

**Stanley Access Technologies**  
**Quick-Reference Guide**



**Solenoid Lock**  
**Installation Instructions**  
**Quick-Reference Guide**  
**203820**  
**Rev. D, 5/2/06**

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**Quick-Reference Guide**

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## 1. PURPOSE

### 1.1 Discussion

This manual provides removal and installation instructions for the Stanley solenoid lock assembly (Figure 1). The manual also provides instructions for replacing the following solenoid lock assembly components:

- The solenoid
- Switch S1, S2, and S3
- The latch, pawl, or cam

This manual provides information primarily for MC521 wiring. For additional information refer to the following manuals:

- Stanley Access Technologies Manual No. 204003, "MC521 Controller Installation and Operation Manual"
- Stanley Access Technologies Manual No. 203832, "Access Control Console Operation/Installation Manual"
- Stanley Access Technologies Manual No. 203973, "Double Diamond Sliding Door Installation Instructions Quick-Reference Guide"
- Stanley Access Technologies Manual No. 203913, "IS10000 Sliding Door Installation Instructions Quick-Reference Guide"

For solenoid locks (only MC521 compatible) replacement parts, refer to Attachment 1.

The solenoid lock assembly is an optional electrical lock installed on Dura-Glide door packages. The lock is available in left or right handing. The handing of the lock *cannot* be changed in the field.

Lock switch S3 is used for closed position status. Lock switches S1 and/or S2 are used for Double Diamond telescopic sliding doors or when the optional closed and locked status kit (part number 313948) is added. The closed and locked status is standard with the Remote Access Control. A lock strike kit (part number 313986) is required on Dura-Glide 5200/5300 sliding doors for retrofit.

Solenoid locks operate in a "fail safe" or "fail secure" mode. In the "fail safe" mode, the door will unlock upon loss of electrical power to the door. In the "fail secure" mode, the door will lock upon loss of electrical power to the door.

The MC521 solenoid lock retrofit kits can be obtained using the following part numbers:

| Part Number | Handing    | Mode        | Control Box |
|-------------|------------|-------------|-------------|
| 313985-1    | Right Hand | Fail Safe   | MC521       |
| 313985-2    | Left Hand  | Fail Safe   | MC521       |
| 313985-3    | Right Hand | Fail Secure | MC521       |
| 313985-4    | Left Hand  | Fail Secure | MC521       |

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The solenoid lock assembly is wired so that when the door "Enter" switch is set to the "Yes" or "Automatic" position the lock remains continuously unlocked. In this case both the inside and outside sensors will activate the door.

The solenoid lock assembly requires no adjustments. Lubrication of the assembly is described in Section 3.2.

If the lock is added to an existing door and security is required, Access Control (panic hardware) must be installed to make door fully secure.

## 1.2 **Applicability**

The instructions in this manual apply to solenoid lock assemblies installed on the following Stanley Dura-Glide door packages:

- Dura-Glide 2000-, 3000-, 5200- and 5300-series sliding doors
- Dura-Guard 2000- and 3000-series sliding doors
- Dura-Storm 3000-series sliding doors
- Double Diamond sliding doors
- IS10000 sliding doors

## 2. PREREQUISITES

2.1 Protective barrier (caution/warning tape) has been set up to prevent unauthorized access to work area.

2.2 The packing list has been reviewed, and all required parts are included.

2.3 The following reference manuals have been obtained as applicable:

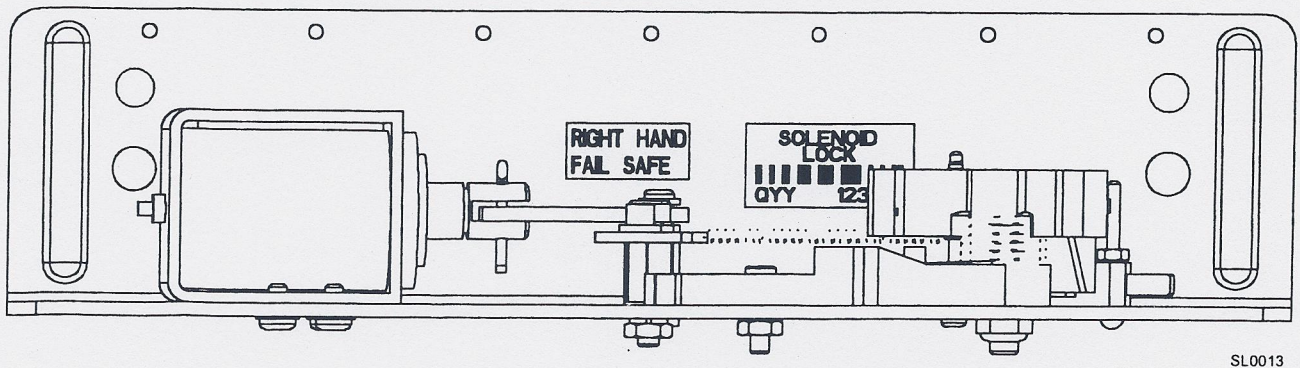
- Stanley Access Technologies Manual No. 204003, "MC521 Controller Installation and Operation Manual"
- Stanley Access Technologies Manual No. 203832, "Access Control Console Operation/Installation Manual"
- Stanley Access Technologies Manual No. 203973, "Double Diamond Sliding Door Installation Instructions Quick-Reference Guide"
- Stanley Access Technologies Manual No. 203913, "IS10000 Sliding Door Installation Instructions Quick-Reference Guide"

