OPERATOR'S MANUAL

POWDERSAFE™

DUCTLESS BALANCE ENCLOSURE
TYPE A

Models:
AC710C and AC710TC
AC720C and AC720TC

AirClean® Systems
"THE FUME CONTROL EXPERTS"

CONTENTS

AirClean® Systems
"THE FUME CONTROL EXPERTS"

DECLARATION OF CONFORMITY

We: AirClean® Systems, Inc.

of: 3248 Lake Woodard Drive
                Raleigh, North Carolina 27604
                USA

declare that:

        Product Name: Ductless Enclosure

        Model Numbers: AC710C and AC720C
                                AC710TC and AC720TC

in accordance with the following Directives:

        73/23/EEC   The Low Voltage Directive as amended by 93/68/EEC
        89/336/EEC   EMC Directive as amended by 92/31/EEC

has been designed and manufactured to the following specifications:

        Safety: IEC 61010: 2001 SAFETY REQUIREMENTS FOR ELECTRICAL EQUIPMENT
                        FOR MEASUREMENT

        EMC: CISPR 11 Electromagnetic Disturbance Characteristics - Limits And
                        Methods of Measurement
                        IEC 61000-4-2 Electromagnetic Compatibility, ESD
                        IEC 61000-4-3 Electromagnetic Compatibility, Radiated Immunity
                        IEC 61000-4-4 Electromagnetic Compatibility, Fast Transient
                        IEC 61000-4-5 Electromagnetic Compatibility, Surge
                        IEC 61000-4-6 Electromagnetic Compatibility, Conducted Immunity
                        IEC 61000-4-8 Electromagnetic Compatibility, MM
                        IEC 61000-4-11 Electromagnetic Compatibility, Voltage Interruption

The CE marking has been affixed on the device according to article 10 of the EMC Directive 89/336/EEC.

I hereby declare that the equipment named above has been designed to comply with the relevant sections of the above referenced specifications. The unit complies with the essential requirements of the directives.

Signed by:..

Name: M. Kevin McGough
Position: General Manager

Raleigh, North Carolina USA   15- Apr-2004

SYMBOLS AND DEFINITIONS

⚡	The lightning flash with arrowhead symbol within an equilateral triangle alerts the user to the presence of dangerous voltages within the product's enclosure that maybe of sufficient magnitude to constitute a risk of electric shock to persons.
⚠	The exclamation point within an equilateral triangle alerts the user to the presence of important operating maintenance or service instructions.
👥	The two persons lifting symbol within a circle alerts the user that two persons are required for safe lifting of the object.
(UL)	The presence of this symbol means that this equipment has been designed, tested and certified as complying with the applicable Underwriter's Laboratory (USA) regulations and recommendations.
CE	The presence of this symbol means that this equipment has been designed, tested and certified as complying with all of the essential requirements applicable to European Union (CE) regulations and recommendations.
⚠	This symbol alerts the user to the correct replacement fuses for the product.

Abbreviation   **Definition**

PPE	Personal Protective Equipment
OSHA	Occupational Safety and Health Administration
ACGIH	American Conference of Government Industrial Hygienists
TLV	Threshold Limit Value
HEPA	High-Efficiency Particulate Air
MSDS	Material Safety Data Sheet
ANSI	American National Standards Institute

CAUTIONS AND PRECAUTIONS

Signal Words and Meanings

⚠	WARNING - Indicates a potentially hazardous situation, which if not avoided, could result in death or serious injury.
⚠	CAUTION - indicates a potentially hazardous situation, which if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices or potential equipment damage.

Cautions

⚠	Always use a properly grounded line cord and receptacle.
⚠	Always replace fuses with those specified.
⚠	These instructions must be placed in an easily seen location.
⚠	DO NOT operate the equipment without the filters in place.
⚠	DO NOT use this system until it has been properly installed.
⚠	DO NOT operate this enclosure if the linecord appears damaged or frayed in any way.
⚠	DO NOT attempt to access non-user serviceable components of system.
⚠	DO NOT operate this enclosure if display is blank or hard to read. If display is hard to read, call technical support.

TECHNICAL SPECIFICATIONS

SPECIFICATIONS	AC710C	AC720C
Physical Dimensions		
Outside Dimensions	32"w x 30"h x 24"d	48"w x 34"h x 24"d
Inside Dimensions	31"w x 20"h x 23"d	47"w x 20"h x 23"d
Weight, including filters	125 lbs.	175 lbs.
Airflow Characteristics		
Low Airflow Alarm	Audible/Visual	Audible/Visual
Volume of Filtered Air	260 CFM	520 CFM
Linear Face Velocity	80 FPM	80 FPM
Electrical		
Voltage	110V or 220V	110V or 220V
Current	1.0A / .5A	2.0A /1.0A
Power Consumption	110W	220W
Mains Fluctuation	±10%	±10%
Operation		
Speed Selection	Variable Speed	Variable Speed
Construction		
Top Material	ABS	ABS
Front Panel and Sides	PETG	Lexan™ Polycarbonate
Base Material	Polypropylene	Polypropylene
Pre-filter[1]		
Type	ACFPRE1	ACFPRE4
Weight	8 oz.	5 oz.
Dimensions	12"w x 24"l x 1"h	8"w x 17"l x 1"h
Requirements	1	2
Filter[2] (HEPA[3] or Bonded Carbon[4])		
Type	ACFHEPA or Bonded Carbon	ACFHEPA-18 or Carbon-18
Weight	9 lbs. or 22 lbs.	6 lbs. or 15 lbs.
Dimensions	12"w x 24"l x 3"h	12"w x 18"l x 3"h
Requirements	1	2
Options		
Cart w/ two 4" locking wheels	32"l x 24"w x 34"h	48"l x 24"w x 34"h

NOTE 1
Your enclosure is shipped with the prefilter(s) attached to the inside of the enclosure. AirClean® Systems prefilters are filtrete electrostatic particulate filters with 65% efficiency for particulate down to 0.5 microns in diameter (DOP test). The prefilter must be checked on a scheduled basis. Refer to the "MAINTENANCE" section of this manual.

NOTE 2
Your AirClean® Systems enclosure was shipped with the main filter(s) installed.

NOTE 3
If your application is particulate-based only, a HEPA filter is required. The HEPA filters will not protect the operator from any fumes.

NOTE 4
If your application is chemical-based only, a bonded carbon filter is required. The bonded carbon filter should not be used to contain particulate.

TECHNICAL SPECIFICATIONS

SPECIFICATIONS	AC710TC	AC720TC
Physical Dimensions		
Outside Dimensions	32"w x 40"h x 24"d	48"w x 42"h x 24"d
Inside Dimensions	31"w x 30"h x 23"d	47"w x 22"h x 23"d
Weight, including filters	150 lbs.	225 lbs.
Airflow Characteristics		
Low Airflow Alarm	Audible/Visual	Audible/Visual
Volume of Filtered Air	460 CFM	920 CFM
Linear Face Velocity	80 FPM	80 FPM
Electrical		
Voltage	110V or 220V	110V or 220V
Current	1.0A / .5A	2.0A /1.0A
Power Consumption	110W	220W
Mains Fluctuation	±10%	±10%
Operation		
Speed Selection	Variable Speed	Variable Speed
Construction		
Top Material	ABS	ABS
Front Panel and Sides	Lexan™ Polycarbonate	Lexan™ Polycarbonate
Base Material	Polypropylene	Polypropylene
Pre-filter[1]		
Type	ACFPRE1	ACFPRE4
Weight	8 oz.	5 oz.
Dimensions	12"w x 24"l x 1"h	8"w x 11"l x 1"h
Requirements	1	2
Filter[2] (HEPA[3] or Bonded Carbon[4])		
Type	ACFHEPA or Carbon	ACFHEPA-18 or Carbon-18
Weight	9 lbs. or 22 lbs.	6 lbs. or 15 lbs.
Dimensions	12"w x 24"l x 3"h	12"w x 18"l x 3"h
Requirements	1	2
Options		
Cart w/ two 4" locking wheels	32"l x 24"w x 34"h	48"l x 24"w x 34"h

NOTE 1
Your enclosure is shipped with the prefilter(s) attached to the inside of the enclosure. AirClean® Systems prefilters are filtrete electrostatic particulate filters with 65% efficiency for particulate down to 0.5 microns in diameter (DOP test). The prefilter must be checked on a scheduled basis. Refer to the "MAINTENANCE" section of this manual.

