IAC INDUSTRIES

Multi Task System

Multi-Task System I & II

Assembly Instructions

REV. (042419P65)

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⚠ WARNING:

ALL PARTICLE BOARD USED IN IAC INDUSTRIES PRODUCTS ARE SOURCED ONLY FROM VENDORS THAT ARE CARB ATCM PHASE 2 AND TSCA TITLE VI COMPLIANT WITH VALID

CERTIFICATES. Drilling, Sawing, Sanding or Machining Wood products can expose you to wood dust, a substance known to the state of California to cause cancer. Avoid inhaling dust generated from wood products or use a dust mask to other safeguards for personal protection. This product can expose you to chemicals, including formaldehyde, which is known to the state of California to cause cancer, and methanol, which is known to the state of California to cause birth defects or other reproductive harm. For more information please visit, www.P65WARNINGS.CA.GOV/WOOD. COPY OF VENDOR CERTIFICATE AVAILABLE UPON REQUEST.

MTS-1 FRAME SYSTEM 60 - 96L
P/N1022502-505 30D   P/N 1022562-565 36D

Item	Description	Qty
1	MTS Vertical Channel Sub-Assy	3
2	MTS Tie Beam	1
3	MTS I & II Rear Support Panel	1
4	MTS I & II Side Support Bracket RT	1
5	MTS I & II Center Support Bracket (30"D / 36D)*	1
6	MTS I & II Side Support Bracket LT	1

HARDWARE KIT HWR 748 30D - HWR 746 36D

Item	Description	Qty
A	Bolt 1/4-20 x 3.75 Hex Head	8
B	Washer 1/4-20 Flat	16
C	Nut 5/16 Hex Keps	9
D	Bolt 5/16-18x 1.25 Hex Head	9
E	Washer 5/16 Flat	18
F	Bolt 1/4-20 x 1 Hex Head	8
G	Screw #14AB X .625 PPH SMS Black	8
H	Bracket, MTS Tie Beam Center	1

Step 1:

Attach MTS Side Support Brackets items 4 & 6 and Center Support Bracket item 5 to underside of worksurface using 1/4-20 x 1 item F and 1/4 flat washers item B. Hand tighten hardware enough to hold the brackets firmly in place.

Center Bracket
For 36" D
Bench
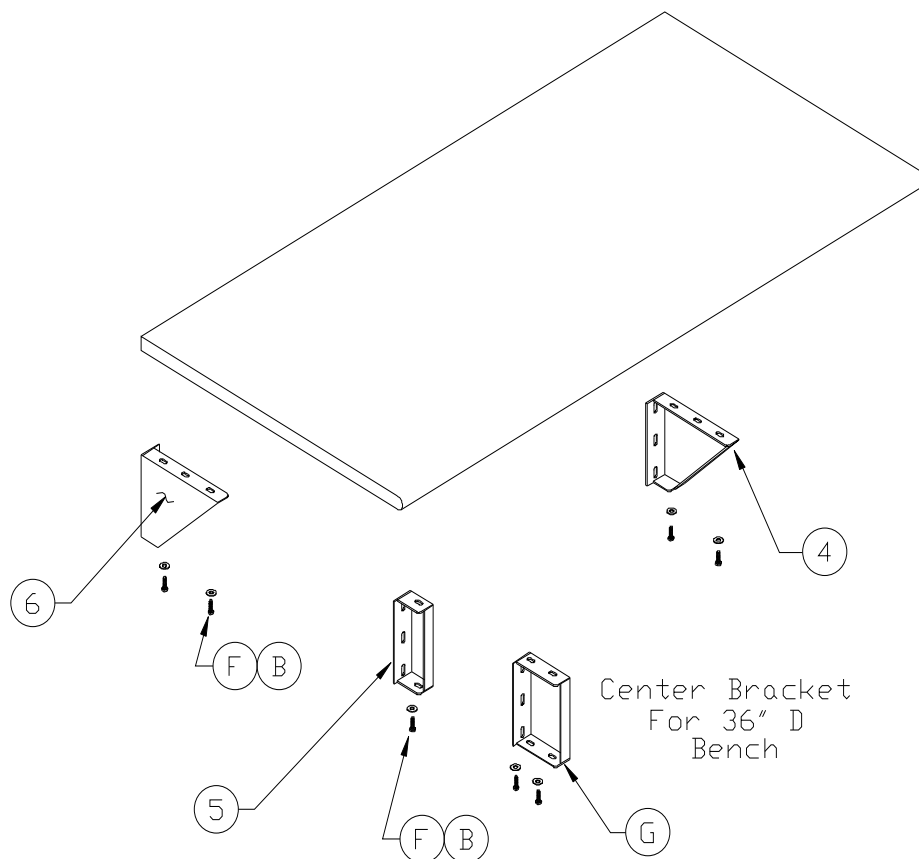
Step 2:
Place the MTS Rear Support Panel item 3 over the back edge of the worksurface and align the three MTS Vertical Channels item 1 over the holes in the back of the rear support panel and attach them using the 5/16 x 1.25 hex head bolts item D, 5/16 flat washers item E and 5/16 hex nuts item C as shown below. This hardware will connect the verticals through the support panel and into the side support brackets. Do not tighten this hardware.
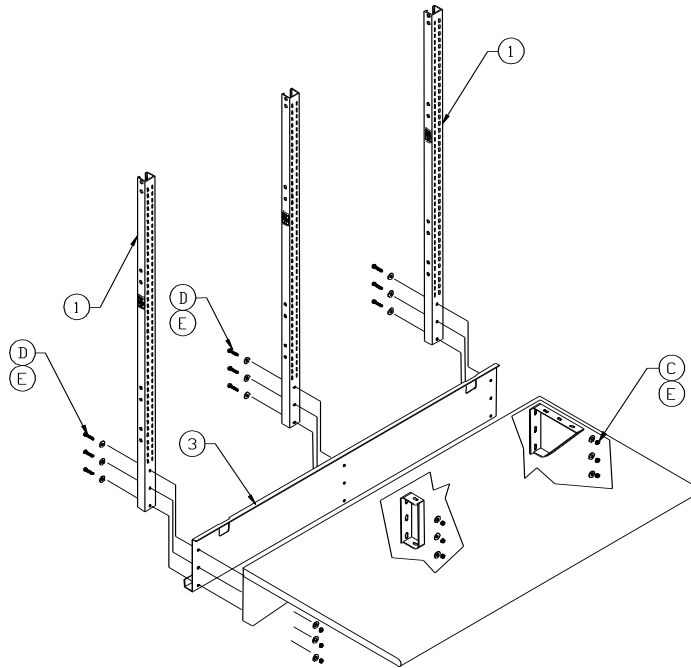
Step 3:
Install the MTS Tie Beam item 2 at the top of the verticals by first installing the center tie beam mounting bracket item H through the slots in the inside of the bottom flange of the tie beam and attaching and fitting it and the tabs on each end of the tie beam into the top of the MTS verticals. Attach the tie beam using the #14AB X .625 PPH screws item G and 1/4 flat washers item B. Tighten the tie beam hardware. Holding the side support brackets tightly against the underside of the worksurface and the rear support panel tighten the bolts into the worksurface. Squaring the outside MTS verticals so they are perpendicular to the worksurface tighten the hardware holding the verticals to the side support brackets. Lastly, square the center MTS vertical tighten the center bracket to the underside of the worksurface and then tighten the hardware holding the vertical to the bracket. Do not over tighten the hardware.
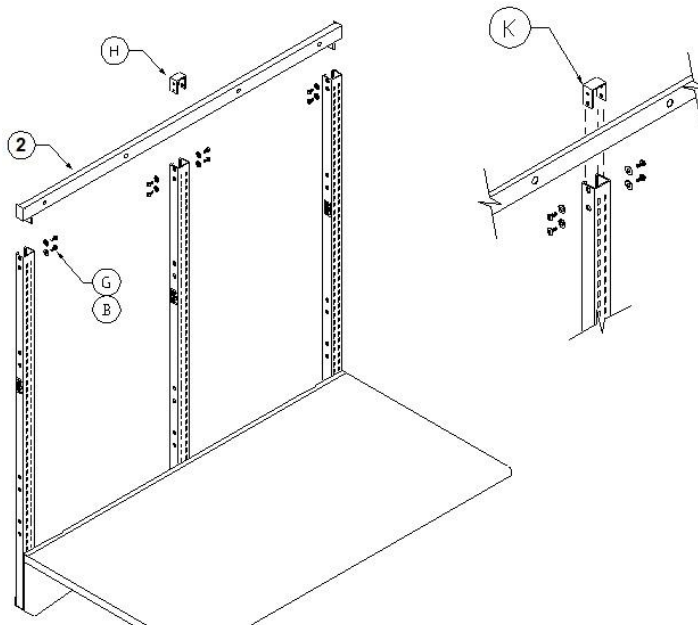
MTS-1 WSM System 60 - 96L
P/N 1022522-525

Item	Description	Qty
1	MTS Vertical CTR WSM	1
2	MTS Vertical RH WSM	1
3	MTS Vertical LH WSM	1
4	MTS-I Tie Beam	1

HARDWARE KIT HWR704

Item	Description	Qty
A	Hex Head Bolt 1/4-20 x 3/4	8
B	Flat Washer 1/4	14
C	Hex Head Bolt 5/16-18 x 2.75	6
D	Hex Nut 5/16	6
E	Flat Washer 5/16	12
F	Hex Head Bolt 1/4-20 x 1	6
G	Spacer .50 x 1.375 x 3.875	2
H	Spacer .50 x 1.375 x 5.75	1
J	Screw #14AB X .625 PPH SMS Black	8
K	Bracket, MTS Tie Beam Center	1

Step 1:

Sliding the flanges (clamps) of each of the MTS verticals over the back edges of the worksurface. Then install them to the worksurface by first using six sets of 5/16 x 2.75 hex head bolts item C, 5/16 flat washers item E and 5/16 hex nuts item D as shown in the below drawing into the BACK holes of the upright flange.

Be sure to add the spacers items G & H between the underside of the worksurface and the flange as the 5/16 x 2.75 hex head bolts item C is feed through the flange and the worksurface as shown in the drawing below. Hand tighten hardware enough to hold the flanges firmly in place.
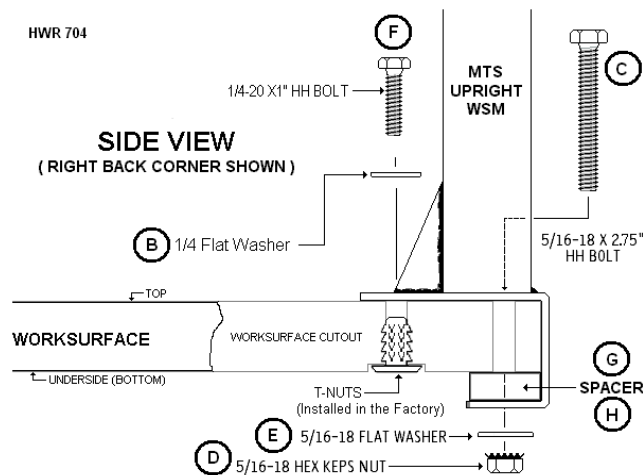

Step 2:

Feed the 1/4-20 x 1 hex head bolts item F and 1/4 flat washers item B through the front holes of the MTS verticals flanges as shown in the above drawing. Do not tighten bolts until entire MTS frame is assembled and squared.

Step 3:

Install the MTS Tie Beam item 4 at the top of the verticals by first installing the center tie beam mounting bracket item K through the slots in the inside of the bottom flange of the tie beam and attaching and fitting it and the tabs on each end of the tie beam into the top of the MTS verticals. Attach the tie beam using the #14AB X .625 PPH screws item J and 1/4 flat washers item B. Squaring the two outside MTS verticals so they are perpendicular to the worksurface tighten the hardware holding the verticals to the worksurface. Lastly, square the center MTS vertical and tighten the hardware that attaches the center vertical flange to the worksurface.
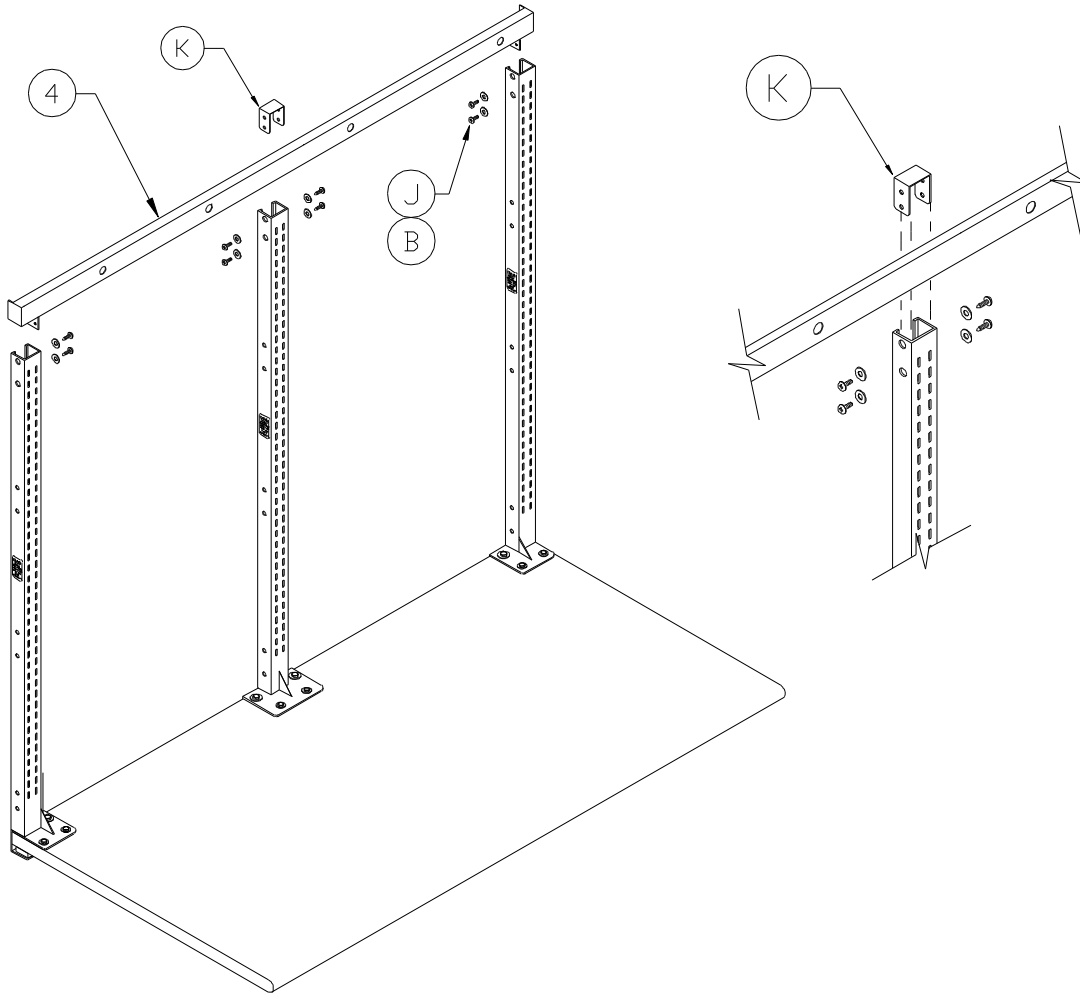
MTS-II FRAME MOUNT 60- 96

P/N 1023102-105 30D   P/N 1023162-165 36D

Item	Description	Qty
1	MTS Vertical	2
2	MTS Tie Beam	1
3	MTS I & II Rear Support Panel	1
4	MTS I & II Side Support Bracket RT	1
5	MTS I & II Center Support Bracket (30"D / 36"D)*	1
6	MTS I & II Side Support Bracket LT	1

HARDWARE KIT HWR 749 30D HWR 745 36D

Item	Description	Qty
A	Hex Head Bolt 1/4-20 x 3/4L	4
B	Flat Washer 1/4	12
C	Hex Keps Nut 5/16	9
D	Hex Head Bolt 5/16-18 x 1.25	9
E	Flat Washer 5/16	18
F	Hex Head Bolt 1/4-20 x 1	8
G	Screw #14AB X .625 PPH SMS Black	8

Step 1:

Attach MTS Side Support Brackets items 4 & 6 and Center Support Bracket item 5 to underside of worksurface using 1/4-20 x 1 item F and 1/4 flat washers item B. Hand tighten hardware enough to hold the brackets firmly in place.

Center Bracket
For 36" D
Bench

Step 2:

Place the MTS Rear Support Panel item 3 over the back edge of the worksurface and align the two MTS Vertical Channels item 1 over the holes in the back of the rear support panel and attach them using the 5/16 x 1.25 hex head bolts item D, 5/16 flat washers item E and 5/16 hex nuts item C as shown. This hardware will connect the verticals through the support panel and into the side support brackets.
Do not tighten this hardware.

Step 3:

Install the MTS Tie Beam item 2 by first fitting it and the tabs on each end of the tie beam into the top of the two MTS verticals. Attach the tie beam using the #14AB X .625 PPH screws item G and 1/4 flat washers item B. Tighten the tie beam hardware. Holding the side support brackets tightly against the underside of the worksurface and the rear support panel tighten the bolts into the worksurface. Squaring the two MTS verticals so they are perpendicular to the worksurface tighten the hardware holding the verticals to the side support brackets. Do not over tighten the hardware.

MTS-II FRAME MOUNT 48"

P/N 1023101 30D   P/N 1023161 36D

Item	Description	Qty
1	MTS Vertical Channel	2
2	MTS Tie Beam Channel	1
3	MTS I & II Rear Support Panel	1
4	MTS I & II Side Support Bracket Side RT	1
5	MTS I & II Side Support Bracket Side LT	1

HARDWARE KIT HWR749

Item	Description	Qty
A	None	
B	Flat Washer 1/4	10
C	Hex Keps Nut 5/16	9
D	Hex Head Bolt 5/16-18 x 1.25	9
E	Flat Washer 5/16	18
F	Hex Head Bolt 1/4-20 x 1	6
G	Screw #14AB X .625 PPH SMS Black	4

Step 1:

Attach MTS Side Support Brackets items 4 & 5 to underside of worksurface using 1/4-20 x 1 item F and 1/4 flat washers item B. Hand tighten hardware enough to hold the brackets firmly in place.

Step 2:
Place the MTS Rear Support Panel item 3 over the back edge of the worksurface and align the two MTS Vertical Channels item 1 over the holes in the back of the rear support panel and attach them using the 5/16 x 1.25 hex head bolts item D, 5/16 flat washers item E and 5/16 hex nuts item C as shown. This hardware will connect the verticals through the support panel and into the side support brackets.
Do not tighten this hardware.

Step 3:
Install the MTS Tie Beam item 2 by first fitting it and the tabs on each end of the tie beam into the top of the two MTS verticals. Attach the tie beam using the #14AB X .625 PPH screws item G and 1/4 flat washers item B. Tighten the tie beam hardware. Holding the side support brackets tightly against the underside of the worksurface and the rear support panel tighten the bolts into the worksurface. Squaring the two MTS verticals so they are perpendicular to the worksurface tighten the hardware holding the verticals to the side support brackets. Do not over tighten the hardware.

