

# NT DOR-O-MATIC™



## Look-See II™

Installation & Adjustment  
Instruction Manual  
For: 78200-900

The Look-See II is a threshold safety system  
for use on NT Dor-O-Matic Astro-Slide  
automatic sliding door packages.

### NT DOR - O - MATIC™

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## OVERVIEW

- **FUNCTION:** The Look-See II doorway presence sensing device detects presence in the threshold area of an automatic sliding door when the door is fully open, and it will keep the door open until the object leaves or the Look-See II timer expires.  
Each Look-See II unit is pre-adjusted at the factory for neutral floor conditions. In most cases, it can be installed and operated with only the simple SET-UP procedure shown on page 6.
- **FEATURES:** The Look-See II is an improved version of the Look-See I. The primary improvements are as follows:
  1. The Look-See II has a switch setting for either a SINGLE door (for narrow door openings, generally up to 47" wide) or a BI-PART pair of doors (for wide door openings, generally 47" to 84" wide).
  2. The Look-See II is not limited to standard height doors (7' from floor to bottom of header). A switch allows the unit to perform on tall doors (7' to 10'6" from floor to bottom of header).
  3. The Look-See II has been designed to more easily recognize darker color patterns, materials, and surfaces.
- **OPERATION:** The Look-See II will detect presence in the doorway of a sliding door and is thus a safety device.  
When the door is first opened in the morning, the Look-See II adjusts itself to the clear doorway. Then, if an object is in the detection zone in the open doorway, the Look-See II detects the object and keeps the door open until the object leaves or the Look-See II timer expires. If the floor color or reflection changes (such as from the addition of snow or a colored mat), the Look-See II adjusts itself to this new background so it can still discern presence of an object or person on the new floor surface.
- **IMPORTANT:** The Look-See II is rated for 14VAC to 30VAC. If the Look-See II is used with the Astro-Slide 70588-900 control box, an external transformer is required. See section "ELECTRICAL CONNECTION REPLACING A LOOK-SEE I WITH A LOOK-SEE II" on page 7.

The Look-See II is designed to be mounted on the bottom surface of the header. Do **NOT** recess the Look-See II into the header.



# PART IDENTIFICATION AND FUNCTION DESCRIPTION

This section is intended only as a general description of the features of the Look-See II. Refer to the section on SET-UP for a more detailed description of the functions.

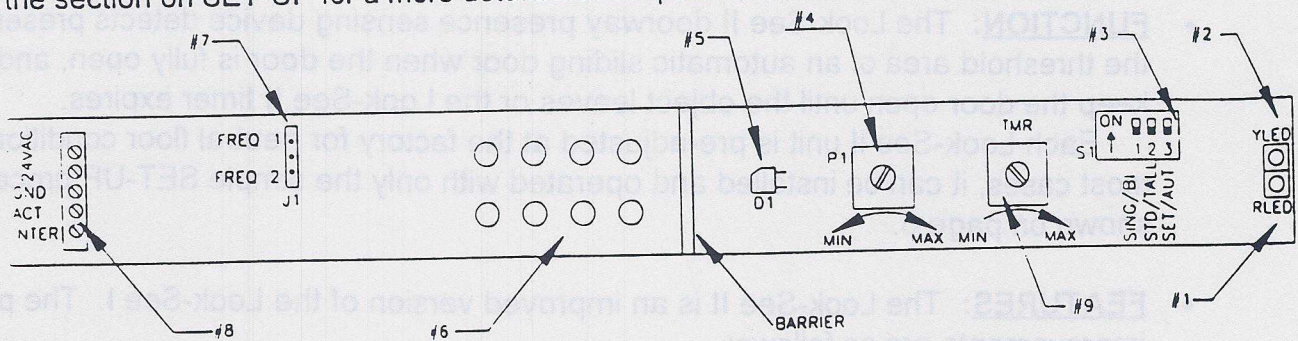


FIGURE 1: PART IDENTIFICATION

## #1 RLED: Red LED Indicator:

OFF: No object is detected in the threshold area.  
 ON: An object is detected in the threshold area.  
 FLASH: The unit is not adjusted properly.

