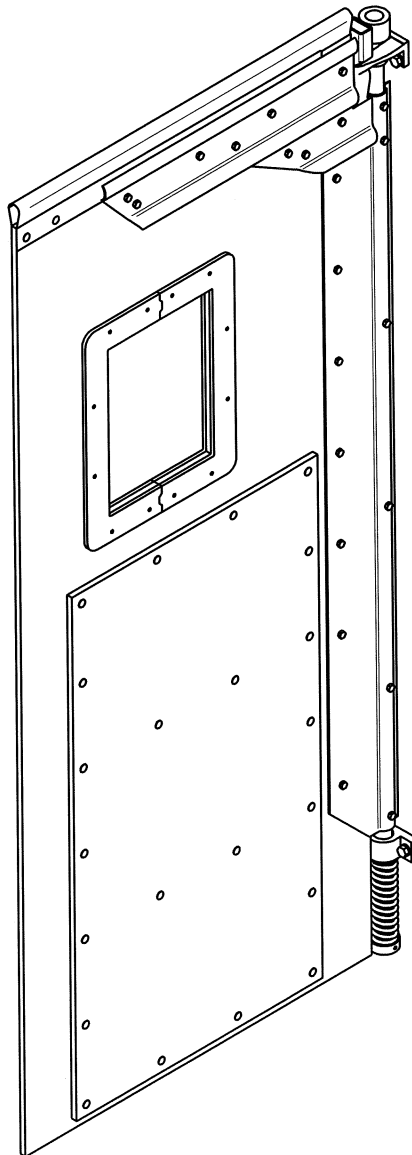


## Series 4000 - Model 4100 Flexible Rubber Impact Door INSTALLATION INSTRUCTIONS

Read all instructions before installing door. Super Seal Mfg. Ltd. will not be held responsible for improper installation of anchoring devices, or for installation into aged or unsound concrete, concrete block, or other wall or floor material which may result in premature product wear, product failure, property damage, or personal injury.



Components List (Per Panel)		
No.	Description	Qty.
1	Door Panel (Assembled)	1
Hardware Supplied List (Per Panel)		
No.	Description	Qty.
1	Locking Collar c/w 2-3/8" x 3/8" Set Screw	1
2	Compression Spring	1
3	Metal Washer	1
4	90° Bearing(s) Total	1
5	90° V-cam Total	1
6	V-cam Follower Total c/w 3/8" x 3/8" Set	1
7	3/8" x 2 1/4" Spring Pin	1
8	1/2" B.S. Lock Washers	4
9	1/2" x 1 1/2" Hex Bolt	4
10	Installation Instructions	1
Recommended Tools List		
No.	Description	
1	Tape Measure	
2	Plumb Line or Level	
3	Pencil or Marker	
4	Square	
5	Power Drill	
6	7/16" HSS Drill Bit	
7	3/8" HSS Drill Bit	
8	1/2" (13) UNC Tap	
9	Tap Wrench	
10	Tapping Fluid	
11	3/4" Wrench	
12	3/16" Hex Key	
13	Hammer	
14	General Purpose Grease	

## 1. Check Order

- Measure door opening height and width. Compare to Purchase Order. The allowable tolerance is  $\pm 1/8"$ .
- Check Components List and Hardware Supplied List (page 2). Make sure all components and hardware are present.
- Recommended Door Jamb: Steel,  $1/4"$  thick by 8" wide. If the door jamb does not meet this standard, the customer must have Super Seal's 'U' Bracket Extension.
- Check Recommended Tools List. Make sure all recommended tools are available.

