

**SR 1000 – SR 1500 DEVICE/OPERATOR  
MAINTENANCE & REPAIR PARTS  
MANUAL**



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# **SR 1000/SR 1500 DEVICE/OPERATOR**

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# ***SPECIFICATIONS***

# **SR 1000/SR 1500 – SPRING RELEASE CELL DOOR & CORRIDOR DEVICE SPECIFICATION**

**DESCRIPTION** - The SR 1000 and SR 1500 is a motorized sliding door device providing electric unlocking with spring assist and built for maximum security.

**APPLICATION** - The SR 1000 is designed for cell door applications. The 1500 is designed for corridor door model applications. The major difference between the two models is the SR 1500 commonly utilizes a release column at the close end of door, while the SR 1000 may be unlocked via a linked master bar system from a mechanical control cabinet.

**FUNCTION OF THE SR 1000 & SR 1500** - The SR 1000 / SR 1500 is deadlocked in a closed position with two point locking at the rear of the door. Remote electronic controls dictate door operation. It is electrically unlocked from the closed and deadlocked position and a spring will open the door approximately four inches. The door may then be pushed to a fully open and deadlocked position. To close, the door is electrically unlocked and a spring will open the door approximately four inches. The door may then be pushed to a fully closed and deadlocked position.

Emergency function of the SR 1000 / SR 1500 is that the door may be mechanically unlocked by either mogul or paracentric key. The door may be pulled open during a power failure and the motor back-driven, which prevents the door from being free-wheeling.

## **FEATURES**

- 120 VAC, 230 VAC or 24 VDC Gear Motor
- Non-Handed Mechanism Assembly Eliminates Right and Left Handed Repair Parts
- Easily Removable Mechanism Plate Assembly is Designed for New Construction and Retro-fit Applications
- Door is Deadlocked above Two Concealed Locations and the Mechanism cannot be Manipulated to an Unlocked Condition by Forcing, Lifting or Prying the Lock Bar in either the Locked Closed or Locked Open Position
- Full 1" Lift of Vertical Lock Rod Provides Highest Degree of Lock Engagement at Door
- Unique Pivoting Lift of Lockhead from Carriage Reduces Bushing Wear on Slide Assembly
- Provides Deadlock Monitoring, and Door Indication Status
- Provisions on PC Board for Multi-Plex Control
- 9/16" Diameter Cold Drawn CRS 1045 High Carbon Steel Track, Welded to Housing
- 7 Gauge Steel Housing with 10 Gauge Top and Hinged Cover

- Door Carriage- 3/8" Front and Back Steel Bar Construction
- (2) 2¾" Outside Diameter Steel Rollers with Double Shielded Steel Ball Bearings, Attached with ½" Steel Bolts and Lock Nuts
- 1/4" Steel Plate Door Hanger, Door Guide Angle, and Bottom Guide
- Eccentric Bushings at Door Hanger to allow Vertical and Horizontal Door Adjustment
- 7/8" Diameter Hardened Steel Bi-Directional Lock Head Roller
- 3/16" Thick Pivoting Deadlock Lever
- 1 ½" Square Tube Heavy Walled Vertical Lock Column
- 10 Gauge Formed Steel Door Receiver
- Hard Rubber Door Stop to Cushion Door Opening.

## **OPTIONS**

- Electric Key Release at Emergency Release Column
- Mogul Mechanical Key Release at Emergency Release Column
- Emergency Release Column (Standard with Corridor Units) 7 gauge Manual Lock Pilaster with 10 Gauge Removable Cover attached w/ Security Torx Screws
- Paracentric Key Release (Standard with Corridor Units) at Emergency Release Column (Corridor Units)

# ***METHOD OF OPERATION***

## **METHOD OF OPERATION FOR 9100/10100**

The “Connector and Motor Board” is the mounting point for the motor, and the junction point for the motor, deadlock switch, door position switch and field wires. The Device or Operator may be operated by either 120 VAC or 24 VDC.

In the locked closed position, an unlock switch signal from a control switch operates the motor, which raises the lockhead and unlocks the deadlocked vertical lock rod from the bottom lock at the bottom rear of the door. The door is then opened by spring action.

