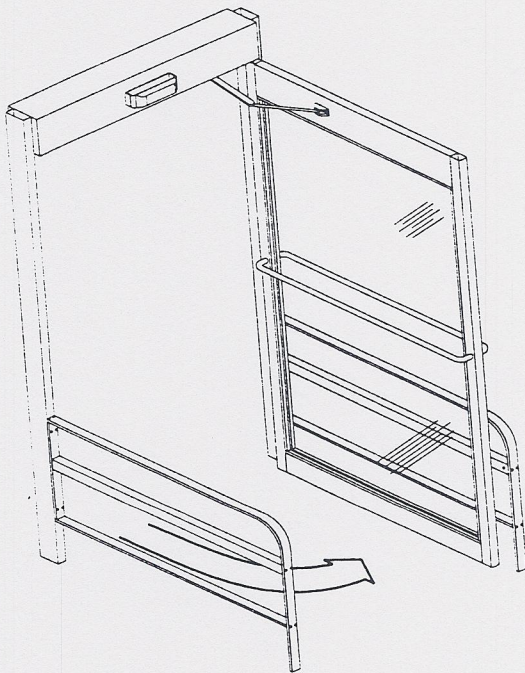


ACUSENSOR SWING PACKAGE INSTALLATION MANUAL



TOOL LIST

Drill bits:

- #29(.136)
- 1/2 inch
- 25/64
- 3/8 inch

Screwdrivers:

- regular
- phillips

Electrical fish tape

3/8 inch masonry drill bit
1/4 inch rivnut installation tool
1/2 inch socket wrench

Tape Measure



GYRO TECH

PN 159389

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THE MANUFACTURER, NABCO ENTRANCES INC., SUGGESTS THIS MANUAL SHOULD BE GIVEN TO THE OWNER FOR REFERENCE PURPOSES.

Note: Single and paired units can be ordered in standards of 36 to 48 inches.

I. APPROACH SIDE ACUSENSOR

A. Single Units

1. Locate the middle of the header. Align the mounting label, which was supplied with the Acusensor, at the center line in line with the edge of the header.
2. Drill three holes as noted on the mounting label. Mount the Acusensor to the header using the two screws provided with the Acusensor.
3. Plug the Acusensor harness into the connector on the Acusensor. Feed the pin end of the Acusensor harness through the wiring hole. Insert the pins into the supplied electrical connector (See Figure 1).

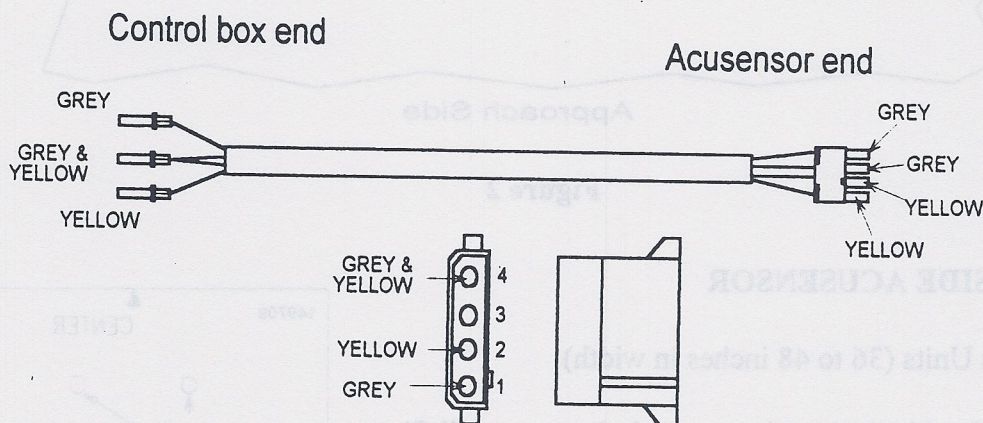


Figure 1

B. Paired Units

Note: An Acusensor on a 36 inch paired unit is mounted in the same manner as a single. One Approach Side Acusensor is required.

1. On door pairs 42 inches or larger, two Acusensors are required. Using only one Acusensor on units of this size will not cover the activation area (See Figure 2).
2. One Acusensor should be placed over the center of each door leaf.

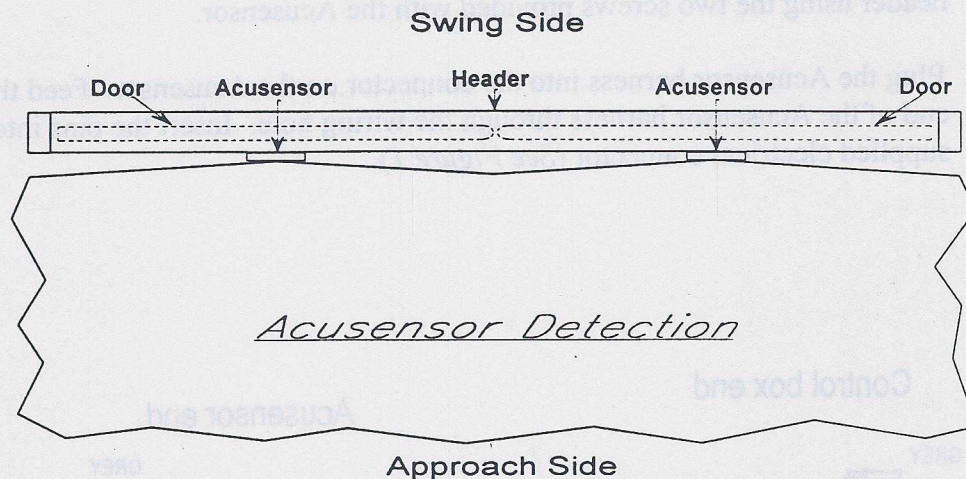


Figure 2

II. SWING SIDE ACUSENSOR

A. Single Units (36 to 48 inches in width)

1. When the bracket is mounted, the cover will flip up to access the screws.
2. Locate the center of the header. Use the sticker provided in the mounting kit (See Figure 3) to mount the bracket at the bottom edge of the header.