NOTE 2
Your AirClean® Systems enclosure was shipped with the main filter(s) installed.

NOTE 3
If your application is particulate-based only, a HEPA filter is required. The HEPA filters will not protect the operator from any fumes.

NOTE 4
If your application is chemical-based only, a bonded carbon filter is required. The bonded carbon filter should not be used to contain particulate.

AirClean® Systems PowderSafe™ Type A enclosures are designed to provide operator protection from compounds or fumes with low to intermediate toxicity. Type A enclosures provide balanced negative pressure at the face of the enclosure to minimize operator exposure. The Type A enclosure incorporates a combination of pre-filtration and HEPA filtration, when dealing with powders, and a combination of pre-filtration and bonded carbon filtration when dealing with fumes. Type A enclosures should not be used with high toxicity or unknown compounds.

AIRFLOW PATTERN

1) **Laminar flow room air enters enclosure at "A".**
2) **Air moves evenly through enclosure at "B" while capturing any particulate or fumes.**
3) **Clean air is exhausted at "C" after passing through pre-filtration and HEPA filtration or pre-filtration and bonded carbon filtration.**

Blower

Bonded Carbon Filter or HEPA Filter

Optional Fluorescent Light on AC710C & AC710TC Standard on AC720C & AC720TC
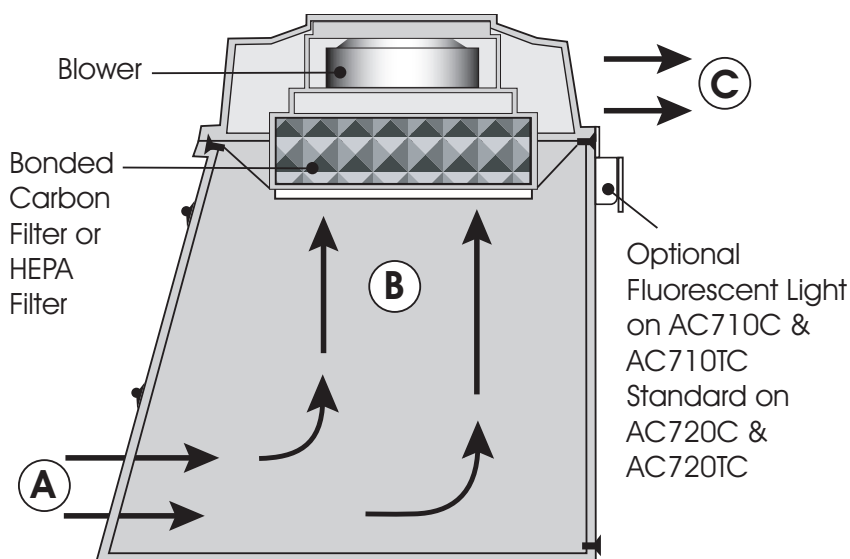
Figure 1, Airflow pattern

UNPACKING AND INSTALLATION INSTRUCTIONS

1) Make sure that your enclosure arrived secured to a pallet/skid. Inspect the exterior packaging (box) for damage. Note any damage or absence of pallet on the freight carrier's waybill and call AirClean® Systems immediately.
2) Put on safety glasses and cut banding material.
3) Remove box top and sleeve.
4) Remove shrink-wrap and foam. If you use a sharp object to cut the shrink-wrap and foam, make sure not to cut into the enclosure.
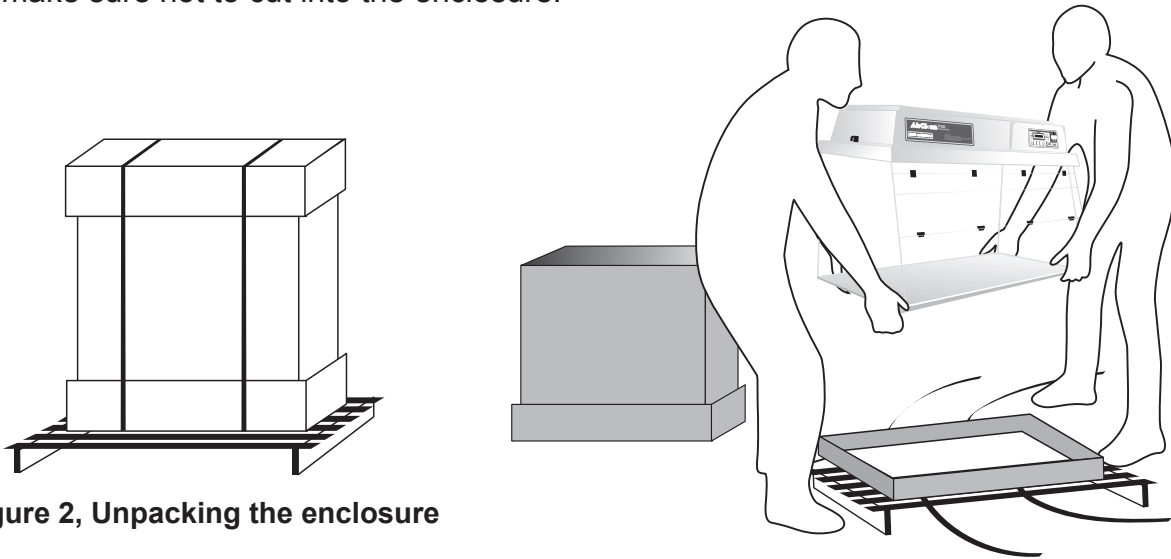
Figure 2, Unpacking the enclosure

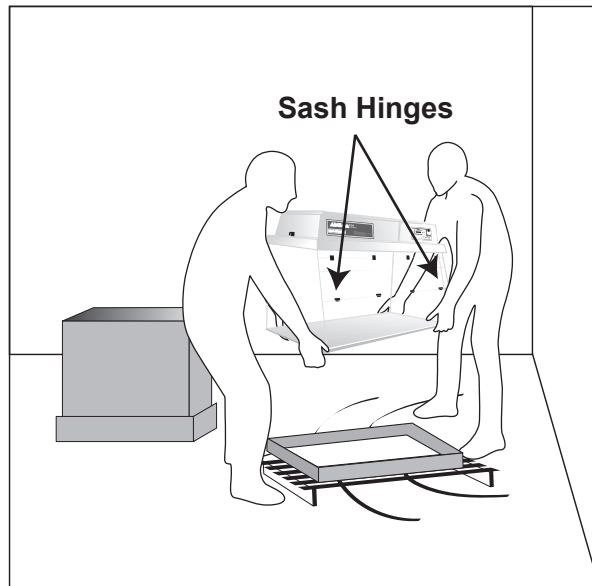| ⚠	**CAUTION: This enclosure should not be installed near doors, windows or air conditioning/ heating/ ventilation systems. Air must be allowed to circulate freely around the enclosure.**

Note: Ready access is required to the power entry module and On/Off switch located at the upper, rear corner behind the controller.