### 3. INSTRUCTIONS

#### 3.1 Removing the Solenoid Lock Assembly

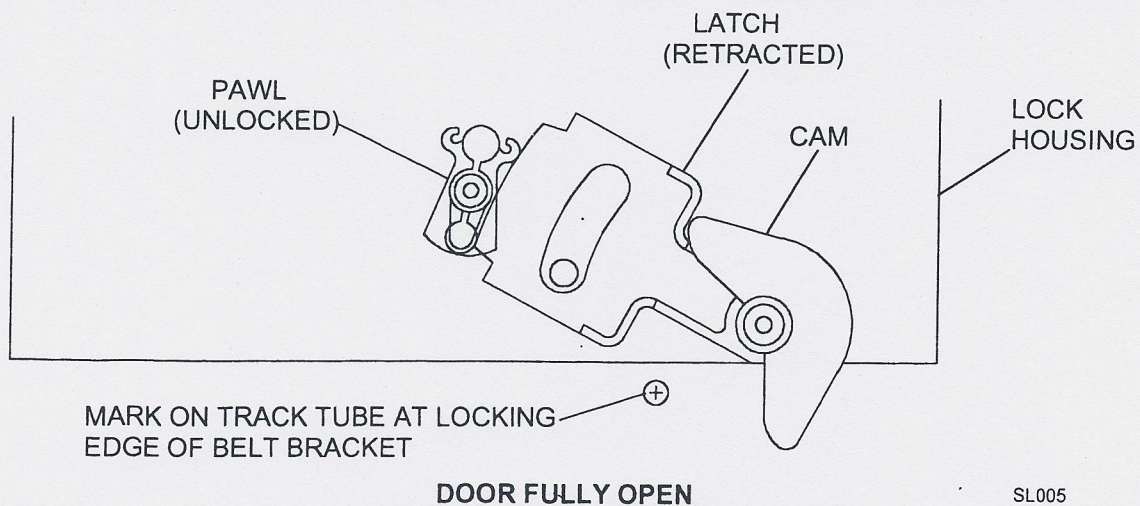
- 3.1.1 DE-ENERGIZE electrical power to the door package.
- 3.1.2 Manually SLIDE the door(s) to the open position. (If fully closed, it will be difficult for the technician to get to the lock. See Figure 1.)

**Figure 1. Removing the Solenoid Lock Assembly**



- 3.1.3 Refer to Figure 2, and MARK the track tube at the locking edge of the belt bracket.

**Figure 2. Marking the Track Tube Prior to Removing the Solenoid Lock Assembly**



- 3.1.4 REMOVE the fasteners securing the lock to the header, and REMOVE the lock assembly and harness.

### 3.2 Installing the Solenoid Lock Assembly

3.2.1 Refer to Figure 2, and PERFORM the following:

- POSITION the lock assembly in the header at the position shown.
- ENSURE the lock assembly is aligned with the track tube mark from step 3.1.5.

3.2.2 INSTALL, but do not tighten, the fasteners securing the lock assembly to the header.

#### NOTE

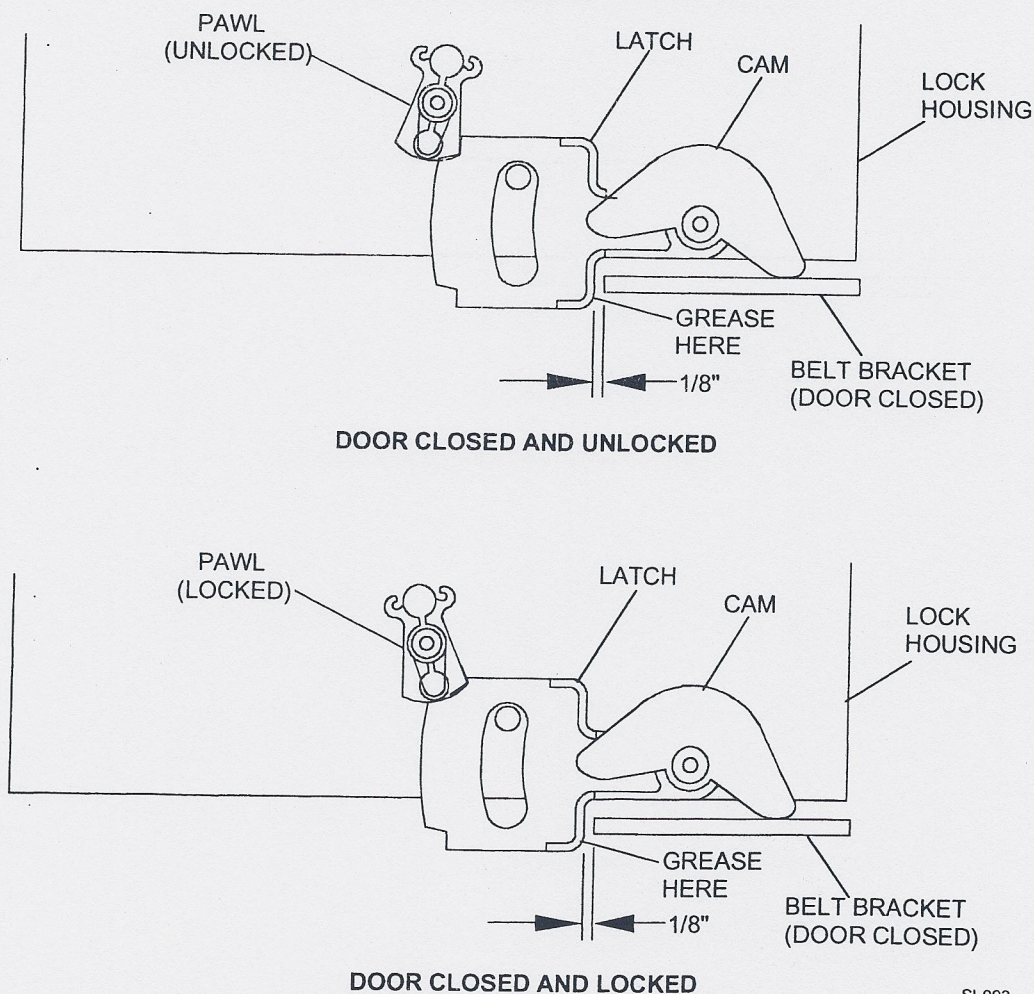
If the latch does not retract into the position shown in Figure 1, the cam may have been manually rotated and its motion restricted by the switch rollers S2 and S3. Using a small screwdriver or similar tool, carefully press the two switch rollers to release the cam.

