

GYRO TECH 1175 WHISPER SLIDE OWNER'S MANUAL



PN 148907.02
July 11, 1997 Revision

NABCO ENTRANCES, Inc. GT1175 Whisper Slide Owner's Manual

I. TO OUR CUSTOMERS

- A. The purpose of this manual is to familiarize customers with the sliding automatic door system. It is essential to "know your system," and to recognize the importance of maintaining the door system in compliance with the industry standards for safety.
- B. **It is your responsibility**, as owner or caretaker of the equipment, to inspect the operation of the door system on a daily basis to ensure it is safe for use by invitees, customers or employees.
- C. This manual will provide you with a description of the operation and maintenance requirements of your door. It also provides the instructions for the *Daily Safety Check*.
- D. Should the door fail to operate as prescribed in the *Daily Safety Check*, or at any other time for any other reason, **do not attempt to repair or adjust the door**. Call a qualified service technician. These technicians are trained to service the door in accordance with applicable industry safety standards.

II. IN THE FOLLOWING MANUAL, THE WORDS:

- A. **Caution** means injury or property damage can result from failure to follow instructions.
- B. **Safety** and **Safe** are used strictly in reference and for clarity with ANSI A156.1.
- C. **ANSI** is the American National Standards Institute, 11 W. 42 St., New York, NY 10036. (While NABCO ENTRANCES goes to great lengths try to keep ANSI references up to date, some oversights in meeting the latest revision could occur. A copy of the standard may be obtained from ANSI.)
- D. **Note** is used to indicate important steps to be followed or important differences in equipment.
- E. **AAADM** stands for the American Association of Automatic Door Manufacturers.
- F. **Emergency Breakout** or **Panicked** is when a door is forced open like a swing door.
- G. **Background** is the appearance of the floor surrounding the door.

III. SERVICE AVAILABILITY

- A. NABCO ENTRANCES, Inc. products are distributed through a nationwide network of

NABCO ENTRANCES, Inc. authorized distributors for sales, installation and service.

- B. Should the door system need service, consult the telephone directory yellow pages under "Door-Opening Devices" for a local NABCO ENTRANCES, Inc. authorized distributor, or call (414) 679-7520 for a local distributor.

IV. COMPLIANCE WITH STANDARDS

- A. NABCO ENTRANCES, Inc. door systems are designed to the latest ANSI operating and safety standards. In order to ensure the continued safe operation of the door, it is important that:

1. The door system be maintained in compliance with the standards of the industry.
2. Proper decals and labels be applied and maintained on the doors. If decals are removed or cannot be read, request labels to be replaced when calling for service.
3. Safety devices for all doors should be checked by an AAADM certified inspector annually and each time a door is serviced.

- B. AAADM, a trade association of automatic door manufacturers dedicated to the promotion of safety throughout the automatic door industry, has established a program to certify automatic door inspectors.

1. Inspectors are trained, through this program, to check door systems for compliance with the appropriate version of the standard, ANSI A156.10.
2. AAADM recommends such inspections be performed at least once per year.

- V. **WHAT YOU SHOULD KNOW** - Be sure a NABCO ENTRANCES, Inc. distributor has provided the following for each sliding door system:

- A. Instruction on how to conduct the *Daily Safety Check* (by walk-through example)
- B. Location of function switches and instruction in their use
- C. Circuit breaker or power disconnect location for each sliding door system
- D. Discussion of problems which could result if the system is allowed to operate after a malfunction is observed
- E. Phone number to call for service or questions about the system if uncertain of any condition or situation

Note: If there are any problems, discontinue door operation immediately and secure it in a safe manner. Call a local authorized NABCO ENTRANCES, Inc. distributor for repair.

F. AAADM compliance certificate signed by an AAADM certified automatic door inspector.

G. Any warranty is provided through the installing distributor. It may be helpful to fill in the following information:

✓ Model of the door system - 1175

✓ Door identification number found on the identification plate on the bottom side of the header in the door opening _____

✓ Date placed into service _____

✓ Warranty expiration date found on the door operator _____

✓ Number to call for service _____

✓ Company providing service _____

VI. DAILY SAFETY CHECK FOR SLIDING DOORS - Perform these safety checks *daily* on each automatic sliding door to ensure the customers' safety and your own protection. Perform these tests while traffic is restricted from all detection and sensing zones.

Sensor Actuation

Note: If the door is set up for one-way traffic, the detector on the side *not* intended for use should be active until the door is within six inches of fully closed. The sensor should re-open the closing door if an object is detected before it reaches 24 inches from the door.

- A. Check the electronic sensor by walking toward the door opening at a moderate speed. The door should start opening when you are about five feet from it, should slide open smoothly and stop without impact. Repeat on the other side of the opening. Move slowly through the door (about six inches per second). The door should remain open (See Figure 1).

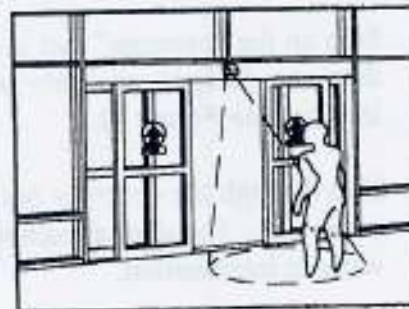


Figure 1

- B. Step out of the sensor zone. After a brief time delay (at least 1.5 seconds) the door should slide closed smoothly and close fully without impact.
- C. Observe the traffic routing to the door. Plan traffic routing so people will approach the door straight on, not from an angle.
- D. Walk parallel to the door face to check the detection pattern is at least as wide as the door opening. This test should be performed at a minimum of 2.5 feet from the door face.
- E. Activate the door. Stand motionless in the pathway of the door for 10 seconds (*See Figure 2*). The door should remain open. If it is equipped with holding beams, cover each holding beam with a piece of tape. Leave the detection zone. The door should close after the time delay expires (*See Figure 3*).



Figure 2

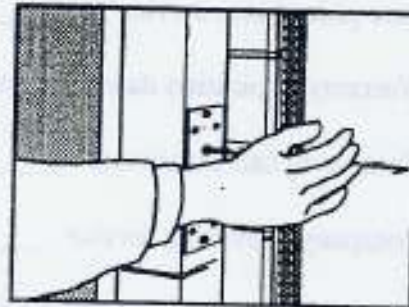


Figure 3

Floor Mat Actuation

Note: If there is more than one mat on each side, each mat should be tested.

- A. Step on the "opening" mat in several places. The door should open smoothly and stop without impact (*See Figure 4*).
- B. Step through the doorway onto the mat on the other side. The door should remain fully open without interruption.

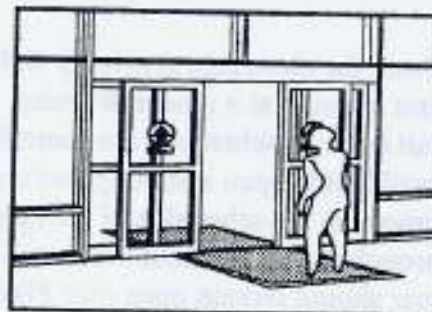


Figure 4

C. Check the mat molding and threshold. It should be complete and secured with all screws required. There should not be any tears or gouges in the mat material. If so, have the mat replaced by a qualified technician.

D. Step off the mat. After a brief delay (at least 1.5 seconds) the door should close slowly and smoothly without impact.

VII. GENERAL SAFETY

A. Decals

1. The doors should have decals properly displayed at or near eye level.
2. There should be decals which include the statements:

 "AUTOMATIC DOOR" (in letters 0.5 inches high, minimum)

 "IN EMERGENCY - PUSH TO OPEN" (See Figures 5, 6, and 7 for examples of some decals which may be used).
3. The AAADM safety information sticker should be affixed to the door or frame in a visible, protected location.

B. Closing speed

1. Horizontal doors must be adjusted within the following limits to comply with ANSI A156.10.
2. The closing time of the door must not be less than the minimum time as shown in the table on page 6. This closing time is taken from a point one inch from full open to a point two inches from full closed.

Example: If a 36 inch door on a 36 inch single or 72 inch bipart closes in 1.7 seconds, it is too fast and must be slowed down. If it closes in three or more seconds, it is in compliance.



Figure 5



Figure 6



Figure 7

Maximum Closing Speed - One Foot Per Second

Nominal Door Opening		Minimum Closing Time
Single Slide	Bi-Part	
	48"	2 seconds
	60"	2.5 seconds
36"	72"	3 seconds
42"	84"	3.5 seconds
48"	96"	4 seconds

3. The force to prevent the door from closing should not exceed 30 pounds and should be checked at several points in the closing cycle by stopping the door with a spring scale. The scale reading should not exceed 30 pounds.

C. Emergency breakout

1. Test by manually pushing the door at the lock area in the direction of the emergency exit. It should require less than 15 pounds to panic the door. The door should stop operation and not resume operation until the panicked leaves are latched back into position.
2. Make sure the door panel(s) are properly related.

D. Housekeeping

1. Be sure the floor guides are kept clean and free of any debris which could prevent proper door slide.
2. Check the door area for tripping or slipping hazards.
3. Check all door panels for broken or cracked glass. There should be no bulletin boards, literature racks or other attractions in the door area where people could be hit by the door in the operating mode or in a panic situation.

REGARDLESS OF WHICH ACTIVATING DEVICE IS USED, IF YOU HAVE A PROBLEM YOU CANNOT CORRECT, TURN OFF THE DOOR OPERATING EQUIPMENT AND CALL YOUR SERVICE REPRESENTATIVE.

VIII. DOOR OPERATION

Activation Switches (See Figure 8)

A. Door Operation Only - On or Off switch

1. When the switch is in **Door Operation - ON** position, all safety and activation devices are activated.
2. When the switch is in **Door Operation - OFF** position, the activation signal is shut off from sensors to the control box. It does not shut off power. The door may need to be closed manually to its full closed position if the switch is turned off in mid cycle. Gently pull on the edge of either door.

Note: To shut off the power, turn off the circuit breaker in the building's electrical box.

B. Auto: One-Way or Hold Open

1. When the switch is in **ONE-WAY** position and the door is fully closed, the signal from the exterior sensor is shut off. The system still allows people to exit the building by using the interior sensor.
2. When the switch is in **AUTO** position, both sensors are activated for two-way traffic.
3. When the switch is in **HOLD OPEN** position, doors are held open as long as the switch remains in this position. The doors should be held open in this manner. Do not prop open the doors with any object.

C. Full Open or Reduced Open

1. When the switch is in **FULL OPEN** position, doors are allowed to open all the way.
2. When the switch is in **REDUCED OPEN** position, doors open to specifications preset during installation. Reduced Open is used, for example, in bad weather or while air conditioning is on. The width of the opening in the reduced open mode is adjustable. Contact a qualified service technician for adjustment.



Figure 8

IX. ACUSENSOR OPERATION

- A. Acusensors are the latest in pedestrian traffic sensing technology. Acusensors cause the door to move by sending door opening and closing signals to the sliding door controller.
- B. In simple terms when power is supplied to the Acusensor, it "sees" its sensing volume from the ground to the sensor and memorizes its appearance. When the appearance changes (when someone walks into the volume), the Acusensor sends a "door open" signal.
- C. Appearance changes include:
 - 1. A person, cart or forklift.
 - 2. When common objects in the sensing area are moved, such as:
 - ◆ Carpets or mats
 - ◆ Boxes
 - ◆ Displays or merchandise
 - ◆ Large papers
- D. If the background changes and remains constant for thirty seconds, the Acusensor will rememorize it. The doors will remain open until the rememorization takes place.

X. ELECTRIC LOCKS

- A. NABCO ENTRANCES, Inc. electric locks are factory-installed in doors as an option. Doors can also be field retrofitted with electric locks.
- B. When the electric locks are engaged, they prevent the door from being pried open. They do not prevent the door from being panicked.
- C. Electric locks are not true security devices. Doors should be locked manually for security.
- D. The electric locks work only in Off or One-Way mode.

XI. OPERATION FAILURE

- A. The common cause of door failure is the loss of power. Power to the system is indicated by a small green, red or orange light on the bottom of the Acusensors.

- B. If there is power, make sure the door operation switches are set properly.
- C. Lastly make sure the door is not panicked open or not completely latched. If the door is panicked, reset it and the door should function. The installer should demonstrate how to reset a panicked door.
- D. If the door still does not function after checking A-C, call an authorized NABCO ENTRANCES, Inc. distributor.
- E. Power outages
1. The door settings are stored in permanent memory. Long term power outages do not affect the settings; however, short spikes may confuse the Microprocessor. If this occurs turn off the circuit breaker to the door system for one minute.
 2. If this does not correct the problem, call an authorized NABCO ENTRANCES distributor.



XII. CODE COMPLIANCE AND MODIFICATIONS



Figure 9

NABCO ENTRANCES, Inc. has designed its automatic doors to comply with ANSI 156.1. Underwriters Laboratories (UL) has tested our standard packages to certify ANSI compliance, as well as compliance with their own electrical and mechanical standards. Installer/owner modifications may result in automatic doors out of compliance with ANSI and/or UL. Such modifications are beyond the control and responsibility of the manufacturer.



Figure 10

NABCO ENTRANCES ships every GT1175 with Acusensor sensing systems, unless a particular competitor's sensor is specified by the owner or his authorized representative. NABCO ENTRANCES believes the Acusensor is the finest presence/motion sensor available, and the best performance is obtained using this sensor.



Figure 11

Installer/owner service-directed substitution of competitors' sensors is beyond NABCO ENTRANCE's control or responsibility. While fine competitor products do exist, we do not test all of them, and make no claims for their compatibility with NABCO ENTRANCE's systems or their compliance with ANSI. Proper operation of sliders with non-NABCO ENTRANCES parts is beyond the manufacturer's control or responsibility.