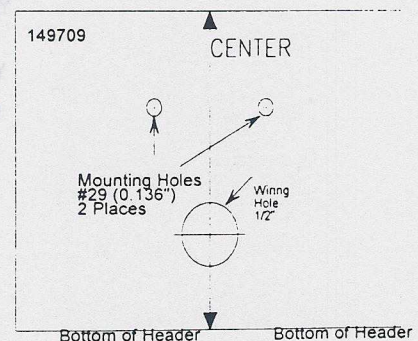


Figure 3

3. Mount the tandem bracket to the header (See Figure 4) through the slot on the bracket. Screws are provided in the Acusensor, and two washers are provided in the mounting kit. *Note: Do not overtighten the screws because later in the instructions the bracket and Acusensor will be adjusted left and right for pattern location.*

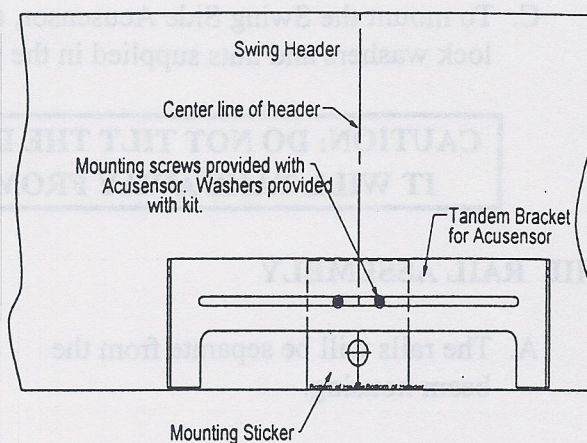


Figure 4

B. Paired units

•FOR 42 INCH TO 48 INCH PAIRS, SKIP TO STEP 4

1. Locate the center of the header on the 36 inch paired unit and measure to the left 18 inches and to the right 18 inches. Leave a pencil mark at each point.
2. Place one mounting label over each pencil mark aligned with the bottom edge of the header. Drill the required holes as noted on the label.
3. Mount the tandem brackets to the header through slots on the brackets using the screws provided in the mounting kit. *Note: Do not overtighten the screws, because later in the instructions the brackets and Acusensors will be adjusted left and right for pattern location.*

•FOR 36 INCH PAIRS, SKIP TO SECTION C

4. Locate the center of the header and measure 24 inches to the left and 24 inches to the right. Leave a pencil mark at each point.
5. Place one mounting label over each pencil mark, aligned with the bottom edge of the header. Drill the required holes as noted on the label.
6. Mount the tandem brackets to the headers through the slots on the brackets using the screws provided in the Acusensors and washers provided in the kit. *Note: Do not overtighten the screws because later in the instructions the brackets and Acusensors will be adjusted left and right for pattern location.*

- C. To mount the Swing Side Acusensor, attach it to the bracket with two #6-32 screws, lock washers and nuts supplied in the parts kit.

CAUTION: DO NOT TILT THE BRACKET OUT FOR GREATER DEPTH. IT WILL TAKE AWAY FROM THE THRESHOLD PROTECTION.

III. RAIL ASSEMBLY

- A. The rails will be separate from the beam housing.
- B. The beam housing will be 45 inches long for a 46 inch rail and 51 inches long for a 52 inch rail.
- C. The beam housing has a clip which mounts the housing to the rail. Place the housing in the rail and secure it by using the four 1/4-20 screws provided (See Figure 5).

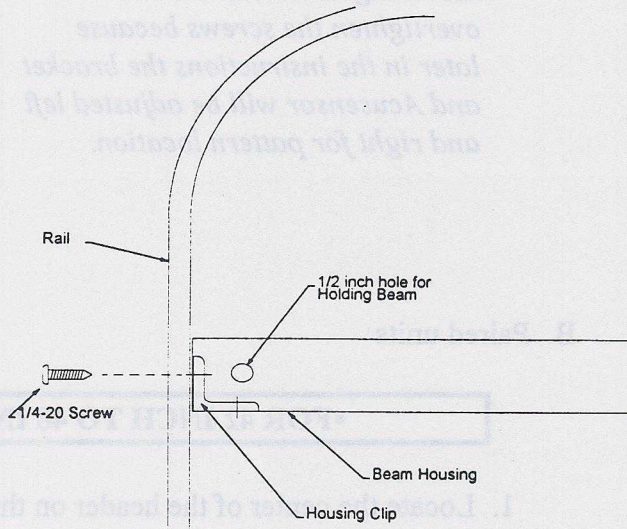


Figure 5

IV. MOUNTING RAILS AND HOLDING BEAMS

- A. The rails must be level and square to the ground.
- B. Mark the mounting holes through the vertical support of the rail onto the jamb tube.
- C. Drill two 25/64 inch holes and install two 1/4-20 rivnuts. Drill a 3/8 inch diameter access hole in the jamb tubes to accommodate the wires from the holding beams (See Figure 6). Temporarily mount the the rail for beam placement.
- D. To mark the position for the holding beam, the door should be in the full open position. At the furthest point away from the door on the rail, mark

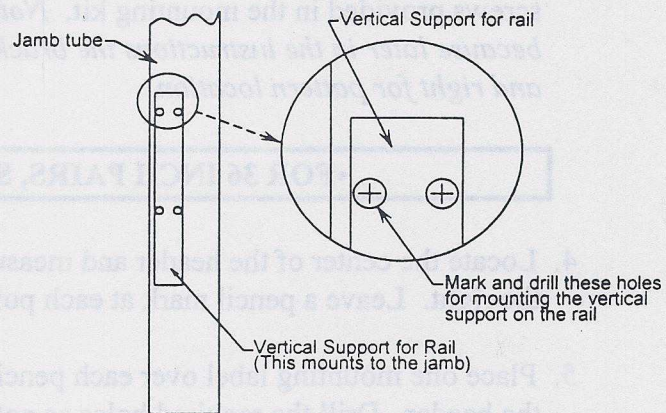


Figure 6

center of the housing (See Figure 7). Drill a hole on this rail housing and a mating hole the same distance from the jamb.

