

### YOU WILL NEED TO SUPPLY

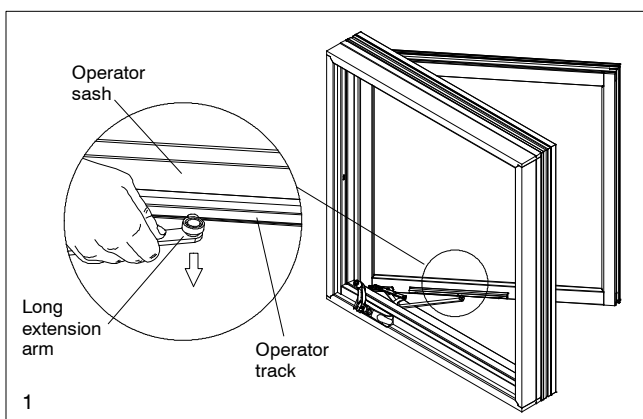
Egress hinges	Flat screwdriver
Egress operator	Phillips screwdriver
Egress brackets	Putty knife
Egress wood hardware cover	

**WARNING: Practice safety! Wear safety glasses or goggles and appropriate hearing protection.**

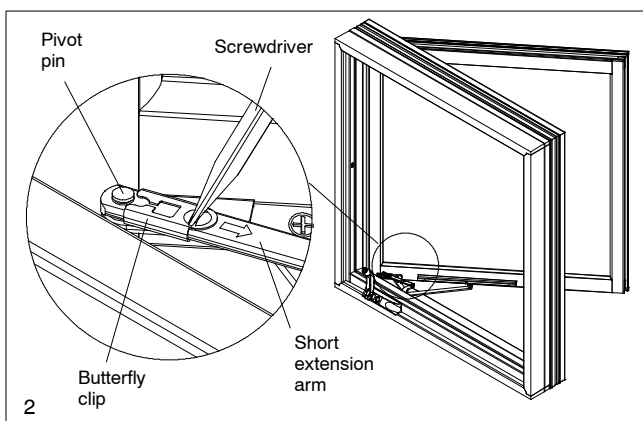
*Note: Remove the screen if there is one.*

### Dual Arm Roto Gear Operator

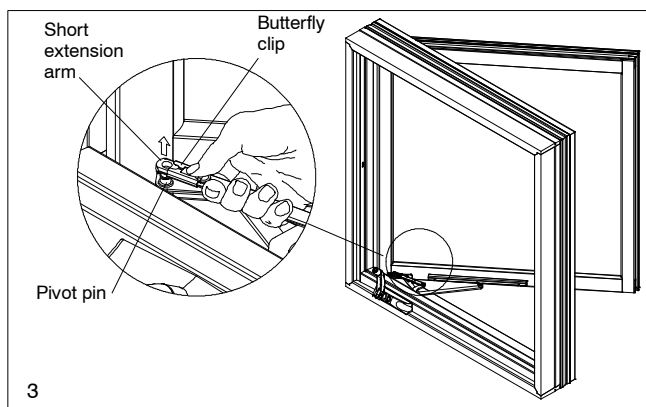
1. Crank open the sash until the nylon roller on the long extension arm of the roto-gear lines up with the arrow on the operator track. (The operator track is located on the bottom of the operating sash.)
2. Disconnect the long extension arm from the operator track by pushing the roller down through the opening which is in line with the arrow. See illustration 1.



3. Using a screwdriver, snap back the butterfly clip which locks the roto-gear short extension arm to the operator sash bracket pivot pin. See illustration 2.