The Motor may be a full cycle operation or a half cycle operation. The full cycle operation allows the motor to cycle 360°, which unlocks the door and allows the motor to return to a locked and deadlocked position once the door is closed. The half cycle operation allows the motor to turn 180° and keeps the unit unlocked until the motor is cycle another 180° to a deadlocked and locked position.

In the locked open position, the motors function identical to the locked closed position.

There is two-point locking at the vertical lock rod and lockhead, and the vertical lock rod is deadlocked in both fully closed and open positions. The deadlock switch in conjunction with the door position switch provides a secure indicator when the door is in the locked closed position.

Depending on control functionality, the 9100 (cell device) is capable of operating independently of each of the other doors, as well as operating in a group function mode.

Optional wire harnessing may be provided for cell conditions, which provides proper wire hook-up to the full run of cell units. Terminations are made through connector plugs at each housing location and common jumpers throughout the full run of doors.

## **COMPONENT DESCRIPTION**

**HOUSING** – The housing is a metal enclosure made from 7 gauge hot rolled sheet for the base and 10 gauge hot rolled for the cover. Its purpose is to secure the electro/mechanical components from outside abuse and to insure continual operation. The housing should always be perpendicular to the vertical lock column and level to provide proper operation.

**MECHANISM ASSEMBLY** – The mechanism assembly (10" x 10 1/2") is the electro/mechanical component that mechanically deadlocks the lock rod in the vertical lock column and prevents tampering of the lock rod. It also provides the support for the motor and switches for electrical operation, as well as the mechanical release bars that provide individual or all door release to open the door in the event of electrical failure or in an emergency situation. The mechanism assembly also provides an attachment place for the electronic motor drive and the logic and connector board for electrical operation and speed variation.

**CONNECTOR & MOTOR BOARD** – The connector and motor board houses the motor and the connector board for the operation of the AC or DC motor and the connectivity of the wires from the monitoring switches, and all the motor that operates the device. The board allows for the plug in of the door position switch, the deadlock switch, the motor and the field plug.

**TRAVELBAR ASSEMBLY** – The Travelbar assembly is essentially a two roller or four roller trolley that securely holds the door in position. The travelbar provides holes to mount the hanger and adjustment eccentrics that provide horizontal and vertical movement to the door at installation for proper alignment.

**VERTICAL LOCK COLUMN** – The vertical lock column houses the locking rod that engages with the notch in the door guide that locks at the bottom of the door. This rod is also connected to the mechanism plate in the housing that lifts the rod and the lockhead out of a locked condition when the motor opens or closes the door, or when the unit is mechanically opened by key.



RECEIVER – The receiver is a metal stop that is engaged by the door in the locked closed position. The receiver slightly wraps around the door edge minimizing any attempt to pry the door open.

RELEASE COLUMN – Release column is an enclosure at the front end of the door that houses the mechanical mechanism or lock, which opens the door in case of an emergency. It has a secured cover, which allows access to the release cable from the mechanism plate.

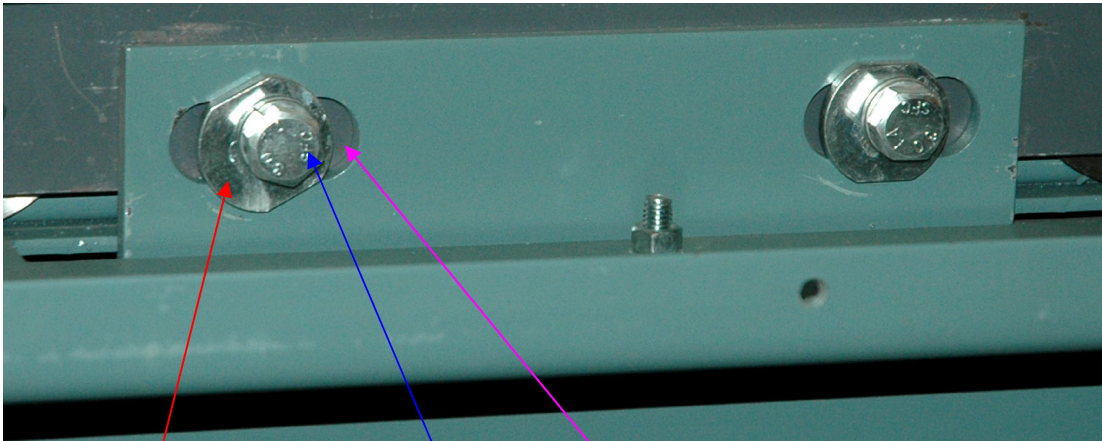
DOOR HANGER & DOOR BAR – The door hanger and the door bar are the pieces that attach to the top of the door to attach the door to the Travelbar assembly. The hanger provides adjustment for the door to properly align it with the door receiver. The door receiver, vertical lock column and door should always be parallel to provide proper alignment and locking.