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MTS-II WORKSURFACE MOUNT 48L

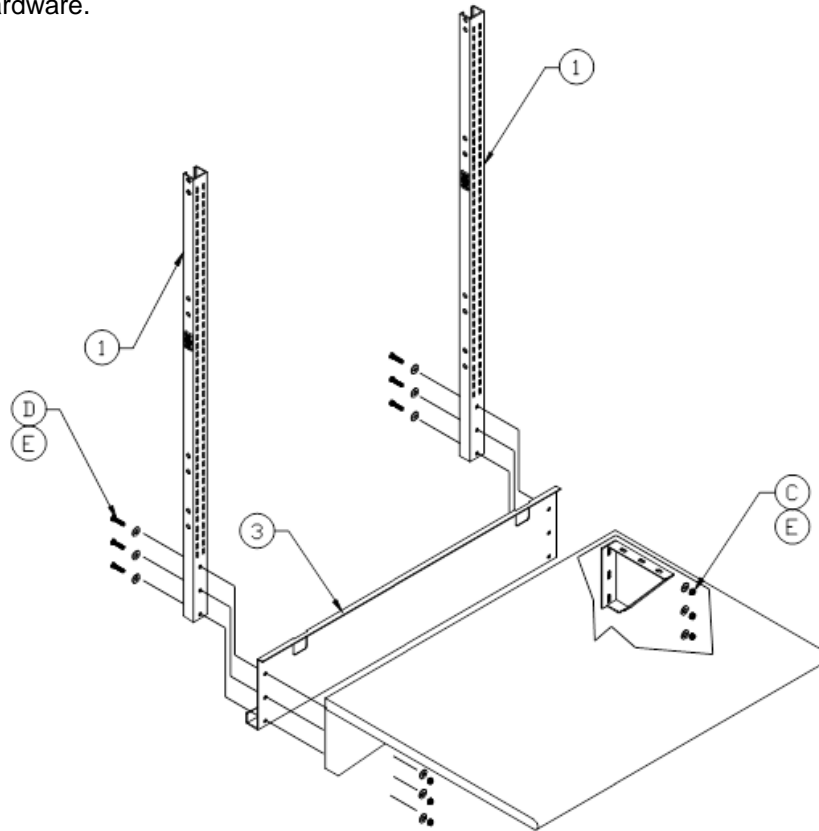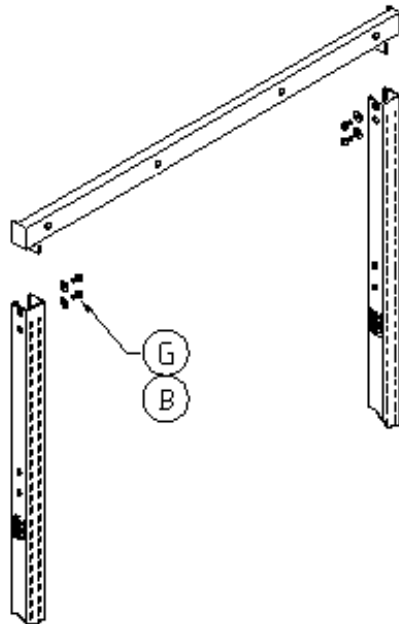| Item	Description	Qty
1	MTS Vertical, RT WSM	1
2	MTS Vertical, LT WSM	1
3	MTS Tie Beam	1

HARDWARE KIT HWR 705

Item	Description	Qty
A	Hex Head Bolt 1/4-20 x 3/4L	4
B	Flat Washer 1/4	8
C	Hex Head Bolt 5/16-18 x 2.75L	4
D	Hex Nut 5/16	8
E	Flat Washer 5/16	8
F	Hex Head Bolt 1/4-20 x 1L	4
G	Spacer .50 x 1.375 x 3.875	2
J	Screw #14AB X .625 PPH SMS Black	8

Step 1:

Sliding the flanges (clamps) of each of the two MTS verticals over the back edges of the worksurface. Install them to the worksurface by first using four sets of 5/16 x 2.75 hex head bolts item C, 5/16 flat washers item E and 5/16 hex nuts item D as shown in the below drawing into the BACK holes of the upright flange.

Be sure to add the spacers items G between the underside of the worksurface and the flange as the 5/16 x 2.75 hex head bolts item C is feed through the flange and the worksurface as shown in the drawing below. Hand tighten hardware enough to hold the flanges firmly in place.

HWR 705

SIDE VIEW
(RIGHT BACK CORNER SHOWN)
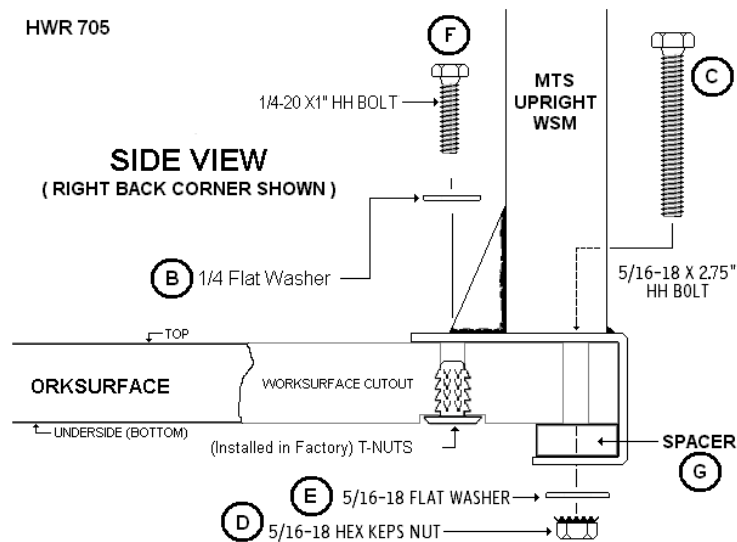
Step 2:

Feed the 1/4-20 x 1 hex head bolts item F and 1/4 flat washers item B through the front holes of the two MTS verticals flanges as shown in the above drawing. Do not tighten bolts until entire MTS frame is assembled and squared.

Step 3:

Install the MTS Tie Beam item 4 by first fitting it and the tabs on each end of the tie beam into the top of the MTS verticals. Attach the tie beam using the #14AB X .625 PPH screws item J and 1/4 flat washers item B. Squaring the two MTS verticals so they are perpendicular to the worksurface tighten the hardware holding the two verticals to the worksurface.
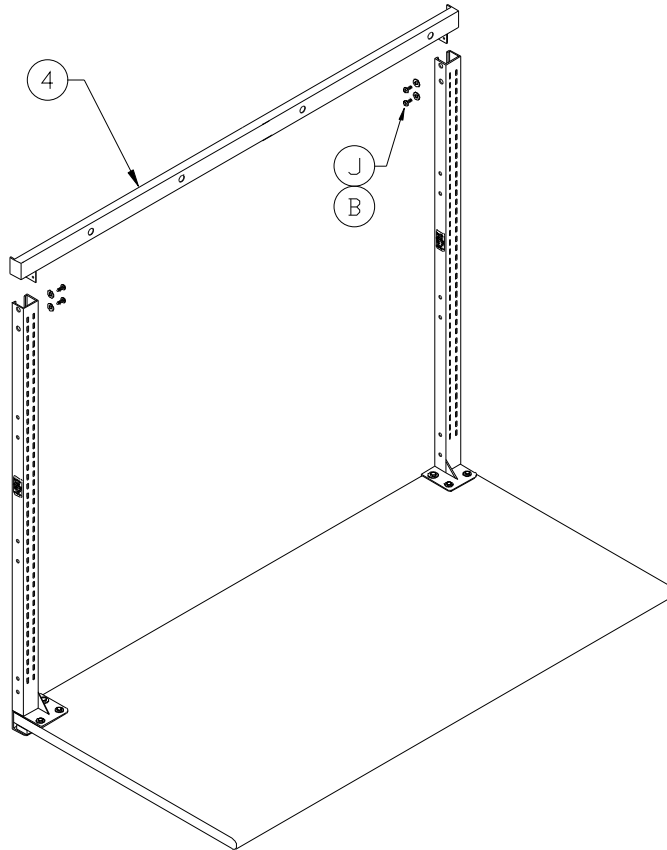
MTS FRAME & WORKSURFACE MOUNTED CI

NOTE: If you are installing this MTS Worksurface Mount Frame onto an ESD worksurface be sure the MTS verticals do not cover the worksurface ground studs. If they do cover the ground studs see page 14 for instructions on how to relocate the ground studs. See page 13 for Additional Drilling Instructions on ESD worksurfaces.

Step 1:
Using a protective work surface, place your tie beam and the two verticals on the work surface and install the tie beam to the two verticals using #14AB X .625 PPH screws and 1/4 flat washers. Do not over tighten hardware.

Step 2:
With no less two persons lift and slide the flanges (clamps) of the MTS verticals over the back edges of the work surface or place the base end of the two verticals on top of the Instrument shelf making sure they are flash with the back and sides of the worksurface.
Squaring the two MTS verticals so they are perpendicular to the worksurface, mark the holes to be drilled on top of the worksurface or instrument shelf.
(**Note:** Drill only the holes needed)

FOR HARDWARE KIT 700:
Install two sets of 5/16 x 2.75 hex head bolts, 5/16 flat washers and 5/16 hex keps nuts as shown in the center drawing to only the rear holes of the vertical flanges. Be sure to add the spacers between the bottom of the worksurface and the flanges as the 5/16 x 2.75 hex head bolts is feed through the flanges and worksurface as shown in the drawing.
Install the #14hex washer bolts and 1/4 flat washers into the front holes of the MTS verticals as shown in the drawing.
Do not tighten bolts until entire MTS frame is assembled and squared. Adjust the verticals as needed to make them perpendicular to the worksurface tighten the hardware holding the two verticals to the worksurface.


FOR HARDWARE KIT 738:
Install the 5/16 x 2L hex head bolts, 5/16 flat washers and 5/16 hex keps nuts as shown in the bottom right drawing into all eight of the holes drilled.
Do not tighten bolts until entire MTS frame is assembled and squared. Adjust the verticals as needed to make them perpendicular to the worksurface tighten the hardware holding the two verticals to the worksurface.
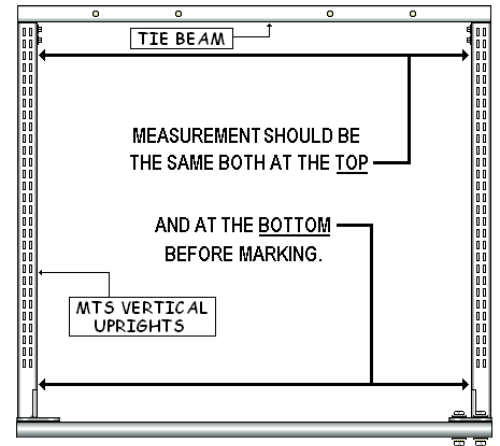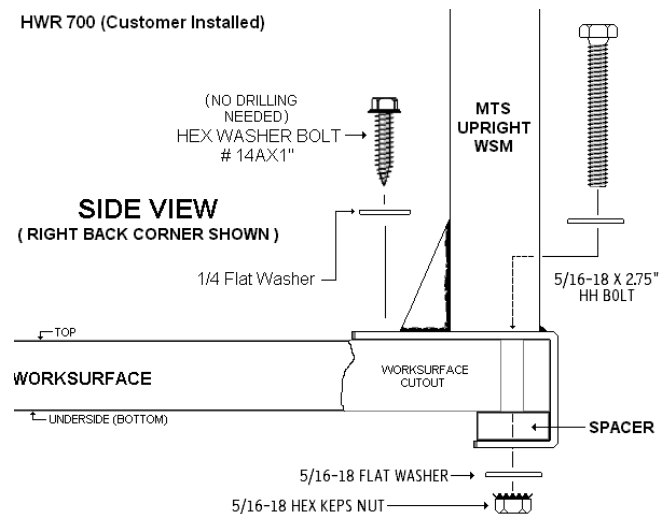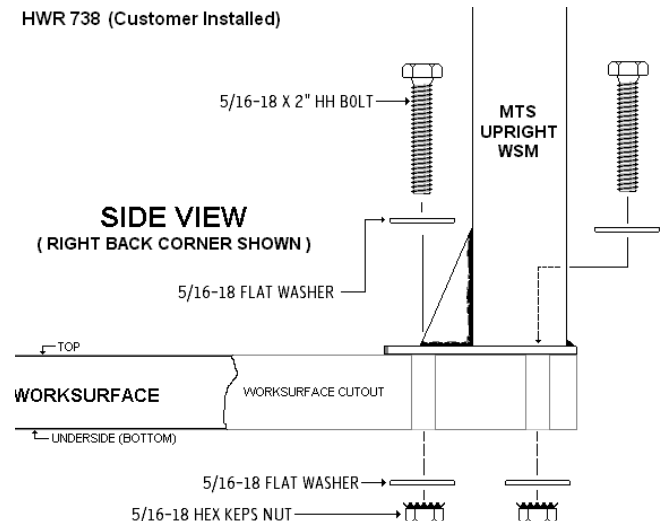
ADDITIONAL DRILLING INSTRUCTIONS FOR ESD WORKSURFACES

Before mounting your MTS posts to an ESD worksurface, countersink **all** holes for your MTS posts on the topside of the worksurface only.

This will insure that any carbon from the worksurface that may have been lifted by the drill bit when drilling the holes for the posts is removed and doesn't interfere with any part of the MTS post.

Drilling tip: countersink your holes with little to no pressure at the start of your drilling, this will insure that the countersink bit makes an even countersink.
(Note: do not countersink to deep. You only need to go down approximately 1/16)

PLEASE NOTE:
After marking and drilling holes for MTS Post, Countersink holes on your worksurface from the top only before mounting MTS Posts.

WORKSURFACE

Drilled MTS Post mounting Holes

(Rear Side view shown)

Countersink Drill bit

PLEASE NOTE:
Countersink " All " Holes ....
(Top side only) before mounting MTS Posts.

WORKSURFACE

(Rear side view shown)
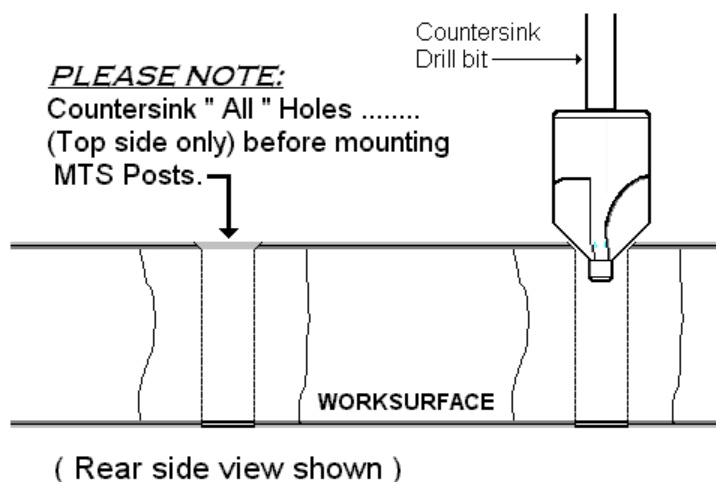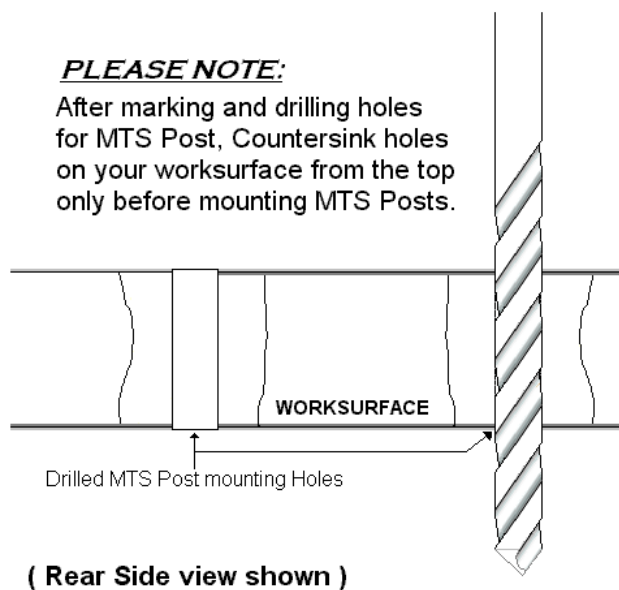
Ground Stud Relocation Instructions

TOOLS REQUIRED:
Drill, 1/4" drill bit, 3/4" counter bore, a 7/16" nut driver or a 7/16" socket wrench.

Step 1:
We have suggested a location for the relocation of the ground stud in View 1. If you choose to relocate as shown below, go to step #2. If you pref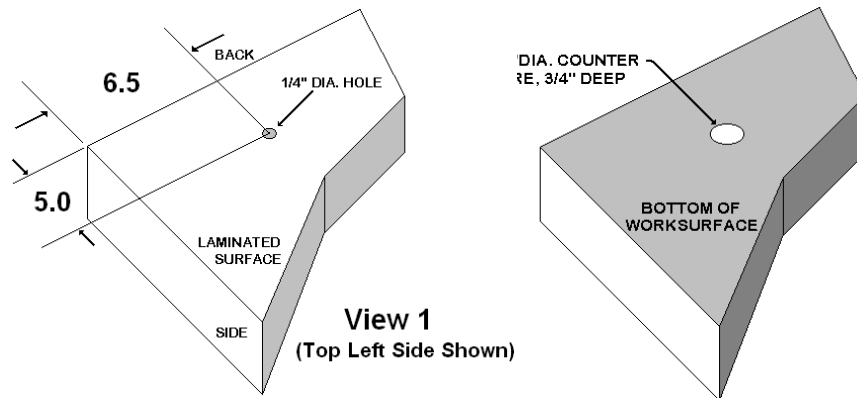er a different location, make sure that it will not interfere with any beams or accessories you might want to add in the future. Once you have decided on a new location, go to step #2.

Step 2:
The worksurface should have the Laminate facing up for the first drilling location. You will need to use a 1/4" drill bit and drill a hole completely through the worksurface.

Step 3:
Turn your worksurface over for the next drilling location. You will need the 3/4" counter bore for this step. Using your 3/4" counter bore, drill 3/4 of an inch down into the underside of the bottom of the worksurface.

