

Cabinet Installation
1300 Series A2
Class II, Type A2
Biological Safety Cabinet

Installation Manual 7991355 Rev. 16



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CAUTION!

Applicability of the instructions:

These instructions apply only to transport and temporary installation of the cabinet.

It is no substitute for understanding the cabinet functions and safe operation detailed in the operating instructions.

The cabinet must not be operated before an initial start-up with installation test has been performed after the final installation.

Danger of tipping over:

If the cabinet is tipped too far when being lifted, it may tip over. Therefore, the cabinet must only be lifted vertically!

For transport (even within buildings), use a suitable cabinet lift that ensures that the cabinet:

- is positioned on a level surface,
- is protected against lateral tip-over.

The cabinet must be transported only if the counterweight has been locked using the four retaining screws (Section 3), and the window glass is secured in place with adhesive tape.

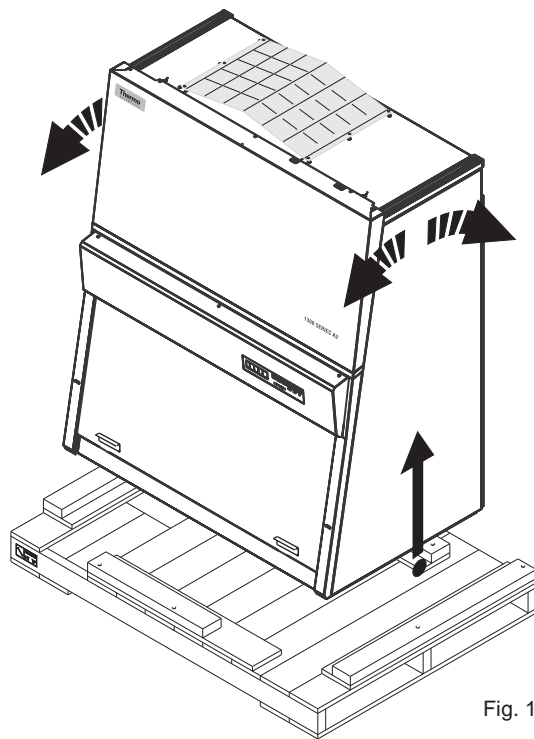


Fig. 1

1 Removal from pallet

Allow the unit to remain on the pallet until placed into its work location.

Tool requirements (not supplied)

Wire cutters

7/16" socket with ratchet

Cabinet lifting device

1" Open end or adjustable wrench

1. Remove both metal straps from cabinet and discard.
2. Remove staples holding window support foam blocks in place. Do not remove foam blocks at this time.
3. Remove front and rear wood cradle supports (2x4s) from pallet for easier access to cabinet.

CAUTION! The drain valve coupling extends below the bottom of the cabinet 1½ inches, on the front left corner.