Figure 12

through 16 for decal examples).

NABCO ENTRANCES has provided the following stickers, labels and/or decals with each slider. Make sure all decals are installed and none are removed or covered by paint (See Figures 9



Figure 13



Figure 14



Figure 15

SAFETY INFORMATION Automatic Sliding Doors

These minimum safety checks, in addition to those in the owner's manual, should be made each day and after any loss of electrical power:

1. Walk toward the door at a normal pace. The door should open before you reach the threshold.
2. Stand motionless in threshold for at least 4 seconds. The door should not close.
3. Walk past the threshold into swing area and stop for 10 seconds. Door should remain open.
4. Move clear of the area. The door should remain open for at least 1.5 seconds and should close slowly and smoothly. If two-way traffic, move toward swing side of door. Door should open well before you reach the swing path.
5. Inspect the threshold area. It should be clean with no loose parts that might trip or cause user to fall. Keep traffic path clear.
6. Inspect the glass, safety decal, guide rails, and finger guards. All should be present and in good condition.
7. Have door inspected by an AAADM certified inspector at least annually or after any adjustments or repairs.

DO NOT USE DOOR if it fails any of these safety checks or if it malfunctions in any way. Call a qualified automatic door service company to have door repaired or serviced.

See owner's manual or instructions for details on each of these and other safety items. If you need a copy of the manual, contact the manufacturer.

AAADM

Association of Automatic Door Manufacturers

Figure 16

**Gyro Tech Entrance Systems
Instruction Manual
For
Microprocessor Controller
and Handy Terminal
For Gyro Tech Slider Type Doors**

GYRO TECH
ENTRANCES
LANSON INDUSTRIES INC.

Part #159000

4/97 - 1,000

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Note: Wiring Diagrams -
Various wiring diagrams are available. Contact Customer Service for information.

10. 10th Street
 11. 11th Street
 12. 12th Street

13

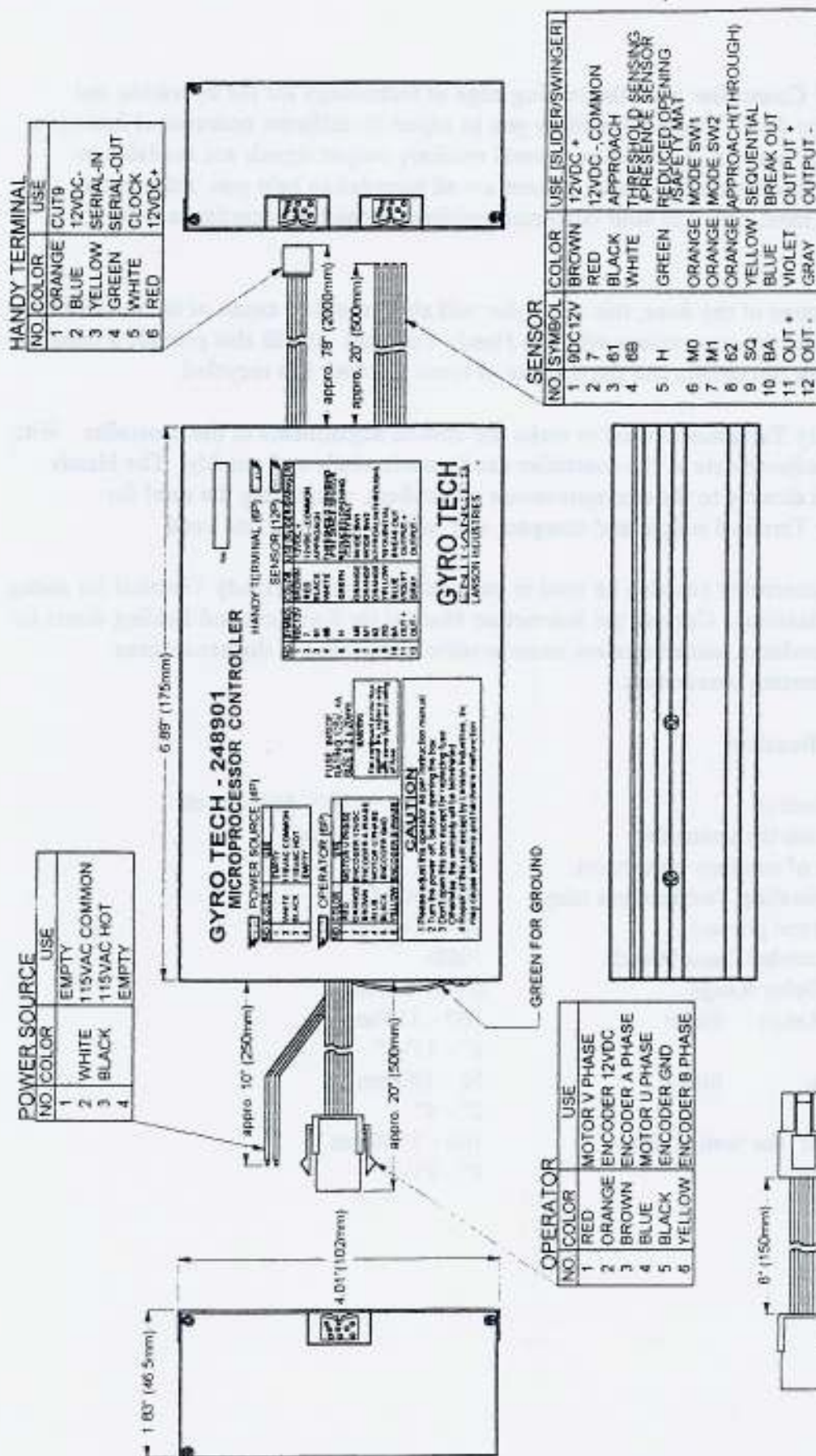
13. 13th Street
 14. 14th Street
 15. 15th Street
 16. 16th Street
 17. 17th Street

18

18. 18th Street
 19. 19th Street
 20. 20th Street
 21. 21st Street
 22. 22nd Street
 23. 23rd Street
 24. 24th Street
 25. 25th Street

26. 26th Street
 27. 27th Street
 28. 28th Street
 29. 29th Street
 30. 30th Street

()



PART No. 248901

HANDING HARNESS (PART No.119208)

1.0 Summary

This **Microprocessor Controller** is on the leading edge of technology for the operation and control of an automatic door. These units allow you to adjust 20 different operational functions with over 150 different options. In addition, several auxiliary output signals are available to further customize the operation of the door. These are all intended to help you achieve the operation of the door most suited to your customers preferences and in accordance with applicable standards.

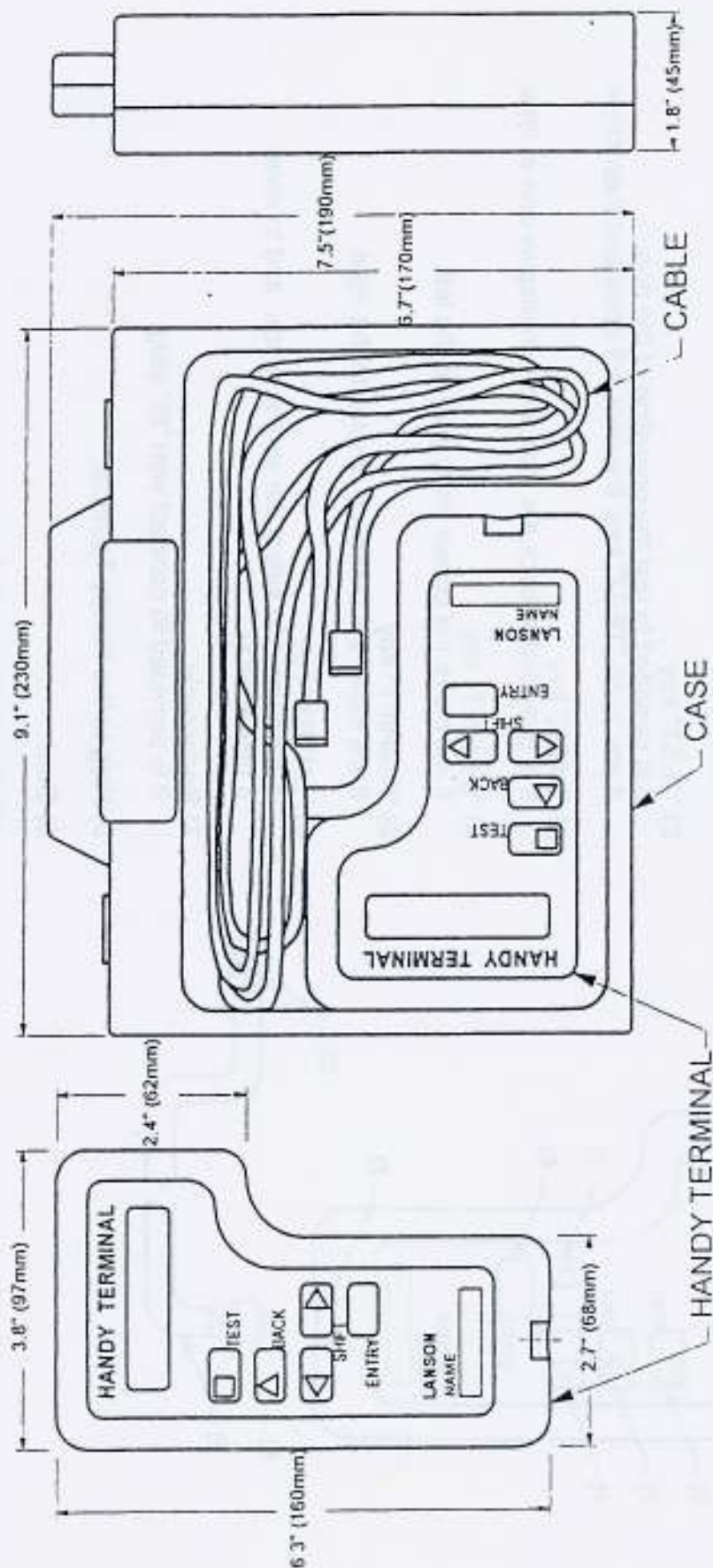
To aid in the management of the door, this controller will also provide a count of the number of service calls by counting the connections with the Handy Terminal. It will also provide a count of the opening and closing operations and the number of times the door has recycled.

The companion **Handy Terminal** is used to make the desired adjustments of the controller. With the Handy Terminal, adjustments to the controller can be made easily and quickly. The Handy Terminal is connected directly to the microprocessor controllers, eliminating the need for batteries. The Handy Terminal is light and compact and easy to use with one hand.

This microprocessor controller can also be used in conjunction with the Handy Terminal for swing and folding door applications. Consult the Instruction Manual for Swingers and Folding doors for the proper set up procedures, since there are some specific differences in the procedures, specifications and operating parameters.

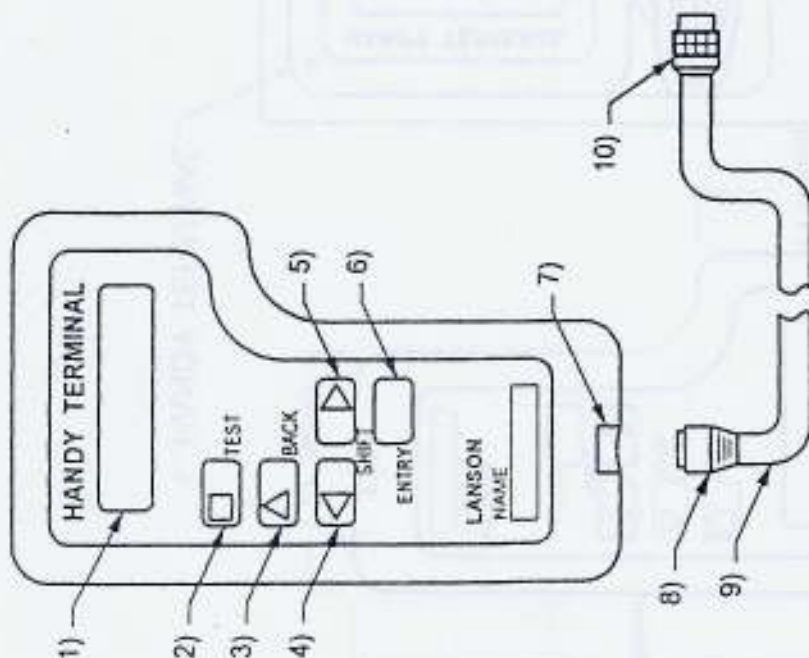
2.0 Controller Specifications

1. Required Power Source	115VAC +/-10% 50/60 cycle
2. Power available from the controller for operation of auxiliary equipment.	12 VDC 0.5 Amps
3. Recommended Operating Temperature range (Without full time power)	-20 - +60 C -4 - +140 F
4. Maximum recommended Door Weight	300lb
5. Hold Open Time Delay Range	0 - 67 Seconds
6. Door Movement Range - Slider	100 - 3500mm 4" - 11'-5"
7. Back Check Range Slider	50 - 100mm 2" - 4"
8. Allowable range for the limited door opening feature	100 - 3500mm 4" - 11'-5"



PART No. 148903

Handy Terminal appearance and parts



- 1) Liquid crystal display (LCD)
It shows those that follow.
 - Setting modes
 - Setting items
 - Present settings
 - Change of the settings
 - Data for maintenance
 - Messages
- 2) "TEST" key
It is provided to test the operation of the door.
If you push "TEST" key, the door will open and then close.
- 3) "BACK" key
It is provided to back the indication on display one at time.
- 4) "L-SHIFT" key
It will move the cursor on display to the left.
- 5) "R-SHIFT" key
It will move the cursor on display to the right.
- 6) "ENTRY" key
It is provided to select the setting mode, and to enter a new setting.
- 7) Receptacle
It is provided to connect with "8)" plug.
- 8) Plug to the Handy Terminal
- 9) Cord
- 10) Plug to the controller