Step 4:
With the worksurface still upside down insert the ground stud through the top of the worksurface, insert the 1/4 flat washer and the 1/4-20 nut into the bottom 3/4 hole on the worksurface. Tighten the ground stud until it is level with the laminate being very careful not to over tighten the nut which will cause the laminate to crack and not create a connection to the conductive layer of the ESD laminate. This may lead to the ESD top not being grounded correctly.
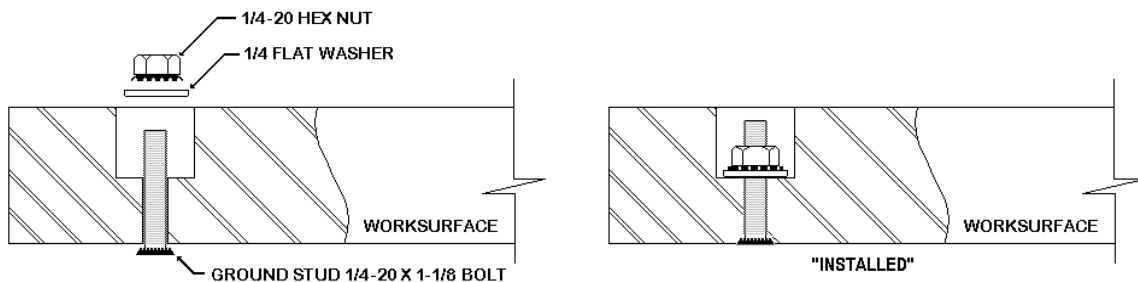
Step 5:
The head of the ground stud should be almost even with the surface of the laminate. Test to see if the grounding stud tests at an acceptable level, if the test is not satisfactory it may need to be tighten a little more again, being careful not to over tighten the grounding stud, and then re-tested.

MTS – II VERT FRAME ISM 48 - 72L

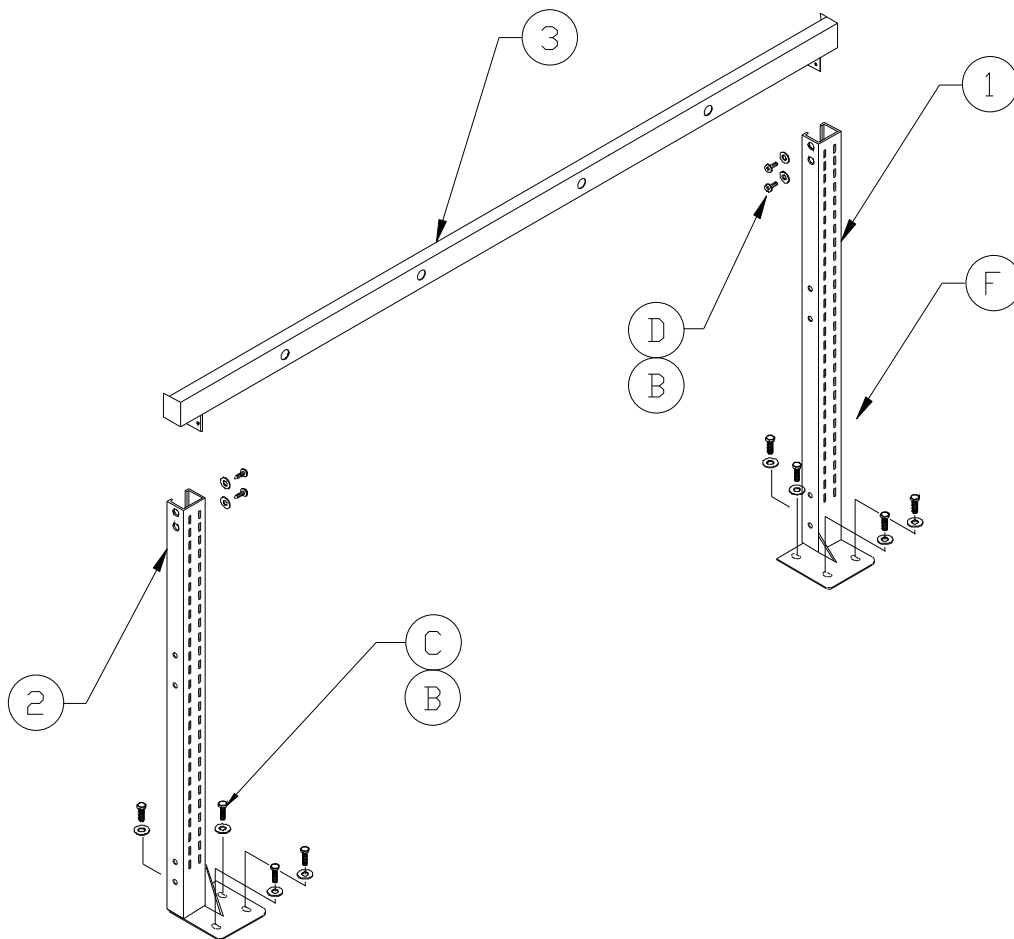| Item	Description	Qty
1	MTS Vertical, ISM RT	1
2	MTS Vertical, ISM LT	1
3	MTS Tie Beam	1

HARDWARE KIT HWR 735

Item	Description	Qty
A	Hex Head Bolt 1/4-20 x 3/4L	4
B	Flat Washer 1/4	12
C	Hex Head Bolt 1/4-20 x 1	8
D	Screw #14AB X .625 PPH SMS Black	8

Step 1:

Install both the right vertical item 1 and the left vertical item 2 on top of each rear end of the instrument shelf and attach them by feeding eight sets of 1/4-20 x 1 hex head bolts item C and 1/4 flat washers item B through the holes of the two MTS verticals flanges as shown in the below drawing. Do not tighten bolts until entire MTS frame is assembled and squared.

Step 2:

Install the MTS Tie Beam item 3 by first fitting it and the tabs on each end of the tie beam into the top of the right and left verticals. Attach the tie beam using the #14AB X .625 PPH screws item D and 1/4 flat washers item B. Squaring the two verticals so they are perpendicular to the worksurface. Tighten all the hardware holding the two verticals to the worksurface.

MTS – II VERT FRAME ISM 96L

Item	Description	Qty
1	MTS Vertical, ISM RT	1
2	MTS Vertical, ISM LT	1
3	MTS Vertical, ISM Center	1
4	MTS Tie Beam	1

HARDWARE KIT HWR 747

Item	Description	Qty
A	Hex Head Bolt 1/4-20 x 3/4L	8
B	Flat Washer 1/4	18
C	Hex Head Bolt 5/16-18 x 2.00L	2
D	Hex Nut 5/16	2
E	Flat Washer 5/16	4
F	Hex Head Bolt 1/4-20 x 1L	10
G	Screw #14AB X .625 PPH SMS Black	8
H	Bracket, MTS Tie Beam Center	1

Step 1:

Install both the right vertical item 1 and the left vertical item 2 on top of each rear end of the instrument shelf and attach them by feeding eight sets of 1/4-20 x 1 hex head bolts item F and 1/4 flat washers item B through the holes of the two MTS verticals flanges as shown in the below drawing. Do not tighten bolts until entire MTS frame is assembled and squared.
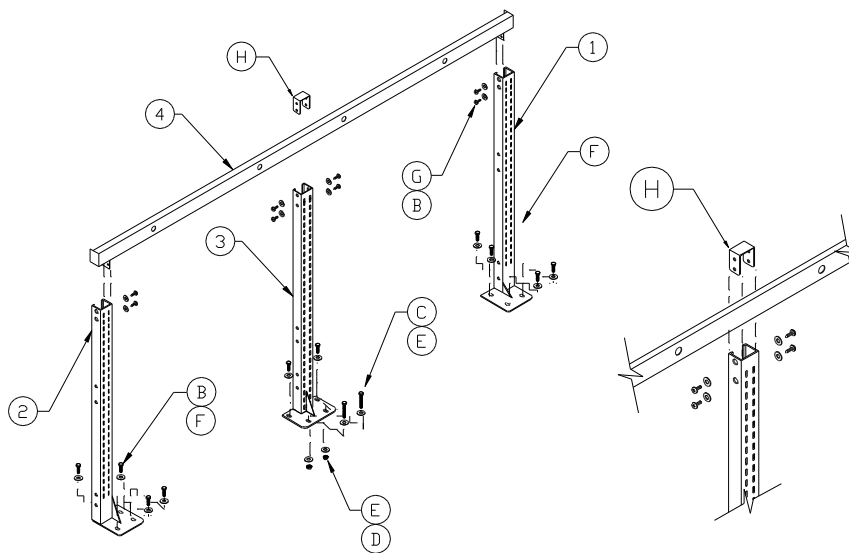
Step 2:

Install the center vertical item 3 on top of rear center of the instrument shelf and attach it by feeding two sets of 1/4-20 x 1 hex head bolts item F and 1/4 flat washers item B through the rear two holes of the center verticals flange and feeding two sets of 5/16-18 x 2.00 item C and 5/16 Flat washers item E and secure them with two sets of 5/16 Flat Washer item E and 5/16 Hex Nut item D as shown in the below drawing. Do not tighten bolts until entire MTS frame is assembled and squared.

Step 3:

Install the MTS Tie Beam item 4 at the top of the verticals by first installing the center tie beam mounting bracket item H through the slots in the inside of the bottom flange of the tie beam and attaching and fitting it and the tabs on each end of the tie beam into the top of the MTS verticals. Attach the tie beam using the #14AB X .625 PPH screws item G and 1/4 flat washers item B. Squaring the two outside MTS verticals so they are perpendicular to the shelf tighten the hardware holding the verticals to the shelf worksurface. Lastly, square the center MTS vertical and tighten the hardware that attaches the center Vertical flange to the shelf worksurface.

MTS- I & II UTILITY SHELVES

Item	Description	Qty
1	STD Shelf / ESD Shelf **	1

HARDWARE KIT HWR708

Item	Description	Qty
2	Clip System Bracket-Left	1
3	Clip System Bracket-Right	1
4	Tri-Wheel Knob 1/4-20	2
5	Flat Washer 1/4	4
6	Plastic Washer	4
7	Carriage Bolt 1/4-20x1/2	4
8	Acorn Nut 1/4-20	2

**ESD Laminate with Snaps & ESD KIT # HWR115
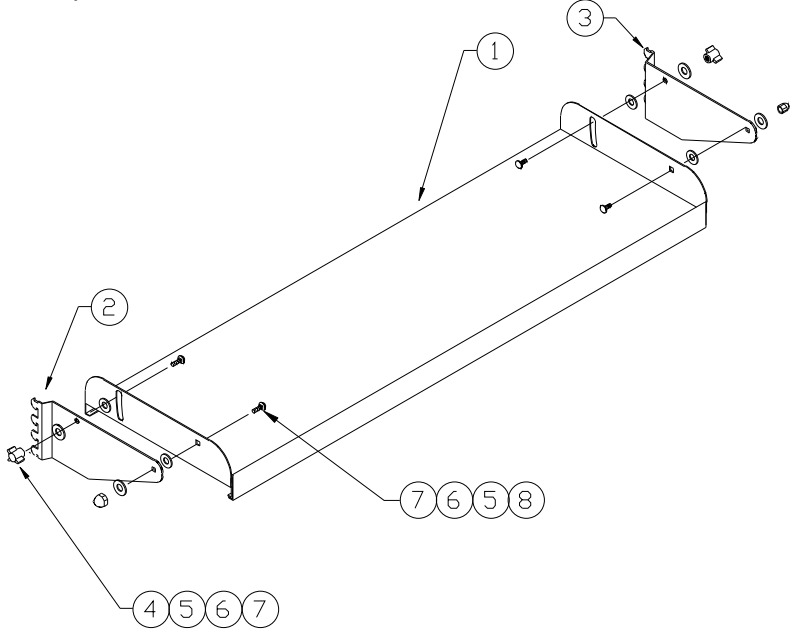
Note: Item #6 plastic washer goes between shelf body and shelf bracket.
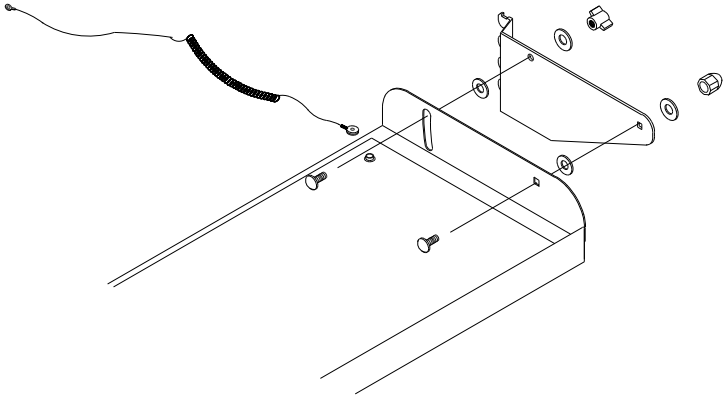
Note: See page 37 for ESD information. HWR 115 is used to install grounding snap to shelf and the other end connected to the same side as the worksurface grounding.

MTS-I & -II PAN SHELVES

Item	Description	Qty
1	Shelf	1

HARDWARE KIT HWR708

Item	Description	Qty
2	Clip System Bracket-Right	1
3	Clip System Bracket-Left	1
4	Tri-Wheel Knob 1/4-20	2
5	Flat Washer 1/4	4
6	Plastic Washer	4
7	Carriage Bolt 1/4-20x1/2L	4
8	Acorn Nut 1/4-20	2
9	Rubber V-Mat (Optional)	1

Covered Shelf Only

Item	Description	Qty
10	Pan Shelf	1
11	Hinge	2
12	Lock	1
13	Drawer Handle	1

Note: See page 37 for ESD information. HWR 115 is used to install grounding snap to shelf and the other end connected to the same side as the worksurface grounding.
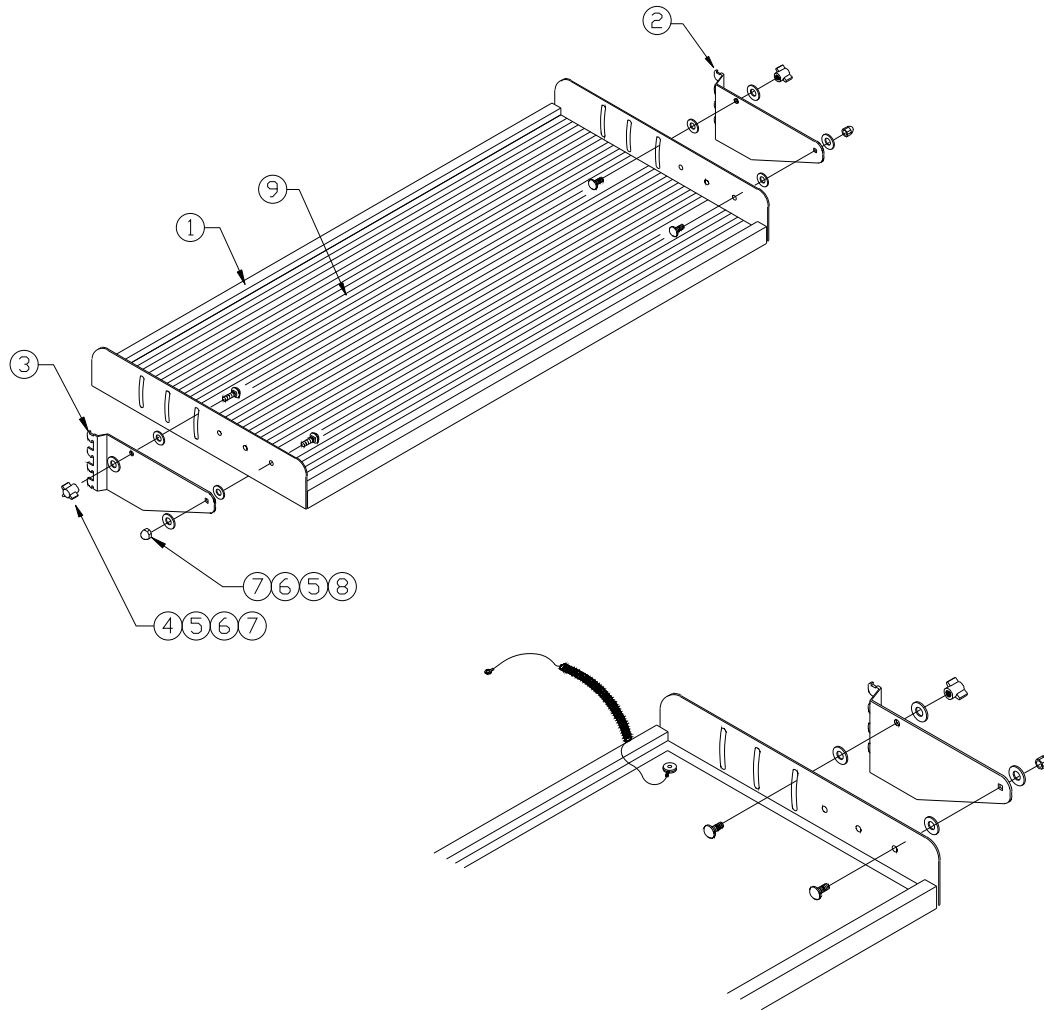
MTS II WIRE SHELVES

Item	Description	Qty
1	Wire Shelf	1

HARDWARE KIT HWR736

Item	Description	Qty
A	Clip System Bracket-Left	1
B	Clip System Bracket-Right	1
C	Tri-Wheel Knob 1/4-20	2
D	Flat Washer 1/4	8
E	Plastic Washer	4
F	Carriage Bolt 1/4-20 x 1/2L	4
G	Acorn Nut 1/4-20	2
H	Unistrut Nut 1/4-20 w spring	4

Item	Description	Qty
J	Hex Head Bolt 1/4-20 x 3/4	4
K	Wire Shelf Bracket Right	1
L	Wire Shelf Bracket Left	1
M	Wire Shelf Tip	4
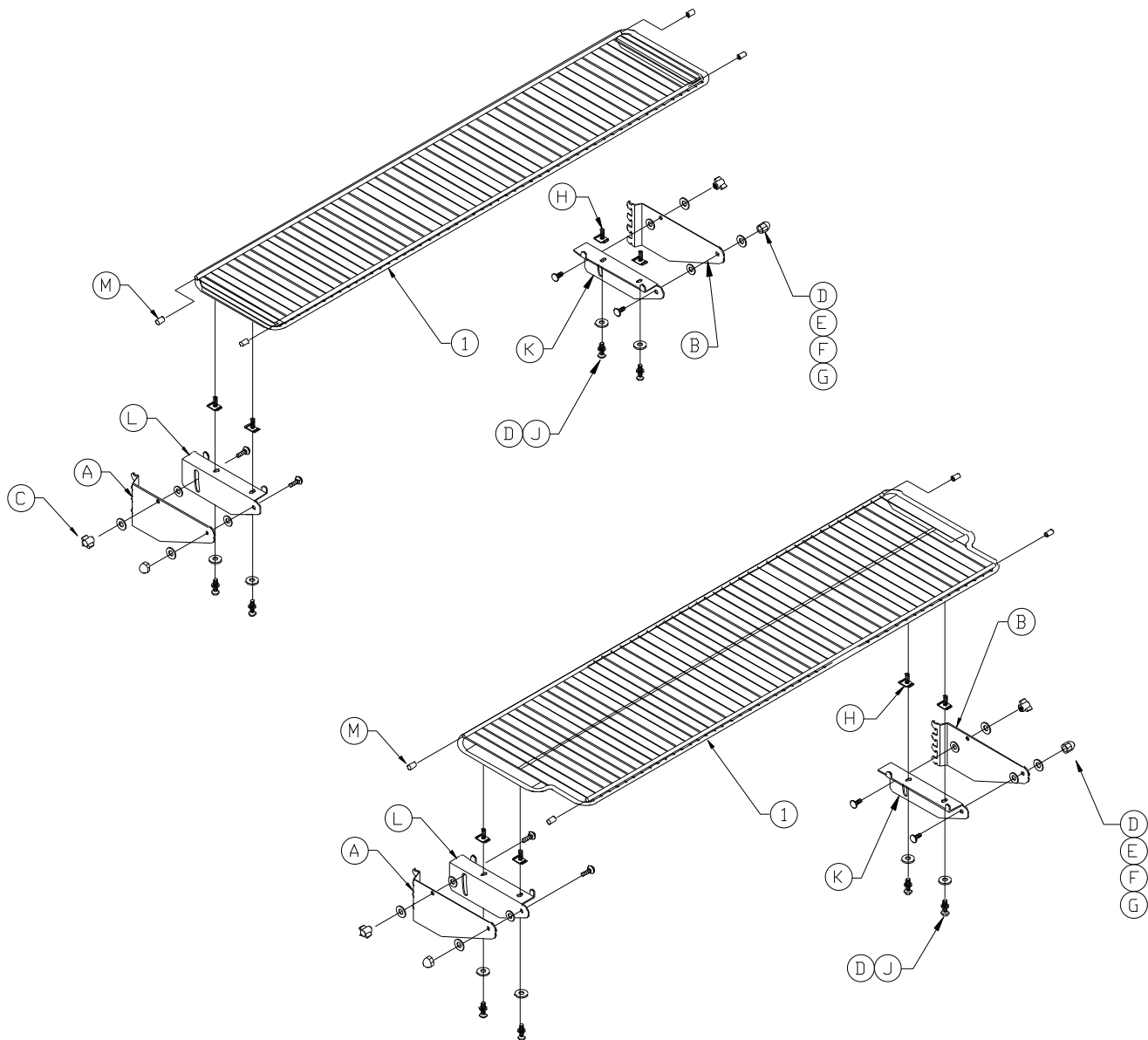
MTS DOCUMENT HOLDERS