DOOR GUIDE AND DOOR GUIDE ANGLE – The door guide and door guide angle provides a secure guide for the door during opening and closing. The door guide angle provides the notching at both ends, which allows locking of the vertical lock rod inside the bottom lock at the bottom of the vertical lock column.

***STANDARD ADJUSTMENTS  
&  
MAINTENANCE***

## DOOR ADJUSTMENT

By being offset from center, the two **eccentrics** may be turned independently to plumb the door up, down and side-to-side. This provides the means to set the door parallel to the vertical lock column and allow proper locking of the vertical lock rod in the door guide angle at the bottom of the door. When the **eccentrics** and **door hanger bolts** are loose, the door can be tapped back and forth horizontally for adjustment on the **door hanger slots**.

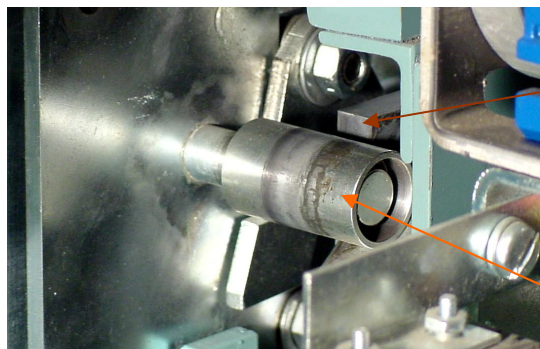


(2) Eccentric

(2) Door Hanger Bolt

(2) Door Hanger Slot

For Correct adjustment between the door and lock head, the door must be held solid against the door receiver and there should be approximately 1/8" gap between the **lock head** and the travel bar assembly. This eliminates binding between the lock head and the **travel bar assembly** as the lock head lifts in the unlocking operation as the door opens or closes. Once in position, the eccentrics can then be held and the **door hanger bolts** can be tightened.



Travelbar Assy  
End

Lock Head

**Appr. 1/8" Between Lock Head & Travelbar Assy  
with Door Against Receiver**

***LUBRICATION &  
MAINTENANCE GUIDE***

# LUBRICATION

## SUPER LUBE

- 1) LOCKHEAD SLOTTED GUIDES
- 2) RACK
- 3) TRACK
- 4) SLIDE BAR SLOTS
- 5) BOTTOM LOCK
- 6) ALL PIVOT POINTS

### **NOTE:**

- 1) DOOR ROLLER BEARINGS ARE PERMENTLY SEALED.
- 2) LOCKHEAD ROLLERS HAVE OILLITE INSERTS.
- 3) LIGHTLY LUBRICATE WITH HIGH GRADE OIL.
- 4) APPLY LUBRICANT SPARINGLY

# MAINTENANCE

## **Maintenance Involves:**

- Lubrication of All Necessary Listed Components
- Checking Adjustments on Switches and Door Alignment
- Checking for and Replacement of Worn or Broken Parts

## **Maintenance Should be Performed:**

- Once a Year on Cell Doors
- Twice a Year on Corridor Doors or every 50,000 Cycles
- Every Three Months or 50,000 Cycles on High Usage Doors Records Should be Kept on all Maintenance Procedures on a Per Door Basis to Insure Compliance with Warranty Requirements.

