Tools Required

- Safety glasses
- Protective padding
- Necessary equipment/personnel to lift 210 lbs
- (2) anchors per support, recommended non-corrosive, maximum 3/8-16 diameter, 5" length, with concrete grip anchors
- T45 torx driver for attaching T-straps
- 5/32" hex driver for attaching light blocker and spacer blocks
- 3/16" hex driver for attaching accessories
- Loctite for metal/concrete for attaching skatestops
- 1/8" hex driver for set screw in concrete
- 1/2" wrench for hex nut on concrete
- 1/16" hex driver for removing support cover plate
- 4ft or 8ft level

Note: DO NOT DRAG bench across concrete or other rough surfaces. This could damage the powder coat finish.

Note: Quantity of bench tops and supports depends on configuration specified. Each straight segment will have two concrete seat panels. Each small or large radius section will have one inside concrete seat panel and one outside concrete seat panel. Each bench segment has two T-straps.

Note: For Light Kits, line-in voltage is required for each bench segment. Conduit should be located near the center of the bench, see Fig. 23 for limitations. Driver connects to intermediate support of each bench segment.

INSTALLATION STEPS:

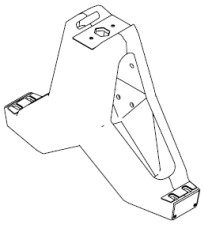
1. Assemble wooden template (refer to separate assembly instructions).
2. Mark holes on concrete according to bench plan drawings, supplied by others.
3. Drill all holes for entire bench layout, see Fig. 1.
4. Clear holes of debris.
5. Install supports, loosely. End supports have one side of casting without holes – this side faces out, see Fig. 2.
6. Install ALL T-straps, loosely. T-straps for each bench style can have two different lengths, refer to notations on Included Components for reference, and Fig. 5A for T-strap callout location. T-straps must be installed in correct orientation as shown in Fig. 5 if installing multi-segment benches. Once all T-straps are installed, tighten the T-strap hardware. See Figs. 5 and 6.
7. Install light blockers on inside of end supports, see Fig. 8.

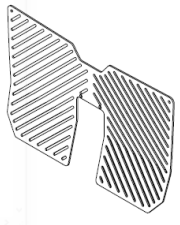
Installation steps (continued):

8. Level the supports. Adjust glides as necessary. Level 3 supports at a time, if possible. See Fig. 3 for leveling glide location. See Fig. 7 for leveling detail.
9. Once entire run of supports is level, fully tighten surface mount anchors.
10. After tightening anchors, check supports for level again. Design of product allows for 1 degree of slope across one section of bench.
11. Apply VHB pads on each support, in location shown in Fig. 9.
12. Install 1/4-20 x 1" set screws in concrete seat sections. Each location has two inserts – install set screw in proper location depending on intended bench layout. Refer to Fig. 10. Only install set screw in top (seat) side of concrete.
13. Refer to bench layout – install one side of concrete before any accessories. If bench has any accessories, back side of bench must be installed first. Refer to Fig. 13.
14. Align top set screws on concrete in the correct slots on the supports, see Fig. 11. Once the top set of set screws is engaged in the slots on the top of the support, slide the concrete outward. This will engage the top set screws and prevent the concrete from rotating off the supports. Refer to Fig. 12.
15. Check for gaps between concrete and pad on top of support, see Fig. 12A. Slide shims in from end as needed to eliminate any gaps that are present between concrete and VHB pad on support. Tap in place with rubber mallet, if needed.
16. Install all accessories, including light kits, before installing second side of concrete.
17. For accessories, align brackets on accessory with the correct slots on the T-straps. See Figs. 14, 15, and 16. Install hardware. Location of accessory (back, arm or surface) depends on site plans. Refer to Fig. 21 for some configurations that are not possible.
18. For light kit, install bracket onto support. Attach driver plate to bracket, see Fig. 17. Attach plastic clips to T-straps to secure LED light strips, see Fig. 18. Connect wiring to line-in wires. Each bench segment requires its own light kit and line-in voltage. Refer to Fig. 23 for recommended conduit locations
19. Install second concrete seat, see Fig. 19, similar to process in steps 14 and 15, including shims.
20. Install plastic spacer blocks, see Fig. 20. Some blocks may require a light tap with a dead blow to install. Tighten screws evenly until spacer makes contact with the support. Use caution to prevent damage to concrete. Tighten snug to concrete, do not overtighten. Install blocks at every support location. Intermediate support location with a full perch back installed does not allow for installation of spacer block. If spacer blocks do not fit in gap between concrete sections, check to make sure that each section is pushed outward and correctly seated.
21. Install optional skate stops, see Fig. 22. Refer to plan drawings for location. Recommend maximum 36" spacing. Install on clean, dry concrete using Loctite as instructed. Wipe away excess epoxy before it cures.

