Assembly Instructions

University™ Seating

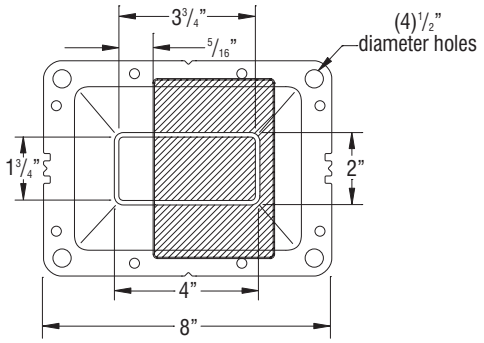
April 2017

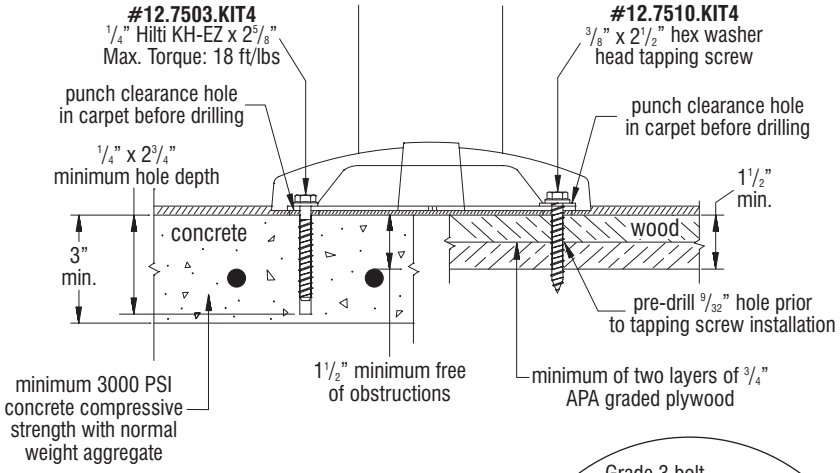
Furnishing Knowledge®

CAUTION

Assemble units as described herein only. To do otherwise may result in instability. All screws, nuts and bolts must be tightened securely and must be checked periodically after assembly. Failure to assemble properly, or to secure parts may result in assembly failure and personal injury.

Floor Anchor Specifications

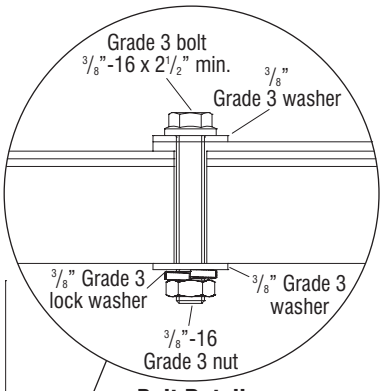




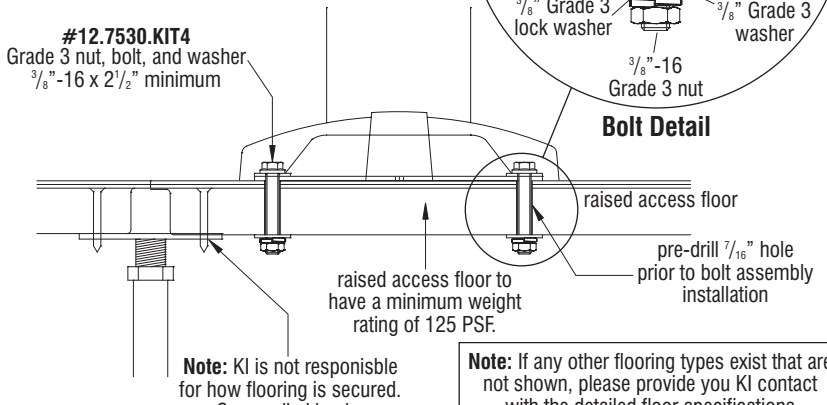
Applied Load Per Anchor With A Three Time Safety Factor

Tension (lbs)	Shear (lbs)
3510	240

Actual Calculated Moment At Base (in-lbs) With 325lb Load
15,830



Bolt Detail



Note: KI is not responisble for how flooring is secured. See applied loads.

Note: If any other flooring types exist that are not shown, please provide you KI contact with the detailed floor specifications.

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TOOLS REQUIRED

- C-clamps
- Quick clamps
- Laser level
- Spirit level
- Bar clamps
- Hammer drill and bit for pilot holes in wood floor
- #3 Phillips head screwdriver bits
- #2 Phillips head screwdriver bits
- Drill motor
- Drill bit set
- Socket set
- Pliers
- Chalk line
- Tape measure
- Snap ring pliers
- Lithium grease
- Brush for grease
- Caulk gun

Note: Read these assembly instructions carefully prior to product installation. Product failure and personal injury may result if instructions are not followed.

MINIMUM CONSTRUCTION REQUIRED FOR UPRIGHT INSTALLATION

Wood Floors

- Minimum two layers of $^{3}/_{4}$" thickness tongue & groove
- APA rated grade plywood
- Allow minimum embedment $1^{1}/_{2}$" with lag screws

Concrete Floors

- 3000 psi Concrete compressive strength
- 3" thick free of obstructions for $1^{1}/_{2}$"
- 4" thick for riser mount free of obstructions for 21/2"
- Riser to be plumb within $^{1}/_{8}°$
- Minimum anchor embedment $1^{1}/_{2}$"

Note: Warranty null and void if KI product is installed on flooring not meeting minimum structural requirements stated above.

FLOOR FASTENER REQUIREMENTS

Wood Floors

- $^{3}/_{8}$" x $2^{1}/_{2}$" hex washer head tapping screw
- Four bolt assemblies required per base

Concrete Floors

- $^{1}/_{4}$" Hilti KH-EZ x $2^{5}/_{8}$"
- Max Torque: 18 ft/lbs
- Four screw assemblies required per base

Note: Floor-mounting fasteners are not provided, unless specified. For questions concerning anchor selection and special floor conditions, please contact KI Customer Service at 1-800-424-2432.

STEPS FOR INSTALLATION

1. Read and review Assembly Instructions.
2. Review space-planning layouts.
3. Review job site and verify field conditions.
4. Verify floor structural conditions.
5. Stage product for installation.
6. Locate and mark layout reference points.
7. Locate and drill holes into floor.
8. Mount bases to floor. Shim to level if necessary.
9. Attach tops together. Shim if necessary to level.
10. Position tops on bases.
11. Mark hole locations through template (for PowerUp).
12. Attach tops to bases.
13. Position and install troughs on hinged side only (for PowerUp).
14. Install power infeeds (for PowerUp).
15. Mount and install station-to-station power connectors (for PowerUp).
16. Install duplex receptacles (for PowerUp).
17. Run the data cables through troughs (if required) (for PowerUp).
18. Install power & data module. Check for smooth operation (for PowerUp).
19. Connect power infeeds (electrician) (for PowerUp).
20. Attach modesty panels (optional).
21. Attach seats.
22. Install plastic flange covers.

Note: Dimensional spacing referenced is center line to center line unless otherwise noted.

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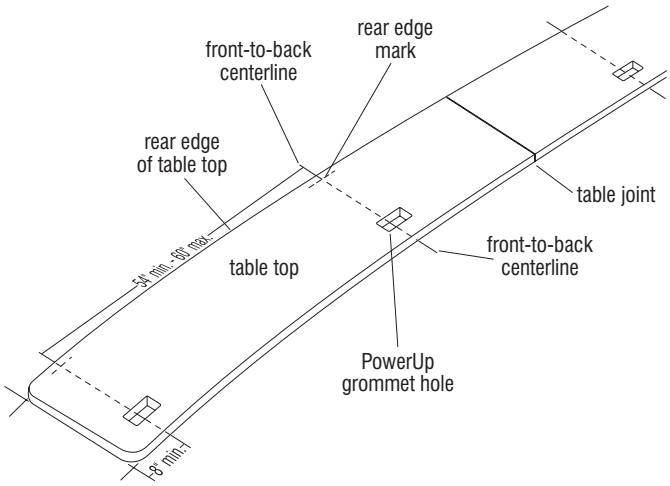

Figure 1a - University Table Top with PowerUp

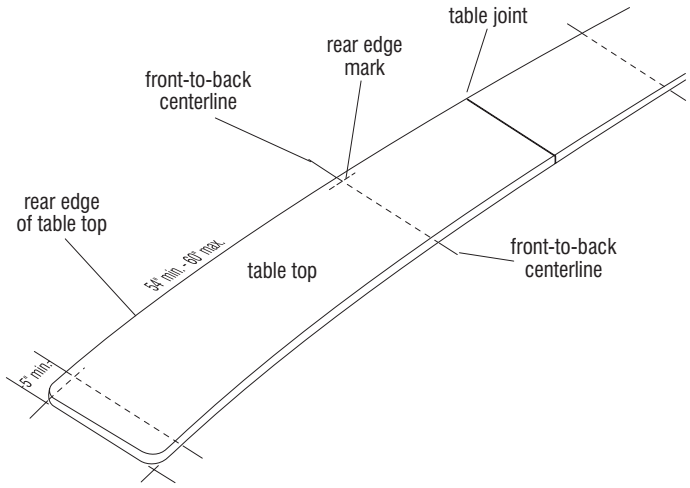

Figure 1b - University Table Top with Undersurface Power & Data or No Power/Data

University Base & Table Top Layout and Assembly

Note: When installing University seating with the PowerUp module or undersurface power & data, extra care must be taken to hold very close tolerances to the dimension shown on the space-planning layouts. Failure to follow the dimensions shown may prevent proper installation of the electrical components.

1. Refer to the space-planning layout and the identification numbers on the underside of the table tops. Position table tops on the floor, top side up, at the location that they will be installed later (Figure 1a & 1b).

   Note: When installing University seating with the PowerUp module, the front-to-back centerlines will run through the center of the grommet holes in the table tops (Figure 1a). When installing University seating with undersurface power & data, or no power, use space-planning layout and see Figure 1b.

2. With the table tops properly laid out on the floor, refer to the space-planning layouts to determine the front-to-back centerline locations for mounting of base flanges. Mark the front-to-back centerline location for each base flange onto the floor at the front and rear edge of the table tops (Figure 1a or 1b).

3. At the rear edge of the table tops, make a 5" to 6" long mark onto the floor along the rear edge of the table top, across the front-to-back center line as illustrated. The intersection of these marks will aid in centering the base flange of the University base to mount the bases to the floor in step 5 (Figure 1a or 1b).

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University Base Installation to Floor

4. Identify which type of bases are to be installed (single or double swing-arm, and/or power/data infeed) along with their location according to the space-planning layout. Set the bases out at the appropriate location. Carefully move the table tops forward to make room for installation of the bases to the floor (Figure 2).

   Note: On carpeted floors, it is recommended that the carpet be removed for full contact of the base with the floor. If carpet is not removed, the floor anchors must be retightened after two weeks of use.

5. At installations involving carpeted floors, determine if bases are to be installed:
   (a) over the carpeting or
   (b) with carpeting removed.

   a. Position the base onto the floor over the front-to-back centerline and rear edge mark where the base will be installed. With the base correctly centered over the marks and lined up with the front-to-back centerline, mark where the anchor holes are to be drilled into the floor. Using a $^1/_2$" diameter hollow punch, cut out the carpeting for anchor holes. Read the note below and go onto the note before step 6.

   Note: After two weeks of use, the base flange mounting screws must be rechecked for tightness.

   b. Position the base onto the floor over the front-to-back centerline and rear edge mark where the base will be installed. With the base correctly centered over the marks and lined up with the front-to-back centerline, mark around the perimeter of the base for removal of the carpeting. Cut and remove the carpeting. Carefully align the base flange onto the floor as described above and mark the anchor hole locations onto the floor (Figure 2). Read the note below and go onto step 6.

   Note: If power and/or data lines are to enter a base from below floor level (no exposed connections), the data and power connections must be made prior to securing the base flange to the floor. The power infeed harness (45° right or left/center) must be run down through the mounting flange, column and base flange at this time. Connections must then be made. Refer to the space-planning layout for infeed type and see figures 8 or 9. Data wires must run up a separate column, following a similar route as the power.

6. Bore anchor holes to minimum $^1/_4$" x $2^3/_4$" hole depth for concrete floors or $^9/_{32}$" hole for wood floor (See Page 4). Align the base over the pre-drilled holes and drive in (do not tighten) mounting screws. Shim under the base flange with steel washer(s) as needed to level or compensate for floor variances (Figure 2).

7. Center the silver flange clips (12.0951) under both 6" sides of base flange, with the barbs up. Insert the locating tabs of the flange so that they are tight into the base flange notches for proper engagement of flange covers later. After all bases are positioned and adjusted with shims, securely tighten base flanges to the floor (Figure 2). Do not install plastic flange covers until step 103.

8. Carefully position the table tops onto the support flanges of the installed bases. Recheck the space-planning layout and identification numbers under the table tops to verify the correct location. Improper sequence may cause poor fit and uneven joints.

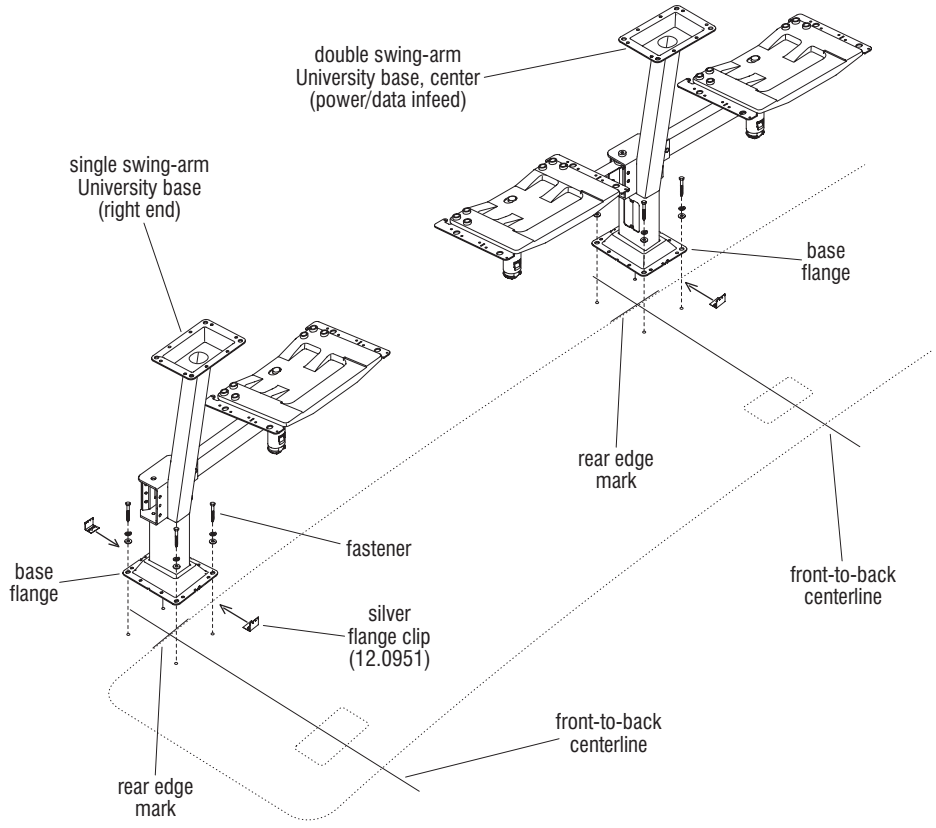

Figure 2

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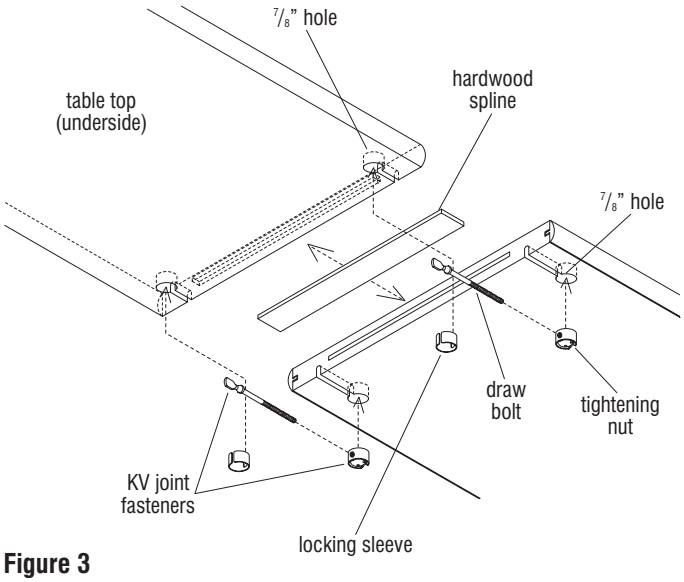

Figure 3

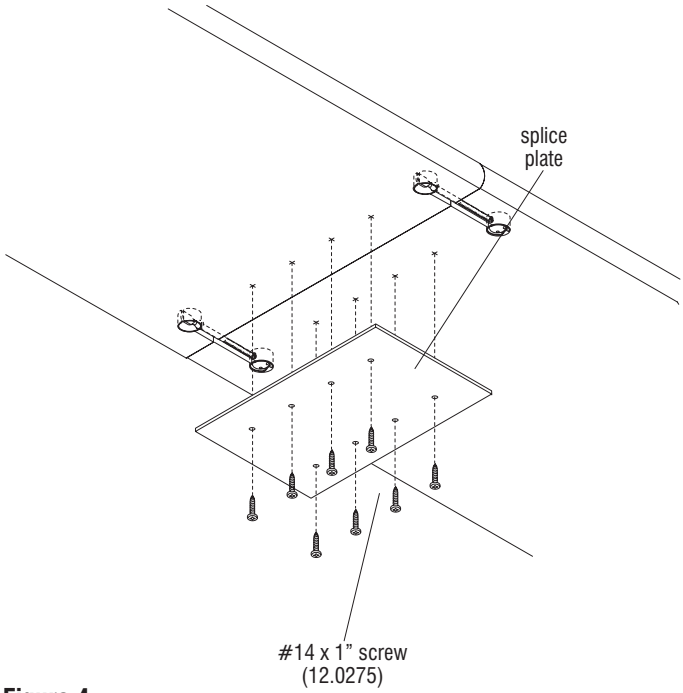

Figure 4

Joining Table Tops

9. Table tops are to be joined together from underneath with two KV joint fasteners per pair of table tops (Figure 3). First join both table tops together, aligning the hardwood spline (installed in one table top at the factory). Check to make sure the hardwood spline fits snug in both table tops. If it does not, lightly sand down the spline so it does fit. If this is not done, it may be difficult to get a tight fit on the table top seam. The spline joint and table top seam are to be glued using the adhesive supplied with the KV fasteners. Do not use a wood glue for seam gluing as the working time for that adhesive is too short. Thread each draw bolt a few turns into each tightening nut and press each pair up into a 7/8" hole and slot. The flat end of each draw bolt will be visible in the 7/8" holes of the table top being joined. Insert locking sleeves into the 7/8" holes so that the slotted sleeve engages the rounded collar on the bolt (Figure 3). Tighten the nut with a tightening tool or nail set. Check the top side of the joint for alignment. The joint should be smooth and level, with no gaps. Adjust as necessary to achieve a "seamless" look. Once the seam is glued and KV fasteners are installed, use C-clamps to clamp both ends of the seam.

