STANLEY

DURA–GLIDE™

AUTOMATIC
SLIDING DOOR SYSTEM

2000 & 3000 SERIES
ELECTRICAL INSTRUCTIONS
AND
TROUBLE SHOOTING GUIDE

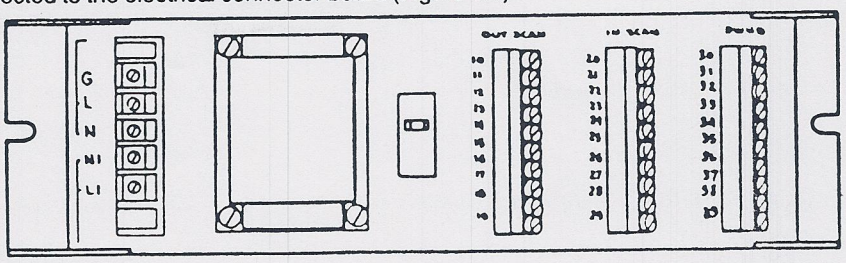
STANLEY MAGIC-DOOR
DIVISION OF THE STANLEY WORKS
Farmington, CT 06032

203592

The header assembly is delivered with the operator, motor/encoder, control box, function switches, and electrical connector board assembled and tested. The Doorway Holding Beam and operate sensors (Stan-Ray, mats, etc.) must be installed and connected to the electrical connector board (Figure 1.1)

FIGURE 1

Electrical Connector Board



LINE POWER CONNECTIONS

1. Requirements: 117 VAC 50/60 Hz to be supplied from either end of the header assembly and spliced to the internal wiring harness.

   NOTE: All electrical wiring must conform to the National Electrical Code requirements.
2. It is recommended that a separate electrical circuit from the main power panel be supplied to the header assembly. Do not connect more than four operators to one circuit.
3. The wires are routed on the bottom of the header extrusion which serves as a wire channel.
4. Connect the power ground, line, and neutral wires to the internal wiring harness (respectively green, black & white wires provided) using wire nuts.

DOORWAY HOLDING BEAM CONNECTION

5. Bring the transmitter and receiver cables to the electrical wiring board and cut and strip to length as required.
6. Combine the red power leads together and also the black power leads. Connect these leads to terminal Numbers 30 & 31 of the doorway holding beam terminal block.

   NOTE: Color polarity does not matter.
7. Connect the white and green leads to terminal Numbers 32 & 33.

   NOTE: Color polarity does not matter.

BREAKOUT SWITCH CONNECTION

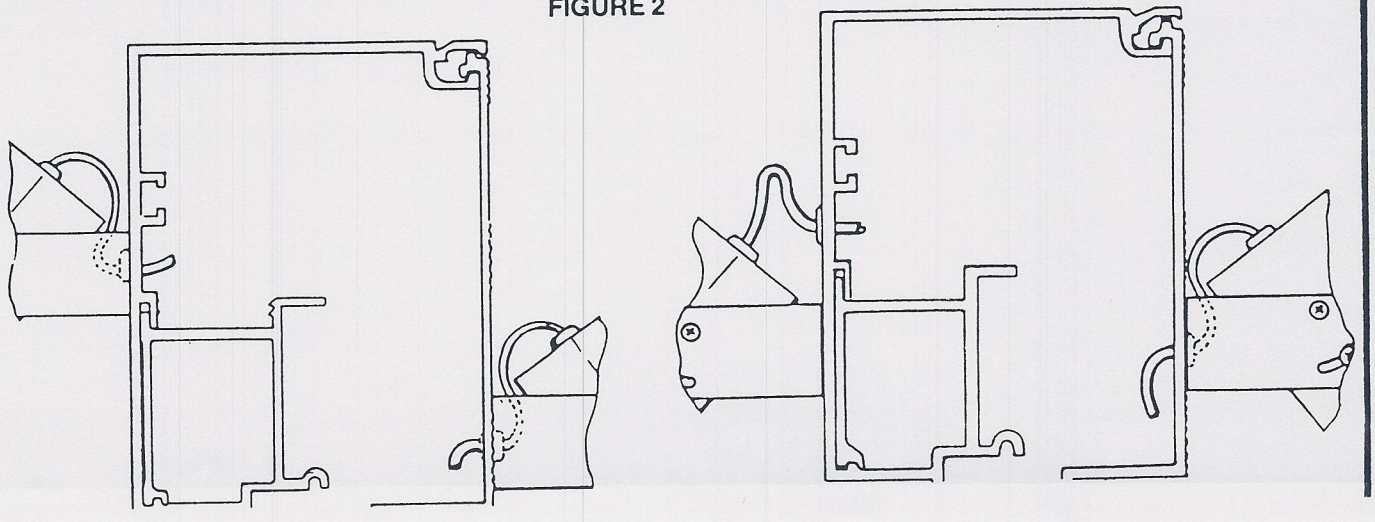
Connect breakout switch leads to terminal numbers 16 & 19.