3.2.3 Manually RELEASE (UNLOCK) the pawl such that the latch retracts into the lock assembly housing.

3.2.4 Manually SLIDE the door(s) to the fully closed position.

3.2.5 Refer to Figure 3, and MOVE the lock assembly to the position shown.

Figure 3. Installing the Solenoid Lock



SL003

- 3.2.6 With the lock approximately  $\frac{1}{8}$ " from the belt bracket, **TIGHTEN** the fasteners securing the lock assembly to the header.
- 3.2.7 **APPLY** a small amount of lubriplate grease or equivalent to the locking edge of the belt bracket and the corresponding latch surface.
- 3.2.8 Refer to Attachments 2 through 7 as applicable, and **CONNECT** solenoid lock assembly and applicable accessory component electrical wiring as required.
- 3.2.9 **ENSURE** all wiring is clear of the lock mechanism, the rear end of the solenoid plunger, and the belt and belt brackets.
- 3.2.10 **VERIFY** proper operation of the solenoid lock assembly as follows:
  - a. **ENERGIZE** electrical power to the door package.
  - b. **CONFIGURE** MC521 lock type to Fail Safe or Fail Secure as applicable.
  - c. **OPEN** and **CLOSE** the door several times, and **ENSURE** the following:
    - The solenoid lock functions properly.
    - Electrical wiring does not interfere with the operation of the lock.

### 3.3 Replacing the Solenoid

- 3.3.1 Refer to Section 1.1, and **REMOVE** the solenoid lock assembly from the header.
- 3.3.2 Refer to Attachment 1, and **NOTE** the location of the solenoid mounting holes.
- 3.3.3 **REMOVE** the four screws and lockwashers securing the solenoid to the lock housing.

#### **NOTE**

In most cases it will not be necessary to replace the solenoid plunger.

- 3.3.4 **SLIDE** the solenoid off the plunger, and **ALLOW** the plunger to remain connected to the mechanism.
- 3.3.5 **POSITION** the replacement solenoid onto the plunger.
- 3.3.6 Using the four screws and lockwashers, **FASTEN** the solenoid to the lock.
- 3.3.7 Refer to Section 3.2, and **INSTALL** the solenoid lock assembly into the header.

### 3.4 Replacing Switch S3 (Closed-Position Switch)

- 3.4.1 Refer to Section 1.1, and **REMOVE** the solenoid lock assembly from the header.
- 3.4.2 Refer to Attachment 1, and **NOTE** the following:
  - The orientation of the screws and lockwashers securing switch S3 to the solenoid lock assembly.
  - The electrical wiring to switches S3.
- 3.4.3 **REMOVE** the screws and lockwashers securing switch S3 to the solenoid lock assembly, and **REMOVE** switch S3.
- 3.4.4 **POSITION** replacement switch S3 in the solenoid lock assembly.
- 3.4.5 Using screws and lockwashers, **FASTEN** switch S3 to the solenoid lock assembly, and **ENSURE** the following:
  - For each mounting screw, a lockwasher is installed above the switch and one lockwasher is installed below the housing.

