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STAIRWAY ASSEMBLY

1. TOP ANGLE ASSEMBLY

1a) MOUNTING TOP ANGLE TO BUILDING STRUCTURE

NOTE

IF MOUNTING TO BUILDING STRUCTURE, REAR SURFACE OF ANGLE MUST BE IN A PERPENDICULAR LINE, FLUSH WITH THE OUTER EDGE OF MEZZANINE PLATFORM TO GAIN FULL Advantage OF THE TOP STAIR TREAD DEPTH. A MINIMUM OF (2) FASTENERS MUST BE INSTALLED IN EACH ANGLE. IF ANGLE IS TO BE FASTENED TO THE WALL, ANCHORS MUST BE FURNISHED BY OTHERS. DO NOT TIGHTEN FASTENERS UNTIL STAIRWAY IS COMPLETELY ASSEMBLED.

TO MOUNT STAIRWAY TO EQUIPMENT MEZZANINE SEE MEZZANINE INSTRUCTIONS.

1b) MOUNTING TOP ANGLE TO V-GRIP UPRIGHT

#13153 HEX BOLT

V-GRIP POST

#7698L & 7698R BRACKET (NOT INCLUDED WITH STAIRWAY)

1c) MOUNTING TOP ANGLE TO IRON GRIP UPRIGHT

#13153 HEX BOLT

IRON GRIP POST

#13153 HEX BOLT 5/16-18 x 3/4"
#13051 LOCK NUT 5/16-18
#13182 SPRING LOCKWASHER 3/8"
(2 PER ANGLE)
FULL SCALE
1d) MOUNTING TOP ANGLE TO SLOTTED ANGLE

SLOTTED ANGLE

#9556R TOP ANGLE RIGHT HAND

#13153 SCREW

1e) MOUNTING TOP ANGLE TO GRATING

ASSEMBLE HANGER BRACKET TO GRATING PANEL
(HARDWARE AND HANGER BRACKETS NOT INCLUDED WITH STAIRWAY)

#13184 BOLT

#10315 GRATING CLAMP

12" WIDE MEZZANINE GRATING PANEL

#78254L HANGER BRACKET LEFT HAND

#78254R HANGER BRACKET RIGHT HAND

ASSEMBLE TOP ANGLE TO HANGER BRACKET

12" WIDE MEZZANINE GRATING PANEL

#9556R TOP ANGLE RIGHT HAND

#13188 HEX BOLT LEFT HAND

#13188 HEX BOLT 3/8"-16 x 3/4"

#13191 HEX NUT 3/8"-16

#13182 SPRING LOCKWASHER 3/8"

(2 PER FLOOR ANGLE)
2a) ASSEMBLE RISER PANEL TO TOP ANGLE

NOTE
AFTER THE TOP ANGLES ARE IN PLACE, LIFT TOP END OF THE RISER PANEL INTO POSITION WITH THE VERTICAL SURFACE OF THE RISER PANEL TO THE INSIDE OF THE TOP ANGLE AND THE SLOTTED TOP FLANGE TO THE OUTSIDE. REPEAT THIS PROCEDURE WITH THE OPPOSITE RISER PANEL. DURING THIS ASSEMBLY THE BOTTOM ENDS OF THE RISERS ARE TO REST ON THE FLOOR. DO NOT TIGHTEN BOLTS AT THIS POINT.

#13188 HEX HEAD BOLT 3/8"-16 x 3/4"
#13191 HEX NUT 3/8"-16
#13182 SPRING LOCK WASHER 3/8"  
(2 PER TOP ANGLE)

FULL SCALE

2b) MOUNTING RISER PANEL TO FLOOR ANGLE

NOTE
WITH THE RISER PANEL FASTENED TO THE TOP ANGLE, RAISE LOWER END OF THE RISER PANEL FROM THE FLOOR AND FASTEN THE BASE ANGLE IN PLACE. AFTER INSTALLING STAIR TREADS MOVE BOLTS IN RISER PANEL TO MAKE BOTTOM STEP EQUAL TO OTHER STEPS. STAIRWAY IS TO BE ANCHORED TO THE FLOOR BUT NOT UNTIL STAIRWAY IS COMPLETELY ASSEMBLED. FLOOR ANCHORS ARE TO BE FURNISHED BY OTHERS.