STAN-RAY™ MOUNTING ON HEADER

Caution must be used locating Stan-Ray on header. (See Fig. 2).

1. Header cover mounting
   a. Mount the Stan-Ray as low as possible to keep electrical cables and mounting hardware away from the operator belt.
   b. Electrical leads thru header should not be any higher than 3" from the bottom edge of the cover.
   c. Route the electrical leads with the function switch harness assembly to the electrical connector board.
2. Header frame mounting
   a. Always mount Stan-Ray high enough to allow breakout panels to pass under unit.
   b. Electrical leads thru header should not be any lower than 4" from bottom edge of header.

FIGURE 2



INSTALLATION INSTRUCTIONS FOR DURA-GLIDE CONTROL BOX (μPROCESSOR)

INSTALLATION

1. Turn power off.
2. Mount control box into header.
3. Connect the four connectors (line, signal, motor, encoder) to the control box.

ADJUSTMENT (REFER TO FIGURE 1)

1. Push door(s) closed. Set all control box speed adjustments fully counter clockwise. Set AUT/CLS/OPN Switch to CLS. For the remainder of the tune-in procedure, use the OPN & CLS positions of this switch. This will avoid interference from other sensors (if used).
2. Turn power on. The 'run' light must stay on at all times.
3. Push door(s) partially open by hand. Notice encoder lights blinking on and off.

CAUTION: If encoder lights are permanently on or off, do not continue. Refer to troubleshooting section of DURA-GLIDE instruction manual.

4. Turn check speed adjustment ⅓ clockwise.
5. Set AUT/CLS/OPN switch to OPN position. Door(s) will open slowly.
6. Set AUT/CLS/OPN switch to CLS position. Door(s) will close slowly. Adjust the check speed as required. If an increase in check size is required, use the following table:

Check Size Switch	Approx. Close Check Size Length (May vary due to door inertia)
0	3″
1	4″
2	5″
3	6″
4	7″
5	8″
6	9″
7	10″
8	11″
9	12″
10 or A	13″
11 or B	14″
12 or C	15″
13 or D	16″
14 or E	17″
15 or F	18″

The open check size zone will be approximately twice the length of the close check length.

7. Operate door(s) by switching alternately to OPN & CLS. Adjust open and close speeds to provide a smooth transition from fast to check speed.
8. Switch momentarily to OPN. Adjust the hold open delay for the desired hold open time by using the table listed below:

Hold Open Delay Switch	Hold Open Time
0	.2 sec or 2 sec *see note
1	.4 sec
2	1 sec
3	2 sec
4	3 sec
5	4 sec
6	5 sec
7	6 sec
8	9 sec
9	12 sec
10 or A	15 sec
11 or B	18 sec
12 or C	21 sec
13 or D	24 sec
14 or E	27 sec
15 or F	30 sec

NOTE: If a second operate signal is received by the control box during a closing cycle, the hold open delay will be 2 seconds and will remain 2 seconds until the door(s) have a chance to close and the control box times out. This feature is known as traffic density, and is operable only in the 'O' hold open position.

9. Set reduced opening (if so equipped) to 'on' and check operation. Adjust opening width as desired using the following information:

For an average weight door:
R.O. setting 'O' is approximately 5". This is the pharmacy opening feature.

