

THE MAIMAN COMPANY

Installation Instructions

**20-Minute Fire-Rated Neutral Pressure
UBC 7-2-1997 & UL-10C
Door Frame**

Door Requirements:

Consult the door manufacturer to make sure that the doors are qualified for the hardware to be installed.

Wall Requirements:

One hour rated, wood, steel framed or masonry wall –
Minimum thickness: 3 3/4" inches
Framing: 2" x 4" nominal dimension lumber or 2 1/2" x 0.019" (25 gauge) minimum
Steel framing.
Maximum rough opening size for 20 minute frames:
(3 1/8)" wider than net opening width of door.
(1 9/16)" higher than net opening height of door.

20-Minute Frame Design Limitations:

Minimum jamb depth: 3 3/4"
Minimum rabbet for door: 1-7/8"
Minimum stop height: 5/8"
Minimum stop width: 1 1/2"

FOR SWINGING DOOR	NET OPENING		OVERALL	
	Width	Height	Width	Height
Singles	48	108	49 5/8	108 13/16
Pairs	96	108	97 5/8	108 13/16

Hinges: Size and spacing to be in accordance with Table 2-4.3.1 of NFPA 80 1999. Continuous and invisible type 20-min. rated hinges are also acceptable.

Strikes: Per Templates for labeled latch sets, (including cylindrical, mortise or unit type), rim exit device, vertical rod fire exit device, flush bolts and/or dead bolts.

Rough Opening Preparation

The maximum gap between any frame member and the rough opening without the use of rock wool packing is 1/4". This dimension can be increased to 3/4" if rock wool is packed tightly into the increased shim space.

20 Minute Frame Installation: *See Drawings*

Remove the frame from the carton and become familiar with the components by checking each component. Obtain any hardware item not supplied with your purchase (but required by these instructions) at your local door/frame hardware or building materials dealer.

In the event your 20 minute frame was supplied without casing trim, you may install any wood, plastic or metal casing trim obtained from your local dealer.

To reduce soiling and staining of the frame finish and for ease of installation, it is recommended that all holes for fasteners through the frame be predrilled before the fastener is inserted. Pilot holes from 65-70% of the fastener shank diameter are best.

If needed, up to 3/4" may be sawed from the bottom of each jamb to fit the rough opening. Use caution to make sure that this does not require trimming the bottom of the door. Some doors may not be trimmed at the bottom.

Align the header section to the top of each jamb section. Drive two 2" long drywall screws or 10d nails of sufficient length to penetrate the jamb leg a minimum of 1" through the predrilled holes at each end of the header to the top of each jamb.

Orient, position, align and square the assembled frame within the rough opening in the wall. **See drawings.** Position shims at about 2" from the top and bottom to fill the opening between the hinge jamb and wall buck framing. Drive screws or 10d nails of sufficient length to penetrate the rough buck by a minimum of 1" immediately above or below each set of shims. Do not completely tighten these screws or nails until you are sure the shims have been adjusted to have the head within the width of the rough opening and with the hinge jamb in plumb.

Insert shims under top and bottom hinges and install the door to the frame at these locations only. Close the door to check and adjust for alignment of the door from the frame stops and for 1/8" maximum clearance for wood doors or 3/16" maximum clearance for steel doors from the header and both jambs. In the case of door pairs, both doors should be similarly installed to adjust for 1/8" clearance for wood doors or 3/16" clearance for steel doors between the meeting edges and for 1/8" maximum offset along the meeting edges. When alignment is satisfactory insert shims under the remaining hinge locations and install hinges. Place shims under each frame attachment screw or nail location, maximum 18" on center and no more than 4' from any end, between buck framing along both jamb and header section. Drive and tighten screws through head and jambs into the buck framing, adjoining each set of shims. Recheck clearances and readjust if necessary.

The loose wood stops should be attached with 1 1/2" long finishing nails or 1 1/4" long trim head screws, 12" on center no more than 2" from any end, through the predrilled holes at this time. Preposition the stops on the frame to allow for any required labeled gasketing with the doors in the closed position.

Check and adjust hardware to make sure door(s) are self-closing and self-latching.