## #2 YLED: Yellow LED Indicator:

OFF: The unit is not adjusted properly, or the unit is defective.  
 ON: The unit is operating properly.  
 FLASH: The unit is automatically adjusting to the environment.  
 (This condition occurs in **AUTO** mode *only*.)

## #3 S1: Computer Function and Set-Up Selector:

This selector has three separate switches referred to as S1-1 through S1-3. They must be set correctly when making any adjustments and for the Look-See II to work properly.

Each individual switch in this group is labeled on the circuit board as to its function. The switch-block itself is also labeled indicating which direction is "ON" as shown in FIGURE 1. The "ON" should be ignored. The labels on the circuit board are the ones that should be followed.

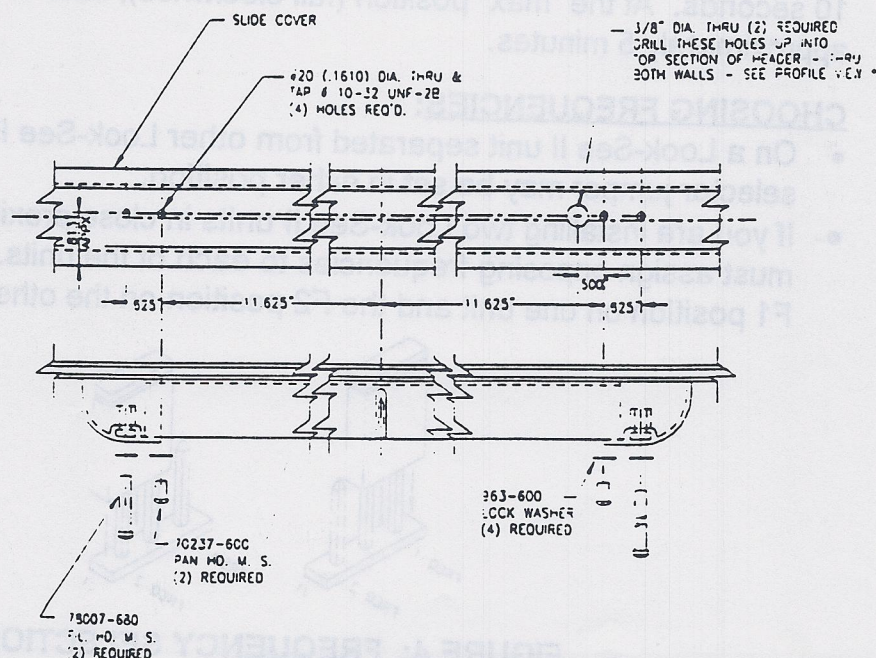
- **S1-1: SINGLE / BI-PART**  
 SINGLE for narrow door openings, generally up to 47" wide.  
 BI-PART for wide door openings, generally 47" to 84" wide.
- **S1-2: STD / TALL DR**  
 STD for standard height (7' from floor to bottom of header).  
 TALL for tall door (7' to 10'6" from floor to bottom of header).
- **S1-3: SETUP / AUTO**  
 SETUP for manual adjustment of Look-See II unit.  
**Consult NT Dor-O-Matic Inc before adjusting unit.**  
 AUTO for normal operating mode.



- #4 **P1:** Used to adjust the gain, if necessary. This pot is factory set for neutral floor conditions (such as medium gray, brown, green, etc.). The factory set position is approximately 90° from the "min" position.
- #5 **D1: Light receiving diode:** All reflected light from the LED's is returned here.
- #6 **LED's:** The 4 LED's in the center are used in single door mode. All 8 LED's are used in bi-parting door mode.
- #7 **J1:** Frequency Selector: This is an operating frequency selector jumper used to prevent two units in close proximity from "talking" to each other. Choose F1 or F2.
- #8 **Terminal Block:** All wire connections are made here. Make sure all wires are connected correctly and not shorted to adjacent terminals. Also verify that enough insulation is stripped off so that good contact is made between the terminal and the wire.
- #9 **TMR: Timer Adjustment Potentiometer:** Used to pre-set auto tuning time for Look-See II when environmental changes around the door take place.
- MIN: Look-See II will auto-adjust after 10 seconds.
- MAX: Look-See II will auto-adjust after 5 minutes.