Use R.O. settings '6' thru 'A' with the max opening size at 'A'.

For a light weight door:
Use R.O. settings '1' thru '5' with the max opening size at '5'.

For a heavy weight door:
Use R.O. settings 'B' thru 'F' with the max opening at 'F'.

10. Set AUT/CLS/OPN switch to AUT.
    Check operation of sensors and holding beam.
    Check operation of 'enter' switch (if so equipped).

OTHER ADJUSTMENTS

1. Handing switch. The control box has a switch which allows it to be used with either hand operator. See figure 1 for location. If door(s) opens when it should be closing, and closing when it should be opening, set the handing switch to the opposite side.
2. To adjust the force at the edge of the door use the motor current (torque limit) potentiometer, accessible by removing the plastic plug on the front of the control box. Use isolated screwdriver and observe the instructions for compliance with safety codes (UL 325, ANSI-A156.10, etc.).
3. HHO/RO switch. Handicapped opening or reduced opening features.

   Handicapped hold open—provides a 9 second hold open delay when receiving an operate signal from a designated press plate, without affecting the normal delay setting for non-handicapped traffic. This connection is made utilizing the R.O. input.

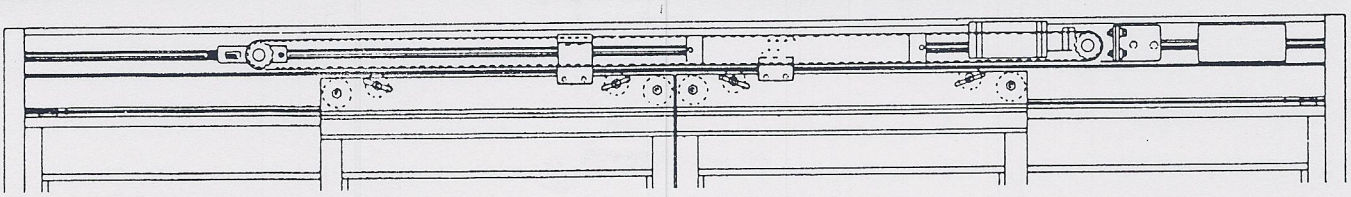
   Thus if the handicapped hold open feature is used, reduced opening cannot be used.

   The bat-handle of the switch must be towards 'HHO' to enable this function, otherwise the reduced opening feature is enabled for use (if so equipped).
4. Normal/2s switch. Normal operation or 2 switch control feature.