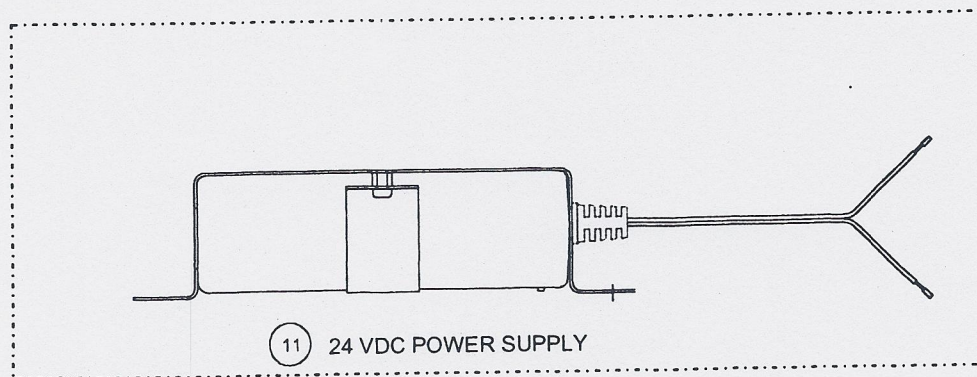
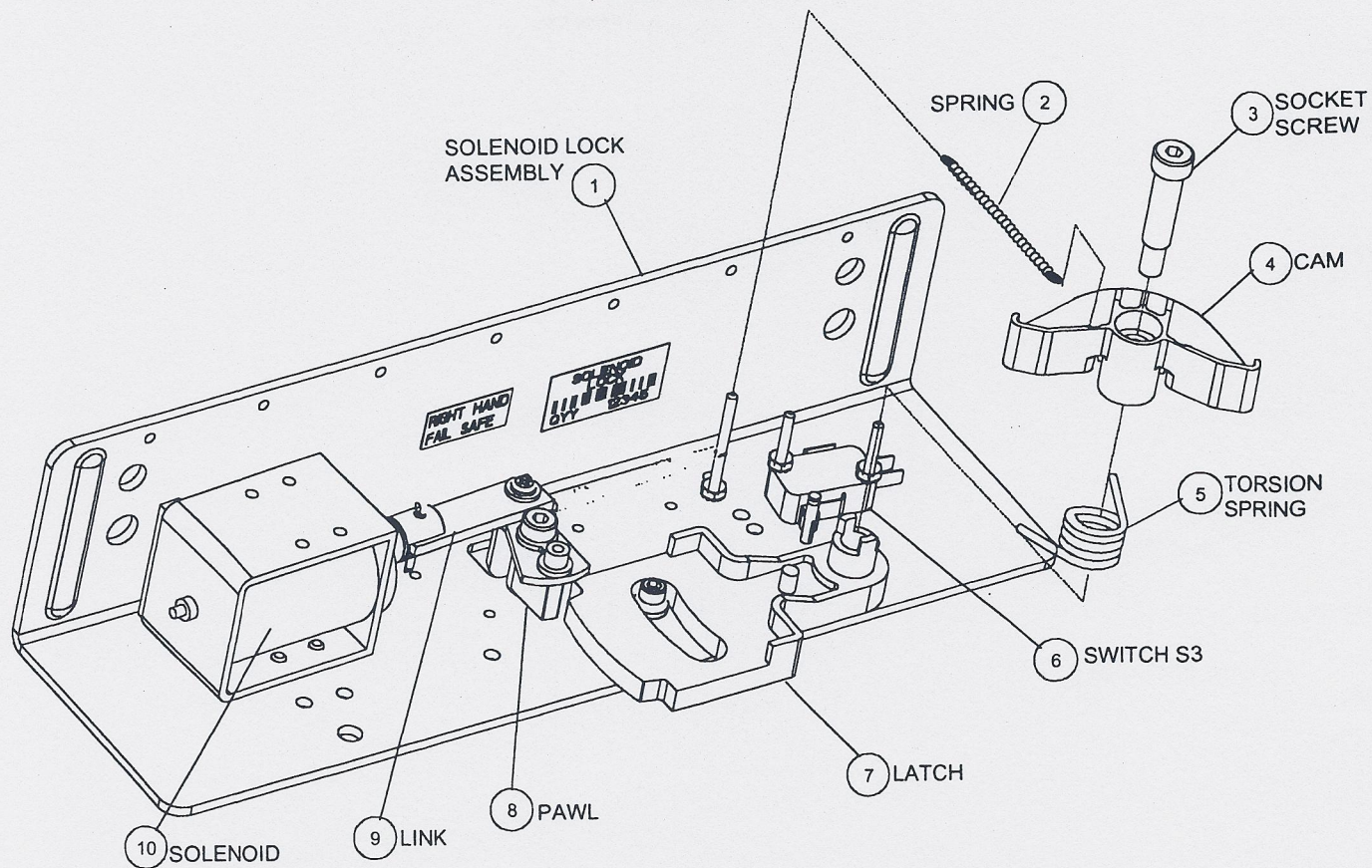
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- 3.4.6 CONNECT electrical wiring to switch S3.
- 3.4.7 Refer to Section 3.2, and INSTALL the solenoid lock assembly into the header.

**3.5 Replacing the Latch, Pawl, or Cam**

- 3.5.1 Refer to Section 1.1, and REMOVE the solenoid lock assembly from the header.
- 3.5.2 Refer to Attachment 1, and REMOVE the shoulder screws, lockwashers, and nut securing the pawl or latch and cam assembly to the housing.
- 3.5.3 REMOVE the pawl or latch and cam assembly from the housing.
- 3.5.4 POSITION the replacement pawl or latch and cam assembly into the housing.
- 3.5.5 THREAD the shoulder screws securing the pawl or latch and cam assembly fully down into the housing.
- 3.5.6 HOLD the shoulder screw in that position, and TIGHTEN the external nut as necessary to ensure that the shoulder screws seat firmly.
- 3.5.7 Refer to Section 3.2, and INSTALL the solenoid lock assembly into the header.