5) If ordered, assemble the mobile cart. Assembly instructions are included with the cart and also in the OPTIONS section of this manual. (page 26-27)
6) Designate the appropriate installation location. Make sure that the desired area is stable enough to hold the enclosure and that there is an appropriate AC wall receptacle near the enclosure. Do not place enclosure near doors or windows.
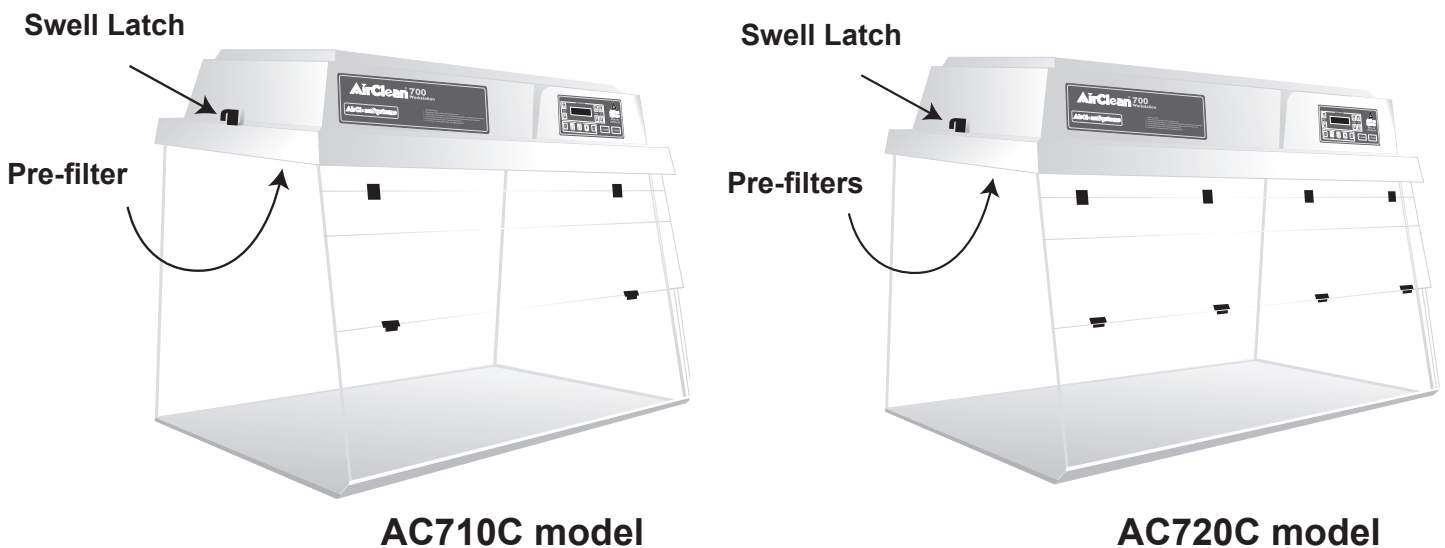
⚠	**CAUTION: DO NOT lift the enclosure by the head assembly, the sash, or any protruding wires.**

7) With the help of a co-worker, lift the enclosure out of the bottom tray of the box. Make sure to lift from the bottom of the enclosure. See figure 3.

Figure 3, Lifting the enclosure properly.

8) Place the enclosure in the desired location. Once in place, make sure that it is secure and stable.

9) Visually inspect your enclosure, checking for any damage that may have occurred in shipping. Pay special attention to the sash hinges. If damage has occurred, call AirClean® Systems immediately. DO NOT attempt to use enclosure.

10) Remove the pre-filter for inspection before use. Refer to the MAINTENANCE section of this manual for complete instructions. (page 17)

11) Make sure that the swell latches, located on the side lip of the head assembly, are in the latched position and that the head assembly is secure and properly seated. See figure 4.
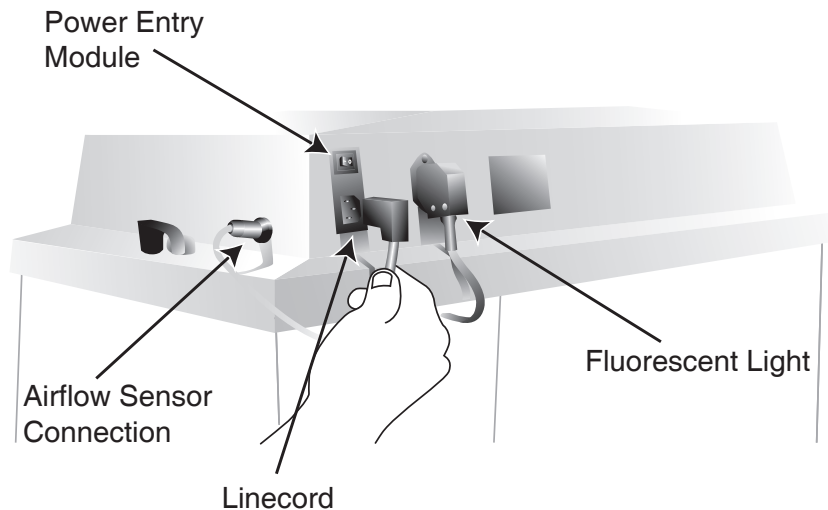

AC710C model

AC720C model

Figure 4, Pre-filter and swell latch locations.

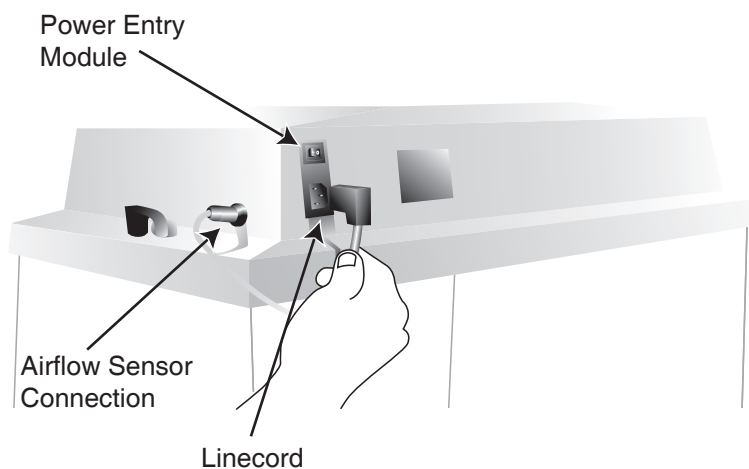12) Make sure that the airflow sensor cable on the right hand side of the head assembly is secure. See figure 5.

⚠	CAUTION: Only use approved accessories with the exterior connectors.

13) Make sure that any exterior linecord connections are secure and seated properly. These connections are located on the back of the enclosure. See figure 5.

14) Locate the power entry module on the back of the enclosure. Insert the female end of the linecord into the power entry module and the male end into an appropriate electrical outlet. See figure 5.

Power Entry Module

Fluorescent Light

Airflow Sensor Connection

Linecord

AC710C and AC710TC models illustrated above

Power Entry Module

Airflow Sensor Connection

Linecord

AC720C and AC720TC models illustrated above

Figure 5, Airflow Sensor, Fluorescent Light (optional) and Linecord Connections.

Figure 6, AirSafe™ Automatic Safety Controller layout.

QUICK KEYS	
	BLOWER - Default screen will continuously display face velocity while blower is activated.
	PUMP - Inactive key for enclosure.
	LIGHT - One touch to enable fluorescent light, if installed.
	TIMER - User definable lab event timer.
	AUX - Inactive key for enclosure.

• All other settings are factory pre-set and should not be changed.

PROGRAMMING KEYS

The AirSafe™ Automatic Safety Controller is the first of its kind on the market. This breakthrough was designed to give the user a variety of options with the ease of fingertip control. The controller board consist of 13 keys, each with a specific function:

MODE　Allows the operator to move between different program screens.

SELECT　Allows movement within each program screen. The user modifiable portions of the screen will blink.

SET　Allows operator to adjust the following user definable settings:
- Face velocity　　　• Time/Date
- Lab event timer　　• Gas detection

* All other settings are factory preset and should not be changed.

ALARM　Allows deactivation of the audible alarm but keeps the visible alarm armed.