## RECOMMENDED LUBRICANT



**Super Lube®** is a patented, multi-purpose synthetic lubricant, containing SYNCOLON® (PTFE) particles held in suspension. Super Lube® lasts longer and outperforms conventional petroleum-based greases. Super Lube® Grease is an exceptionally pure lubricant, because it is synthetic. This gives Super Lube® very stable and predictable chemical properties.

Super Lube® Grease with SYNCOLON® (PTFE) contains Polytetrafluoroethylene (PTFE) which is the most slippery surface (lowest coefficient of friction) known to man. The SYNCOLON® (PTFE) particles in Super Lube® fill surface irregularities of mating parts and are compacted to form a smooth, lubricated surface.

SYNCOLON® (PTFE) provides improved anti-wear properties, is waterproof, not washed away by acids or alkalis, and resists temperatures to 750°F. The SYNCOLON® (PTFE) particles in Super Lube's unique patented formula are held in constant suspension ensuring they will always be evenly applied to the lubricated surface.

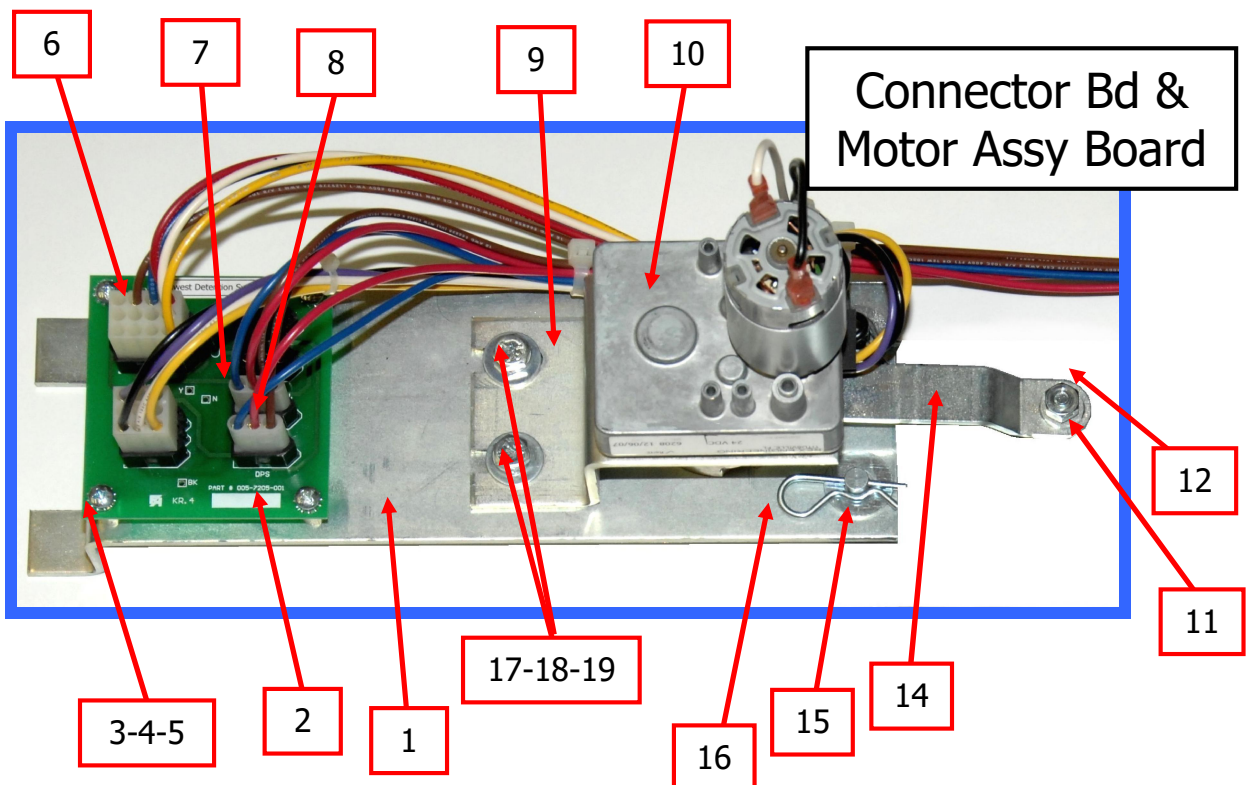
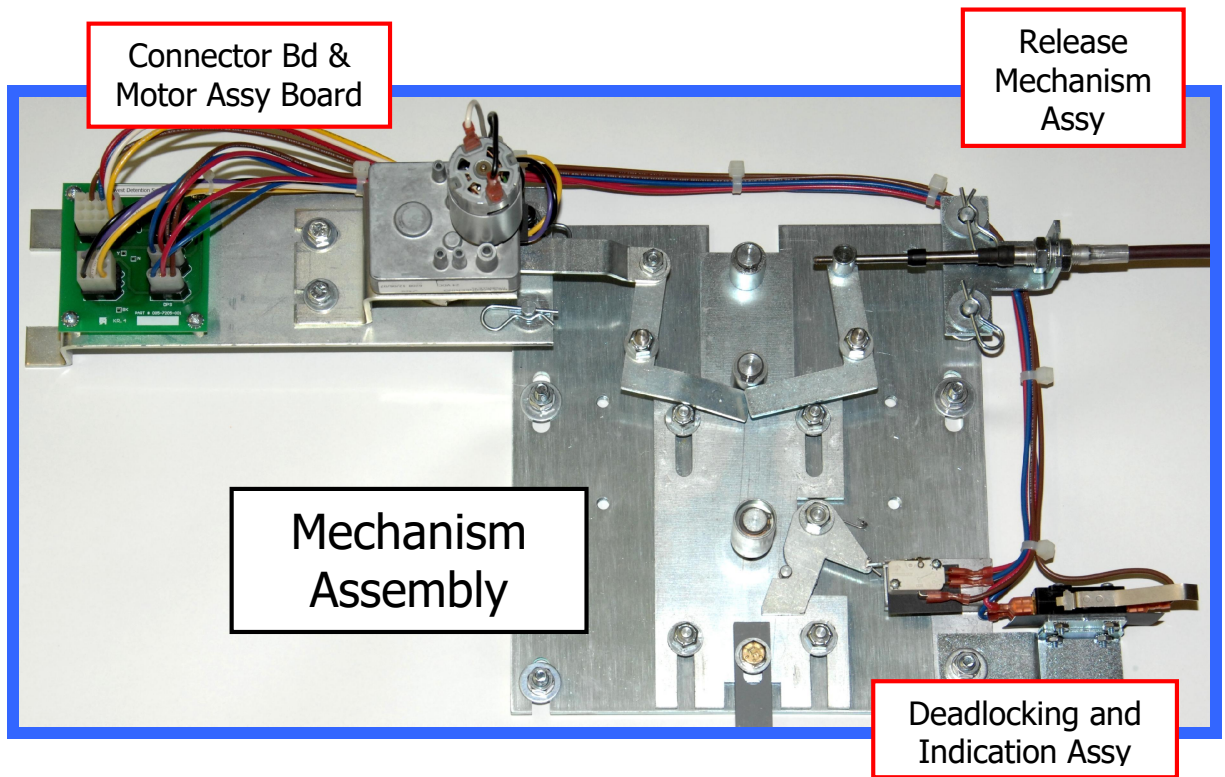
Super Lube® Grease is also available in a Silicone formulation.

