GENERAL INFORMATION

FREIGHT DAMAGE:
Immediately, upon receipt of cabinets, inspect for freight damage. Freight damage can be either visible or concealed. Inspect prior to installation for any damage caused by freight. If you are paying directly for the freight bill, it is your responsibility to file a claim with the freight company.

MATERIALS AND TOOLS NEEDED FOR INSTALLATION:
- Level
- Screwdrivers (Phillips and flat head)
- Drill
- Self-tapping screws
- Tin snips
- Tape measure

**NOTE:** Other materials and tools may be needed since each project has its own requirements.

PAINT SCRATCHES AND DEFECTS:
In the event of paint scratches, these steps should be taken:
1. Clean the surface. The surfaces of the cabinets are painted using a durable powder coated paint process. If non-abrasive cleaners fail to clean the surface, a cleaner with mild abrasives may be used. This will also take care of most scratches and scuffs. However, beware not to rub down to bare metal.
2. If the above is not effective, you will need to try touch-up spray. We have matches for all standard colors.
3. As a last resort, replace the damaged part.

REPLACEMENT DRAWER FRONTS:
Damaged drawer fronts can be replaced easily. You need only replace the outer “skin” of the drawer front. This metal “skin” is easily removed by removing the (3) screws located on the back ((2) on each side and (1) on the bottom). (Illustration 1.1)

To remove: Pull the drawer out a few inches. Use a screwdriver to remove screws. Replace with new front and screw into place.
BASE CABINETS

There are two types of drawer slides full-extension and ¾ extension. You will find full-extension slides on file drawers and apron drawers. All other cabinets will have ¾ extension.

BASE CABINET DRAWER INSTALLATION AND REMOVAL

All drawers are installed at the factory before shipment. Drawers are usually opened during base cabinet installation; however, if it is necessary to remove drawers the following steps accomplish this.

¾ Extension Slides:

¾ extension slides are formed in two parts. The first part is a drawer runner that is welded to each side of the drawer body. The second part is a bayoneted track that is attached to the cabinet body with a nylon drawer roller. They have a positive stop so it will not jump from the unit yet it will allow easy removal of the drawer when needed for maintenance. (Illustration 2.1)

Removing the drawer body from the track is easily accomplished without tools.
1. Pull drawer completely to the front of the track so that the rollers meet.
2. Tilt drawer up so that the rollers on the drawer box is exposed
3. Tilt drawer down so the body is released from track and remove.

To re-install, simply reverse step 3 to step 1.

Full Extension Slides:

Full extension slides are purchased in a glide assembly. This glide assembly is secured to both the cabinet body and drawer. The drawer body can be removed from the cabinet without tools by deflecting the nylon lever built into the innermost member of the slide. (Illustration 2.2)

To Remove:
1. Pull drawer out to the full extension position and locate the black nylon lever.
2. Deflect the black nylon lever forward while pulling out gently on drawer.
3. Pull drawer body completely out of glides, noting that the ball bearings in the glide align with and travel in grooves. IMPORTANT: Take note of how the bearings engage in these grooves to lock members together (see below).
To Reinstall:
1. Move the member that is connected to the cabinet with the ball bearings full forward.
2. Align channel on the drawer with the end stop on the cabinet member.
3. Move drawer slowly inward keeping it aligned with the cabinet slide assembly as straight as possible in order to pick up the ball bearings.
4. As this is being done the intermediate channel will move in. Continue closing until ball retainers stall.
5. Continue to push drawer closed to reset ball retainers.
6. Pull drawer out to verify that slides are correctly engaged.
7. The drawer should operate normally.

If necessary, you can adjust drawers up or down, in or out to fit flush in the drawer opening. The proper spacing is .075". Remove the drawer as noted in Step 1. Then:

- Loosen the screws at the front of the glide assembly. For up or down adjustment, bend the metal tab shown in Illustration 3.1 in or out with a screwdriver, thereby raising or lowering the glide assembly resting on it.

- For front to back adjustment, loosen the front to back adjustment screws (Illustration 3.2) and move glide assembly in or out. Tighten adjustment screws when finished.