   Note: Each pound of pressure on the tightening tool exerts 500 pounds of force on the joint. Overtightening the KV fasteners will cause the tops to de-laminate.

10. Install a 6" x 10" splice plate over the joint, at the underside of the table top for reinforcement. Use eight #14 x 1" screws in the pre-drilled holes torqued to 100 in/lbs to secure (Figure 4). Continue securing all joints with adhesive, KV fasteners and splice plates along the run of table tops. Tops over 24" wide will have two splice plates and 16 screws.

    Note: Allow assembled tabletops time for joint adhesive to cure (approximately 1 hour) before moving to assemble to mounting flange on University base and before installing splice plate.

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University Table Tops with PowerUp

Note: If installing **University Seating with "No Power"**, table tops may now be attached to bases. Follow steps 11 and 12 below, then skip ahead as directed.

Note: If installing **University Seating with "Undersurface Power & Data"**, go now to steps 13, 14 and 15 below, then skip to "Undersurface Power & Data - Power Infeed options" on page 15 as directed.

Note: If installing **University Seating with "PowerUp"**, go now to step 16, this page.

Installing University Table Tops with "No Power"

11. For University table tops with no power, carefully position the table top(s) onto the University bases, at the proper location according to the space-planning layout. Fasten each top mounting flange of the base to the table top with **one** #14 x 1" screw provided and torque to 100 in/lbs. Make sure to pre-drill holes to 1/2" in depth or less to avoid piercing through table top (Figure 5).

12. After securing table tops to bases with just one screw per mounting flange, check to make sure that table tops are plumb and level, and that all joints are flush. Shim as necessary between table tops and top mounting flanges to level the table tops appropriately. Issues will arise with top seams and continuous modesty panel seams if top mounting flanges are not level with one another. Make sure all University bases are positioned correctly, then insert the remaining seven screws through each top mounting flange and into the pre-drilled holes in the table top and tighten all eight screws to 100 in/lbs.

Note: A shim kit part #67.1060 is available upon request.

Skip now to modesty panel section page 24, and any component assembly sections thereafter which are applicable to your installation.

Installing University Table Tops with "Undersurface Power & Data"

13. For University table tops with undersurface power & data, installation of the power and data infeeds can be made easier if infeeds are installed in the base prior to installing the table tops to the bases. Go now to page 14 and review step 31 and the note before it to perform this procedure. Then return back to this spot and continue with step 14 below.

For University table tops with undersurface power & data, carefully position the table top(s) onto the University bases, at the proper location according to the space-planning layout. Fasten each top mounting flange of the base to each table top with **one** #14 x 1" screw provided and torque to 100 in/lbs. Make sure to pre-drill holes to 1/2 or less in depth to avoid piercing through the table top (Figure 5).

14. After securing table tops to bases with just one screw per mounting flange, check to make sure that table tops are plumb and level, and that all joints are flush. Shim as necessary between table tops and top mounting flanges to level the tops appropriately. Issues will arise with top seams and continuous modesty panel seams if top mounting flanges are not level with one another. Make sure all University bases are positioned correctly, then insert the remaining seven #14 x 1" screws through each top mounting flange to the pre-drilled holes in the table top and tighten all eight screws to 100 in/lbs. Skip now to page 14 step 31 for assembly of the undersurface power & data components.

Installing University Table Tops with "PowerUp"

15. For University table tops with PowerUp, installation of the power and data infeeds can be made easier if infeeds are installed in the base prior to installing the table tops to the bases. Go now to page 11 or 12, depending on infeed type, and figure 11, page 14 to review the appropriate steps and each note before and after to perform this procedure. Then return back to this spot and continue with steps 17 through 20.

16. For University table tops with PowerUp, carefully position the table top(s) onto the University bases, at the proper location according to the space-planning layout. Use the mounting holes of the top mounting flange as a guide to pre-drill holes into the underside of the worksurface to 1/2 depth or less. Take care to not drill too deep and pierce through the table top. Use tape on the drill bit as a depth gauge. Fasten each top mounting flange of the base to the table top with **one** #14 x 1" screw provided and torque to 100 in/lbs (Figure 5).

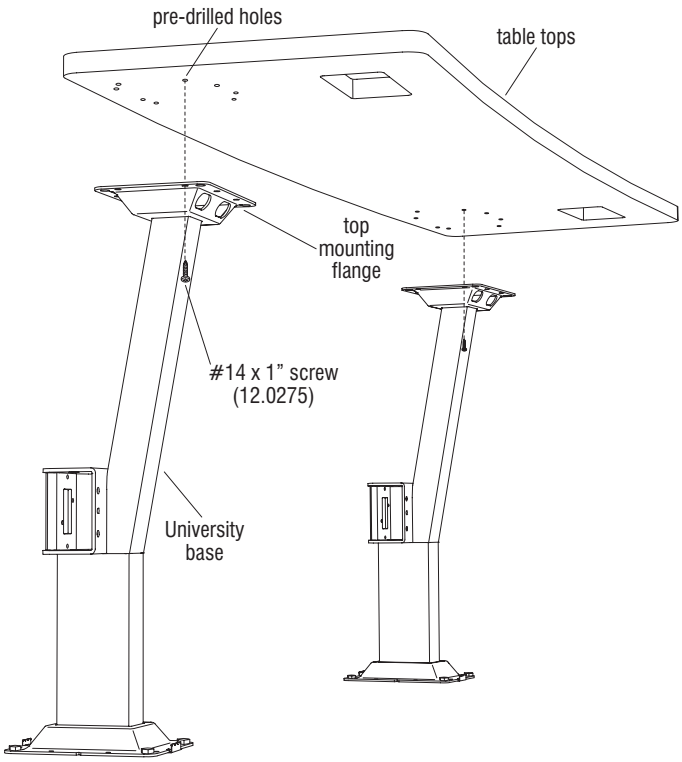

Figure 5

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Note: Prior to permanently securing the table tops to the top mounting flange of the bases with all eight screws, the hardboard template (provided) must be used to verify proper location of bases in relation to the PowerUp module hole in the table top. Very close tolerances must be followed to assure proper installation of PowerUp electrical components.

17. Use the hardboard template provided to check each PowerUp module hole location. To do this, straddle the template against the top mounting flange at the underside of the table top as illustrated. The template must be positioned with the smooth side facing up against the underside of the table top. The PowerUp module hole in the table top must fall within the cut-out in the hardboard template (Figure 6).

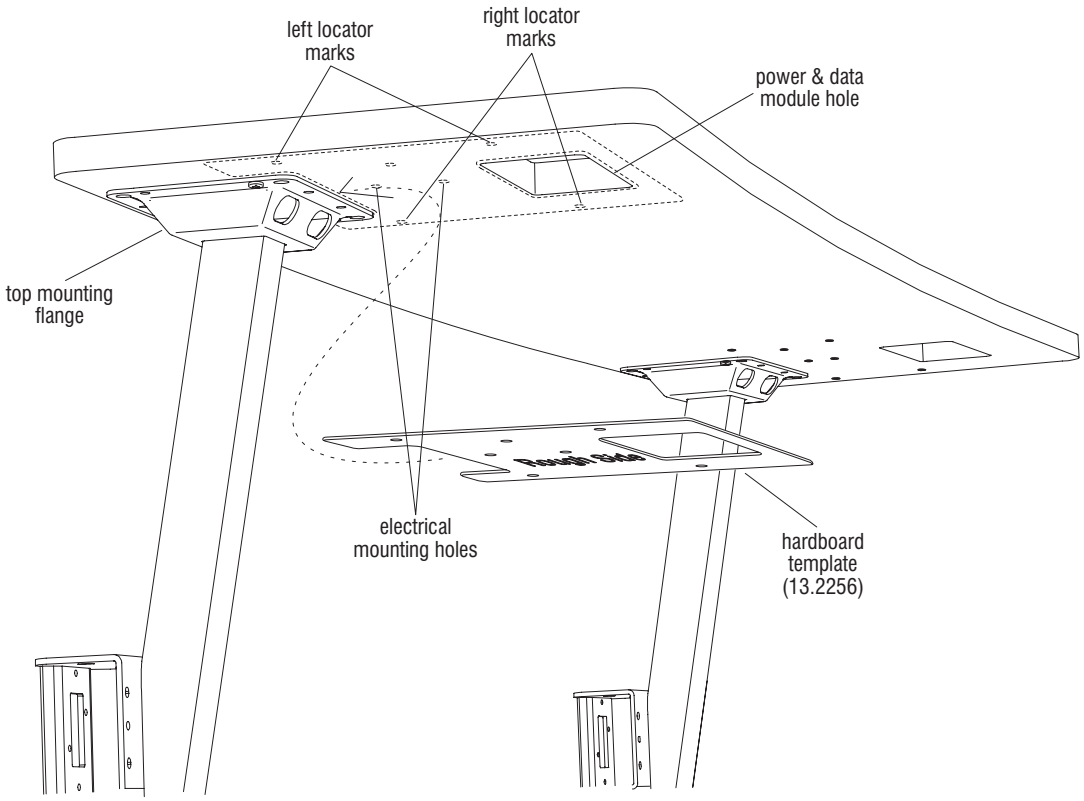

Figure 6

Caution: If the module hole is located even partly outside of its specified position, the electrical components will not fit properly. If the template does not match up with the module hole, remove the single screw fastening the base to the table top; check nearby bases to verify their positions and correct as needed.

18. After verifying/adjusting components so that the module hole falls within the template cut-out, check again to make sure that table tops are plumb and level, and that all joints are flush. Shim as necessary between table tops and top mounting flanges to level the table tops appropriately. Issues will arise with top seams and continuous modesty panel seams if top mounting flanges are not level with one another. Make sure all University bases are positioned correctly using the hardboard template and insert the remaining seven screws through each top mounting flange into the table top and tighten all eight #14 x 1" screws at 100 in/lbs to secure.

    Note: Only after all bases and tops are properly positioned and secured so that the module hole fits the template can the power and data trough and electrical components be assembled to the underside of the table top. All top joints and connecting plates must be installed prior to any electrical component installation.

19. After table tops are solidly attached to the properly positioned bases, place the template under the table top again, with the smooth side up, straddling the table top mounting flange. Draw with a pencil through the template holes, the left and right locator marks (looking up from underneath at the front of the table top) and the mounting holes for the electrical components. This is to be done along the run of all bases and table tops (Figure 6).

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PowerUp Power & Data Trough Assembly

Note: Correct placement of the power & data trough by adhering closely to the instructions described below regarding the left and right locator marks, is very important to ensure that the trough does not interfere with the electrical components. Troughs may need to be cut to fit correctly.

20. Position a power & data trough under the table top between two bases. Orient the hinge side of the trough to face the front of the top (front of the room). At the right side base (looking up from underneath at the front of the table top) notice the locator marks which were drawn through the template in step 20. The left three marks will guide where the power & data trough must be positioned at this right base. The trough is to be positioned between two left locator marks, but not to extend beyond the third "stop mark" (Figure 7). Looking now to the left side base, notice the right locator marks. The trough is to be positioned between these marks while following the guidelines described above for the right side of the trough at the right column with the left locator marks (Figure 7).

21. Fasten the hinge side of the trough to the underside of the top with the #10 x $^{5}/_{8}$" screws provided and torque to 25 in/lbs. All screw holes in the trough must be utilized. The power & data trough can be left hanging open for installation of the electrical and data cabling (Figure 8).

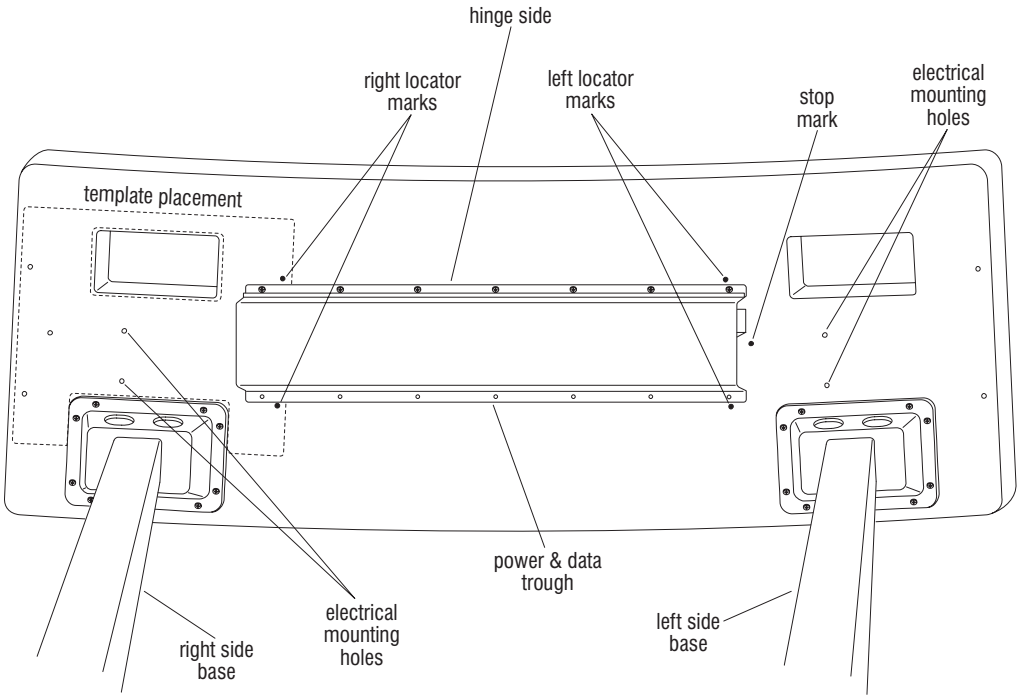

Figure 7

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PowerUp Electrical Infeed

Note: The 45° right power infeed (Figure 8) is to be used at the beginning of an electrical run where the power feeds into the lower wire access hole at the right side of a run of units (facing the front of the room). The 45° left/center power infeed (Figure 9) can be used in two circumstances. One is where power is to enter a run of units from a lower wire access hole at the left side of a run of units (facing the front of the room), and the other circumstance is when the power infeed is to enter at the center of a run of units.

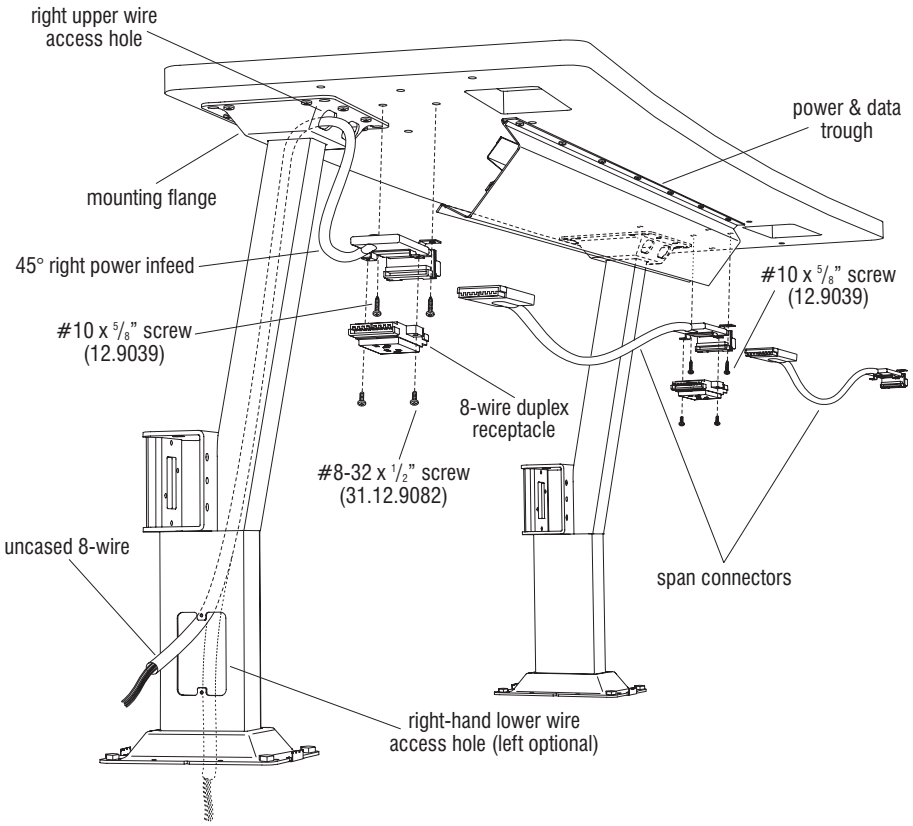

Figure 8 - Right Power Infeed

22. Choose the appropriate power infeed for your installation by referencing the space-planning layout.

    Note: Top mounting flanges of University bases have two "upper wire access holes". Power infeeds must always run through the "right upper wire access hole."