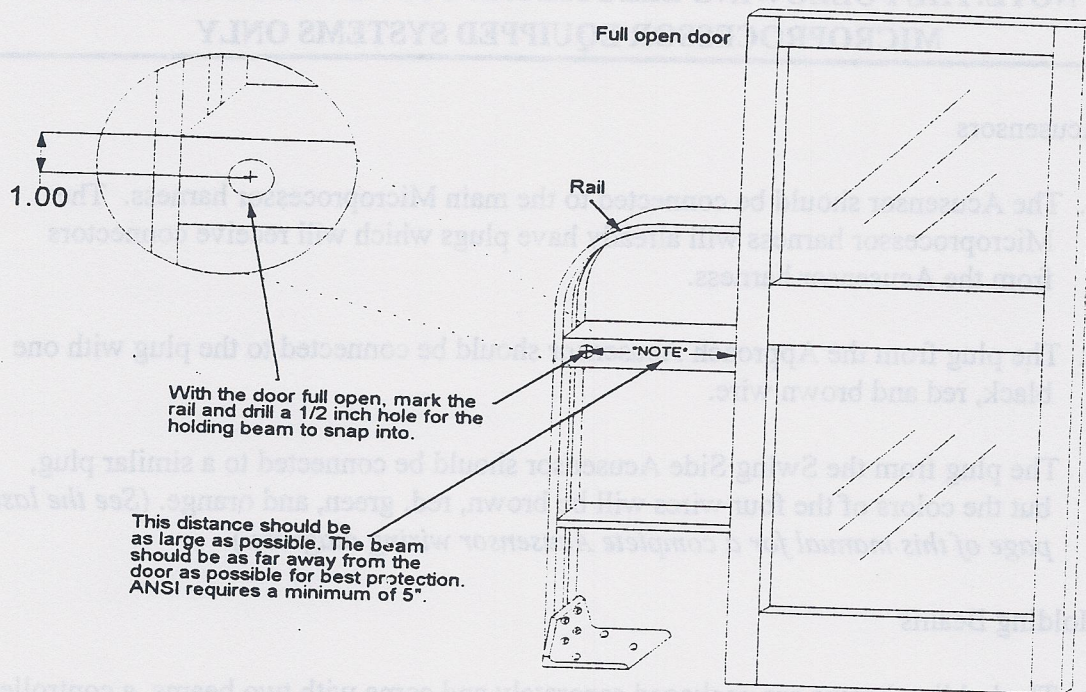


Figure 7

- E. Fish the holding beam wire through the rail and up the jamb tubes into the header. Leave two inches of wire hanging out from each rail housing. The beams should not be connected to the wires at this point. They will be connected in a later step.
- F. The beams have a plug which connects into the wire hanging from the rail housings. The blue wire connects to the blue wire from the beam. The gray wire connects to the gray wire from the beam. After the beams are plugged in, press the beam into the drilled hole until it snaps in.
- G. Secure the rail to the jamb tube.
- H. Secure the rail foot to the rail assembly with the screws attached to the rail assembly.
- I. Drill three holes for the front feet of the rails into the floor. **Note:** Molly anchors are provided in the parts kit for concrete applications.

IV. ELECTRICAL CONNECTIONS

NOTE: THE FOLLOWING ELECTRICAL CONNECTIONS ARE FOR MICROPROCESSOR EQUIPPED SYSTEMS ONLY

A. Acusensors

1. The Acusensor should be connected to the main Microprocessor harness. The Microprocessor harness will already have plugs which will receive connectors from the Acusensor harness.
2. The plug from the Approach Acusensor should be connected to the plug with one black, red and brown wire.
3. The plug from the Swing Side Acusensor should be connected to a similar plug, but the colors of the four wires will be brown, red, green, and orange. (*See the last page of this manual for a complete Acusensor wiring diagram.*)

B. Holding Beams

1. The holding beams are packaged separately and come with two beams, a controller and instruction sheet. The instruction sheet will describe the wiring from the holding beams to the controller.
2. The Microprocessor supplies 12 VDC of power to the holding beam control box.
3. Locate a loose brown wire and a loose red wire on the end of the Microprocessor harness. Attach the red wire to Terminal One on the holding beam controller. Attach the brown wire to Terminal Two.
4. Hook up the relay signal wire to the Microprocessor from the holding beam controller. The contacts on the controller, which are normally open, signal the Microprocessor the holding beam path has been blocked. Use a jumper wire from Terminal One to attach it to Terminal Five.
5. Locate the white wire on the Microprocessor harness. Cut and strip the wire and secure the end from the Microprocessor to Terminal Four of the holding beam controller.
6. Secure the holding beam controller inside the header. Mounting is left to the installer for best possible access and aesthetics.

7. A signal will be sent to the Microprocessor to perform the holding beam safety condition programmed in the settings. The holding beam safety condition is the stop or slow down option previously programmed in the settings.
- C. Refer to the "Microprocessor and Handy Terminal Manual" for additional information (settings, speeds, etc.).

V. HANDY TERMINAL SETTINGS

Note: For the system to work properly, the following settings in the Handy Terminal need to be changed. Refer to the "Microprocessor and Handy Terminal Manual" for any questions on settings.

A. Special Functions

1. The Handy Terminal closing message will read: SIG. AT CLOSING. The signal at closing should be set to N by pressing the arrow key and entry.
2. The Swing Side Acusensor will only function when the door is in the fully open or fully closed position. This sensor is deactivated when the door is in motion.

B. Safety Signals

1. Door owners can choose between two safety signals during opening cycle. The message appears as: SIGNAL SLOW N.
2. The Y signal indicates the door slows down, but does not stop, when the holding beam is broken.
3. The N (default) signal indicates the door stops when the holding beam is broken and does not continue until the beam is unbroken. When the beam is unbroken, the door will continue to open in slow mode for the remainder of the cycle.

VI. SETTING THE DETECTION ZONES

Note: The following instructions for setting the detection zones are applicable for both single doors and simultaneous pairs.

- A. The position of the Swing Side Acusensor is adjustable. The bracket moves from left to right for coverage adjustment.

B. Each time the Swing Side Acusensor is moved, the power to the Acusensor must be reset. The same is true if a switch change is made.

C. To reset the sensor:

1. Unplug the sensor.

2. Wait five seconds.

3. Plug it back in.

4. It is essential to wait three minutes after resetting the proper stabilization of the sensor. *Note: Total wait time between each activation is approximately three minutes and five seconds.*

D. Move the bracket left or right until the sensor “sees” the door when it is open.

E. Then move the bracket back the other direction slightly. The sensor should not “see” the door when the door is in open position.

F. After the Acusensor is set, tighten the bracket to the header (*See the pages immediately following this manual for some typical settings*).