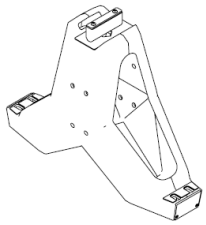
ASSEMBLE WITH CARE! Pangard II® Polyester Powder coat is a strong, long-lasting finish. To protect this finish during assembly, place unwrapped powder coated parts on packaging foam or other non-marring surface. Do not place or slide powder coated parts on concrete or other hard or textured surface – this will damage the finish causing rust to occur. Use touch-up paint on any gouges in the finish caused by assembly tools.

Included components:

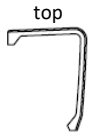

End support


Light blocker

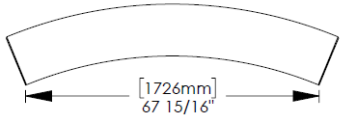

2X per light blocker
1/4-20 X 3/8" socket
Button head cap screw


Intermediate support

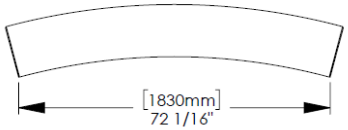

Concrete seat, straight – 2X per bench segment



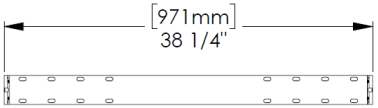
Concrete seat profile
(for reference)



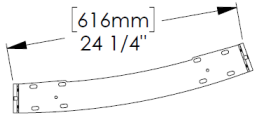
Concrete seat, small radius
Outside section



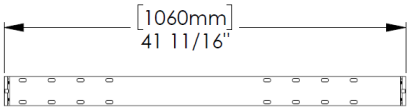
Concrete seat, large radius
Outside section



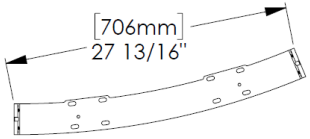
T-strap, straight, end segment "T"



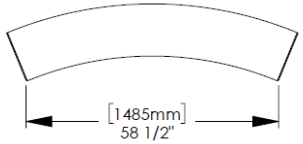
T-strap, small radius,
end segment "J"



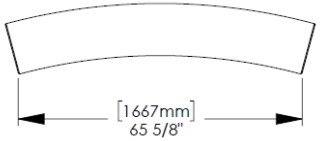
T-strap, straight, intermediate segment "V"



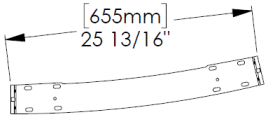
T-strap, small radius,
intermediate segment "L"



Concrete seat, small radius
Inside section



Concrete seat, large radius
Inside section



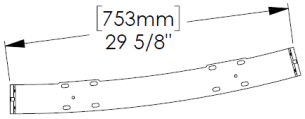
T-strap, large radius,
end segment "H"


8X per T-strap
3/8-16 x 1" torx
Button head cap screw

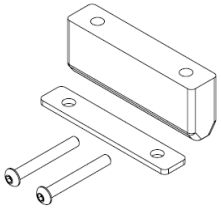

1/4-20 x 1" set screw
2X per concrete section

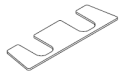

3/4" x 5" x 0.06" shim
4X per concrete section

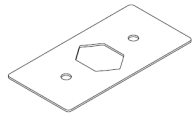

3/4" x 5" x 0.10" shim
4X per concrete section



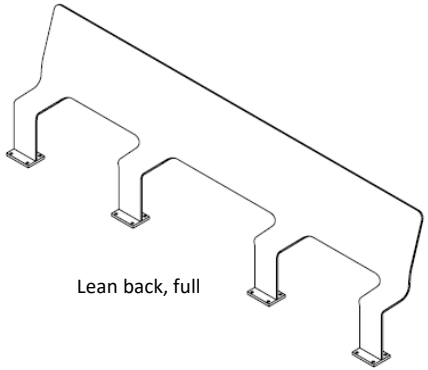
T-strap, large radius,
intermediate segment "C"

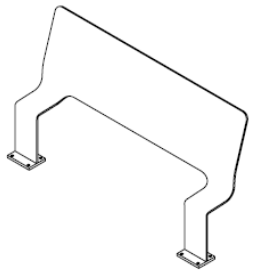

Spacer block kit
1X per support

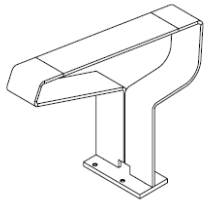

Plastic support pad
2X per support

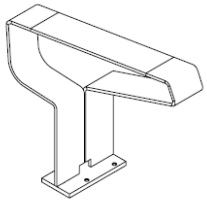

Plastic support pad
1X per support

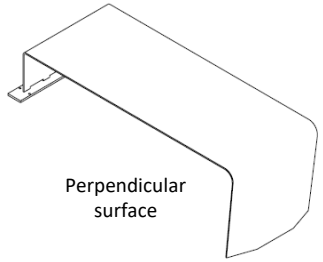
Included components (continued):