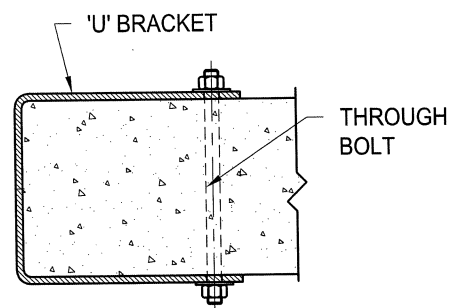


fig. 1

## 2. Prepare Door Frame

- Correct door opening height and width. Measure left sides of door opening from top to bottom.
- The height of the left and right sides of the opening should be the same.
- Measure the top and bottom of door opening from side to side. The width of the top and bottom opening should be the same.
- Prepare shims to correct any problems.

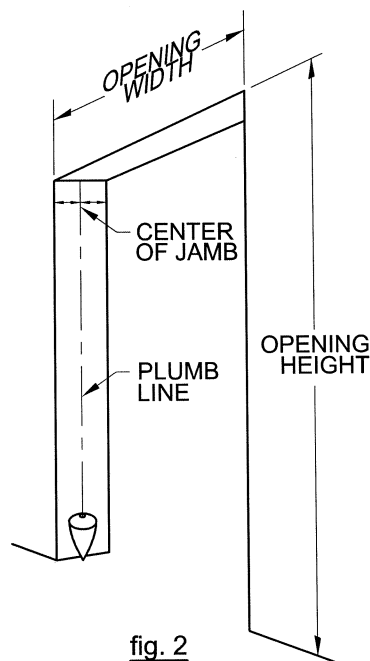


fig. 2

### 'U' Bracket Extension - If Required

Mount 'U' bracket extension

- Place top 'U' bracket at top of jamb. Through bolt 'U' bracket to jamb (fig. 1).
- Place bottom 'U' bracket at bottom of jamb and through bolt bracket to jamb (fig. 1).

- Mark Centre of Jamb.
- Measure Jamb width at the top of the door Jamb.
- Mark centre point.
- Drop a plumb line from the centre point to the floor and mark (fig. 2).
- For corner installation, drop plumb line from top corner of jamb to floor and mark.

## 3. Prepare Hinge Mounting Holes.

Standard Installation

- Prepare top v-cam hinge mounting holes.
- Measure and mark horizontal line  $5 \frac{3}{8}"$  down from lintel perpendicular to plumb line (fig. 3).
- Measure and mark two points,  $1 \frac{3}{4}"$  on both sides of plumb line at  $5 \frac{3}{8}"$  mark.
- Drill and tap holes for  $\frac{1}{2}"$  bolts at two points.

\* Use  $\varnothing \frac{27}{64}"$  drill bit.

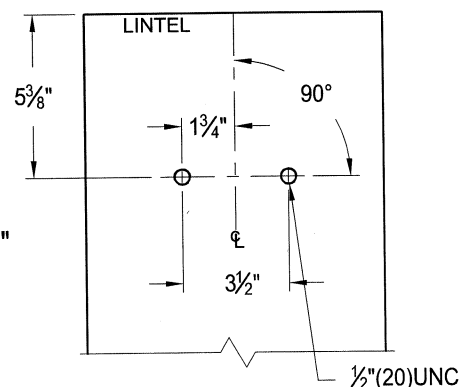


fig. 3

## 3. Prepare Hinge Mounting Holes (Cont'd).

\*Prepare bottom bearing hinge mounting holes.

e. Measure and mark 9-3/8" up from finished floor along plumb line (fig. 4).

f. Measure and mark two points 1-3/4" on both sides of plumb line at 9-3/8" mark. Make sure marks are perpendicular to the plumb line.

g. Drill and tap holes for 1/2" bolts at two points.

\*Use  $\varnothing_{64}^{27}$  drill bit.

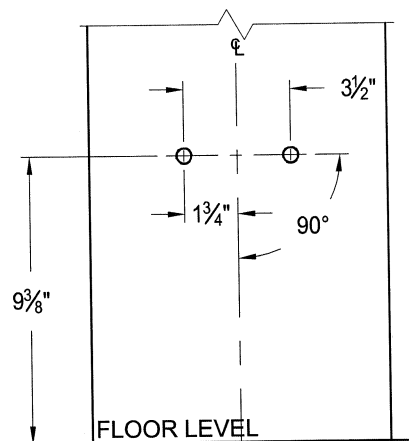


fig. 4

## 4. Attach Door to Jamb

a. Place door panel on floor. Protect door from dirt or damage.