23. For **right power infeed** configurations, feed the uncased 8-wire end of the 45° right power infeed first through the "right upper wire access hole" in the top mounting flange, and then down the base and out of a lower wire access hole (Figure 8). Mount the opposite end of the 45° right power infeed to the underside of the top with two #10 x 5/8" screws provided at the guidemarks drawn through the hardboard template in step 20. Torque screws to 25 in/lbs. To extend power to the next station for **right infeed** configurations, insert and click the plug end of a span connector into the mounted end of the span connector and fasten the mounting end to the table top at the next set of electrical guidemarks (Figure 8).

    Note: As a precaution, briefly verify that the power & data trough is able to close completely without interfering with electrical components.

24. Look to the left side of the table top underside (facing the front of the room) for the electrical guidemarks that were drawn through the hardboard template. For either **right or left infeed** configurations (Figures 8 & 9), mount a span connector to the underside of the table top with #10 x 5/8" screws provided at the electrical guidemarks and torque to 25 in/lbs. For **right power infeed configurations**, route the flexible conduit through the power & data trough and plug the span connector into the 45° right power infeed that was installed in step 23 (Figure 8).

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PowerUp Electrical Components - Left/Center Infeed

For **left or center power infeed** configurations, feed the uncased 8-wire end of the 45° left/center power infeed first through the "right upper wire access hole" in the top mounting flange, and then down the base and out of a lower wire access hole (Figure 9). The opposite end of the 45° left/center power infeed will be left to hang until step 26 below.

Note: In both figure 8 & 9 illustrations, a right-hand lower wire access hole is depicted. Depending on the space-planning layout, a left-hand lower wire access hole may be specified.

Note: Next in step 26, for **left/center infeed** configurations, (Figure 9) the distribution power end may be substituted for a span connector if power is to be continued beyond that point to another station.

25. For **left/center power infeed** configurations, first mount a distribution power end to the right underside of the table top (facing the front of the room) at the electrical guidemarks with #10 x $^5/_8$" screws provided. Torque screws to 25 in/lbs to secure. Plug the span connector into the distribution power end making sure that the flexible conduit is cradled by the power & data trough (Figure 9). Next, at the end where the span connector was fastened to the top, plug a Y-block into the station-to-station power connector and plug the 45° left power infeed into the top opening of the Y-block (Figure 9). For center power infeed configurations, the plug-end of a span connector can be plugged into the bottom opening in the Y-block to continue power on to the next station (Figure 9).

Note: As a precaution, briefly verify that the power & data trough is able to close completely without interfering with electrical components.

PowerUp Components

26. Following the space-planning diagram, install 8-wire duplex receptacles with #8-32 x $^1/_2$" screws provided to 45° right power infeed and span connectors (Figure 8), or distribution power end and span connectors (Figure 9). Tighten screws to 20 in/lbs to secure.

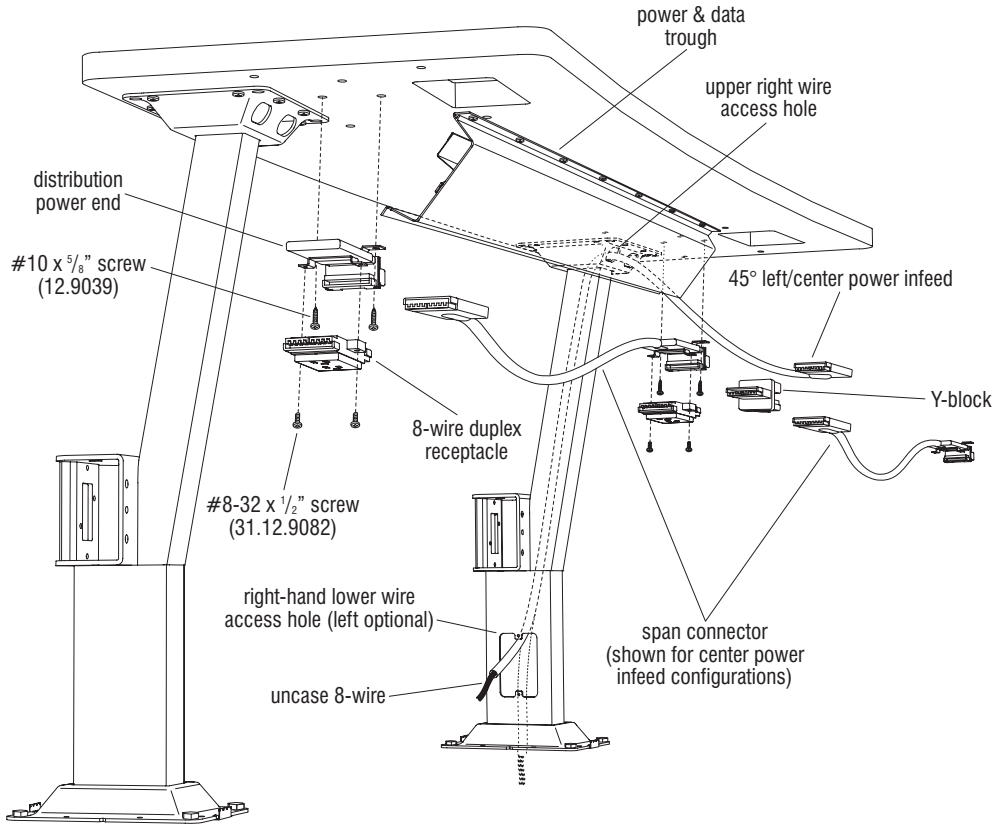

Figure 9 - Left or Center Power Infeed

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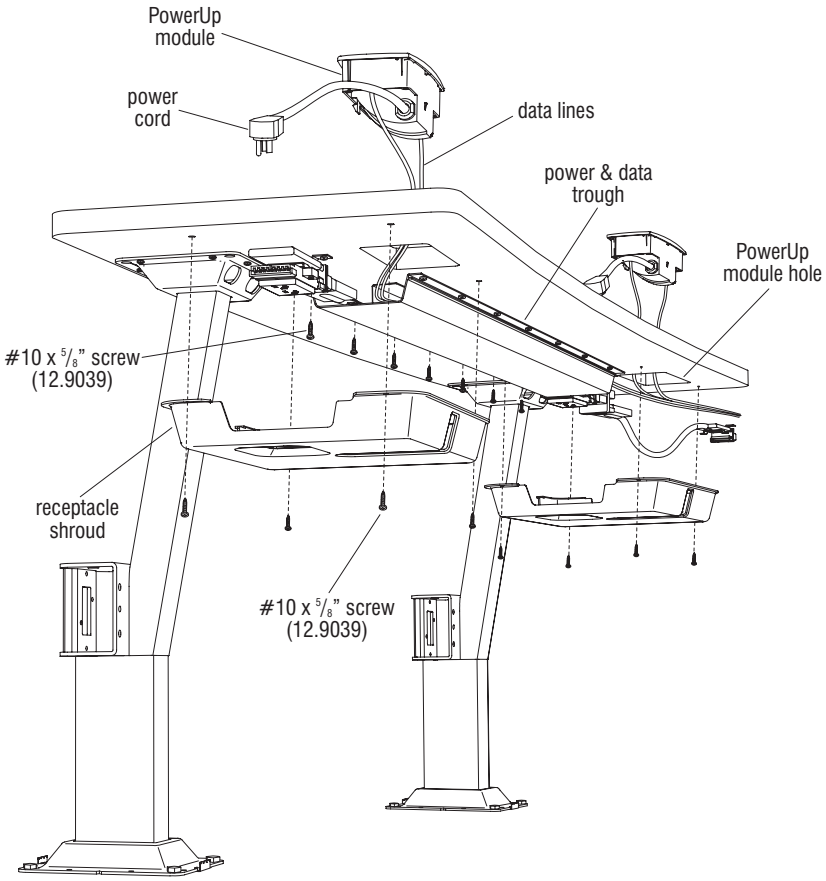
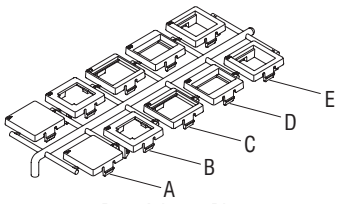


Figure 10



Data Adapter Plates

A	Blank Plate
B	Panduit "CJ"
C	Orthonics "Trackjack"
D	Panduit "KJ and KJA", Amp CAT-3 and CAT-5, Hubble "Hd5", Ortronics "OR-6295003-T568B" and "OR-6295004-T568A" Krone, Leviton "41108-RE5"
E	AT&T

Data Adapter Detail

27. The data wiring (not provided) may be installed at this time. Run the wires through the smaller, front partition of the wire management trough. Properly routed, these data lines will be separated from the line voltage flexible conduit by the trough divider. Push the ends of the data lines up through the PowerUp module holes. After all wiring has been installed, close the wire management trough and secure it to the table top with #10 x 5/8" screws provided and torque to 25 in/lbs. All screw holes in the trough must be utilized. Install receptacle shrouds over the 8-wire duplex receptacles and power & data troughs with #10 x 5/8" screws provided and torque to 25 in/lbs (Figure 10).

    Note: Duplex receptacles must protrude through the opening in the receptacle shroud.

28. The PowerUp module is to be installed by first connecting the data wiring ends to the appropriate connections in the module. (See "Data Adapter Detail" on this page for identification of optical data adapter plates). Push the module's power cord down through the PowerUp module hole and through the cut-out in the receptacle shroud. Next, snap the module into the module hole (Figure 10). From under the table top, plug the power cord into the duplex receptacle. Finally, loop the extra cord into the receptacle shroud through the cut-out slot to store.

29. Check the mechanical operation of the PowerUp module by pressing down at the center indent to open. Then close it, pushing down until it "clicks" shut. Check for any binding of the wires inside the receptacle shroud and correct as needed.

CAUTION

Assemble units as described herein only. To do otherwise may result in instability. All screws, nuts and bolts must be tightened securely and must be checked periodically after assembly. Failure to assemble properly, or to secure parts may result in assembly failure and personal injury.

Undersurface Power & Data - Power Infeed Options

Note: The first step to installing University seating undersurface power & data components is the installation of the power infeed. It is best to run the power infeed through the University base prior to installing table top to the base at that location. Also, if source power for the power infeed is to be connected below the surface of the floor, make those connections to the uncased 8-wire before securing the base to the floor. As with all installations of electrical components, it is up to the electrician to follow all governing and applicable electrical codes.

30. Refer to the space-planning layout and determine if the 8-wire power infeed is to be a "right", or "left/center" configuration. Choose the appropriate power infeed configuration and run the 8-wire end first through the correct wire upper access hole of the top mounting flange of the base, then down through the base and out the bottom of the base (for under-floor connections) or through the lower wire access hole in the base (Figure 11a or 11b).

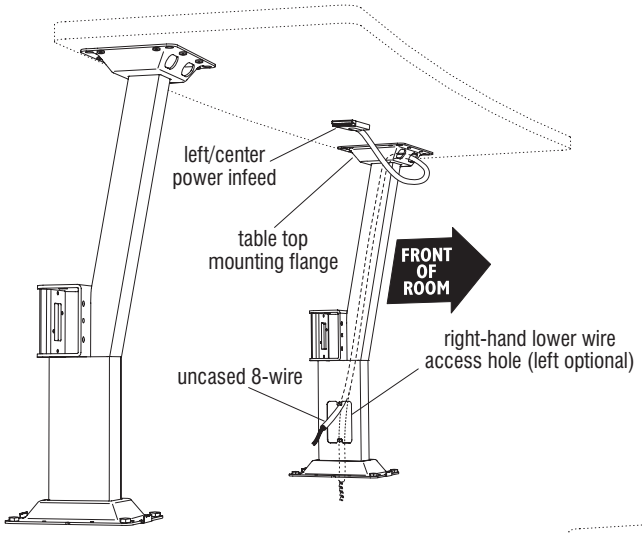


Figure 11a - Left or Center Power Infeed

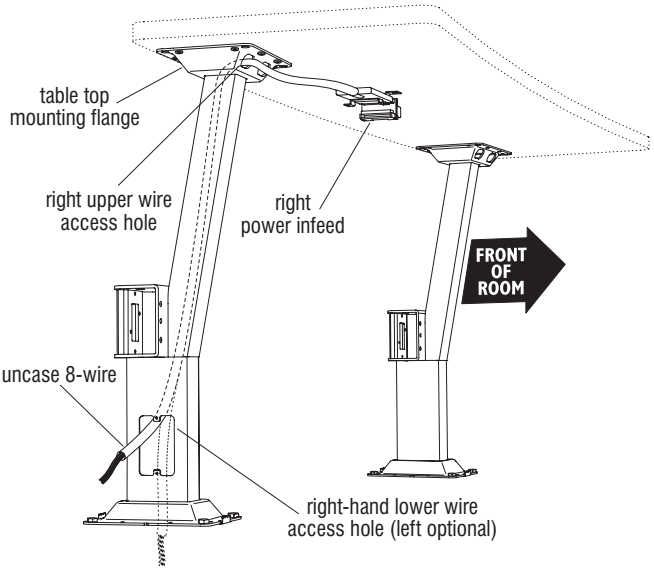


Figure 11b - Right Power Infeed

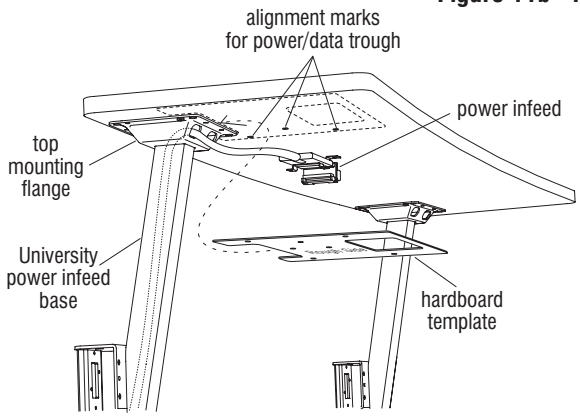


Figure 12

CAUTION

Assemble units as described herein only. To do otherwise may result in instability. All screws, nuts and bolts must be tightened securely and must be checked periodically after assembly. Failure to assemble properly, or to secure parts may result in assembly failure and personal injury.

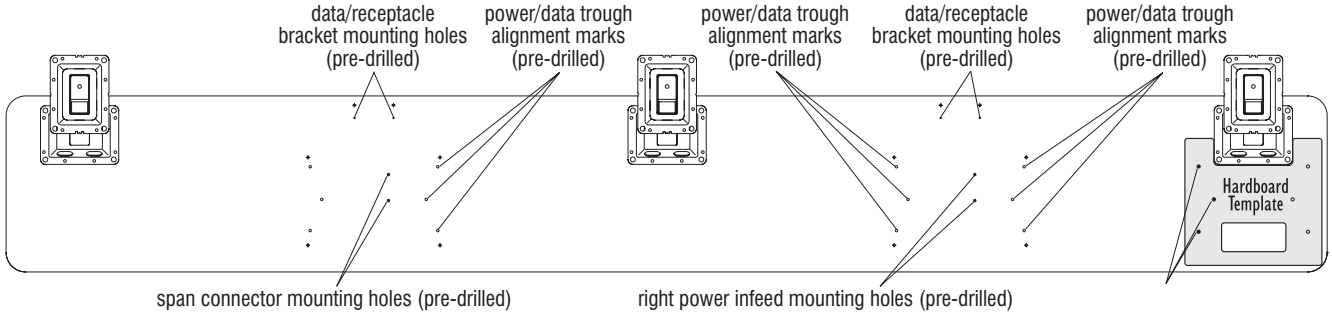
Undersurface Power & Data - Locating Components for Power Infeed

Note: The instructions below, as well as Figure 12 and the three details illustrate and explain the procedure of locating and marking alignment marks for a power/data trough where the infeed runs up a University base. Also, this section's three "details" outline a "typical" layout with pre-drilled mounting holes and trough alignment holes in the underside of the table top. Each configuration may vary. Follow the space-planning layout and the directions after this section which are appropriate to the specific power infeed location, and single, or double swing-arm layout.