3.0 Appearance, Dimensions and Explanation of Sensor Signal Options

3.01 For the appearance and dimensions of the microprocessor see page 5.

3.02 For the appearance and parts of the Handy Terminal see pages 6 and 7.

3.03 Explanation of Sensor Signal Options (See page 5 and the label on the cover of the controller)

Wire	Comment
1.	Power source for other devices to be used with the door such as the Acusensor. The output is 12VDC and with a maximum capacity of 0.5Amps.
2.	Ground for the power source (wire #1-12V DC). Also the common ground for other signal requirements.
3.	Activation signal input. Will open the door based upon a signal from the Acusensor, mat, motion detectors or other signal source.
4.	Holding beam input. (When Holding Beams are used.) Note: Under normal conditions a closed door will open when the holding beam signal is activated. With the use of the Handy Terminal, this can be changed to have the doors remain in the closed position. See section 7.02.
5.	Reduced opening input. Wiring this to a switch enables a reduced door opening simply by activating the switch. This feature is set up with the Handy Terminal. See section 7.05
6.	Mode Input M0 for SW.1 These two switches are to achieve the special functions
7.	Mode Input M1 for SW2. outlined. If an electric lock is used also, the status of the lock is shown. (See section 7.09 Auxiliary Output also)
	SW1 SW2
	Off Off Auto mode. Approach and approach through signals are available. Electric lock is always unlocked.
	Off On Night mode. None of the activation signals will be accepted. Electric lock is always locked.
	On On Full open mode. The door keeps full open point, not affected by sensors. Electric lock is always unlocked.
	On Off One way traffic mode. The approach and/or the holding beam signal is available. The electric lock is unlocked and after a delay the door starts to open. The door will be locked after the same delay after arriving to the full closed point. The time delay is set per special function adjustments per 7.09(Auxiliary Output).
8.	Allows the approach through actuating signal to hold open/re-open the door from any position until the door is fully closed. This feature should be used in combination with the one way traffic mode.
9.	This allows a sequence of signals to open and then close the door. The first signal will open then the second will close the door.

10. If the door is broken away the controller will stop operating. After a return to normal, the door will respond to sensor signals. Normally this feature should always be included in the operation of the door.
11. Auxiliary Output(+). Used as a switch with a maximum rating of 24V DC and 50mA for an outside power source. When used with wires #1, #12, and #2 can supply 12V DC and a maximum 50mA of power
12. Auxiliary Output(-). Rated to a maximum of 24V DC and maximum 50mA. This is the ground (-) for output wire #11. **Caution.** This wire must be used with #11. Mis-wiring will cause failure of the auxiliary signal output.

4.0 Activation Procedures

4.01 Cautions

Before turning on the power be sure:

- all parts are wired properly (Motion sensors, Acusensor, Holding Beams etc. The exception is the mode switches which must be set at AUTO mode then reset after the Handy Terminal set-up.)
- is wire #10 required?
- the power source is 115VAC +/-10%
- check again

The controller will be damaged if the power supply is switched ON and OFF too quickly. It is required to wait one (1) minute to switch the power **ON** after having switched it **OFF**.

In the event of a power surge which may cause a fuse failure, the fuse can be replaced. The power should be disconnected and the cover can then be removed to replace the fuse. **Do not** attempt the repair of this microprocessor unit.

4.02 Normal Set-up

Normal set-up of the microprocessor involves only the correct wiring of the unit followed by set up of the operation of the door. If none of the special features available through the sensor wiring options are used, the pre-programmed operating parameters will operate the door. **The factory settings are reasonable but not mandatory for the operation of a specific door. Each of these operations should be reviewed carefully. Be sure the door is operating in accordance with the applicable ANSI or other controlling standards and/or contract specifications before releasing the entrance to the owner.**

Place the door in the center of its range of movement. Plug the Handy Terminal into the mating plug for the controller. After the power is turned on the Handy Terminal will guide you through the set up procedures in addition to programming the controller. It will guide you with a series of printed messages and a listing of the acceptable options. The option desired can be achieved by placing the cursor over the option and pressing the ENTRY button.

The initial set up of the door can be achieved in the following four (4) simple steps as prompted by the Handy Terminal messages.

Turn on the power. Note the direction of movement. The door should close slowly.

If the door opens slowly it has been set-up with the wrong hand. Turn off the power and insert the handing harness between the controller and the operator. After a one (1) minute wait, turn on the power. Note the direction of movement. The door should now close slowly.

Handy Terminal Message: Slide/Swing/Strk

1. Move the curser to the Y position and press ENTRY

Handy Terminal Message: Swing Door? N

2. Move the curser to the N and press ENTRY

Handy Terminal Message: Full Open Point - Push Test

3. Move the door to the full open point then press TEST

Handy Terminal Message: Adjusting Now .. Just a moment.

The door should be slowly moving from the full open position to the closed position. As it moves it is measuring the stroke of the door. Be sure no obstacle is encountered which would cause it to incorrectly measure the stroke.

Handy Terminal Message: Std Function Y N

4. With the curser at N and after the door has fully closed - press TEST

Handy Terminal Message: During a test. Just a moment.

If the test of the door was satisfactory the Handy Terminal can be disconnected.

4.03 Disconnect Procedures

The Handy Terminal can be disconnected after the last test is completed and the display has stabilized. This process normally takes about 10 seconds after the display indicates it is ready to accept new input with the key . After that time lapse the Handy Terminal can be disconnected.

If you need to cut the power to the controller, wait an additional 10 seconds to be sure all settings are established in the controller.

Caution: Failure to follow the above procedures may result in the total lose of communication between the controller and Handy Terminal.

Note: The Handy Terminal is a sophisticated piece of electronic apparatus. Care should be exercised when handling this unit. When all adjustments are completed, it should be stored in the

protective box/cover and not exposed to rain or dust. Care should be taken not to drop the unit or press the LCD surface.

The door could now be operational based upon the functions as they have been preset at the factory. The factory settings are reasonable but not mandatory for the operation of a specific door. Each of these operations should be reviewed carefully. Be sure the door is operating in accordance with the applicable ANSI or other controlling standards or contract specifications before releasing the entrance to the owner.

The factory setting for each of the functions are shown for your information.

Table 1
Factory Settings of the Adjustable Functions

<u>Adjustable Function</u>	<u>Factory Setting</u>	<u>Options</u>
1. Standard Function Adjustments		
Opening Speed	5	(Range 0 - 7)
Closing Speed	3	"
Time Delay	2	"
2. Feeling Adjustments		
Start Power	3	"
Check Power	6	"
Reaction Power	4	"
Back Check Speed	1	(Range 0- 3)
Latch Check Speed	1	"
3. Special Function Adjustments		
Hold Close	Y	(Yes or No)
Holding Beam	Y	"
Power On	0	(Range 0 - 3)
Manual Opening	0	"
Reduced Opening	N	(Yes or No)
Recycle	Y	"
Recycle Sensitivity	1	(Range 0 - 3)
After Recycle	Y	(Yes or No)
Auxiliary Output	0	(Range 0 - 3)
Output Timer*	0	"
Extended Time Delay	7	"

*Output timer selection required only when selecting 0&2 on the Auxiliary output.

Any of the above functions can be adjusted to the requirements of your specific door. To comply with ANSI Standards and UL requirements for pedestrian doors the following settings are required for the Closing Speed and Recycle Sensitivity:

Closing Speed - Settings 0,1,2 or 3 only
Recycle Sensitivity - Settings 0 or 1 only

The factory/existing setting of a function will automatically be highlighted on the Handy Terminal when the adjustment range for the function is shown.

5.0 Adjustment Procedures - Standard Functions

Adjustments to the operation of the door **must** be made if the door is not operating in accordance with the applicable ANSI or other standards and/or the contract specifications. Adjustments of the various door functions are easily made with the use of the Handy Terminal. Adjustment options fall into three categories. To make any of these adjustments it is necessary to be in this program of the Handy Terminal.

The Standard Functions program is immediately after the normal set-up.

Handy Terminal Message: Std Function Y N
Enter Y

Entering Y will make available the Standard Functions program. Entering N would bypass this program and proceed to the next program (Feeling Adjustments). The first adjustment range offered in the Standard Functions program is the Opening Speed.

5.01 Opening Speed Adjustment.

Handy Terminal Message - Open Speed - 5
Eight options are offered from 0 to 7. The approximate speeds will range from 2.0 in/sec (0.05m/sec) to 28 in/sec (0.70m/sec)
Factory Setting is per Table 1
Make the adjustment by placing the Curser at the selection and pressing ENTRY

5.02 Closing Speed Adjustment

Handy Terminal Message - Close Speed - 3
Eight options are offered from 0 to 7. The approximate speeds will range from 2.0 in/sec (0.05m/sec) to 28 in/sec (0.70m/sec)
Factory Setting is per Table 1
Make the adjustment by placing the Curser at the selection and pressing ENTRY

Note - To comply with ANSI and UL requirements for the closing force the closing speed setting of 0,1,2 or 3 must be used.

5.03 Time Delay

Time Delay adjustment determines the amount of time the door will stay open after any presence or activating signal stops.

Handy Terminal Message - Time Delay - 2

Eight options are offered from 0 to 7 with time delays of 0 to 7 seconds

Factory setting is per Table 1

Make the adjustment by placing the Cursor at the selection and pressing ENTRY

Note: Additional time delay is possible through the Special Functions adjustments. See section 7.10 External Time Delay.

This will complete the Standard Function Adjustments.

6.0 Adjustment Procedures - Feeling Adjustments

The next program will be the Feeling Adjustment options. The Handy Terminal will read: Feeling Adjust ? Y N By entering N this program will be skipped. By entering Y these options will be made available. The first option will be the start power.

6.01 Start Power

This is the power available which will cause the door to accelerate at the start of the opening and closing cycles. For a smaller and lighter door a slower acceleration would typically be selected. For a larger and heavier door you would typically select a faster acceleration.

Handy Terminal Message- Start Power - 3

Eight options are offered from 0 to 7. The slowest acceleration, 0, would typically be used with very narrow or light doors. The fastest acceleration, 7, would typically be used with very heavy doors or where high speed operation is required.

Factory setting is per Table 1

Make the adjustment by placing the Cursor at the selection and pressing ENTRY

6.02 Check Power

Adjustment of the braking power to reduce the speed of the door to the check or latch speed. See the note for 6.01 on selection guidelines.

Handy Terminal Message - Check Power - 6

Eight options are offered from 0 to 7. Zero (0) will provide a gradual braking to the check or latch speed while seven (7) will provide the fastest braking.

Factory setting is per Table 1

Make the adjustment by placing the Cursor at the selection and pressing ENTRY

6.03 Reaction Power

This is the amount of time between check power and start power when the door is reacting to an activating signal while the door is closing.

Handy Terminal Message - Reaction Power

Eight options are offered with settings from 0 to 7. 0 will provide the slowest and 7 the fastest reaction.

Factory setting is per Table 1

Make the adjustment by placing the Cursor at the selection and pressing ENTRY

6.04 Back Check Speed

This adjusts the back check speed.

Handy Terminal Message - Back C Speed - 1

Four options are offered from 0 to 3. The slowest setting is 0 with an approximate speed of 1.6 in/sec (4cm/sec) to the fastest at 4.0 in/sec (10 cm/sec.)

Factory setting is per Table 1

Make the adjustment by placing the Cursor at the selection and pressing ENTRY

6.05 Latch Check Speed

This adjusts the latch check speed.

Handy Terminal Message - Latch C Speed - 1

Four options are offered (see 6.04 above for explanation of options)

Factory setting is per Table 1

Make the adjustment by placing the Cursor at the selection and pressing ENTRY

This will complete the Feeling Adjustment options.

7.0 Adjustment Procedures - Special Function Options

The next program available is the Special Function options. The Handy Terminal will read Special Function Y N. By entering the N this program will be skipped. By entering Y the Special Function options can be adjusted. The first option will be the Hold Close feature.

7.01 Hold Close

This adjustment offers the ability to hold the door closed with the motor or leave the door free.

Handy Terminal Message - Hold Close - Y

Two options: Y = Push to the close direction with the motor (Suggested when the electric lock is used)

N = The door is free at the closed position

Factory setting is per Table 1

Make the adjustment by placing the Cursor at the selection and pressing ENTRY

7.02 Holding Beam

When sensor signal wire #4 is used in combination with holding beams, this adjustment will cause the door to open or not open from the closed position.

Handy Terminal Message - Holding Beam - Y

Two options: Y = The holding beam will cause the door to open

N = The door does not open by the holding beam.

Factory setting is per Table 1

Make the adjustment by placing the Cursor at the selection and pressing ENTRY

7.03 Power On

After the unit has been completely set up and normally operational, this setting will determine what will happen when the power is turned ON after having been turned OFF or otherwise interrupted. A typical circumstance would be if the owner unlocks the door and opens it manually before turning on the power. When the power is first turned ON the door must first reach a fully open or a fully closed position to enable the microprocessor to start normal operations since the microprocessor no longer knows the location of the door.

Handy Terminal Message - Power On - 0

Four options are available.

0 - The door slowly reaches fully closed. The door is then ready for normal operations.

1 - Door closes slowly. If activated while closing, the door will fully open, then close normally.

2 - The door slowly reaches fully open then closes normally

3 - The door stays in the manually opened position until activated. It will then open slowly and then closes normally.

Factory setting is per Table 1

Make the adjustment by placing the Cursor at the selection and pressing ENTRY

7.04 Manual Open

After the unit has been completely set up and is normally operational these settings offer the choice of how the door will act if it is manually opened. This might occur because the activating device for some reason was not used or did not operate properly.