**TIP:** If not using weld plates, align bottom bearing on panel with center of jamb. Place 1/2" lock washer & 1/2" x 1 1/2" hex bolt through hole in bearing and matching tapped hole in jamb. Partially tighten. Lift and pivot panel into place (fig. 5).

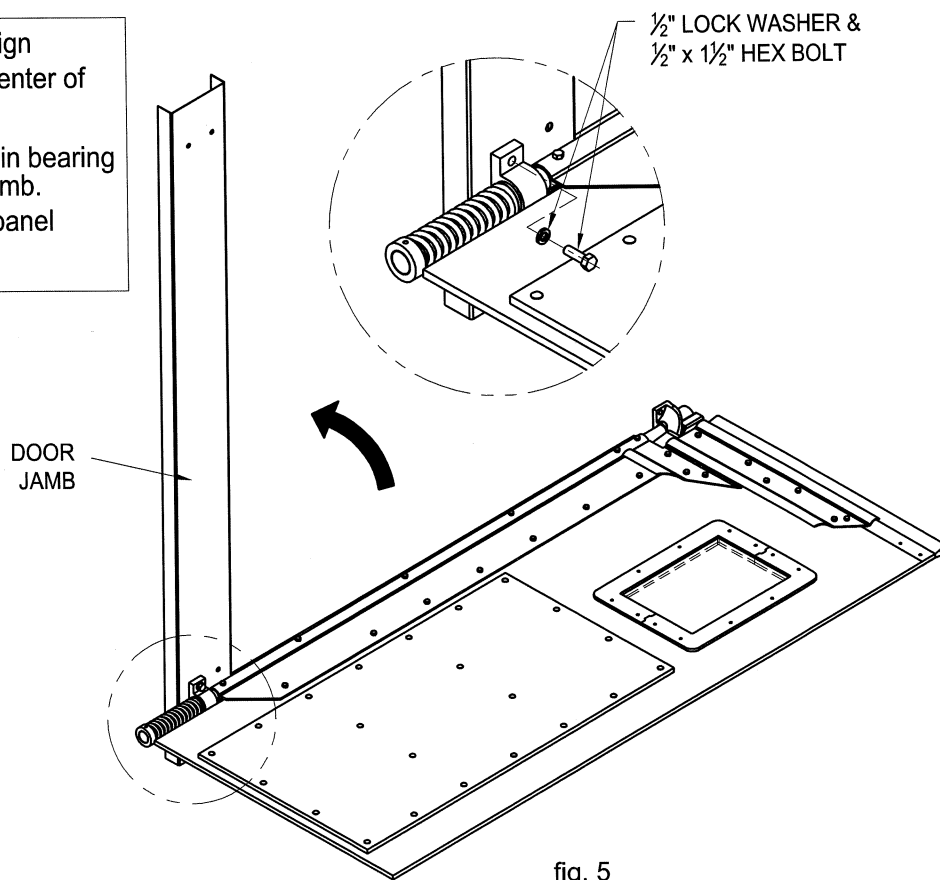
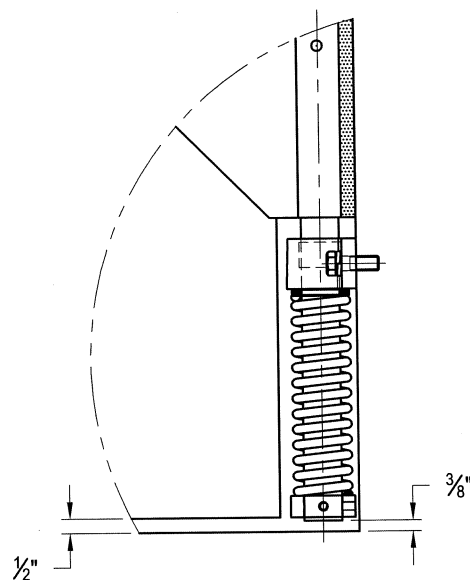
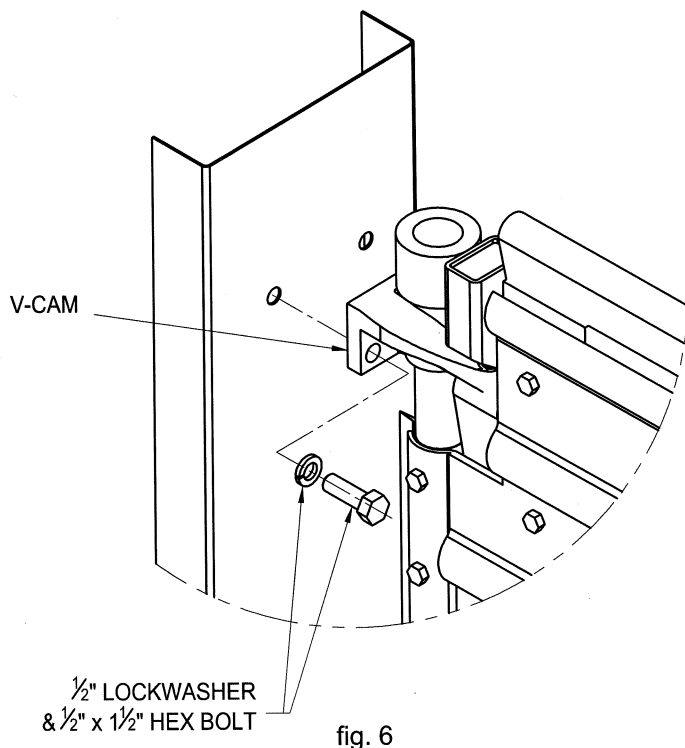