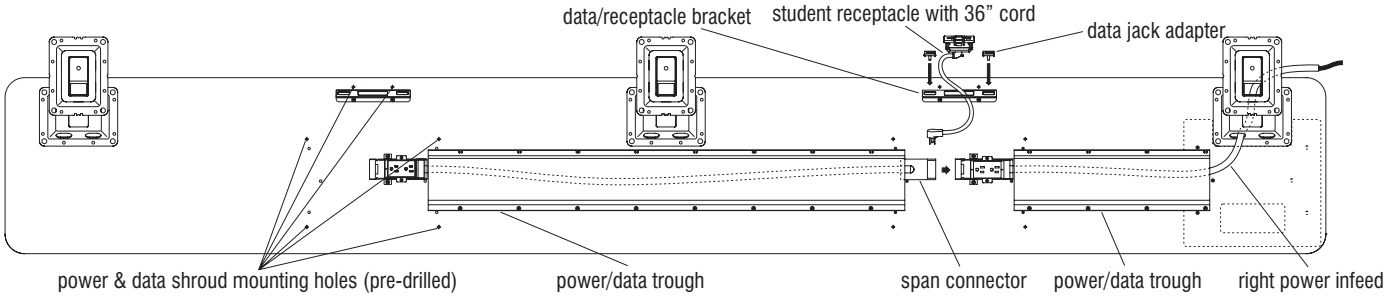
31. At power/data infeed locations power/data trough location marks are not pre-drilled into the underside of the table top where a "power & data shroud" must be installed to the underside of the table top. Use the "Hardboard Template" provided to locate the trough location marks. Accurate placement of the marks is important to ensure fit of all components. As illustrated, position the template, **"smooth side"** against the underside of the table top, and slide the template up against the top mounting flange of the University base at the power (or data) infeed location (Figure 12 & Detail A).

32. With the template held correctly in place, mark the appropriate "alignment marks" through the three holes in the template, on one or both sides where a power/data trough will be installed in the steps ahead (Figure 12 & Detail A).

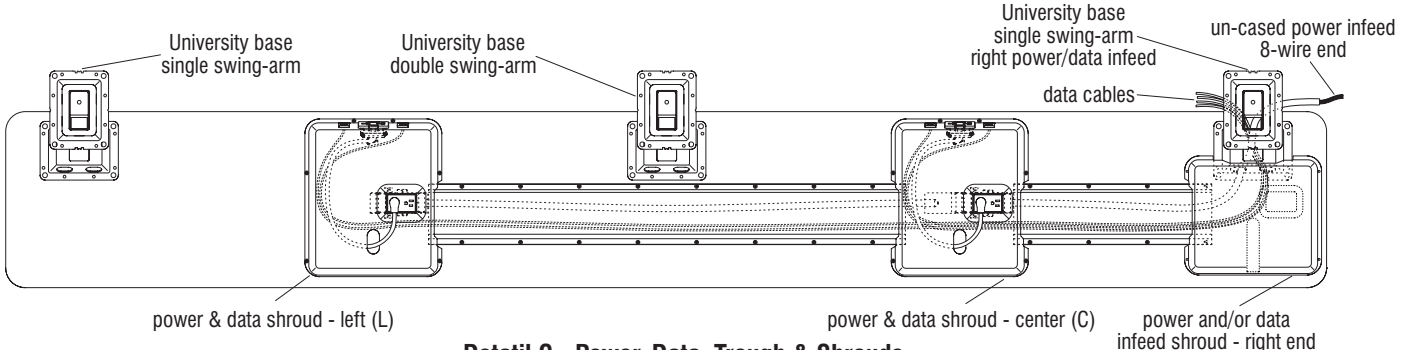
33. Go now to the instructions ahead which describe the installation of power & data components that are appropriate to the seating/power & data configuration as specified by the space-planning layout. Skip to either: "Right Power Infeed with Double Swing-arm Ends" (steps 35 through 46), "Right Power Infeed with Single Swing-arm Ends" (steps 47 through 58), "Left Power Infeed with Single Swing-arm Ends" (steps 59 through 71), or "Left Power Infeed with Double Swing-arm Ends" (steps 72 through 88).



Detatil A - Trough Alignment Mounting holes



Detatil B- Troughs with Power Components



Detatil C - Power, Data, Trough & Shrouds

CAUTION

Assemble units as described herein only. To do otherwise may result in instability. All screws, nuts and bolts must be tightened securely and must be checked periodically after assembly. Failure to assemble properly, or to secure parts may result in assembly failure and personal injury.

Note: Details A, B & C referenced in this installation section are on page 15.

Undersurface Power & Data - Right Power Infeed with Double Swing-arm Ends

34. At the underside of the University table top, locate the pre-drilled mounting holes, about midway between the two right-most University bases, near the power-infeed location (Figure 13 & Detail A). As illustrated, secure the mounting end of the right power infeed to the underside of the table top with two #10 x $^5/_8$" screws at the appropriate pre-drilled holes. Torque screws to 25 in/lbs to secure (Figure 13, Details A & B).

35. Then, at the next mounting location mid-way between bases to the left, secure the mounting end of a span connector to the underside of the table top using two #10 x $^5/_8$" screws torqued to 25 in/lbs. Insert and click the plug-end of a span connector into the mounting end of the power infeed. Per your space-planning layout, continue down the line installing all remaining span connector mounting ends to the table top between bases and clicking the plug ends into the appropriate mounting ends (Figures 13 & 14, Detail B).

36. Follow correct circuit designations and install 8-wire circuit receptacles to the mounting end of the power infeed and all span connectors using two #8-32 x $^1/_2$" screws provided and torque to 20 in/lbs (Figures 13 & 14, Detail B).

    Note: Correct placement and installation of the power/data troughs by adhering closely to the instructions below regarding the right and left alignment marks is very important to ensure that the trough fits correctly with all other undersurface components. Troughs may need to be cut to fit correctly.

37. Next, install power/data troughs to underside of table tops, "hinge side" only, following the directions below. Position a power/data trough under the table top, between two bases, orienting the hinge side of the trough to face the front of the table top (front of the room). Align the trough between the power/data trough "alignment marks" as illustrated. At both ends, the trough is to be positioned inside of the two outside alignment marks, but is not to extend beyond the third, center stop mark at each end (Detail A). Fasten the hinge side to the underside of the table top with the #10 x $^5/_8$" screws provided and torque to 25 in/lbs. All screw holes in the trough must be utilized. The power/data trough can be left hanging open for installation of data, and other electrical components.

38. Locate the mounting holes for the data/receptacle bracket (Details A & B). Install the data/receptacle bracket to the underside of the table top with two #10 x $^5/_8$" screws torqued to 25 in/lbs (Figures 13 & 14).

39. Snap the appropriate style data jack adapters into the data receptacle bracket as illustrated. (See "Data Adapter Detail" on page 13 for identification of data adapter plates.) Per the space-planning layout, run data lines (customer supplied) up the appropriate base and then horizontally along the front, smaller partition of the power/data trough. Properly routed, the data lines will be separated from the line voltage flexible conduit by a divider in the power/data trough. Data line infeeds may be run up a University base in a different location than power infeed, but will use a power infeed shroud the same as in power infeed locations (Figures 13 & 14). From behind the data/receptacle bracket, snap the appropriate data lines into the data jack adapters.

40. Following the space-planning layout, install student receptacles to the data/receptacle brackets following the directions below.

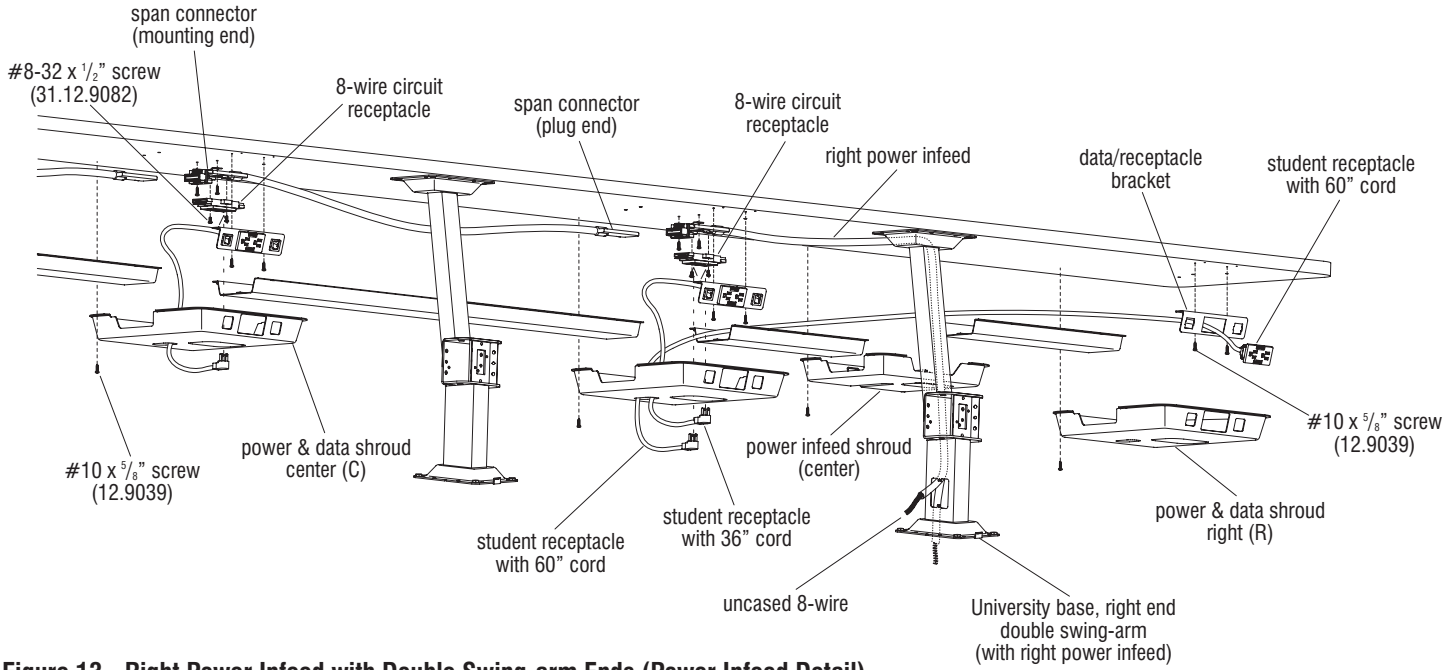


Figure 13 - Right Power Infeed with Double Swing-arm Ends (Power Infeed Detail)

CAUTION

Assemble units as described herein only. To do otherwise may result in instability. All screws, nuts and bolts must be tightened securely and must be checked periodically after assembly. Failure to assemble properly, or to secure parts may result in assembly failure and personal injury.

Important: Data/receptacle bracket locations at the end of "double swing-arm" University table tops must use a student receptacle with a 60" long cord. At all other data/receptacle bracket locations, a student receptacle with a 36" cord is to be used. Install student receptacles by first routing the cord through the opening in the data/receptacle bracket, then snap the receptacle into place. Allow 36" long receptacle cords to hang down until a later step. Take the 60" long cords and route them through the power/data trough, toward the appropriate 8-wire circuit receptacle and allow the plug end to hang down until a later step (Figures 13 & 14).

41. After all wiring has been installed, close the power/data trough and secure it to the table top with #10 x $^5/_8$" screws provided. Torque screws to 25 in/lbs. All screw holes in the trough must be utilized.

    Note: There are three types of power & data shrouds which will be specified on the space-planning layout for double swing-arm end configurations. Each of these shrouds have cut-outs facing the student side for the student receptacle/data jacks and two cut-outs at the bottom, one for the 8-wire circuit receptacle, and the other for routing the cord of the student receptacle(s) through, to loop back and plug into the circuit receptacle. **"Center (C) power & data shrouds"** have a cut-out at each side of the shroud for power/data troughs. **"Left (L) power & data shrouds"** have both cut-outs at the bottom, the cut-out facing the student, and only one cut-out at the right-hand side for a power/data trough. **"Right (R) power & data shrouds"** have both cut-outs at the bottom, the cut-out facing the student, and only one cut-out at the left-hand side for a power/data trough (Figures 13 & 14).

42. Following the space-planning layout, locate the correct position for various power & data shrouds along the run of table tops. For "center" (C) shrouds, position the shroud up to the table top and allow the cord of the student receptacle(s) to drop down through the front-most cut-out as illustrated. Both the student receptacle and data jacks, as well as the bottom-facing circuit receptacle should protrude through their appropriate cut-outs in the shroud. for "left" (L) and "right (R) shroud, only the student receptacle and data jacks will protrude through the cut-outs. Secure all power and data shrouds to the underside of table top using #10 x $^5/_8$" screws in pre-drilled holes torqued to 25 in/lbs at the underside of the table top (Figures 13 & 14, Details B & C).

43. At "center" (C) power & data shroud locations, loop the hanging cord and insert the plug end of the student receptacle into the bottom-facing circuit receptacle. Push any excess cord back into the shroud and out of the way.

44. At the power infeed location, position the power infeed shroud (center, with cut-outs on each side for power/data troughs) up into position, making sure the troughs fit into it correctly and that the shroud back mates correctly with the base's upper mounting flange. With a pencil, mark the mounting hole locations, then use a $^1/_8$" diameter drill bit and pre-drill to $^1/_2$" depth, taking care to not penetrate the table top. Install power infeed shroud using #10 x $^5/_8$" screws provided torqued to 25 in/lbs (Figures 13 & 14).

45. Proceed now to the "Power Infeed Source Connection" section (page 30, step 101).

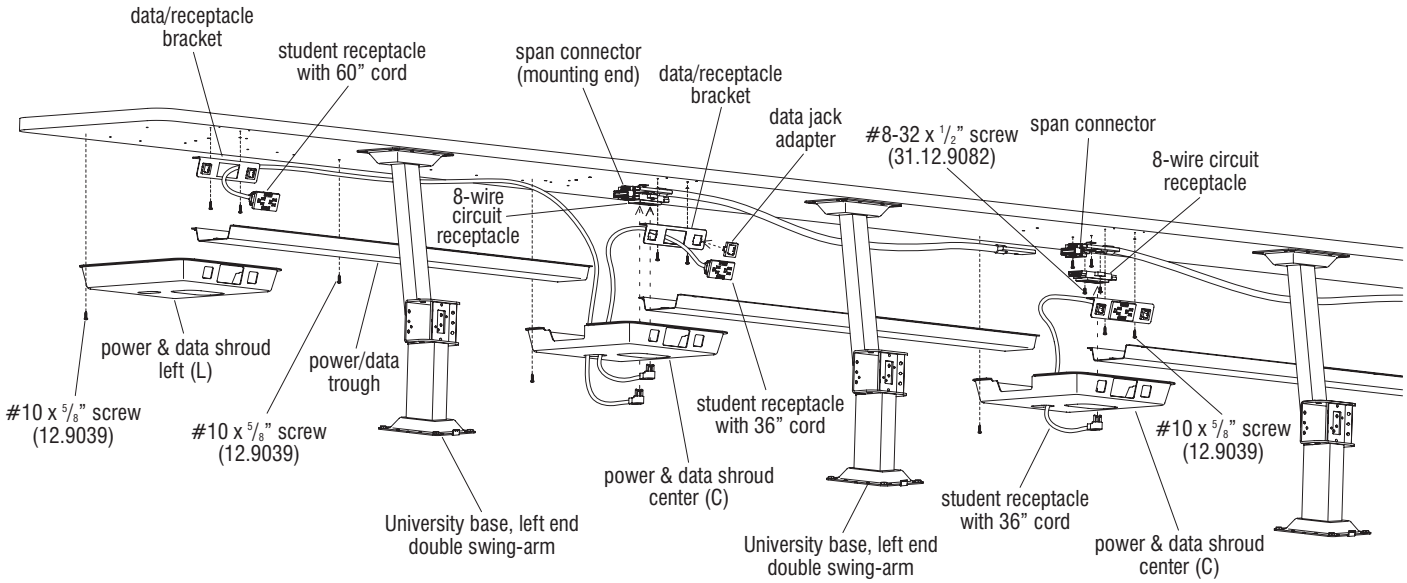


Figure 14 - Right Power Infeed with Double Swing-arm Ends (Double Swing-arm Detail)

CAUTION

Assemble units as described herein only. To do otherwise may result in instability. All screws, nuts and bolts must be tightened securely and must be checked periodically after assembly. Failure to assemble properly, or to secure parts may result in assembly failure and personal injury.

Note: Details A, B & C referenced in this installation section are on page 15.

Undersurface Power & Data - Right Power Infeed with Single Swing-arm Ends

46. At the underside of the University table top, locate the pre-drilled mounting holes, about midway between the two right-most University bases, near the power-infeed location (Figure 15 & Detail A). As illustrated, secure the mounting end of the right power infeed to the underside of the table top with two #10 x $^5/_8$" screws torqued to 25 in/lbs at the appropriate pre-drilled holes (Figure 15, Details A & B).

47. Then, at the next mounting location mid-way between bases to the left, secure the mounting end of a span connector to the underside of the table top using two #10 x $^5/_8$" screws torqued to 25 in/lbs. Insert and click the plug-end of a span connector into the mounting end of the power infeed. Per your space-planning layout, continue down the line installing all remaining span connector mounting ends to the table top between bases and clicking the plug ends into the appropriate mounting ends (Figures 15 & 16, Detail B).

48. Follow correct circuit designations and install 8-wire circuit receptacles to the mounting end of the power infeed and all span connectors using two #8-32 x $^1/_2$" screws provided torqued to 20 in/lbs (Figures 15 & 16, Detail B).

    Note: Correct placement and installation of the power/data troughs by adhering closely to the instructions below regarding the right and left alignment marks is very important to ensure that the trough fits correctly with all other undersurface components. Troughs may need to be cut to fit correctly.