Item	Description	Qty
1	Mounting Plate Sub-Assy	1
2	Arm Extension Sub-Assy	1
3	Portrait / Landscape Pan	1
4	Adapter Mounting Sub-Assy	1

HARDWARE KIT HWR712

Item	Description	Qty
A	Bolt, 1/4-20 X 3/4 Hex Head	2
B	Flat Washer, 1/4	5
C	Nylon Washer, 5/16 X 1 X 1.25	2
D	Tri-Wheel Knob 1/4-20	2
E	Split Washer, 1/4	2
F	Washer Neoprene .375ID X .8750D	1
G	Knob, Tri Wheel 1/4-20 Stud	1
H	Nut, 1/4-20 Acorn	1
I	Screw, 1/4-20 X 1.50 PPH	1
J	MTS Versa Bracket	1

(TOP VIEW)

MTS VERT. UP-RIGHT

MTS VERSA BRACKET

MTS/ARM PLATE

1/4-20 X 3/4" HEX HEAD BOLT

1/4 FLAT WASHER

5/16 X 1"X.125"
PLASTIC WASHER
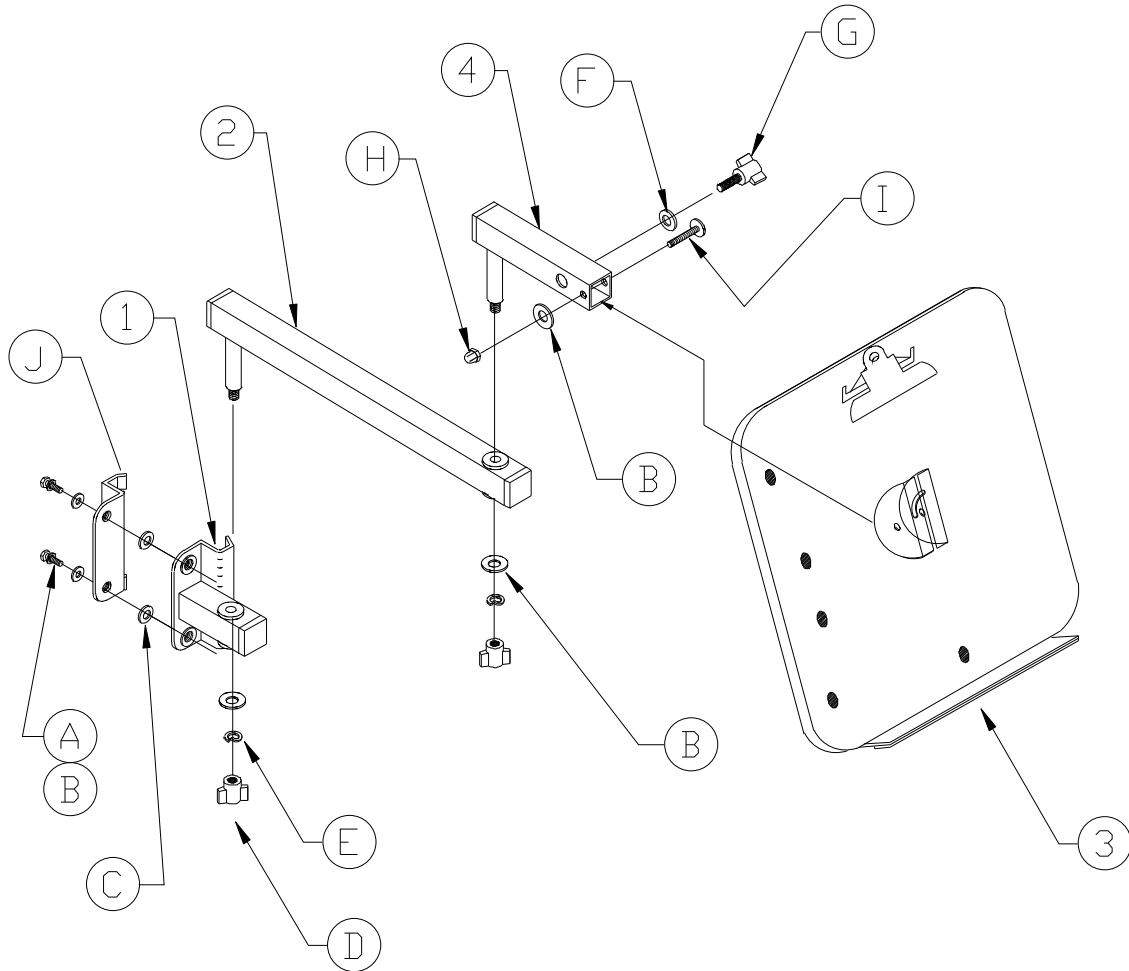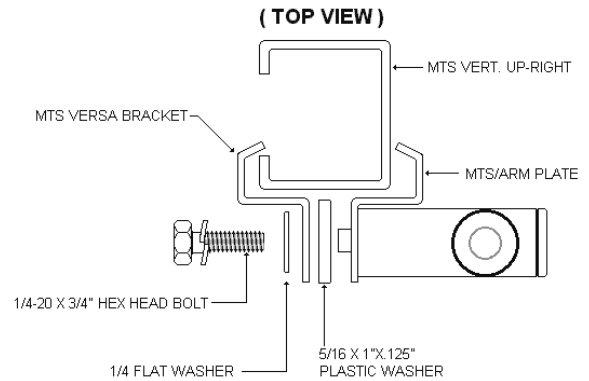
MTS MULTI-RAIL BIN HOLDER

Item	Description	Qty
1	Bin Holder Panel	1
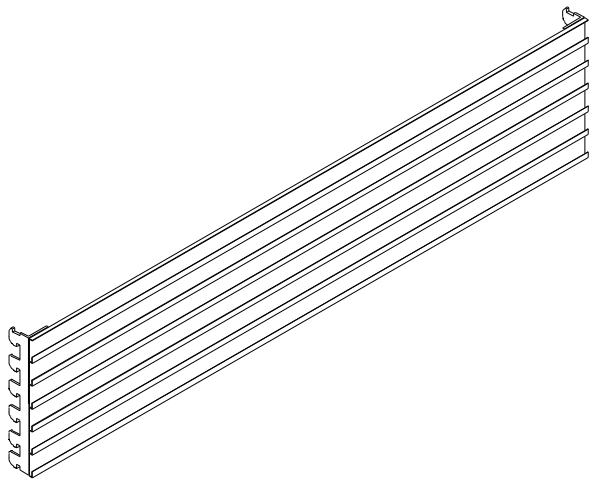
MTS MULTI RAIL BIN HOLDER ESD

Item	Description	Qty
1	ESD Bin Holder	1

HARDWARE KIT HWR724

Item	Description	Qty
2	Cord, Coiled Ground Lug-Lug	1
3	Nut 8-32 Hex	1
4	Screw 8-32x1/2 PHP	1
5	Flat Washer #10	2
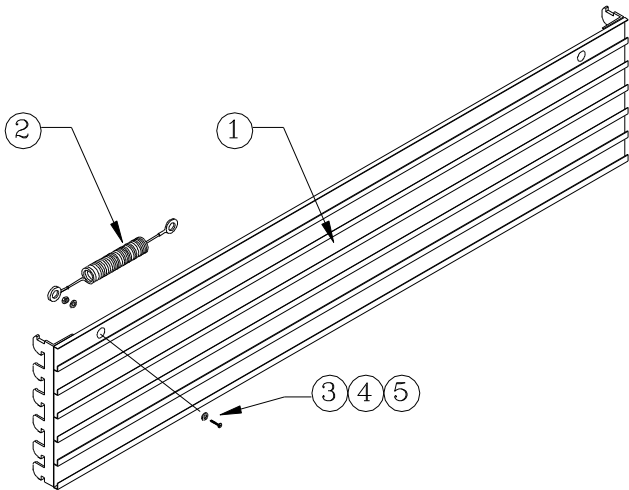
See page 37 for ESD information .One end installs to the Bin Holder and the other end connected to the same side as the worksurface grounding.

MTS CRT PLATFORM 25LB

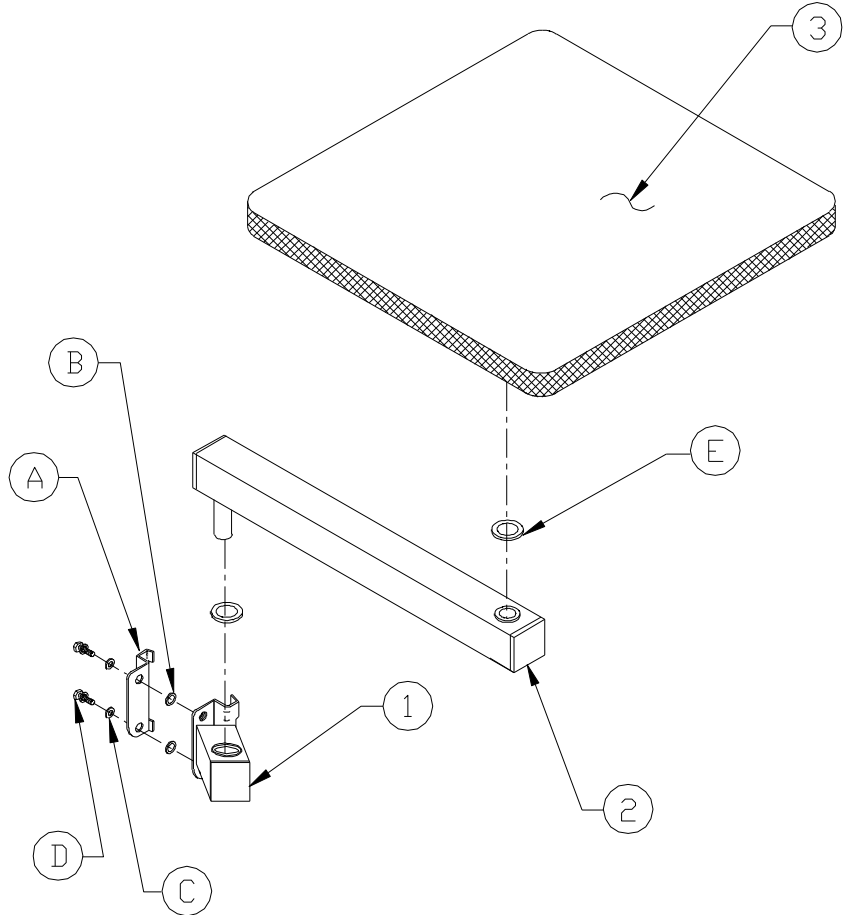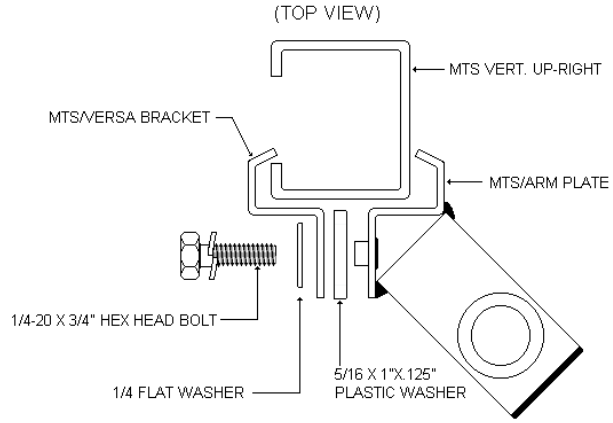| Item	Description	Qty
1	MTS Mounting Plate Sub-Assy	1
2	Arm Assembly 15.75	1
3	Monitor Platform 25lb	1

HARDWARE KIT HWR713

Item	Description	Qty
A	Versa Bracket	1
D	Bolt, 1/4-20X3/4 HH	2
C	Flat Washer 1/4	2
E	Plastic Washer 3/4x1.25	2
B	Washer 5/16x1x1.25	2

(TOP VIEW)

MTS VERT. UP-RIGHT

MTS/VERSA BRACKET

MTS/ARM PLATE

1/4-20 X 3/4" HEX HEAD BOLT

1/4 FLAT WASHER

5/16 X 1"X.125" PLASTIC WASHER

MTS TOOL CADDY WITH SWING ARM WIRE FRAME BIN HOLDER

Item	Description	Qty
1	Tool Caddy Wire Parts Bin Rack	1
2	12 inch Arm Assembly	2
3	Mounting Plate Sub-Assy	1

HARDWARE KIT HWR715 Wire Frame Bin Holder

Item	Description	Qty
4	MTS, Versa Bracket	1
5	Bolt, 1/4-20 X 3/4 Hex Head	2
6	Flat Washer, 1/4	2
7	Plastic Washer .75x1.125	1
10	Rubber Tips	4

HARDWARE KIT HWR716 Tool Caddy

Item	Description	Qty
8	Pin Assembly	1
9	Nylon Washer, 5/16 X 1 X 1.125	1

(TOP VIEW)

MTS VERT. UP-RIGHT
MTS/VERSA BRACKET
MTS/ARM PLATE
1/4-20 X 3/4" HEX HEAD BOLT
1/4 FLAT WASHER
5/16 X 1"X.125" PLASTIC WASHER

25
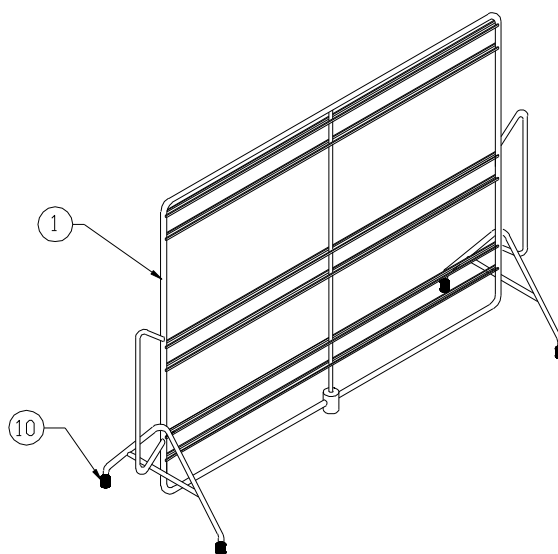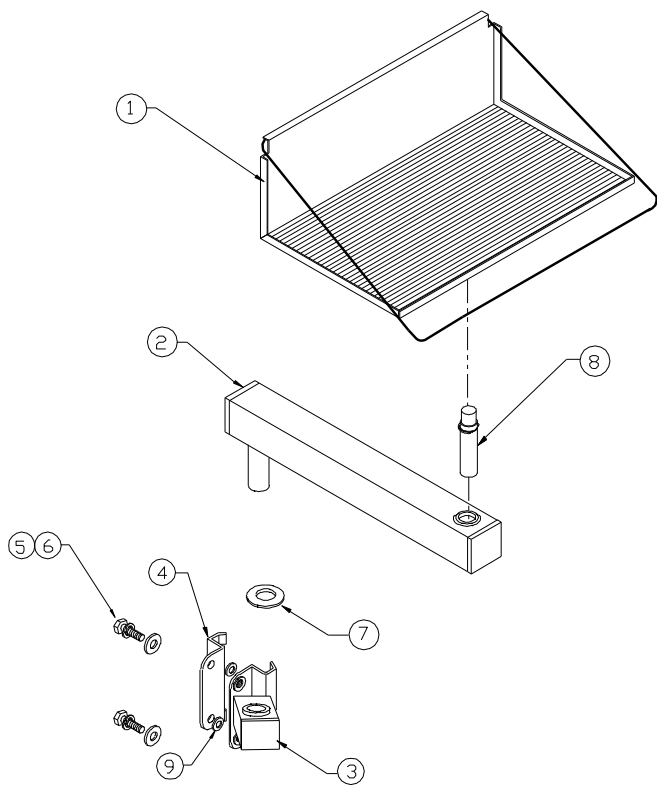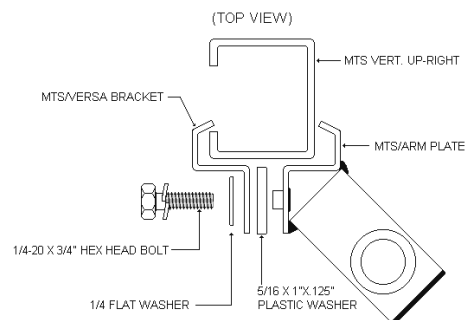
MTS ECONO LIGHT ASSEMBLY

Item	Description	Qty
1	Econo Light Channel	1
3	Support Channel	2
13	LT Light Fixture	1

HARDWARE KIT HWR730

Item	Description	Qty
2	End Stop, Tool Rail	4
4	Clip System Bracket-Right	1
5	Clip System Bracket-Left	1
7	Flat Washer 1/4	12
8	Nut 1/4-20 Hex	2
9	Unistrut Nut 1/4-20	8
10	Bolt 1/4-20x1 HH	6
11	Bolt 1/4-20x3/4 HH	4