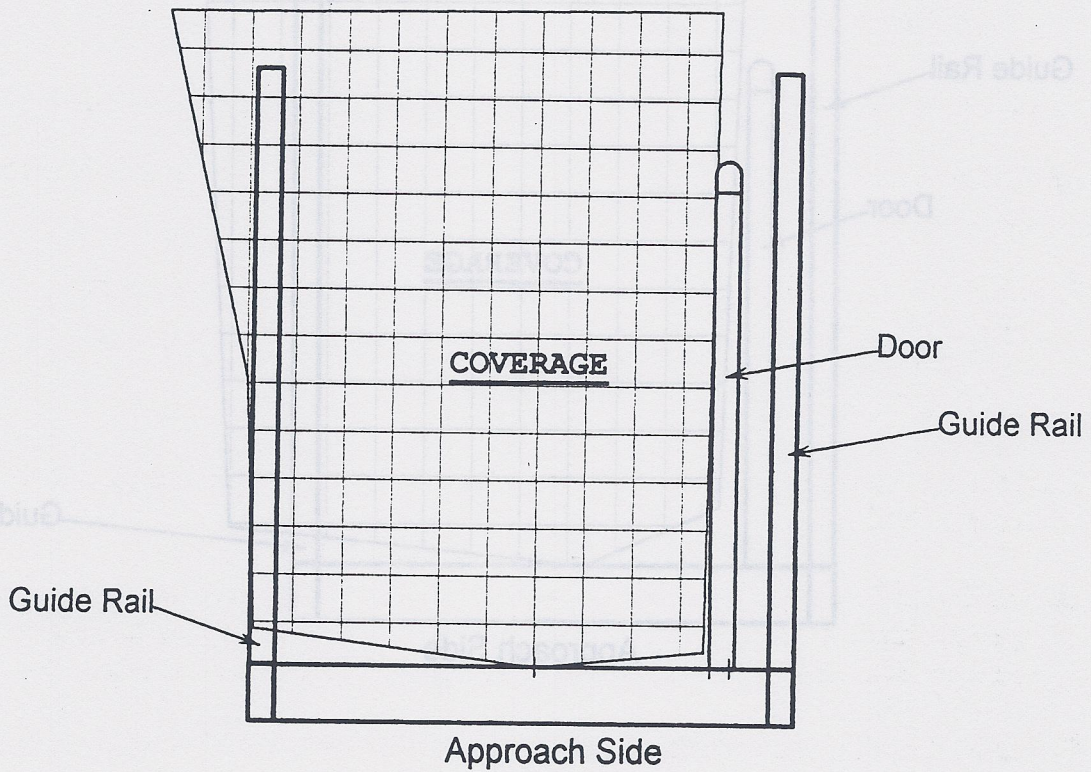
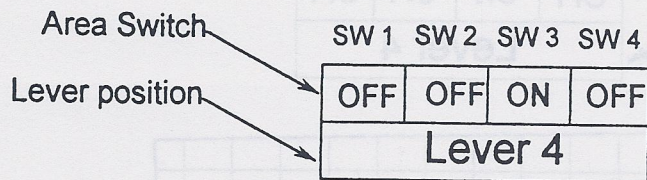
VII. TESTING THE SYSTEM

A. If the system is set up correctly, the Approach Acusensor will activate the door when someone walks into the pattern.

B. The Swing Side Acusensor should work only when the door is in fully closed or fully open position. The sensor should not see the door when fully open. It should prevent the door from closing or opening when something is in its detection area.

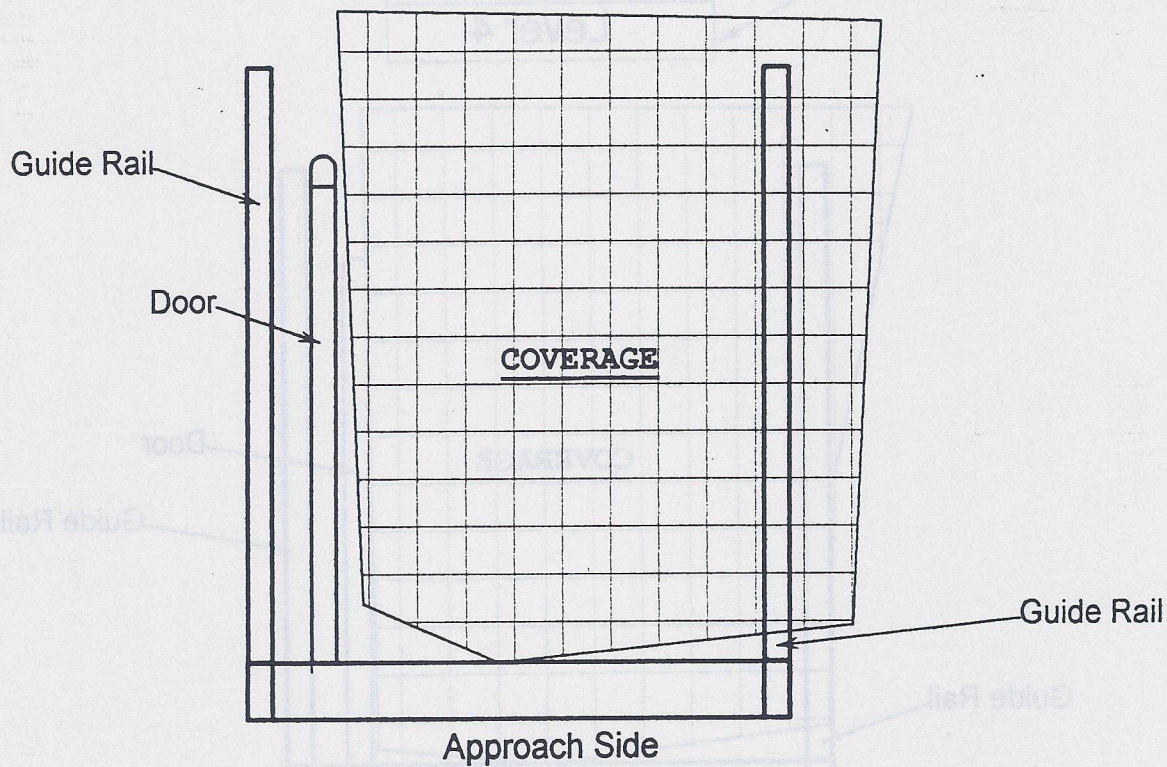
C. Check the rail mounted holding beams. If the path between the holding beams is blocked, the door will either stop or continue to open slowly depending on the settings in the Handy Terminal.

VIII. CODE: It is the distributor's responsibility to set up the system in accordance with all applicable standards and codes such as ANSI 156.10.

