

INSTALLATION INSTRUCTIONS FOR

A110HD/LL, A111HD/LL, A130HD, A140HD/LL, A240HD/LL, A260HD, A270HD/LL, A410HD/LL

All standard length hinges are non-handed and can be used for right or left hand doors. Standard length hinges are shorter than nominal door height to accommodate threshold and carpeting clearances.

CUTTING- If a hinge must be cut, use a hacksaw cutting one end only. With the hinge closed and standing with cap up or on its side with cap away from you, cut so that you cut through the cap first. If you cut off a set screw bearing, re-install it on the hinge. The hinge becomes handed after cutting and must be installed with the cut end at the bottom to allow chips to work out and to keep the templated hole pattern at the top.

FRAME PREP- With the hinge open and using a shim, locate the top of the hinge 1/8" below the heading for door clearance. Make sure the frame leaf alignment flange is tight against the frame face. Mark or center punch hole locations. Drill all holes using #1(.185") or 3/16" dia. drill. For wood doors use 5/32" dia. drill. **DO NOT ATTACH HINGE TO FRAME YET.**

ATTACHING HINGE TO DOOR- Position door leaf on door. Door leaf alignment flange or door leaf lip must be seated against door edge even if door is slightly warped. The top end of hinge must be absolutely flush to a straight edge across the top of the door. Mark or center punch and drill all holes using #13(.185") or 3/16" dia. drill. For wood doors use 5/32" dia. drill. Using the fasteners provided and a #3 Phillips drive, attach the hinge to the door. See chart below for proper screws.

ATTACHING DOOR TO FRAME- Position door 90 degrees to frame. Wedge the door to the proper height to line up holes in frame with the holes at the top of the hinge. Install one screw at the top (For wood frames use a temporary nail). Remove the wedge and line up the remaining holes and install a few more screws. Check the door for proper swing and clearance. Install the remaining screws.

	Steel/Metal	Wood
Frame	12-24 x 7/8" PH. F.H. UNDERCUT SELF DRILLING THREAD FORMING TEK SCREW	#12 x 1-1/2" PHILLIPS FLAT HEAD WOOD SCREW
Door	12-24 x 7/8" PH. F.H. UNDERCUT SELF DRILLING THREAD FORMING TEK SCREW	#12 x 1-1/2" PHILLIPS FLAT HEAD WOOD SCREW

REINFORCING- No reinforcing is necessary except on extremely heavy or extra-wide doors

RIVNUTS- Rivnuts are recommended in the frame and door when door weight exceeds 450#. *RIVNUTS are not to be used with Fire Rated Hinges.*

PAIRS OF DOORS WITH MULLIONS- If the mullion is between the doors, install as a single door. If mullion is behind the doors, install as a double door.

GROUT/SLUSHED-IN FRAMES- It is recommended that a mudguard be installed behind the frame for ease of installation. Do not use self-drilling screws with grouted steel frames without a mudguard. If no mudguards have been used, drill holes through frame and remove grout for screw clearance. Do not oversize hole.

PAINTING OF HINGES IN THE FIELD WILL VOID THE WARRANTY.