fig. 5

## 4. Attach Door to Jamb (Cont'd)

- b. Fasten door at top hinge using  $\frac{1}{2}$ " lock washer &  $\frac{1}{2}$ " x  $1\frac{1}{2}$ " hex bolt.
- c. Fasten other bolts with washer into remaining holes. Use  $\frac{3}{4}$ " socket wrench.

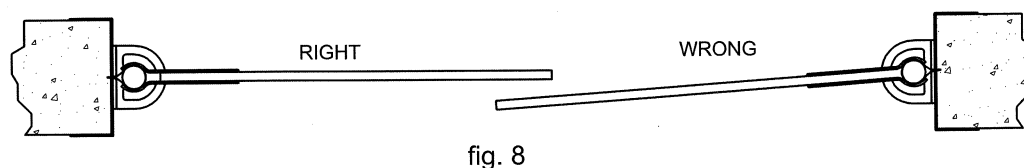


## 5. Position Panel in Opening

- a. Raise panel to proper height and shim under shaft to properly position panel in opening (fig. 7).
- b. Center panel in opening. At top of panel, make sure v-cam follower sits in the bottom of the v-cam "V".
- c. Securely tighten set screw in v-cam follower.
- d. Check that door panel is level and even at the top and centered in the opening.
- e. For two-panel door, repeat step for other panel.

## 6. Make Final Door Adjustment

- a. Allow panel to swing fully in both directions.
- b. If panel does not close in line repeat Step 5 until it does (fig. 8).
- c. If panel binds or does not swing freely, adjust hinge hardware slightly to make sure shaft moves freely.
- d. For two-panel door, repeat step for other panel.



## 7. Adjust Door Tension

- Loosen set screws on the bottom bearing locking collar (fig. 9).
- Relocate locking collar to suitable position. To increase tension, raise the locking collar.
- Tighten locking collar set screw into desired position (fig. 9).
- Drill 3/8" hole through v-cam follower and shaft. Use 3/8" spring pin hole as a guide (fig. 10).
- Insert spring pin.
- For two-panel door, repeat step for other panel.