#13188 HEX HEAD BOLT 3/8"-16 x 3/4"
#13191 HEX NUT 3/8"-16
#13182 SPRING LOCK WASHER 3/8"  
(2 PER FLOOR ANGLE)

FULL SCALE
3a) STAIR TREAD AND SUPPORT ANGLE ASSEMBLY

NOTE
TIGHTEN BOLTS SECURELY.

3b) FASTENING STAIR TREAD ASSEMBLY TO RISER

NOTE
STAIR TREAD NOT SHOWN FOR CLARITY. BOLT TREAD SUPPORT ANGLE TO HOLE 1 IN THE RISER PANEL. LEVEL TREAD SUPPORT ANGLE AND BOLT THE OTHER END OF ANGLE IN THIS POSITION. DO NOT TIGHTEN TREADS UNTIL ALL STAIR TREADS ARE IN PLACE.
SWAY BRACE ASSEMBLY

FOR S07 THROUGH S09 STAIRWAYS

NOTE:
NO BRACE NEEDED FOR S04 THROUGH S06 STAIRWAYS.

BRACE

#6492 - 24" WIDE STAIRWAY
#6493 - 30" WIDE STAIRWAY
#6494 - 36" WIDE STAIRWAY
#6459 - 48" WIDE STAIRWAY

NOTE
BOLT ONE PAIR OF BRACES IN THE SECOND AND FOURTH HOLE FROM THE TOP.
TIGHTEN BOLTS SECURELY.

#13153 HEX BOLT 5/16"-18 x 3/4"
#13051 LOCK NUT 5/16-18

(5 PER PAIR OF BRACES)

FULL SCALE

FOR S10 THROUGH S16 STAIRWAYS

RISER PANELS

NOTE: REFER TO 061ASY INSTRUCTIONS FOR (2) PIECE CONSTRUCTION

BRACE

#6492 - 24" WIDE STAIRWAY
#6493 - 30" WIDE STAIRWAY
#6494 - 36" WIDE STAIRWAY
#6459 - 48" WIDE STAIRWAY

#13153 HEX BOLT 5/16"-18 x 3/4"
#13051 LOCK NUT 5/16-18

(5 PER PAIR OF BRACES)

FULL SCALE
STAIR RAILING ASSEMBLY

RAILING POST ASSEMBLY

NOTE

INSERT POST THRU SLOT IN RISER PANEL
SO THAT THE HOLES IN THE TOP OF THE POST
ARE FACING TOWARD TOP OF THE STAIRWAY
AND THE EXTENSIONS ARE TO THE OUTSIDE
OF THE STAIRWAY.
BOLT POSTS TO RISER PANEL AS SHOWN.
DO NOT TIGHTEN THESE BOLTS UNTIL
COMPLETE RAIL IS ASSEMBLED.

#13007 HEX HEAD BOLT 3/8"-16 x 2 3/4
#13191 HEX NUT 3/8"-16
#13182 SPRING LOCKWASHER 3/8"
#13187 FLAT WASHER 3/8" (2 PER BOLT)

FULL SCALE

TOP HAND RAIL ASSEMBLY

2a) FOR S04 THROUGH S09 STAIRWAYS

POST BRACKET ASSEMBLY TO TOP HAND RAILS

#13127 THD. ROLLING SCREW

#15224 POST BRACKET

NOTE

INSTALL BRACKET SO IT POINTS
TOWARD TOP END OF RAIL.
TIGHTEN BOLTS SECURELY.

#13127 #8-32 X 7/16 PH. PAN
HEAD THRD ROLLING SCREW
(2 PER ASSEMBLY)

FULL SCALE
NOTE

BE SURE ALL POST BRACKETS ARE FASTENED SECURELY TO TOP RAIL. LOWER TOP RAIL OVER TOPS OF POSTS WITH BRACKETS INSIDE. FASTEN IN PLACE SECURELY.