- Finally, tighten the screws (note: install a security screw in the glide if only one screw is present), and reinstall the drawer and check for fit.

CENTERING OF HINGED DOORS IN OPENING
Ideal spacing of doors.
Spacing on top, bottom and sides should be slightly more than 1/16". Wall unit double-hinged door unit should have 1/8" spacing between them. Spacing on top and bottom should be slightly more than 1/16".

Adjusting the Door (hinge) Up or Down.
Each door can be adjusted up or down slightly for spacing purposes by loosening the screws in the hinges. Elongated holes in the hinge allow for up and down movement. Be sure to tighten down the screws securely when finished. (Illustration 3.3)
Shelf installation and adjustment.
Shelves are supported by standards and shelf clips extending from side to side of the cabinet at each side and middle of double base units. Shelves are totally adjustable vertically in 1” increments. Shelf clips are easily installed without tools by following the procedure illustrated below.

1. Hold shelf clip at angle and insert front hooks into slotting at side of cabinet interior.
2. Insert clip into slotting as far as it will go, while rotating the back of clip toward the slotting at the bottom of the cabinet.
3. Insert clips in standards, same on both sides.
4. Place shelf inside cabinet at angle and set on top of clips.

REMOVABLE ACCESS PANEL
Each base unit is equipped with removable back panel for access to wall receptacles, plumbing, etc. Back panels are easily removable simply by removing the bottom from the cabinet, then raise back panel approximately one inch, and rotate the bottom of the panel toward the front of the cabinet. (Illustration 4.1)

LEVELERS
At any time during or after installation and alignment of base cabinets, the levelers may be adjusted to accommodate uneven or sloping floors. A standard straight blade screwdriver of medium size is the only tool required. There are four levelers in each base cabinet at floor level, one in each corner. Removing the removable bottom provides access to the levelers. (Illustration 4.2)

BASE FILL PANELS
After positioning base units in the room, locate any base cabinet fillers as required per detail plan layout. Base cabinet fillers are installed as follows:

Base Front Fill Panels (BFF)
When cabinets don’t fill out the full length of cabinets in a wall to wall run, this fill panel goes between cabinets or cabinet and wall in a run. “BFF” fillers are installed as follows.

1. Fasten the slip joint to the wall or cabinet and install the fill panel on the base unit vertically using sheet metal screws, pop-rivets or other suitable fastener (NOTE: These are not provided). (Illustration 4.3)
2. The fillers slide into place with a friction fit only, no other fasteners are required.

Pipe Space Fill Panels (PSF)
Pipe space fill panels span the distance between the back of a base cabinet and the wall. This filler will hide unsightly plumbing or other obstruction. “PSF” fillers are installed as follows.

1. Fasten the slip joint to the wall and the fill to the cabinet.
2. Slide filler in place (friction fit) between flanges on brackets.
Knee Space Panel (KSP)
Install panel-mounting brackets on base units vertically using sheet metal screws, pop-rivets or other suitable fastener (Illustration 5.1). Knee Space Panels mount to the bracket flanges and are secured with three sheet metal screws at each side.

Wall Unit Top Filler (Illustration 5.2)
After securing wall units, locate wall unit top fillers as required. Wall Unit top fillers are installed as follows.

1. Secure sloping top to wall case by running screws through the top of the wall case.

Sink base units are factory equipped to accept a variety of sink styles and shapes. The back of the cabinet is open to allow access to building plumbing and electrical. The upper side rails are equipped with flanges to provide attachment for a Sink Support Assembly (Illustration 5.3).