49. Next, install power/data troughs to underside of table tops, "hinge side" only, following the directions below. Position a power/data trough under the table top, between two bases, orienting the hinge side of the trough to face the front of the table top (front of the room). Align the trough between the power/data trough "alignment marks" as illustrated. At both ends, the trough is to be positioned inside of the two outside alignment marks, but is not to extend beyond the third, center stop mark at each end (Detail A). Fasten the hinge side to the underside of the table top with the #10 x $^5/_8$" screws provided. Torque screws to 25 in/lbs. All screw holes in the trough must be utilized. The power/data trough can be left hanging open for installation of data, and other electrical components.

50. Locate the mounting holes for the data/receptacle bracket (Details A & B). Install the data/receptacle bracket to the underside of the table top with two #10 x $^5/_8$" screws torqued to 25 in/lbs (Figures 15 & 16).

51. Snap the appropriate style data jack adapters into the data receptacle bracket as illustrated. (See "Data Adapter Detail" on page 13 for identification of data adapter plates.) Per the space-planning layout, run data lines (customer supplied) up the appropriate base and then horizontally along the front, smaller partition of the power/data trough. Properly routed, the data lines will be separated from the line voltage flexible conduit by a divider in the power/data trough.

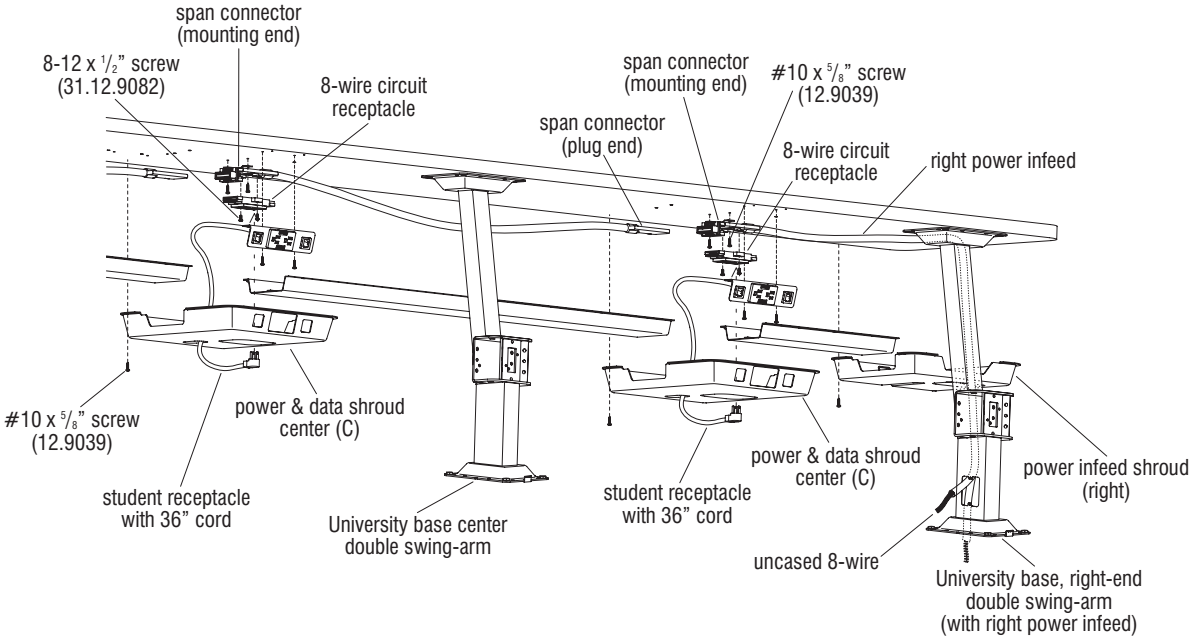


Figure 15 - Right Power Infeed with Single Swing-arm Ends (Power Infeed Detail)

CAUTION

Assemble units as described herein only. To do otherwise may result in instability. All screws, nuts and bolts must be tightened securely and must be checked periodically after assembly. Failure to assemble properly, or to secure parts may result in assembly failure and personal injury.

Data line infeeds may be run up a University base in a different location than power infeed, but will use a power infeed shroud the same as in power infeed locations (Figures 15 & 16). From behind the data/ receptacle bracket, snap the appropriate data lines into the data jack adapters.

52. Following the space-planning layout, install student receptacles by first routing the cord through the opening in the data/receptacle bracket, then snap the receptacle into place. Allow the 36" long receptacle cords to hang down until a later step (Figures 15 & 16).

53. After all wiring has been installed, close the power/data trough and secure it to the table top with #10 x $^5/_8$" screws provided. Torque screws to 25 in/lbs. All screw holes in the trough must be utilized.

    Note: There are two types of power & data shrouds for right power infeed, single swing-arm end configurations which may be specified by the space-planning layout. Both of these shrouds have cut-outs facing the student side for the student receptacle and data jacks. **"Center (C) power & data shrouds"** have a cut-out at each side of the shroud for power/data troughs and two cut-outs at the bottom, one for the 8-wire circuit receptacle, and the other for routing the cord of the student receptacle(s) through, to loop back and plug into the circuit receptacle. **"Left (L) power & data shrouds"** have both cut-outs at the bottom and only one cut-out at the right-hand side for power/ data trough (Figures 15 & 16).

54. Following the space-planning layout, locate the correct position for the two types of power & data shrouds along the run of table tops. Position each shroud up to the table top and allow the cord of the student receptacle to drop down through the front-most cut-out as illustrated. Both the student receptacle and data jacks, as well as the bottom-facing circuit receptacle should protrude through their appropriate cut-outs in the shroud. Secure all power and data shrouds to the underside of the table top using #10 x $^5/_8$" screws torqued to 25 in/lbs in pre-drilled holes at the underside of the table top (Figures 15 & 16, Details B & C).

55. At the power & data shroud locations, loop the hanging cord and insert the plug end of the student receptacle into the bottom-facing circuit receptacle. Push any excess cord back into the shroud and out of the way (Figures 15 & 16).

56. At the power infeed location, position the power infeed shroud (right-end, with cut-outs on only the left side for power/data troughs) up into position, making sure the troughs fit into it correctly and that the shroud back mates correctly with the base's upper mounting flange. With a pencil, mark the mounting hole locations, then use a $^1/_8$" diameter drill bit and pre-drill to $^1/_2$" depth, taking care to not penetrate the table top. Install power infeed shroud using #10 x $^5/_8$" screws provided torqued to 25 in/lbs (Figures 15 & 16).

57. Proceed now to the "Power Infeed Source Connection" section (page 30, step 101.)

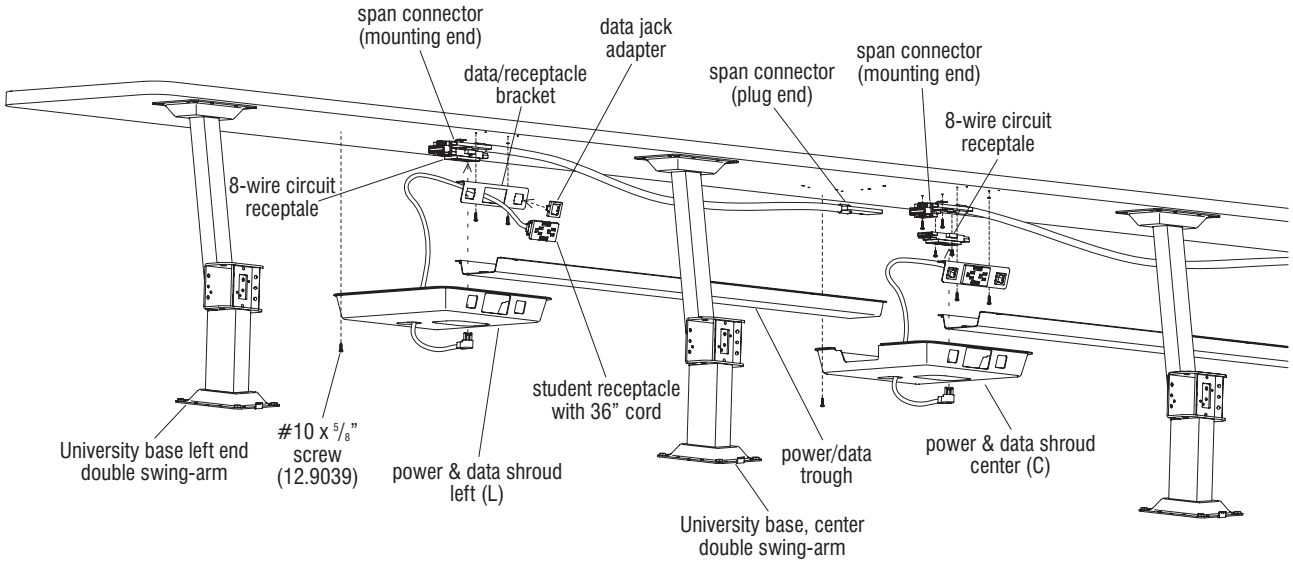


Figure 16 - Right Power Infeed with Single Swing-arm Ends (Single Swing-arm Detail)

CAUTION

Assemble units as described herein only. To do otherwise may result in instability. All screws, nuts and bolts must be tightened securely and must be checked periodically after assembly. Failure to assemble properly, or to secure parts may result in assembly failure and personal injury.

Note: Details A, B & C referenced in this installation section are on page 15.

Undersurface Power & Data - Left Power Infeed with Single Swing-arm Ends

Note: The instructions below proceed with the assumption that the left power infeed has already been run through the University base and the "plug end" of the power infeed is hanging out of the upper wire access hole of the top mounting flange of the base. If this is not completed, go back to step 31, page 14.

58. To begin installing undersurface power span connectors, look to the right-hand side of the left, single swing-arm power infeed base and locate the set of pre-drilled span connector mounting holes in the table top, midway between the left power infeed base and the base just to the right. Install a span connector (mounting end) to the underside of the of the table top using two #10 x $^5/_8$" screws as illustrated and torque to 25 in/lbs. Allow the plug end to hang down for the time being (Figure 17 & Detail A).

59. Snap the plug end of the left power infeed into the mounting end of the span connector which was just installed (Figure 17).

60. Per the space-planning layout, continue down the line to the right and install the mounting ends of span connectors to the underside of the table top using two #10 x $^5/_8$" screws as illustrated. Torque screws to 25 in/lbs. At the end of the run of span connectors, a "distribution power end" will be installed in the same manner as the span connectors were (Figure 18). Snap the plug ends of the span connectors into the mounting ends as you go along. Snap the plug end of the final span connector into the distribution end as illustrated (Figures 17 & 18, Detail B).

61. Follow correct circuit designations and install 8-wire circuit receptacles to the mounting end of all span connectors using two #8-32 x $^1/_2$" screws provided. Torque screws to 20 in/lbs. (Figures 17 & 18, Detail B).

Note: Correct placement and installation of the power/data troughs by adhering closely to the instructions below regarding the right and left alignment marks is very important to ensure that the trough fits correctly with all other undersurface components. Troughs may need to be cut to fit correctly.

62. Next, install power/data troughs to underside of table tops, "hinge side" only, following the directions below. Position a power/data trough under the table top, between two bases, orienting the hinge side of the trough to face the front of the table top (front of the room). Align the trough between the power/data trough "alignment marks" as illustrated. At both ends, the trough is to be positioned inside of the two outside alignment marks, but is not to extend beyond the third, center stop mark at each end (Detail A). Fasten the hinge side to the underside of the table top with the #10 x $^5/_8$" screws provided and torque to 25 in/lbs. All screw holes in the trough must be utilized. The power/data trough can be left hanging open for installation of data, and other electrical components.

63. Locate the mounting holes for the data/receptacle bracket (Details A & B). Install the data/receptacle bracket to the underside of the table top with two #10 x $^5/_8$" screws torqued to 25 in/lbs (Figures 17 & 18).

64. Snap the appropriate style data jack adapters into the data receptacle bracket as illustrated. (See "Data Adapter Detail" on page 13 for identification of data adapter plates.) Per your space-planning layout, run data lines (customer supplied) up the appropriate base and then horizontally along the front, smaller partition of the power/data trough.

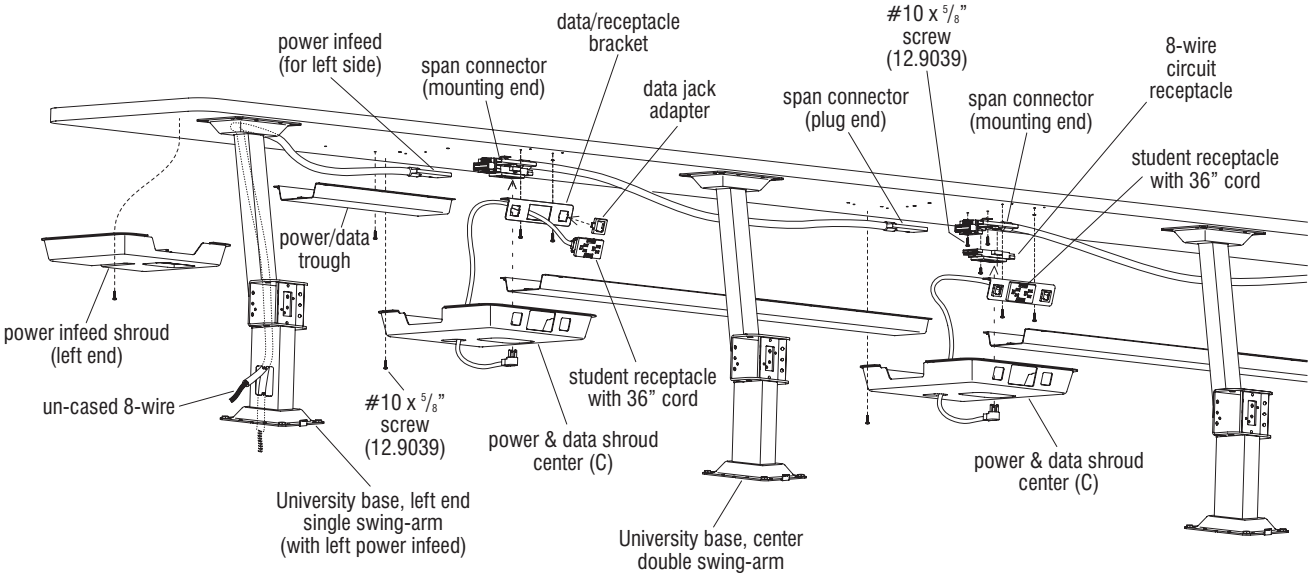


Figure 17 - Left Power Infeed with Single Swing-arm Ends (Power Infeed Detail)

CAUTION

Assemble units as described herein only. To do otherwise may result in instability. All screws, nuts and bolts must be tightened securely and must be checked periodically after assembly. Failure to assemble properly, or to secure parts may result in assembly failure and personal injury.

Properly routed, the data lines will be separated from the line voltage flexible conduit by a divider in the power/data trough. Data line infeeds may be run up a University base in a different location than power infeed, but will use a power infeed shroud the same as in power infeed locations (Figures 17 & 18). From behind the data/receptacle bracket, snap the appropriate data lines into the data jack adapters.

65. Following the space-planning layout, install student receptacles to the data/receptacle brackets by first routing the cord through the opening in the data/receptacle bracket, then snap the receptacle into place. Allow 36" long receptacle cords to hang down until a later step (Figures 17 & 18).

66. After all wiring has been installed, close the power/data trough and secure it to the table top with #10 x $^5/_8$" screws provided and torque to 25 in/lbs. All screw holes in trough must be utilized.

    Note: There are two types of power & data shrouds for single swing-arm end, power infeed configurations which may be specified on the space-planning layout. Both shroud types have cut-outs facing the student side for the student receptacle and data jacks. Both also have two cut-outs at the bottom, one for the 8-wire circuit receptacle, and the other for routing the cord of the student receptacle through, to loop back and plug into the circuit receptacle. The difference is that **"center (C) power & data shrouds"** have a cut-out at each side of the shroud for power/data troughs and the **"right (R) power & data shrouds"** do not have a cut-out for a trough at the right side of the shroud (Figures 17 & 18).

67. Following the space-planning layout, locate the correct position for the various power & data shrouds along the run of table tops. Position the shroud up to the table top and allow the cord of the student receptacle to drop down through the front-most cut-out as illustrated. Both the student receptacle and data jacks, as well as the bottom-facing circuit receptacle should protrude through their appropriate cut-outs in the shroud. Secure all power and data shrouds to the underside of the table top using #10 x $^5/_8$" screws in pre-drilled holes torqued to 25 in/lbs at the underside of the table top (Figures 17 & 18, Details B & C).

68. At each shroud location, next loop the hanging cord and insert the plug end of the student receptacle into the bottom-facing circuit receptacle. Push any excess cord back into the shroud and out of the way.

69. At the left power infeed location, position the power infeed shroud (left end, with a cut-out only on the right for a power/data trough) up into position, making sure the troughs fit into it correctly and that the shroud back mates correctly with the base's upper mounting flange. With a pencil, mark the mounting hole locations, then use a $^1/_8$" diameter drill bit and pre-drill to $^1/_2$" depth, taking care to not penetrate the table top. Install power infeed shroud using #10 x $^5/_8$" screws provided torqued to 25 in/lbs to secure. (Figures 17 & 18).