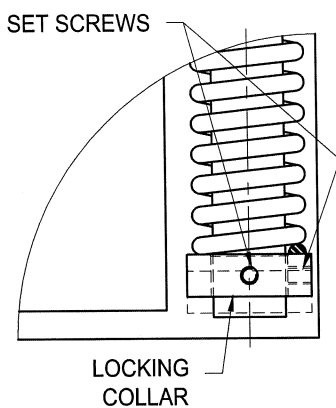


fig. 9

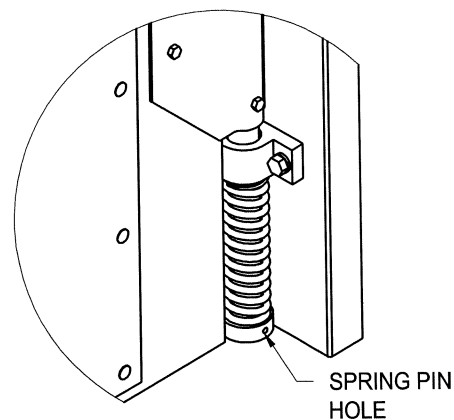


fig. 10

## 8. Lubricate Shaft

- Clean away any filings from shaft.
- Open door 90° (fig. 11).
- Grease 2" portion of shaft above top v-cam hinge (fig. 12) & bottom hinge bearing (fig. 13).
- Swing panel back and forth a few times and repeat greasing until shaft is thoroughly lubricated at all friction points.
- For two-panel door, repeat step for other panel.

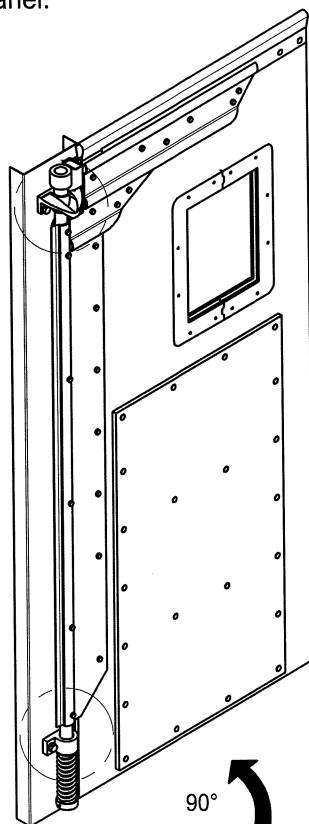
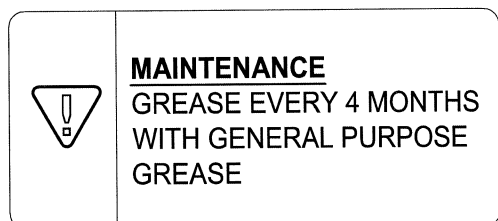