4. Disconnect short extension arm by lifting it off the pivot pin. See illustration 3.

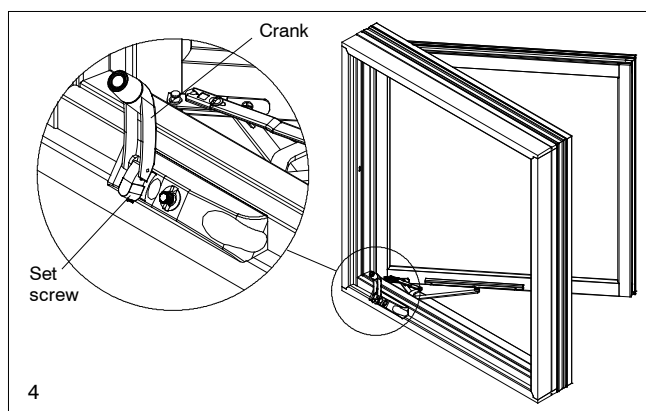


### Dyad Operator

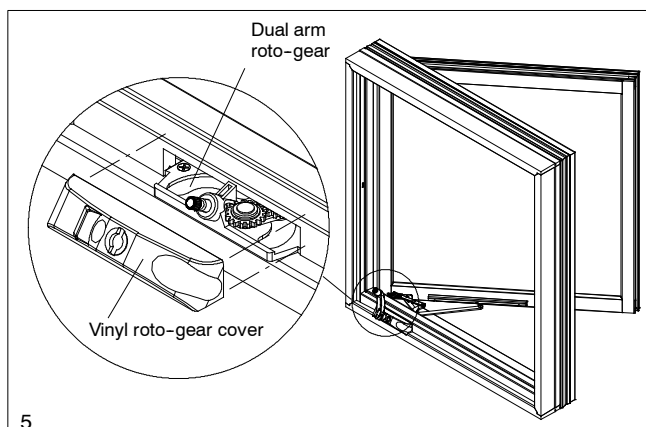
5. Crank open the sash. Using a screwdriver snap back the butterfly clip which locks the dyad operator extension arm to the operator bracket pivot pin. Disconnect the extension arm by lifting it off the pivot pin.

### Dual Arm or Dyad Operator

6. Loosen the set screw in the roto-gear handle and remove. See illustration 4.



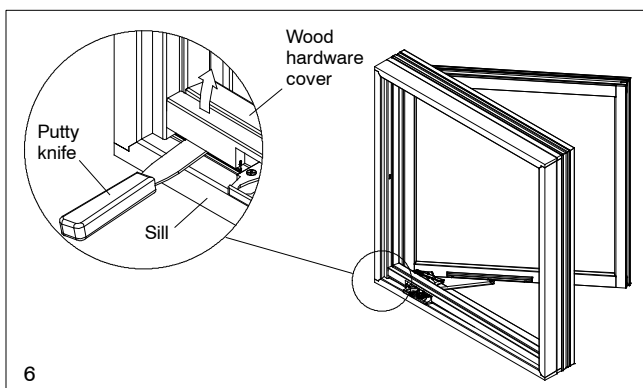
7. Remove the vinyl roto-gear cover. See illustration 5.



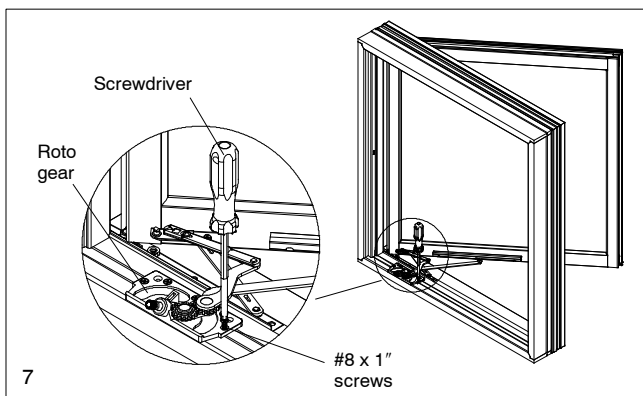
## EGRESS HARDWARE FIELD INSTALLATION

8. Pry off the wood hardware cover with a putty knife. See illustration 6.

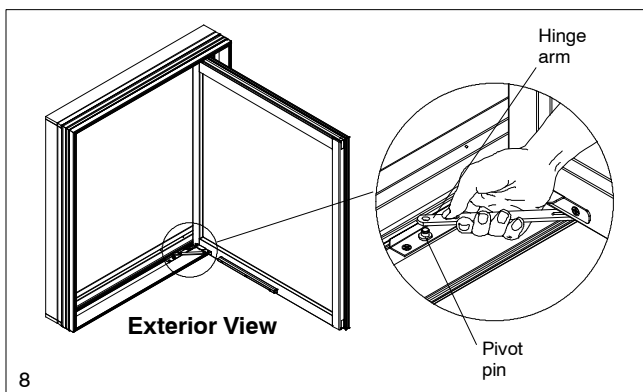
**IMPORTANT:** Be careful not to damage wood hardware cover as it will be reused.