POWER　Turns on/off power to the controller and its keys. This DOES NOT cut off power to the entire enclosure.
(The main power switch is located above the power inlet on the back, right-hand side of the enclosure.)

PROGRAMMING MENUS

MAIN MENU -　Displays the time and date when the main power is on and the controller power is off. When controller power is activated the screen will display one of the following and may be changed by pressing the "Select" down arrow key:
- Airflow Monitor (Measured in Linear Feet per Minute)
- Lab Event Timer (Preset at 20 minutes)
- Current HEPA filter reading (measured in back pressure - BP)
- Current GAS DET reading (If a bonded carbon filter is installed)

NOTE: Activating the Lab Event Timer (by menu or Quick Key) will automatically switch the main menu to display the timer countdown. To switch the display back to the Airflow Monitor, just toggle with the "Select" up arrow key.

PROGRAMMING MENUS

BLOWER CONTROL – This menu is preset at the factory to meet O.S.H.A. face velocity standards while in AUTOMATIC mode. From this screen you can:
- Turn the blower on/off.
- Switch from automatic to manual blower speed based on the application.
- Change the output of the blower.

TIMER – This menu allows the operator to turn the timer on/off and to program an appropriate event time. Once the operator has programmed the desired time, the Timer can be activated by touching the Timer Quick Key on the front of the controller.

TIME/DATE – The operator can change displayed time and date.

ALARM SETTINGS – All alarm points for face velocity, HEPA filter and gas detection have been preset by the manufacturer and should not be altered.

ALARM SCREEN – Allows the operator to turn the low airflow, HEPA, and gas alarms on/off in this screen. This controls both the audible and the visible alarms. If the operator turns off the alarm in this screen, nothing (audible or visible) will alert you if the airflow is below the selected face velocity, the HEPA filter is clogged, or the bonded carbon filter fails.

NOTE: The operator can deactivate the audible alarm, when it sounds, by touching the alarm button on the controller. The visible alarm will still work.

FILTER – This menu shows the serial number and the purchase date of the filter. For every new filter installed, a new filter serial number must be entered. Refer to the "MAINTENANCE" section for complete instructions. The first filter serial number has already been entered for you prior to shipment.

BLOWER HOURS – Displays the hours and minutes that the blower has been active.

GAS DETECTOR – (for carbon enclosures only) A solid state hydrocarbon detector warns the user of filter breakthrough. Alarms are audible and visible.

ADDITIONAL INFORMATION
- Keep the right hand side of the unit away from the wall and turbulent places. Never install enclosures near doorways or high-traffic areas.
- To avoid confusion, each alarm has a distinctive sound and will flash what the problem is on the display screen.
- A few minutes are needed for the airflow sensor to warm up, stabilize, and settle at the correct airflow speed.
- Unless the operator turns the blower off (by Quick key or in the blower menu) before turning the power off, the blower will automatically come on each time the operator activates the unit.
- Anything the operator changes within the program is automatically saved.
- Allow each enclosure to run five minutes, before use, to stabilize the environment.

OPERATING INSTRUCTIONS - POWDERS & PARTICULATE

The following operating instructions are specific for containment of powders and particulate.

NOTE: Ensure that the INSTALLATION AND ASSEMBLY INSTRUCTION steps have been completed.

A. To operate the enclosure:
   1. Before use, ensure that you are not using an incompatible substance within the enclosure. With a HEPA filter, use only powders in the enclosure. For other substances, please call our office to verify compatibility before use (in this case, your filter may have another model number). Direct Dial 919-255-3220 or 800-849-0472. Monday-Friday 8:00-5:00 PM EST.
   2. Connect the supplied power cord to the unit and to the power outlet. Flip the switch on the back of the unit above the power inlet module. This will activate the main power. The screen on the controller should light up and display the time and the date. Allow the enclosure to run for 5 minutes before beginning your application.
   3. Perform any part of your process that involves powders or particulate inside your enclosure.
B. When working within the enclosure, keep the front sash down and perform your procedure in the center to rear of the enclosure.
C. If the low airflow alarm sounds and/or lights up, the pre-filter or HEPA filter may be clogged.
D. When this happens refer to the "MAINTENANCE" section of this manual.

REMEMBER: Following the instructions assures better protection of the operator and the environment, and extends the life of the enclosure and filter. Correct use of the enclosure is the responsibility of the operator!

ALARM MESSAGES

The alarms that are built into the system are maintenance related. They are designed to tell the operator about conditions that may affect the operation of the enclosure and decrease its performance.

   • **ALARM CHG FILT** - The change filter alarm is a chronological timed alarm that turns on about two weeks before the HEPA filter should be changed. It serves as a reminder to change the filter before it becomes blocked.
   • **ALARM FILT BP** - the BP alarm comes on when either the prefilter or the HEPA filter becomes dirty and the enclosure requires immediate filter maintenance.
   • **ALARM LOW AIRFLOW** - The Low Airflow alarm comes on when the face velocity drops below the pre-set limit.

OPERATING INSTRUCTIONS - FUMES & VAPORS

The following operating instructions are specific for containment of fumes and vapors.

> **NOTE:** Ensure that the INSTALLATION AND ASSEMBLY INSTRUCTION steps have been completed.

A. To operate the enclosure:
   1. Before use, ensure that you are not using an incompatible substance within the enclosure. With a bonded carbon filter, use only liquids in the enclosure. For other substances, please call our office to verify compatibility before use (in this case, your filter may have another model number). Direct Dial 919-255-3220 or 800-849-0472. Monday-Friday 8:00-5:00 PM EST.
   2. Connect the supplied power cord to the unit and to the power outlet. Flip the switch on the back of the unit above the power inlet module. This will activate the main power. The screen on the controller should light up and display the time and the date. Allow the enclosure to run for 5 minutes before beginning your application.
   3. Perform any part of your process that involves liquids inside your enclosure.
B. When working within the enclosure, keep the front sash down and perform your procedure in the center to rear of the enclosure.
C. If the low airflow alarm sounds and/or lights up, the prefilter or bonded carbon filter may need to be changed.
D. When this happens refer to the "MAINTENANCE" section of this manual.
E. If the GAS DET alarm sounds, stop your process and call technical support immediately at (800)849-0472.

> **REMEMBER:** Following the instructions assures better protection of the operator and the environment, and extends the life of the enclosure and filter. Correct use of the enclosure is the responsibility of the operator!

ALARM MESSAGES

The alarms that are built into the system are maintenance related. They are designed to tell the operator about conditions that may affect the operation of the enclosure and decrease its performance.

- **ALARM ⯈ CHG FILT -** The change filter alarm is a chronological timed alarm that turns on about two weeks before the bonded carbon filter should be changed. It serves as a reminder to change the filter before it becomes blocked.
- **ALARM ⯈ GAS DET -** The gas detector alarm comes on when breakthrough is detected.
- **ALARM ⯈ LOW AIRFLOW -** The low airflow alarm comes on when the face velocity drops below the pre-set limit.

FILTERS

Pre-filters

Pre-filters should be inspected for dust/particulate saturation every month. With average use, the pre-filters should be changed every 3 months.

To check the pre-filters:
1. Look through the sash to the inside of your enclosure. Look upward to where the filter shelf is located.
2. The pre-filter is attached to the filter shelf. If it is discolored (the original color is white), replacement is needed.