## MECHANICAL INSTALLATION

Note: The Look-See II is designed to be mounted on the bottom surface of the header. Do **NOT** recess the Look-See II into the header.



**FIGURE 2: MOUNTING INSTRUCTIONS**



# SET-UP

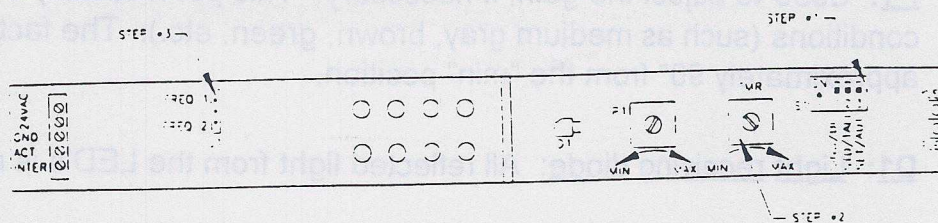


FIGURE 3: SET-UP

Note: Each Look-See II unit is pre-adjusted at the factory for neutral floor conditions (such as medium gray, brown, green, etc.). In most cases, it can be installed and operated with no adjustment needed.

The following steps are *required* to be performed for proper operation.

1. **IDENTIFICATION:** Each Look-See II unit must be set up in accordance with its particular automatic door package.

Set S1-1 according to door opening width. Select:

- SINGLE for narrow door openings, generally up to 47" wide, or
- BI-PART for wide door openings, generally 47" to 84" wide.

Set S1-2 according to door height. Select:

- STD for standard height (7' from floor to bottom of header), or
- TALL for tall door (7' to 10'6" from floor to bottom of header).

Set S1-3 to select the Look-See II mode of operation. Select:

- AUTO for normal operating mode.

2. **AUTO-ADJUST DELAY:**

Set TMR for the desired amount of time delay before the unit will auto-adjust. At the "min" position (full counterclockwise), auto-adjust will occur after approximately 10 seconds. At the "max" position (full clockwise), auto-adjust will occur after approximately 5 minutes.

3. **CHOOSING FREQUENCIES:**

- On a Look-See II unit separated from other Look-See II units, the frequency selector jumper may be set in either position.
- If you are installing two Look-See II units in close proximity to each other, you must assign opposing frequencies to each of the units. Place the jumper in the F1 position on one unit and the F2 position on the other unit.