70. Proceed now to the "Power Infeed Source Connection" section (page 30, step 101).

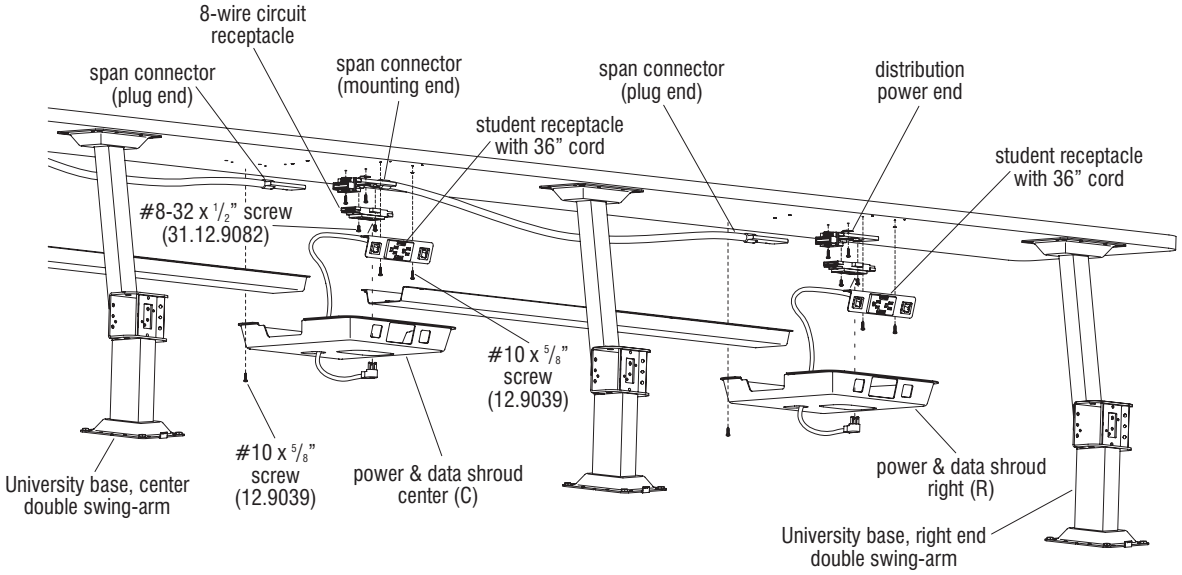


Figure 18 - Left Power Infeed with Single Swing-arm Ends (Single Swing-arm Detail)

CAUTION

Assemble units as described herein only. To do otherwise may result in instability. All screws, nuts and bolts must be tightened securely and must be checked periodically after assembly. Failure to assemble properly, or to secure parts may result in assembly failure and personal injury.

Note: Details A, B & C referenced in this installation section are on page 15.

Undersurface Power & Data - Left & Center Power Infeed with Double Swing-arm Ends

Note: The instructions below proceed with the assumption that the left/center power infeed has already been run through the University base and the "plug end" of the power infeed is hanging out of the upper wire access hole of the top mounting flange of the base. If this is not completed, go back to step 31 page 14.

71. To begin installing undersurface power span connectors, look to the right-hand side of the left/center power infeed base and locate the set of span connector pre-drilled mounting holes in the table top, midway between the left/center power infeed base and the base just to the right. Install a span connector (mounting end) to the underside of the table top using two #10 x $^5/_8$" screws as illustrated. Torque screws to 25 in/lbs. Allow the plug end to hang down for the time being (Figure 19 & Detail A).

    Note: If the space-planning layout specifies a "center" power infeed (configuration depicted), a "Y-block" is required to route the power back and left of the center infeed location. For layouts specifying a "left" power infeed, no Y-block is required as the power will continue only to the right from the "left" power infeed location.

72. If your power infeed is specified as "left" skip now to step 77. If your infeed is "center", continue on with step 74.

73. As illustrated, for "center" power infeed, install a "Y-block" into the "mounting end" of the span connector which was just installed to the right of the power infeed base. Snap the plug-end of the power infeed into the bottom section of the Y-block (Figure 19).

74. Next, for center power infeed layouts, position the mounting end of a span connector up to the underside of the table top at the pre-drilled mounting location to the left of the center power infeed base. Secure the mounting end of the span connector to the underside of the table top using two #10 x $^5/_8$" screws as illustrated. Torque screws to 25 in/lbs. Then snap the plug end of the span connector into the open port in the Y-block, installed in the previous step (Figure 19).

75. Per the space plan for center power infeed layouts, continue installing span connectors as in step 75 above, without need for any additional Y-blocks to connect span connectors together (Figure 19).

76. For **"left" power infeed layouts,** snap the plug end of the power infeed into the mounting end of the span connector which was just installed in step 72 (Figure 19).

77. Next, per the space-planning layout continue down the line to the right and install the mounting end of a span connector to the underside of the table top using two #10 x $^5/_8$" screws as illustrated. Torque screws to 25 in/lbs. Snap the plug ends of the span connectors into the mounting ends as you go down the line (Figures 19 & 20, Detail B).

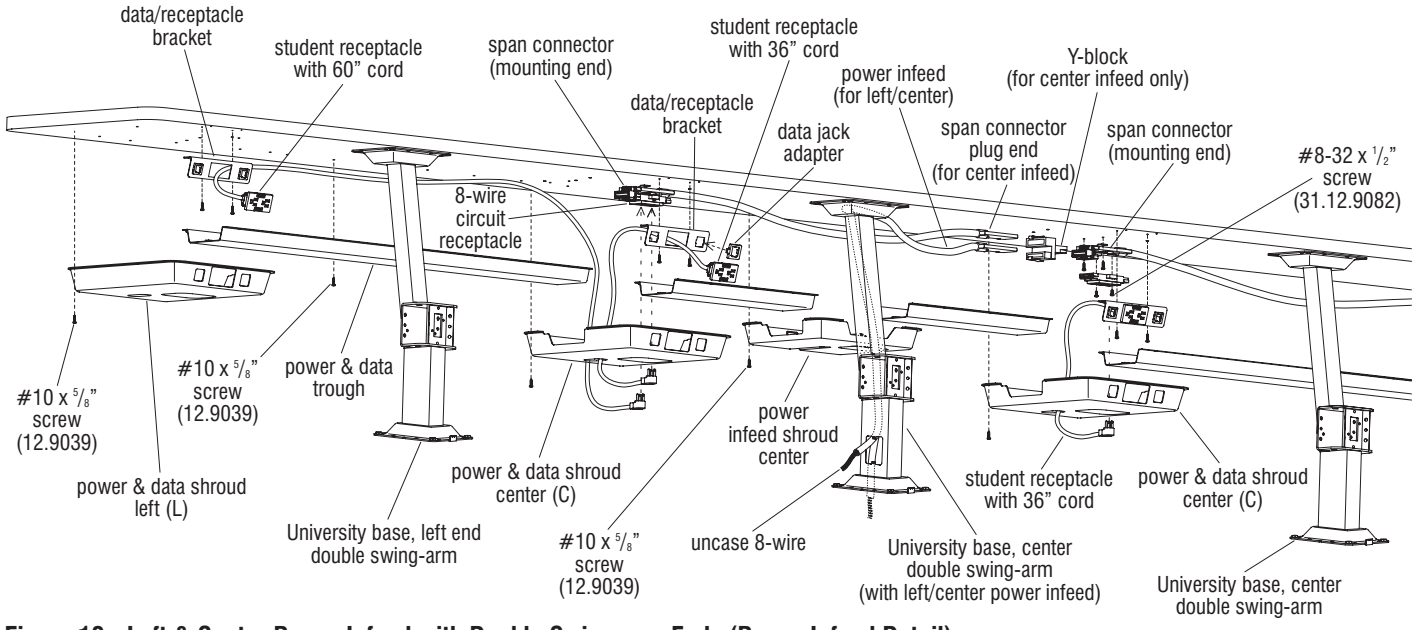


Figure 19 - Left & Center Power Infeed with Double Swing-arm Ends (Power Infeed Detail)

CAUTION

Assemble units as described herein only. To do otherwise may result in instability. All screws, nuts and bolts must be tightened securely and must be checked periodically after assembly. Failure to assemble properly, or to secure parts may result in assembly failure and personal injury.

78. Follow correct circuit designations and install 8-wire circuit receptacles to the mounting end of all span connectors using two #8-32 x 1/2" screws provided. Torque screws to 20 in/lbs (Figures 19 & 20, Detail B).

    Note: Correct placement and installation of the power/data troughs by adhering closely to the instructions below regarding the right and left alignment marks is very important to ensure that the trough fits correctly with all other undersurface components. Troughs may need to be cut to fit correctly.

79. Next, install power/data troughs to underside of table tops, "hinge side" only, following the directions below. Position a power/data trough under the table top, between two bases, orienting the hinge side of the trough to face the front of the table top (front of the room). Align the trough between the power/data trough "alignment marks" as illustrated. At both ends, the trough is to be positioned inside of the two outside alignment marks, but is not to extend beyond the third, center stop mark at each end (Detail A). Fasten the hinge side to the underside of the table top with the #10 x 5/8" screws provided torqued to 25 in/lbs. All screw holes in the trough must be utilized. The power/data trough can be left hanging open for installation of data, and other electrical components.

80. Locate the mounting holes for the data/receptacle bracket (Details A & B). Install the data/receptacle bracket to the underside of the table top with two #10 x 5/8" screws torqued to 25 in/lbs (Figures 19 & 20).

81. Snap the appropriate style data jack adapters into the data receptacle bracket as illustrated. (See "Data Adapter Detail" on page 13 for identification of data adapter plates.) Per the space-planning layout, run data lines (customer supplied) up the appropriate base and then horizontally along the front, smaller partition of the power/data trough. Properly routed, the data lines will be separated from the line voltage flexible conduit by a divider in the power/data trough. Data line infeeds may be run up a University base in a different location than power infeed, but will use a power infeed shroud the same as in power infeed locations (Figures 19 & 20). From behind the data/receptacle bracket, snap the appropriate data lines into the data jack adapters.

82. Following the space-planning layout, install student receptacles to the data/receptacle brackets following the directions below. **Important: Data/receptacle bracket locations at the end of "double swing-arm" University table tops must use a student receptacle with a 60" long cord. At all other data/receptacle bracket locations, a student receptacle with a 36" cord is to be used.** Install student receptacles by first routing the cord through the opening in the data/receptacle bracket, then snap the receptacle into place. Allow 36" long receptacle cords to hang down until a later step. Take the 60" long cords and route them through the power/data trough, toward the appropriate 8-wire circuit receptacle and allow the plug end to hang down until a later step (Figures 19 & 20).

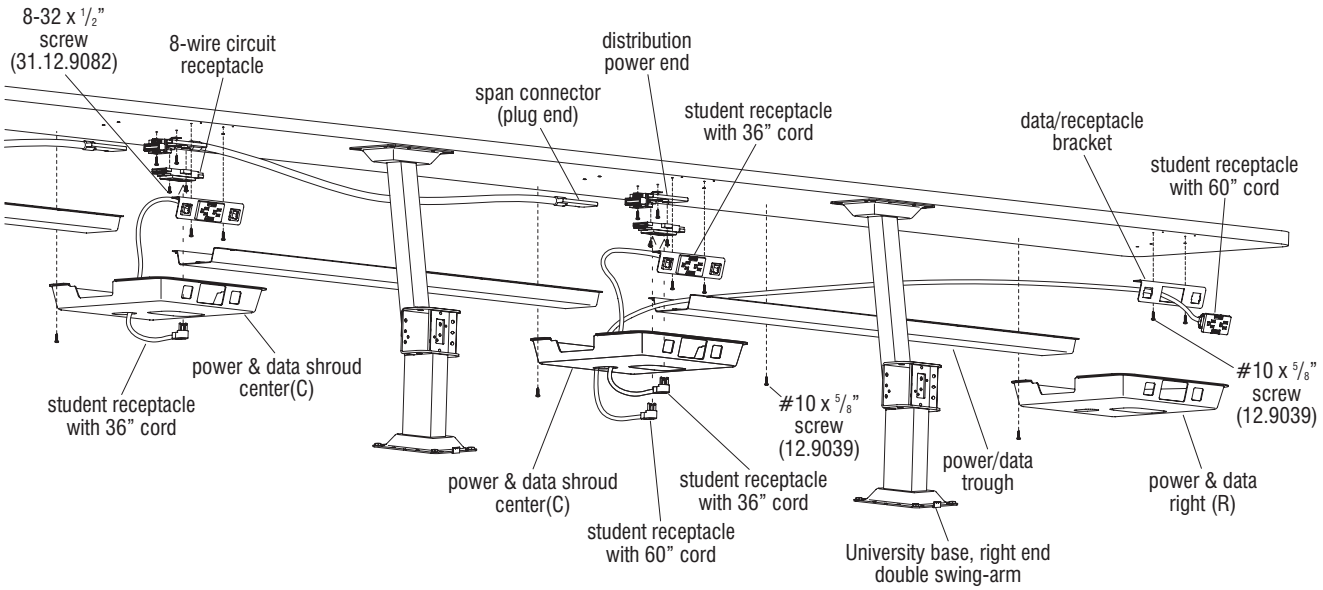


Figure 20 - Left & Center Power Infeed with Double Swing-arm Ends (Double Swing-arm Detail)

CAUTION

Assemble units as described herein only. To do otherwise may result in instability. All screws, nuts and bolts must be tightened securely and must be checked periodically after assembly. Failure to assemble properly, or to secure parts may result in assembly failure and personal injury.

83. After all wiring has been installed, close the power/data trough and secure it to the table top with #10 x 5/8" screws provided and torque to 25 in/lbs to secure. All screw holes in the trough must be utilized.

    Note: There are three types of power & data shrouds for double swing-arm end configurations which may be specified on the space-planning layout. All of these shrouds have cut-outs facing the student side for the student receptacle/data jacks and two cut-outs at the bottom, one for the 8-wire circuit receptacle, and the other for routing the cord of the student receptacle(s) through, to loop back and plug into the circuit receptacle. **"Center (C) power & data shrouds"** have a cut-out at each side of the shroud for power/data troughs. **"Left (L) power & data shrouds"** have both cut-outs at the bottom, the cut-out facing the student, and only one cut-out at the right-hand side for a power/data trough. **"Right (R) power & data shrouds"** have both cut-outs at the bottom, the cut-out facing the student, and only one cut-out at the left-hand side for a power/data trough (Figures 19 & 20).

84. Following the space-planning layout, locate the correct position for various power & data shrouds along the run of table tops. For "center" (C) shrouds, position the shroud up to the table top and allow the cord of the student receptacle(s) to drop down through the front-most cut-out as illustrated. Both the student receptacle and data jacks, as well as the bottom-facing circuit receptacle should protrude through their appropriate cut-outs in the shroud. For "left" (L) and "right" (R) shroud, only the student receptacle and data jacks will protrude through the cut-outs. Secure all power and data shrouds to the underside of the table top using #10 x 5/8" screws torqued to 25 in/lbs in pre-drilled holes at the underside of the table top (Figures 19 & 20 and Details B & C).

85. At "center" (C) power & data shroud locations, loop the hanging cord and insert the plug end of the student receptacle into the bottom-facing circuit receptacle. Push any excess cord back into the shroud and out of the way.

86. At the power infeed location, position the power infeed shroud (center, with cut-outs on each side for power/data troughs) up into position, making sure the troughs fit into it correctly and that the shroud back mates correctly with the base's upper mounting flange. With a pencil, mark the mounting hole locations, then use a 1/8" diameter drill bit and pre-drill to 1/2" depth, taking care to not penetrate the table top. Install power infeed shroud using #10 x 5/8" screws provided torqued to 25 in/lbs (Figures 19 & 20).

87. Proceed now to the "Power Infeed Source Connection" section (page 30, step 101).

Optional Laminate or Wood Modesty Panel

88. Per the space-planning layout and the identification numbers on the back side of each modesty panel, lay the modesty panels out where they will be installed to the table tops. Modesty panel lengths are undersized on each end thereby creating a 1/2" gap between panels and 3/4" to 2 1/2" space at the end-of-run (see detail on space-planning layout). Refer also to the chart on the space-planning layout for the number of modesty panel brackets required per modesty panel, and equally space the brackets along the panel. The two end brackets should be 2" from the edge of the panel. **The brackets must be attached to the table top first.**

    Note: Care must be taken when positioning the brackets to ensure they do not interfere with the plastic shroud covers in power and data installations.

    Position the brackets as instructed below, then mark hole locations and pre-drill mounting holes to a depth of 1/2", taking care not to penetrate the table top.

    When the bracket is installed to the underside of the table top, the shorter flange of the bracket must be secured to the table top with two #10 x 3/4" screws. Torque screws to 50 in/lbs to secure. Be sure that the longer edge (which will be secured to the modesty panel) is set back 1" from the front edge of the table top. After all brackets are secured, carefully lift the modesty panel into place and secure to each modesty panel bracket with three #10 x 3/4" screws torqued to 50 in/lbs (Figure 21).

    Note: To help support continuous wood and segmented modesty panels during attachment, bar clamps may be used.

89. For **Continuous Laminate or Wood Modesty Panels,** the following steps must be completed before mounting the panel to the table, described in step 89.

    Modesty panels are to be joined together from behind with two KV joint fasteners per pair of modesty panels (Figure 22). First join both modesty panels together, aligning the hardwood spline (installed in one modesty panel at the factory).

    Check to make sure hardwood spline fits snug in both modesty panels. If it does not, lightly sand down the spline so it does fit. If this is not done, it may be difficult to get a tight fit on the modesty panel seam. The spline joint and modesty panel seam are to be glued using the adhesive supplied with the KV connectors. Do not use a wood glue for seam gluing as the working time for that adhesive is too short. Thread each draw bolt a few turns into each tightening nut and press each pair up into a 7/8" hole and slot. The flat end of each draw bolt will be visible in the 7/8" holes of the modesty panel being joined. Insert locking sleeves into the 7/8" holes so that the slotted sleeve engages the rounded collar on the bolt (Figure 22). Tighten the nut with a tightening tool or nail set. Check the front side of the joint for proper alignment. The joint should be smooth and level with no gaps. Adjust as necessary to achieve a "seamless" look. Once the seam is glued, use the C-clamp to clamp both ends of the seam. Allow one hour for glue to set before attaching panels to the top.