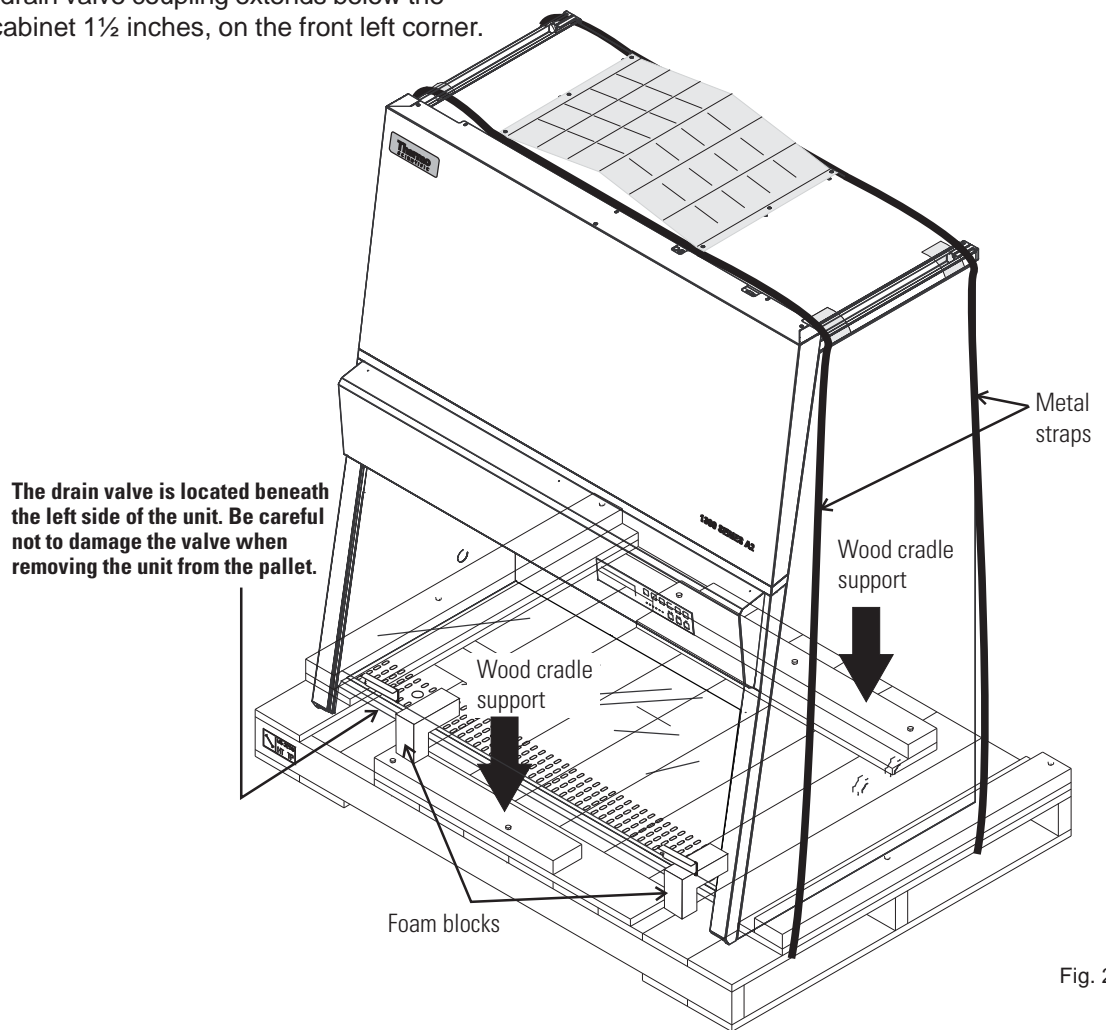


Fig. 2

Cabinet installation

2 Installing the cabinet

Cabinet Without Stand:

- Place the cabinet without stand onto a stable structure capable of supporting the weight of the cabinet so that the weight does not rest upon the drain pan.

Cabinet with Optional Adjustable Stand:

CAUTION!

Installation of optional accessories and retrofitting of cabinet components must be performed in accordance with the requirements specified in the operating instructions.

CAUTION!

Ensure label is affixed to outside back of crossmember. See Detail 1 on the following page.

NOTE:

All fasteners are metric.

Height-adjustable stand 1911302 (4 foot) or 1911303 (6 foot)

- The stand can be set to a height range of 26.8 - 34.7 in. (680 - 880mm).

Adjustable Height Stand Parts List

23022	10 SS Flatwasher (5)
113028	Adj foot insert (4)
443028	M5 Short arm hex key (1)
443029	M4 Short arm hex key (1)
530041	M5x0.8 Socket HD capscrew (5)
730124	5mm Lockwasher (5)
550069	M8x1.25 Button HD capscrew (17)
730123	8mm Lockwasher (17)

Cabinet installation

Installing the Adjustable Height Stand

CAUTION!

Make sure each leveler is turned all the way in, to avoid damaging the threads during installation.

1. Locate the four telescoping legs in the side panel packaging. Install adjustable leveler from the hardware bag into the swaged (flared) end of the legs. NOTE: Make sure leveler is screwed all the way in, before installation. Using a hammer, tap the leveler into place.
2. Locate the left and right side panels. Install the leg assemblies into the side panels as shown in Fig. 3.
3. The height-adjustable stand can be set to a height range of 26.8 - 34.7 in. (680-880mm). To set the stand to the desired height, pull the legs downward out of the channels to the desired height. Lock the height adjustment in place by installing two lockwashers/screws per channel to the leg.