Sink Support Channel Assembly
If the cabinets are to accommodate an under-counter mount sink, they will require sink supports. Sink supports are mounted using all-thread rod hangers, formed at top to hang on channel at sides or sink cabinet. The hangers are extra long so that any depth of sink can be supported. By adjusting the level of the nuts and washers, the channels will raise and lower to accommodate the sink unit (Illustration 5.4).
Lipped Epoxy Resin Sinks
Lipped epoxy resin tub and cup sinks are designed to be installed as a drop-in sink. They are self-supporting, and do not require the use of a mechanical sink support. We recommend the following procedures be followed:

1. Install counter tops according to the manufacturer’s recommended procedures.
2. Distribute all sinks according to the shop drawings.
3. Clean the rabbed sink cutout, removing any dust and/or oil film present.
4. Mix an appropriate amount of epoxy joint compound.
5. Apply the joint compound around the entire perimeter of the cutout.
6. Gently lower the sink into the cutout, and press into place.
7. Remove all excess epoxy cement from sink lip and surrounding counter surface using cold water and sponge or rag.
8. Check entire perimeter of sink for any voids in the adhesive. Fill if required.
9. Do steps 1-8 for setting of the sink outlet.
10. Let the sink set undisturbed for 24 hours or until the adhesive has cured.
11. Connect waste line.

For information on counter top installation, see page 16.
WALL CASE UNITS

Wall case units must be mounted at the proper height from the floor. The height desired may vary with each installation. Typically, they are set 18” above the standing counter top to the bottom side of the wall cabinet. To match floor units, the top of the wall cabinet should be at 84” above the floor.

The owner/contractor is responsible for ensuring that the units are securely fastened to the wall system.

Wall Mount Bracket (Illustration 7.1)
Each wall case unit is equipped with a wall-mounting bracket as a separate piece. The upper, rear, horizontal frame member at the back of each wall case unit is formed to accept this bracket.

To Install A Wall Case Unit:

1. The wall-mounting bracket should be secured to the wall system at the proper height (one-eighth lower than finished height).
2. After the wall-mounting bracket is securely in place, raise the wall case unit slightly above it and “flush” against the wall. Slide the wall case unit gently down over the offset of the wall-mounting bracket (Illustration 7.2).
3. Screw or bolt wall case unit through the cabinet body into the wall system as required ensuring stability. The wall-mounting bracket is an alignment aid and support which must be supplemented with additional fasteners to prevent the unit from accidentally being raised off of the wall mounting bracket.
Sliding Door Unit Instructions (Illustration 8.1)  
Sliding door units are designed for rugged duty and cleanliness. You should remove one door at a time and carefully set each door on the floor taking care not to scratch the paint or glass. Remove the innermost door first. Lift the whole door up ¼ inch and pull forward, the door should come right out.

The rollers on the wall units are different from the ones on the floor units. They are not interchangeable. (Illustration 8.2)
FLOOR CASE UNITS

Floor Case Mounting (Illustration 9.1)

Floor case units must be secured to wall or otherwise supported vertically. After leveling the units, install fasteners through the inside of the cabinet, near the corners if possible, into the wall. At least three fasteners per side are recommended (Illustration 9.2). Spacers may be required if unit is held away from the wall by an obstruction. See page 5 for instructions if fillers on top or sides are required.

Sliding Door Unit Instructions (Illustration 9.3)

Sliding door units are designed for rugged duty and cleanliness. You should remove one door at a time and carefully set each door on the floor taking care not to scratch the paint or glass. Remove the innermost door first. Lift the whole door up ¼ inch and pull forward, the door should come right out.

Clean-up after installation for cabinets

- All exposed casework and hardware surfaces should be cleaned from time-to-time using a high-grade, cream-based furniture polish. The polish forms a protective coating on surfaces that may come in contact with harmful chemicals.
- If the casework is heavily soiled, wipe it clean with Naptha or Mineral Spirits before you apply the polish.
- Check all drawer and cupboards often for chemical spills or leaks.
- Promptly clean up all spills to help prevent permanent damage.
FUME HOOD INSTALLATION

The following procedure must be taken before the setting of the fume hood... (Illustration 10.1)

- Remove screws that tie the fume hood to the shipping skid.
- Hold sash up while attaching the cable to the counter balance in the back.
- Hook sash (plastic-covered) cable to the counter balance as shown.

**NOTE:** Make sure sash cable is secured to sash before releasing the fume hood from the skid.

- Check the operation of the sash, making sure of the following:
  - The counter balance is level
  - The sash does not bind.