#13127 SCREW

#17431LA/17431RA RAILING POST
POST EXTENSION NOT SHOWN FOR CLARITY

#13127 #8-32 X 7/16 PH. PAN HEAD THRD ROLLING SCREW (2 PER ASSEMBLY)
2b) FOR S10 THROUGH S11 STAIRWAYS

TOP HAND RAIL ASSEMBLY TO VERTICAL POST

NOTE

ASSEMBLE POST BRACKET TO TOP HAND RAIL IN THE SAME WAY AS SHOWN AT STEP 2a. MAKE SURE ALL BRACKETS ARE TIGHTENED SECURELY TO TOP HAND RAIL AND FASTEN THE RAIL TO POSTS AS SHOWN.

#17431LA/17431RA RAILING POST

POST EXTENSION NOT SHOWN FOR CLARITY
SLEEVE ASSEMBLY INTO TOP HAND RAIL

NOTE
INSERT SLEEVE INTO BOTTOM END OF TOP HAND RAIL AS SHOWN. ALIGN THE UPPER SET OF HOLES IN THE SLEEVE WITH THE HOLES IN THE HAND RAIL. FASTEN IN PLACE AND TIGHTEN SECURELY.

#13143 PH. PAN HD SHEET METAL SCREW
#10-24 X 1/2"
(4 PER SLEEVE)
FULL SCALE

BOTTOM HAND RAIL ASSEMBLY TO VERTICAL POST

NOTE
ASSEMBLE POST BRACKET TO BOTTOM HAND RAIL. TIGHTEN THE BRACKET SECURELY. TELESCOPED THE END OF THE BOTTOM RAIL OVER THE SLEEVE EXTENDING FROM TOP HAND RAIL AND AT THE SAME TIME PLACE BOTTOM HAND RAIL POST BRACKET INSIDE POST. TIGHTEN ALL SCREWS SECURELY.

#13127 #8-32 X 7/16 PH. PAN HEAD THRD ROLLING SCREW
(2 PER ASSEMBLY)
FULL SCALE

#17431LA/17431RA RAILING POST POST EXTENSION NOT SHOWN FOR CLARITY
2c) FOR S12 THROUGH S16 STAIRWAYS

HAND RAIL ASSEMBLY TO VERTICAL POST

NOTE

ASSEMBLE POST BRACKETS TO TOP HAND RAIL AND ASSEMBLE TOP HAND RAIL TO POSTS AS SHOWN AT STEP 2b. ASSEMBLE SLEEVE INTO BOTTOM END OF TOP HAND RAIL AS SHOWN AT STEP 2b. ASSEMBLE POST BRACKET TO MIDDLE RAIL AS SHOWN AT STEP 2b. TELESCOP THE END OF THE MIDDLE RAIL OVER THE SLEEVE EXTENDING FROM TOP HAND RAIL AND AT THE SAME TIME PLACE MIDDLE RAIL POST BRACKET INSIDE THE POST. TIGHTEN ALL SCREWS SECURELY.

#13143 PH. PAN HD SHEET METAL SCREW
#10-24 X 1/2"
(4 PER SLEEVE)

FULL SCALE

#13127 #8-32 X 7/16 PH. PAN HEAD THRD ROLLING SCREW
(2 PER ASSEMBLY)

FULL SCALE

#17431LA/17431RA RAILING POST
POST EXTENSION
NOT SHOWN FOR CLARITY

MIDDLE HAND RAIL

TOP END

SEE STEP 2b FOR TOP AND BOTTOM RAIL DIMENSIONS
ASSEMBLE BOTTOM HAND RAIL TO VERTICAL POST

NOTE

ASSEMBLE POST BRACKET TO BOTTOM HAND RAIL. TIGHTEN BRACKET SECURELY.
ASSEMBLE SLEEVE INTO BOTTOM END OF MIDDLE RAIL AS SHOWN AT STEP 2b. TELESCOPE THE END OF BOTTOM HAND RAIL OVER THE SLEEVE EXTENDING FROM MIDDLE RAIL AND AT THE SAME TIME PLACE BOTTOM HAND RAIL POST BRACKET INSIDE POST. TIGHTEN ALL SCREWS SECURELY.