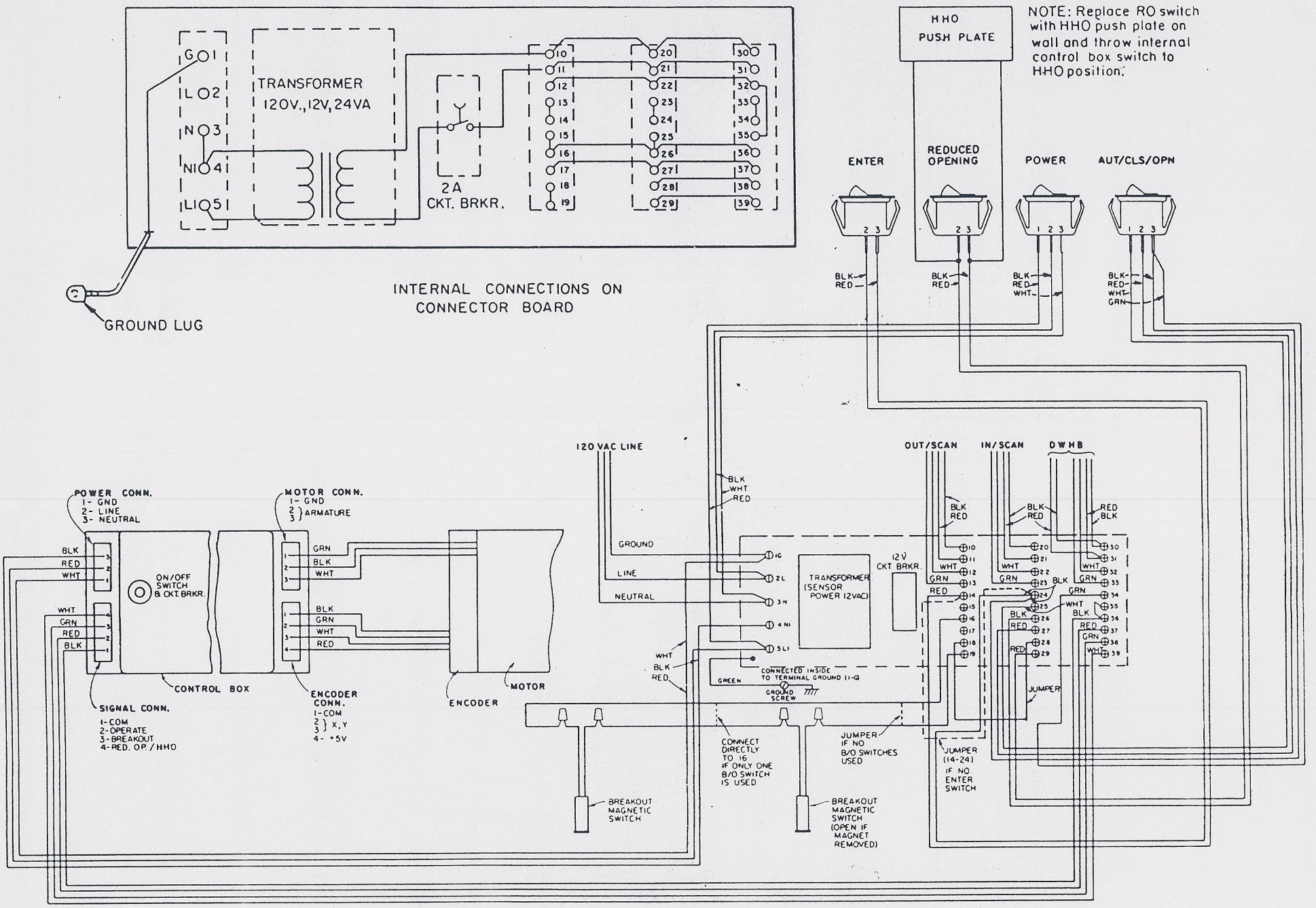
   2-switch control allows the door(s) to open when the first operate signal is received, and closes the door(s) when a second operate signal is received.

   The bat-handle of the switch must be towards 2s to enable this function, otherwise the control box will function in the normal mode.