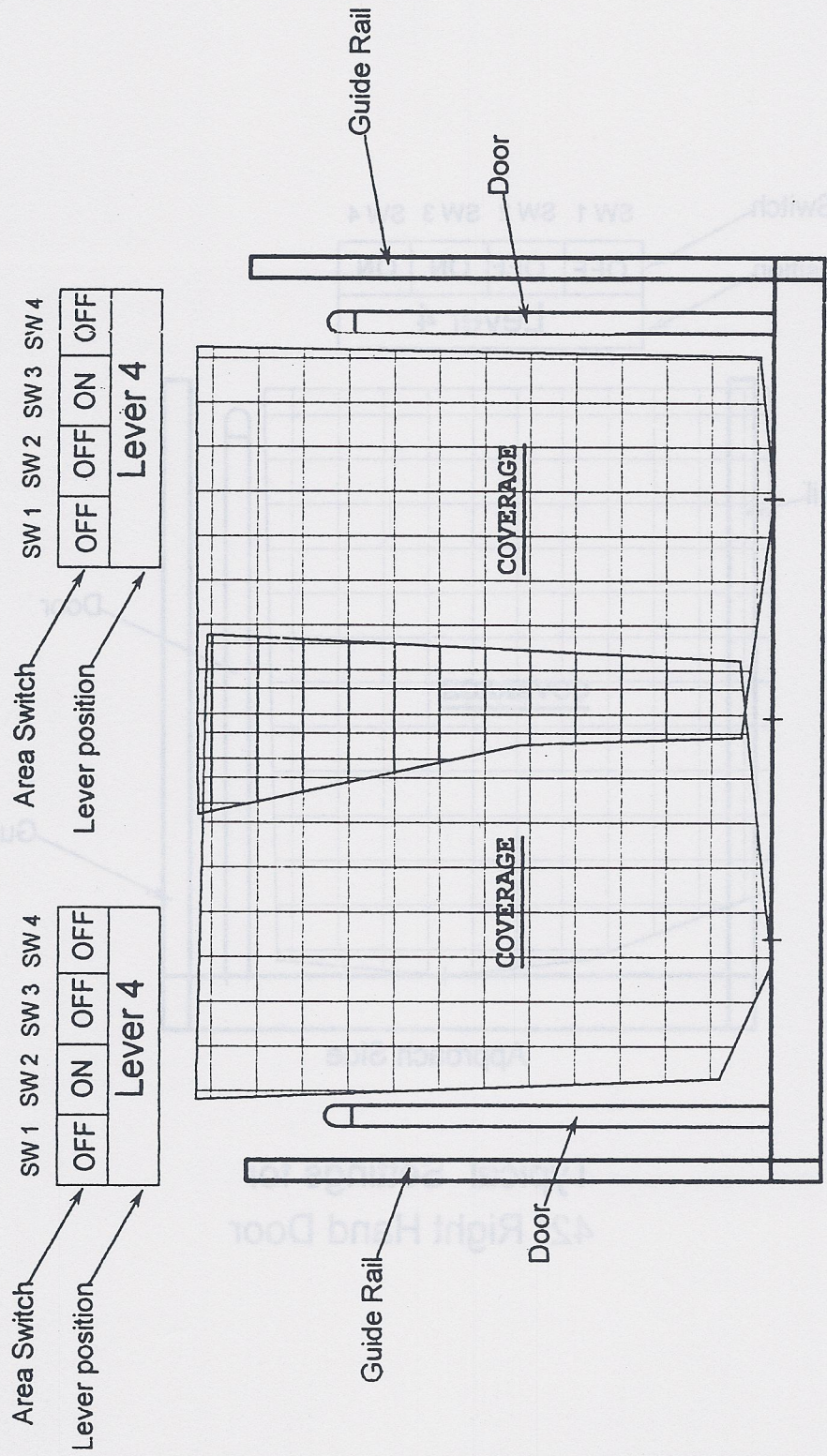


Typical Settings for
36" Right Hand Door

Area Switch	SW 1	SW 2	SW 3	SW 4
Lever position	OFF	ON	OFF	OFF
	Lever 4			

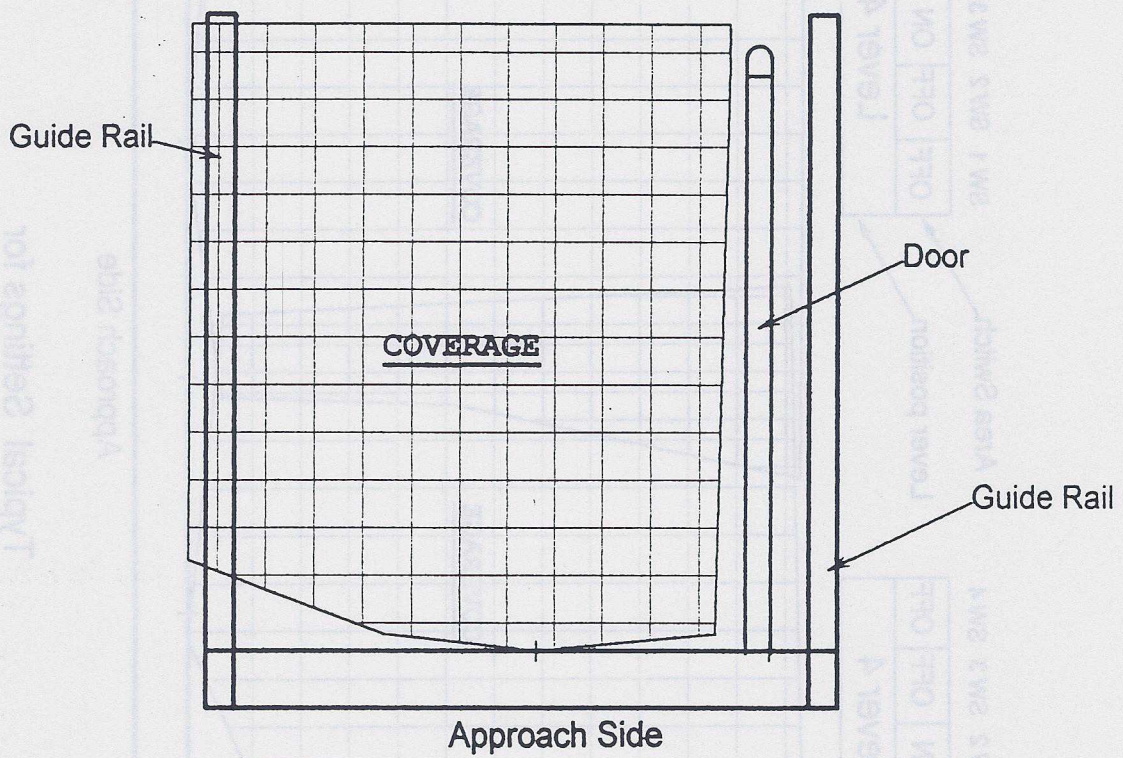


Typical Settings for
36" Left Hand Door

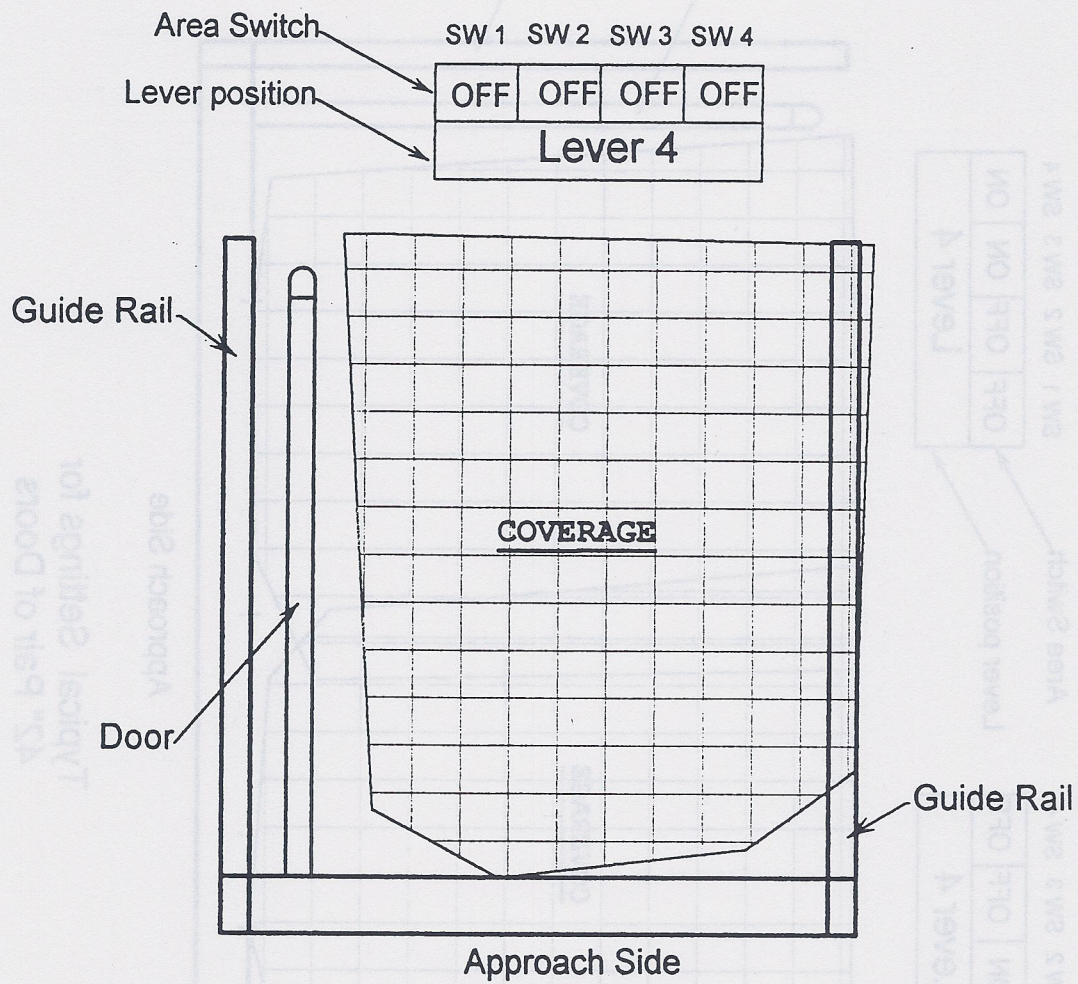