Handy Terminal Message - Manual Open - 0

Four Options are available:

- 0 - The door will stay in the position it was opened to manually
- 1 - Starting to open the door manually will activate the door to power open
- 2 - After the door has been manually opened it will slowly close.
- 3 - The door will power close while trying to manually open.

Factory setting is per Table 1

Make the adjustment by placing the Cursor at the selection and pressing ENTRY

7.05 Reduced Opening

This adjustment will enable any reduced opening of the door.

Handy Terminal Message - Reduced Opening - Y N

Adjustment: Set the cursor to "Y" and push the ENTRY button. Manually move the door to the desired reduced open width and push the TEST button. The door will close slowly memorizing the point of reduced width.

7.06 Recycle

Adjustment for operation when the door encounters an obstacle during the closing cycle.

Handy Terminal Message - Recycle ? N

Two options are available.

Y = The door opens

N = The door stops. The door will open by the activating signal

Factory setting is per Table 1

Make the adjustment by placing the Cursor at the selection and pressing ENTRY

7.07 Recycle Sensitivity

Adjustment for the sensitivity of the force which will cause the door to recycle.

Handy Terminal Message - Recycle Sens - 1.

Four Options available from 0 to 3 with 0 being the softest and 3 the hardest.

Factory Setting is per Table 1

Make the adjustment by placing the Cursor at the selection and pressing ENTRY

Note: The recycle sensitivity must be at 0 or 1 and the closing speed at 0, 1, 2 or 3 to meet the ANSI and UL code requirements for the closing force.

7.08 After Recycle

Adjustment for the operation after the door reaches the full open position caused by the recycle.

Handy Terminal Message - After Recycle - Y

Two options are available:

Y - The door will close after the time delay expires.

N - Stop and stay in the open position. It will take another activating signal for it to time out and close.

Factory Setting is per Table 1

Make the adjustment by placing the Cursor at the selection and pressing ENTRY

7.09 Auxiliary Output

This setting will determine when a signal (from wires 11 & 12) is sent for the operation of the electric lock, another controller, relay or other device.

Handy terminal Message - Aux. Output - 0

Four options are available

0 - Electric Lock. This will enable the operation of the Lanson electric lock. You will also need to select the time delay between the release of the lock and the movement of the door.

Handy Terminal Message - Output Timer - 0

Four options are available

0 - 0.25 second

1 - 0.50 second

2 - 0.75 second

3 - 1.00 second

The time delay selected for the lock release will also be used as the time delay to set the lock after arriving at the closed position.

1 - Air lock. In a passageway situation, both doors are not allowed to be open at the same time. Selection of this option will instruct the controller to prevent the second door from opening until the first door is closed.

2 - Sequential Door Operation. You will also need to select the time delay between the activation of the first door and the activation of the second door.

Handy Terminal Message - Output Timer - 0

Four options are available

0 - 2.0 second

1 - 4.0 second

2 - 6.0 second

3 - 8.0 second

3 - Active at brake-away and recycle. Selection of this option will have a signal active during a break-away and recycle condition. A common use would be to notify another location of this condition of the door.

Factory setting is per Table 1

Make the adjustment by placing the Cursor at the selection and pressing ENTRY

7.10 Extended Time Delay

This adjustment enables an extended time delays beyond the standard 0 - 7 seconds permitted in the standard functions.

Handy Terminal Message - Ext Time Delay - 7

Eight Options are available

Factory Setting is per Table 1

Optional Setting	Comment
0	The standard 0 - 7 second delay
1	10 seconds longer than the value adjusted in the standard time delay in section 5.03. (10 - 17 seconds)
2	20 seconds longer (20 - 27 seconds)
3	30 seconds longer (30 - 37 seconds)
4	40 seconds longer (40 - 47 seconds)
5	50 seconds longer (50 - 57 seconds)
6	60 seconds longer (60 - 67 seconds)
7	the door opens to the full open point before closing even if the time delay has expired during the opening cycle.

Note: Time delay is measured after the loss of the activation signal.

This completes the adjustments available for the Special function options.

8.0 History Data

The controller maintains data useful in the management of the door. This information is available through the History Data program. The Handy Terminal will read History Data ? Y N

8.01 Maintenance Count

Provides a cumulative exact count on the number of times the Handy Terminal has been connected to the controller. Press ENTRY to advance to the next data.

8.02 Operations Count

This provides a cumulative approximate count on the number of times the door has opened. The counts are registered in increments of 100 per power on period. Press ENTRY to advance to the next data.

8.03 Recycle Count

This provides a cumulative exact count on the number of times the door has recycled. The controller will count the recycles which occur during the opening or closing cycle. Press ENTRY to advance to the next data.

8.04 Run Away Count

This provides a cumulative exact count of the number of times the software in the controller operated outside of the normal programmed routine. This might have been caused by a significant power surge or other unusual event. The operation of the door should be thoroughly checked if there is a run away count. Precautions should be implemented to prevent the recurrence of the problem event.

9.0 Trouble Shooting

9.01 Recycling

If the door recycles during normal operation it is commonly due to an obstacle being encountered or some other significant resistance to normal operation. The typical properly set-up door will require about 5# of pressure to move it. Forces significantly larger will cause it to recycle.

A. During the opening cycle

The door will stop, then close after the loss of the activating signal and the time delay. The door will remain open in the stopped position if the activation signal continues.

B. During the closing cycle

The door will operate in accordance with the set-up by the installer per 7.06

C. The controller will count every recycle. The count will be available through the use of the Handy Terminal. After the recycle the door will continue normal operations.

9.02 Power failure

A. In the case of a power failure which does not exceed 0.9 seconds the operation will not be affected.

B. In the case of a power failure exceeding 0.9 seconds, the controller brakes the door to a stop. When the power is turned on the controller will operate the initial action as set up in adjustment procedure 7.03. The door will then continue normal operations.

9.03 Trouble detected by the controller

For the following problems the controller will stop the door and memorize the nature of the trouble. Until the problem is cleared by the Handy Terminal the controller will not

operate the door. There will be a message in the Handy Terminal when it is connected.

- A. Message - Stroke Error The controller has sensed movement longer than the adjusted stroke. Check the timing belt. Readjust the stroke of the door.
- B. Message - RAM Error. Replace the controller
- C. Message - EEPROM Error. The unit cannot read or write data correctly. Replace the controller.

Clearing the Problem

1. Turn off the power if not previously turned off. Connect the Handy Terminal. Turn on the power. The Handy Terminal message will be shown in the display. Set cursor to the Y. Push Entry.

2. If a second message occurs, note the second message and clear also. After all problem messages are cleared, disconnect the Handy Terminal then wait another 10 seconds then cut off the power source.

- 3. Conduct repair activities required.
- 4. Re-connect Handy Terminal and check for error messages. Repeat as required.

9.04 Controller does not operate at all

- 1. Check wiring and connections
- 2. Check the activation devices
- 3. Connect Handy Terminal for error message - clear and repair.
- 4. Check power supply
- 5. Check Fuse
- 6. Check the motor wiring/encoder or change out the motor
- 7. Change the controller

9.05 Door does not open

- 1. Check sensor wiring.
- 2. Check actuating sensor for proper operation.
- 3. Connect the Handy Terminal and try "Test Open"

9.06 Door operation is abnormal

- 1. Is motor wiring (Red and Black) normal? Exchange if appropriate.
- 2. Is encoder wiring (Yellow and Brown) normal? Exchange if appropriate.
- 3. Is stroke normal? Check or reset.
- 4. Possible wrong handing. Install the handing harness.
- 5. Check the Handy Terminal settings. (perhaps setting were not received by the controller or perhaps the door was set up as a swinger instead of as a slider)

- ...the ...
- A. Strategy - ...
 - B. Strategy - ...
 - C. Strategy - ...

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GYRO TECH

1175

WHISPER SLIDE

INSTALLATION

MANUAL



TOOL LIST

7/16" wrench: box or open end
9/16" wrench: box or open end
15/16" wrench: open end (two required)

3/8" drive socket wrench
3/8" socket
9/16" socket
6" socket extension

Allen wrenches: 3/32" and 3/16"

Phillips screwdrivers: #2 and #3
Slotted screwdrivers: small and medium

Hand drill: electric or cordless

Drill bits:
1/8"
7/32"
1/4" masonry
82° countersink

Broom

Tape measure

PN 159244-02
July 2, 1997 Revision

GYRO TECH 1175 WHISPER SLIDE INSTALLATION MANUAL

TOOL LIST

1/2" square bit for drill
1/2" square bit for pilot hole
1/2" square bit for pilot hole

2" square bit for pilot hole
1/2" square bit for pilot hole
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1/2" square bit for pilot hole
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**THE MANUFACTURER SUGGESTS THIS MANUAL SHOULD
BE GIVEN TO THE INSTALLER FOR REFERENCE PURPOSES.**

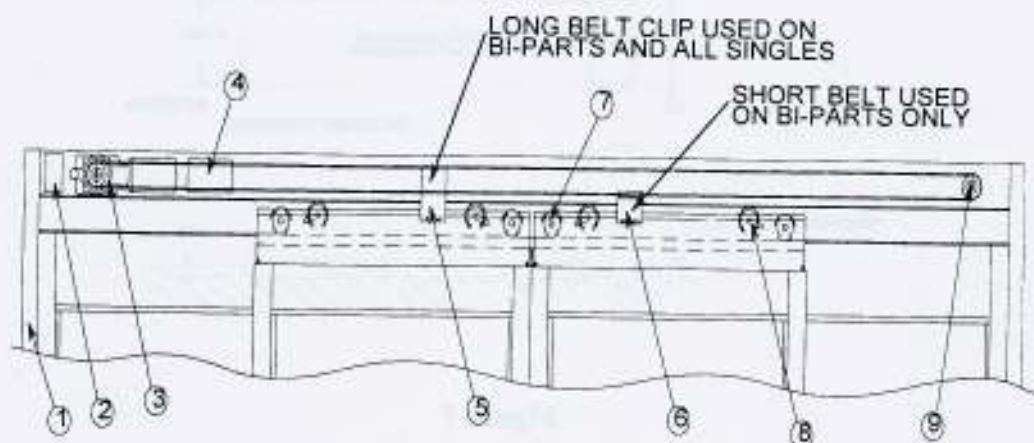


Figure 1

- | | |
|-------------------------|----------------------|
| 1. JAMB TUBE | 6. BELT CLIP (LOWER) |
| 2. POWER CUT OFF SWITCH | 7. ROLLER |
| 3. OPERATOR | 8. ANTI-RISER |
| 4. CONTROL | 9. IDLER |
| 5. BELT CLIP (UPPER) | |

There are four basic types of installation: Full Open, Fixed Sidelight, Surface Applied and Pocketed. All units start with Section A. Follow the directions for your unit.

A. MASONRY OPENING (MO) PREPARATION

1. Check the floor across the entire opening. Make sure the installation area is level.
2. Allow for tile or other materials which may change floor height.
3. MO width should be package width plus 1/4 inch per side (See Figure 2).
4. Check the track recesses if they are used (See Figure 3).
5. Sweep the floor.

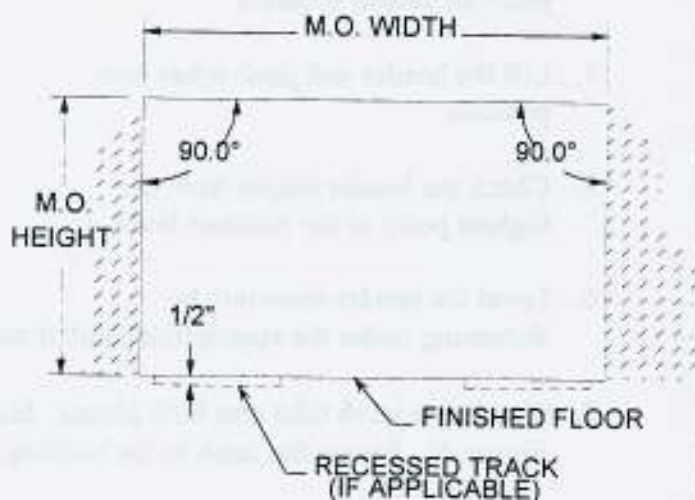


Figure 2

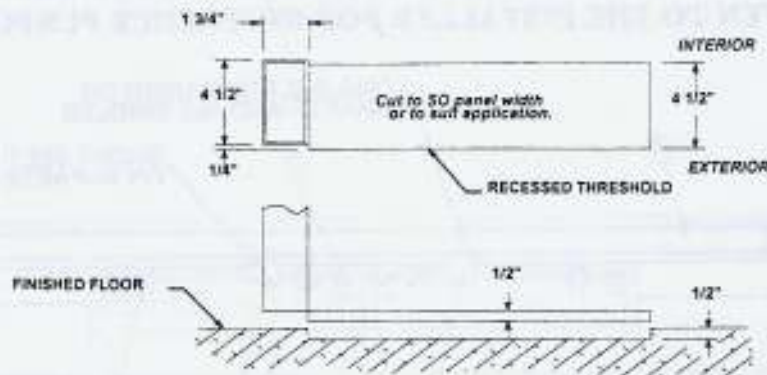


Figure 3

B. FRAMING AND HEADER ASSEMBLY

1. Place the header on a flat surface with the removable cover facing up. Protect the header from scratches.
2. Remove the cover (See Figure 4) and parts box, and set them aside.
3. Position the jamb tubes on each end of the header and fasten them with the provided 1/4 - 20 x 1 inch bolts into the rivnuts in the jambs (See Figure 5). Refer to the label on the jamb for proper location.
4. Lift the header and jamb tubes into position.
5. Check the header height from the highest point of the finished floor.
6. Level the header assembly by shimming under the appropriate jamb if necessary.
7. Plumb one jamb tube into both planes. Shim the back of the jamb if it is required (See Figure 6). Fasten the jamb to the building.
8. Plumb and securely fasten the other jamb.