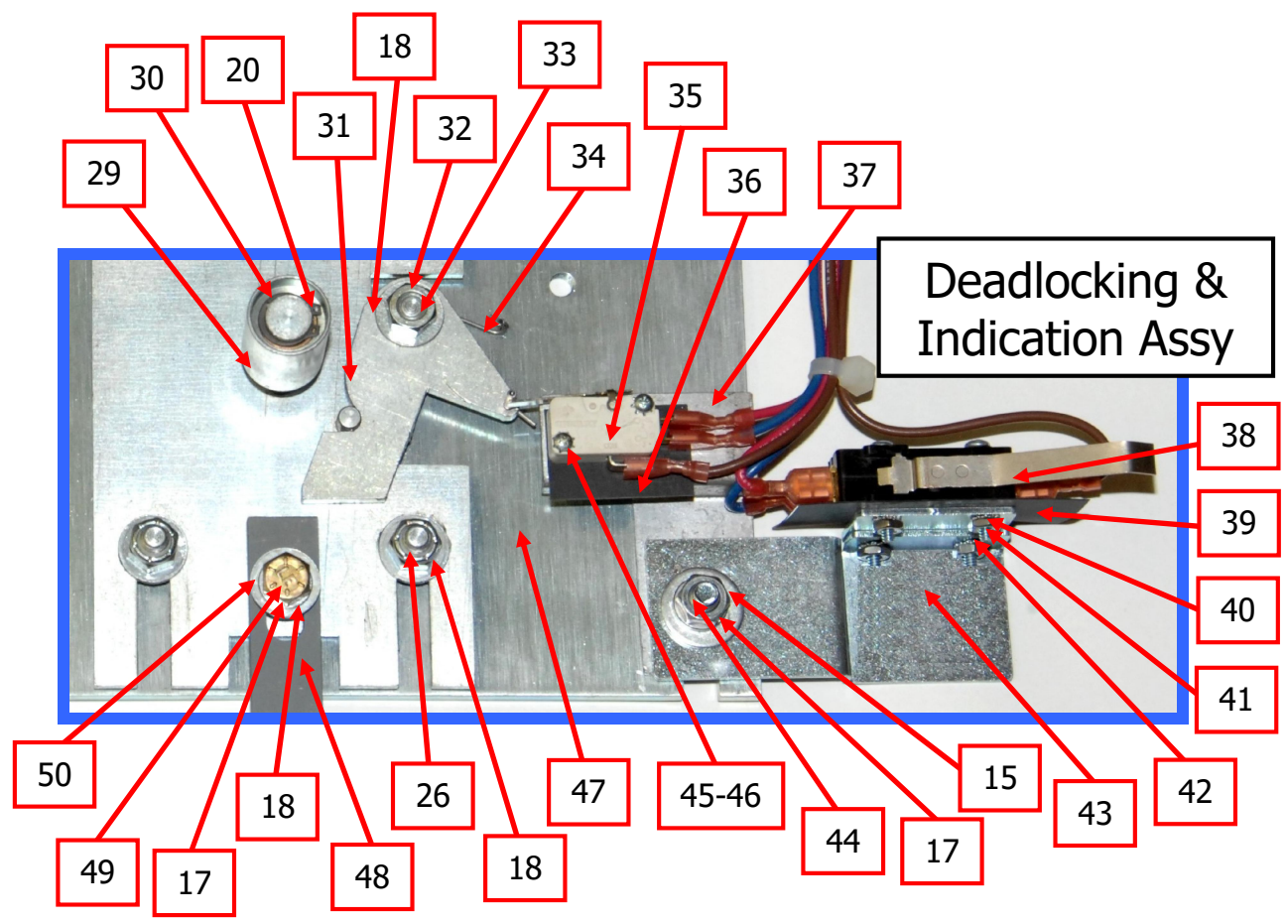
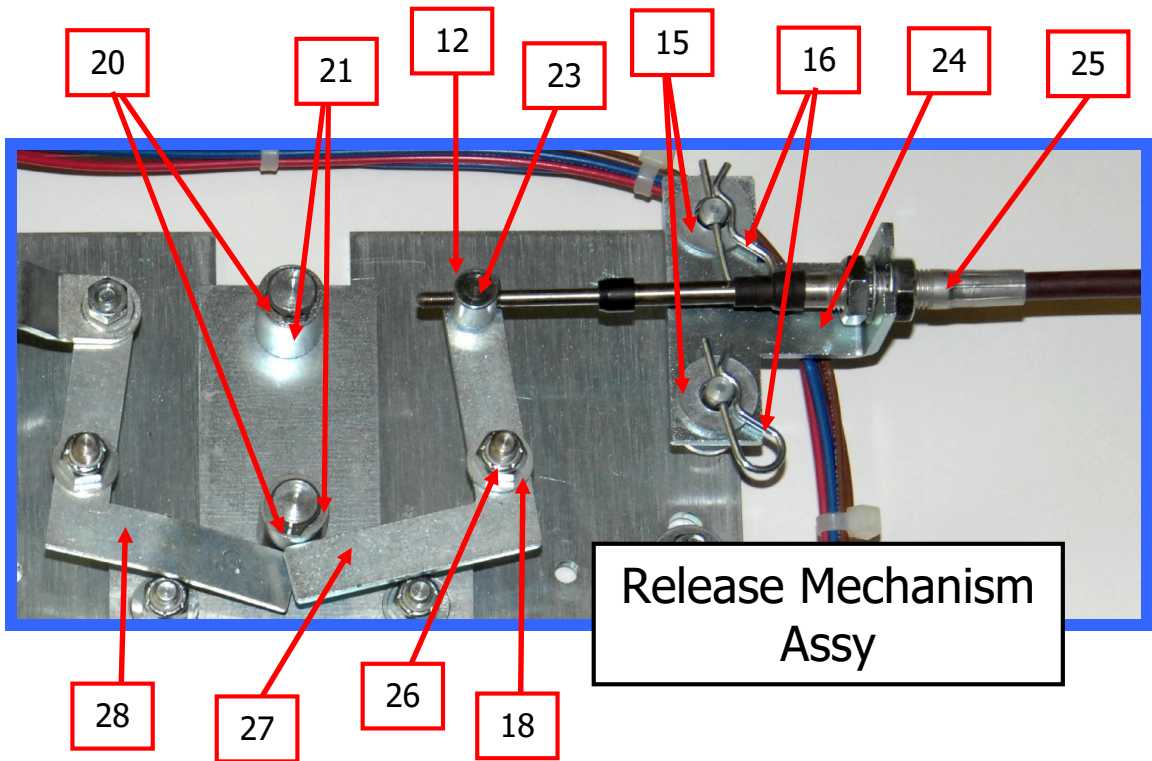