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**STEP 1: PREINSTALLATION**

The setting of the cabinets and counter tops along with the rough in of plumbing and power should be done first. If required, pipe up to the services to the counter top. **BE SURE NOT TO GO TOO HIGH ABOVE SURFACE.** Doing so will make moving the hood in place more difficult. Also, clean the surfaces prior to setting the fume hood.
STEP 2: SKID REMOVAL/UNPACKING

- Removal all plastic wrap, tape, banding and cardboard protective material
- Sash blocking wood in the sash channel can be taken out by removing the two screws and tape holding the blocking in place.
- Only the unpainted wood taped in the back holding the weight should be removed. DO NOT REMOVE THE WEIGHT STOP.
- To finish unpacking the side panels will have to be removed (see the next step). Once the panels are off, remove the wood screws located in the fume hood frame on the bottom. They attach the fume hood to the skid.

STEP 3: REMOVING OUTER PANEL

- Remove two self-threading screws located on the top of the side panel. Use a Phillips driver/clutch drill if possible.

- Loosen bolt (¼-20) securing the post front to the frame and to the side panel. Use appropriate tools to loosen or remove the bolt completely in order.
- The bottom bolt should be loose. It can be accessed through the interior access panel on the side of the hood.

- Once these items are set, the side panel is ready to be removed.
- Pull up and out on the side panel to release. There is a bottom clip welded to the side panel. So, once you pull up, the panel will release from the clip.
STEP 4: LIFTING AND SECURING FUME HOOD IN PLACE

- Prior to lifting fume hood into place remove wood skid and blocking material.
- Use a lift or other device to help get the fume hood to the work surface. Then slide the fume hood into place. *Be careful of plumbing.*

**NOTE:** If binding occurs, check to see if the fume hood is square by measuring the diagonals across the surface of the fume hood.

- SEE DRAWING BELOW FOR REFERENCE ON TYPICAL SERVICE LOCATIONS
INSTALLATION NOTE: Local trades should perform these next steps so that the plumbing, electrical and HVAC conforms to local codes.

STEP 5: Electrical Connections

**NOTE:** Make sure that there are not any exposed or loose wires prior to the connection.

- Drop main power connection to ‘J’ box, which is typically located on the top, back right hand side of the fume hood, secured to the frame.
- Make the connection then test the electrical outlets and light switch for operation. (Light bulbs are not provided. The owner is responsible to provide, install and test the bulbs.)
- Finish installing and testing any other devices such as the blower and alarm.

STEP 6: HVAC Connections

- Run HVAC down to duct collar on top of fume hood
- Duct collar and pipe material is determined by what application the fume hood is used for
- Our typical duct collar is round and 1” high
STEP 7: Plumbing Connections
- Run piping from either the top or the bottom of hood into the back and between the walls
- Make connections as based on local codes

STEP 8: Side Panel Re-Installation
- After all connections have been made, return and re-install side panel.
  - Return ¼-20 frame bolt in top of frame front/front post. Make sure assembly is loose.
  - Slide keyways in the bottom frame/post front location. Make sure the side panel bottom clip is pushed in.
  - Once the bottom has slid down about a 1/8" to ¼", the top keyway will slip in. Then push the side panel all the down and tighten all bolts.
  - Return all 4 self-taping screws to top.

When this is complete, make final testing on the fume hood as needed for certification prior to service.
COUNTER TOPS

PREPARATION
Before you begin...
This information is to be a guide to assist you in your work. Once the tops have reached your job site, please handle them with care. If you drop or drag the tops, irreparable damage can occur. Counter tops should be the very last things to be installed. This will help reduce risk to damage by other trades that could use the bench assemblies as workstations or scaffolding. When the tops are in storage, keep them in the original shipping container to help reduce damage.

Materials needed for installation:
- Safety glasses
- Putty knives
- Level
- C-clamps
- Masking/painters tape
- 2-part [A & B] epoxy adhesive
- Applicator sticks
- Lacquer thinner
- Silicone sealant (lab grade)
- Several pieces of hardwood blocking
- Tapered shims of wood or other suitable material
- Several pieces of cardboard in varying sizes
- 2 or 3 pieces of lumber at least 1-½ times the width of the cabinet
- Light duty finishing pads
- Clean water
- Several clean rags

NOTE: We suggest that an epoxy adhesive be used for installation. Other quality sealants may be used such as a lab grade silicone.