Item # 3 →

Note: Item # 2 removed to show Hardware

← Item # 9

← Item # 2

Item # 7 & 10

Item # 1

(FRONT VIEW SHOWN)
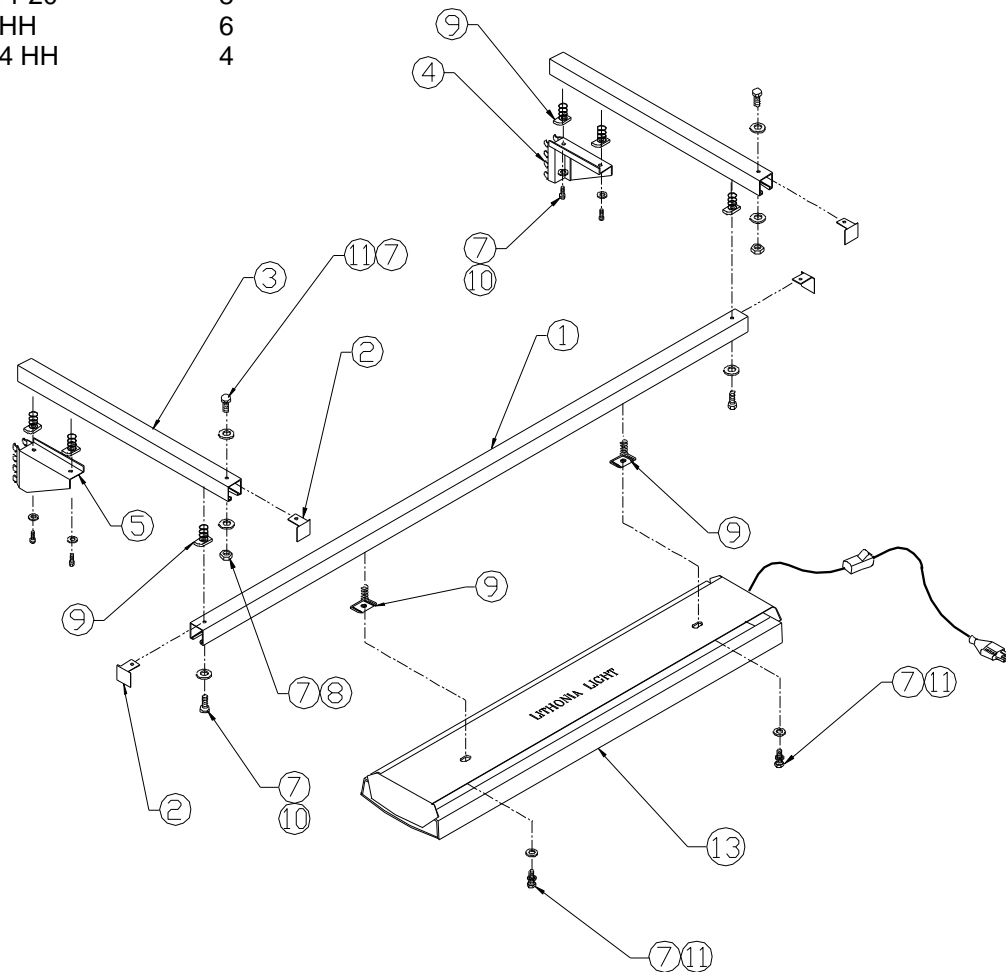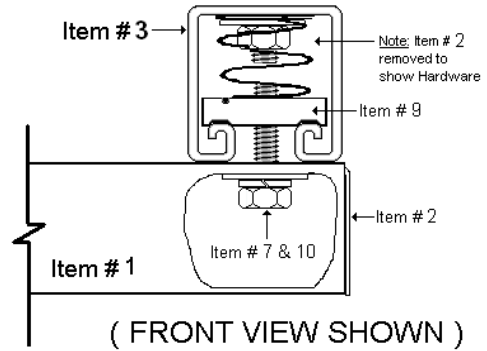
\Note: The light fixture diffuser and ballast cover must be removed to expose the mounting slots in the light fixture housing. This must be done with extreme caution so that neither part is broken nor that wires are not exposed when the ballast cover is reinstalled.
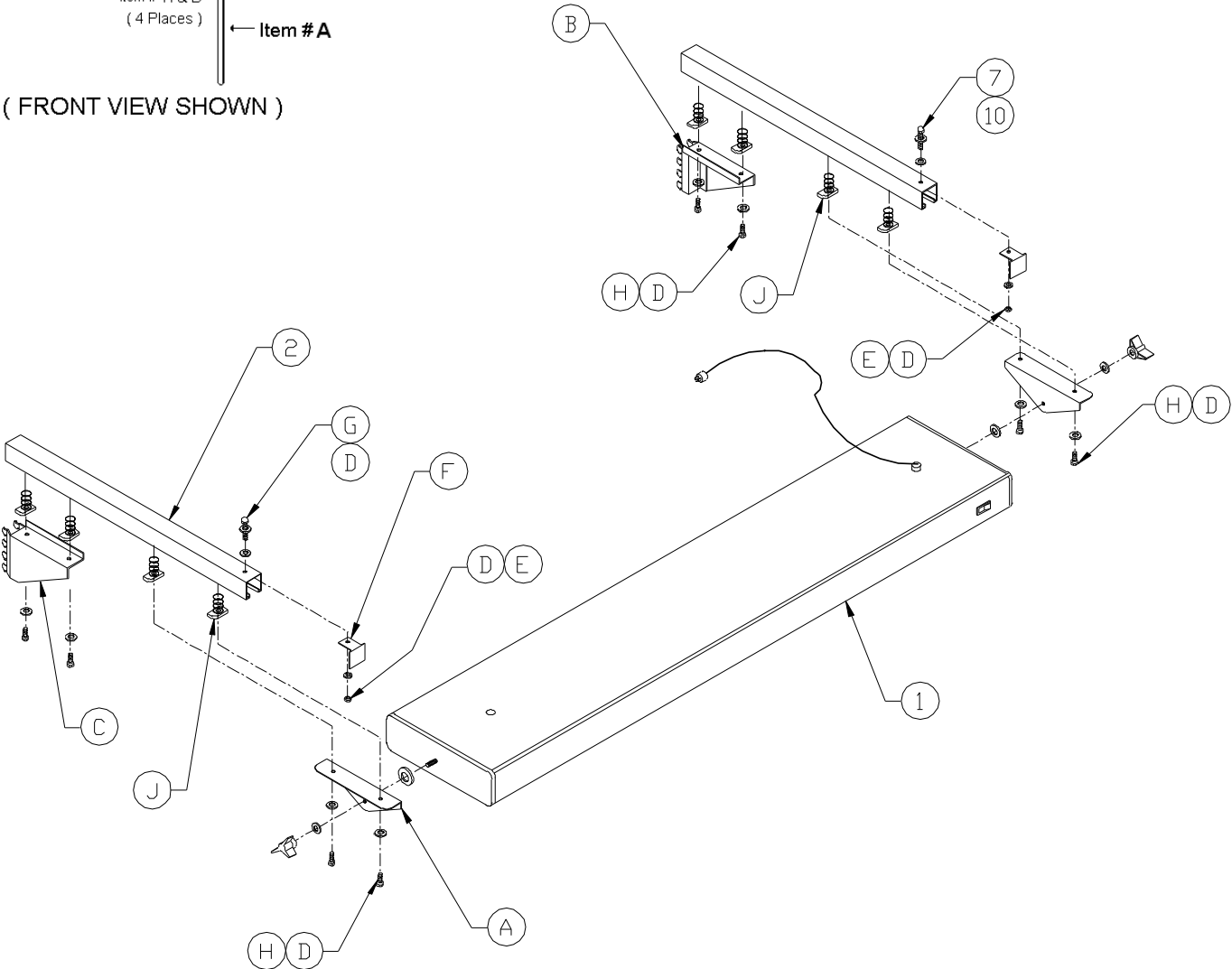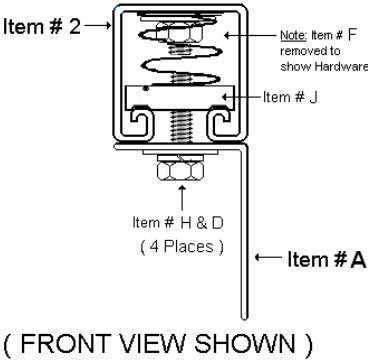
T8 light tubes are recommended like the F32 T8 light tubes. Install the light tube into the light tube holders located at each end of the light fixture by inserting one of the two pins on each end of the light tube into the channel of light tube holders. Insert the second pin of the light tube in the channel of the light tube holders and slowly turn the light tube into the channels. Rotate the light tube into the light tube holders, being sure both pins of the light tube are in the light tube holder channels, until the light tube locks into place. Before plugging in and turning the light fixture on double check that all four pins of each light tube is in the light tube holders correctly

MTS OVERHEAD D4 LIGHT ASSEMBLY

Item	Description	Qty
1	D4 Light Assembly	1
2	Support Channel	2

HARDWARE KIT HWR727

Item	Description	Qty
A	MTS Light Mounting Bracket	2
B	Clip System New Bracket-Right	2
C	Clip System New Bracket-Left	2
D	Flat Washer 1/4-20	12
E	Hex Nut 1/4-20	2
F	End Stop, Support Channel	2

Item	Description	Qty
G	Hex Head Bolt 1/4-20x3/4L	2
H	Hex Head Bolt 1/4-20x1L	8
J	Unistrut Spring Nut 1/4-20	8
K	Diffuser Retainers STD. 2"	2

Item # 2 →

Note: Item # F removed to show Hardware

Item # J

Item # H & D (4 Places)

← Item # A

(FRONT VIEW SHOWN)

MTS OVERHEAD LIGHTS

Step 1:
Carefully lay the light housing upside down on a padded surface. Remove the tri-wheel and flat washer from the threaded stems at each end of the light housing. Leave the plastic washer on the threaded stems. Remove the light fixture diffusers from the light fixture sub-assembly and store in a safe place until they are needed. If you have the correct light tubes you can install them at this time. See Step 5 for light tube installation.

Step 2:
IAC recommends that two assembly personnel do the installation of the light fixture sub-assembly into the light brackets. Flip the light fixture sub-assembly over and lift it into position between the light fixture brackets. The on/off switch should be on the front right hand side. Install the threaded stem of one end of the light fixture sub-assembly into the hole in the light bracket and attach it using the 1/4 flat washer and tri knob that were removed in Step 1. Install the other end of the light fixture sub-assembly by gently pulling the light bracket open enough to place the threaded stem in the hole of the other light bracket. Attach it using the 1/4 flat washer and tri-knob.

Step 3:
When the light tubes are installed, install the light diffuser by sliding it's back edge into the opening at the back of the light housing and slide it back until the front edge of the diffuser can be pushed up into the light fixture housing. Slide the diffuser forward slightly until it rests on the front edge of the light housing.
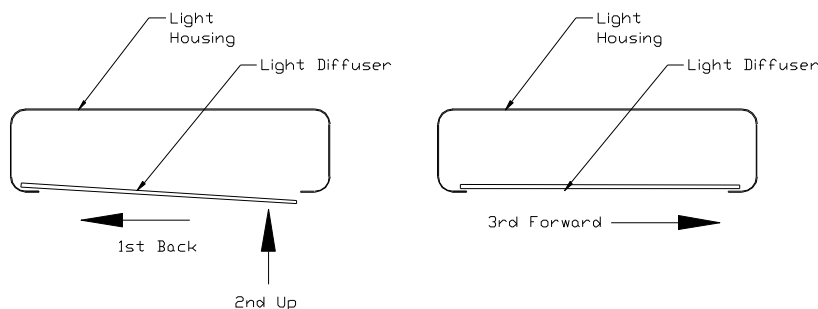
Step 4:
When the light diffusers are installed, gently push the diffuser up and slide the opening of the flexible plastic retainers (item K) over the center of the light housing between the two pcs of diffusers. Gently reposition the diffuser so that it drops into place
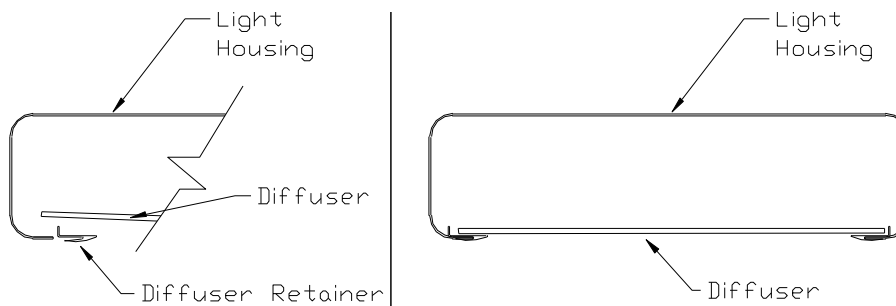
Please Note: Diffuser Retainers (item K) only go in the center between the two pcs. of diffusers. It is only used on lights with more than one diffuser.

LIGHT TUBE TYPES:
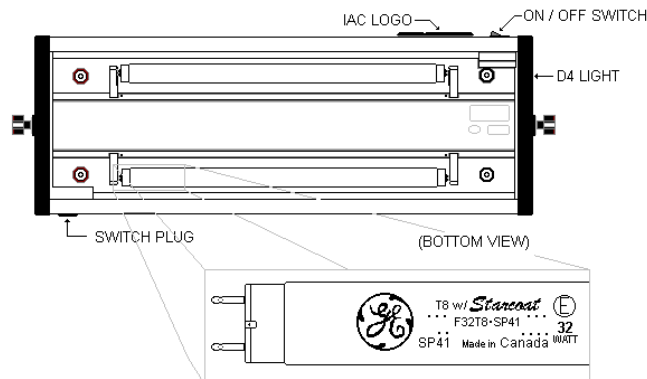
" REFERENCE ONLY "

Step 5:

D4 light fixtures use energy saving Electronic Ballasts that require high efficiency T8 light tubes. IAC recommends F32 T8 light tubes to be used in all D4 standard light fixtures. Install the light tube into the light tube holders located at each end of the light fixture by inserting one of the two pins on each end of the light tube into the channel of light tube holders. Insert the second pin of the light tube in the channel of the light tube holders and slowly turn the light tube into the channels. Rotate the light tube into the light tube holders, being sure both pins of the light tube are in the light tube holder channels, until the light tube locks into place. Before plugging in and turning the light fixture on double check that all four pins of each of the light tubes are in the light tube holders correctly.
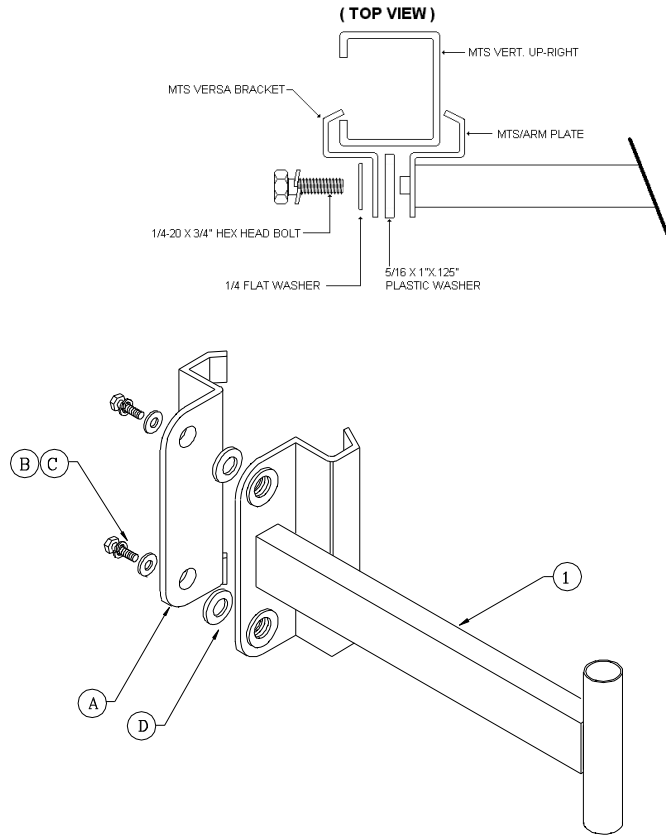
Dimension 4 light fixtures are built with energy saving **Electronic Ballasts** that are environmentally friendly (no PCB's) and operate at cooler temperatures than magnetic ballasts. Dimension 4 light fixtures are designed to run high efficiency T8 tubes only.

MTS MAGNIFIER LIGHT HOLDER

Item	Description	Qty
1	9 inch Luxo Arm Weldment	1

HARDWARE KIT HWR717

Item	Description	Qty
A	MTS, Versa Bracket	1
B	Bolt 1/4-20 X .75 Hex Head	2
C	Flat Washer 1/4	2
D	Nylon Washer 5/16 X 1.25	2

(TOP VIEW)

MTS VERT. UP-RIGHT

MTS VERSA BRACKET

MTS/ARM PLATE

1/4-20 X 3/4" HEX HEAD BOLT

5/16 X 1"X.125"
PLASTIC WASHER

1/4 FLAT WASHER

MTS SOLDER STATION PLATFORM

Item	Description	Qty
1	Mounting Plate Sub-Assy	1
2	Arm Ext. Assembly	1
3	Soldering Platform Weldment	1

HARDWARE KIT HWR712

Item	Description	Qty
4	MTS, Versa Bracket	1
5	Bolt, 1/4-20 X 3/4" Hex Head	2
6	Flat Washer, 1/4	5
7	Tri-Wheel Knob 1/4-20	2
8	Split Washer, 1/4	2
9	Nylon Washer, 5/16 X 1.25	2