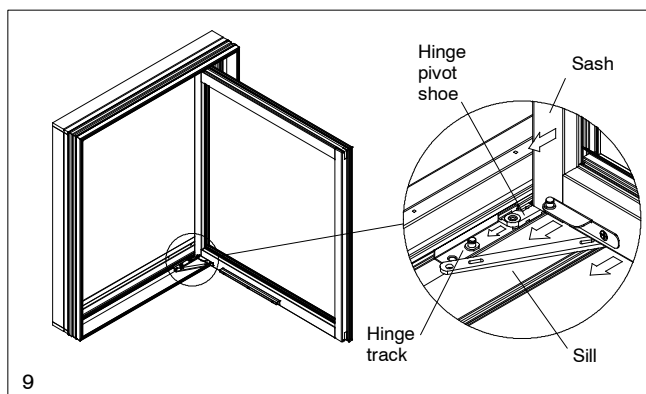
9. Remove the roto-gear or dyad operator from the sill by removing the screws. See illustration 7.



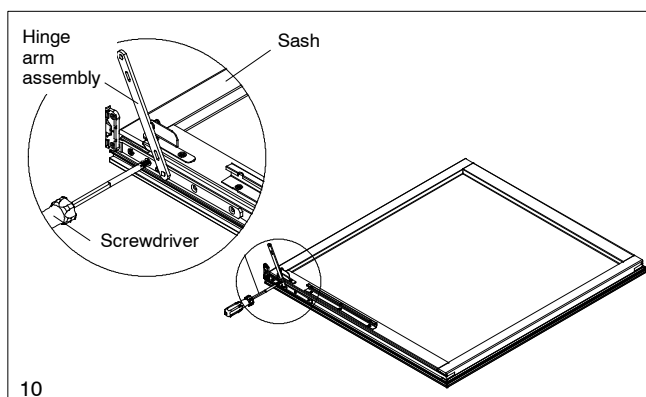
10. With the sash open 90 degrees remove the bottom hinge arm from the hinge track pivot pin. See illustration 8. Some models have a snap ring on the pin, these arms can be disconnected by prying off with a screwdriver.



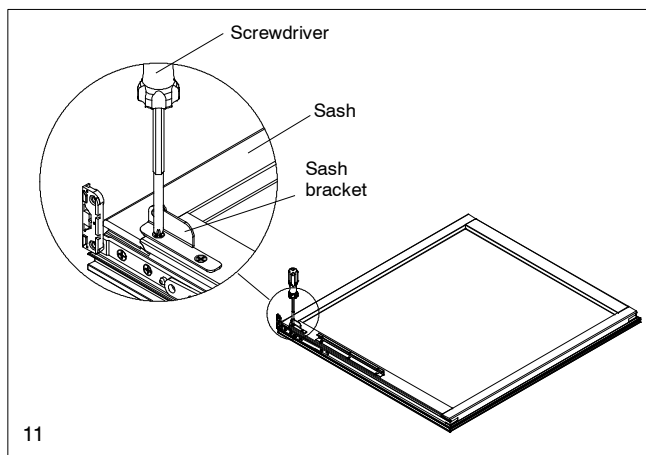
11. Repeat step 10 for the top hinge. The sash is now free to swing so care must be taken to prevent damage.
12. Remove the sash by sliding hinge pivot shoes toward the pivot pin until they disengage from the hinge track. See illustration 9.



13. Place the sash on a clean flat working surface. Remove the top and bottom hinge arm assemblies from the sash. Replace with egress hinge arm assemblies. See illustration 10.

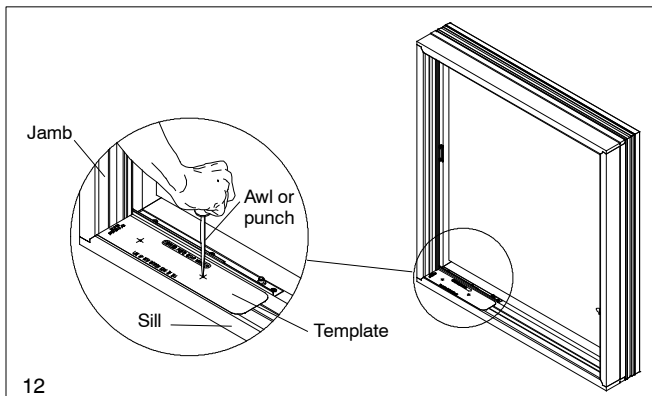


14. Remove the sash bracket from the sash and replace with egress bracket. Use template #4 to place egress bracket. See illustration 11.