fig. 11

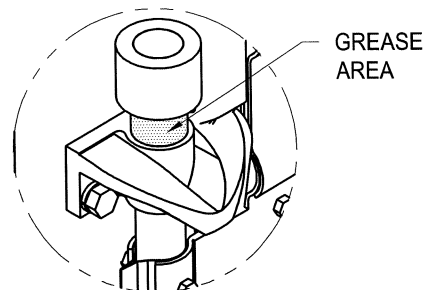


fig. 12

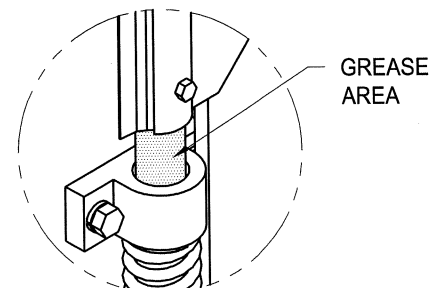
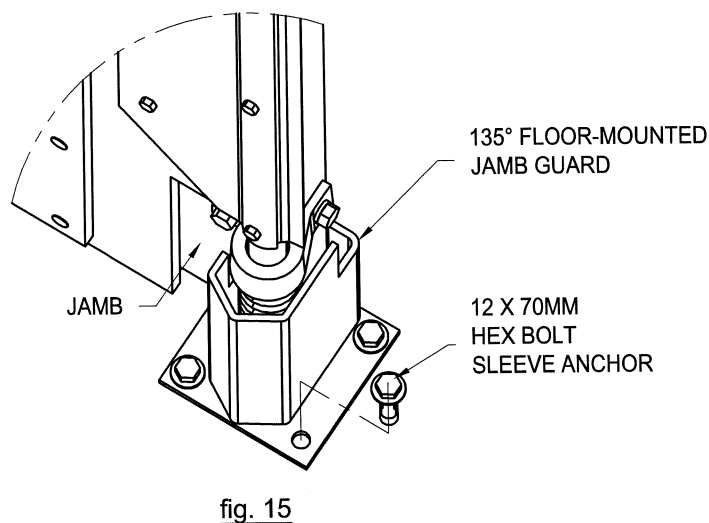
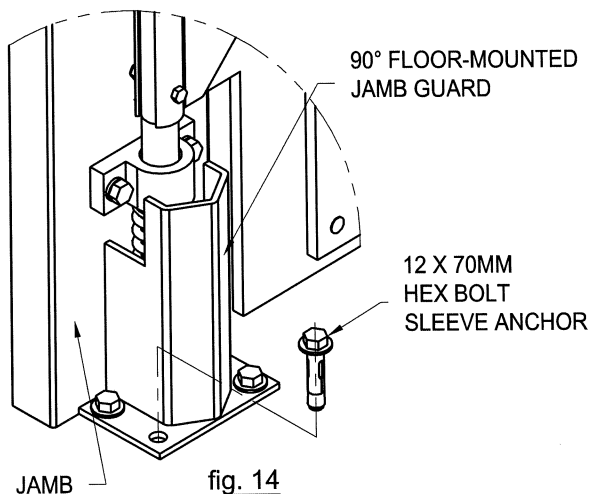


fig. 13

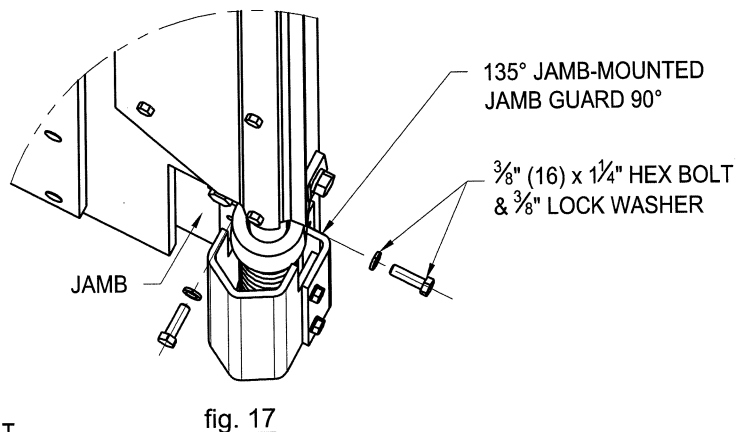
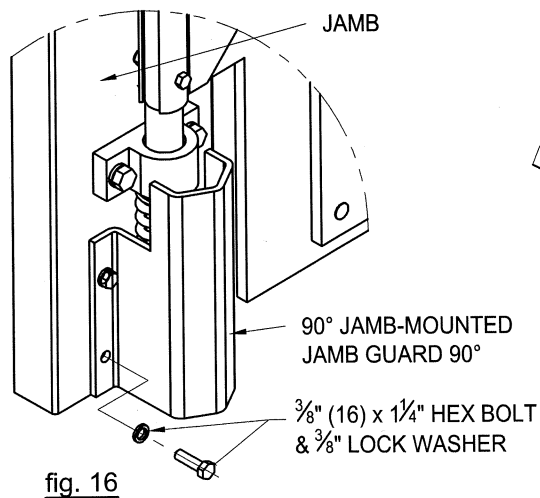
## 9. Floor-Mounted Jamb Guard (90° & 135°) - Option