    Note: Each pound of pressure on the tightening tool exerts 500 pounds of force on the joint. Over-tightening the KV fasteners will cause the panels to delaminate.

CAUTION

Assemble units as described herein only. To do otherwise may result in instability. All screws, nuts and bolts must be tightened securely and must be checked periodically after assembly. Failure to assemble properly, or to secure parts may result in assembly failure and personal injury.

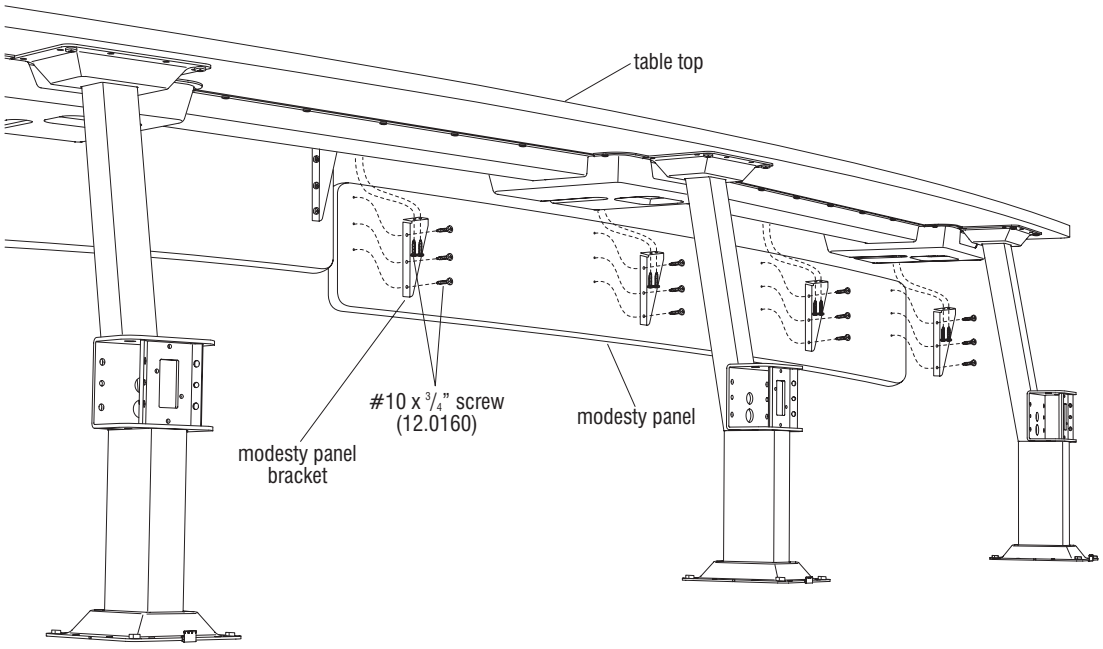


Figure 21

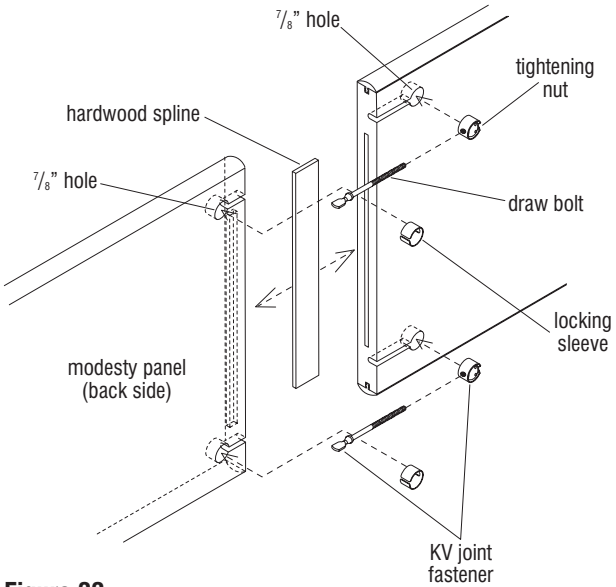
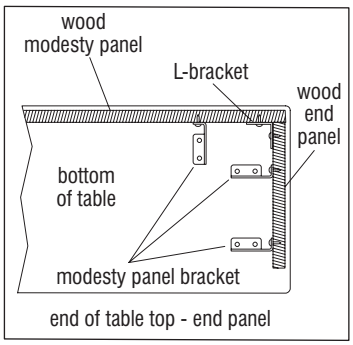


Figure 22



Detail D

90. For **Laminate or Wood Modesty Panels with End Panels,** the end panels are to be installed after modesty panels are in place. End panels use two modesty panel brackets and an L-bracket in the corner where the two panels meet (Detail D). Place the end panel into position, then using the L-bracket as a template, mark the six mounting hole locations, three to the modesty panel and three to the end panel. Carefully pre-drill mounting holes in each panel to a depth of 1/2" taking care to not pierce through the end panel or modesty panel. Use bar clamps to hold the end panel in position and install L-bracket with six #10 x 3/4" screws torqued to 50 in/lbs (Detail D). Adjust the clamped end panel for desired reveal at the end. Position the modesty panel brackets at their installation location and mark their mounting hole locations. Using a 1/8" drill bit, pre-drill to a depth of 1/2", taking care to not pierce through the end panel. Mount two modesty panel brackets to the end panel and bottom of the worksurface using five #10 x 3/4" screws torqued to 50 in/lbs at each bracket (Detail D).

Note: For full-height end panels joining with full-height modesty panels, two L-brackets are required.

CAUTION

Assemble units as described herein only. To do otherwise may result in instability. All screws, nuts and bolts must be tightened securely and must be checked periodically after assembly. Failure to assemble properly, or to secure parts may result in assembly failure and personal injury.

Steel Modesty Panels

91. Per the space-planning layout and the identification numbers on the back side of each modesty panel, lay the steel modesty panels out where they will be installed to the table tops. Modesty panel lengths are undersized on each end thereby creating a 1/2" gap between panels and 3/4" to 2 1/2" space at the end-of-run.

    Note: Care must be taken when positioning the brackets to ensure they do not interfere with the plastic shroud covers or support flanges.

    On the modesty panel ends, use an appropriate left- or right-hand bracket so that the washers and nuts are not visible.

    Note: For **dimpled panels,** drill 1/4" holes through the top and 5th dimple in panel at bracket locations using the dimple as a guide (Detail F).

92. Refer to the chart on the installation drawing for the number of modesty panel brackets required per modesty panel, and equally space the brackets along the panel.

A modesty panel bracket must be installed to the end set of holes on both sides of the modesty panel. If necessary, the power & data shrouds may be modified to clear the end brackets. Begin assembly by installing the bracket to the modesty panel first. The longer flange of the bracket should be secured to the modesty panel with two #10 x 1/2" screws and #10-24 keps nuts. Tighten nuts to 35 in/lbs. Insert the screws through the top hole in the panel and into the 2nd hole from the top on the bracket. The lower screw should be routed through the bottom hole in the bracket and the aligning hole in the modesty panel. A modesty panel bracket must be installed to the end set of holes on both sides of modesty panel. If necessary, the power/data shrouds may be modified to clear the end brackets (Figure 23).

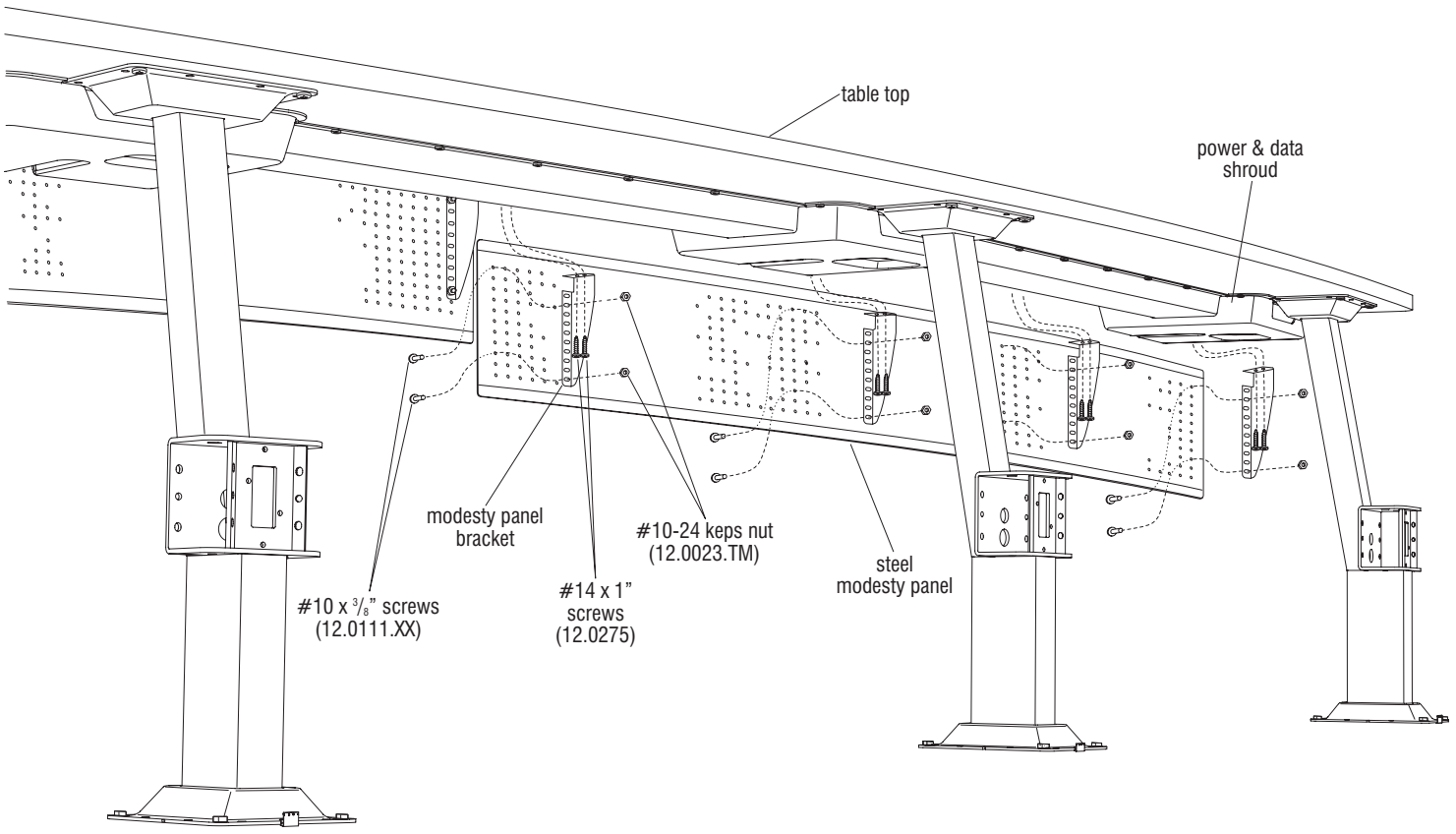
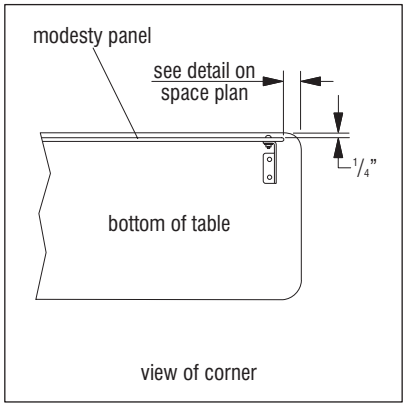


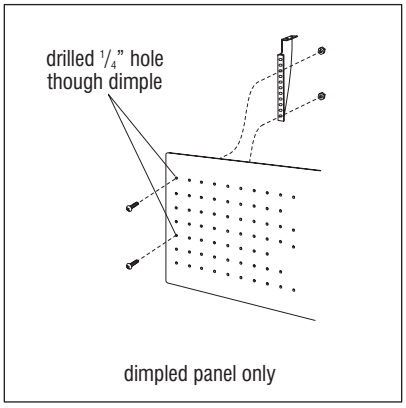
Figure 23

CAUTION

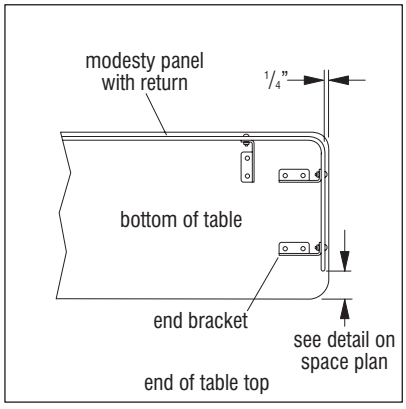
Assemble units as described herein only. To do otherwise may result in instability. All screws, nuts and bolts must be tightened securely and must be checked periodically after assembly. Failure to assemble properly, or to secure parts may result in assembly failure and personal injury.



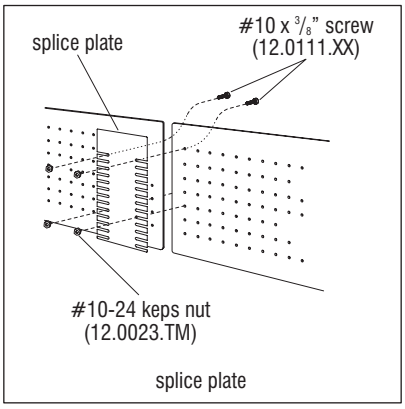
Detail E



Detail F



Detail G



Detail H

93. After all brackets are secured to modesty panels, carefully lift the panel up and clamp into position as described below. Mark mounting holes and pre-drill to a depth of 1/2", taking care to not penetrate the table top. The modesty panel must be mounted 1/4" from the front edge of the table top and in from the end of the worksurface per the space-planning layout (Detail E). Install the brackets to the underside of the table top using #14 x 1" screws torqued to 100 in/lbs (Figure 23).

94. Panels with a return at the end will require two brackets mounted at the end of the panel as illustrated (Detail G).

95. For units with continuous metal modesty panels only, attach the 16-gauge metal splice plate between the ends of the modesty panels to ensure proper alignment from panel to panel. Install in the same manner as brackets using #10 x 1/2" screws with #10-24 keps nuts. Tighten nuts to 35 in/lbs (Detail H).

CAUTION

Assemble units as described herein only. To do otherwise may result in instability. All screws, nuts and bolts must be tightened securely and must be checked periodically after assembly. Failure to assemble properly, or to secure parts may result in assembly failure and personal injury.

Acrylic Modesty Panel Installation

Note: Read all instructions below before proceeding.

96. Per the space-planning layout and the identification numbers on the back side of each modesty panel, carefully set the acrylic modesty panels out at the location they will install to the table tops.

    Important: Preliminary set-up is important, so "equal gap spacing" between modesty panels and appropriate end-of-run spacing is achieved. A nominal 1/2" gap is to be left between installed modesty panels, although that gap may vary. Care must be taken when locating the final installation position of acrylic modesty panels to underside of tabletops to achieve a clean, flush final look (Details I, J, K & L).

97. Begin assembly by installing the modesty panel brackets to the acrylic modesty panels first. Properly align the mounting holes of the bracket to the pre-drilled holes in the modesty panel. **Note:** At ends-of-run, right- & left-hand modesty panel brackets will be specified for the appropriate side (Detail L). Place #12-24 x 1/2" (12.2712) Taptite screws through un-capped screw covers (47.0632.BL) as illustrated. Then route the screw threads through the face of the panel and into the holes in the bracket, torqued to 35 in/lbs. Do not over-tighten. Snap screw cover caps closed at this time (Figure 24).