**Attachment 1**  
**Solenoid Lock Assembly Replacement Parts**  
 (Sheet 1 of 2)

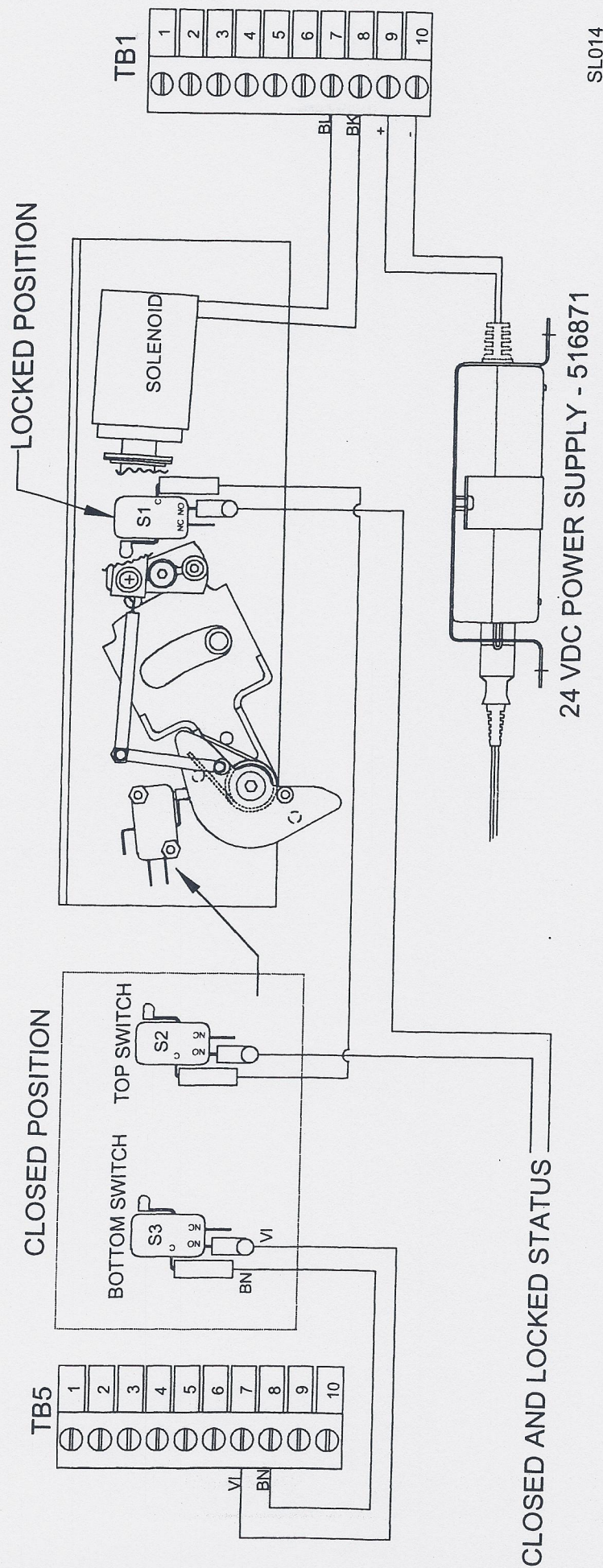


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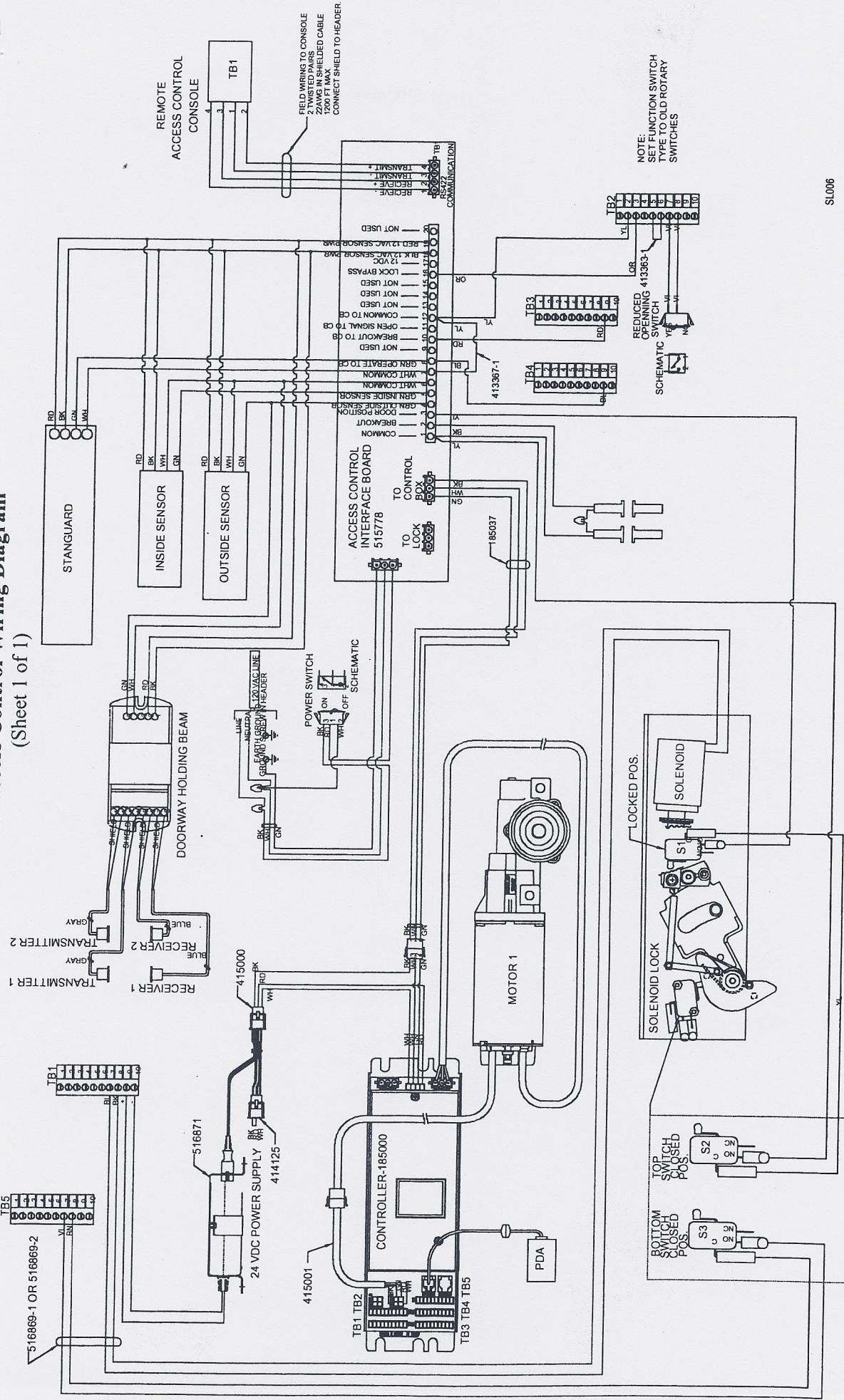
**Attachment 1**  
**Solenoid Lock Assembly Replacement Parts**  
(Sheet 2 of 2)

| Index No. | Part No. | Description                                     | Index No. | Part No. | Description                                          |
|-----------|----------|-------------------------------------------------|-----------|----------|------------------------------------------------------|
| 1         | 185040-1 | Solenoid Lock Assembly, Right Hand, Fail Safe   | 8         | 515694   | Pawl                                                 |
|           | 185040-2 | Solenoid Lock Assembly, Left Hand, Fail Safe    | 9         | 412394   | Link                                                 |
|           | 185040-3 | Solenoid Lock Assembly, Right Hand, Fail Secure | 10        | 515230-2 | Solenoid                                             |
|           | 185040-4 | Solenoid Lock Assembly, Left Hand, Fail Secure  | 11        | 516871   | 24 VDC Supply                                        |
| 2         | 412397-1 | Spring                                          |           | 516869-1 | Harness, Solenoid Lock, MC521, 85"                   |
| 3         | 412401-2 | Socket Screw                                    |           | 516869-2 | Harness, Solenoid Lock, MC521, 142"                  |
| 4         | 515696   | Cam                                             |           | 313984   | Kit—Closed & Locked, Switches, Hardware, and Harness |
| 5         | 412395-R | Torsion Spring, Right Hand                      |           | 313986   | Lock Strike Kit 5200/5300                            |
|           | 412395-L | Torsion Spring, Left Hand                       |           |          |                                                      |
| 6         | 412399   | Switch S3                                       |           |          |                                                      |
| 7         | 515695   | Latch                                           |           |          |                                                      |