- Open door panel at 90°
- Place floor-mounted jamb guard into it's proper position (fig. 14 & 15).
- Mark and drill hole in floor, using  $\frac{1}{2}$ " masonry bit.
- Insert 12 x 70mm sleeve anchors into holes.
- Tighten anchors with 17mm socket wrench.



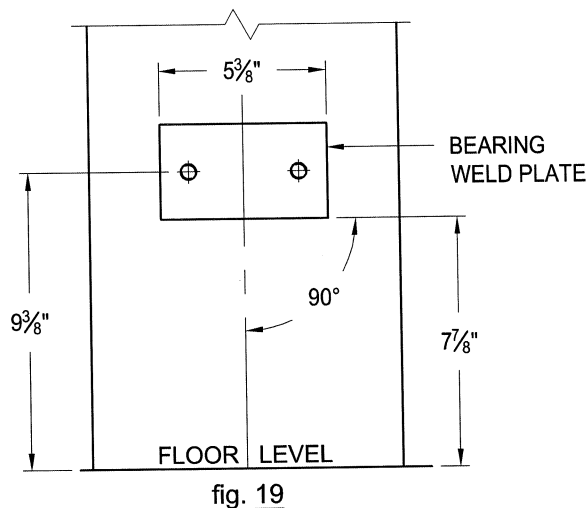
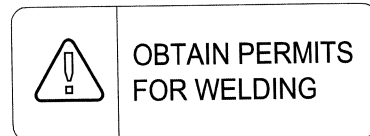
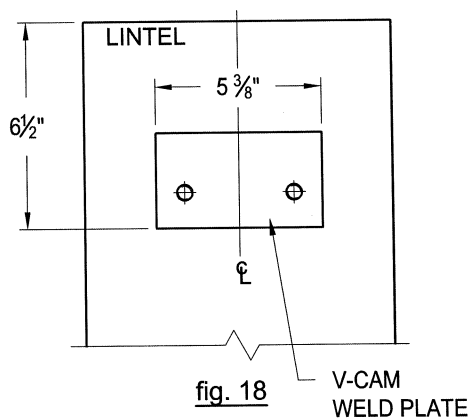
## 10. Jamb-Mounted Jamb Guard (90° & 135°) - Option

- Open door panel at 90°.
- Place jamb-mounted jamb guard into it's proper position (fig. 16 & 17).
- Mark and drill pilot holes into jamb, using  $\frac{1}{8}$ " drill bit.
- Finish drilling holes using  $\frac{5}{16}$ " drill bit.
- Drill & tap holes using  $\frac{3}{8}$ " (16) UNC tap.
- Tighten jamb guard with  $\frac{3}{8}$ " (16) x  $\frac{1}{4}$ " hex bolts &  $\frac{3}{8}$ " lock washers.
- Tighten bolts with  $\frac{9}{16}$ " socket wrench.



## 11a. 90° Top Weld plate - Option

- Measure and mark 6 1/2" down from top of jamb (Figure 18).
- Mark a line perpendicular to plumb line at 6 1/2" point.
- Place bottom of weld plate along line, centered to plumb line. Weld into place.