To replace the pre-filters:
1. Turn the enclosure on and make sure the blower is running.
2. Place an appropriate poly bag on the base of the enclosure. You will place the clogged pre-filters inside the bag and seal it before removing it from the enclosure.
3. Don the proper PPE for handling the substances that have been used inside the enclosure (refer to the MSDS sheets). Rotate the front pre-filter clips away from the pre-filter. Pull the pre-filter towards you so that it slides off of the back supports. DO NOT REMOVE THE PRE-FILTER FROM THE ENCLOSURE!
4. Place the pre-filter inside the poly bag and remove for disposal. Repeat the above steps for the next pre-filter. (Models AC720C & AC720TC)
5. Wipe any residue off of the pre-filter grid and base of the enclosure. Place the rag inside the bag with the pre-filter and seal the bag. Dispose of the pre-filters in accordance with your local guidelines for substances that have been used inside the enclosure.
6. Inspect the HEPA filter for blockage.
7. Slide one of the new pre-filters onto the back pre-filter supports. Rotate the front pre-filter clips towards the pre-filter so that the clips are secure against the frame. Repeat this for the second pre-filter. (AC720C & AC720TC)
8. Dispose of your PPE in accordance with your local guidelines for the substances that have been used inside the enclosure.

Check the display screen to assure that the enclosure is functioning properly.
1. If the Low Airflow Alarm is not activated, proceed to use the enclosure.
2. If the Low Airflow Alarm is activated, contact our Technical Support Department at (800)849-0472. Direct dial (919)255-3220. Monday - Friday 8:00AM - 5:00PM EST.

HEPA FILTERS

HEPA filters should be changed every 18-24 months or when the alarm sounds, whichever comes first.

Replacement Instructions:

> ⚠ **CAUTION: Disconnect the linecord from the power entry module prior to proceeding.**
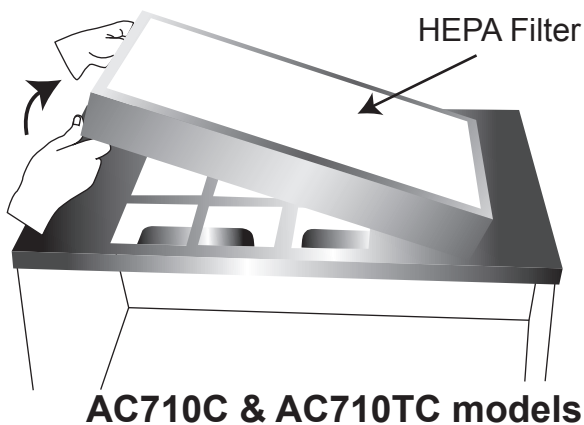
* Don the proper PPE, including a NIOSH certified respirator. All personnel in the room should be protected during the filter replacement.

1. Disconnect linecord from the power entry module. Disconnect the airflow sensor cable and light cables. See figure 5.
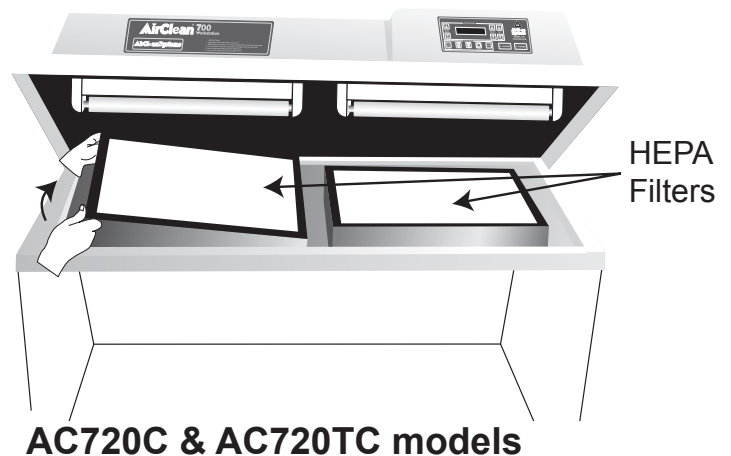2. Lift up black latches on each side of the head assembly cover.

> ⚠ **CAUTION: Two persons are required to remove the head assembly.**

3. With the black latches in the upward position, remove the head assembly cover.

HEPA Filter

HEPA Filters

AC710C & AC710TC models

AC720C & AC720TC models

Figure 7, HEPA filter replacement.

4. Remove the HEPA filter(s) from the filter bed and place in a polybag.
5. Seal the polybag and discard in conjunction with local regulations for the substances used inside the enclosure.
6. Remove the new HEPA filter(s) from the packaging using caution not to touch the white filter media. Take note of the serial number on the new HEPA filter. The serial number will be required later.
7. Place the HEPA filter(s) in the filter bed with the metal screen side down.
8. Align the head assembly cover back into position and secure black latches.
9. Reconnect the linecord, airflow sensor cable, and light cables.
10. With power on, check the status of the unit. If the Low Airflow Alarm is activated, please contact Technical Support at (800) 849-0472.
11. A new serial number must be logged into the controller each time a new HEPA filter is installed. Refer to page 20.

BONDED CARBON FILTERS

Bonded carbon filters should be changed every 12 months or when the alarm sounds, whichever comes first.
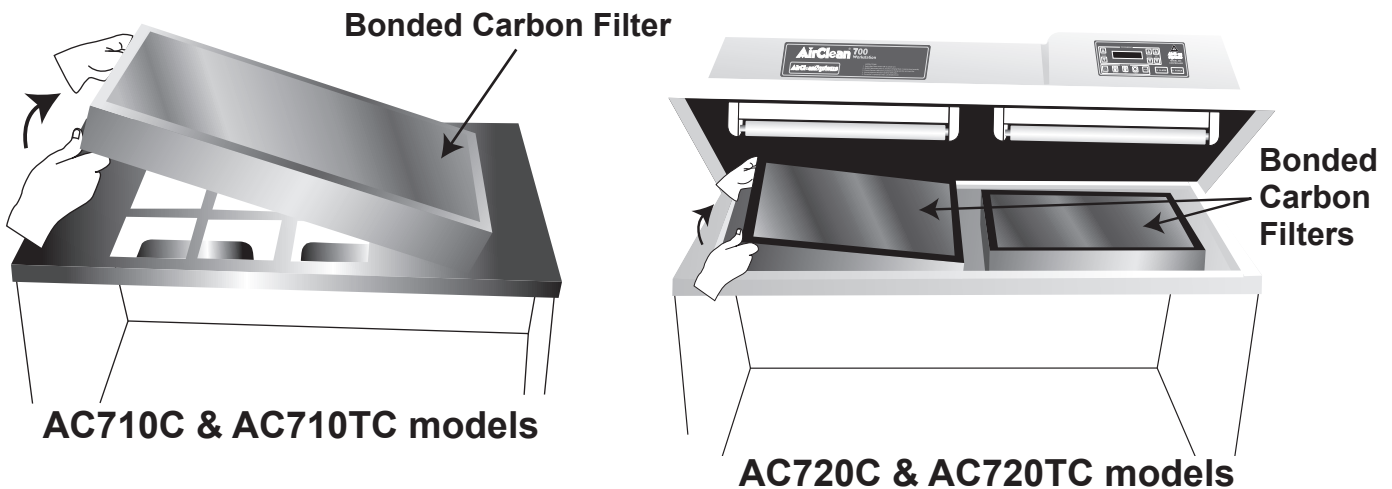
Replacement Instructions:

> ⚠️ **CAUTION: Disconnect the linecord from the power entry module prior to proceeding.**

1. Disconnect linecord from the power entry module. Disconnect the airflow sensor cable and light cables. See figure 5.
2. Lift up black latches on each side of the head assembly cover.

> ⚠️ **CAUTION: Two persons are required to remove the head assembly.**

3. With the black latches in the upward position, remove the head assembly cover.

AC710C & AC710TC models

AC720C & AC720TC models

Figure 8, Bonded carbon filter replacement.

4. Remove the bonded carbon filter(s) from the filter bed and dicard in conjunction with local regulations for the substances used inside the enclosure.
5. Remove the new bonded carbon filter(s) from the packaging. Take note of the serial number on the new bonded carbon filter. The serial number will be required later.
6. Place the bonded carbon filter(s) in the filter bed with the filter label side up.
7. Align the head assembly cover back into position and secure black latches.
8. Reconnect the linecord, airflow sensor cable, and light cables.
9. With power on, check the status of the unit. If the Low Airflow Alarm is activated, please contact Technical Support at (800) 849-0472.
10. A new serial number must be logged into the controller each time a new bonded carbon filter is installed. Refer to page 20.