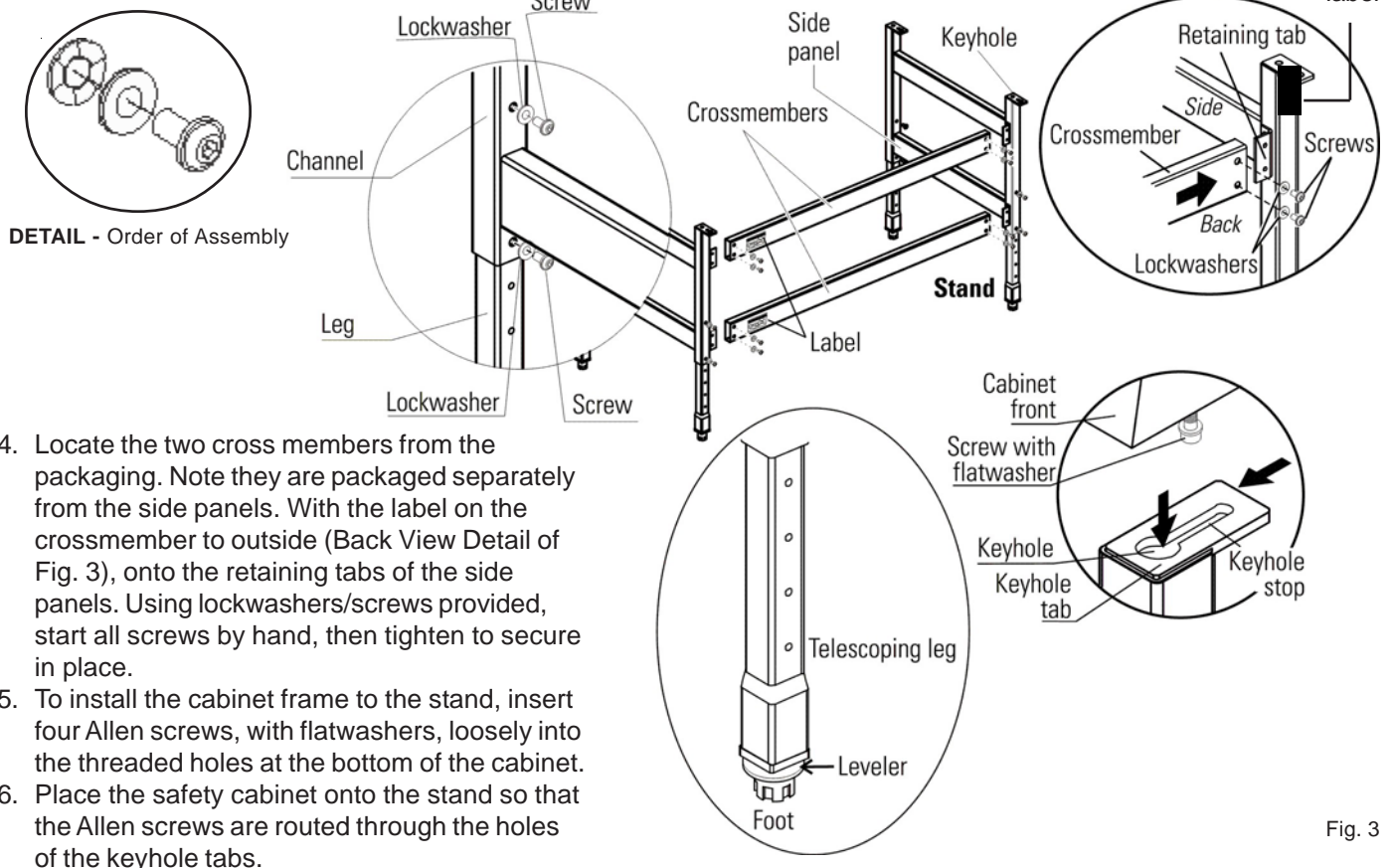


Fig. 3

4. Locate the two cross members from the packaging. Note they are packaged separately from the side panels. With the label on the crossmember to outside (Back View Detail of Fig. 3), onto the retaining tabs of the side panels. Using lockwashers/screws provided, start all screws by hand, then tighten to secure in place.
5. To install the cabinet frame to the stand, insert four Allen screws, with flatwashers, loosely into the threaded holes at the bottom of the cabinet.
6. Place the safety cabinet onto the stand so that the Allen screws are routed through the holes of the keyhole tabs.
7. Slide the cabinet frame to the keyhole stop (Front View Detail of Fig. 3).
8. Tighten the four Allen screws/flatwashers.
9. Install a grey hole cover label to the back of each leg, covering the hole just under the keyhole tabs. Apply 4 labels. Refer to Fig. 3.

Cabinet installation

3 Unlocking the window counterweight/glass

The front window counterweight is secured to the rear of the cabinet to protect it from damage during transport.



CAUTION!

The counterweight at the rear of the cabinet compensates for the weight of the front window.

The front window must not be moved before the counterweight has been unlocked.

Crushing hazard - after unlocking, keep hands and fingers away from the motion range of the counterweight to avoid accidental injury!

To unlock the counterweight:

Remove the four screws (see arrows in Fig. 4) using the T-20 Torx wrench shipped in the manual bag (Fig. 5). Retain the wrench and screws for future use. Be careful not to pinch fingers as counterweight moves.

NOTE! One person should hold the counterweight while a second person removes the screws. This facilitates screw removal and avoids the possibility of stripping the screws.

To remove the window and counterweight protective packaging:

1. Remove and discard the orange reminder tag and string from the window.
2. Remove the protective packaging from the upper and lower edges of the counterweight.
2. Remove the wedge foam pads from the top edge of the window.
3. Remove the tape strips along the sides of the window. The window can be raised at this time.
4. Remove the foam blocks from under the window edge.

4 Remove interior packaging

1. Remove the strapping tape from along the front and back edges of the work tray.
2. Lift work tray and remove the protective plastic wrap used during shipping, if applicable.
3. Remove the package from underneath the work tray. It will either be a foam block or the **armrests**, depending on model.
4. Remove strings and strapping tape from both ends of the UV light holders, if applicable.

NOTE! When positioning the cabinet, make sure that the counterweight on the back of the cabinet can move freely. The minimal distance to the wall or to adjacent objects should be 3 in. (7.6cm).