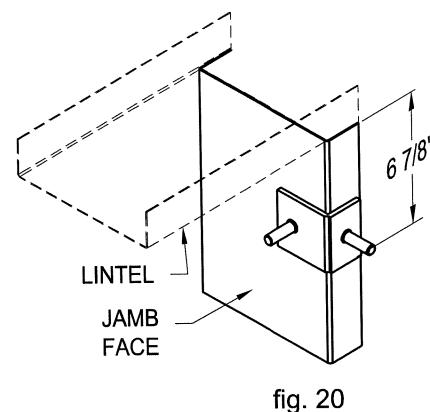


## 11b. 90° Bottom Weld plate - Option

- Measure and mark 7 7/8" up from floor (Figure 19).
- Mark a line perpendicular to plumb line at 7 7/8" point.
- Place bottom of weld plate along line, centered to plumb line - Weld into place.

## 12a. 135° Top Weld plate - Option

- Measure and mark a line 6 7/8" down from lintel near corner & perpendicular to plumb line (Figure 20).
- Place bottom of 135° weld plate along line, on appropriate corner - Weld into place.



## 12b. 135° Bottom Weld plate - Option

- Measure and mark 7 7/8" up from floor near appropriate corner & perpendicular to plumb line (Figure 21).
- Place bottom of 135° weld plate along line, on appropriate corner - Weld into place.

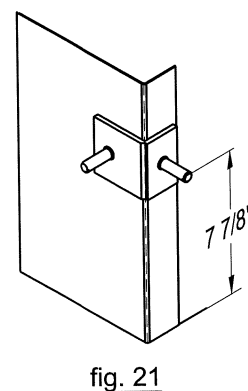


fig. 20 SHOWS A RIGHT SIDE ASSEMBLY.  
LEFT SIDE IS MIRROR OPPOSITE.



## 13a. 135° (Wide Angle Top Hinge - No Weld Plates)

- Measure and mark horizontal line perpendicular to plumb line at 6 1/2" down from lintel. Make mark extend around corner to front wall face (fig. 22).
- Make first hole mark on jamb face at 2 1/4" in from wall face (fig. 22).
- Make second hole mark on wall face at 1 1/8" from jamb face (fig. 22).
- Drill and tap holes for 1/2" (13) UNC holes at the two points. Use  $\varnothing_{27}^{27}$  drill bit.



**FOR BEST RESULTS DRILL PILOT  
HOLES WITH 1/8" BIT.**

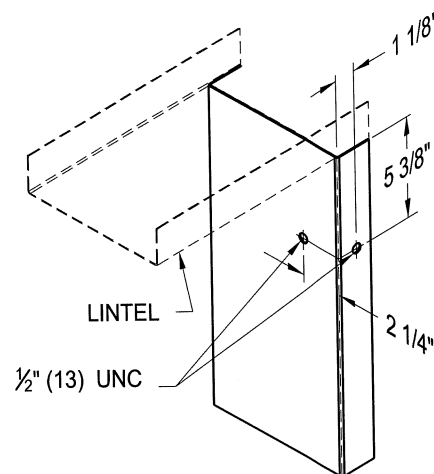


fig. 22

## 13b. 135° (Wide Angle Bottom Hinge - No Weld Plates)

- Measure and mark horizontal line perpendicular to plumb line at 9 3/8" up from floor. Make mark extend around corner to front wall face (fig. 23).
- Make first hole mark on jamb face at 2 1/4" in from wall face (fig. 23).
- Make second hole mark on wall face at 1 1/8" from jamb face (fig. 23).
- Drill and tap holes for 1/2" (13) UNC holes at the two points. Use  $\varnothing_{27}^{27}$  drill bit.



**FOR BEST RESULTS DRILL PILOT  
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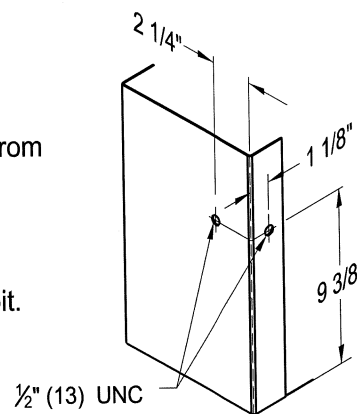


fig. 23