SERIAL NUMBER ENTRY

- Press the "MODE" up arrow key until the filter screen is displayed. This screen will display the days remaining for filter life.
- Press the "SELECT" up arrow key. The first 2 digits of the old filter serial number will be blinking.
- Using the "SET" keys, enter the new serial number starting with the first two digits. Press the "SELECT" up arrow key to move to the next set of digits.
- Repeat until the entire serial number is entered.
- Press the "SELECT" up arrow key until the "<" carat symbol is blinking.
- Finish by pressing the "SET" up arrow key once to reset the filter serial number.
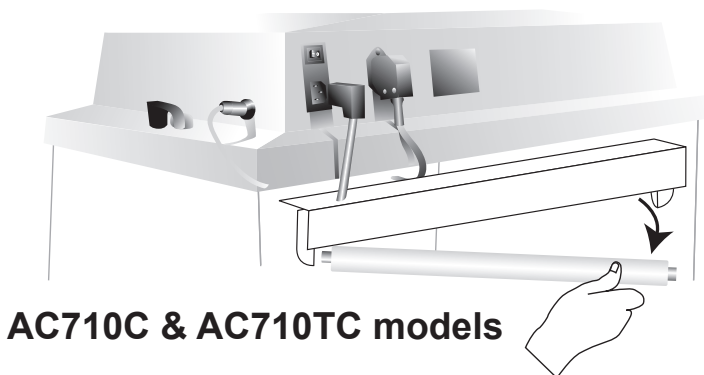
BULBS

Fluorescent Bulbs

The fluorescent light feature is optional on the AC710C & AC710TC and standard on the AC720C & AC720TC. The AC710C enclosure contains one fluorescent bulb, and the AC720C enclosure contains two fluorescent bulbs. They may be replaced as needed with a 15W Cool White Bulb.

To replace the fluorescent light bulb in the AC710C model:

⚠️	**CAUTION: Disconnect the linecord from the power entry module prior to proceeding.**

1. Disconnect the linecord from the power entry module prior to proceeding. See figure 5.
2. Position the enclosure so that the light fixture is facing you. See figure 9.
3. Using both hands, turn the bulb counter clockwise ¼ of a turn and remove from the light socket.
4. Install new bulb by sliding into the light socket and turning clockwise ¼ of a turn until the bulb locks into place.
5. Return the enclosure to it's desired location.
6. Reconnect the linecord, airflow sensor cable, and light cables. See Figure 5.
7. Turn the power back on at the power entry module. See Figure 5.

AC710C & AC710TC models

Figure 9, Fluorescent bulb replacement.

AC720C & AC720TC models

To replace the fluorescent light bulb in the AC720C & AC720TC models:

> ⚠ **CAUTION: Disconnect the linecord from the power entry module prior to proceeding.**

1. Disconnect the linecord from the power entry module and the airflow sensor cable from the side of the head assembly. See figure 5.
2. Lift up the black latches on each side of the head assembly cover.

> ⚠ **CAUTION: Two persons are required to remove the head assembly.**

3. With the black latches in the upward position, remove the head assembly cover. See figure 8.
4. Using both hands, turn the bulb counter clockwise ¼ of a turn and remove the bulb from the socket.
5. Install new bulb by sliding into the light socket and turning it clockwise ¼ of a turn until the bulb locks into place.
6. Align the head assembly cover back into position and secure black latches.
7. Reconnect the linecord, airflow sensor cable, and light cables. See Figure 5.
8. Turn the power back on at the power entry module. See Figure 5.

CONTROLLER

> ⚠ *WARNING: Only remove the controller module under the direction of an AirClean® Systems trained technician.*

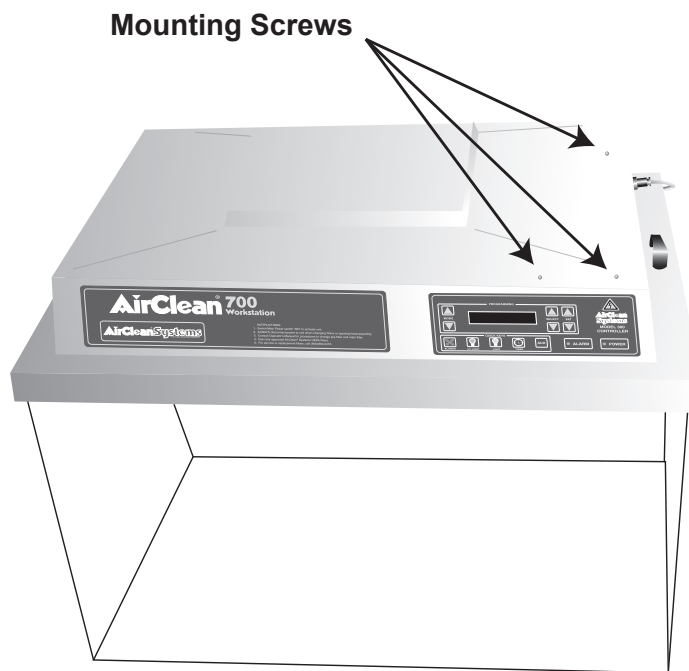## Controller Replacement for the AC710C & AC710TC Models

Removal

1. Remove the linecord from the power entry module as shown in figure 5.

> ⚠ *WARNING: If the linecord has not been removed there may be potentially hazardous voltages present behind the controller module.*
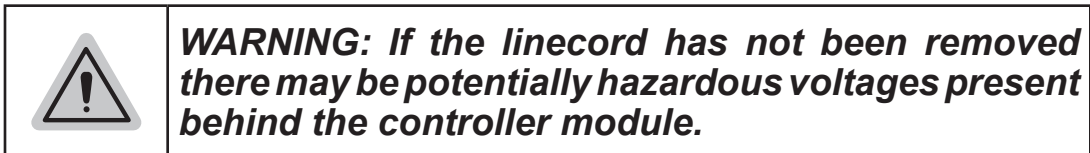
2. Remove three mounting screws from the top of the controller and slide the control module forward until you can access the two connectors on the rear of the module. See figure 10.

Mounting Screws

Figure 10, Removing the AirSafe™ Automatic Safety Controller from the AC710C & AC710TC models.

3. Disconnect the two connectors at the rear of the module and remove module.

Replacement

> ⚠️ *WARNING: If the linecord has not been removed there may be potentially hazardous voltages present behind the controller module.*
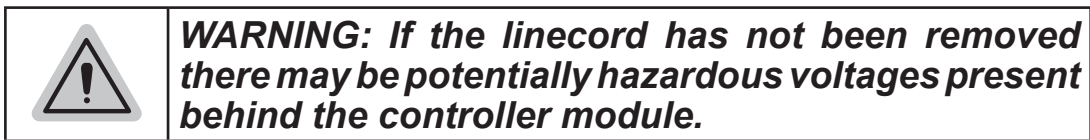
1. Place the new control module so that the left rear corner is in the control box opening.

2. Reattach the two connectors at the rear of the control box.

3. Slide the module into position and replace the three mounting screws.

4. Reattach the linecord as shown in figure 5.

5. Turn the power back on at the power entry module. See Figure 5. Make sure the display screen lights up and and displays the time and date.

Controller Replacement for AC720C & AC720TC Models

Removal

1. Remove the linecord from the power entry module as shown in figure 5.

> ⚠️ *WARNING: If the linecord has not been removed there may be potentially hazardous voltages present behind the controller module.*

2. Remove two mounting screws from the front of the controller and slide the control module forward until you can access the two connectors on the rear of the module. See figure 11.