Typical Settings for
36" Pair of Doors

Area Switch	SW 1	SW 2	SW 3	SW 4
Lever position	OFF	OFF	ON	ON
	Lever 4			



Typical Settings for
42" Right Hand Door



Typical Settings for
42" Left Hand Door

SW 1	SW 2	SW 3	SW 4
OFF	OFF	ON	ON
Lever 4			

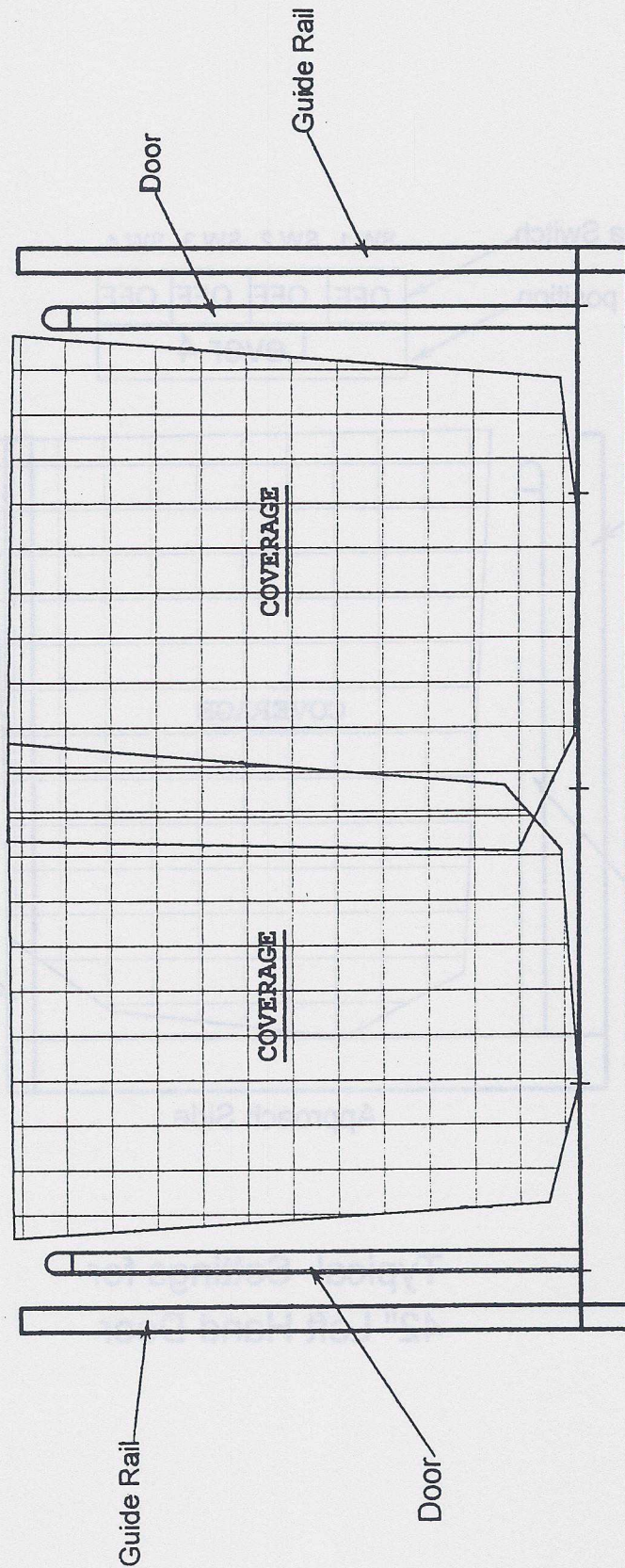