# Attachment 3 Solenoid Lock Assembly Wiring, Including Closed and Locked Option (Sheet 1 of 1)

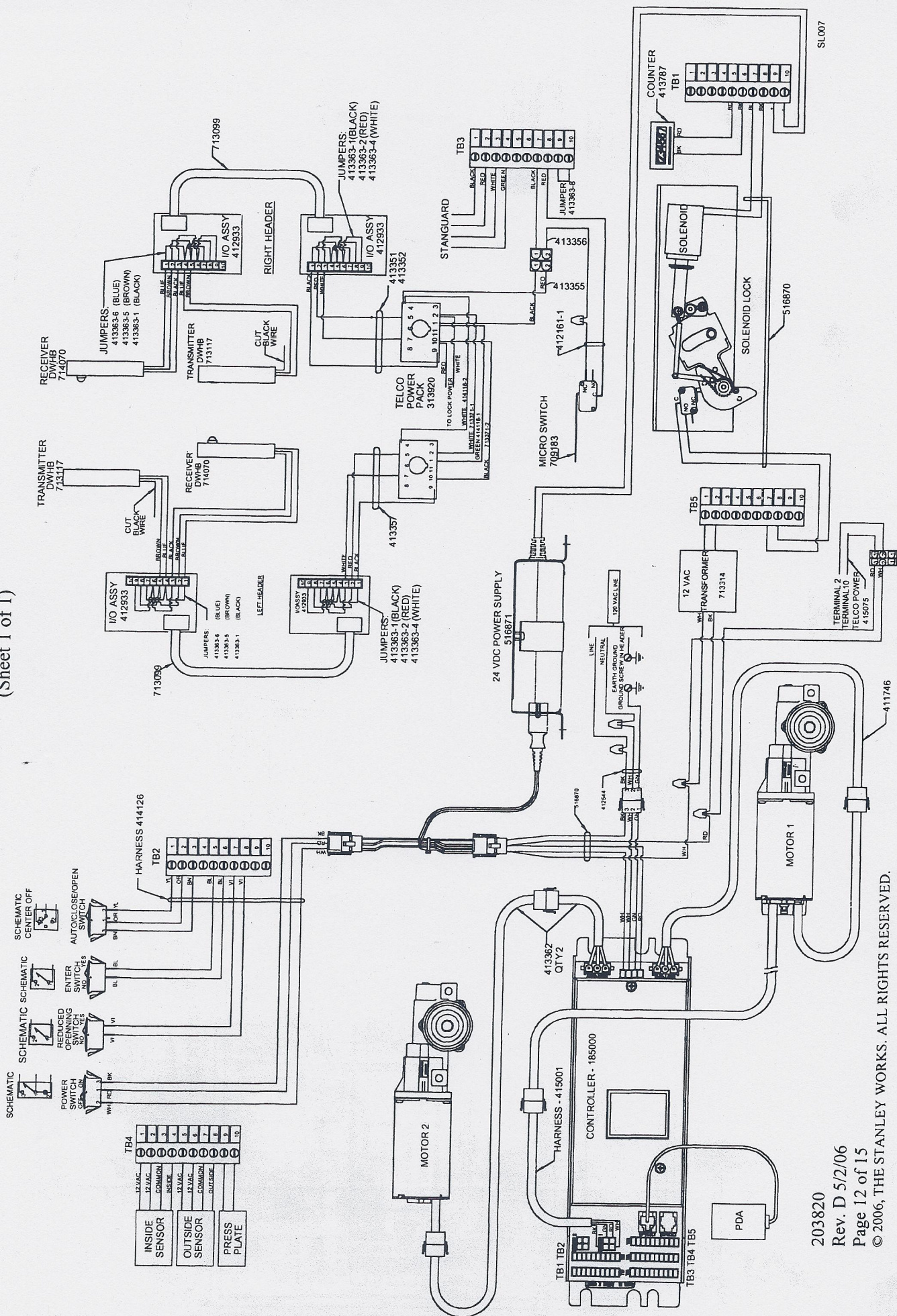


# Attachment 3 Remote Access Control Wiring Diagram (Sheet 1 of 1)

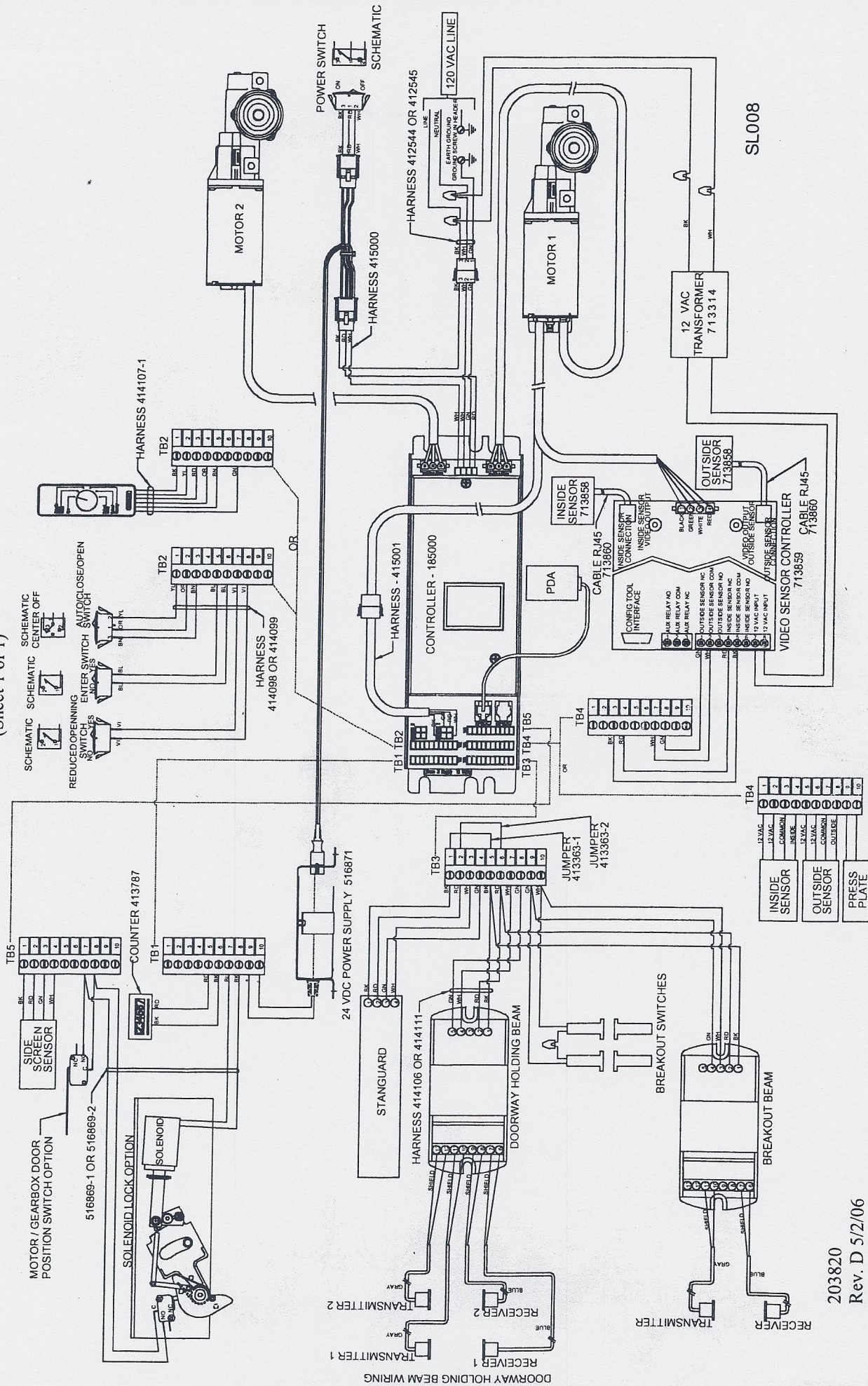