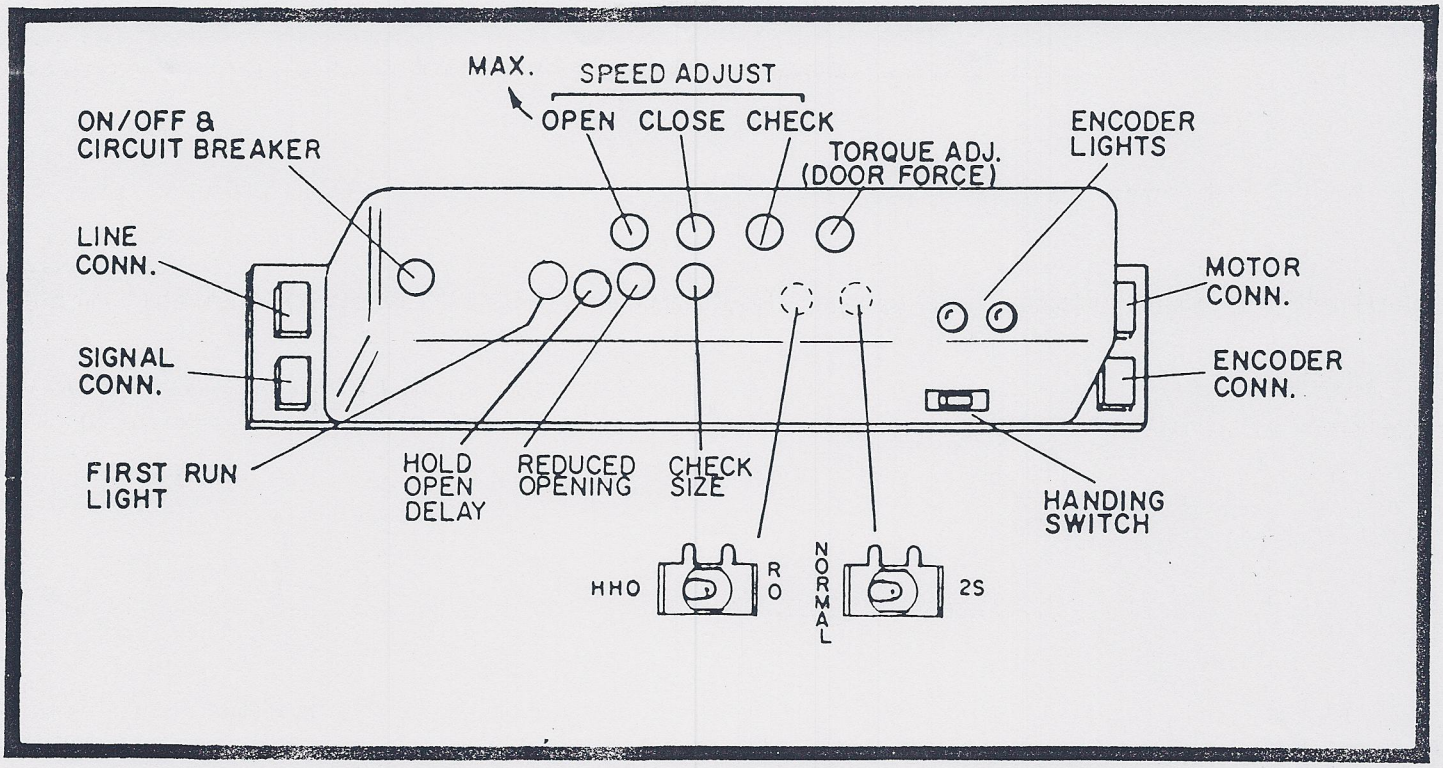
TROUBLESHOOTING HINTS:



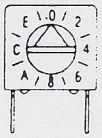
1. **SYMPTOM:** With power on, both FIRST RUN light and encoder lights are off.
   ACTION: Verify that circuit breaker is in "on" position. If symptom persists check the voltage at the power supply connector.
2. **SYMPTOM:** Door will not move at first run (first run light is ON).
   ACTION: Check breakout switch circuit. Check door for excessive drag.
3. **SYMPTOM:** Encoder lights do not blink when door moved by hand. FIRST RUN light is on.
   ACTION: Check encoder cable and connector. Check motor to gearbox coupling.
4. **SYMPTOM:** Door opens when it should be closing and closing when it should be opening.
   ACTION: Set the internal control box handing switch to opposite side.
5. **SYMPTOM:** Door tends to stall, particularly at slow speed.
   ACTION: Test force at the edge of Door; if under 5 lbs. increase torque limit
6. **SYMPTOM:** Reduced opening too wide or too narrow.
   ACTION: Adjust from REDUCED OPENING switch.
7. **SYMPTOM:** Check zones too short for a heavy door; will prevent adjusting door speed as desired.
   ACTION: Increase check zones with the CHECK switch
8. **SYMPTOM:** No operation. FIRST RUN light is blinking ; encoder lights blink when door moved by hand.
   ACTION:
   1. – Check motor and motor cable.
   2. – Check breakout wiring loop.
   3. – Manually move door to a different position. If operation resumes, check motor brushes and brush holders (Replace if needed).
   4. – Turn power off and on again. If door starts operating normally (cycle several operations to confirm that everything is in order) a false overspeed signal may be the cause.
9. **SYMPTOM:** Door slams. Open and close adjustments are operating.
   ACTION:
   1. Check if encoder cable or connector is defective or disconnected.
   2. Defective encoder; test as follows:
      – Set AUT/CLS/OPN switch to CLS. Turn power off and then on again. FIRST RUN light must be ON.
      – Move door by hand slowly and check the operation of encoder by watching the two encoder lights.
      – Position door to have both lights off. By moving the door slightly by hand verify that the first light to come on is the left light with door closing and the right light for door opening.
      (Exception: Reverse Sequence for boxes with the handing switch set for reverse hand operation).
10. **SYMPTOM:** Door slams. No speed adjustments.
    ACTION: Replace defective box.
11. **SYMPTOM:** No operation in AUT position. Manual operation (OPN, CLS position) is OK.
    ACTION: Check sensors supply at the interconnection board terminals. Push to reset the 12v circuit breaker. Check wiring of sensor and AUT/CLS/OPN switch to terminals.
12. **SYMPTOM:** No reduced opening.
    ACTION:
    1. Check REDUCED OPENING switch connection.
    2. Check setting of REDUCED OPENING switch in the control box.