30
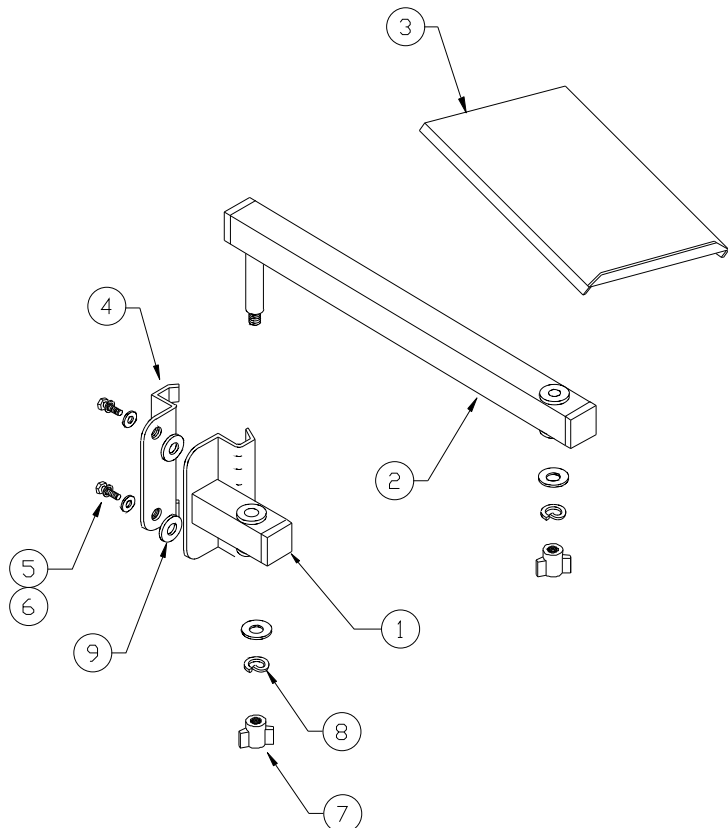
MTS ISOLATION SCREEN FABRIC & METAL

Item	Description	Qty
1	Isolation Screen	1

HARDWARE KIT HWR722

Item	Description	Qty
A	Mounting Bracket Rt	2
B	Mounting Bracket Lt	2
C	Flat Washer 1/4	4
D	Screw 1/4-20 X .375 PPH	4
E	Weldnut 1/4-20 Tab	4
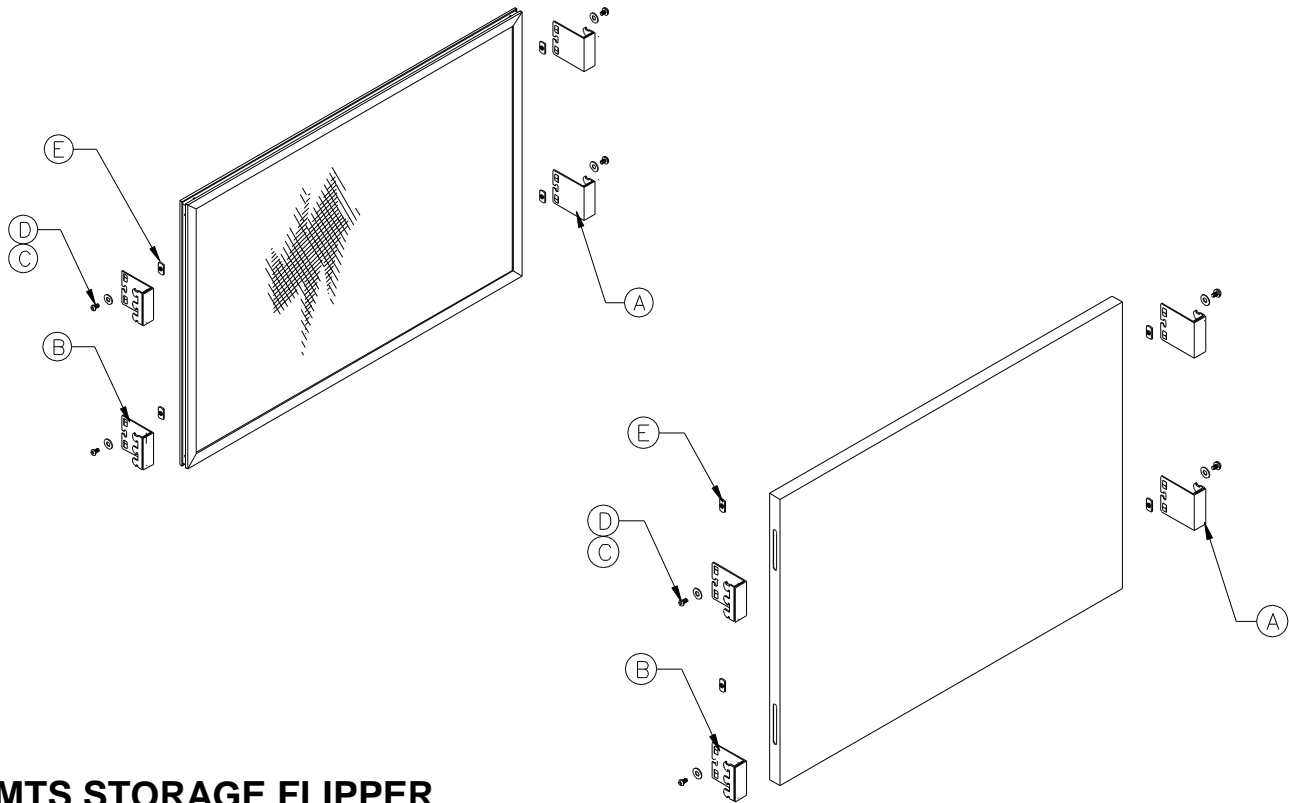
MTS STORAGE FLIPPER CABINET

Item	Description	Qty
1	Cabinet	1
2	MTS Hangar	2
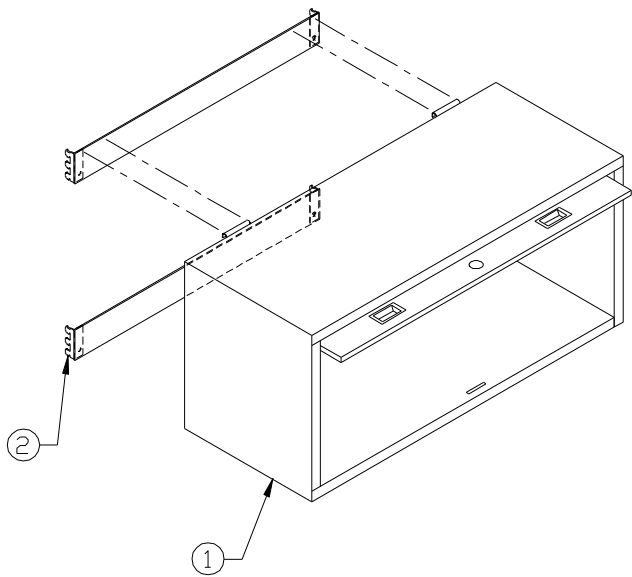
MTS TOOL BOOM

Item	Description	Qty
1	Tool Boom Sub-Assy	1

HARDWARE KIT HWR721

Item	Description	Qty
A	MTS, Versa Bracket	1
B	Hex Bolt 1/4-20x3/4L	1
C	Tool Trolley	1
D	Flat Washer, 1/4	2
E	Nut, 1/4-20	1
F	End Stop, Tool Trolley	1
G	Washer, 1/4 ETL	1

1/4 FLAT WASHER — PLASTIC WASHER 1/4-20
1/4-20X3/4" HEX BOLT — TOOL BOOM BRACKET WELDMENT
TOOL BOOM
MTS/VERSA BRACKET
MTS VERT. UP-RIGHT
(TOP VIEW)

(Front View Shown)

ITEM #1
Tool Boom
Sub-Assy

ITEM #C
Tool Trolley
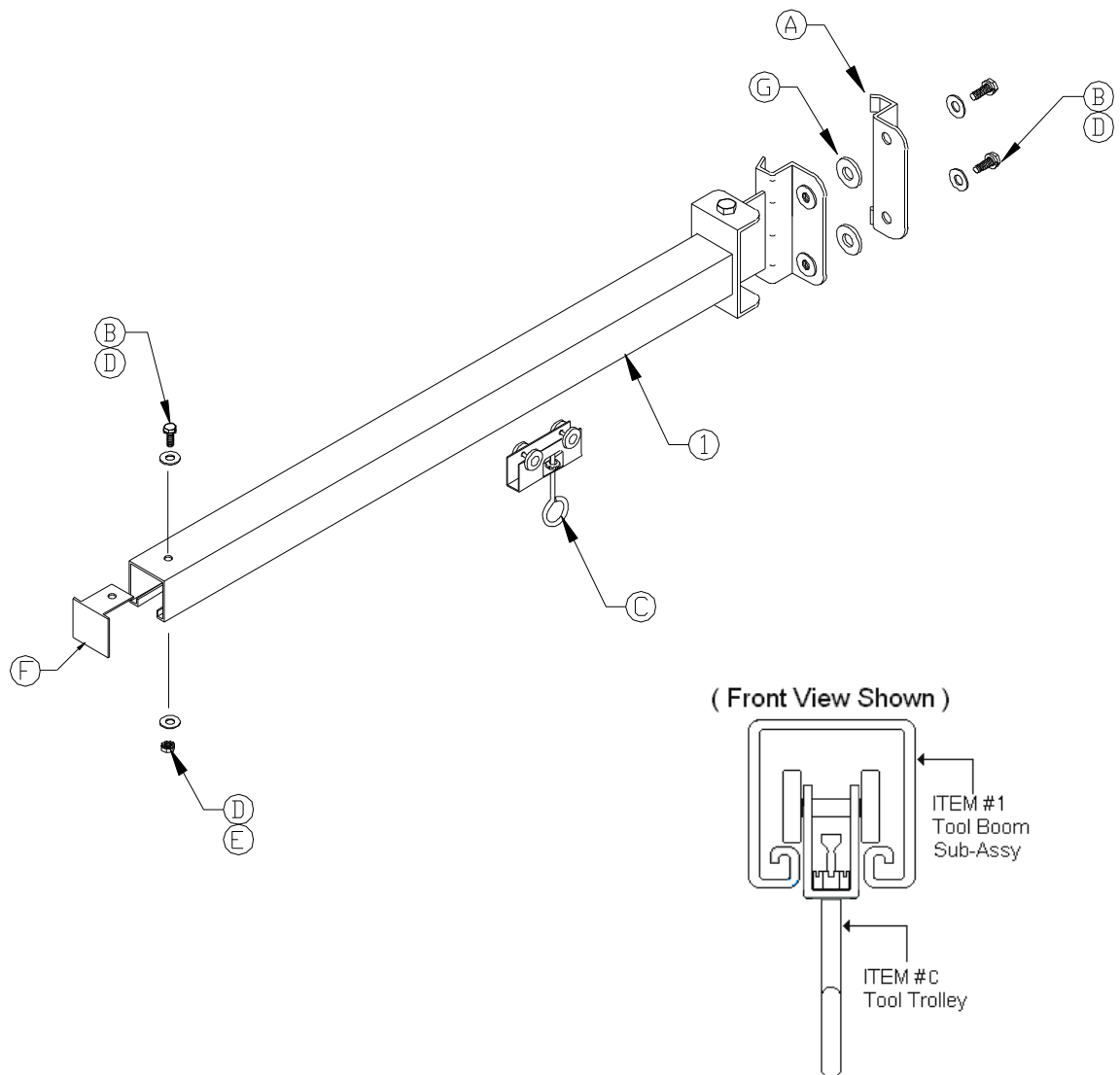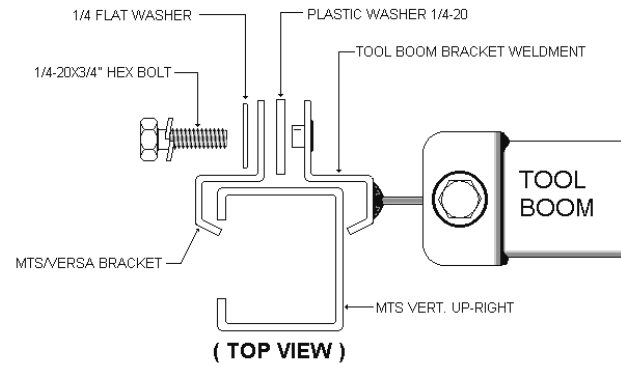
MTS TOOL TROLLEY

Item	Description	Qty
1	Channel Rail	1

HARDWARE KIT HWR714

Item	Description	Qty
2	End Stop	2
3	Tool Trolley	1
4	Unistrut Spring Nut	2
5	Flat Washer 1/4	2
6	Hex Head Bolt 1/4-20x1"L	2

Channel Rail →

Note: End Stop removed to show Hardware

→ Unistrut Spring Nut

Support Channel

← End Stop

1/4-20x1L Hex Head Bolt and 1/4 Flat Washer
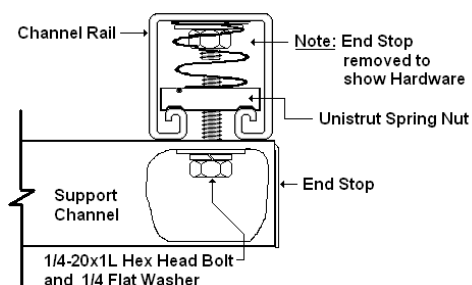
(FRONT VIEW SHOWN)
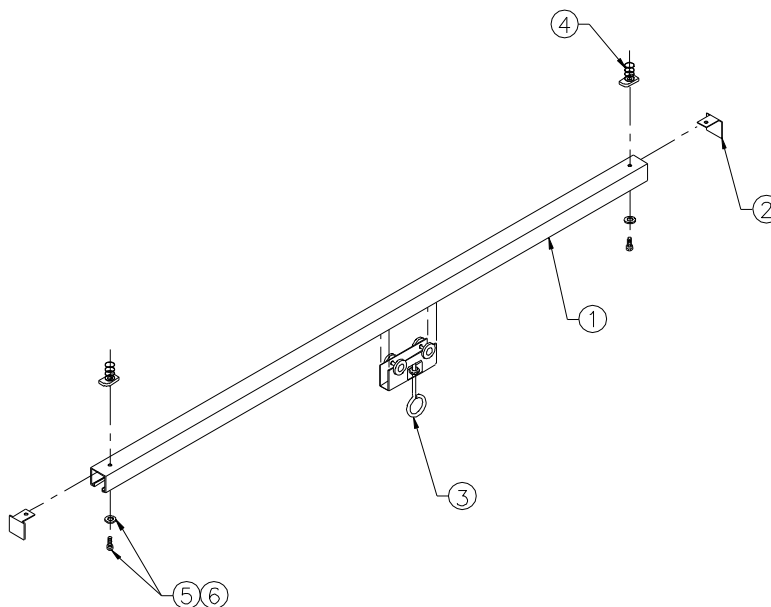
MTS TOOL TROLLEY
(Used when <u>NO</u> Overhead Light Fixture is ordered)

Item	Description	Qty
1	Channel Rail, Trolley	1
3	Support Channel	2

HARDWARE KIT HWR729

Item	Description	Qty
A	End Stop	4
H	Clip System Bracket-Right	2
J	Clip System Bracket-Left	2
B	Flat Washer 1/4-20	10
C	Hex Nut 1/4-20	6
D	Unistrut Spring Nut	6
E	Hex Head Bolt 1/4-20x1L	6
F	Hex head Bolt 1/4-20x3/4"L	2
G	Tool Trolley	1
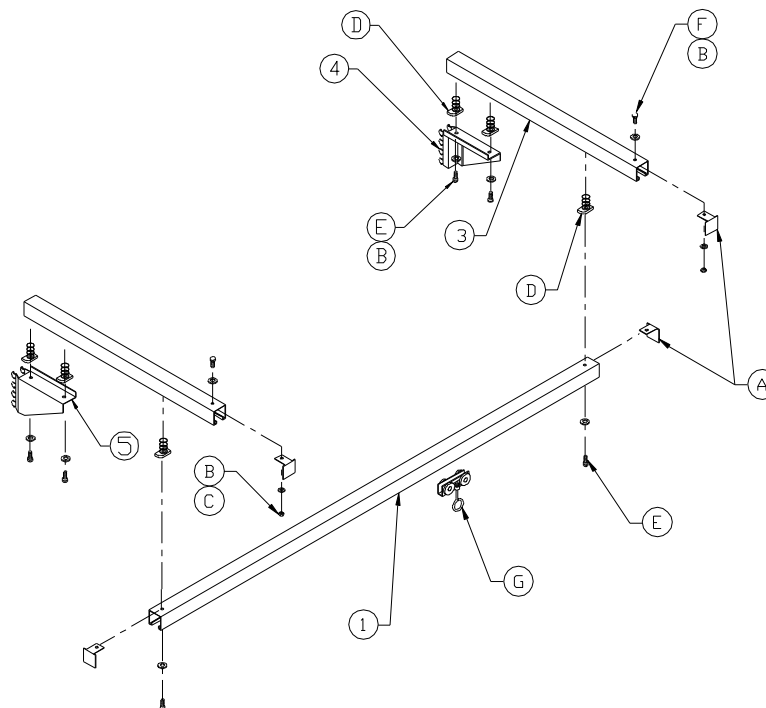
MTS PARTS CUP RAIL

Item	Description	Qty
1	Parts Cup Rail	1

HARDWARE KIT HWR 711

Item	Description	Qty
A	Accessory Bracket-Left	1
B	Accessory Bracket-Right	1
C	Phillips Screw 1/4-20x1/2L	2
D	Flat Washer 1/4	2
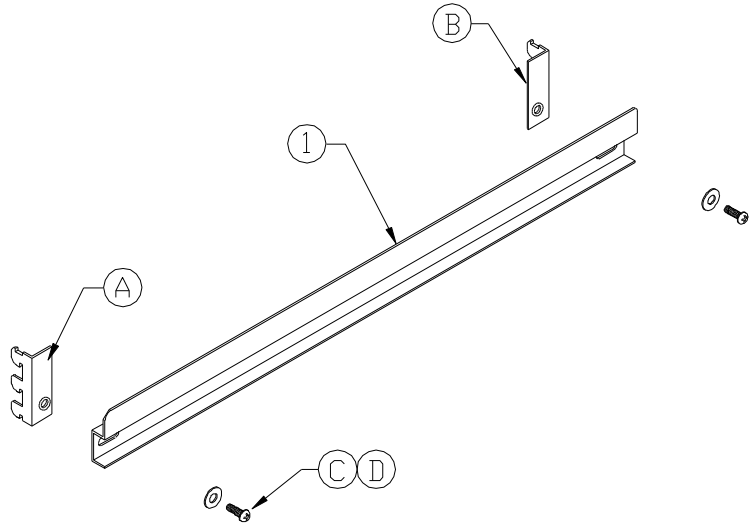
MTS PARTS CUP RAIL ESD

Item	Description	Qty
1	Parts Cup Rail	1

HARDWARE KIT HWR 720

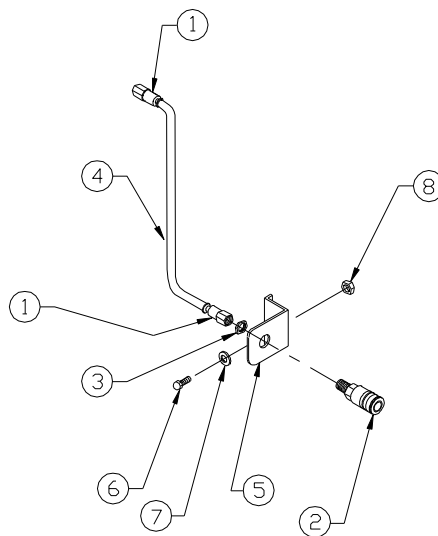| Item	Description	Qty
A	Accessory Bracket-Left	1
B	Accessory Bracket-Right	1
C	Phillips Screw 1/4-20x1/2"L, Black	2
D	Shoulder Washer	2
E	Coiled Ground Cord	1
F	Ground Screw 8-32x1/2"L, Zinc	1
G	Flat Washer #10 Zinc	2
H	Hex Nut, 8-32	1
J	Black Plastic Washer	4
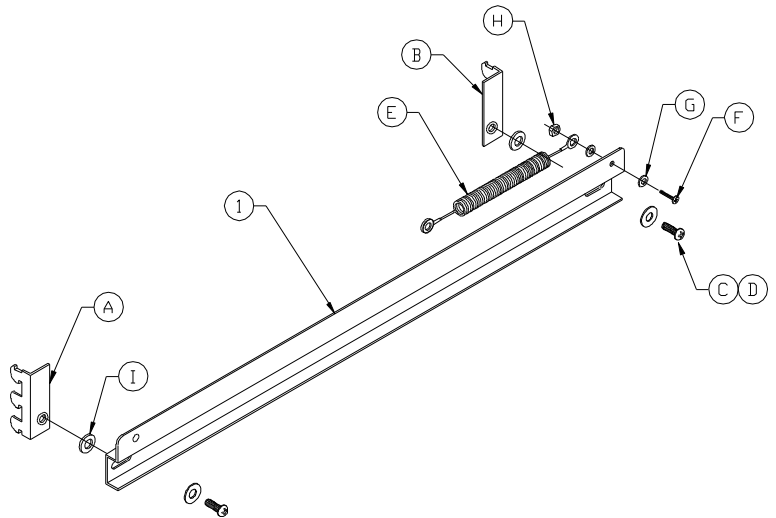
Note: See page 37 for ESD information. One end installs to the Cap Rail and the other end connected to the same side as the worksurface grounding.

