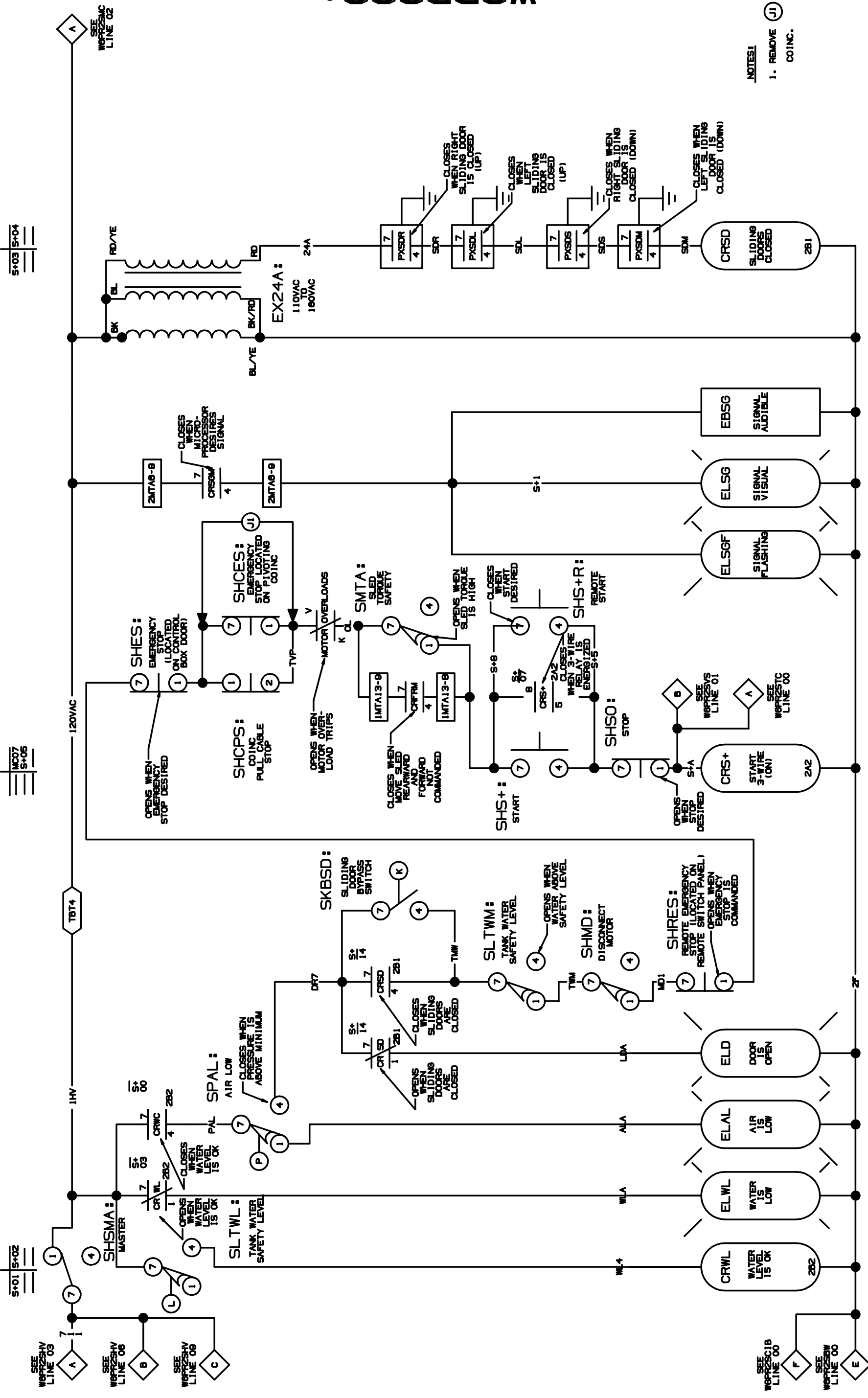




# W6PR2SS+ MICRO 6 SYSTEMS SCHEMATIC: 3-WIRE & SIGNAL PELLERIN MILNOR CORPORATION

**NOTES!**  
1. REMOVE (J1) FOR PRESSES WITH COINC.

MILNOR SYMBOLS  
W6PR2SS+  
9-4503B



W6PR2SS+  
9-4503B

S+03 S+04

M007  
S+05

S+01 S+02

00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17