Leveling cabinets....
Level the cabinets as noted earlier in this booklet.

“Dry-Checking” the counter tops, curbs and sinks.....
Study the counter top layout that is included with the shipment to properly place all the pieces. Each piece is labeled as marked on the layout.

Caution: Counter tops, especially epoxy, are heavy. Always have assistance when moving and placing them and always use proper lifting techniques.
- Place the counter top pieces on the cabinets and slide them into place.

Note: Great care should be taken to prevent anything abrasive from coming into contact with the counter tops.
- When installing counter tops with under-mount sinks, line the sinks up below the proper cutouts with an even overhang on all sides.
- Put the curbs in place and make sure they are the correct length.

Note: If you find any damaged, incorrect fitting or missing pieces, notify RDM Industrial Products immediately. Inspect each section of counter tops before applying adhesive. RDM Industrial Products will not be responsible for removal of any defective tops.
- After you have checked the cabinets and inspected the counter tops and sinks, you are ready to begin the installation process.
Mixing epoxy adhesive...

If you are using epoxy as your adhesive, it is crucial that you mix it properly.

- Always use a separate stick to scoop each part (A & B) of the epoxy adhesive and use the same stick each time to avoid contaminating or accidentally mixing the unused parts together.
- Mix on a clean piece of cardboard only what you need for the amount of tops you are installing.
- Begin with the darker epoxy and mix the two parts thoroughly.
- Spread the mixed epoxy about \( \frac{1}{4} \)" thick on the cardboard to prevent it from generating its own heat and drying too quickly.

Filling seams

- Apply a length of 2" wide masking tape to each side of the seam directly on the edge of the joint.
- Using a putty knife, press the epoxy adhesive down and into the seam. Using too much adhesive is better than not using enough.
- Beginning at the back of the counter top, drag the putty knife toward you, holding it at a 45° angle.
- Scrape the excess epoxy adhesive off the masking tape approximately 1/16" from the center of the seam on both sides.
- Drag a clean putty knife across the masking tape one more time and remove the tape.
- Use lacquer thinner on a clean rag to smooth out the epoxy adhesive for finished seams.
- Use a separate clean (damp or dry) rag to wipe away any excess adhesive.

**Note:** *Never attempt to sand seams or scratches*

- Allow adhesive to harden overnight (at 77°).
Installing the curbs
- Cover the counter tops with cardboard to protect the top surfaces from scratching.
- Place the curbs upside down on the cardboard.
- Fill a putty knife with epoxy adhesive and use a smooth stroking motion to run a bead along the bottom of the curb and along the edge that abuts another curb.
- Set the curbs in their proper location and press in place.

**Note:** If you have uneven walls you will need to shim the curbs to have an even front. If you have a bow in the wall, eliminate the problem with a prop and clamp.
- Wipe off the excess epoxy adhesive at the bottom of the curbs with a rag wet with lacquer thinner.
- To insure that the counter tops and curbs will stay in place, block and clamp the seams and allow the adhesive to harden overnight (at 77°C).

**INSTALLING SINKS**

**Installing a Drop-In Sink**
- Using a rag wet with lacquer thinner, clean the rim of the drop-in sink and the area around and inside the rabbeted counter top cutout.
- Lower the sink into the cutout to inspect the fit.
- Remove the sink and apply epoxy adhesive around the surface of the rabbeted cutout.
- Carefully re-lower the sink back into the counter top.
- Gently press the sink rim until it is level with the bottom of the cutout bevel.
- Using a rag wet with lacquer thinner to wipe away excess adhesive.
- Allow the adhesive to harden overnight (at 77°C).
- After the dabs of epoxy adhesive has hardened, fill any gaps in the seam with epoxy adhesive.
- Using a rag wet with lacquer thinner, smooth off the seam.
- Use a separate clean (damp or dry) rag to wipe away any excess adhesive.
- Allow the adhesive to harden overnight (at 77°C).