Note: Once panel brackets are attached to the acrylic modesty panels, it is recommended that end-of-run modesty panels be correctly positioned and installed first, such that **end straight modesty panels** have the 1/4" spacing back from the front as well as even spacing at each end (Detail I). Installation spacing is especially important for end modesty panels with return which must be positioned and installed 1/4" back from the front and 1/4" in from the side at the end/return (Detail K). After end-of-run modesty panels are secured, installation of the center-most modesty panel is important, as it must be positioned/installed at the very center of the run of table tops to further aid in achieving equal spacing. Lastly position and install panels between the center and the end acrylic modesty panels. **The noted process above makes it easier to achieve equal spacing of acrylic modesty panel gaps between all panels being installed.**

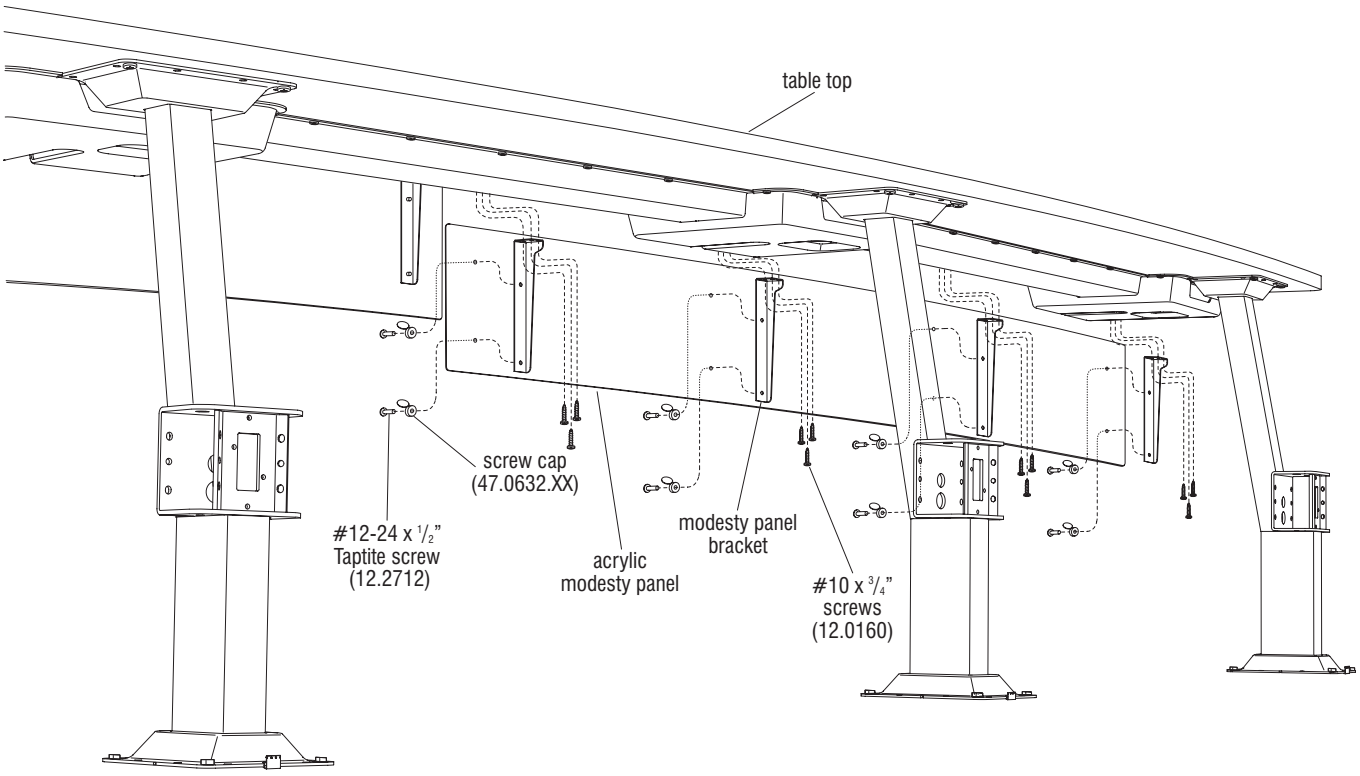
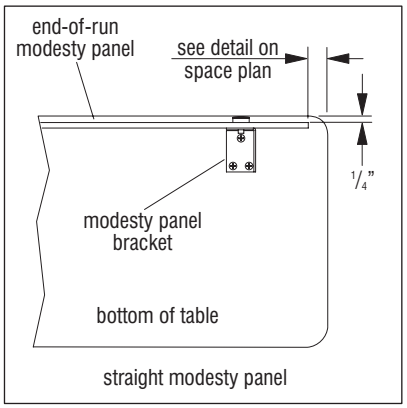


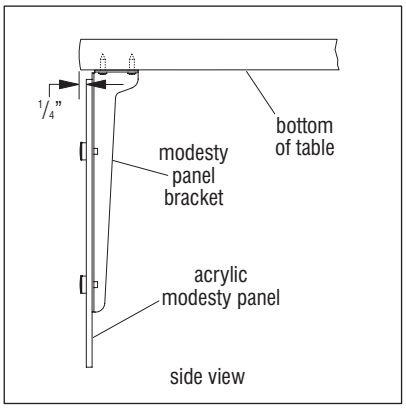
Figure 24

CAUTION

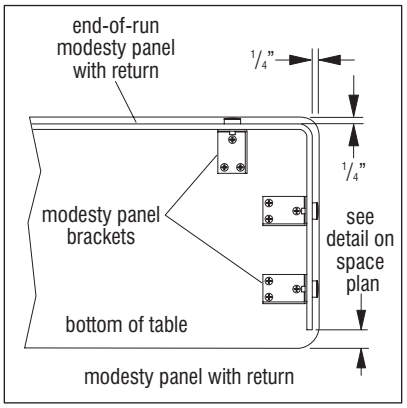
Assemble units as described herein only. To do otherwise may result in instability. All screws, nuts and bolts must be tightened securely and must be checked periodically after assembly. Failure to assemble properly, or to secure parts may result in assembly failure and personal injury.



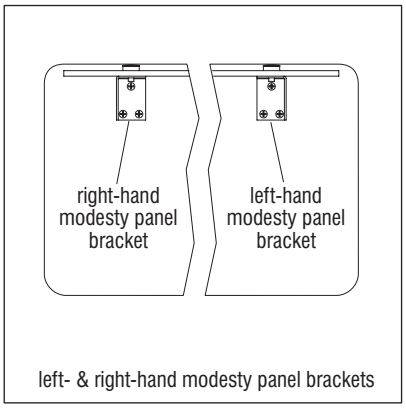
Detail I



Detail J



Detail K



Detail L

98. After all brackets are secured to the acrylic modesty panels, carefully lift the panel up into position, and one bracket at a time, mark and pre-drill 1/8" diameter mounting holes to 3/4" depth maximum. Take care to not drill too deep and damage the worksurface. Install each bracket to the underside of the table top using three #10 x 3/4" screws (12.0160) (end-of-run panels first, then center).

99. Panels with a return at the end will require two modesty panel brackets at the end of the acrylic modesty panel as illustrated (Detail K). The modesty panel face must be mounted back 1/4" from the front edge of the table top, and as noted above, 1/2" nominal, equal gap spacing must be maintained between installed panels. **Important:** Take care to keep the faces of installed acrylic panels "flush" to each other at the gaps when installing. If any installed shroud interferes with the mounting of brackets to the underside of the table top, trimming away of shroud material may be required. Some adjustments may be necessary (Figure 24, Details I, J, K & L).

CAUTION

Assemble units as described herein only. To do otherwise may result in instability. All screws, nuts and bolts must be tightened securely and must be checked periodically after assembly. Failure to assemble properly, or to secure parts may result in assembly failure and personal injury.

Power Infeed Source Connection

Note: The power infeeds are to be connected to the power source by a qualified electrician who must also check the electrical integrity of the finished system. The step below is intended as a guideline for the installation.

100. Remove one $^{7}/_{8}$" knockout from the face plate (other hole is for optional data lines). Route the uncased 8-wires of the power infeed through the 90° metal connector. Secure the flexible conduit of the power infeed to the 90° metal connector with the connector's screws. Next route the 8-wires through the knockout hole in the face plate and through the 90° pulling elbow. Tighten the 90° pulling elbow onto the face plate. Slide the liquid-tight connector onto the 8-wires and connect it to the 90° elbow (Figure 25).

101. Determine the appropriate length for the liquid-tight conduit and cut it to size. Slide the liquid-tight conduit onto the 8-wires and connect the conduit to the liquid-tight connector on the face plate. Attach the face plate to the base with the screws provided. Finally, the liquid-tight conduit may be fastened to a junction box (customer supplied) and the 8-wires can be cut to size and connected to the power source (Figure 25).

102. Install a blank face plate over the lower wire access hole at the opposite side of the base as the power infeed (Figure 25).

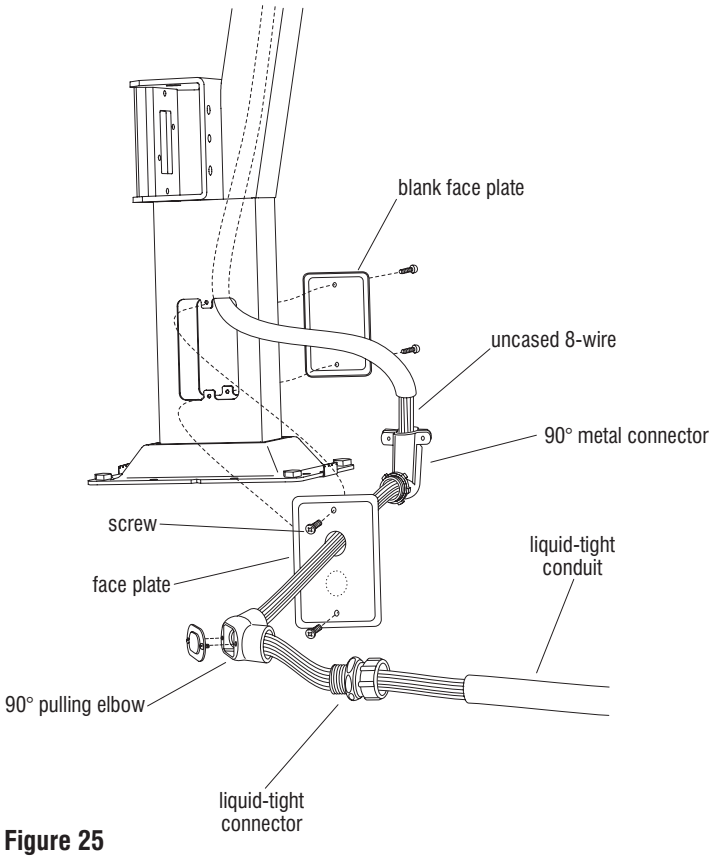


Figure 25

CAUTION

Assemble units as described herein only. To do otherwise may result in instability. All screws, nuts and bolts must be tightened securely and must be checked periodically after assembly. Failure to assemble properly, or to secure parts may result in assembly failure and personal injury.

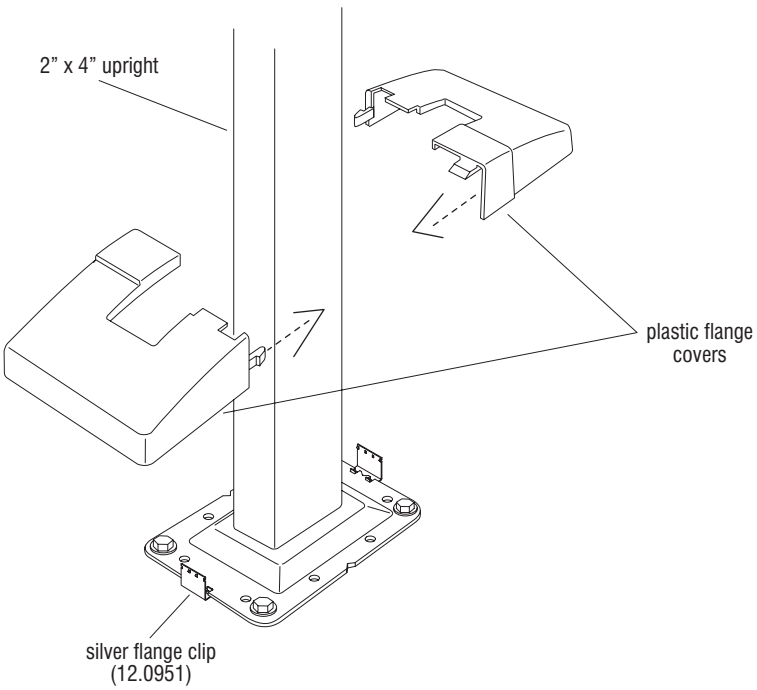


Figure 26

Flange Cover Installation

103. Position the plastic flange covers over the base flange at each side of the 2" x 4" upright. Snap the flange covers together around the upright and push the assembled flange covers down tight to the floor to engage the flange clips and secure the cover (Figure 26).

Note: Flange clips must be properly installed under base flange, as instructed on page 6, step 7 for flange covers to secure properly.

CAUTION

Assemble units as described herein only. To do otherwise may result in instability. All screws, nuts and bolts must be tightened securely and must be checked periodically after assembly. Failure to assemble properly, or to secure parts may result in assembly failure and personal injury.

University Seat Installation

104. Attach the appropriate seating assemblies to the swing arm/seat spider as described below (see Figure 27 & reference appropriate illustrations next page).

    Note: With all seating assemblies, take care not to over-tighten any screws, which may result in stripping of plastic parts.

    Doni, Grazie, Torsion, Intellect Wave, & Strive Seats: Place a gold-steel washer onto the seat shaft and key way using a lithium grease and brush. Route the seat shaft down through the index collar and swing arm housing. Using a ring clip separator, place a $^{3}/_{4}$" retaining ring onto the bottom of the seat shaft to secure.

    Dorsal & 1000 Poly Seats: Set the seat shell onto the seat spider, aligning the mounting locations under the seat with the four holes in the seat spider. Secure the seat spider to the seat with four $^{1}/_{4}$-15 x $^{3}/_{4}$" screws. Torque screws to 50 in/lbs, do not over-tighten.

    Apply Seats: Set the seat over the seat spider, aligning the mounting locations. Secure the spider to the seat with four #$^{1}/_{4}$-20 x $^{1}/_{2}$" hex head screws torqued to 10 ft/lbs. Do not over-tighten.

105. For all seating units, rotate the seat right or left to align the front edge of the seat to be parallel with the edge of table top. **Tighten the two screws on the index collar to secure the seat alignment** (Figure 27).

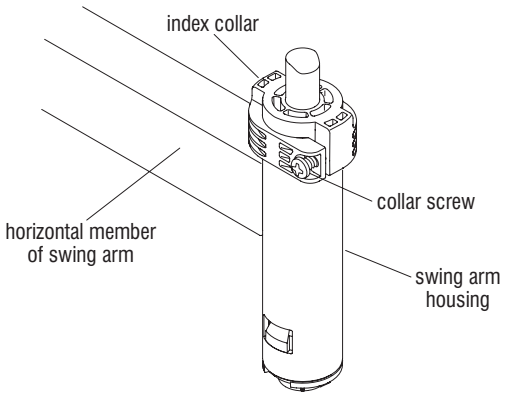
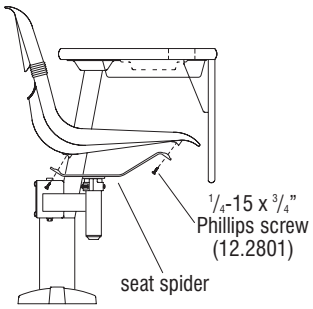


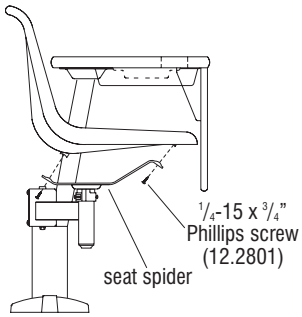
Figure 27

CAUTION

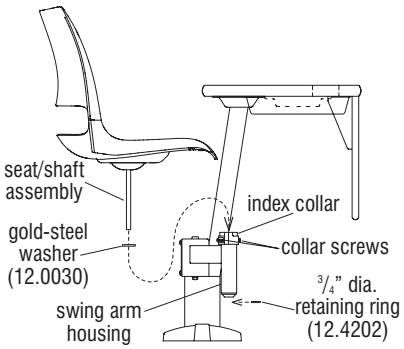
Assemble units as described herein only. To do otherwise may result in instability. All screws, nuts and bolts must be tightened securely and must be checked periodically after assembly. Failure to assemble properly, or to secure parts may result in assembly failure and personal injury.



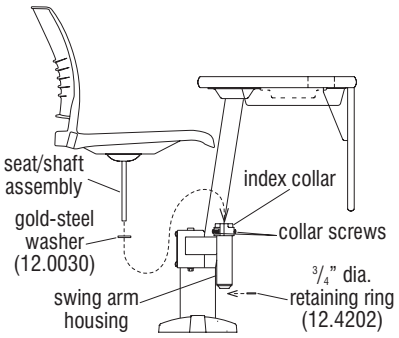
Dorsal



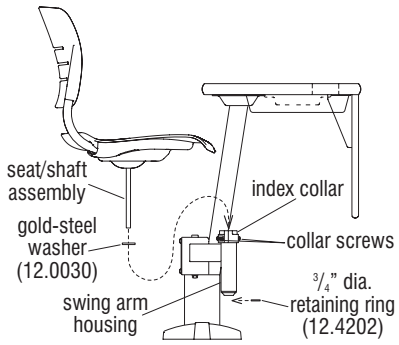
1000 Poly



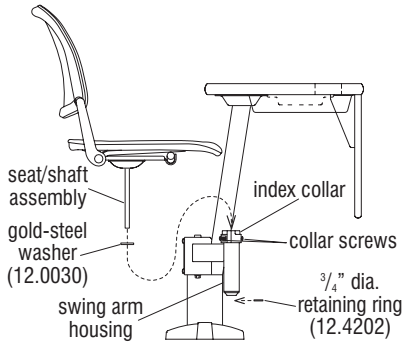
Doni



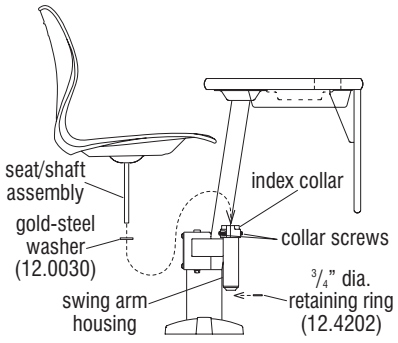
Strive



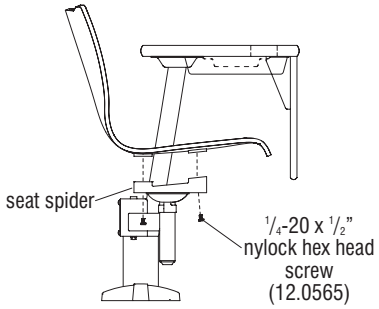
Grazie



Torsion &
Torsion Air



Intellect Wave



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KI
1330 Bellevue Street
P.O. Box 8100
Green Bay, Wisconsin 54308-8100
1-800-424-2432
www.ki.com

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