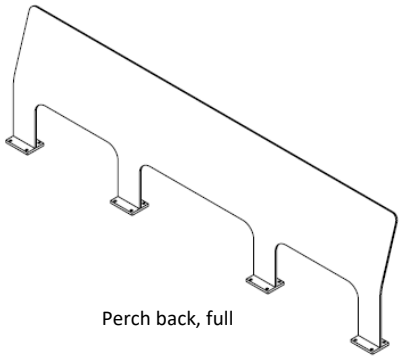

Lean back, full

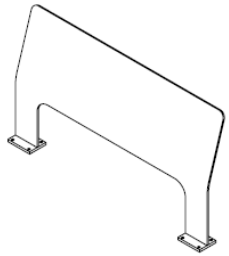

Lean back, partial


Lean back, right arm

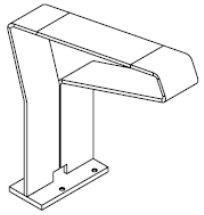

Lean back, left arm

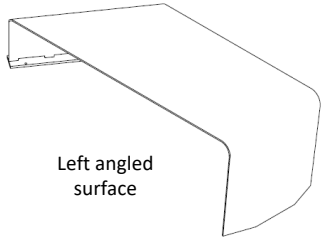

Perpendicular surface

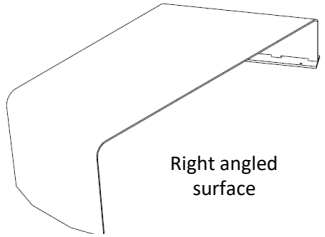

Perch back, full

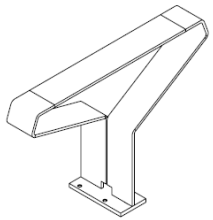