3. Disconnect the two connectors at the rear of the module and remove module.
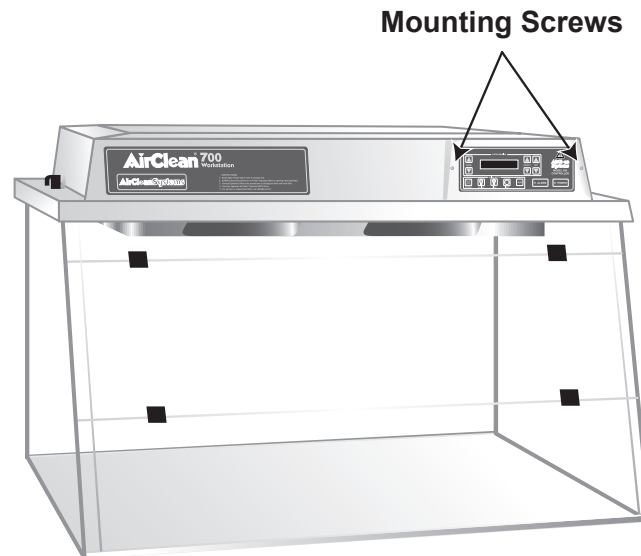
Replacement

> ⚠️ ***WARNING: If the linecord has not been removed there may be potentially hazardous voltages present behind the controller module.***

1. Place the new controller so that the left rear corner is in the mounting opening.
2. Reattach the two connectors.
3. Slide the module into position and replace the two mounting screws.
4. Reattach the linecord as shown in figure 5.
5. Turn the power back on at the power entry module. See Figure 5. Make sure the display screen lights up and and displays the time and date.

NOTE: If problems still occur after control box replacement, call Technical Support immediately at (800)849-0472.

Mounting Screws

**Figure 11, Removing the AirSafe™ Automatic Safety Controller
from the AC720C & AC720TC models.**

CLEANING

- Clean with only a soft, cotton cloth dampened with a 10% bleach and water solution or an acrylic cleaner. *Do not use paper products to clean the enclosure, as they may scratch the material.*
- *DO NOT clean with solvents of any kind!*

NOTE: Proper PPE should be worn at all times, during the maintenance of the PowderSafe™ Type A enclosure.

WARRANTY

AirClean® Systems is committed to providing our customers with quality equipment and service after the sale. We, therefore, request that you take a moment to fill out the Warranty Registration Card so that we may know your location as well as some of the reasons that prompted you to purchase our product. To activate the limited warranty on your product, please complete the Warranty Registration Card attached with your shipment, and return to AirClean® Systems.

AirClean® Systems provides a warranty on all parts and factory workmanship. The warranty includes areas of defective material and workmanship, provided such defect results from normal and proper use of the equipment.

The warranty for all AirClean® Systems products will expire one year from date of shipment from AirClean® Systems, except the following:

- DrySafe™ Forensic Evidence Drying Cabinets carry a two-year warranty from date of shipment.
- CyanoSafe™ Cyanoacrylate Fuming Chambers carry a two-year warranty from date of shipment.

This limited warranty covers parts and labor, but not transportation and insurance charges. In the event of a warranty claim, contact AirClean® Systems or the dealer who sold you the product. If the cause is determined to be a manufacturing fault, the dealer or AirClean® Systems will repair or replace all defective parts to restore the unit to operation. Under no circumstances shall AirClean® Systems be liable for indirect, consequential, or special damages of any kind. This statement may be altered by a specific published amendment. No individual has authorization to alter the provisions of this warranty policy or its amendments. Lamps and filters are not covered by this warranty. Damage due to accidental breakage is also not covered.

> **NOTE:** Do not return any materials without authorization from AirClean® Systems. Products returned without prior authorization will not be accepted. AirClean® Systems and its dealers are not responsible for shipping damage. The recipient must file claims directly with the freight carrier. If authorization has been received to return this product, by accepting this approval, the user assumes all responsibility and liability for biological and chemical decontamination and cleansing. AirClean® Systems reserves the right to refuse delivery of any products which do not appear to have been properly cleaned and/or decontaminated prior to return. Please see additional Shipping Claims on Page 28.

IMPORTANT: Locate Warranty Registration Card. Complete and return to activate the warranty on the enclosure.

OPTIONS

AIRCLEAN® SYSTEMS CART ASSEMBLY INSTRUCTIONS
Model ACA1011 and ACA1039

Your AirClean® Systems Cart is shipped with the following components:

4 - Cross pieces

2 - End pieces

4 - $^3/_8$" washers (enclosure bolt washers)

8 - 2" x ¼" Phillips head bolts
       (cross piece bolts)

8 - 1¼" washers (cross piece washers)

4 - 1¾" x ¼" Phillips head bolts (enclosure bolts)
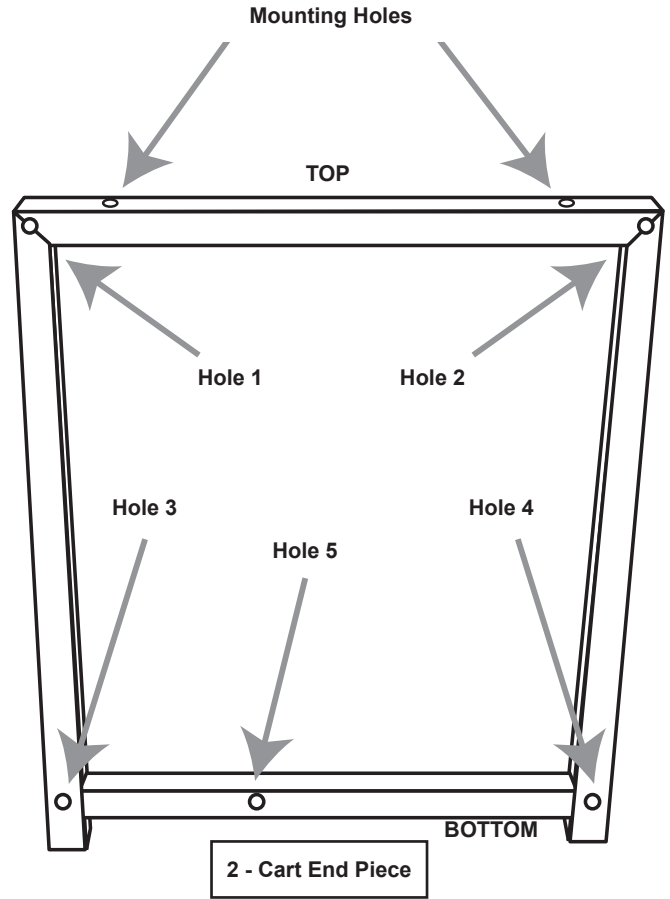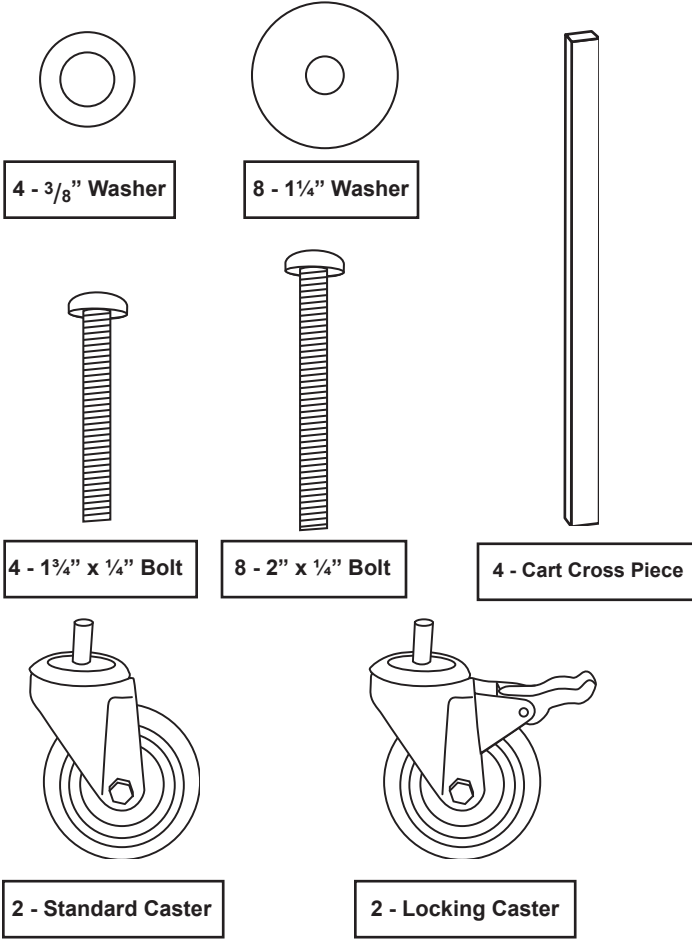
4 - Casters