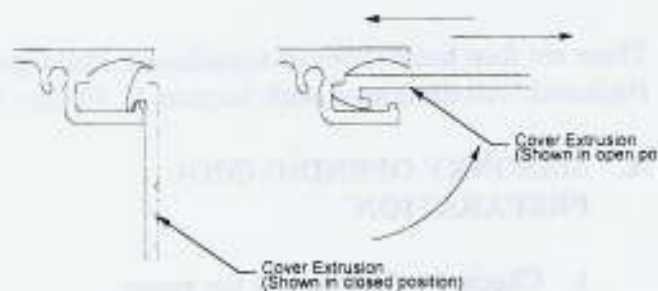


Figure 4

9. Recheck the level of the header and its height from highest point of the finished floor.

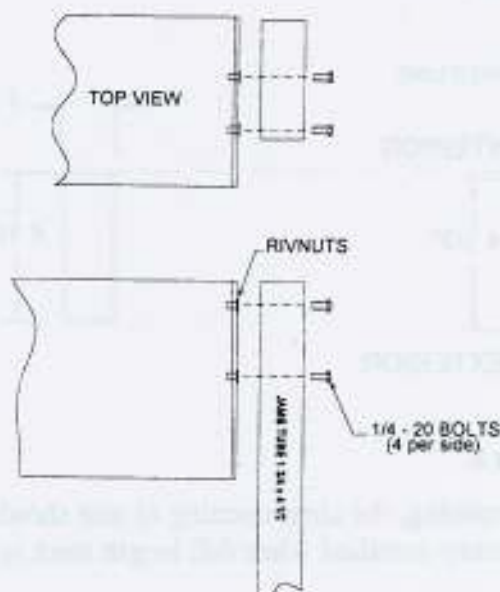


Figure 5

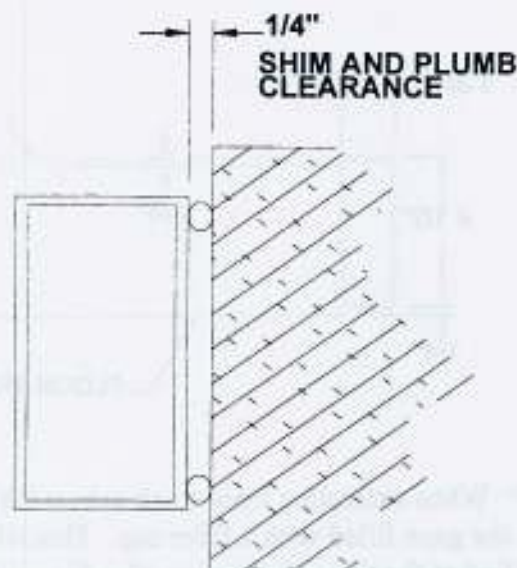


Figure 6

- FIXED SIDELIGHTS, PROCEED TO SECTION F
- SURFACE APPLIED, PROCEED TO SECTION G
- FULL OPEN AND POCKETED, CONTINUE WITH SECTION C

C. INSTALLATION OF TRACK (Full Open and Pocketed units ONLY)

Note: Figure 7 is provided as a reference on the dimensions of the surface and recessed floor track for Full Open and Pocketed units. Installation of the track is relatively the same between the two tracks.

1. Snap a chalk line on the floor from jamb to jamb (See Figure 8) on the interior side of the building. Note the dimensions shown are for a full open, not a pocketed unit.

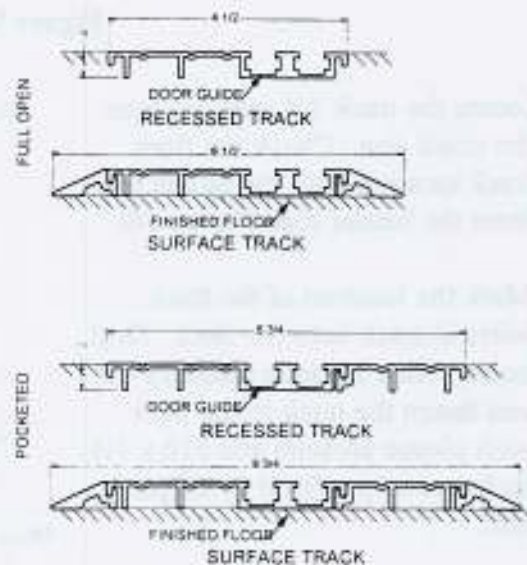


Figure 7

2. Floor track is factory cut to SO panel width. Extending the floor track across the entire opening is optional. Contact NABCO ENTRANCES Customer Service at: (414) 679-7520 to order the new track and shorter brush.

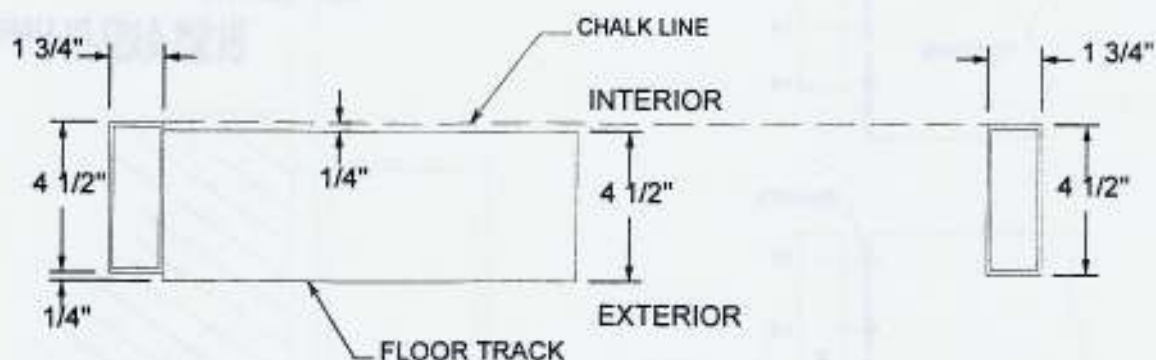


Figure 8

Note: When extending floor track across the entire opening, the clear opening of unit should have the gaps filled with a filler cap. This will be factory-installed when full length track is specified at the time of ordering (See Figure 9).

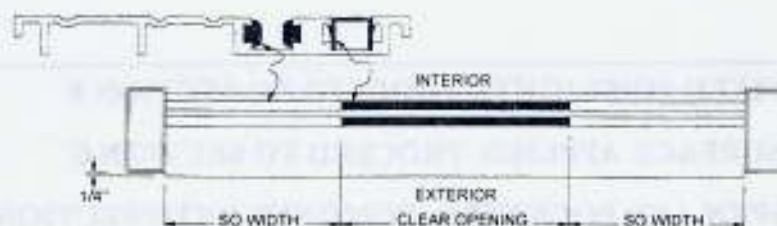


Figure 9

3. Locate the track 1/4 inch out from the chalk line. Check the floor track location with the plumb bob from the header (See Figure 10).
4. Mark the location of the track holes in track onto the floor. Drill holes with a 1/4 inch masonry bit and fasten the track to the floor with plastic anchors and #10 x 1 1/2 inch screws provided in the parts box.

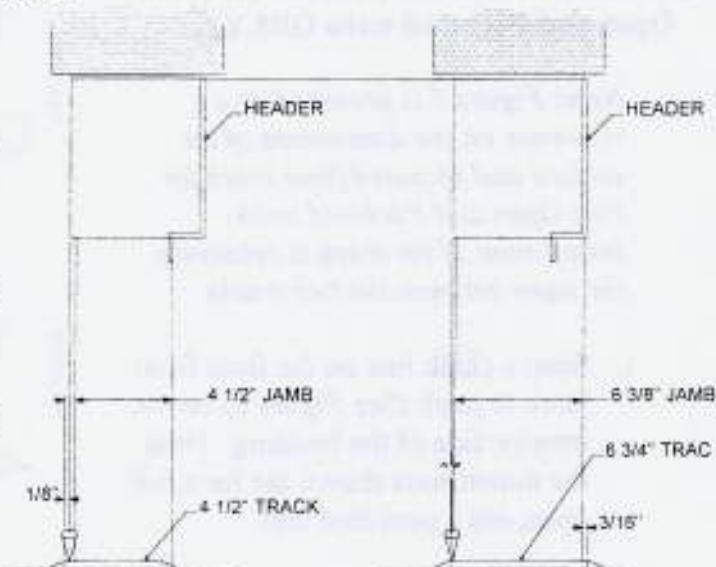


Figure 10

D. INSTALLATION OF SWING PANEL

1. Locate the swing panel pivot in the parts box.
2. Install the pivot into the jamb by rotating it into the cutout in the jamb and fastening it with a 1/4 - 20 x 3/4 inch screw (See Figure 11).
3. Drill through the barrel of the pivot bracket into the track with a 7/32 inch drill.
4. Install the self-tapping 1/4 - 20 x 1/2 inch screw down the barrel of the pivot into the track.
5. Install the nylon guide into the barrel of pivot.

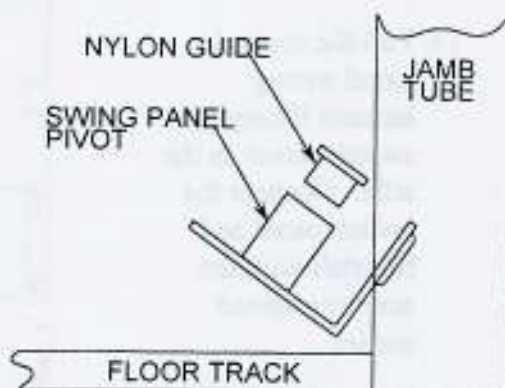


Figure 11

6. Locate the swing panel. It will have a ball detent at the top and bottom of the nose stile.

•FOR POCKETED UNITS, SKIP TO STEP 10.

7. Remove the control panel switch assembly from the panel. Save the screws for reinstallation (See Figure 12).
8. There are four feet of cable secured inside the header for the control panel harness. Withdraw a sufficient amount of the harness to reach the control panel switches on the swing panel.
9. Route the control panel wiring harness from the header past the swing panel top pivot (See Figures 13 and 14).
10. Position the swing panel over the bottom pivot.
11. Retract the top pivot by pushing the retracting pin down and aligning it with the hole in the header.
12. Allow the pivot pin to snap into the hole. Make sure it fully engages the hole. If necessary lift up on the retracting pin.

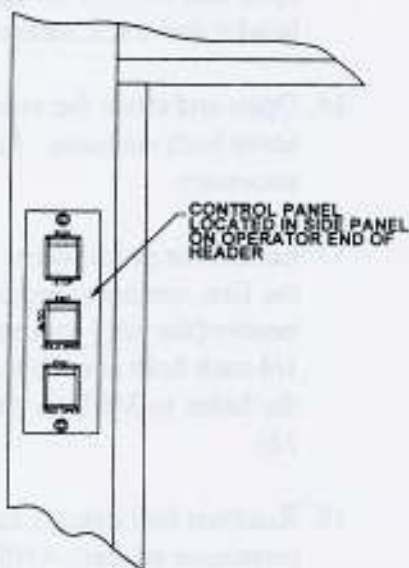


Figure 12

•FOR POCKETED UNITS, SKIP TO STEP 14.

13. Pull the control panel wiring harness through the switch cutout in the stile. Connect the switch panel and reinstall with the screws retained earlier.

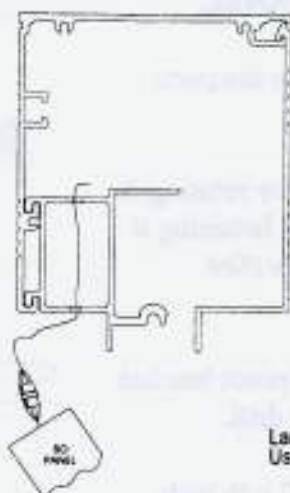


Figure 13

14. Assemble the limit arm (See Figure 15). Rest the wheel of the limit arm inside the upper rail of the swing panel. Install the red coated screw in the factory-drilled hole on the bottom of the header. Use one or two large washers as required.

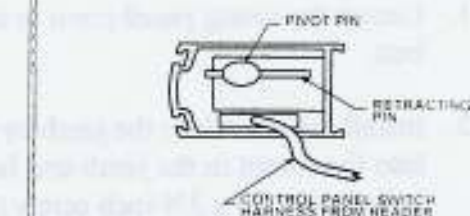


Figure 14

15. Adjust both ball detents with a 15/16 inch open end wrench so they lightly contact the header and track surfaces.

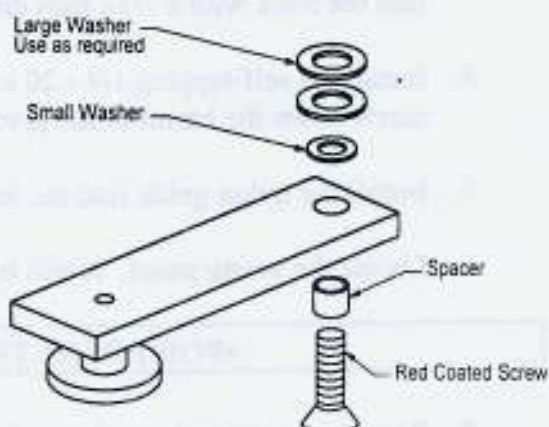


Figure 15

16. Open and close the swing panel several times to score both surfaces. Adjust the height if necessary.

17. Locate the point where the score marks intersect the first centering groove on the bottom of the header (the only groove on the track.) Drill a 1/4 inch hole at each location and countersink the holes to 3/8 inch x 82 degrees (See Figure 16).