Perch back, partial


Perch back, right arm

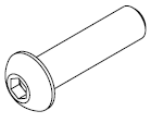

Perch back, left arm


Left angled surface


Right angled surface

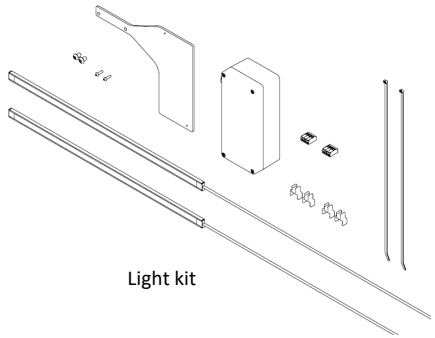

Backless arm


Skatestop


5/16-18 x 1-1/4” socket button head cap screw 4X in hardware pack 64824


5/16” I.D. washer 4X in hardware pack 64824

HARDWARE PACK #64824
1X – ALL ARM STYLES
1X – ALL SURFACES
2X – ALL PARTIAL BACKS
4X – ALL FULL BACKS


Light kit

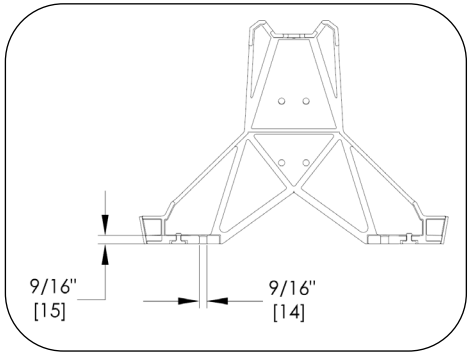


Fig. 1

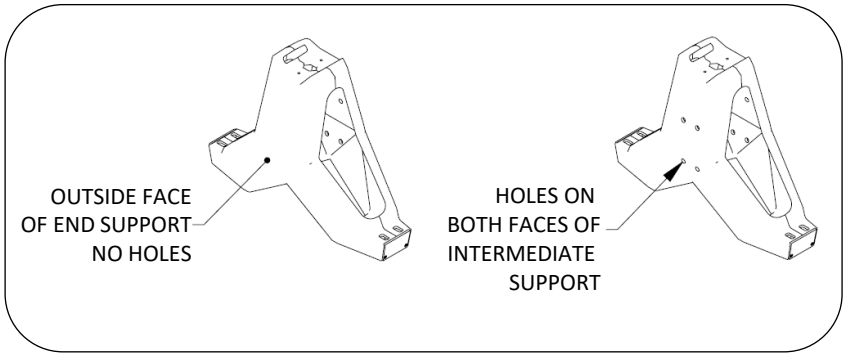


Fig. 2

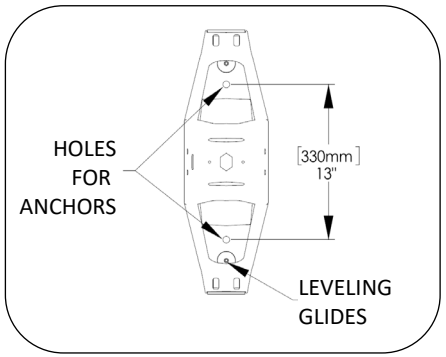


Fig. 3

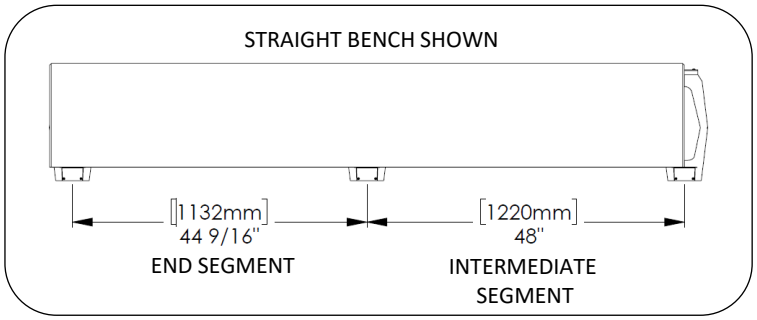


Fig. 4

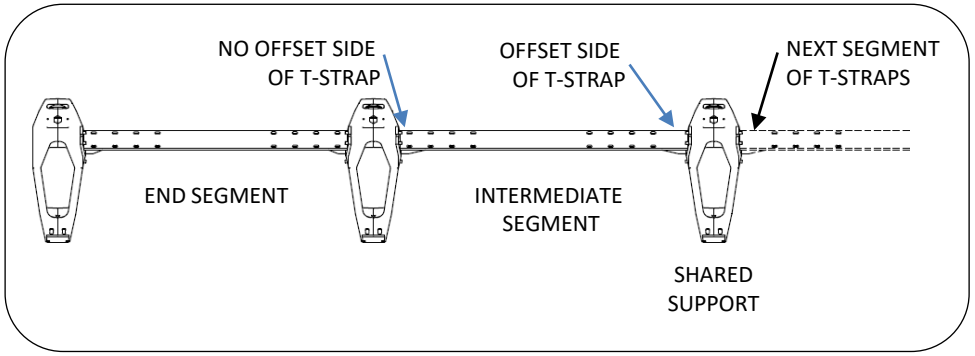