Area Switch

Lever position

SW 1	SW 2	SW 3	SW 4
OFF	ON	OFF	OFF
Lever 4			

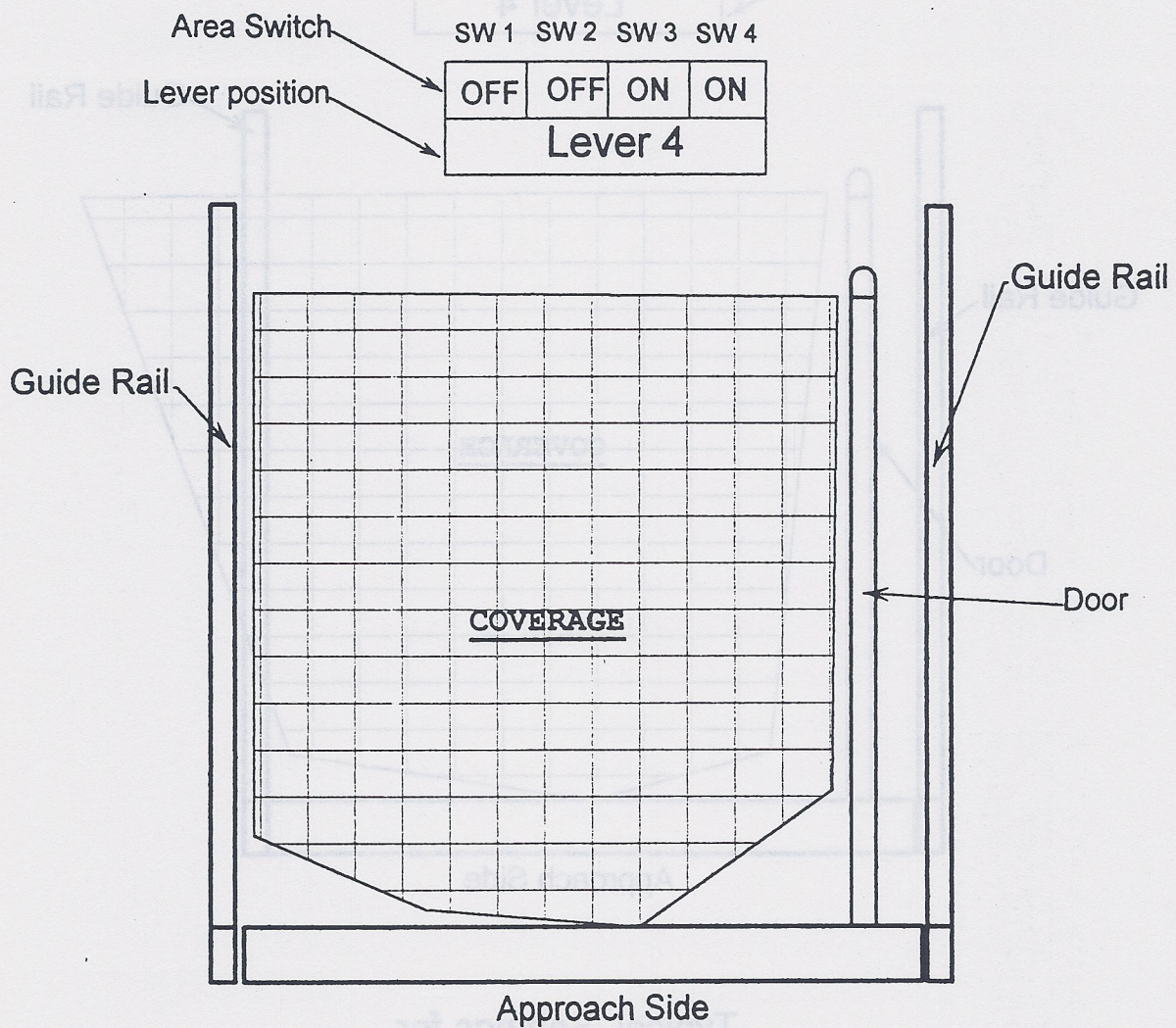
Area Switch

Lever position



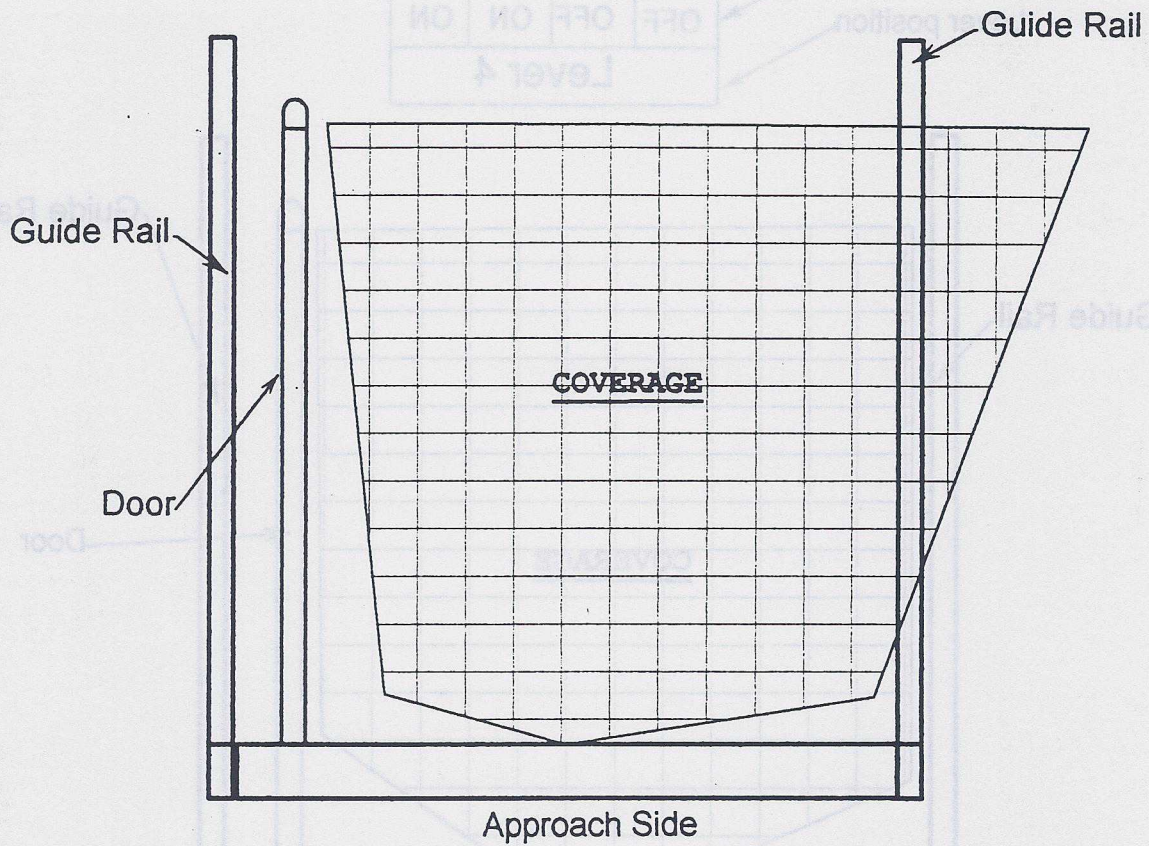
Approach Side

Typical Settings for
42" Pair of Doors

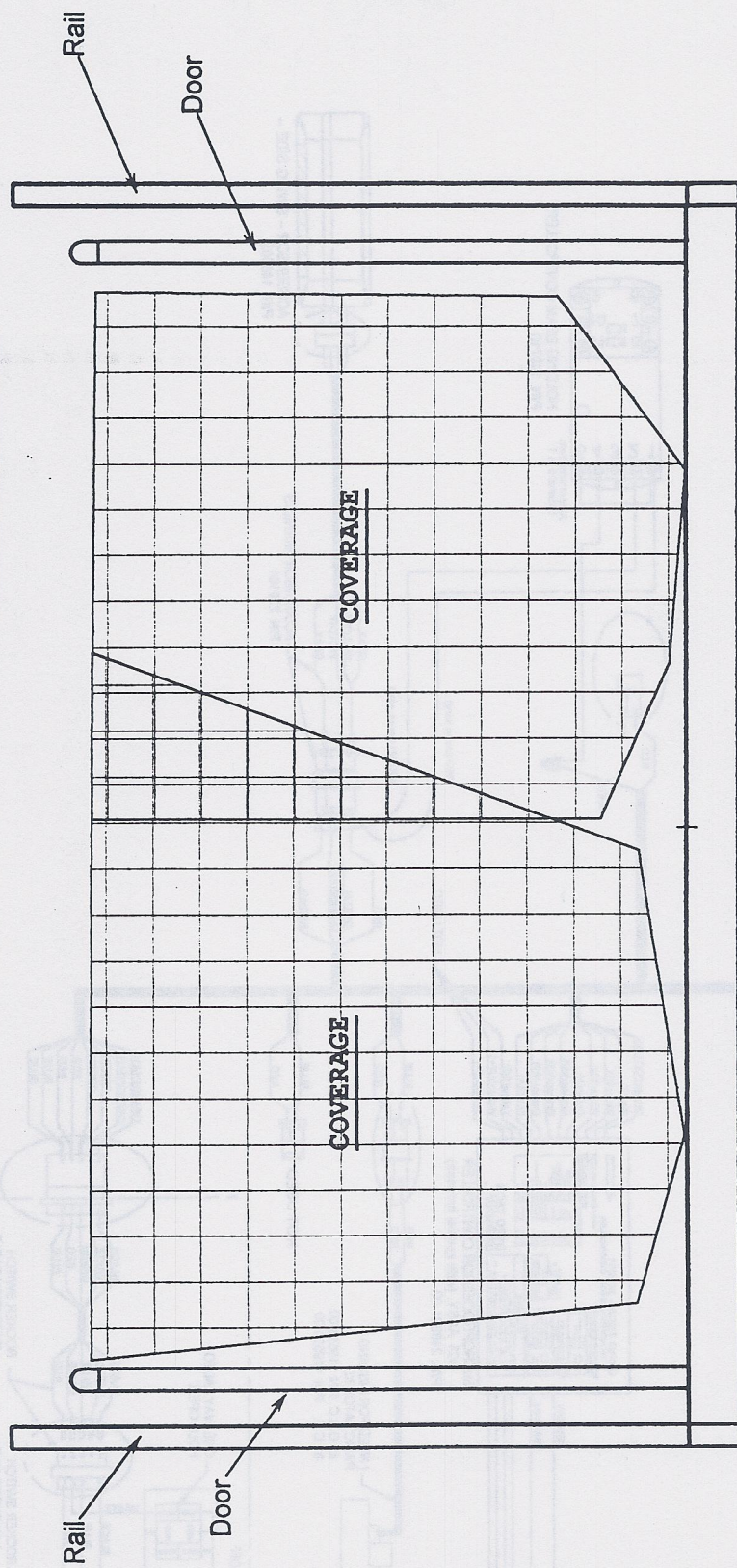
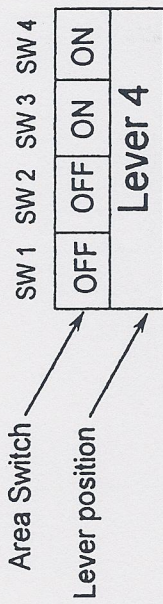
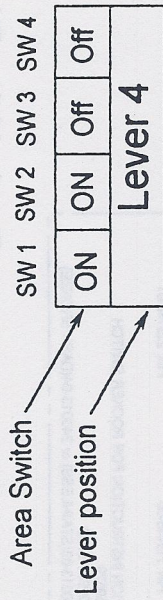


Typical Settings for
48" Right Hand Door

Area Switch	SW 1	SW 2	SW 3	SW 4
Lever position	ON	ON	Off	Off
	Lever 4			



Typical Settings for
48" Left Hand Door



Typical Settings for
48" Pair of Doors