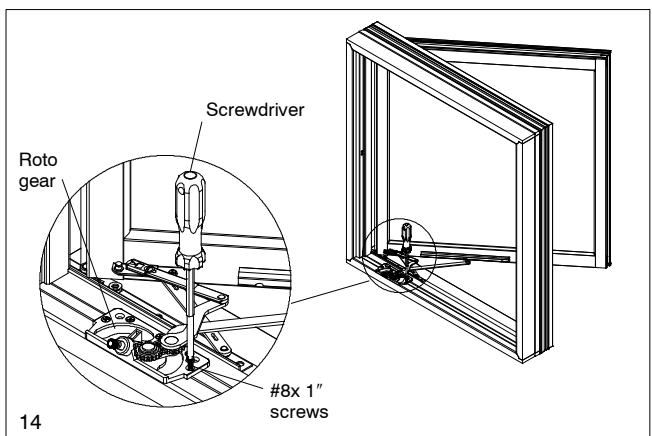
# EGRESS HARDWARE FIELD INSTALLATION

15. Fold egress roto-gear template #1 on the dotted line. Place the template on the sill, aligning the dotted line with the interior edge of the sill. Punch or drill the sill in the holes indicated for egress. See illustration 12.

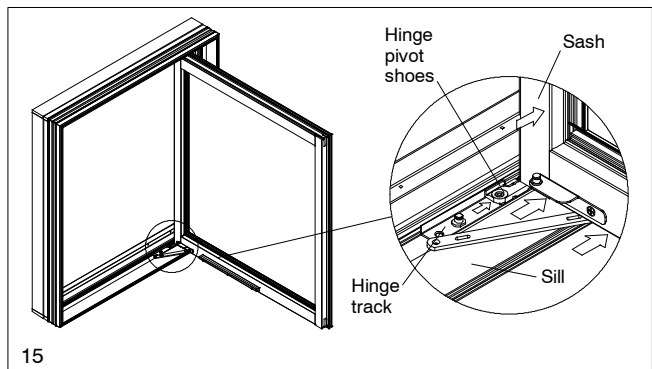


16. Place the egress operator on the sill and align the bottom screw holes with the marks indicated. The location of the remaining screw holes can be determined by the position of the operator. See illustration 13.

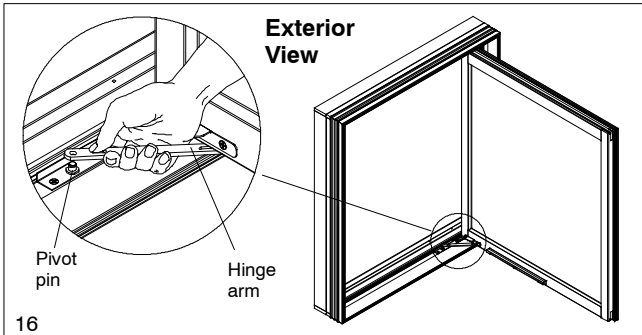
17. Attach operator using five(5) #8 x 1" screws. See illustration 14.



18. Hold the sash operator open at 90° and position the sash hinge shoes on the hinge track close to the pivot pins. Engage the shoes with the track flange and slide into position (away from the pins). Be sure both shoes have engaged the track before releasing hold of the sash. See illustration 15.



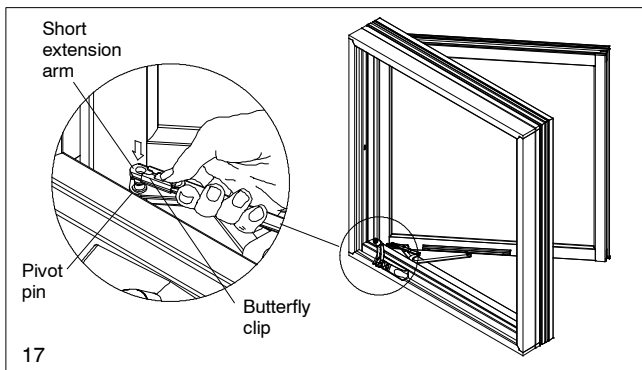
19. Attach the top hinge arm to the track pivot pin by reversing the removal procedure. Tap the arm over the snap ring. Repeat procedure for bottom hinge. See illustration 16.



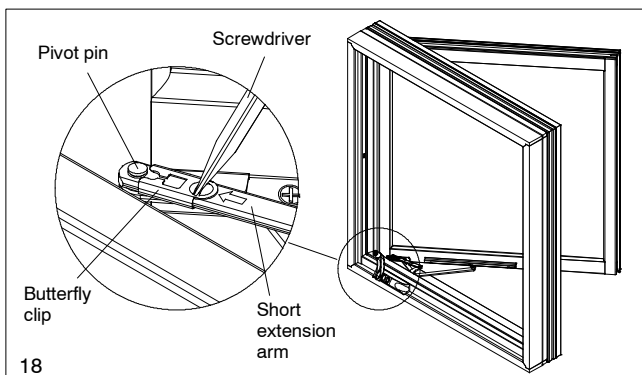
20. Snap the short extension arm onto the sash bracket pivot pin. See illustration 17.