Fig. 5

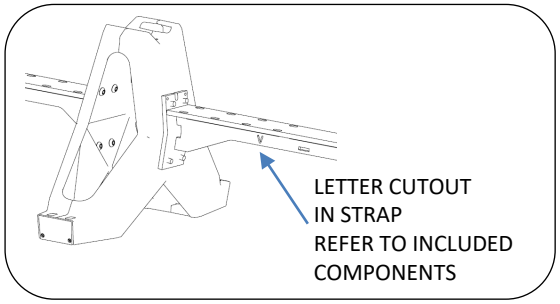


Fig. 5A

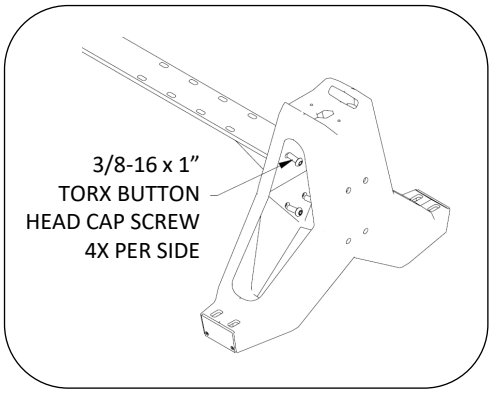


Fig. 6

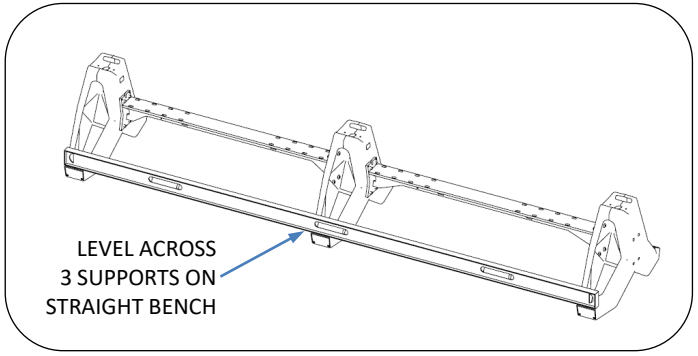


Fig. 7

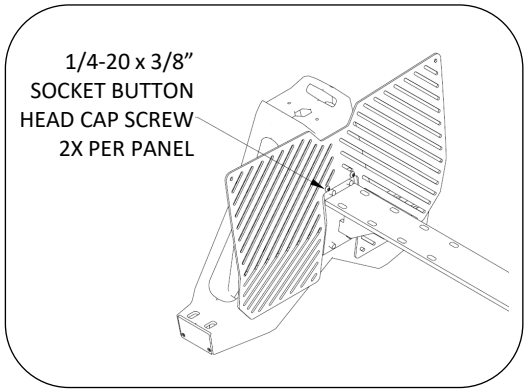


Fig. 8

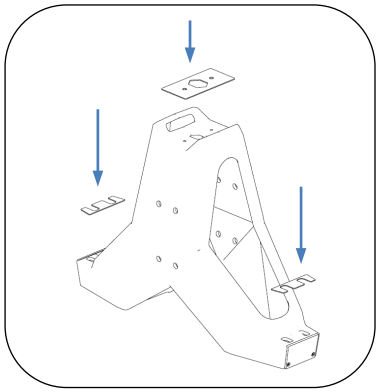


Fig. 9

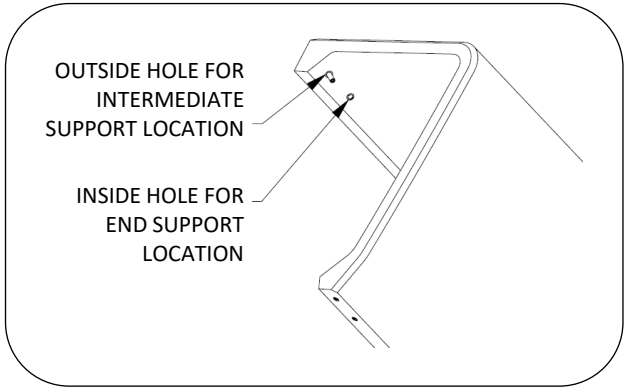


Fig. 10