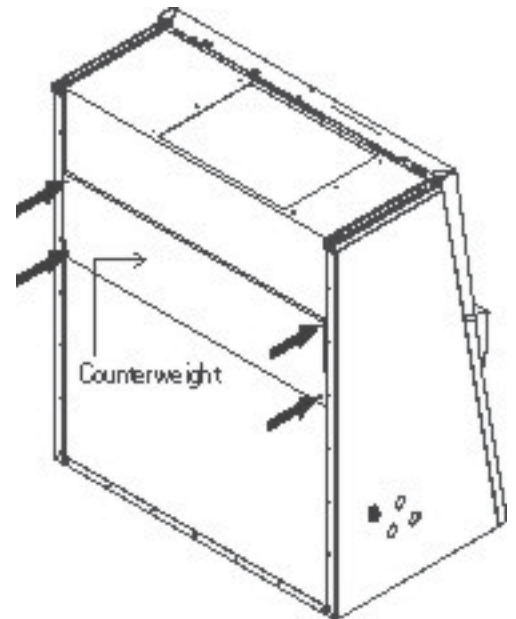


Fig. 4

Cabinet installation

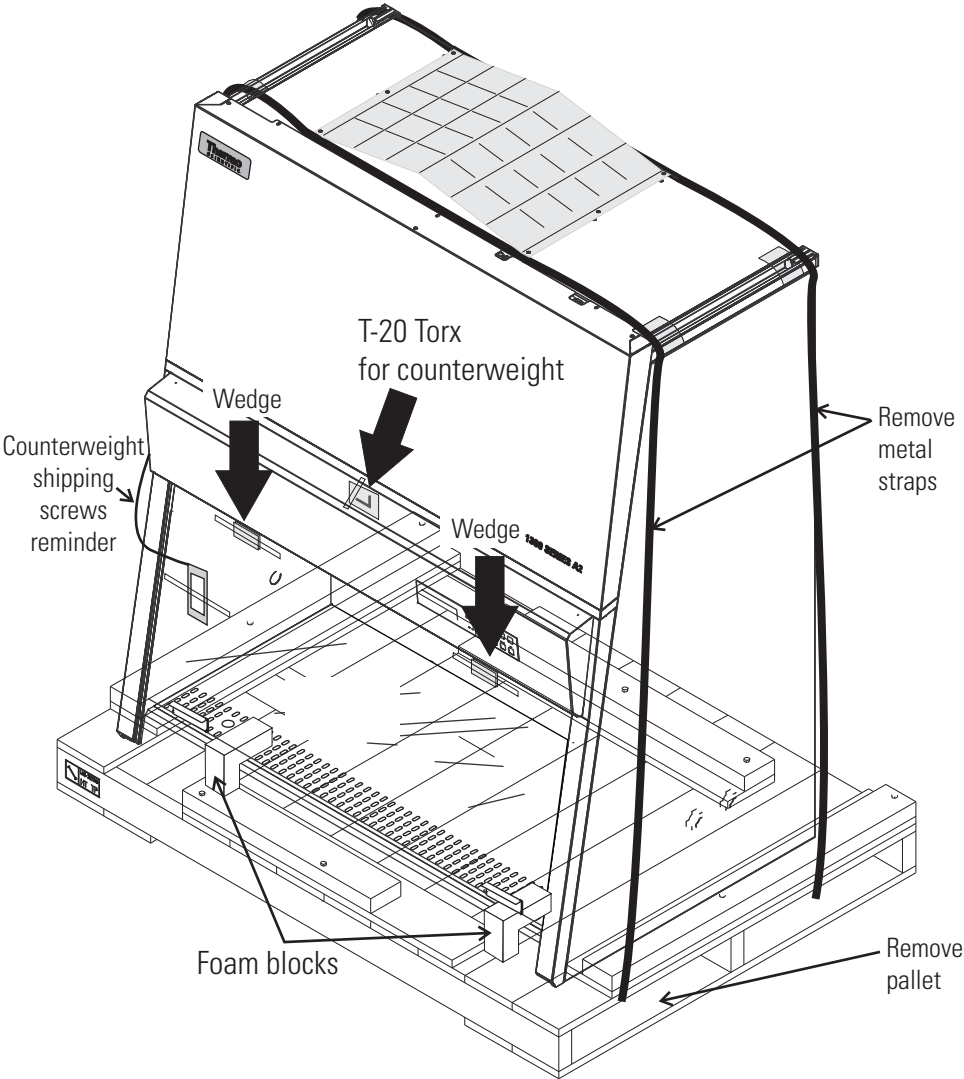


Fig. 5

Cabinet installation

5 Levelling the cabinet

Position the cabinet at the final installation site and level it.

Cabinet without stand:

- Place a bubble level onto the work tray surface and adjust the structure until the level indicates an absolutely horizontal position in all directions.

Cabinet with stand:

- Place a bubble level onto the work tray and adjust the four feet of the stand using a 1 inch open end or adjustable wrench until the level indicates an absolutely horizontal position in all directions. Proceed from right to left and from back to front.

NOTICE!

Further instructions:

For further suggestions of suitable installation sites, refer to the operating instructions.

For information on levelling the surface when using the optional stands, refer to the operating instructions and to the separate instructions enclosed with the optional stands.

6 Routing the power cable

1. **Fig. 6:** Make sure that the power cable is routed away from the counterweight and cable guide. For this purpose, the power cable can be secured to the cabinet ceiling using the included tie wrap anchors and tie wraps (see marking points).
2. Make sure that the power cable is not pinched or stretched.