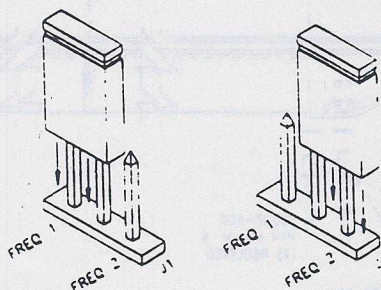


FIGURE 4: FREQUENCY SELECTION



## ELECTRICAL CONNECTION NEW INSTALLATION

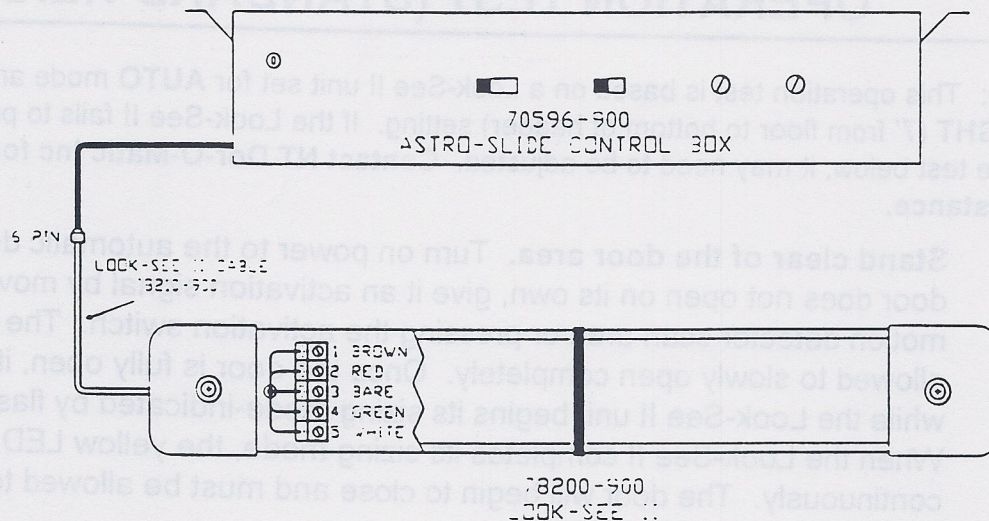


FIGURE 5

## ELECTRICAL CONNECTION REPLACING A LOOK-SEE I WITH A LOOK-SEE II

The Look-See I uses 12VAC provided by the 70588-900 Astro-Slide control box. Therefore, you must purchase and install a transformer with a rating of 14VAC to 30VAC to install the Look-See II with this control box.

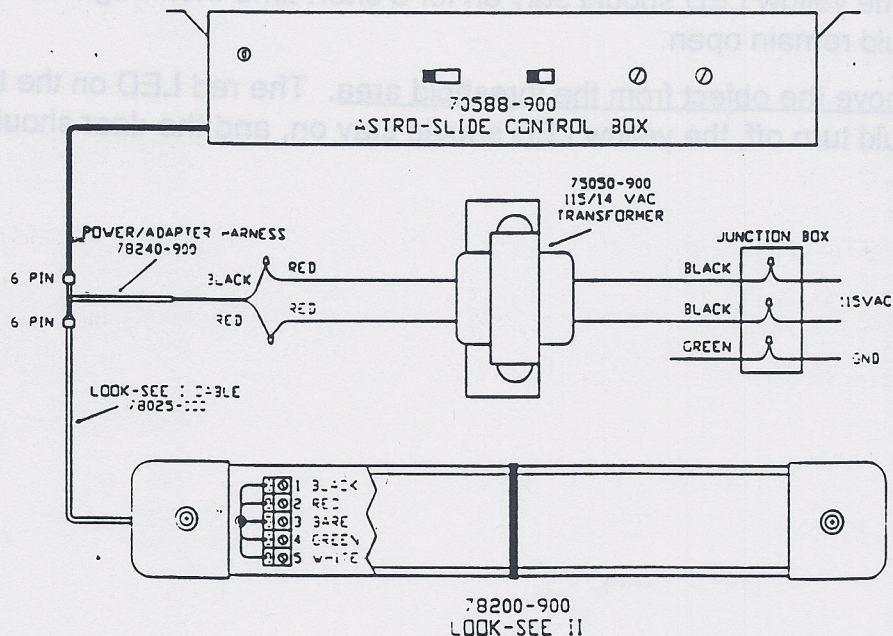


FIGURE 6



\* The Look-See II performs differently in the **standard height** (7' from floor to bottom of header) setting than in the **tall door** (7' to 10'6" from floor to bottom of header) setting. Follow the appropriate operation test when verifying the Look-See II performance.