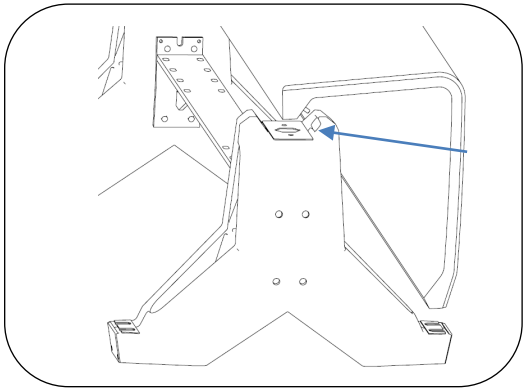


Fig. 11

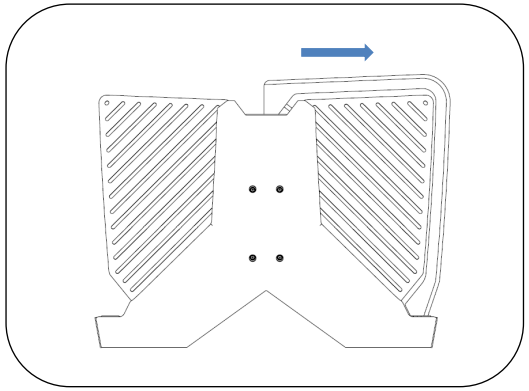


Fig. 12

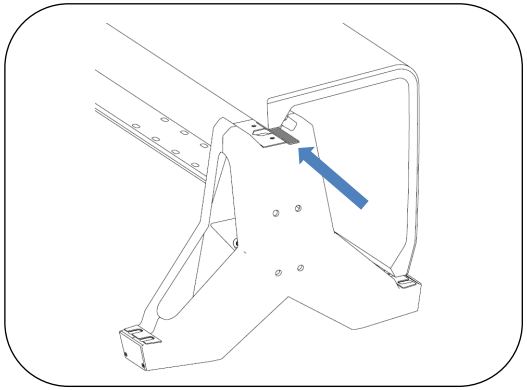


Fig. 12A

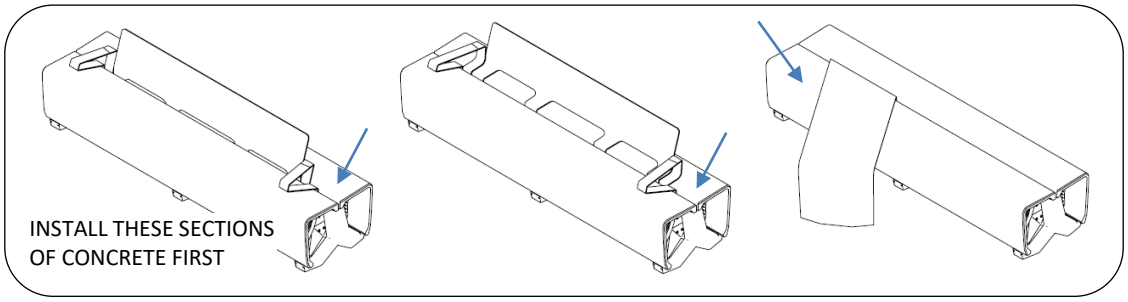


Fig. 13

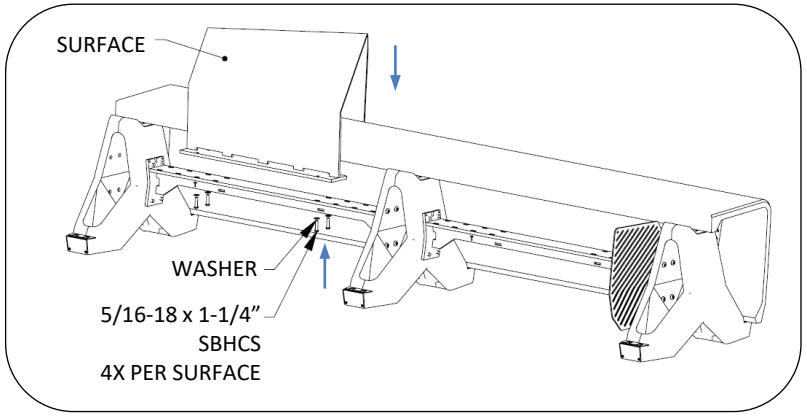


Fig. 14

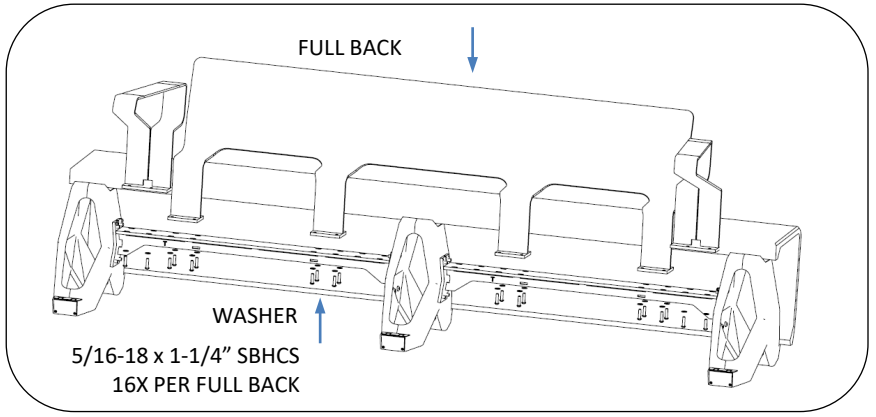


Fig. 15

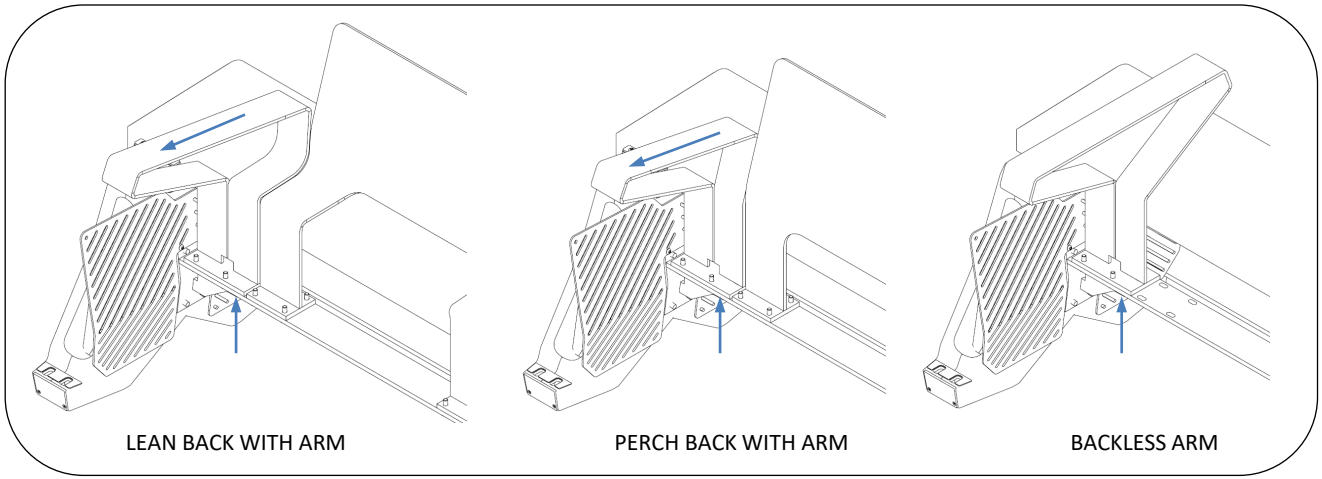


Fig. 16