WARNING!

High voltage:

Contact with current-carrying components may cause a lethal electric shock.

Before connecting the cabinet to the power source, check plug and line cord for possible damage.

Do not use damaged components to connect the cabinet to the power source.

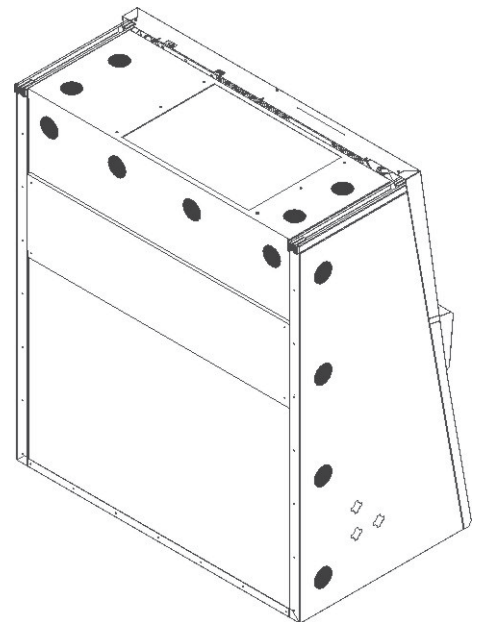


Fig. 6

Control panel

The operating panel is divided into three functional sections:

- **Display**
- **Keys**
- **Status indicator**

Display

- 1 Display for numbers and text.

Keys

- 2 Key for switching the cabinet on / off (switch-off only when cabinet is in standby mode, i.e., the window is in closed position).
- 3 Key to toggle between values: operating hours, downflow and exhaust air velocities in the safe work mode.
- 4 Key for switching the fluorescent light on and off.
- 5 Key for switching the power source for internal cabinet receptacles on and off (the LED indicates that voltage for the receptacles is ON).
- 6 Key for switching UV disinfection on and off (the yellow LED indicates that the UV disinfection routine has been activated; if the optional UV lamp is not installed, this key has no function).
- 7 Key for muting the audible alarm.

Status indicators

- 8 The air system is operating at reduced speeds (the blue LED is illuminated),
- 9 Airflow **is not** steady (the red LED is illuminated),
- 10 Airflow **is** steady (the green LED is illuminated),
- 11 Front window **is not** in work position (the red LED is illuminated),
- 12 Front window **is** in work position (the green LED is illuminated).

SMARTFLOW INDICATOR

- 13 The SMARTFLOW INDICATOR is an automatic airflow compensation system that adjusts motor speed as filters load, without the use of a manual damper.

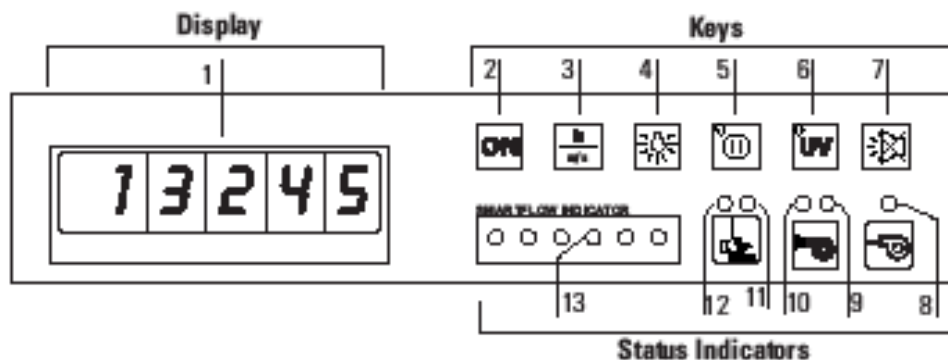


Fig. 7

Universal Piping

Universal piping is a factory installed option. The piping can be installed on either or both sides. Access points, depending on selected installation, are available on the top, sides, or bottom of the cabinet. Pipe threads are 1/4" FPT. Refer to Fig. 8 below.