## OPERATION TEST (STANDARD HEIGHT)

Note: This operation test is based on a Look-See II unit set for **AUTO** mode and **STANDARD HEIGHT** (7' from floor to bottom of header) setting. If the Look-See II fails to perform as specified in the test below, it may need to be adjusted. **Contact NT Dor-O-Matic Inc for technical assistance.**

1. **Stand clear of the door area.** Turn on power to the automatic door system. If the door does not open on its own, give it an activation signal by moving through the motion detector scan area or pressing the activation switch. The door must be allowed to slowly open completely. Once the door is fully open, it will stay open while the Look-See II unit begins its sizing mode-indicated by flashing yellow LED. When the Look-See II completes its sizing mode, the yellow LED will stay on continuously. The door will begin to close and must be allowed to close without interruption.  
  
**\*NOTE:** If the yellow LED stops flashing and the red LED starts flashing, the Look-See II is not adjusted properly for the environment. **Contact NT Dor-O-Matic Inc for technical assistance.**
2. Cycle the door several times with nothing in the threshold area. As the door opens and closes, take note of the status of the red LED and the yellow LED on the Look-See II unit. The yellow LED should be on, and the red LED should be off.
3. Activate the door open again. This time, place an object in the threshold area. Be sure that the object does not interrupt the safety beams and that the motion detectors are not sensing movement. The red LED on the Look-See II should stay on, the yellow LED should stay on for a short time then begin flashing, and the door should remain open.
4. Remove the object from the threshold area. The red LED on the Look-See II should turn off, the yellow LED should stay on, and the door should close.



5. The Look-See II scan area is generally cone shaped starting from the header with an elliptical area on the floor as follows:

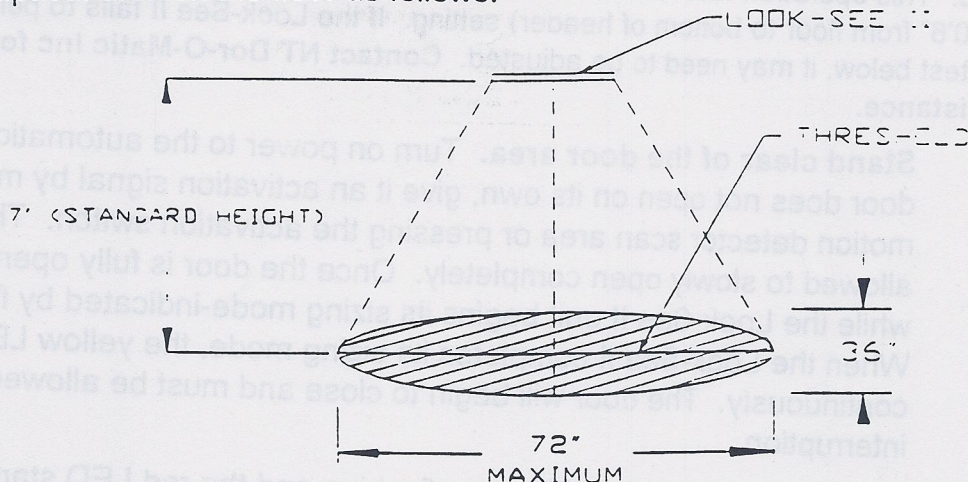


FIGURE 7

6. Activate the door open again. Place the object in the Look-See II scan area, but out of the automatic door path. As before, the red LED on the Look-See II should stay on and the door should remain open. Once all activation signals are released and all safety beams are clear, the yellow LED should begin to flash. The yellow LED should continue to flash, and the door should remain open for a minimum of approximately 10 seconds. After that time, the red LED should turn off, the yellow LED should stay on, and the door should close. The object has become part of the environment.

**\*IMPORTANT:** In the **AUTO** mode, the Look-See II unit will not begin its auto adjust mode until **ALL** activation signals are released **AND ALL** safety beams are clear.

7. Cycle the door several times with the object in place. The door should open and close normally.
8. Remove the object, and activate the door open. Now that the object is gone, the Look-See II will need to re-adjust to the environment as in step #5.
9. Adjust all automatic door controls and sensors according to the current ANSI / BHMA A156.10 standards.
10. Perform all of the test procedures specified in the automatic door system manual(s).