18. Readjust ball detents for the proper break out resistance to meet ANSI A156.10 or local code.

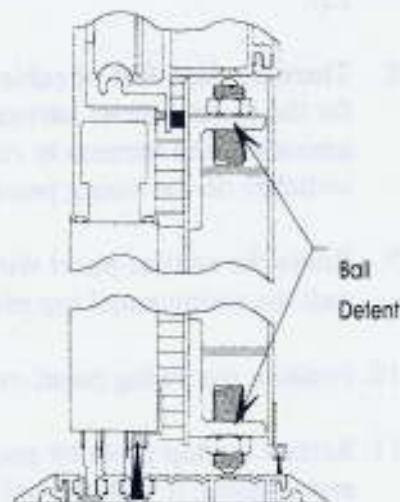


Figure 16

•FULL OPEN UNITS, PROCEED TO SECTION H

•POCKETED UNITS, CONTINUE WITH SECTION E

E. INSTALLATION OF THE POCKETED FIXED PANEL

1. Locate the fixed panel. It will be similar to the swing panel but without the top and bottom ball detents.
2. Remove the control panel switch assembly from the panel. Save the screws for reinstallation (See Figure 12).
3. There are four feet of cable secured inside the header for the control panel harness. Withdraw a sufficient amount of the harness to reach the control panel switches on the fixed panel.
4. Route the control panel wiring harness from inside the header past the fixed panel top pivot. *Note: The wire harness will go around the track, not through it like a Full Open (See Figures 14 and 17).*
5. Position the swing panel over the bottom pivot.
6. Retract the top pivot by pushing the retracting pin down and aligning it with the hole in header bracket.
7. Allow the pivot pin to snap into the hole. Make sure it fully engages the hole. Lift up on the retracting pin if necessary.
8. Pull the control panel wiring harness through the switch cutout in the stile. Install the loose connector (See Figure 18). Connect the switch panel and reinstall with the screws retained earlier.
9. Locate the angle clip in the parts box. It will look the same as the factory-mounted bracket on the underside of the cover.
10. Install this clip into the floor track in line with the hole on the bottom nose of the fixed panel. It will be necessary to shim the clip to meet with the hole in the stile due to variances in floor height. A groove in the floor track will assist with any hole drilling (See Figure 19). The fixed panel will be secured in place with these two brackets at cleanup.

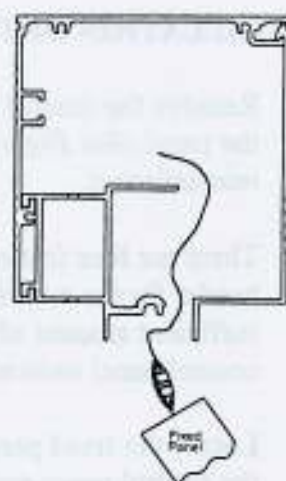


Figure 17

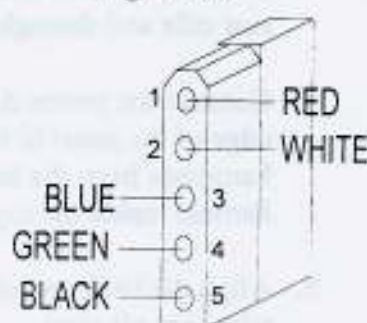


Figure 18



Figure 19

•PROCEED TO SECTION H

F. INSTALLATION OF FIXED PANEL (FIXED SIDELIGHT ONLY)

1. Remove the control panel switch assembly from the panel (See Figure 12). Save screws for reinstallation.
2. There are four feet of cable secured inside the header for the control panel harness. Withdraw a sufficient amount of the harness to reach the control panel switches on the fixed panel.
3. Locate the fixed panel near the jamb tube. Route the control panel switch assembly harness from the bottom of the header through the top of the rear stile and through the access cutout.
4. Connect the power down harness near the front edge of the panel to the two yellow wire harnesses from the header. Secure the excess harness inside the top rail of the fixed panel.

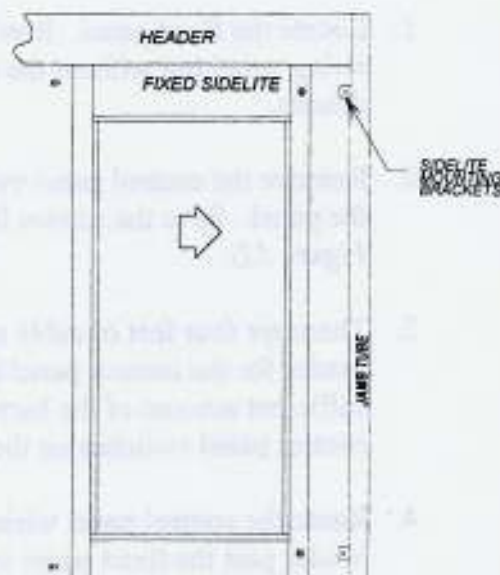


Figure 20

5. Align the back end of the fixed panel with the brackets on the jamb tube. Make sure no wires are pinched.
6. Position the panel onto brackets and fasten with the screws provided on the brackets (See Figure 20).
7. Remove the bottom guide cavity cover from the bottom of the front stile. Save the screws for reinstallation.
8. Install the floor bracket into the panel with the color coordinated 1/4 - 20 x 1/2 inch screw. Plumb the panel and mark holes on the floor. Drill holes with the masonry bit and fasten the bracket to the floor with plastic anchors and #10 x 1 1/2 inch screws (See Figure 21).

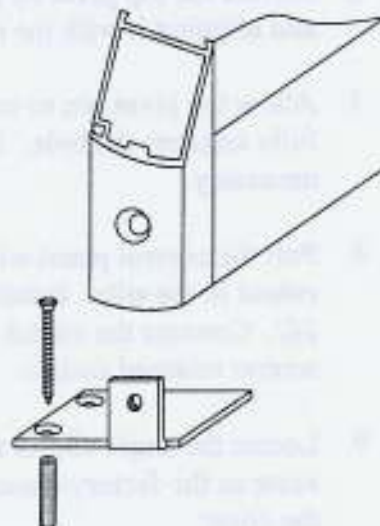


Figure 21

•PROCEED TO SECTION H

G. INSTALLATION OF SURFACE APPLIED UNITS

1. Locate the control panel switch assembly from inside the header (See Figure 12). Save screws for reinstallation.
2. There are ten feet of cable secured inside the header for the control panel harness with a loose connector. It may be installed inside the building at the customer's discretion or can be mounted on the vertical stile installed in Step 6.
3. If an inside building location is desired, run the wire into the building through a hole drilled into the back of the header and the wall. Be careful to avoid moving parts.
4. If the vertical stile location is desired, run the wire through the hole provided in the header next to the mounting bracket.
5. Install the wires into the connector (See Figure 22).
6. Remove the stile mounting screw from the bracket in the header. Angle the vertical onto the bracket in the header. If the control panel switches are to be installed in this stile, thread the wires down the stile at this point. Secure the stile with the mounting screw.
7. Install the wall mounted door track to the jamb tube with the bracket provided on the jamb. Secure the wall mounted track to the vertical stile with the bracket attached to the stile.
8. Remove the bottom guide cavity cover from the bottom of the front stile. Save the screws for reinstallation during door installation.
9. Install the floor bracket into the panel with the color coordinated 1/4-20 x 1/2 inch screw. Plumb the panel and mark the holes on the floor. Drill holes with the masonry bit and fasten the bracket to floor with plastic anchors and #10 x 1 1/2 inch screws (See Figure 19).
10. If the control panel switch assembly is to be mounted inside the building, use the cover and screws provided in the header to cover the square switch hole in the stile. It may be necessary to drill two 1/8 inch diameter holes to mount this blank cover.
11. If the control panel switch assembly is installed in the stile, it may be beneficial to

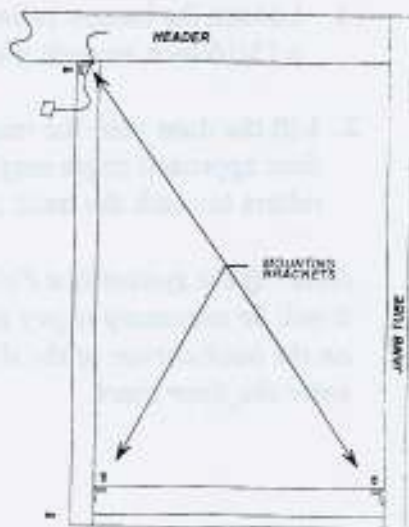


Figure 22

slightly bend the mounting plate to match the curve of the stile. Remove the switches from the plate and carefully bend the plate on the edge of a table.

H. INSTALLATION OF SLIDE DOOR

1. Loosen the hanger roller and anti-riser nuts with a 15/16 inch wrench (See Figure 24).
2. Lift the door onto the track. Slightly tilting the door approach angle may be necessary to allow rollers to catch the track (See Figure 23).

Note: If the system is a Full Open or Pocketed unit, it will be necessary to pry up on the bottom guide on the back corner of the door to allow the door to enter the floor track.

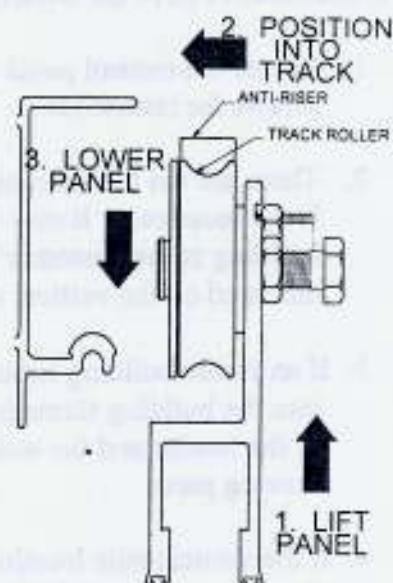


Figure 23

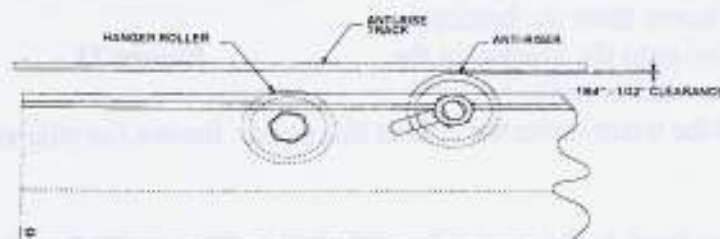


Figure 24

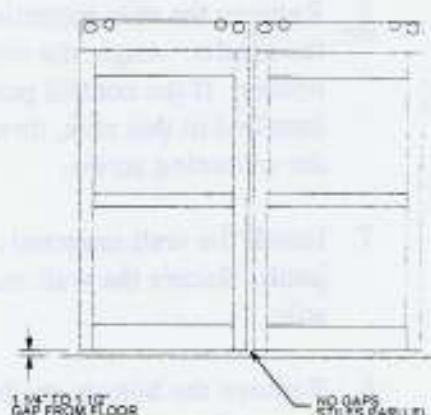


Figure 25

I. ADJUSTMENT OF DOOR

CAUTION: DO NOT PANIC THE DOOR UNTIL ADJUSTMENTS ARE MADE.

1. Door height from a finished floor is adjustable from 1 1/4 inch - 1 1/2 inch (See Figure 25).
2. Place a 15/16 inch wrench on the nut of the roller. With another 15/16 inch open end wrench, rotate the bolt clockwise with another 15/16 inch open end wrench.

Note: Do not rotate the bolt counterclockwise. It will only unthread the bolt from the roller.

- Secure the nut against the door carrier while still holding the bolt head. Repeat on the remaining rollers.

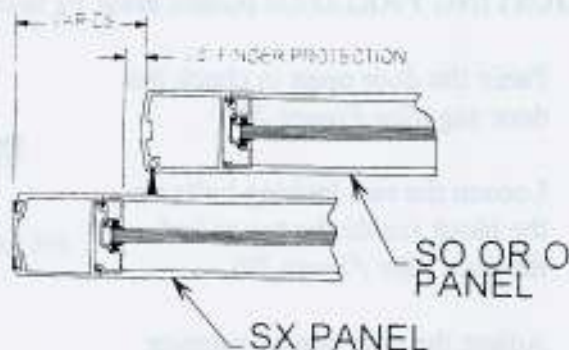


Figure 26

- The leading edge of the doors should meet without a gap between the opposite door (or jamb tube in the case of a single unit) at the top or bottom. Adjust the height and angle of the doors according to Step 2 if necessary.
- Slide the anti-risers up into the slot until there is a 1/64 inch to 1/32 inch gap between the anti-riser wheel and anti-riser track (See Figure 19). Tighten the nut on the anti-rise wheel.
- Attach belt clip(s) using the #12 x 3/4 inch self-drilling/self-tapping screws. Starter mounting holes have been pre-drilled in the door carrier. The belt clips should be installed toward the leading edge of the doors (See Figure 27).
- Adjust the door stop so there is a 3/8 inch gap from the face of the glass stop to the face of the sidelight or swing panel (See Figure 26). In some cases the door stop will be mounted on the jamb tube.

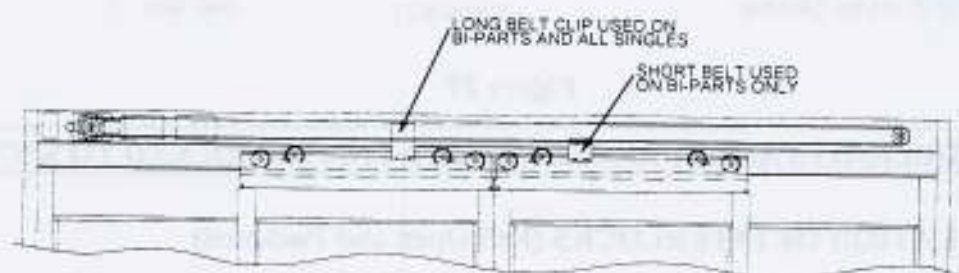


Figure 27

J. ADJUSTING PRELOAD (Glass must be installed before adjusting preload)

1. Panic the door open to check the door sag (See Figure 28).
2. Loosen the two locking bolts on the block inside the top rail of the door (See Figure 29).
3. Adjust the door sag by rotating the set screw on the back edge of the door with a 1/8 inch allen wrench. The door should latch without having to push up or pull down on the panel. A longer set screw is provided in the parts box if required.
4. Retighten the locking bolts.

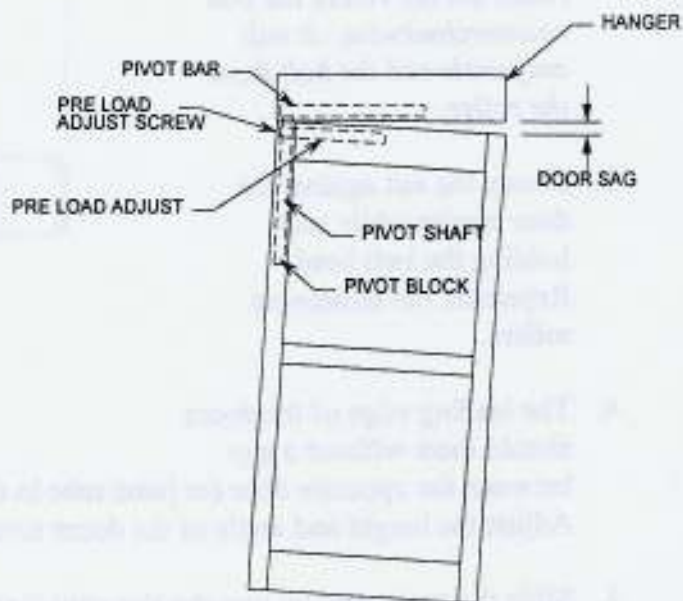


Figure 28

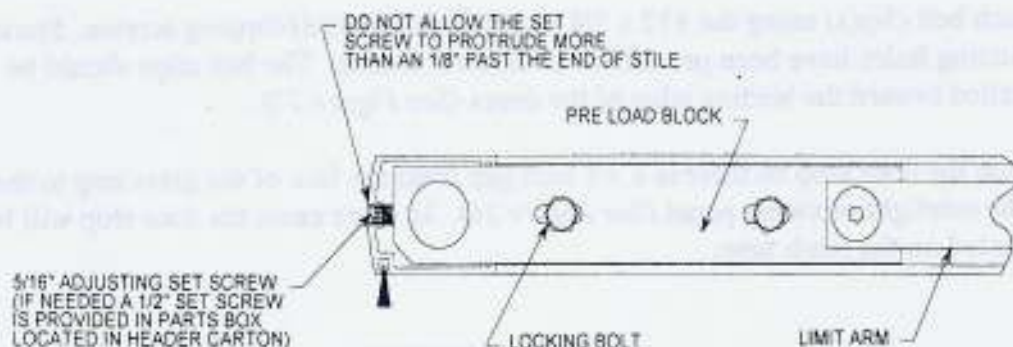


Figure 29

•FIXED SIDELIGHTS AND SURFACE APPLIED UNITS, PROCEED TO SECTION L

K. INSTALLATION OF INTERLOCKS (Full Open and Pocketed)

1. Manually close the doors. If the interlocks prevent the doors from closing, it will be necessary to move them outward and shim behind them.
2. A package of shims and roll pins were taped to the door (See Figure 30). Panic the door open to access the interlocks.



Figure 30

- Loosen the mounting screws and slide the interlocks closer to the edges of the stile. Slide shims under the interlocks as needed to ensure proper engagement (See Figure 31). It may be necessary to remove some brush from the back side of the interlock.
- When the interlock position is correct, drill a 1/8 inch hole through the interlock and into the stile. Pound a roll pin into each hole to lock the interlock in place.

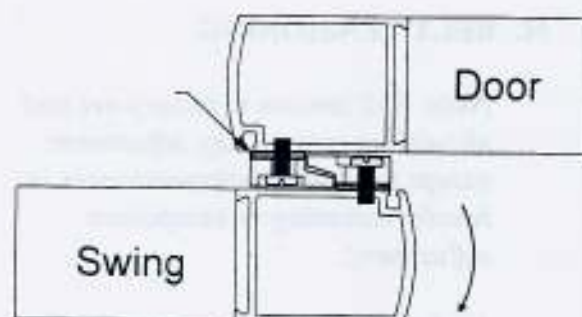


Figure 31

•PROCEED TO SECTION M

L. INSTALLATION OF BOTTOM GUIDE (Fixed Sidelight and Surface Applied units ONLY)

- Locate the bottom guide assembly in the parts box (See Figure 32).

Note: There is a right hand and left hand bottom guide that will correspond to a right and left door.

- Panic the door open. Attach the bottom guide with the two 1/4-20 x 1 inch hex head bolts and two star washers to the rear stile (See Figure 33).

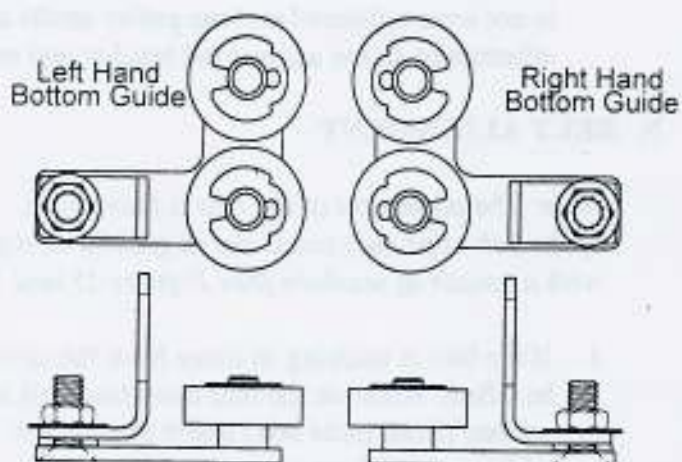


Figure 32

- Rotate the bottom guide, one roller at a time, into the cavity on the bottom of the fixed sidelight. Replace the bottom guide cavity cover removed in Sections F and G.

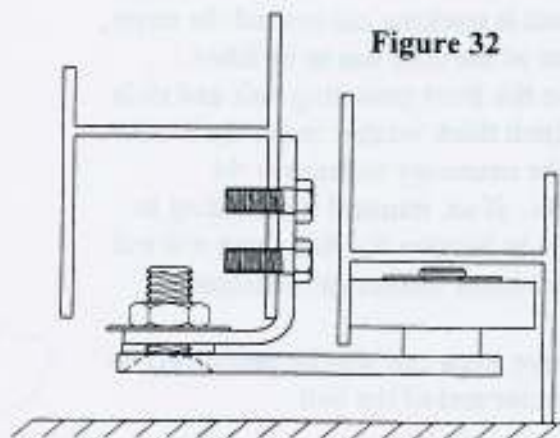
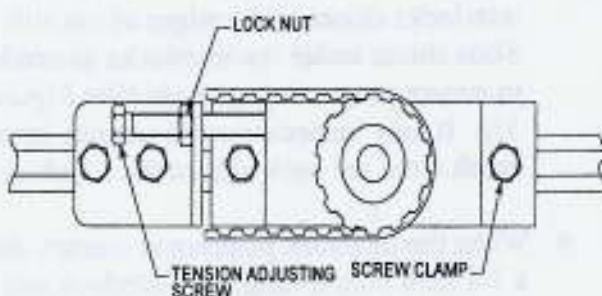


Figure 33

M. BELT TENSIONING

Note: Belt tension is factory-set and should not require any adjustment except for unusual circumstances in header mounting or component adjustment.

1. Loosen the mounting bolts on the idler bracket (See Figure 34).
2. Loosen the lock nut on the tension adjustment screw. Turn the tension adjustment screw to tighten or loosen the belt. The screw should push the idler bracket in the header. If the idler bracket does not move, loosen the two mounting bolts a few more turns.
3. Tension the belt so it is less taut than a guitar string. It is important to make sure the belt is not over tightened and the pulley shafts are bent. Tighten the lock nut on the adjustment screw against the bracket and secure the mounting bolts.



BELT TENSION IS FACTORY-SET AND SHOULD NOT NEED ADJUSTMENT

DO NOT OVERTIGHTEN BELT

Figure 34

N. BELT ALIGNMENT

Note: The alignment of the belt is factory-set. The weight of the doors and the installation of the belt clips may cause the alignment to slip. Realignment is easy and can be adjusted with a couple of washers (See Figures 35 and 36).

1. If the belt is tracking in away from the cover, the back of the idler has to be lifted. Remove the rear mounting bolt and slide a 1/16 inch "C" washer (from parts box) under the bracket. Retighten and test. Add additional washers as necessary.
2. If the belt is tracking out toward the cover, the front of the idler has to be lifted. Remove the front mounting bolt and slide a 1/16 inch thick washer under the bracket. It may be necessary to remove the tensioner. If so, reinstall it according to the steps in Section K. Retighten and test. Add additional washers as necessary.
3. The above steps can also be performed on the operator end of the belt.

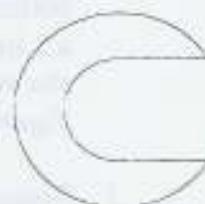


Figure 35

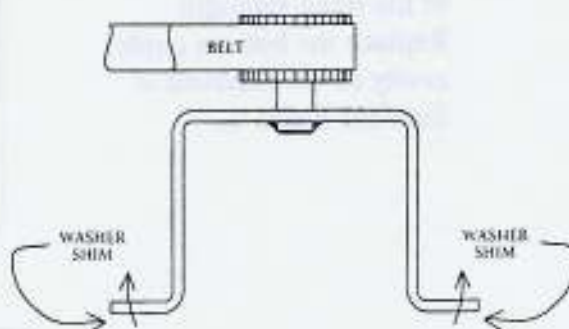


Figure 36

O. INSTALLATION OF BOTTOM SWEEP BRUSHES

1. Slide the brush into the weathering extrusions. The excess brush should hang toward the rear of the door.
2. Locate the "L" shaped weathering brush on the outside of the door along the bottom edge with the brush located under the door (See Figure 37). The edge of the extrusion should start just at the curve of the front edge of the door. Mark the three slots of the extrusion on the door. Drill three 1/8 inch mounting holes.
3. Mount the weathering on the door face using #6 x 1/2 inch self-tapping, color-coordinated screws from the parts box.
4. Due to the location of the bottom guides, the weathering extrusion can not cover the full

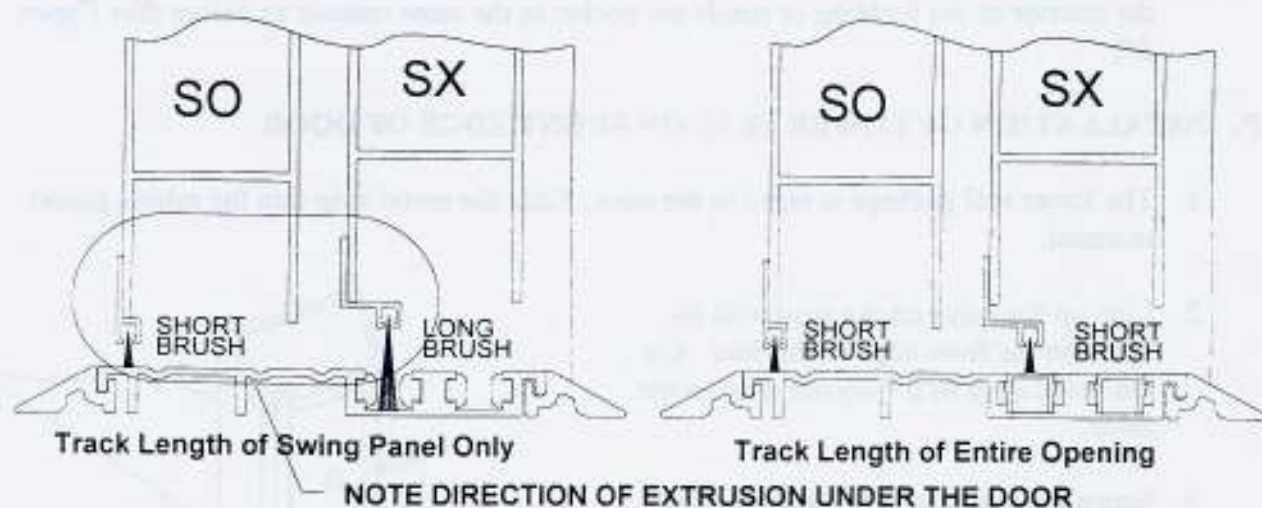
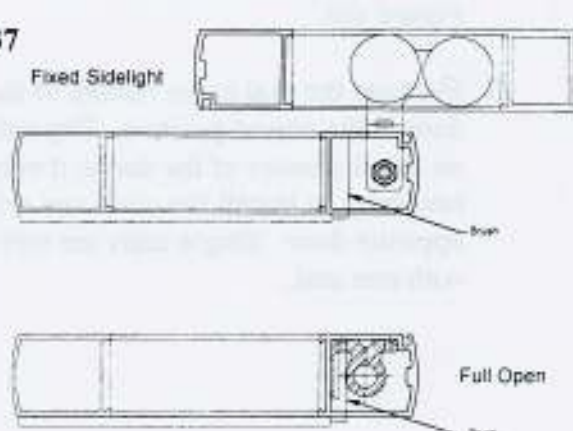


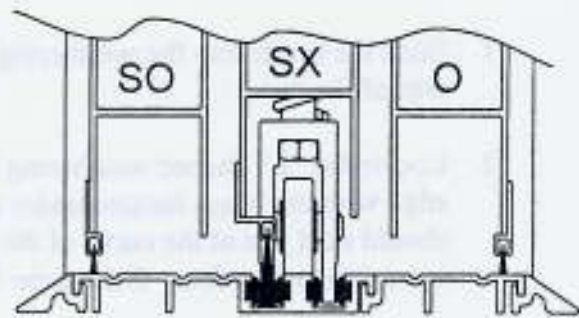
Figure 37

length of the door bottom. The installer may cut the excess brush at the end of the extrusion. It is also possible to bend the excess brush back 90 degrees under the door (and over the floor track for partial tracks of Full Open and Pocketed units). This will provide an additional seal around the bottom guides at the rear edge of the door (See Figure 38).



5. FULL OPEN AND POCKETED UNITS ONLY

ONLY - Locate the straight extrusion on the outside face of the swing panel. The shorter brush (1/4 inch tall) should be installed in the swing panel extrusion. There should not be any excess brush on this weathering. Mark the mounting holes and install the panel weathering in the same manner as the door weathering.



Pocketed Brush Installation

Figure 39

6. POCKETED UNITS ONLY

ONLY - For the ultimate in weathering protection the bottom of the fixed panel may also be sealed with a brush. It can be installed on the interior of the building or inside the pocket in the same manner as before (See Figure 39).

P. INSTALLATION OF LOWER SEAL ON FRONT EDGE OF DOOR

1. The lower seal package is taped to the door. Slide the metal strip into the rubber gasket material.
2. Line up the holes on the strip with the holes on the front edge of the door. Cut the metal strip so it does not drag on the floor.
3. Screw the metal strip to the door edge, pinching the rubber seal to the stile (See Figure 40).
4. Evaluate the seal at the bottom of the door in the closed position. Depending on the alignment of the doors, it may be necessary to install the other seal on the opposite door. Single units are supplied with one seal.

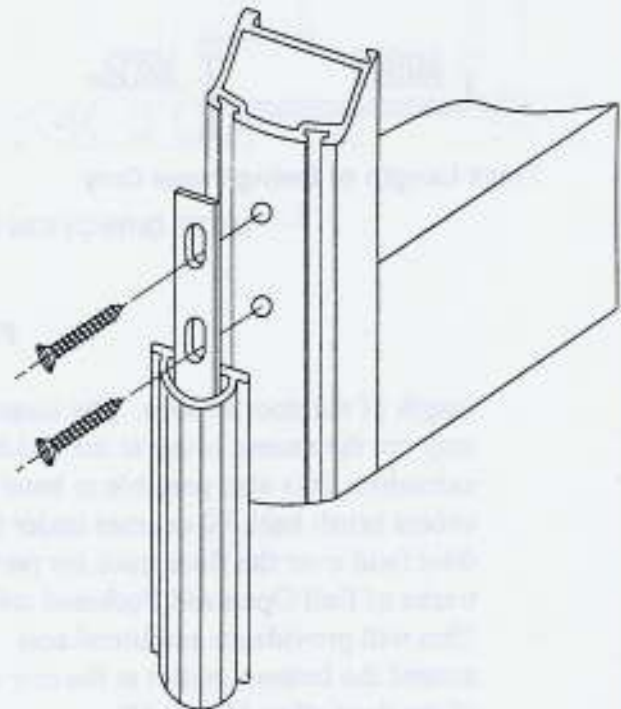


Figure 40

Q. DOOR PANIC ADJUSTMENT

Note: The panic adjustment should be made after the glass is installed. The weight of the door with the glass will affect the amount of force required to panic the door open. If the force required to panic the door is not acceptable, it can be adjusted by performing the following steps:

1. Panic the door open. This may require a slight lifting force to the door or a slight hit with a rubber mallet to the top rail, three inches from the nose of the door. Protect the surface of the door to prevent damage.

2. Remove the panic block in the top of the door.

3. Loosen the set screw on the front of the block

4. Raise or lower the ball plunger with the screw on the underside of the block. Adjust the ball plunger for proper breakout resistance to meet ANSI A156.10 or local code.

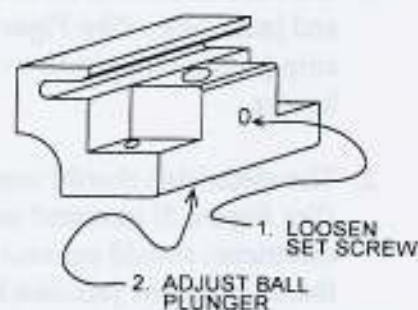


Figure 41

5. Retighten the set screw and reinstall it into the top of the door. Repeat as necessary (See Figure 41).

6. After power is applied to the door system, the panic breakout shuts down. The circuit should be checked out. When either door is panicked, the system should shut down. If it does not shut down, check the magnets and magnetic reed switches.

7. The magnet is secured inside the top rail of the swing panel on full open units. It should line up with the magnetic reed switch (it will look like a black button) installed on the bottom side of the header (See Figure 42).

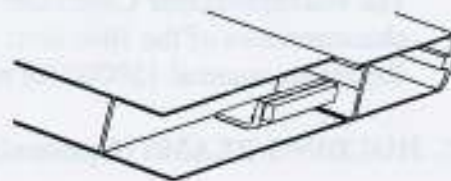


Figure 42

8. On fixed sidelights the magnet is installed inside the top rail of the door. Place a steel washer on the interior side of the rail to confirm it is installed. The magnetic reed switch is installed about eye level in the front stile of the sidelight facing the door (See Figure 43).

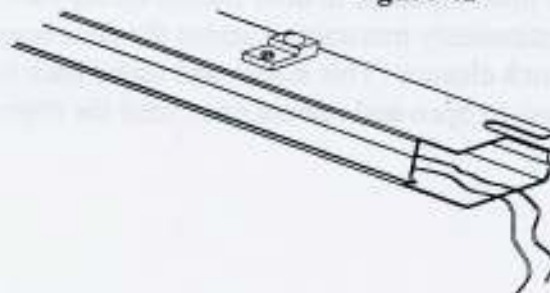


Figure 43

R. ELECTRICAL INFORMATION

CAUTION: BE SURE POWER IS OFF TO THE JUNCTION BOX BEFORE MAKING ANY CONNECTIONS.

Note: Since the Model 1175 Slider is predominantly factory-wired, the site installer/electrician has a relatively simple task.

1. Convenient electric service access holes have been provided in the slide header end caps and jamb tubes (See Figure 5). An electrician should route 110 VAC, single phase, five amp (minimum) power to the factory-supplied and mounted junction box inside the header.
2. The electrician should connect one power hot lead (black) to the power cut off switch (See Figure 5) mounted inside the junction box. Utilizing an appropriate wire nut, the electrician should connect the common lead (white) to the loose common lead (white) found inside the junction box. The facility ground wire should be connected to any one of the header-to-jamb tube mounting bolts.
3. If holding beams are included with the door system, two common leads (white) will be inside the junction box. The second common lead (white) is used to connect a 40 VA Class Two transformer for use with the holding beams. Replace the junction box cover. You should now be ready to turn on the unit's power and proceed with performance set-up procedures outlined in the Microprocessor and Handy Terminal Manual (P/N 159000).

S. MICROPROCESSOR CONTROLLER

The Microprocessor Controller has been designed to control the numerous operating characteristics of the slide door system including speed, recycling and door opening width. Reference manual 159000 for more details.

T. HOLDING BEAMS (Optional)

The holding beam is a factory-installed unit consisting of an emitter and a detector. They are flush mounted in door frames facing each other. A pulsed, infrared lightbeam is continuously transmitted across the door opening. Interruption of the beam causes a relay switch closure. This signal will travel back to the Microprocessor Controller causing the doors to open and remain open until the object or person is out of the way.

U. ELECTRIC LOCK (Optional)

Electric locks are available in two configurations: fail safe and fail secure. These locks will prevent someone from opening the doors until an activation signal is applied to the electric lock. This signal could be from a remote switch, transmitter or activation device on the face of the door. Fail safe will allow the door to manually slide open if power to the door unit is interrupted. Fail secure will not permit the door to be manually opened if power is interrupted. Fail secure can not be opened until power is restored and the lock receives an activation signal. Neither type of electric lock will inhibit the panic breakout.

Each electric lock is factory-installed and wired into the control box. The only adjustments required are the vertical and horizontal alignments of the electric lock cam with the strike bolt on the door carrier. Vertical adjustment is accomplished with two screws in slotted holes on the faceplate of the electric lock. Horizontal adjustment is made by moving the electric lock assembly along the nut track inside the header. It is also a good idea to check the rigidity of the transformer mounting. Shipping vibrations may have loosened the bracket. A wiring diagram is included at the back of this manual for reference.

V. TYPICAL SLIDER WIRING

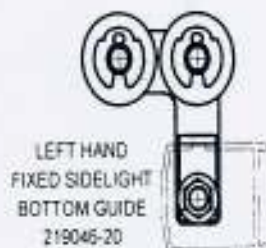
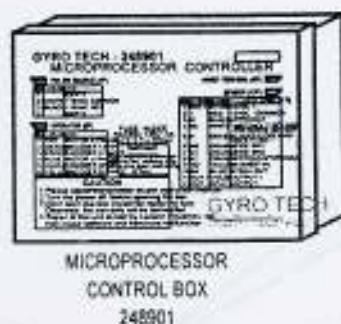
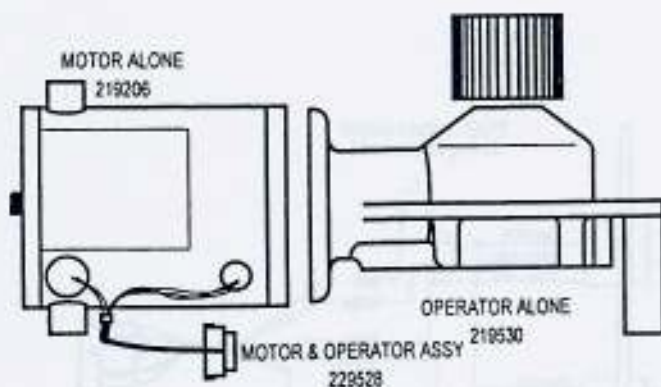
Wiring diagrams are included in the back of this manual, which reflect the typical factory-installed primary and secondary circuits. The low voltage (12VDC) reed switch (panic breakaway) and Acusensor are easily connected on site using factory-installed connector housings. The factory uses Underwriters Laboratories' (UL) Recognized Component wire, terminals and connector housings to manufacture the slider. Contact the Customer Service Department for assistance with special applications.

W. TROUBLESHOOTING

1. *The Acusensor does not seem to reach out far enough.*
 - ◆ Increase the area lever on the side of the Acusensor to a higher number.
 - ◆ Increase the opening speed on the door with the Handy Terminal.
2. *The Acusensor is not seeing people accessing the door from the side.*
 - ◆ Turn on more area switches on the front of the Acusensor.
3. *When the doors are panicked open, the system does not shut down.*
 - ◆ Check the wiring of the power down switch in the fixed panel or bottom of the header.
4. *Doors do not move when power is applied or when the Handy Terminal is connected.*
 - ◆ Confirm the swing panel is closed completely.
 - ◆ Check the power down magnet in the top rail of the swing panel is installed and aligned with the magnetic power down switch in the bottom of the header.

- ◆ Disconnect the plugs at the Acusensor to locate the problem circuit. The Microprocessor will ignore any switch or sensor when it is unplugged from the circuit.
5. *The cover on the Acusensor will not snap on.*
- ◆ Install a couple of thin washers to space the Acusensor off from the header and provide clearance for the cover.
6. *Doors move very slowly when the Handy Terminal is connected.*
- ◆ This is normal. It is "learning" the door system.
 - ◆ After learning the system the Handy Terminal will prompt with options.
7. *The doors do not open completely.*
- ◆ Look for obstructions in the track and inside the header. Check the belt clips are not hitting something.
 - ◆ Check the mode switch on the panel is not in "Reduced Opening" mode.
 - ◆ Use the Handy Terminal and reinitialize the system.
8. *One wants to eliminate all outside switches and sensors and make the system operate in automatic mode.*
- ◆ Disconnect the 12 pin connector from inside the Microprocessor.
 - ◆ The system will consist of only the motor, operator and control box (Microprocessor). The Handy Terminal will be the only means of operating the door.
9. *To reset the system back to the factory settings:*
- ◆ Plug in the Handy Terminal and wait for the door to close.
 - ◆ At "Swing/Slide Stroke?" enter YES.
 - ◆ At "Swing Door Y or N?" enter YES (even though you have a slide door).
 - ◆ The door will try to initialize as a swing door and reset the settings.
 - ◆ It will prompt you with "Swing/Slide Stroke." Enter YES.
 - ◆ At "Swing Door Y or N?" enter NO.
 - ◆ The system will now initialize as a slide door at the factory settings.
 - ◆ The door stroke must be set from the Handy Terminal from the prompts at this point.
10. *The control box has lost the settings stored in its memory.*
- ◆ It may have been caused by turning the power on and off too quickly or a power outage.
 - ◆ See the steps for resetting the system under troubleshooting question number nine.
 - ◆ If the problem persists, replace the control box.

X. COMMON REPLACEMENT PARTS



Wiring Diagram for connecting push plates and or card readers for Night mode.
 Attach the normally open contacts across the red and black wire on either the rocker or key switches.