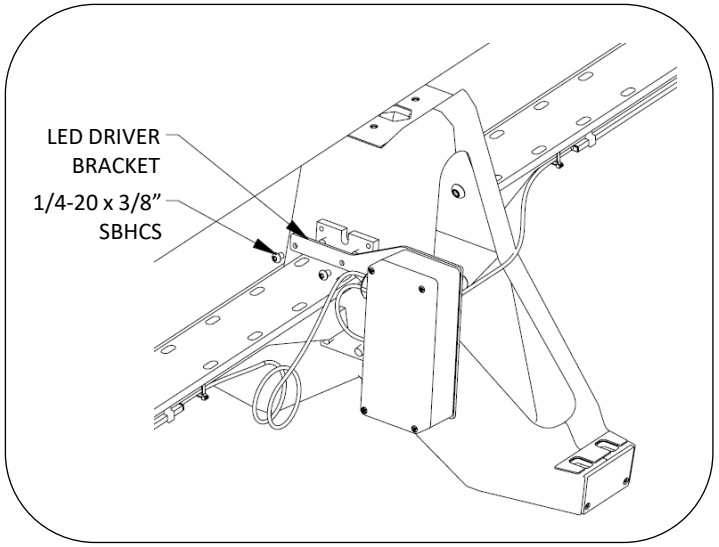


Fig. 17

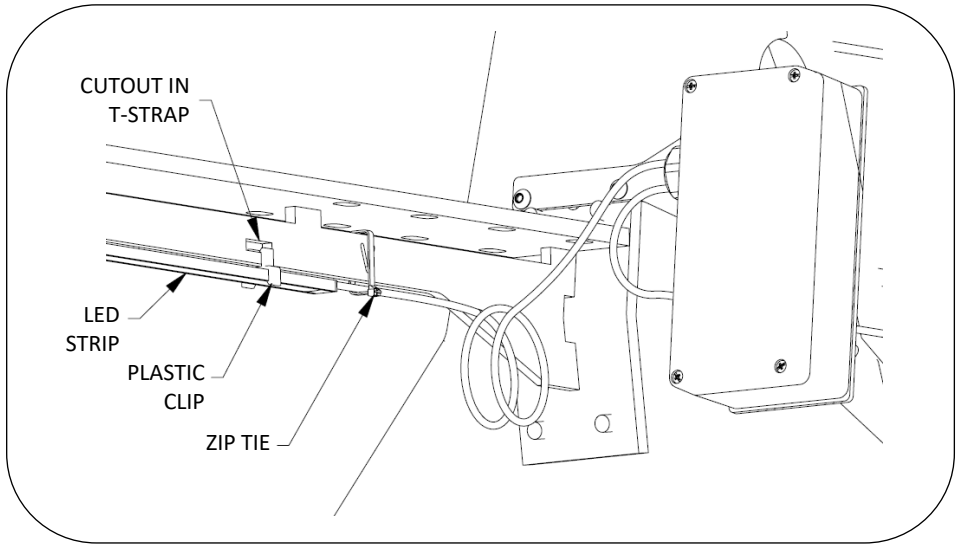


Fig. 18

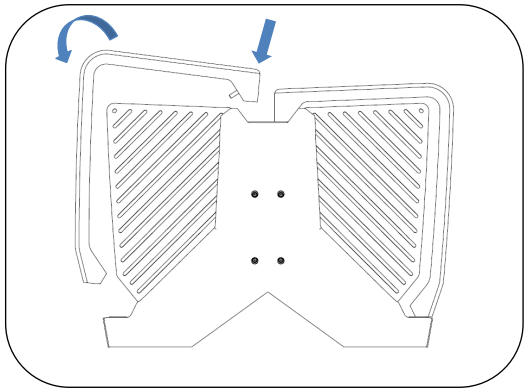


Fig. 19

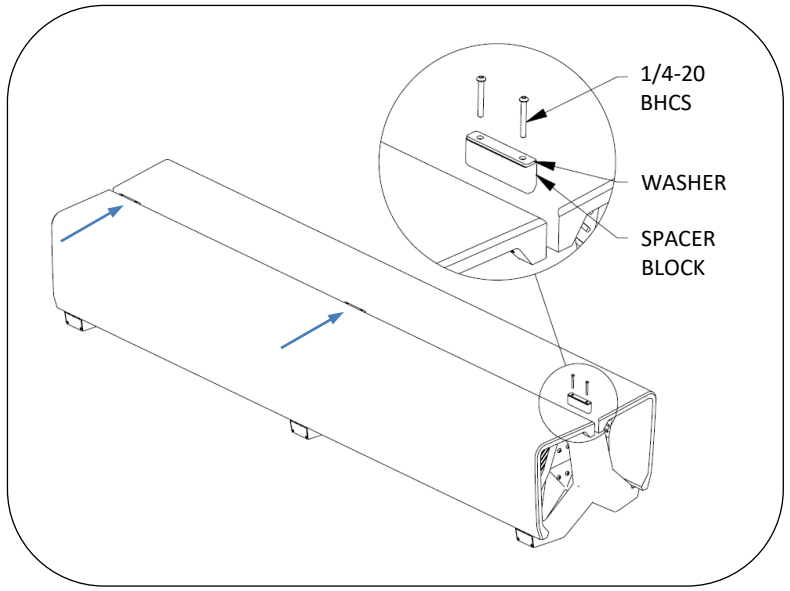


Fig. 20

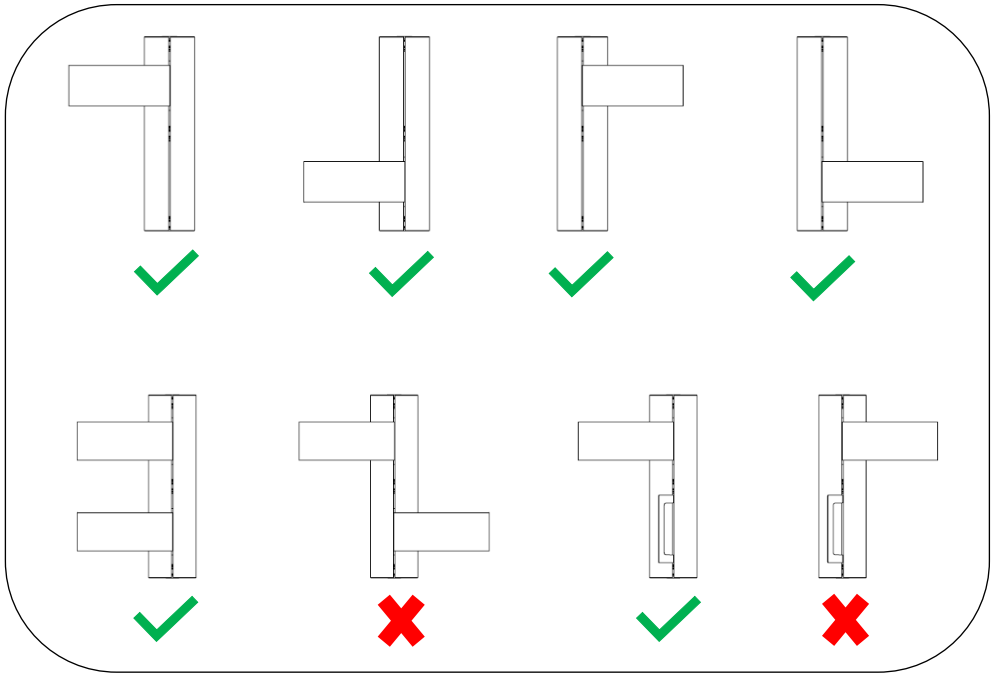


Fig. 21

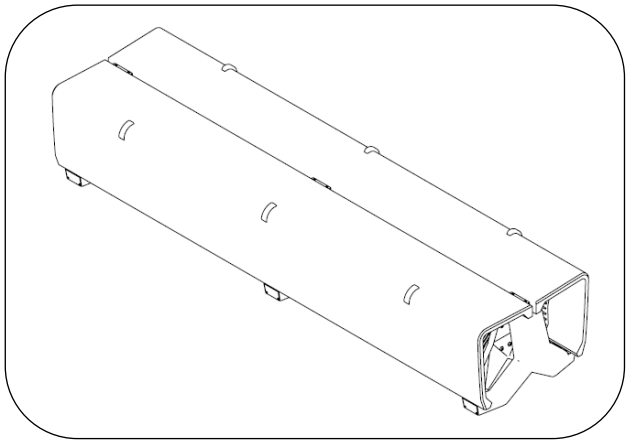


Fig. 22

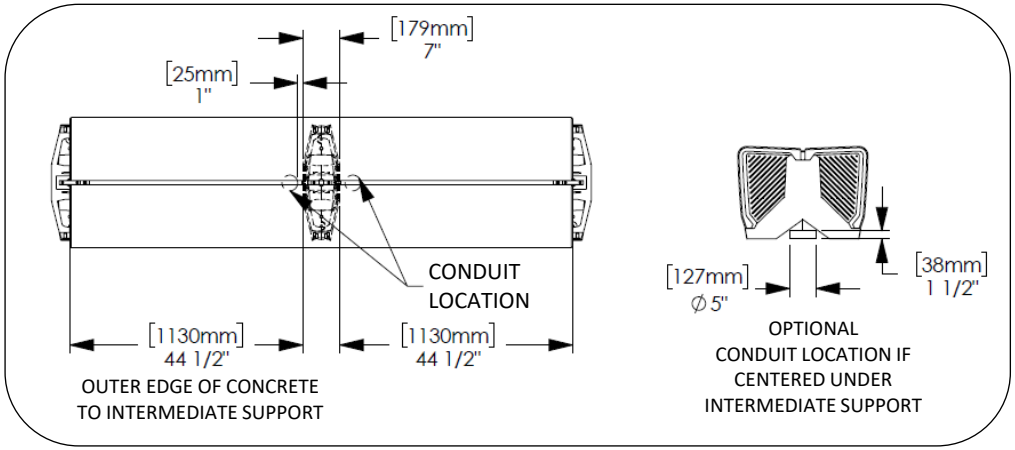


Fig. 23