#15401T SLEEVE
10" LONG

#13143 SCREW

#13127 SCREW

#17431LA/17431RA
RAILING POST
POST EXTENSION
NOT SHOWN FOR CLARITY

#13143 PH. PAN HD
SHEET METAL SCREW
#10-24 X 1/2"
(4 PER SLEEVE)

FULL SCALE

#13127 #8-32 X 7/16 PH. PAN
HEAD THRD ROLLING SCREW
(2 PER ASSEMBLY)

FULL SCALE
3 INTERMEDIATE AND END RAIL ASSEMBLY

3a) FOR S04 THROUGH S06 STAIRWAYS

NOTE
RISER NOT SHOWN FOR CLARITY.
INSERT ALL BOLTS WITH THE HEAD TOWARD THE INSIDE OF THE STAIRWAY.
DO NOT TIGHTEN FASTENERS UNTIL ALL BOTTOM AND END RAILS HAVE BEEN INSTALLED.

NOTE
SEE CHARTS ON PAGE 18-20 FOR TOP AND BOTTOM RAILING LENGTHS AND SEQUENCE OF ASSEMBLY

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#15417L COLLAR
LEFT HAND

#15417R COLLAR
RIGHT HAND

END RAIL 15475

INTERMEDIATE RAIL

15475 END RAIL
(MIRROR OF TOP)

TOP RAIL

#911574H SCREW
#13051 LOCKNUT
(3) PER COLLAR ASSEMBLY

---

#911574H TRUSS HD MACH SCREW
5/16" - 18 X 2 1/2"

#13051 LOCKNUT
5/16" - 18

(3 PER PAIR OF COLLARS)
3b) FOR S07 THROUGH S11 STAIRWAYS
S12 THRU S16 STAIRWAYS WILL HAVE (4) POST LOCATIONS

NOTE
RISER AND POST EXTENSIONS NOT SHOWN FOR CLARITY.
INSERT ALL BOLTS WITH THE HEAD TOWARD THE INSIDE OF THE STAIRWAY.
DO NOT TIGHTEN FASTENERS UNTIL ALL BOTTOM AND END RAILS HAVE BEEN INSTALLED.

#911574H TRUSS HD MACH SCREW
5/16" - 18 X 2 1/2"
#13051 LOCKNUT
5/16" - 18
(3 PER PAIR OF COLLARS)
1) **GUARD RAIL ASSEMBLY**

Install the guard rail to the post extensions in the same manner as the handrail assembly for the respective stairway (Pages 8 thru 13).

2) **RAIL PLUG, POST PLUG AND SLOT COVER ASSEMBLY**

Install railing plugs at the top and bottom of the guard rail, hand rail and midrail extensions.

Install post plugs in bottom of post extensions and in visible bottom ends of the railing posts.

Field cut slot cover and install in the top hand rail and guard rails only.
S04–S06 RAILING CHART

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<th>STAIRWAY</th>
<th>TOP RAIL</th>
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<th>INTER. RAIL</th>
<th>LENGTH</th>
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<td>53&quot;</td>
<td>17434</td>
<td>29–3/32&quot;</td>
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<td>S05</td>
<td>17445</td>
<td>66–3/16&quot;</td>
<td>17435</td>
<td>42–9/32&quot;</td>
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<tr>
<td>S06</td>
<td>17446</td>
<td>79–1/4&quot;</td>
<td>17441UR</td>
<td>55–5/16&quot;</td>
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S07–S09 RAILING CHART

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<th>LENGTH</th>
<th>'B'</th>
<th>LENGTH</th>
</tr>
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<tbody>
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<td>17447</td>
<td>92–9/16&quot;</td>
<td>17436</td>
<td>36–5/32&quot;</td>
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<td>29–3/32&quot;</td>
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<td>36–5/32&quot;</td>
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<td>118–15/16</td>
<td>174BLR</td>
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