**Installation Tip:** To seat butterfly clips or hinge arms push on the clip or arm until you feel or hear it click into place. To check to see if the clip or arm is properly attached gently pull up on the arm, if it detaches, reattach the arm and reseal.



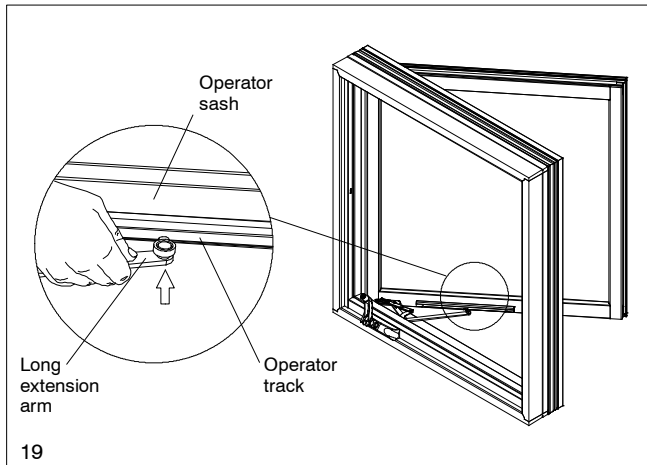
21. Using a flat screwdriver, return the butterfly clip to the locked position. See illustration 18.



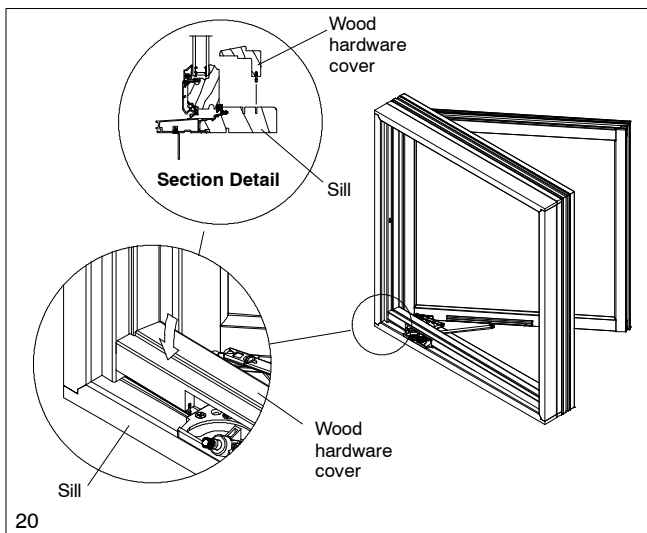
**WARNING!** Check all hardware, clips and retainers to ensure all parts are secure and properly seated. Failure to properly install the sash may result in the sash disengaging from the frame, causing potential damage to the sash and/or personal injury.

**EGRESS HARDWARE FIELD INSTALLATION**

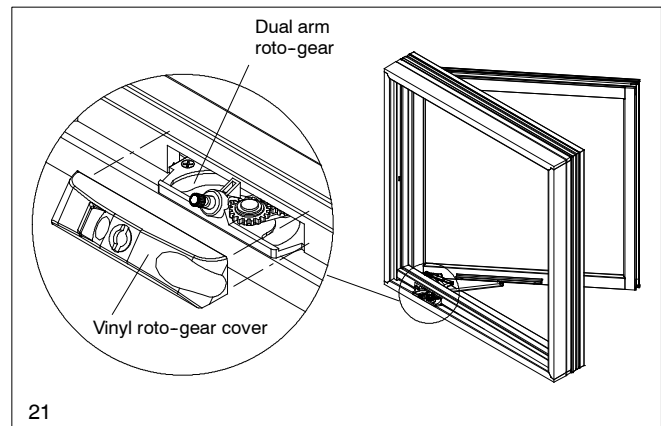
22. Crank open the roto-gear arms until the nylon roller on the long extension arm is positioned under the arrow on the operator track.
23. Center the nylon roller under the opening and pull it up through the opening in the operator track. See illustration 19.



24. Replace the wood hardware cover by inserting connecting barb into groove. The standard dual arm cover should be replaced with an egress cover. See illustration 20.



25. Replace the vinyl roto-gear cover . See illustration 21.



26. Replace the handle and tighten the set screw. See illustration 22.