# ***REPAIR PARTS***



# MECHANISM ASSEMBLY - PARTS LISTING





## PARTS LISTING

ITEM #	PART #	QTY	DESCRIPTION
1	1000-FAM0002-0007	1	MOTOR & CONNECTOR BOARD
2	ELEC-ELA0001-0001	1	CONNECTOR BOARD
3	MECH-SPC0002-0038	4	STANDOFF (NOT SHOWN)
4	FAST-PHPZ006-0023	4	6-32 X ¾ PHMS
5	FAST-WETZ001-0006	4	#6 STAR WASHER
6	1000-ELA0002-0001	1	FIELD PLUG
7	5000-ELA0004-0001	1	DEADLOCK SWITCH HARNESS
8	1000-ELA0001-0001	1	DP SWITCH CONNECTOR HARNESS
9	1000-FAM0001-0007	1	MOTOR BRACKET
10	1000-ELA0005-0001	1	MOTOR HARNESS ASSY – FULL CYCLE
10	1000-ELA0003-0001	1	MOTOR HARNESS ASSY – HALF CYCLE
11	1000-MAC0006-0010	1	LINKAGE PIN
12	FAST-HRPZ041-0027	2	HAIRPIN – MOTOR & CABLE CONNECTOR
14	1000-FAB0002-0007	1	MOTOR LINKAGE
15	FAST-WFLZ001-0016	5	5/16 FLAT WASHER
16	FAST-WHRPZ091-0037	4	HAIRPIN - MASTERBAR
17	FAST-WFLZ001-0015	3	¼ FLAT WASHER
18	FAST-WLOZ001-0015	4	¼ LOCK WASHER
19	FAST-HHCZ012-0023	2	¼-20 X ¾ HHCS
20	FAST-SNEP0001-0019	2	½ SNAP RING
21	5000-MAC0012-0007	2	TOP & MIDDLE ROLLER
23	1000-MAC0011-0007	1	CABLE CONNECTOR
24	5000-FAB0002-0007	1	MASTERBAR CABLE BRACKET
25	MECH-CBL0001- ****	1	30 SERIES CABLE - *LENGTH IN INCHES
26	FAST-NUNZ001-0014	2	5/16 NYLOCK NUT
27	5000-LAS0004-0007	1	RELEASE LEVER
28	1000-LAB0001-0007	1	MECHANISM RELEASE LEVER - BENT
29	5000-MAC0006-0007	1	LOCKHEAD ROLLER
30	MECH-BRG0002-0019	1	OILITE BEARING – LOCKHEAD (NOT SHOWN)
31	5000-MAC0003-0007	1	DEADLOCK SPACER (NOT SHOWN)
32	FAST-NUCZ001-0016	1	5/16 CENTERLOCK NUT
33	5000-SPR001-0010	1	DEADLOCK SPRING
34	5000-LAS002-0007	1	DEADLOCK LEVER
35	5000-SUB0008-0001	1	DEADLOCK SWITCH ASSY W/ HARNESS
36	ELEC-INS0001-0001	1	DEADLOCK INSULATOR
37	5000-FAB0001-0007	1	DEADLOCK SWITCH BRKT
38	1000-SUB0007-0001	1	DOOR POSITION SWITCH ASSY W/ HARNESS
39	ELEC-INS0002-0001	1	DOOR POSITION SW INSULATOR
40	1000-ELA0001-0001	2	D00R POSITION SW & BRACKET
41	FAST-WETZ001-0006	2	#6 STAR WASHER
42	FAST-NUSZ01-0006	2	6-32 NUT
43	FAST-PHPZ006-0027	1	6-32 X 1 PHMS
44	FAST-HHCZ014-0023	4	5/16-18 X ¾ HHCS
45	FAST-PHPZ004-0021	2	4-40 X 5/8 PHMS
46	FAST-WETZ001-0004	2	#4 STAR WASHER
47	5000-FAM0001-0007	1	MECHANISM PLATE
48	5000-WEL0001-0007	1	VERTICAL LOCK ROD ASSY
49	FAST-HHCZ008-0027	1	5/16-18 X 1 HHCS GRADE 8
50	5000-MAC0010-0001	1	VLC COLLAR (NOT SHOWN)