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# Attachment 4 IS10000 Wiring Diagram (Sheet 1 of 1)



## Attachment 5

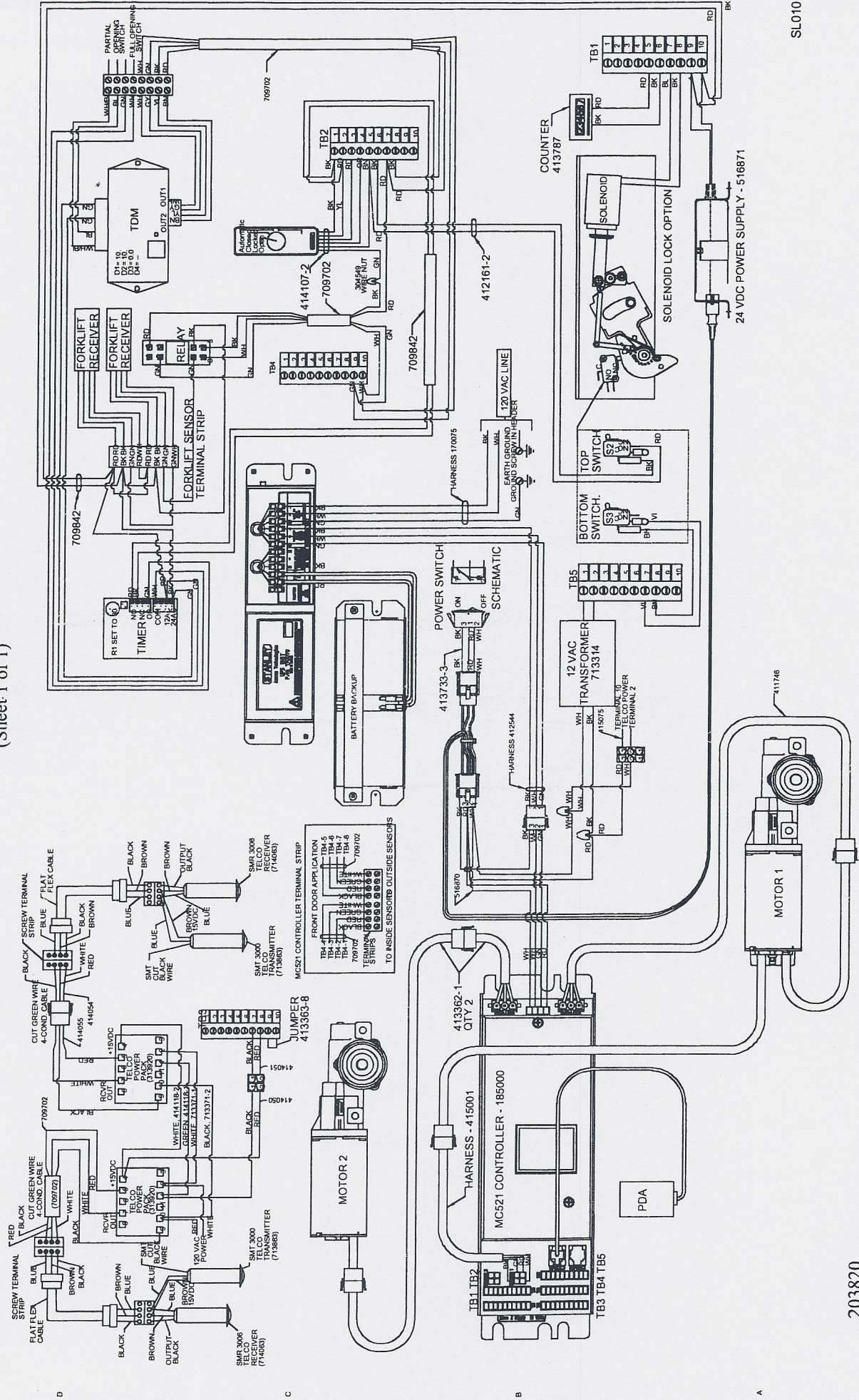




# Attachment 7

## Double Diamond Canada Wiring Diagram

(Sheet 1 of 1)



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