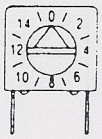
DURA—GLIDE™ SYSTEM SCHEMATIC DIAGRAM



Stamping legend

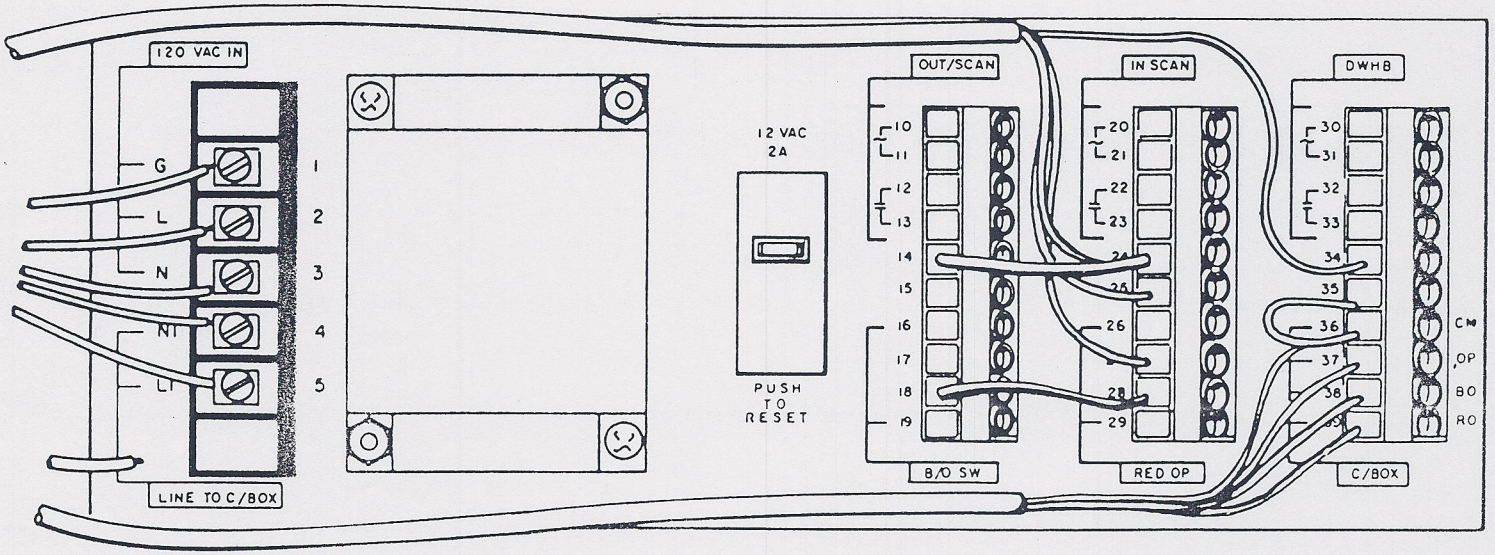


Style I



Style II

DURA—GLIDE™ CONTROL BOX
ADJUSTMENT LOCATIONS



DURA—GLIDE™
ELECTRICAL CONNECTOR BOARD