Break or saw off any shims that extend beyond the frame or wall on each side of the assembly. Fill the area between sets of shims, 20 minute frame and buck framing on each side of the wall with rock wool. **See Drawings.**

Install the casing trim on each side of the wall to the buck framing. Use nails or trim head screws of sufficient length to penetrate the wood stud by 3/4". The screws or nails will be placed at a maximum of 4" from each end and 12" on center. If desired, the screw and nail heads may be covered using a veneer color matched caulking or putty stick. If the frame has a natural wood veneer, it may be stained and finished.

CONGRATULATIONS! You may now enjoy the safety and appearance of a 20minute rated Maiman Company frame.

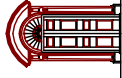
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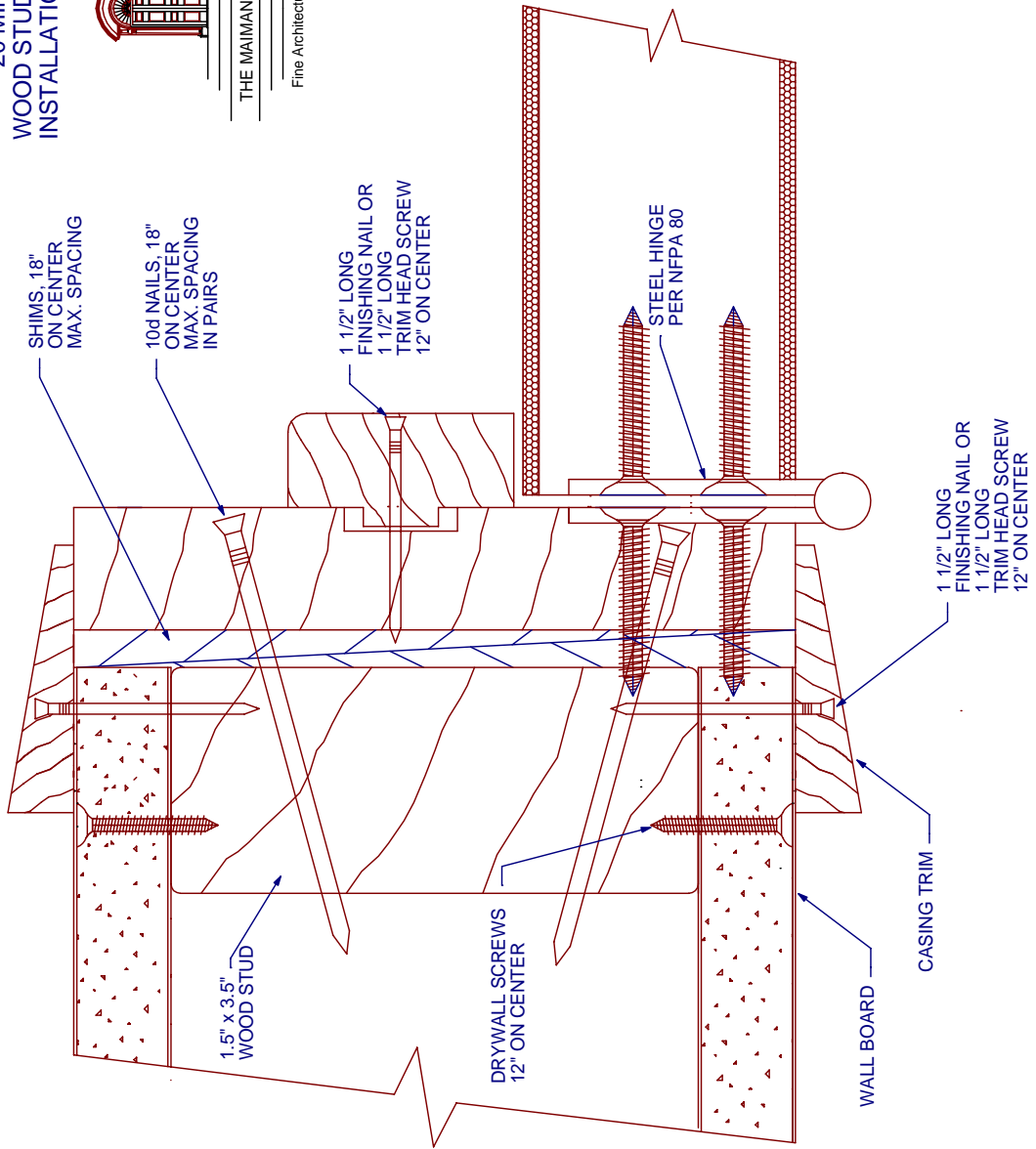
These and other instructions are also available on our website at www.maiman.com/downloads.asp.