**Installing a Cup sink**
- Clean the rim of the cup sink and the area around and inside the counter top or the fume hood base cutout with lacquer thinner.

**Note:** If installing a polypropylene cup sink, scuff the contact surface under the sink rim to increase adhesion.
- Position the blocking mechanism that will be used to hold the cup sink in place.

**Note:** Create a blocking mechanism by using wire to connect a large wood block and a smaller wood block through the cup sink outlet. Twist the smaller block to achieve enough tension to hold the cup sink level with the counter top when in place.
- Apply a dab of epoxy adhesive on all four sides of the cutout in the counter top.
- Position the cup sink directly over the counter top cutout and lower it into position.
- Center the sink (the blocks will hold it level) and allow the adhesive to harden overnight (at 77°C).
o After the epoxy adhesive has hardened, remove the support blocks and carefully fill in the sealant seam with adhesive.
o Using a rag wet with lacquer thinner, smooth off the seam. Use a separate clean (damp or dry) rag to wipe away any excess adhesive and allow to harden overnight.

**Installing a Under-mount Sink**

*Note: Check to see that the sink fits properly on the sink supports which were provided.*
o Using a level, check to make sure the top and the under-mount sink is flush with the top edge of the cabinet.
o Adjust the sink supports if necessary from under the sink.
o After the sink is positioned, be careful not to move it as you set the counter tops.
o Wipe the rim of the sink and contact points on the bottom of the counter top with a wet rag soaked with lacquer thinner.
o Apply a small bead of silicone sealant to the top edge of the sink.
o Apply a dab of epoxy adhesive at each corner of the sink cabinet.
o Carefully lower the sink counter top into place.
o Follow the steps outlined under Installing Counter tops for setting the counter tops in place and filling the seams and installing the curbs.

**INSTALLING SINK OUTLETS**

**Installing an epoxy sink outlet**
o Clean both the outlet and the recessed hole in the sink with lacquer thinner.
o Apply silicone or epoxy adhesive to the outlet in a ¼” bead around the bottom edge.
o Insert the outlet directly into the recessed hole in the sink.
o Give the outlet a ¼ turn after you make the contact.
o Be sure the outlet is centered in the hole.
o From under the sink, thread the retaining nut all the way up and carefully hand tighten it. The upper outlet flange is flush with the sink basin.

*Note: Do not use tools or over-tighten the plastic retaining nut.*
o Wipe of the excess epoxy adhesive in the sink. Using a rag wet with lacquer thinner, smooth out the edges of the sealant seam.
o Clean excess sealant with a clean rag (wet or dry).

**Installing an polypropylene outlet**
o Scuff the contact surface under the outlet flange to increase adhesion.
o Follow the procedure shown above using silicone or epoxy resin adhesive.
FINAL NOTES

Clean-up after installation for counter tops
- Wipe down all counter tops with clean warm water and a general-purpose detergent. Apply coat of linseed oil if needed to restore the sheen to the tops. This can also be done time-to-time after use of the counter tops. This procedure will help clean and cover surface scratches and blemishes.
  
  **Note:** *Never use wax on epoxy resin counter tops or sinks.*
- Protect the counter tops from construction damage. Cover all tops with clean cardboard or heavy brown paper.
- Under no circumstances should the counter tops be used as a platform for any overhead work or as a workbench for other trades.

Preventative maintenance for counter tops
- Normal marring, scratches or stains will occur. However, it will not compromise the performance of the counter tops. Maintaining good appearance of the counter tops depends upon good housekeeping procedures.
- Promptly remove all spills to ensure a safe working environment.
- Do not use wax on epoxy resin counter tops or sinks.
- Clean and polish counter tops with clean warm water and a general-purpose detergent. Apply coat of linseed oil if needed to restore the sheen to the tops.
  
  **Note:** *Never attempt to sand seams or scratches.*

Preventative damage
- Epoxy resin and phenolic core are the materials of choice for the laboratory environment. However any counter top materials are subject to thermal shock and are not warranted against damage by liquid nitrogen, dry ice, etc. Abuse caused by these materials could cause cracking or sink failure.