## OPERATION TEST (TALL DOOR)

Note: This operation test is based on a Look-See II unit set for AUTO mode and TALL DOOR (7' to 10'6" from floor to bottom of header) setting. If the Look-See II fails to perform as specified in the test below, it may need to be adjusted. Contact NT Dor-O-Matic Inc for technical assistance.

1. **Stand clear of the door area.** Turn on power to the automatic door system. If the door does not open on its own, give it an activation signal by moving through the motion detector scan area or pressing the activation switch. The door must be allowed to slowly open completely. Once the door is fully open, it will stay open while the Look-See II unit begins its sizing mode-indicated by flashing yellow LED. When the Look-See II completes its sizing mode, the yellow LED will stay on continuously. The door will begin to close and must be allowed to close without interruption.

**\*NOTE:** If the yellow LED stops flashing and the red LED starts flashing, the Look-See II is not adjusted properly for the environment. Contact NT Dor-O-Matic Inc for technical assistance.

2. Cycle the door several times with nothing in the threshold area. As the door opens and closes, take note of the status of the red LED and the yellow LED on the Look-See II unit. The yellow LED should be on, and the red LED should be off.
3. Activate the door open again. This time, place an object in the threshold area. Be sure that the object does not interrupt the safety beams and that the motion detectors are not sensing movement. The red LED on the Look-See II should stay on, the yellow LED should stay on for a short time then begin flashing or should stay on without flashing, and the door should remain open. **If the red LED fails to stay on, refer to SPECIAL CONSIDERATION (TALL DOOR) section.**
4. Remove the object from the threshold area. The red LED on the Look-See II should either...
  - a. turn off right away, or
  - b. stay on for 20 seconds after the object is removed and then turn off, the yellow LED should stay on, and the door should close.



5. The Look-See II scan area is generally cone shaped starting from the header with an elliptical area on the floor as follows:

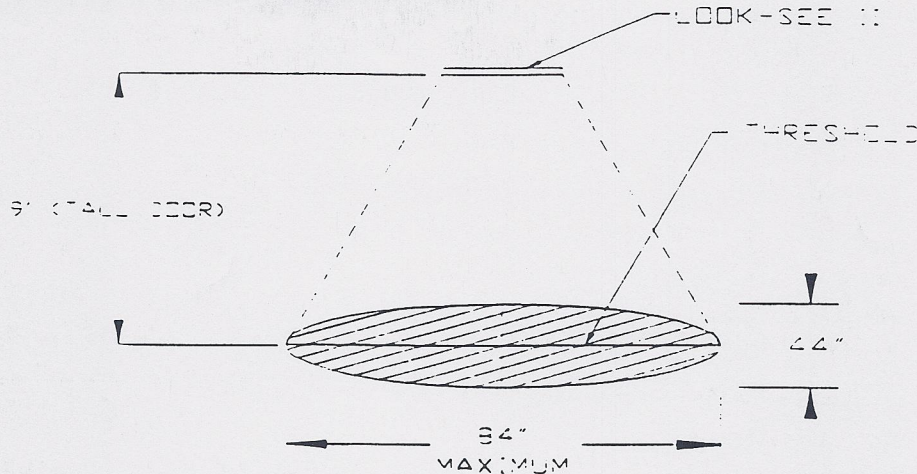


FIGURE 8

6. Activate the door open again. Place the object in the Look-See II scan area, but out of the automatic door path. As before, the red LED on the Look-See II should stay on and the door should remain open. Once all activation signals are released and all safety beams are clear, the yellow LED should begin to flash or stay on continuously, and the door should remain open for a minimum of approximately 10 seconds. After that time, the red LED should turn off, the yellow LED should stay on, and the door should close. The object has become part of the environment.
- \*IMPORTANT:** In the **AUTO** mode, the Look-See II unit will not begin its auto adjust mode until **ALL** activation signals are released **AND ALL** safety beams are clear.
7. Cycle the door several times with the object in place. The door should open and close normally.
8. Remove the object, and activate the door open. Now that the object is gone, the Look-See II will need to re-adjust to the environment as in step #5.
9. Adjust all automatic door controls and sensors according to the current ANSI / BHMA A156.10 standards.
10. Perform all of the test procedures specified in the automatic door system manual(s).