20 MINUTE
WOOD STUD EXAMPLE
INSTALLATION DETAIL

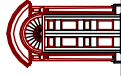


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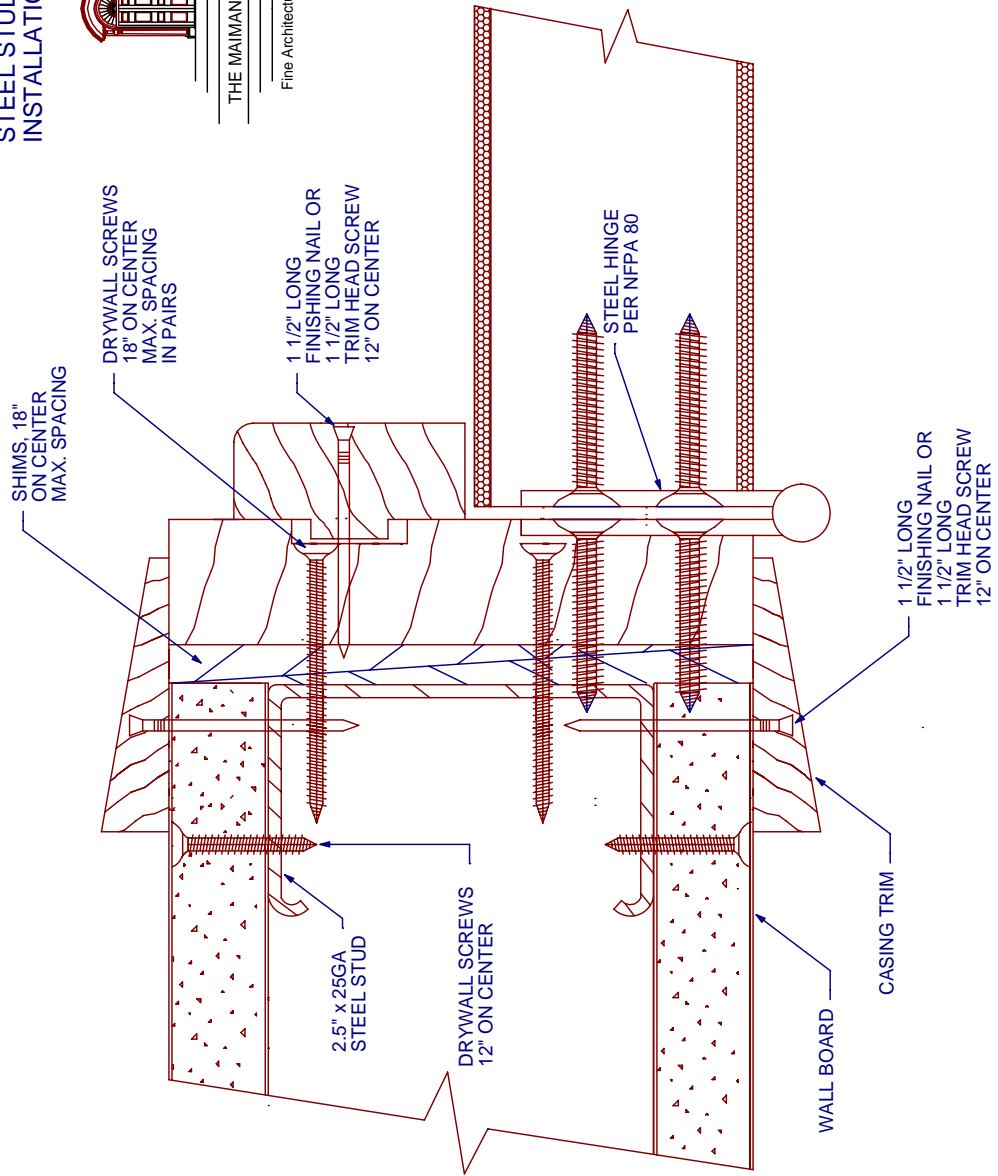
Fine Architectural Doors



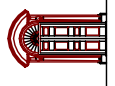
20 MINUTE
STEEL STUD EXAMPLE
INSTALLATION DETAIL



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20 MINUTE
MASONRY
WOOD STUD EXAMPLE
INSTALLATION DETAIL



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