MTS AIR SUPPLY, 1 QUICK DISCONNECT, BRACKET MOUNTED

HARDWARE KIT HWR 116

Item	Description	Qty
1	Union Female, 3/8	2
2	Quick Disconnect	1
3	Nut, Panel 1/4-18 NPS	1
4	Tubing 3/8 Dia. - 84L	1
5	MTS - Air Bracket	1
6	Hex Head Bolt, 5/16-18x3/4	1
7	Flat Washer, 5/16	1
8	Hex Nut, 5/16-18	1

MTS AIR SUPPLY, 2 QUICK DISCONNECTS
Frame Mounted

HARDWARE KIT HWR 119

Item	Description	Qty
1	Union Female, 3/8	1
2	Union Tee Male, 3/8 Dia.	1
3	Quick Disconnect	2
4	Nut, Panel 1/4-18 NPS	2
5	Elbow, Male 3/8	1
6	Tubing, Poly Flow 3/8 - 84L	1
7	Tubing, Poly Flow 3/8 - 12L	1

35
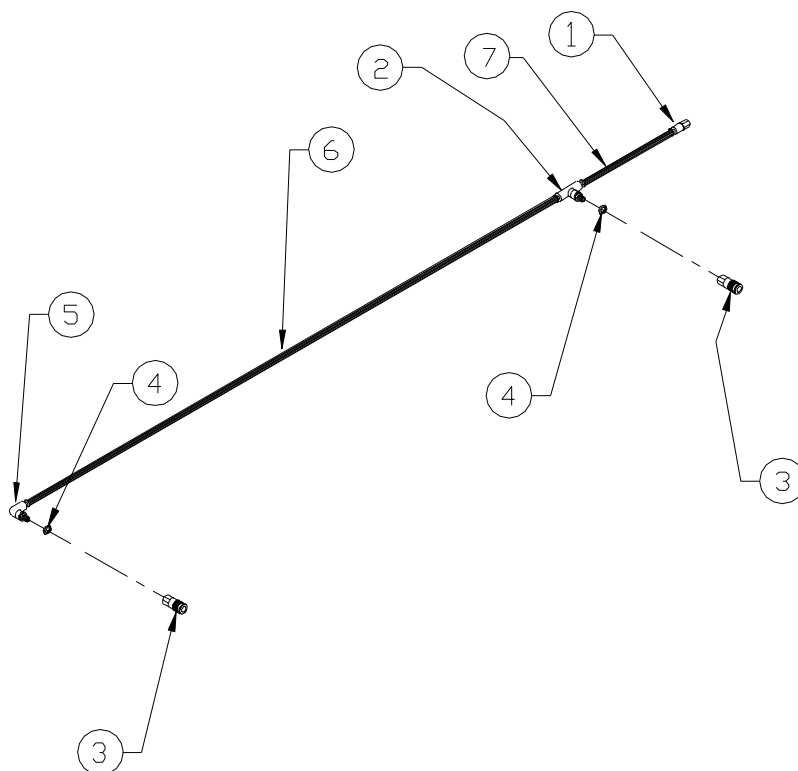
MTS AIR SUPPLY, 4 QUICK DISCONNECTS
Frame Mounted

HARDWARE KIT HWR 120

Item	Description	Qty
1	Union Female, Brass 3/8	1
2	Male Branch Tee, Swivel 3/8 Dia.	3
3	Quick Disconnect, B23 Female Brass	4
4	Nut, Panel 1/4-18 NPS	4
5	Elbow, Male 3/8	1
6	Tubing, Poly Flow 3/8 - 84L	1
7	Tubing, Poly Flow 3/8 - 12L	1

ELBOW, MALE PRESTOLOK 3/8"-1/4"

UNION, FAMALE, BRASS PRESTOLOK 3/8"-1/4"

MALE BRANCH TEE, SWIVEL PRESTOLOK 3/8"

AIR TUBING PLOY FLOW 84"L

AIR TUBING PLOY FLOW 12"L

*CUT TO SIZE

QUICK DISCONNECT, B23 FEMALE BRASS

MTS TIE BEAM, TOP VIEW SHOWN
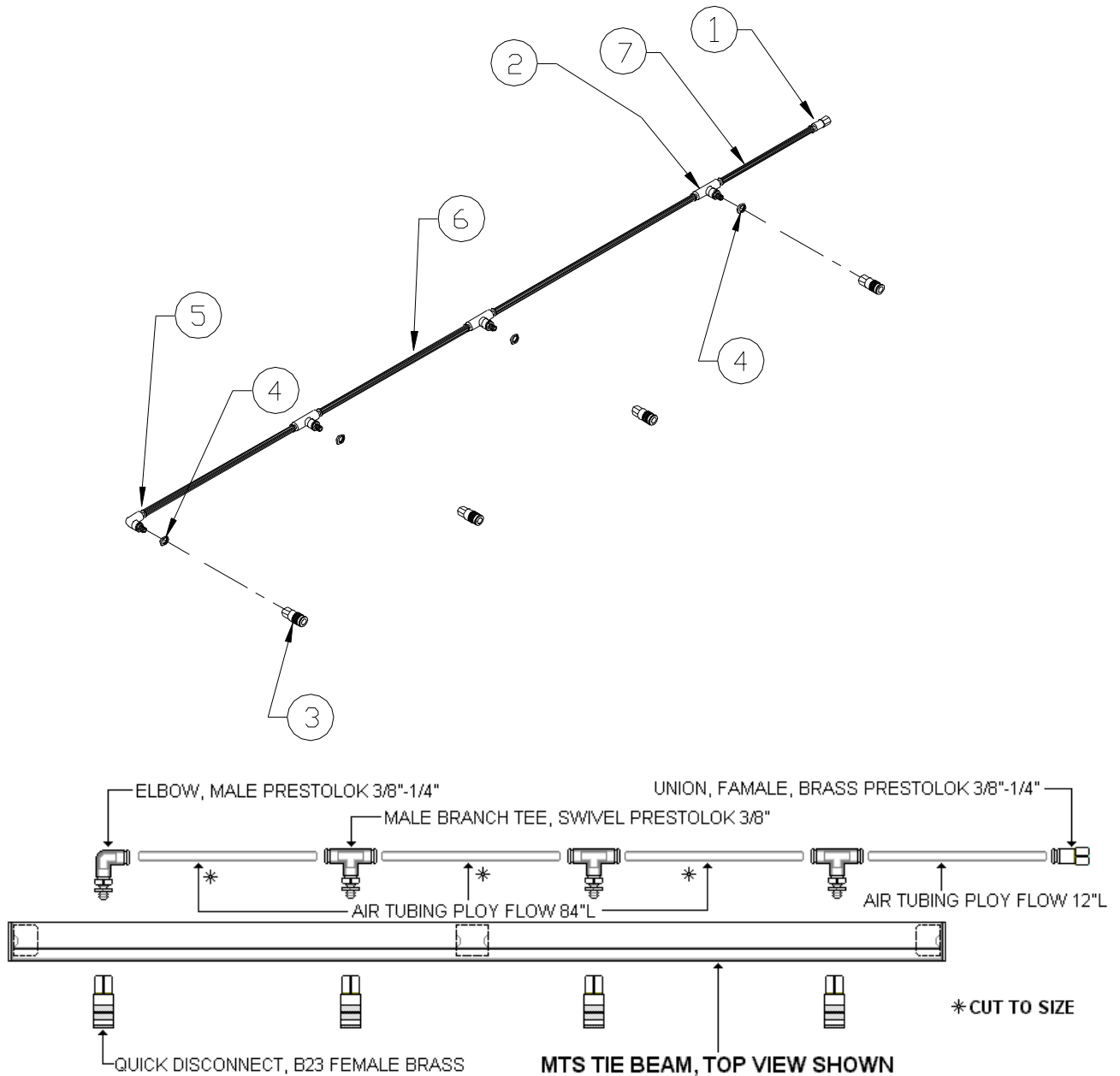
MTS ELECTRICAL OUTLET CHANNEL

Item	Description	Qty
1	Electrical Channel Sub-Assy	1

HARDWARE KIT HWR 709

Item	Description	Qty
A	Mounting Bracket- Right	1
D	Mounting Bracket- Left	1
B	Screw #8-32x1/2	2
C	Hex Nut #8-32	2
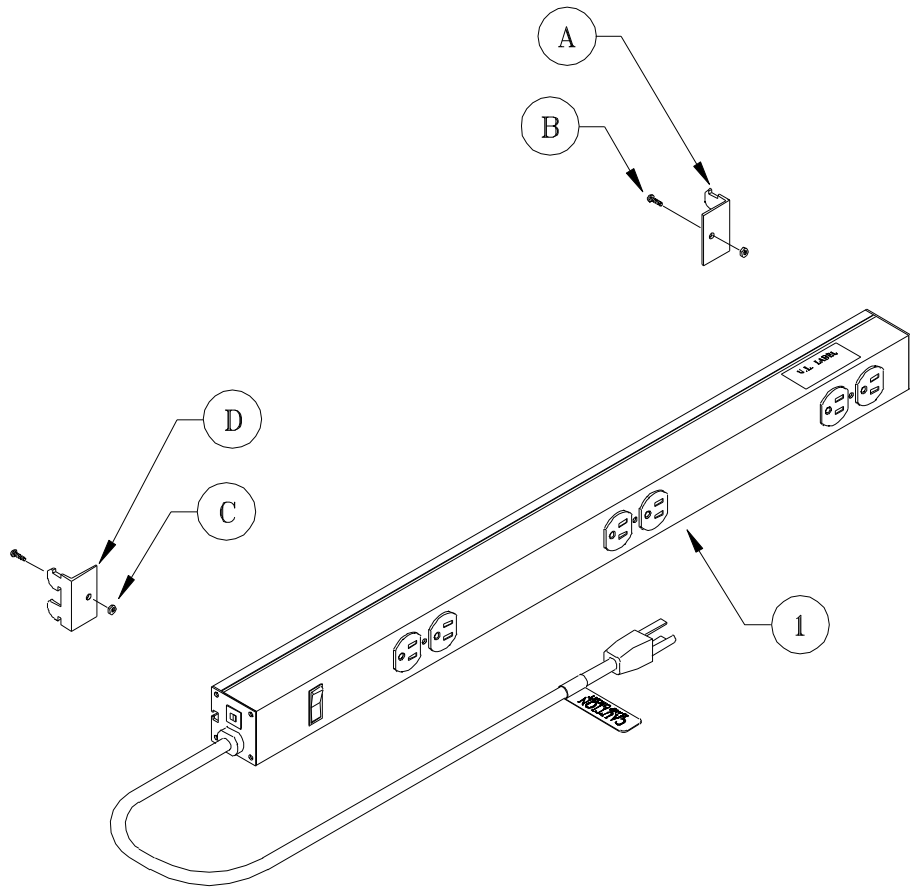
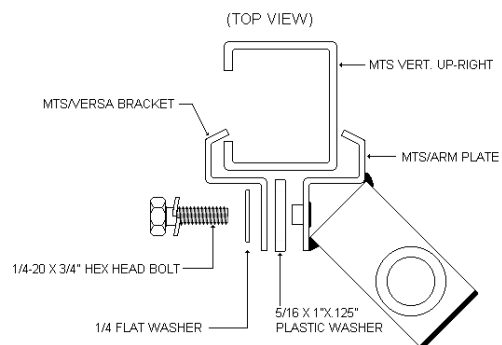**Note:** CAUTION: Risk of Electric Shock. Do NOT plug into another Relocatable power tap.

MTS FLAT PANEL DISPLAY

Item	Description	Qty
1	D4 FPD Pivot Swivel Sub-Assy	1
2	Swing Arm Sub-Assy	2
3	MTS MTG Plate Ext. Arm Sub-Assy	1
4	D4 FPD Monitor MTG Plate Adapter 100mm	1

HARDWARE KIT HWR036

Item	Description	Qty
A	MTS Versa Bracket	1
B	5/16x 1"x .125 Nylon Washer	2
C	1/4 Flat Washer	2
D	Bolt 1/4-20x3/4 H.H.B	2
E	.750 ID 1.125 OD x .093 Plastic Washer	3
F	#10-32 Hex Head KEPS Nut	4
G	#10 Flat Washer	4

Please Note:

Item F and Item G are not used or needed in this installation.

(TOP VIEW)

MTS VERT. UP-RIGHT
MTS/VERSA BRACKET
MTS/ARM PLATE
1/4-20 X 3/4" HEX HEAD BOLT
5/16 X 1"X.125" PLASTIC WASHER
1/4 FLAT WASHER
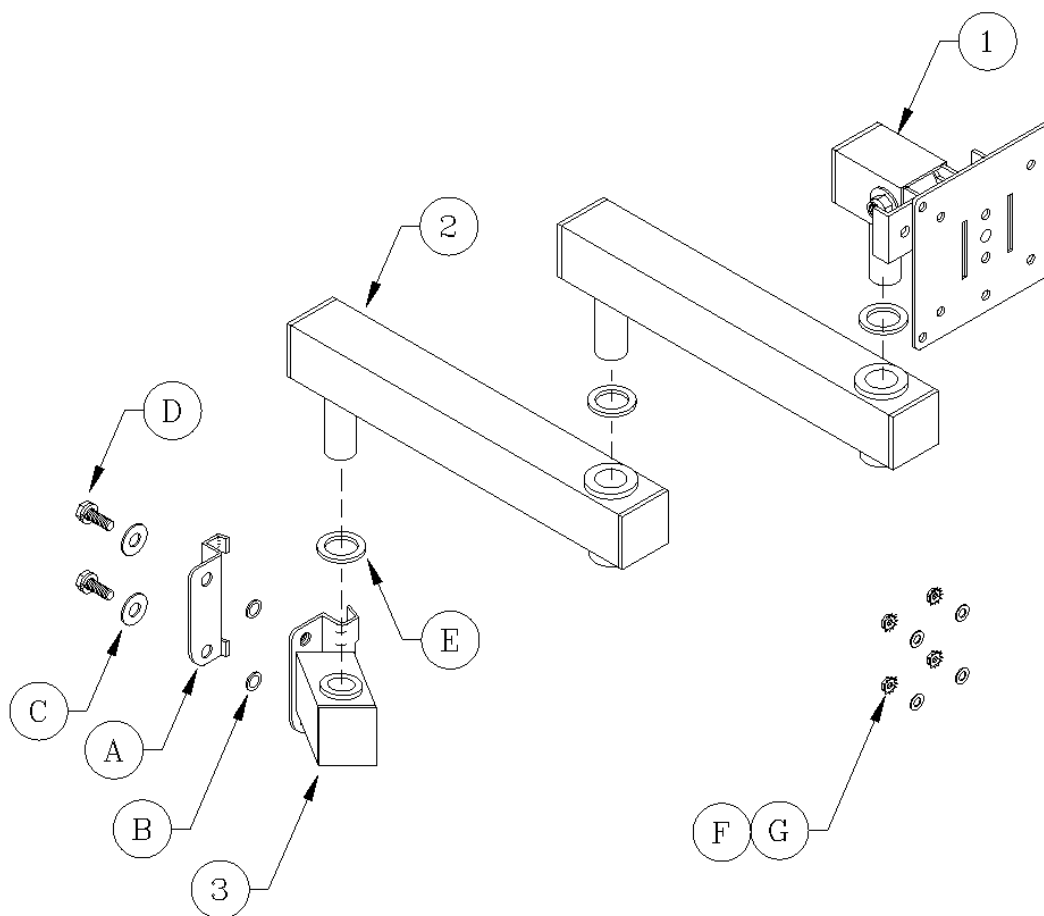
FPD KEYBOARD HOLDER with MOUSE PAD ASSEMBLY

(**Please Note**: Monitor Front Plate removed from below pictures to shown mounting of Hardware only)

ITEM	DESCRIPTION	QTY
1	FPD Keyboard Holder Vertical Support	1
2	FPD Keyboard Holder Horizontal Support	1
3	Keyboard Shelf with Mouse Tray	1

HARDWARE KIT HWR044

| ITEM	DESCRIPTION	QTY
A	Bolt 1/4-20 x .500 Carriage Zinc	4
B	Nut 1/4-20 Acorn Zinc	4
C	Washer 1/4 Flat Black	4
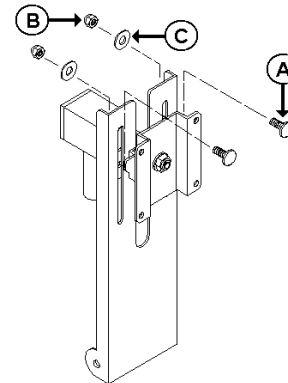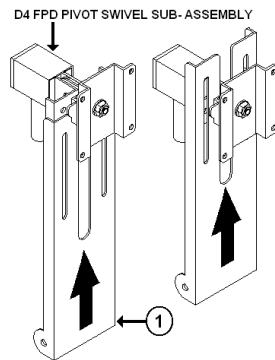
Step 1:
Slide item 1 FPD Keyboard Holder Vertical Support between the FPD Pivot Swivel Sub-Assembly as shown above.

Step 2:
Install item 1 FPD Keyboard Holder Vertical Support to the FPD Pivot Swivel Sub-Assembly using two set of 1/4-20 x .500 Carriage bolts item A, 1/4 flat washers item C and 1/4-20 Acorn nuts item B as shown above. Do not tighten hardware yet.
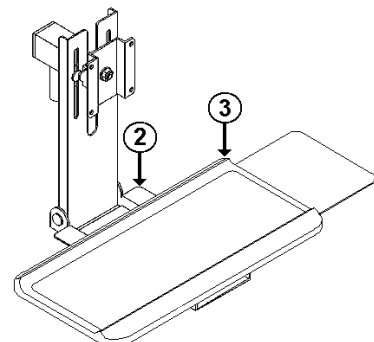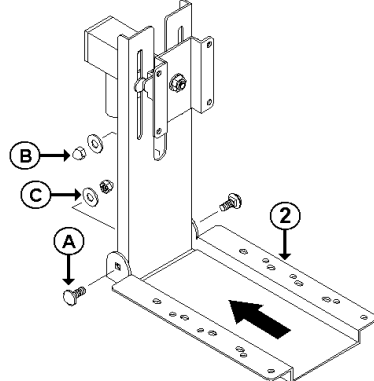
Note: This Hardware is included with the buyout keyboard tray

Step 3:
Install item 2 to item 1 using l two sets of 1/4-20 x .500 Carriage bolts item A, 1/4 flat washers item C, and 1/4-20 Acorn nuts item B as shown above.