## SPECIAL CONSIDERATION (TALL DOOR)

For some doors 9' to 10'6" from floor to bottom of header, the factory setting on the Look-See II unit will not be adequate to detect an object in the threshold area. If the red LED does not stay on during step #3 of OPERATION TEST (TALL DOOR), the Look-See II unit will need a slight gain adjustment. Gradually increase or "tweak" the gain adjustment pot **P1** until optimum coverage is achieved. Then, perform OPERATION TEST (TALL DOOR) again.

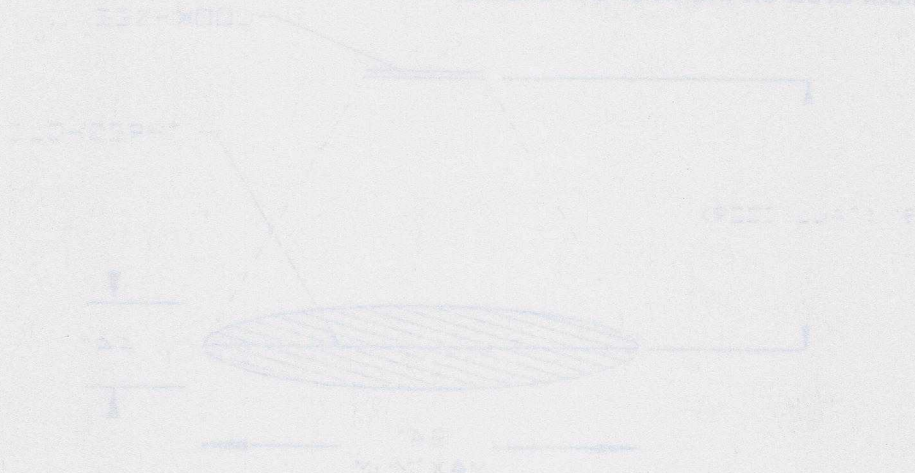


TEST (TALL DOOR) again.  
adjustment per P4 until optimum coverage is achieved. Then, perform OPERATION  
Look-See II unit will need a slight gain adjustment. Gradually increase or "tweak" the gain  
LED does not stay on during step #3 of OPERATION TEST (TALL DOOR), the  
Look-See II unit will not be adequate to detect an object in the threshold area. If the red  
For some doors 9" to 10" from floor to bottom of header, the factory setting on the

## SPECIAL CONSIDERATION (TALL DOOR)

10. Perform all of the test procedures specified in the automatic door system manual(s).
9. BMA A186.10 standards.
8. Adjust all automatic door controls and sensors according to the current ANSI 1.
7. Look-See II will need to re-adjust to the environment as in step #5.  
Remove the object, and activate the door open. Now that the object is gone, the  
close normally.  
Cycle the door several times with the object in place. The door should open and  
are clear.
- IMPORTANT: In the AUTO mode, the Look-See II unit will not begin its auto  
adjust mode until ALL activation signals are released AND ALL safety beams  
adjust mode until ALL activation signals are released AND ALL safety beams  
on, and the door should close. The object has become part of the environment.  
seconds. After first time, the red LED should turn off, the yellow LED should stay  
continuously, and the door should remain open for a minimum of approximately 10  
and all safety beams are clear, the yellow LED should begin to flash or stay on  
stay on and the door should remain open. Once all activation signals are released  
out of the automatic door path. As before, the red LED on the Look-See II should  
Activate the door open again. Place the object in the Look-See II scan area, but

FIGURE 8



The Look-See II scan area is generally cone shaped starting from the header with

an elliptical area on the floor as follows: