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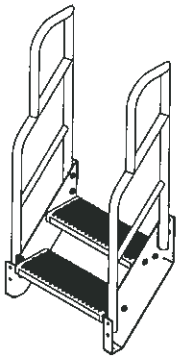
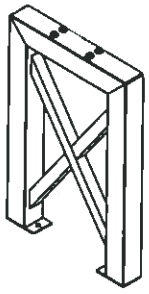
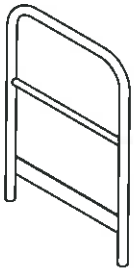


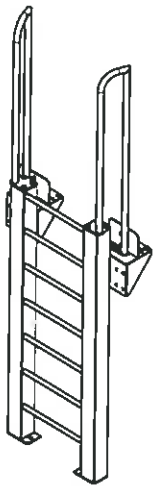
Universal Modular Platform System

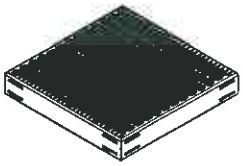


Owner's Manual

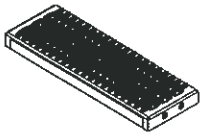


(INSERT CUSTOMER LABEL HERE)





ERECT-A-STEP
219 SAFETY AVENUE
ANDREWS, SC 29510
888-878-1839 / Fax 843-264-8584



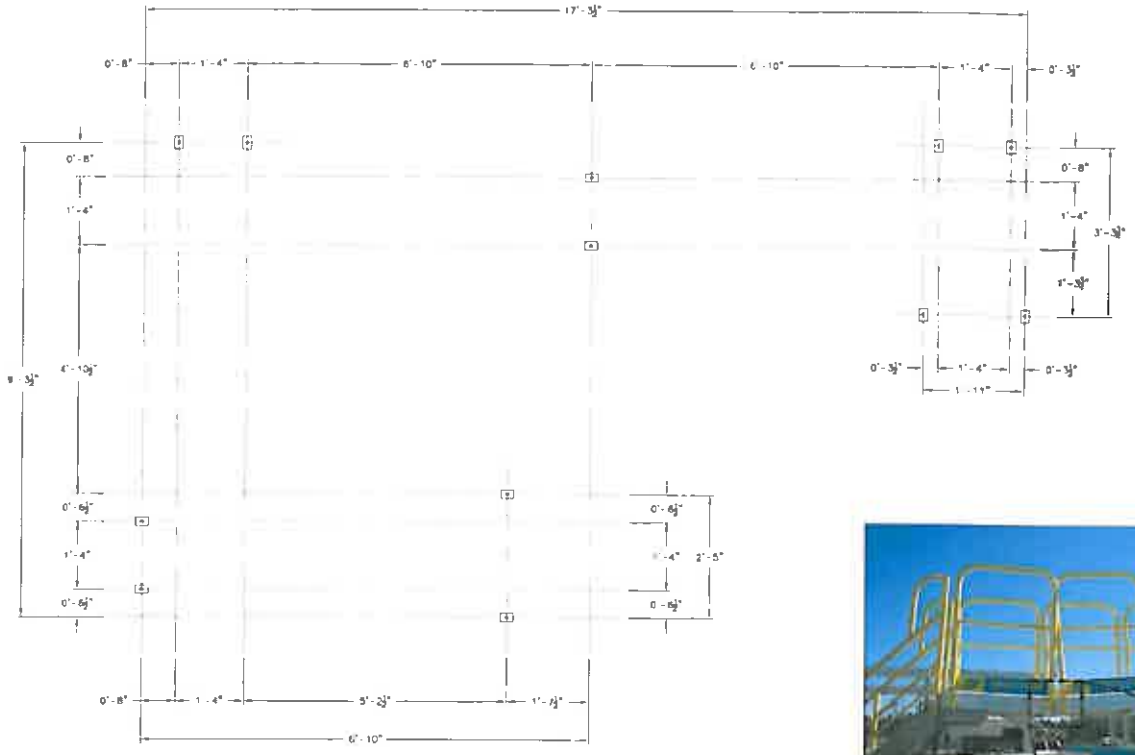
MODULAR PLATFORMS AND STAIRS - PRE-ENGINEERED DESIGN ALLOWS FOR UNLIMITED CONFIGURATIONS

WARNING

Before beginning any assembly, determine anchor bolt location for proper positioning of all components. See component specification sheets in this manual for anchoring dimensions.

Damage can occur if unit is **first assembled and then anchored in the rested position, not the mathematically** correct location. This can **build in permanent deflection not accounted for in the design on the unit. (See warning** picture below)
It is important that anchors **are laid out according to the specification sheets in this manual.**

Layout area for location of your erectastep system using measuring tape and chalk lines, keeping anchor lines square and parallel as shown below in this example:



Drill or wet set anchor bolts in the mathematically correct location prior to assembly. Follow any curing procedures recommended by your concrete/anchor bolt supplier.

It is recommended using a level slab/foundation for anchoring the Erectastep unit to achieve a good contact point between the bottom of the stairs/supports and the concrete in lieu of utilizing leveling anchors and shims.

Once pad layout is complete and you are ready to assemble unit, continue with instructions. Assemble unit on anchor bolts starting with stairs, supports, and/or ladders and then connecting platforms, handrails, gussets, etc.
DO NOT ASSEMBLE UNIT OFF OF ANCHOR BOLTS AND THEN LIFT ONTO THEM.

Assembly Warning Note:
When bolting components together, if fastener insert "spins" in place, it is defective and must be replaced. contact erectastep for a warranty replacement.

WARNING:

Failure to anchor **unit** properly **with the** correct layout dimensions can **result in** product damage not covered **under** warranty - product is not designed to be self supported without anchor **bolts!**

INTRODUCTION

ERECT–A–STEP MODULAR PLATFORM AND STAIR SYSTEMS ARE PRE–ENGINEERED AND DESIGNED FOR UNLIMITED CONFIGURATIONS. THIS UNIVERSAL DESIGN ALLOWS FOR OPTIMUM FLEXIBILITY TO GAIN ACCESS AND EGRESS OVER AND/OR AROUND OBSTRUCTIONS, EQUIPMENT, WALLS, ETC.

ERECT–A–STEP USES ONLY THE HIGHEST QUALITY MATERIAL IN THE CONSTRUCTION OF ITS MODULAR SYSTEM TO ENSURE THE QUALITY, STRENGTH, AND DEPENDABLY FOR YEARS. IT IS VERY IMPORTANT TO FOLLOW CONFIGURATION GUIDELINES AND INSTALLATION INSTRUCTIONS FOR YOUR ERECT–A–STEP SYSTEM. DESIGN LIMITATIONS CAN EXIST WITH RESPECT TO REQUIRED SUPPORTS, ADEQUATE FOOTINGS, AND PRESCRIBED APPLICATION.

SYSTEM DESIGN

APPLICABLE OSHA REGULATIONS DESIGNED TO:

OSHA 1910.23(e)(1) A standard railing shall consist of top rail, intermediate rail, and posts, and shall have a vertical height of 42 inches nominal from upper surface of top rail to floor, platform, runway, or ramp level. The top rail shall be smooth surfaced throughout the length of the railing. The intermediate rail shall be approximately halfway between the top rail and the floor, platform, runway, or ramp. The ends of the rails shall not overhang the terminal posts except where such overhang does not constitute a projection hazard.

OSHA 1910.23(e)(5)(iv) The mounting of handrails shall be such that the completed structure is capable of withstanding a load of at least 200 pounds applied in any direction at any point on the rail.

OSHA 1910.23(e)(6) All handrails and railings shall be provided with a clearance of not less than 3 inches between the handrail or railing and any other object.

OSHA 1910.23(e)(3)(ii) For pipe railings, posts and top and intermediate railings shall be at least 1-1/2 inches nominal diameter with posts spaced not more than 8 feet on centers.

OSHA 1910.23(e)(2) A stair railing shall be of construction similar to a standard railing but the vertical height shall be not more than 34 inches nor less than 30 inches from upper surface of top rail to surface of tread in line with face of riser at forward edge of tread.

OSHA 1910.24(c) "Stair strength." Fixed stairways shall be designed and constructed to carry a load of five times the normal live load anticipated but never of less strength than to carry safely a moving concentrated load of 1,000 pounds.

OSHA 1910.24(d) "Stair width." Fixed stairways shall have a minimum width of 22 inches.

OSHA 1910.24(e) "Angle of stairway rise." Fixed stairs shall be installed at angles to the horizontal of between 30 deg. and 50 deg. Any uniform combination of rise/tread dimensions may be used that will result in a stairway at an angle to the horizontal within the permissible range. Table D-1 gives rise/tread dimensions which will produce a stairway within the permissible range, stating the angle to the horizontal produced by each combination. However, the rise/tread combinations are not limited to those given in Table D-1.

Angle to horizontal	Rise (in inches) Table D-1	Tread run (in inches)
30 deg. 35'	6-1/2	11
32 deg. 08'	6-3/4	10-3/4
33 deg. 41'	7	10-1/2
35 deg. 16'	7-1/4	10-1/4
36 deg. 52'	7-1/2	10
38 deg. 29'	7-3/4	9-3/4
40 deg. 08'	8	9-1/2
41 deg. 44'	8-1/4	9-1/4
43 deg. 22'	8-1/2	9
45 deg. 00'	8-3/4	8-3/4
46 deg. 38'	9	8-1/2
48 deg. 16'	9-1/4	8-1/4
49 deg. 54'	9-1/2	8

OSHA 1910.24(f) "Stair treads." All treads shall be reasonably slip-resistant and the nosings shall be of nonslip finish. Welded bar grating treads without nosings are acceptable providing the leading edge can be readily identified by personnel descending the stairway and provided the tread is serrated or is of definite nonslip design. Rise height and tread width shall be uniform throughout any flight of stairs including any foundation structure used as one or more treads of the stairs.

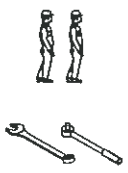
OSHA 1910.144(a)(3) Yellow. Yellow shall be the basic color for designating caution and for marking physical hazards such as: Striking against, stumbling, falling, tripping, and "caught in between."

OSHA 1926.451(f)(16) Platforms shall not deflect more than 1/60 of the span when loaded.

TORQUE DATA:

ALL 1/2" BOLTED CONNECTIONS = 678 IN/LBS YIELDING A 9046 LB CLAMPING FORCE.
CUSTOMER NOTE: AFTER A USAGE PERIOD OF 60–90 DAYS, CHECK ALL FASTENERS TO ENSURE CONNECTIONS ARE SECURE.

START-UP TOOLS



- MIN. 2 PEOPLE ARE RECOMMENDED FOR ASSEMBLY

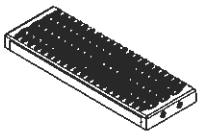
COMPLIMENTARY TOOL KIT INCLUDED IN SHIPMENT:

- (1) 3/4" WRENCH
- (1) 3/4" SOCKET AND HANDLE

SHIPPING COMPONENTS

SAFETY STAIR

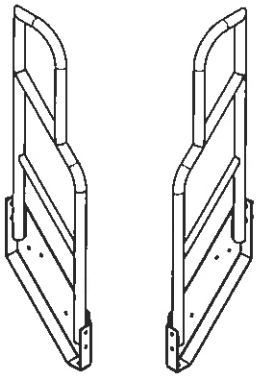
PACKAGE INCLUDES:
- LEFT STRINGER with HANDRAIL
- RIGHT STRINGER with HANDRAIL
- STEP(S) w/ HARDWARE
- LEFT GUSSET BRACKET
- RIGHT GUSSET BRACKET
- REAR CROSS BRACE (IF APPLICABLE)
- HARDWARE PACKAGE



STEP
(step size determines qty)

GUSSET BRACKET
(1 left, 1 right)
(1&2 step – not applicable)

REAR CROSS BRACE
(1&2 step – not applicable)
(3&4 step – 1 req'd)
(5,6&7 step – 2 req'd)
(8 step – 3 req'd)
(9,10,&11 step – 4 req'd)



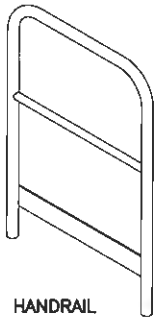
STRINGER
(1 left, 1 right)

STAIR UNIT
1 STEP – PART #11386
2 STEP – PART #11387
3 STEP – PART #11388
4 STEP – PART #11389
5 STEP – PART #11390
6 STEP – PART #11391
7 STEP – PART #11392
8 STEP – PART #11393
9 STEP – PART #11488
10 STEP – PART #11489
11 STEP – PART #11490

SAFETY HANDRAIL

PACKAGE INCLUDES:
- HANDRAIL
- (2) UHMW SPACERS
- HARDWARE PACKAGE

UHMW SPACER



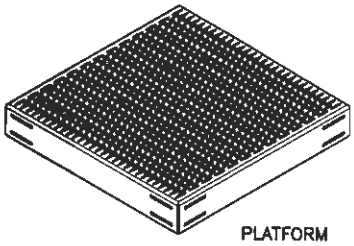
HANDRAIL

(PART #11395)

UNIVERSAL PLATFORM

PACKAGE INCLUDES:
- 36x36 PLATFORM
- (8) BACKING PLATES
- HARDWARE PACKAGE

BACKING PLATE



PLATFORM

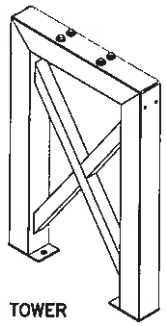
(PART #11394)

TOWER SUPPORTS

PACKAGE INCLUDES:
- TOWER SUPPORT
- LEFT GUSSET BRACKET
- RIGHT GUSSET BRACKET
- HARDWARE PACKAGE

GUSSET BRACKET
(1 left, 1 right)
(1,2,&3 step – not applicable)

NOTE: Cross bracing in tower varies depending on height. Shorter units will not have bracing.

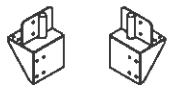


TOWER

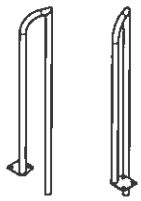
1 STEP – PART #11378
2 STEP – PART #11379
3 STEP – PART #11380
4 STEP – PART #11381
5 STEP – PART #11382
6 STEP – PART #11383
7 STEP – PART #11384
8 STEP – PART #11385
9 STEP – PART #11468
10 STEP – PART #11469
11 STEP – PART #11470

LADDER

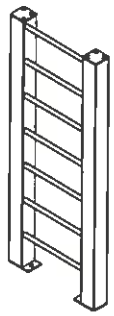
PACKAGE INCLUDES:
- LADDER SECTION
- HANDRAIL (LEFT)
- HANDRAIL (RIGHT)
- GUSSET BRACKET (2)
- HARDWARE PACKAGE



GUSSET BRACKET
(1 left, 1 right)



HANDRAIL
(1 left, 1 right)



LADDER

1 STEP – PART #11457
2 STEP – PART #11458
3 STEP – PART #11459
4 STEP – PART #11460
5 STEP – PART #11461
6 STEP – PART #11462
7 STEP – PART #11463
8 STEP – PART #11464
9 STEP – PART #11488
10 STEP – PART #11489
11 STEP – PART #11490

TOOL PACKET

PACKAGE INCLUDES:
- WRENCH
- DEEP WELL SOCKET
- SOCKET HANDLE

PLEASE TAKE A MOMENT TO INSPECT YOUR NEW EQUIPMENT AND LOOK FOR SHIPPING DAMAGE. PLEASE CHECK PACKING LIST AGAINST YOUR EQUIPMENT TO INSURE ALL PARTS HAVE ARRIVED WITHOUT DAMAGE.

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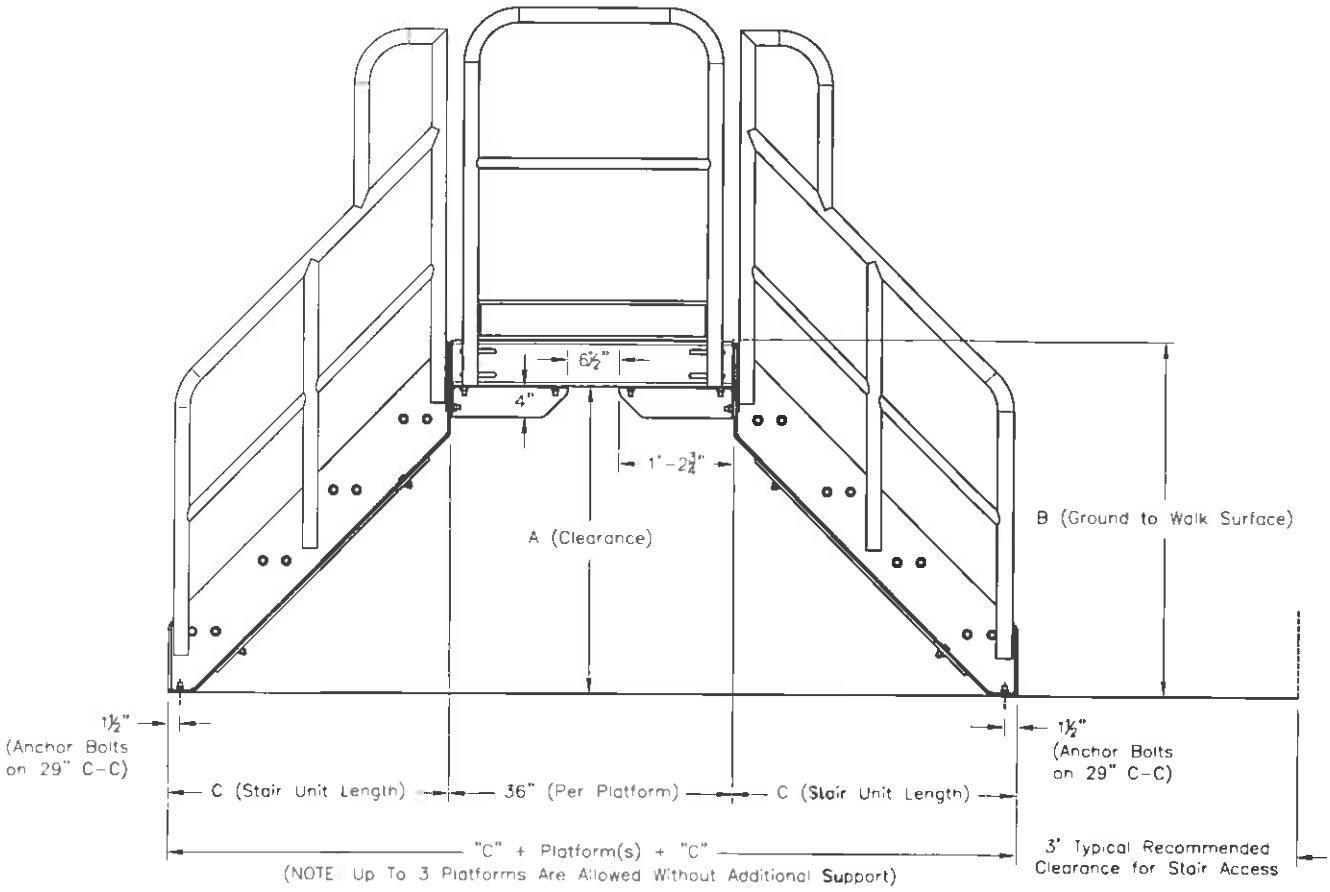
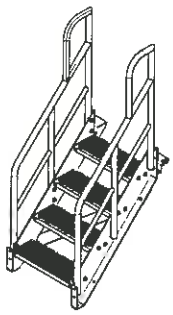
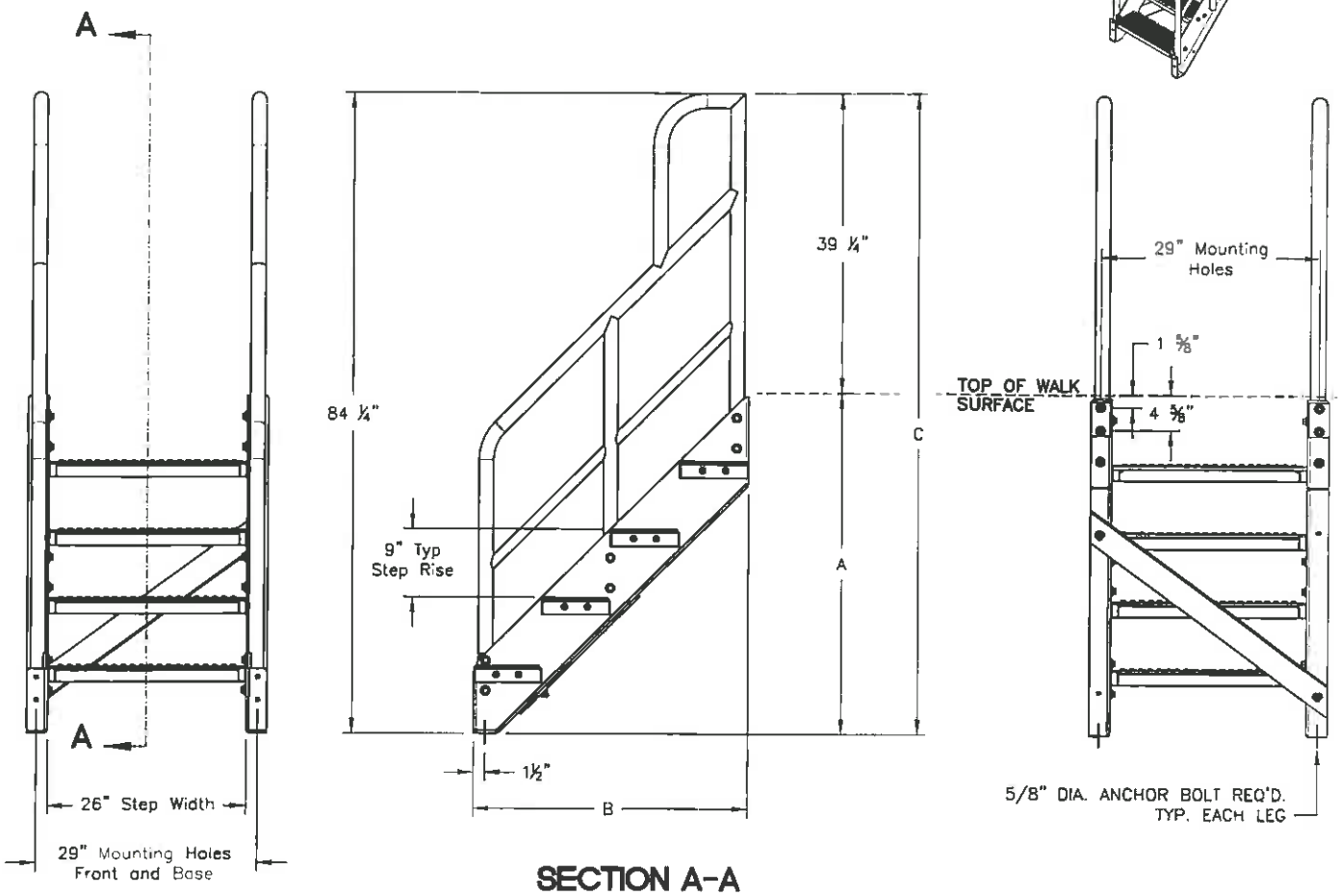
SPECIFICATIONS



Cross-Over Clearance Table			
	A (in)	B (in)	C (in)
1-Step	12	18	9
2-Step	21	27	18
3-Step	30	36	27
4-Step	39	45	36
5-Step	48	54	45
6-Step	57	63	54
7-Step	66	72	63
8-Step	75	81	72
9-Step	84	90	81
10-Step	93	99	90
11-Step	102	108	99

SPECIFICATIONS - Stair

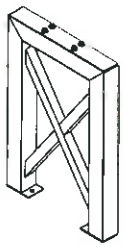


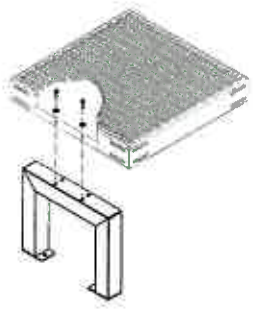


SECTION A-A

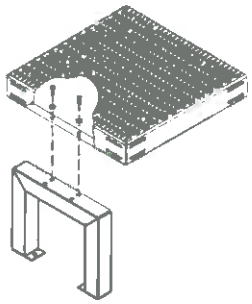
	A	B	C	Est. Weight
1-Step	18"	9"	57 1/4"	44 lbs
2-Step	27"	18"	66 1/4"	64 lbs
3-Step	36"	27"	75 1/4"	88 lbs
4-Step	45"	36"	84 1/4"	108 lbs
5-Step	54"	45"	93 1/4"	130 lbs
6-Step	63"	54"	102 1/4"	150 lbs
7-Step	72"	63"	111 1/4"	170 lbs
8-Step	81"	72"	120 1/4"	190 lbs
9-Step	90"	81"	129 1/4"	210 lbs
10-Step	99"	90"	138 1/4"	230 lbs
11-Step	108"	99"	147 1/4"	250 lbs

SPECIFICATIONS - Support

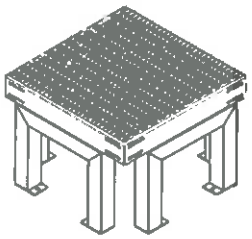




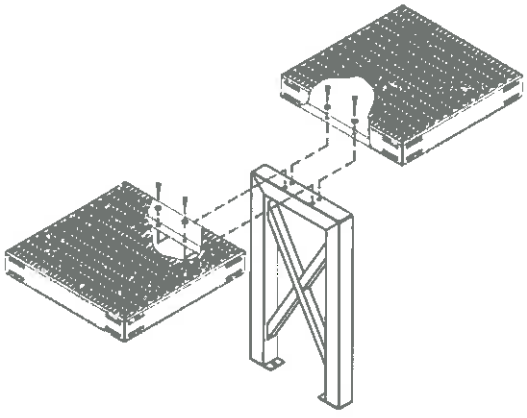
OUTSIDE BOLTING ONE



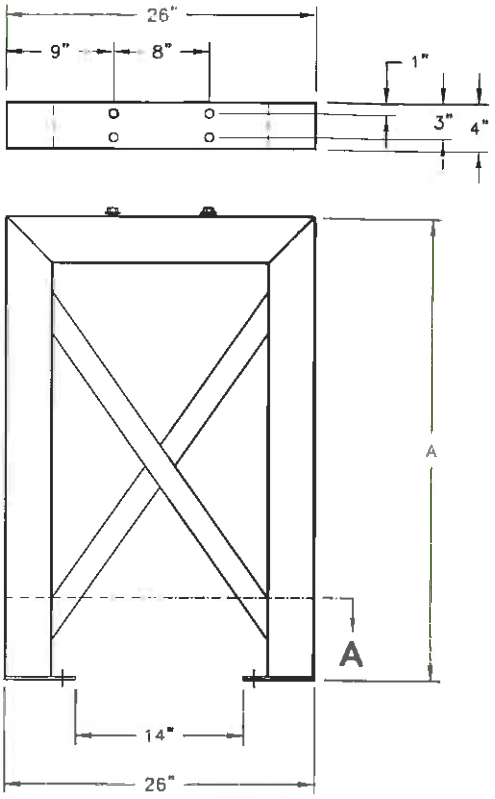
INSIDE BOLTING ONE



OUTSIDE BOLTING ALL SIDES



OUTSIDE BOLTING TWO

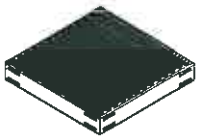


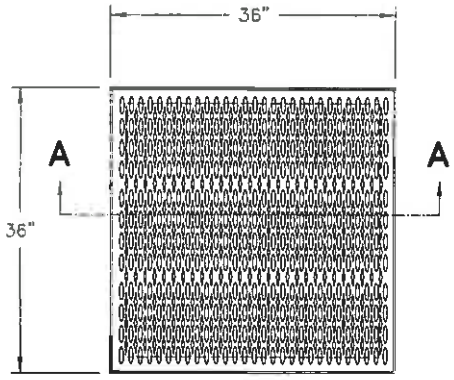
SECTION A-A

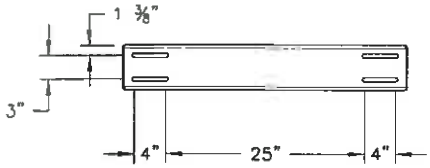
	A	Est. Weight
1-Step	12"	13 lbs
2-Step	21"	18 lbs
3-Step	30"	23 lbs
4-Step	39"	28 lbs
5-Step	48"	34 lbs
6-Step	57"	45 lbs
7-Step	66"	50 lbs
8-Step	75"	55 lbs
9-Step	84"	60 lbs
10-Step	93"	65 lbs
11-Step	102"	70 lbs

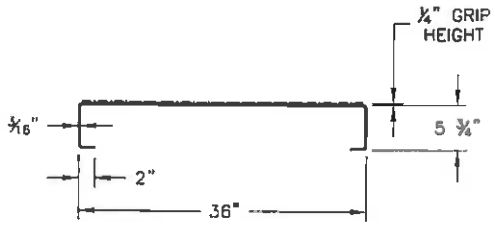
TYPICAL BOLTED CONNECTIONS

SPECIFICATIONS - Platform



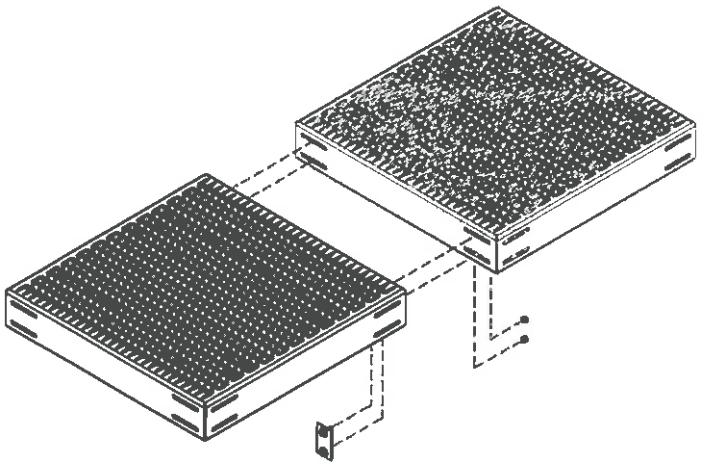






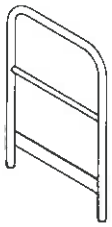
SECTION A-A

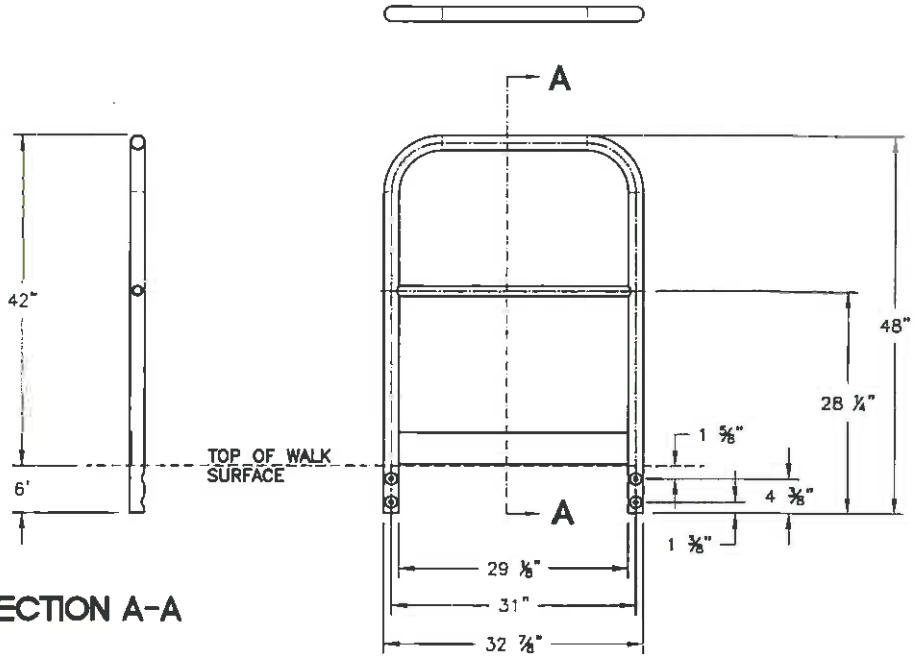
	Est. Weight
Standard 36X36 Platform	46 lbs



TYPICAL BOLTED CONNECTION

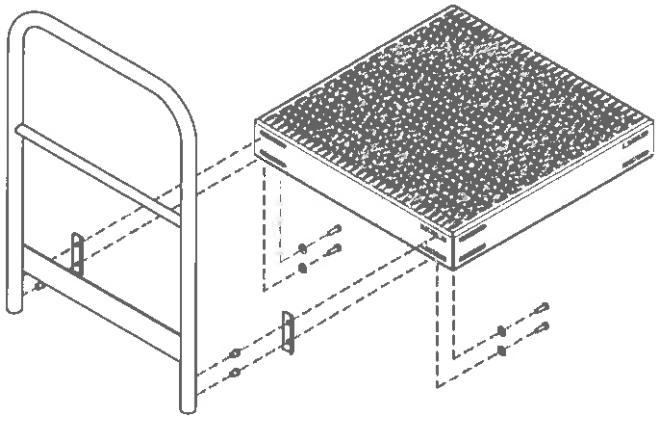
SPECIFICATIONS - Handrail





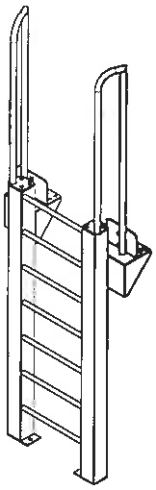
SECTION A-A

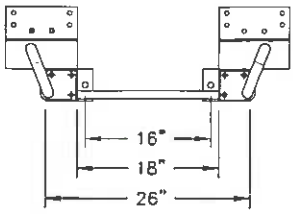
	Est. Weight
Standard Platform Handrail	21 lbs

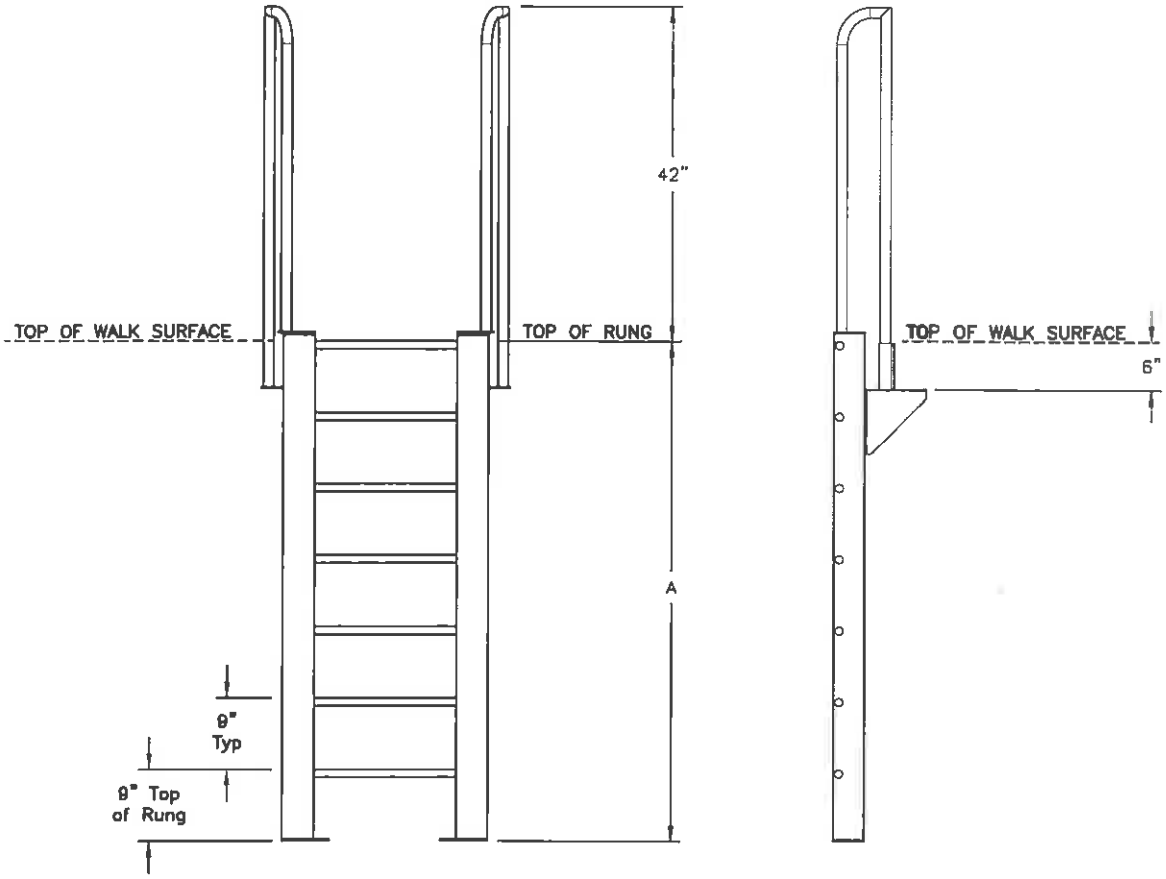


TYPICAL BOLTED CONNECTION

SPECIFICATIONS - Ladder







	A	Est. Weight
1-Step	18"	44 lbs
2-Step	27"	50 lbs
3-Step	36"	55 lbs
4-Step	45"	60 lbs
5-Step	54"	66 lbs
6-Step	63"	71 lbs
7-Step	72"	77 lbs
8-Step	81"	82 lbs
9-Step	90"	87 lbs
10-Step	99"	93 lbs
11-Step	108"	98 lbs

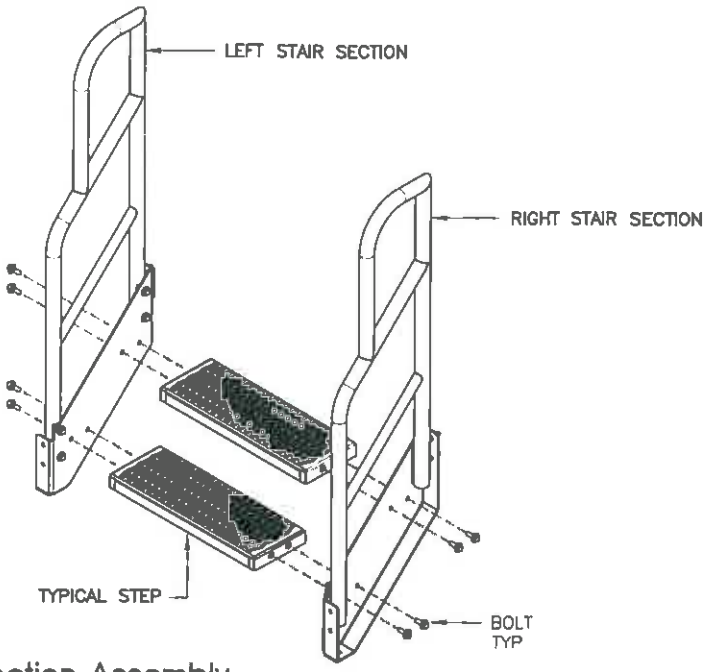
ASSEMBLY INSTRUCTIONS
Stair

Assembly 1:

STAIRS MUST BE PRE-ASSEMBLED BEFORE ERECTING YOUR ERECTASTEP SYSTEM

- POSITION LEFT AND RIGHT SIDE STAIR SECTIONS AS SHOWN AND BOLT IN ALL STEPS PROVIDED.
- SECURE EACH STEP IN PLACE WITH BOLTS PROVIDED AND TIGHTEN ALL CONNECTIONS.

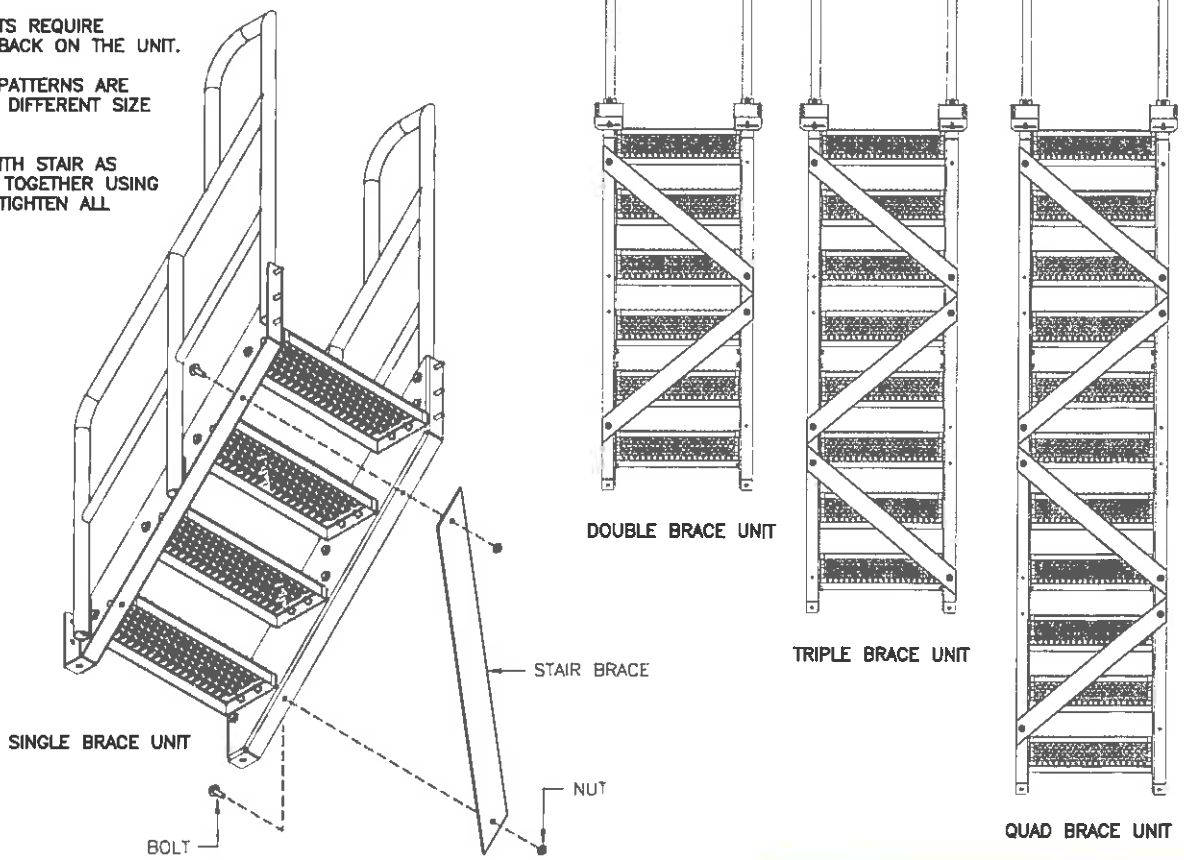
NOTE:
WHEN BOLTING COMPONENTS TOGETHER, IF FASTENER INSERT "SPINS" IN PLACE, IT IS DEFECTIVE AND MUST BE REPLACED. CONTACT ERECTASTEP FOR A WARRANTY REPLACEMENT.



Step to Stair Section Assembly

Assembly 2:

- LARGER STAIR UNITS REQUIRE BRACING ON THE BACK ON THE UNIT.
- TYPICAL BRACING PATTERNS ARE SHOWN HERE FOR DIFFERENT SIZE STAIR UNITS.
- MATCH BRACING WITH STAIR AS SHOWN AND BOLT TOGETHER USING PROVIDED BOLTS. TIGHTEN ALL CONNECTIONS.



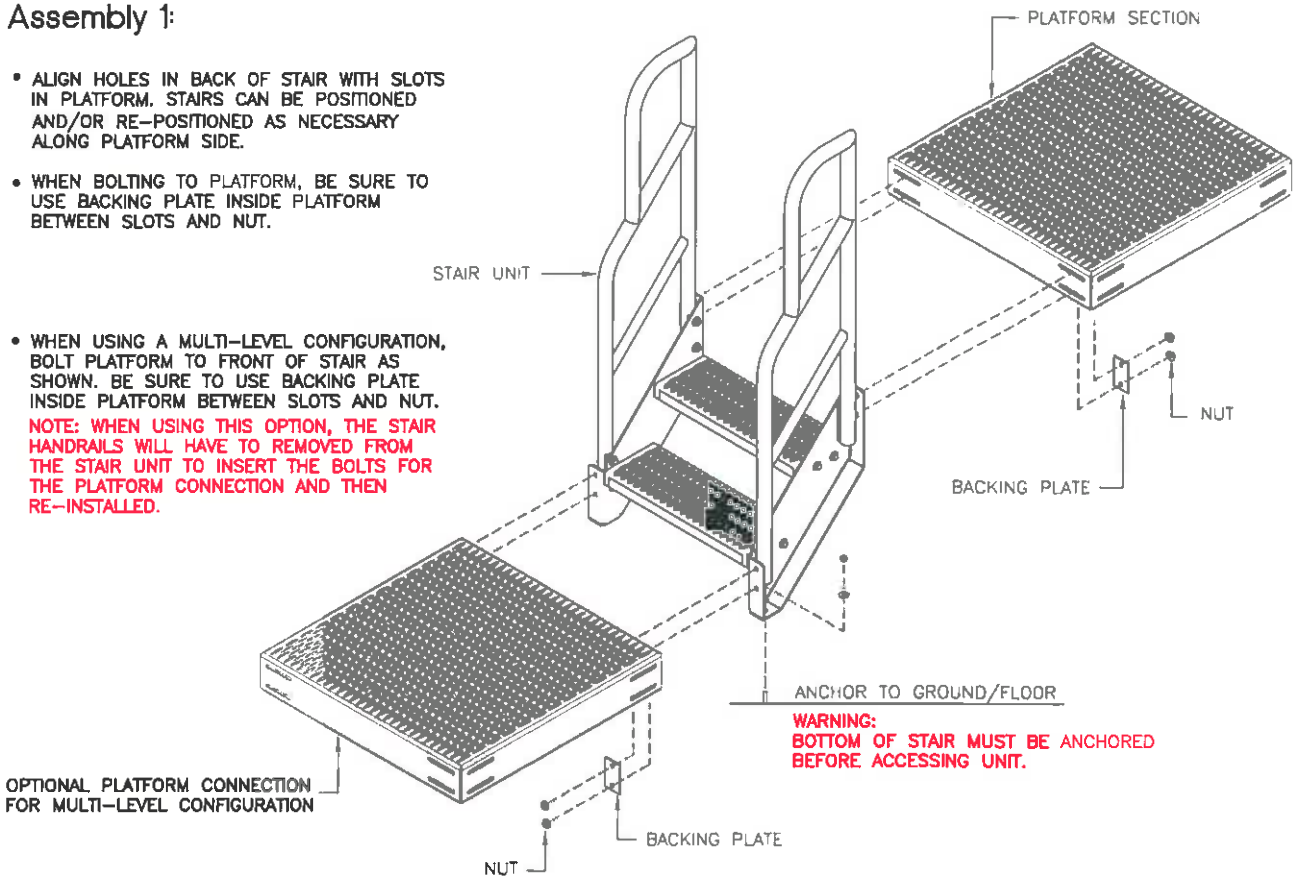
Stair Bracing to Stair Assembly
(REAR/BOTTOM VIEW OF STAIR)

ASSEMBLY INSTRUCTIONS
Stair To Platform

Assembly 1:

- ALIGN HOLES IN BACK OF STAIR WITH SLOTS IN PLATFORM. STAIRS CAN BE POSITIONED AND/OR RE-POSITIONED AS NECESSARY ALONG PLATFORM SIDE.
- WHEN BOLTING TO PLATFORM, BE SURE TO USE BACKING PLATE INSIDE PLATFORM BETWEEN SLOTS AND NUT.
- WHEN USING A MULTI-LEVEL CONFIGURATION, BOLT PLATFORM TO FRONT OF STAIR AS SHOWN. BE SURE TO USE BACKING PLATE INSIDE PLATFORM BETWEEN SLOTS AND NUT.

  NOTE: WHEN USING THIS OPTION, THE STAIR HANDRAILS WILL HAVE TO REMOVED FROM THE STAIR UNIT TO INSERT THE BOLTS FOR THE PLATFORM CONNECTION AND THEN RE-INSTALLED.



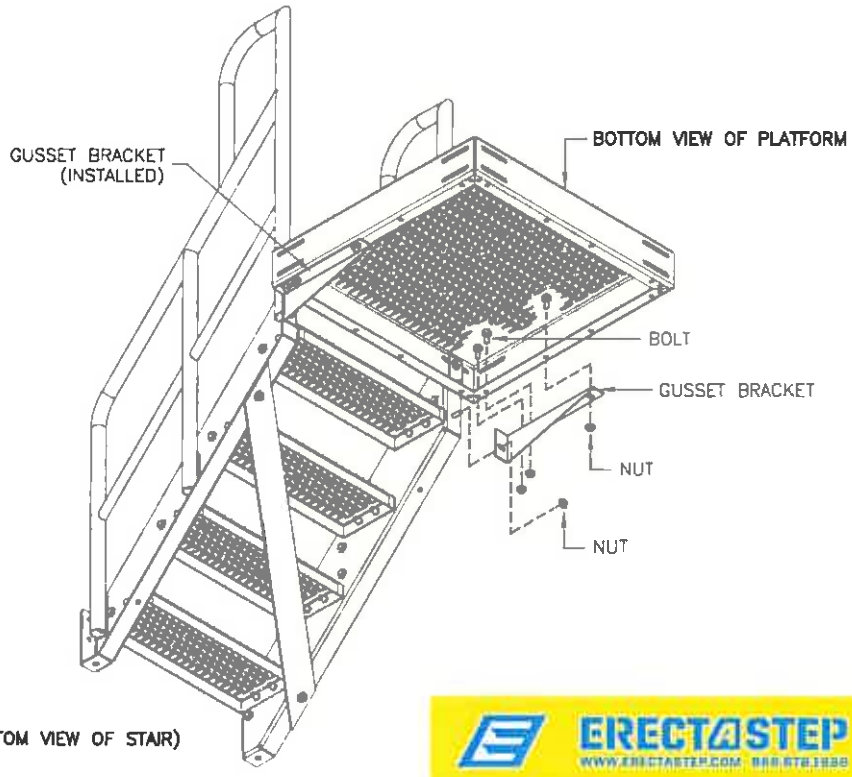
Assembly 2 - Gusset Brackets:

WARNING:
GUSSET BRACKETS (1 LEFT, 1 RIGHT) MUST BE INSTALLED AS SHOWN. FAILURE TO DO SO CAN RESULT IN AN UNSTABLE UNIT.

- ALIGN BOTTOM HOLE IN BACK OF STAIR WITH SLOT IN LEG OF BRACKET.
- ALIGN THREE HOLES IN TOP OF BRACKET WITH CORRESPONDING HOLES IN BOTTOM OF PLATFORM AND BOLT TOGETHER USING SUPPLIED HARDWARE.

  (GUSSETS NOT APPLICABLE ON 1 & 2 STEP UNITS)
- TIGHTEN ALL CONNECTIONS SECURELY.

NOTE:
PLATFORM CONNECTIONS ARE SLOTTED TO ALLOW FOR HANDRAIL CLEARANCE ISSUES THAT MAY BE NEEDED IN SOME MULTI-LEVEL, 90 DEGREE TURN CONFIGURATIONS. OTHERWISE, STAIRS SHOULD BE MOUNTED CENTERED ON PLATFORM.

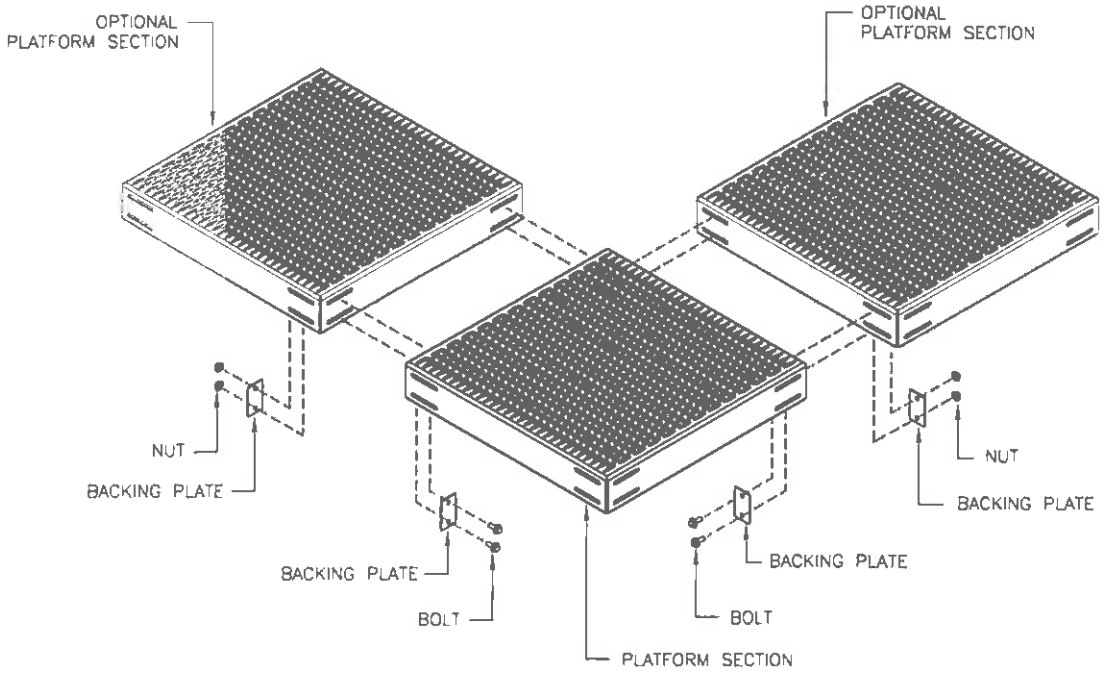


(REAR/BOTTOM VIEW OF STAIR)

ASSEMBLY INSTRUCTIONS
Platform To Platform

Assembly:

- ALIGN SLOTS IN EACH SECTION OF PLATFORM. PLATFORMS CAN BE POSITIONED AS NECESSARY IN EITHER DIRECTION.
- WHEN BOLTING TOGETHER, BE SURE TO USE BACKING PLATE ON EACH SIDE OF CONNECTION AS SHOWN BELOW.
- TIGHTEN ALL CONNECTIONS SECURELY.



NOTE:
PLATFORM CONNECTIONS ARE SLOTTED TO ALLOW FOR HANDRAIL CLEARANCE ISSUES THAT MAY BE NEEDED IN SOME MULTI-LEVEL, 90 DEGREE TURN CONFIGURATIONS. BUT MULTI-PLATFORMS SHOULD BE MOUNTED CENTERED WITH EACH OTHER AS SHOWN.

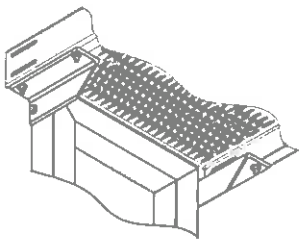
ASSEMBLY INSTRUCTIONS
Support To Platform

Assembly a:

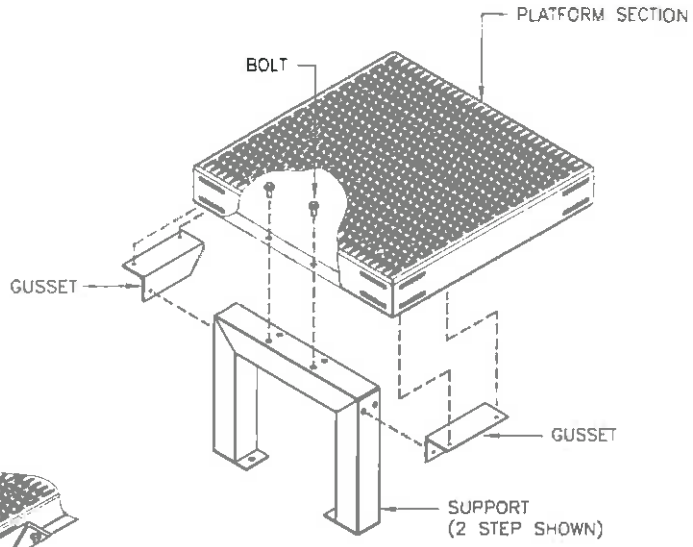
- ALIGN HOLES IN BOTTOM FLANGE OF PLATFORM WITH CONNECTION HOLES IN TOP OF SUPPORT.
- NOTE: WHEN SUPPORTING ONE PLATFORM, EITHER SET OF HOLES MAY BE USED. BY USING OUTSIDE HOLES (AS SHOWN), SUPPORT IS COMPLETELY RECESSED UNDER PLATFORM.
- ALIGN BOTTOM HOLE IN SIDE OF GUSSET WITH CONNECTION HOLE IN SIDE OF SUPPORT AND ALIGN TWO HOLES IN TOP OF GUSSET WITH CORRESPONDING HOLES IN BOTTOM OF PLATFORM.

  (GUSSETS NOT APPLICABLE ON 1,2,&3 STEP UNITS)
- BOLT TOGETHER USING SUPPLIED BOLTS AND WASHERS AS SHOWN.
- TIGHTEN ALL CONNECTIONS SECURELY.

NOTE:
WHEN BOLTING COMPONENTS TOGETHER, IF FASTENER INSERT "SPINS" IN PLACE, IT IS DEFECTIVE AND MUST BE REPLACED. CONTACT ERECTASTEP FOR A WARRANTY REPLACEMENT.



BOTTOM VIEW

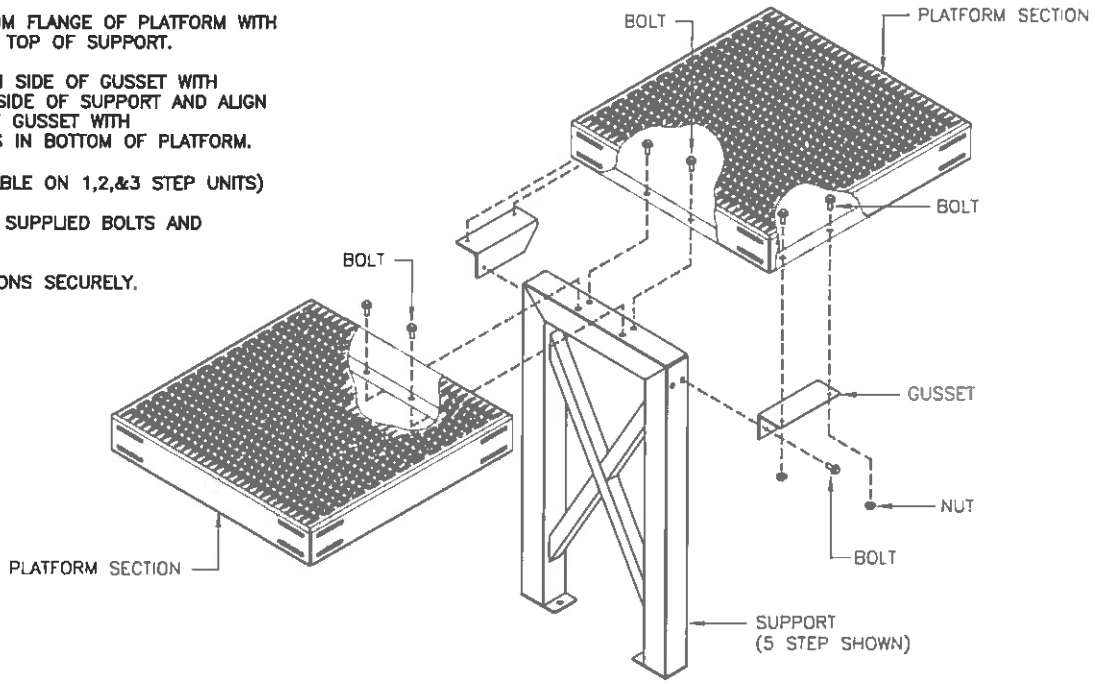


Support at End of Platform

Assembly b:

- NOTE: WHEN SUPPORTING TWO PLATFORMS, BE SURE EACH PLATFORM SECTION IS BOLTED TO TOP OF SUPPORT AS SHOWN.
- ALSO BOLT PLATFORMS TOGETHER AS SHOWN ON PAGE 11 OF THIS MANUAL.
- ALIGN HOLES IN BOTTOM FLANGE OF PLATFORM WITH CONNECTION HOLES IN TOP OF SUPPORT.
- ALIGN BOTTOM HOLE IN SIDE OF GUSSET WITH CONNECTION HOLE IN SIDE OF SUPPORT AND ALIGN TWO HOLES IN TOP OF GUSSET WITH CORRESPONDING HOLES IN BOTTOM OF PLATFORM.

  (GUSSETS NOT APPLICABLE ON 1,2,&3 STEP UNITS)
- BOLT TOGETHER USING SUPPLIED BOLTS AND WASHERS AS SHOWN.
- TIGHTEN ALL CONNECTIONS SECURELY.



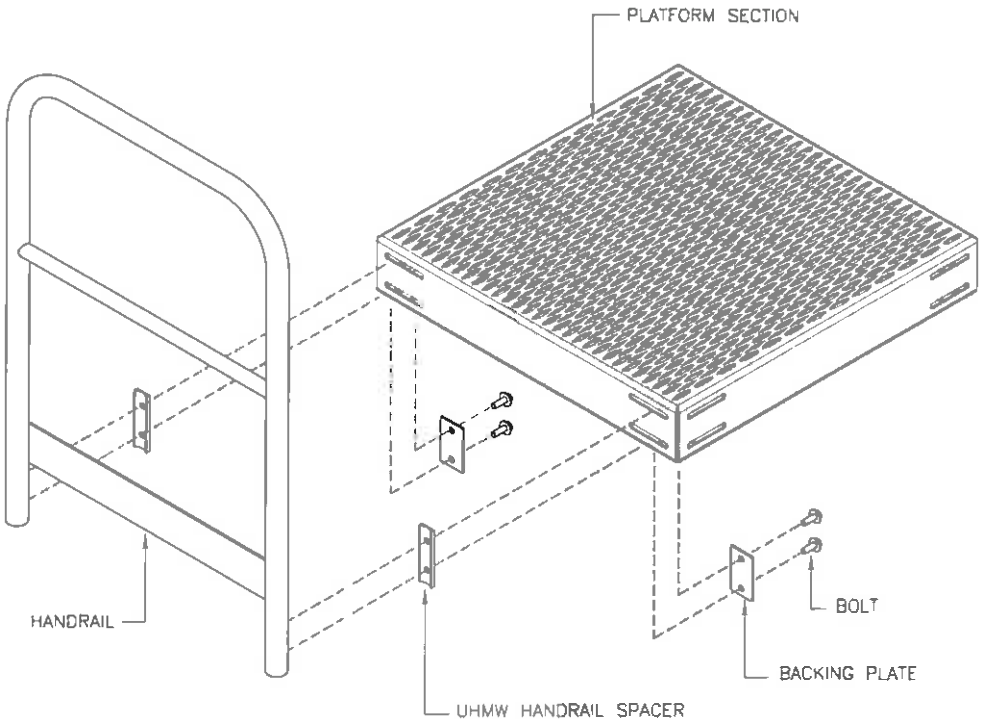
Support Between Two Platforms

ASSEMBLY INSTRUCTIONS
Handrail To Platform

Assembly:

- ALIGN HOLES IN HANDRAIL WITH SLOTS IN PLATFORM. HANDRAILS CAN FIT ANY SIDE OF PLATFORM.
- WHEN BOLTING TOGETHER, BE SURE TO USE UHMW SPACER BETWEEN HANDRAIL AND PLATFORM AND USE BACKING PLATE ON BOLT SIDE OF CONNECTION.
- TIGHTEN ALL CONNECTIONS SECURELY.

NOTE:
WHEN BOLTING COMPONENTS TOGETHER, IF FASTENER INSERT "SPINS" IN PLACE, IT IS DEFECTIVE AND MUST BE REPLACED. CONTACT ERECTASTEP FOR A WARRANTY REPLACEMENT.



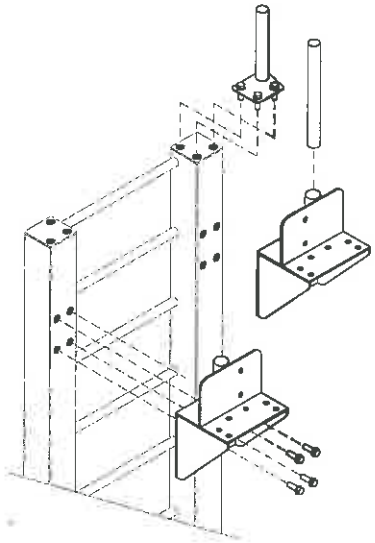
NOTE:
PLATFORM CONNECTIONS ARE SLOTTED TO **ALLOW FOR HANDRAIL** CLEARANCE ISSUES **THAT MAY BE NEEDED** IN SOME MULTI-LEVEL, **90 DEGREE TURN CONFIGURATIONS. OTHERWISE, HANDRAILS** SHOULD BE MOUNTED **CENTERED ON PLATFORM.**

ASSEMBLY INSTRUCTIONS
Ladder

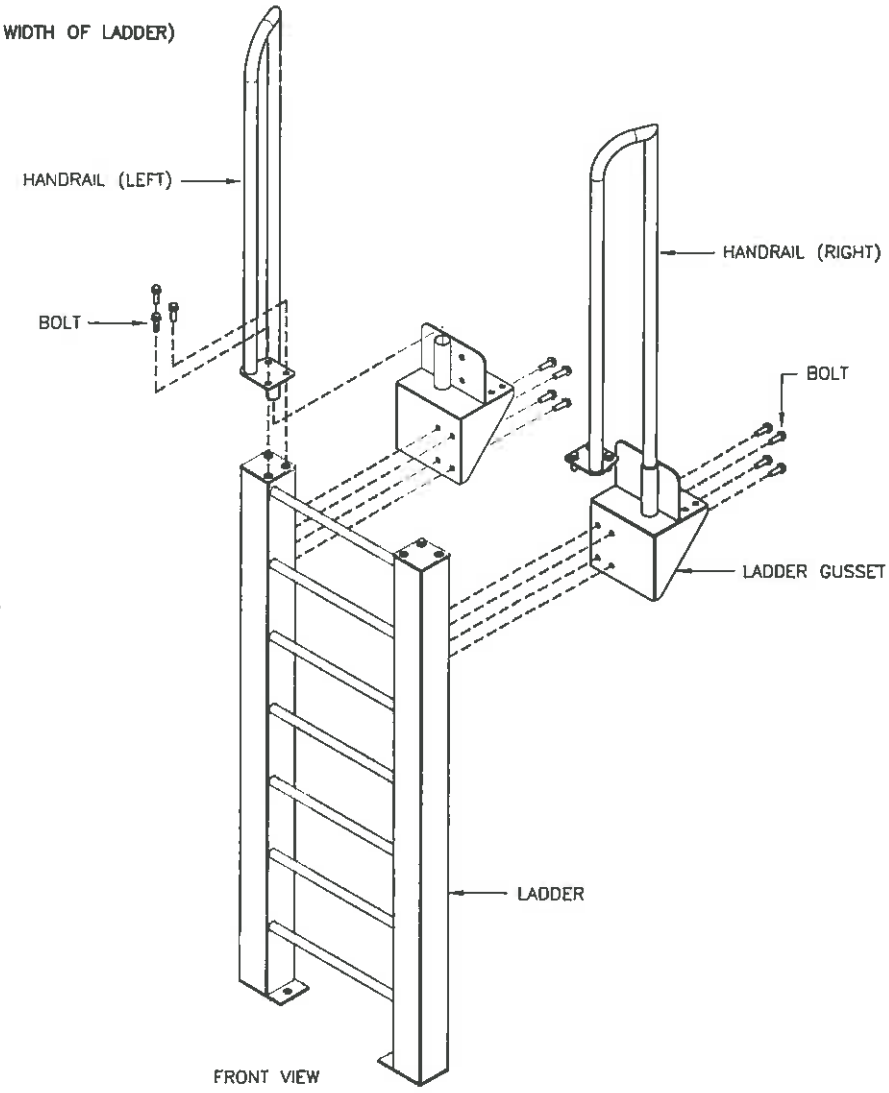
Assembly 1:

- FIRST, MOUNT LADDER GUSSETS TO BACK OF LADDER AS SHOWN USING (4) BOLT CONNECTIONS EACH.

  (GUSSETS SHOULD PROTRUDE BEYOND WIDTH OF LADDER)



REAR VIEW



FRONT VIEW

NOTE:
WHEN BOLTING COMPONENTS TOGETHER, IF FASTENER INSERT "SPINS" IN PLACE, IT IS DEFECTIVE AND MUST BE REPLACED. CONTACT ERECTASTEP FOR A WARRANTY REPLACEMENT.

Assembly 2:

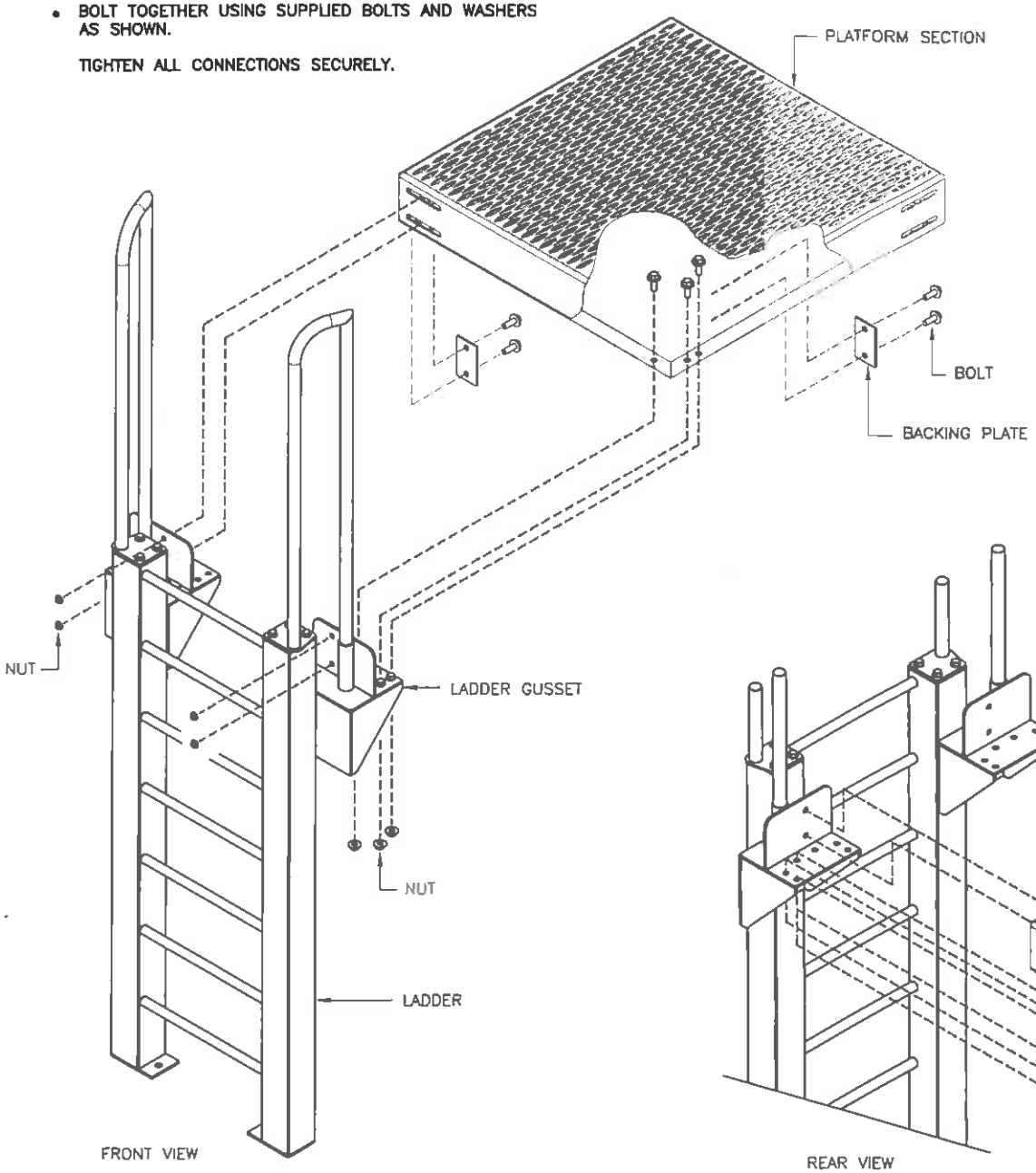
- NEXT, SLIDE ONE SIDE OF HANDRAIL INTO PIPE SLEEVE ON GUSSET AS SHOWN.
- THEN, MOUNT HANDRAIL TO TOP OF LADDER USING (3) BOLT CONNECTION.

ASSEMBLY INSTRUCTIONS
Ladder To Platform

Assembly :

- ALIGN HOLES IN BOTTOM FLANGE OF PLATFORM WITH CONNECTION HOLES IN TOP OF LADDER GUSSET.
- ALIGN HOLES IN SIDE OF GUSSET WITH CONNECTION HOLE IN SIDE OF PLATFORM.
- BOLT TOGETHER USING SUPPLIED BOLTS AND WASHERS AS SHOWN.

  TIGHTEN ALL CONNECTIONS SECURELY.



NOTE:
WHEN BOLTING COMPONENTS TOGETHER, IF FASTENER INSERT "SPINS" IN PLACE, IT IS DEFECTIVE AND MUST BE REPLACED. CONTACT ERECTASTEP FOR A WARRANTY REPLACEMENT.

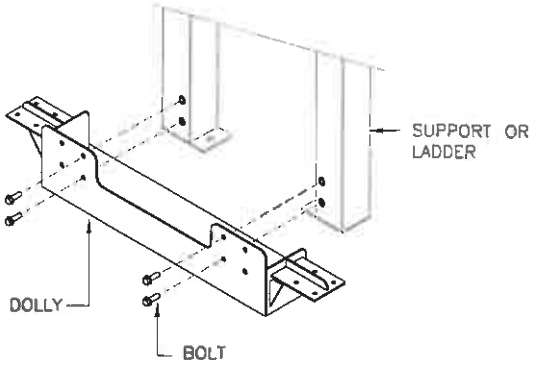
ASSEMBLY INSTRUCTIONS
Dolly Option

Assembly 1 :

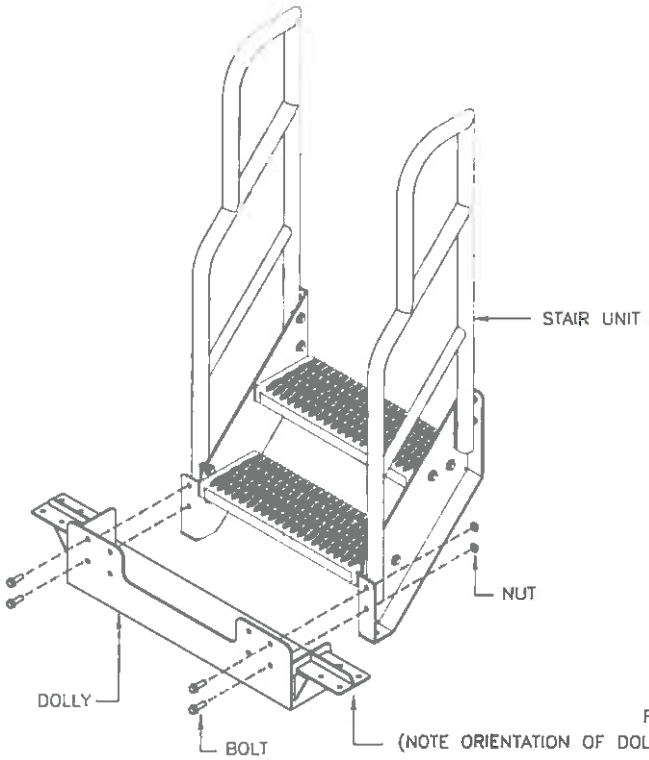
- FIRST, ALIGN HOLES IN FRONT OF DOLLY WITH FRONT OF STAIRUNIT, SUPPORT, OR LADDER.

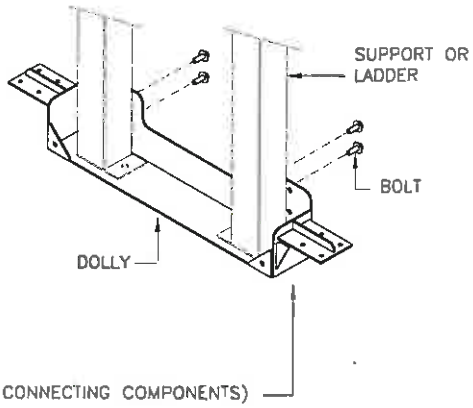
  (NOTE, STAIRUNIT REQUIRES BOTH BOLT AND NUT FOR CONNECTION. FASTENER IS SUPPLIED IN SUPPORT AND LADDER CONNECTIONS.)

- BOLT TOGETHER AND TIGHTEN CONNECTIONS SECURELY.



REAR VIEW OF SUPPORT/LADDER CONNECTION



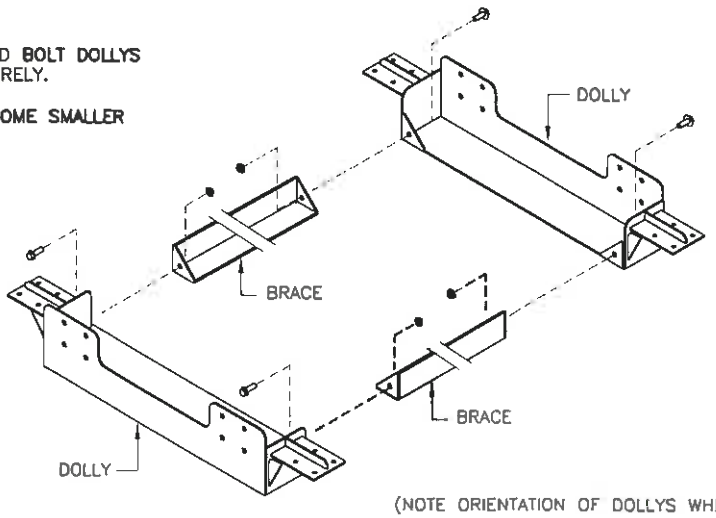


FRONT VIEW
(NOTE ORIENTATION OF DOLLYS WHEN CONNECTING COMPONENTS)

Assembly 2 :

- POSITION ANGLE BRACES AS SHOWN AND BOLT DOLLYS TOGETHER. TIGHTEN CONNECTIONS SECURELY.

  (NOTE, BRACES ARE NOT NEEDED ON SOME SMALLER UNITS / COMPONENT CONFIGURATIONS.)



(NOTE ORIENTATION OF DOLLYS WHEN CONNECTING BRACES)

NOTE:
WHEN BOLTING COMPONENTS TOGETHER, IF FASTENER INSERT "SPINS" IN PLACE, IT IS DEFECTIVE AND MUST BE REPLACED. CONTACT ERECTASTEP FOR A WARRANTY REPLACEMENT.

TROUBLESHOOTING GUIDE

WARNING SIGNS OF IMPROPER ASSEMBLY:

SAGGING / DROOPING PLATFORM SECTIONS

STAIRS OR SUPPORTS JUST RESTING ON GROUND/ FLOOR IS NOT ACCEPTABLE. ALL UNITS MUST BE ANCHORED PROPERLY

UNDUE STRESS AND CRACKING WELDS

ALL CONNECTIONS MUST PROPERLY AND SECURELY TIGHTENED