Step 4:
Install Keyboard Shelf with Mouse Tray item 3 to item 2 by placing keyboard tray on top of item 2 and install it using hardware that comes with the buyout tray.

Step 5:
Adjust keyboard tray to height needed and tighten hardware.

MTS Rolling Cart

Item	Description	Qty
1	MTS RC Upright Lt.	1
2	MTS RC Upright Rt.	1
3	MTS RC Support Beam	1
4	MTS RC Tube Handle	1
5	MTS RC Bottom Pan Shelf	1
6	MTS RC V-Rib Pan Mat	1

HARDWARE KIT HWR731

| Item	Description	Qty
A	Screw 1/4-20x1.5 PHP	4
B	Bushing .271 x .462 x .307 L STL	4
D	Screw, 1/4-20 x .750 PPH MS BLK	14
E	1/4 Flat Washer	22
F	1/4-20 Hex Head KEPS Nut	8
G	Plastic Tube Clamp (sets)	2
H	Caster 4" TLCHR 1/2-13 Stem	4
I	Cap 2.00" x 3.00" 10-14 GA BLK	4
J	Bracket, MTS RC UPRT Top Cap	2
K	Cap, Plug .875 Dia. Heyco #2703	2
L	MTS, RC Handle Bracket WLDT	2
M	Nut, 1/2-13 Zinc	4
N	Screw, #8 x .375 PPH "P" BLK	4
P	Washer, #8 Flat Zinc	4
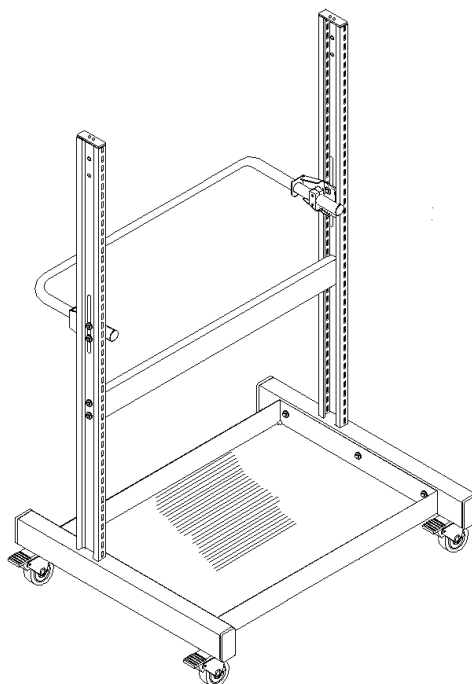
Step 1

Install Base Tube Caps item I and
4" TLCHR and Caster Nut item H & M
to MTS rolling cart uprights items 1 and 2
as shown below.
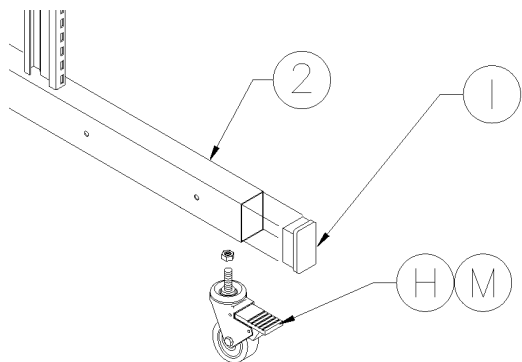
Step 2

Install MTS bottom pan shelf item 5
to the right upright Using three sets
of 1/4 -20 x 3/4 screws item D and
1/4 –20 flat washers item E as shown.
Repeat the same to the other end
of the left upright.
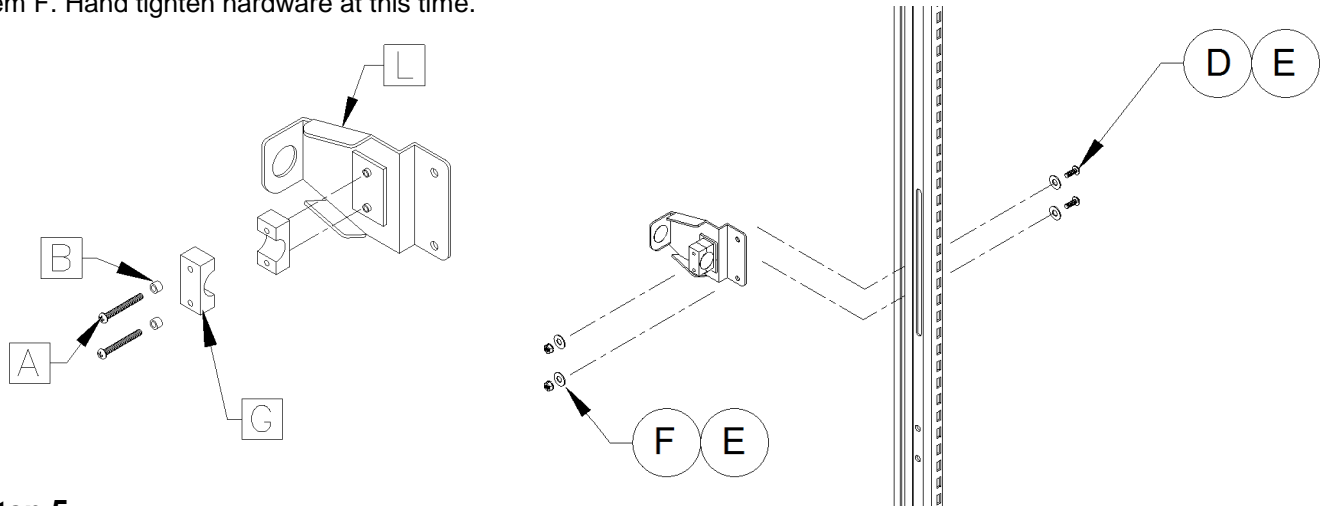Do not tighten hardware yet.
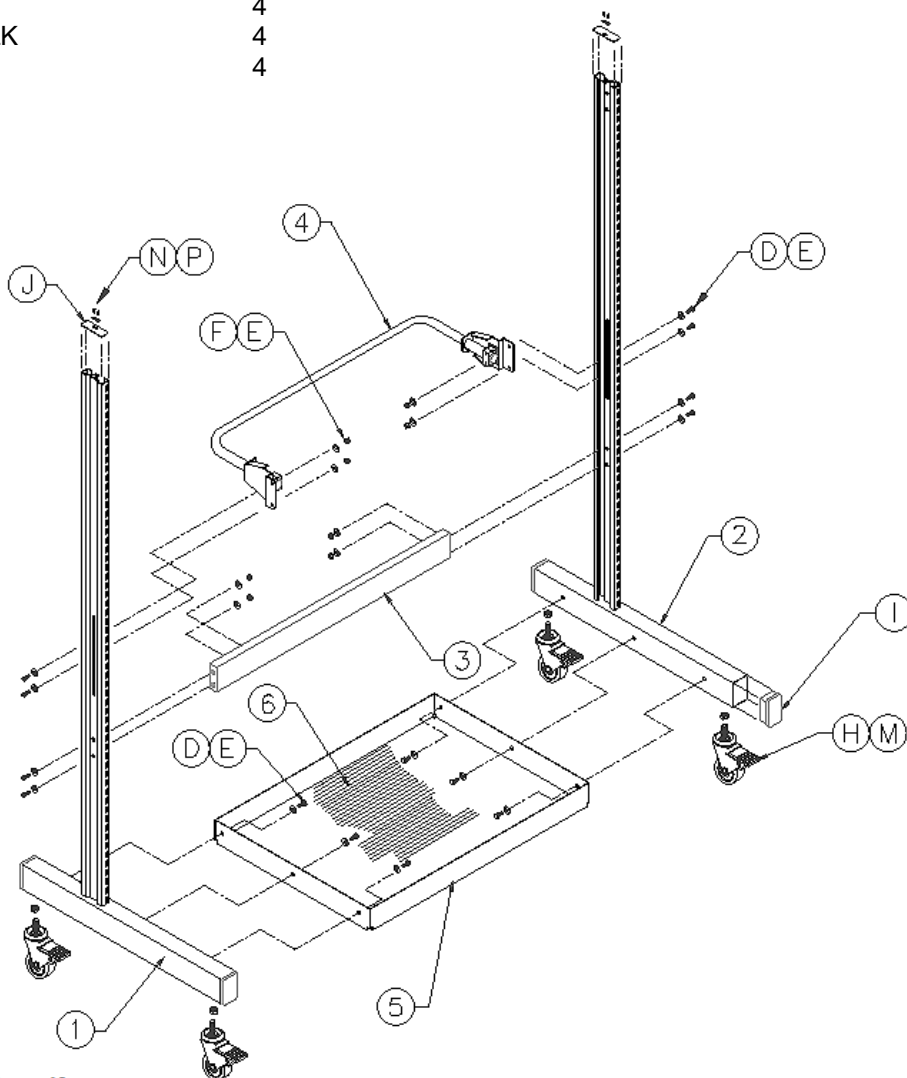
Step 3

Install the support beam item 3 to both the right and left uprights using two sets of 1/4 -20 x 3/4 screws item D and 1/4 –20 flat washers item E. Adjust pan shelf and support beam and tighten all hardware.
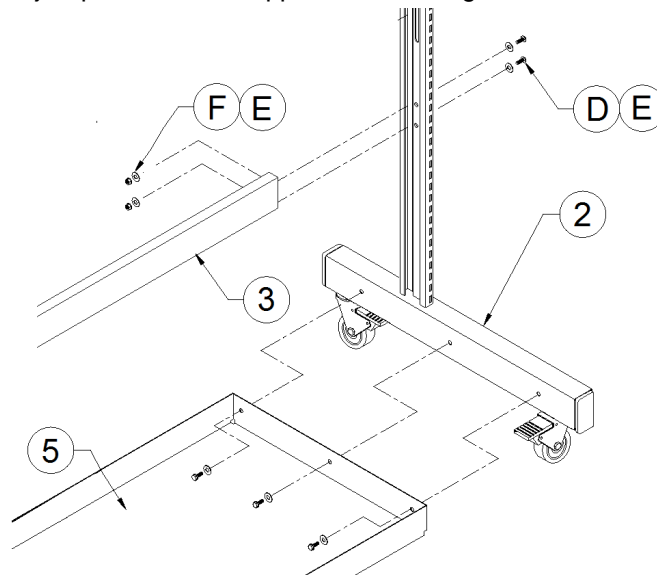
Step 4

Install Tube clamps item G and its hardware made up of the bushing item B and screw item A to MTS RC Handle Bracket item L leaving Tube clamp hardware loosely. Install each of the MTS RC Tube Handle item 4 as shown below to the left and right uprights using hardware 1/4-20 x .75 screws item D, 1/4 flat washers item E and 1/4-20 nuts item F. Hand tighten hardware at this time.

Step 5

Install the MTS RC Tube Handle item 4 to the mounting bracket on the MTS Rolling Cart uprights.
Slide Tube Handle item 4 into each side of the tube clamps. Tighten hardware slowly in a back and forth between the top and bottom screws on each side. Install the Handle end cap item K to each end of the MTS RC Tube Handle item 4. Install the two Top end caps item J to each of the MTS RC uprights using hardware #8 x .375 screw item N and #8 flat washer item P.
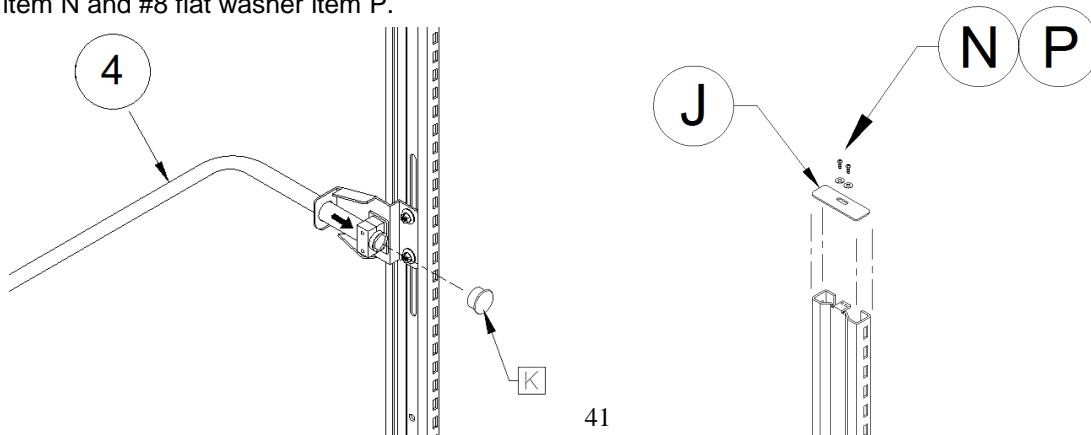
ESD GROUNDING

ESD refers to the OPTIONAL static dissipative laminate used on the bench. The laminate has a conductive under layer that comes in contact with the factory installed grounding bolts in the worksurface. The ESD grounding kit, including the 10 ft. grounding wire must be attached and the bench must be properly grounded to your facility earth ground. **(See below for grounding cautions!)** The eyelet slips over the bolt end and the alligator clip attaches to ground. When tested with a megohmmeter the ground bolts should test at 1 ($1x10^6$) to 1000 ($1x10^9$) in accordance with EOS/ESD standards prescribed in EOS/ESD document S4.1-1990 Worksurfaces-Resistive Characterization. For specific details on grounding the bench consult EOS/ESD document S6.1-1991 Grounding - Recommended Practice.

GROUND STUD 1/4"-20 X 1-1/8" BOLT

WORKSURFACE

Installed at the Factory

1/4" FLAT WASHER

1/4"-20 HEX NUT

1/4"-20 COUPLER NUT

(any additional grounds)

To be Installed by Customer

1/4 ETL - ZINC WASHER

1/4"-20 ZINC BOLT

GROUND CORD (LUG/CLIP)
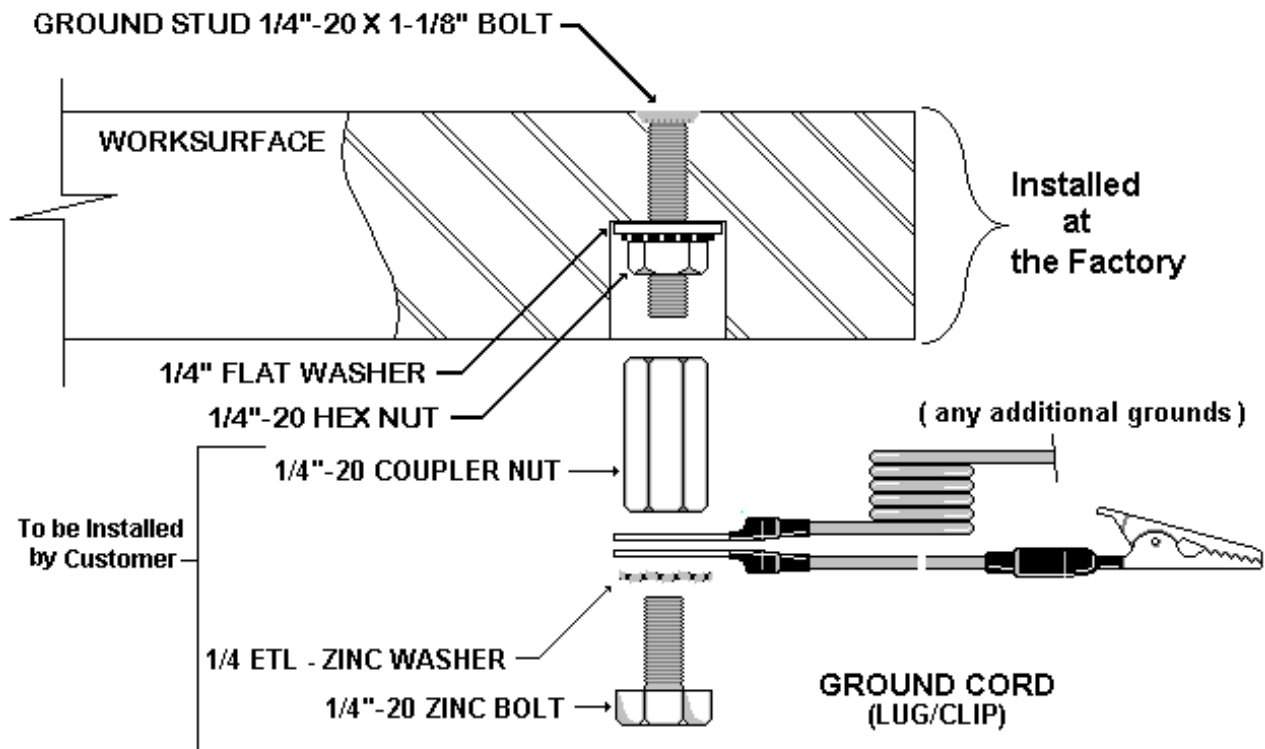
GROUNDING CAUTIONS

1.) Ground each bench individually to ground, **NEVER t**o each other in a continuous daisy chain.

2.) ISOLATED ground receptacles should not be used to derive an ESD ground.

3.) The green wire in a standard wall duplex can be used as a ground if it has been absolutely determined that the green wire is attached to earth ground in your facility, thereby providing a real earth ground.

4.) Each component of an ESD station should be connected to the same common ground point. In other words, use only ONE of the ground bolts as a path to ground. There are 2 installed for convenience only, or in the event you purchase a continuous resistance monitor.

5.) **DON'T use power tools** to install the nuts for the grounding kit. HAND TIGHTEN ONLY. If you attempt to 'spin' the ground bolt, the serrated teeth under the head of the bolt might strip the thin conductive layer

ESD GROUNDING (Continued)

NOTE: If benches are moved to another location, the ground bolts in the worksurfaces should be re-tested. Refer to EOS/ESD document S4.1-1990 Worksurfaces-Resistive Characterization for proper testing methods. If ground has been disturbed between the bolt and the static dissipative laminate, DO NOT OVER TIGHTEN ground bolts to achieve proper ground. If ground cannot be re-established, loosen nuts underneath bolt and remove ground bolt from hole. It may be necessary to hold the threads of the bolt with a small screwdriver in order to stabilize it to remove the nuts. Paint a thin layer of CONDUCTIVE ADHESIVE or CONDUCTIVE PAINT on the small "ledge" of conductive laminate where the bolt head rests and underneath THE HEAD of the ground bolt. Set bolt back into the while liquid is still wet and test ground immediately. At the point ground is reestablished, let the liquid dry before reattaching the ground wire.

CLEANING

Hard surface laminate is designed to resist abrasion, scuffing, scorching, hot solder, flux and most solvents. Intense exposure, such as from a hot soldering iron is not recommended. The surface cleans easily with a damp cloth and soapy water. A mild chemical cleaner with no abrasive can be used for stubborn spots. Remove glue and grease with a non flammable adhesive solvent such as 3M Scotch-Grip Solvent No. 4-F. Stains can be removed with a two minute exposure to a 5% bleach solution, followed by a clean water rinse. Never wax surface, as waxes may insulate.