# **ELECTRICAL COMPONENTS**

## ***PRODUCT WARRANTY***

CM Detention Products, llc, (CMD) states that our products are manufactured to the highest standards of quality and workmanship and that the operation and function of these products are warranted from defect in their original manufacture for a period of:

- **2 Years** - 400 Series Dead Latch – Detention Hardware
- **3 Years** – 120 – 51 – 800 Electro/Mechanical Locks  
1500 – 2500 - 3500 - Operator – 4000 Retro Corridor Device
- **5 Years** – 1000/2000/3000 Retro Cell Device – 4000 Retro Cell Device

from date of delivery. Products and/or components supplied by and/or used by in the manufacture of CMD, carry the warranty provided by that specific product or component manufacturer.

CMD does not warranty against products subjected to abusive usage or products shown to be altered, modified or adjusted without prior knowledge consent and authorization from CMD.

At our option, CMD will repair or replace only proven defective product, provided the customer has properly stored, installed, adjusted, maintained and operated the product in accordance with IDS requirements and recommendations.

CMD reserves the right to verify any and all claims of defect through direct inspection of product returned with shipment prepaid to the factory (Shorewood). Final judgment as to any warranty claim is the exclusive right of CM Detention Products, llc. and supersedes any and all other warranties.

## ***FIELD REPAIR WARRANTY POLICY***

Any warranty issue involving IDS product, whether by purchaser, installer, end user or any other party, requires full acknowledgement, technical assistance and written authorization from IDS prior to any work performed.

Work performed without prior written authorization will not be covered by warranty, will not be subject to back charge claim or reimbursement and will void any outstanding warranty to that specific product.

This policy provides the customer or end user a product fully warranted by IDS and allows IDS the opportunity to insure that any required modification to the product, or any part thereof, is appropriate to the integrity of that product and that the specific work is justified.

## ***RETURN GOODS POLICY***

Customers returning products for credit must contact Customer Service for a Return Goods Authorization Number (RGA#). A form will be sent to the Customer, which must be filled out and include specific quantities being returned. This form must accompany the returned products to the factory, prepaid FOB Shorewood.

A full inspection of the product and verification of the quantity listed on the form will be performed upon arrival to the factory. The inspection will determine the condition of the product and the appropriate percentage of credit. Prior to applying any credit, Customer Service will contact the Customer as to the specific amount. All returned products are subject to a minimum restocking charge of 15%.