Note: The top left access point is not available on the 3 cu ft units, due to the proximity of the exhaust filter. Both access points on 3 cu ft units are on the right side.

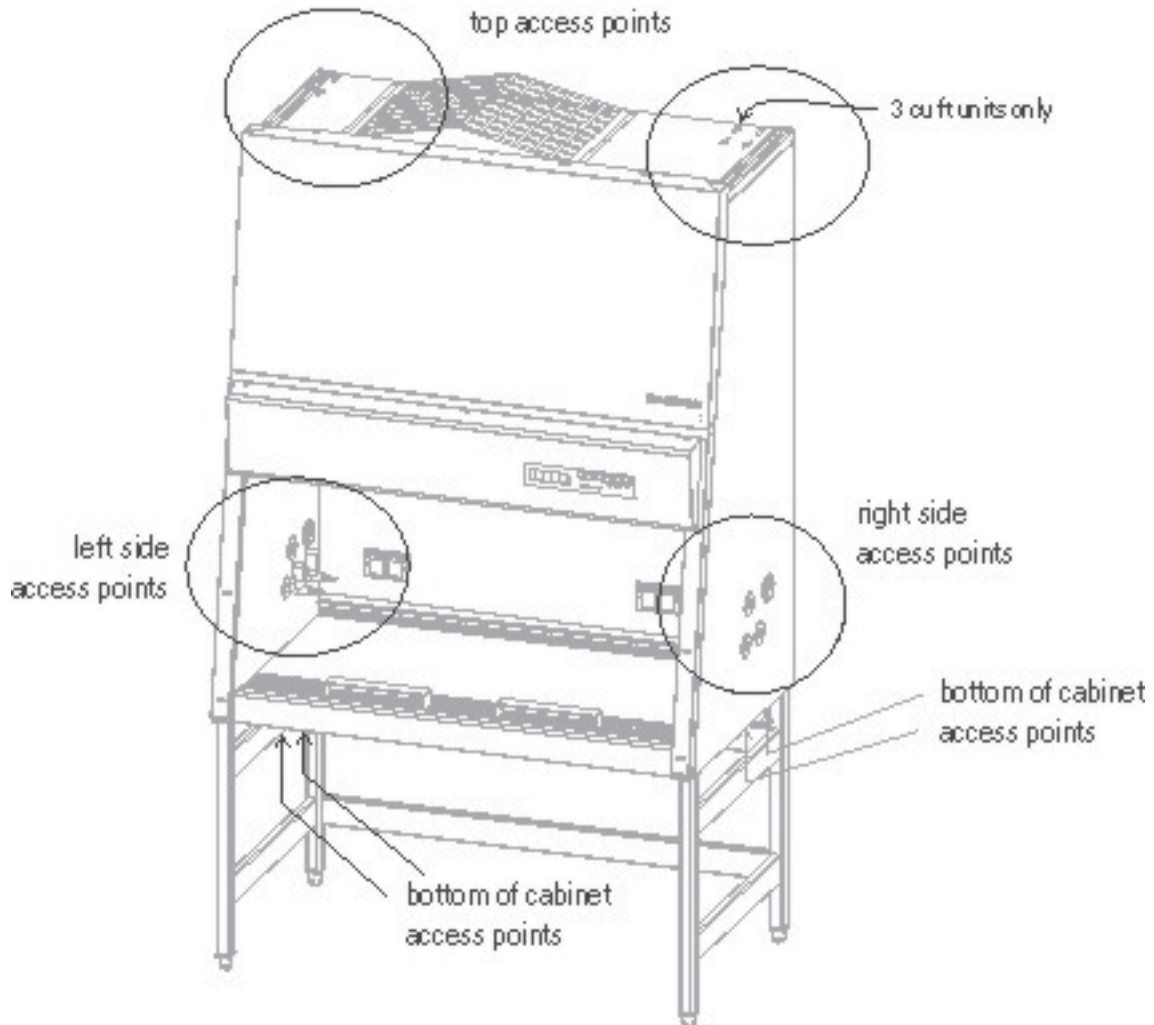


Fig. 8