ASSEMBLY OF CART

1. Locate a cart end piece and one cart cross piece. Place one $^3/_8$" washer on to a 2" phillips head bolt.
2. Starting with hole one on the cart end piece place washer and bolt through the hole and into the threaded receiver of the cart cross piece. Hand-tighten only until cart is completely assembled.
3. Repeat steps above for holes 2 and 3.
4. For standard setup complete assembly using hole 4. For seated use complete assembly using hole 5.
5. Tighten all bolts completely.
6. Installation of casters should be per illustration on page 27.

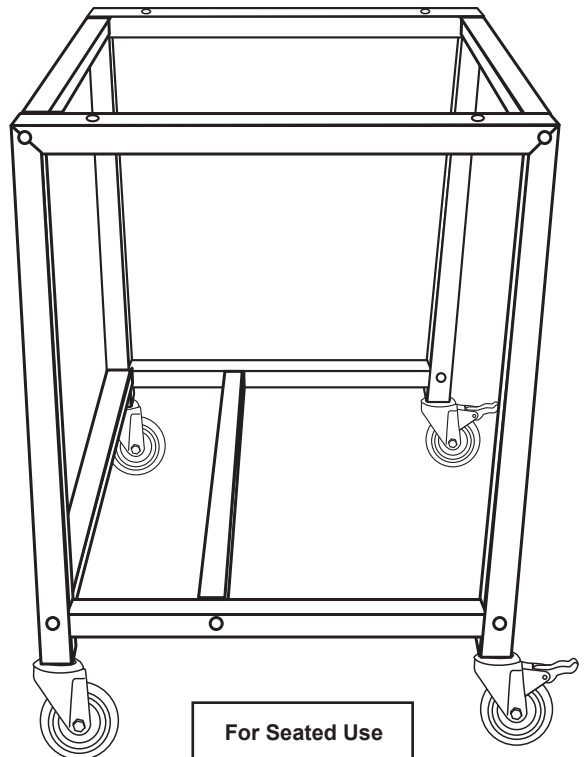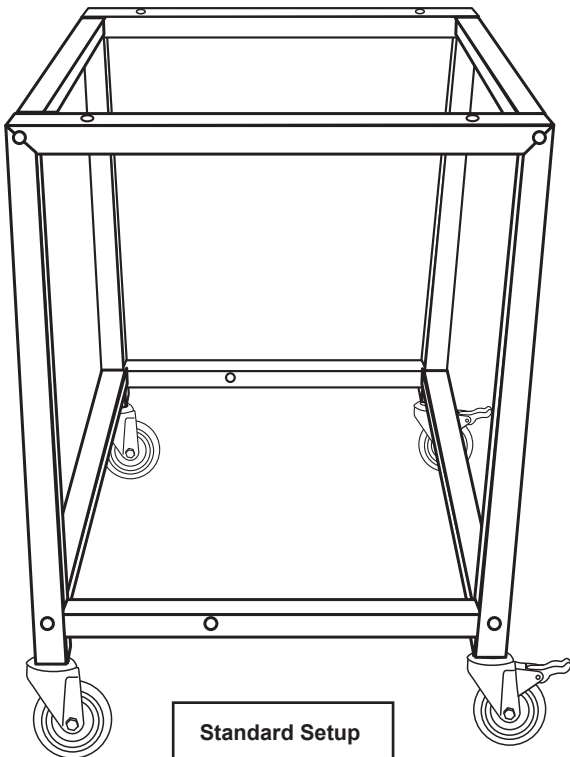## MOUNTING OF ENCLOSURE TO ASSEMBLED CART

1. Place enclosure on assembled cart with front of enclosure and locking casters on the same side.
2. Locate threaded inserts in base of enclosure. Align inserts with mounting holes located on the top of the cart end pieces.
3. Place one of the 1¼" washers on each 1¾" Phillips head bolt.
4. Insert bolt and washer into mounting holes on cart and into the threaded receiver in the base of the enclosure. Hand-tighten only.
5. Repeat this process for all four mounting inserts.

Note: DO NOT OVER-TIGHTEN! Over-tightening will pull the threaded inserts out of the polypropylene base.

CART COMPONENTS

4 - 3/8" Washer

8 - 1¼" Washer

4 - 1¾" x ¼" Bolt

8 - 2" x ¼" Bolt

4 - Cart Cross Piece

2 - Standard Caster

2 - Locking Caster

Mounting Holes

TOP

Hole 1

Hole 2

Hole 3

Hole 4

Hole 5

BOTTOM

2 - Cart End Piece

ASSEMBLED CART CONFIGURATIONS

Standard Setup

For Seated Use

SHIPPING CLAIMS

If a shipment is received with visible damage, be certain to make a notation on the delivering carrier's receipt and have their agent confirm the damage on your receipt. Otherwise, the damage claim may be refused.

If concealed damage or pilferage is discovered, notify the carrier immediately and retain the entire shipment intact for inspection. Interstate Commerce Commission rules require that the claim be filed with the carrier within 15 days of delivery.

NOTE: Do not return any materials without authorization from AirClean® Systems. Products returned without prior authorization will not be accepted. AirClean® Systems and its dealers are not responsible for shipping damage. The recipient must file claims directly with the freight carrier. If authorization has been received to return this product, by accepting this approval, the user assumes all responsibility and liability for biological and chemical decontamination and cleansing. AirClean® Systems reserves the right to refuse delivery of any products which do not appear to have been properly cleaned and/or decontaminated prior to return.

Triangle Certification, LLC

TEST REPORT DOCUMENTATION

AIRCLEAN SYSTEMS, 3248 Lake Woodard Drive,
Raleigh, NC 27604

Visual Smoke Containment & Powder Containment Testing

Ductless Balance Enclosure, 700 Series
Models: 710, 720, & 730

Testing Performed:
September 24 & 26, 2003

Prepared by:
TRIANGLE CERTIFICATION, LLC
7909-125 Falls of Neuse, Suite 173
Raleigh, NC 27615-3348
919-846-6800

Project Manager:
Paul G. Falcon

Project Technician(s):
Mike Myers
Mary K. Stewart

Test Report Number:
09243-01APT

Approval Signature, AirClean Systems, Raleigh, NC_____

SERVICE SPECIALISTS FOR CONTAMINATION CONTROL SYSTEMS
ORIGINAL REPORT IF IN RED INK

NOTES

CONTACT INFORMATION

If you have any questions that are not addressed in this manual, or if you need technical assistance, please contact AirClean® Systems at 800-849-0472, between the hours of 8:00 AM and 5:00 PM EST.

AirClean® Systems mailing address:

AirClean® Systems
3248 Lake Woodard Drive
Raleigh, NC 27604

Phone: **919-255-3220**
Toll Free: **800-849-0472**
Fax: **919-255-6120**

Visit AirClean® Systems on the Internet at: **http://www.aircleansystems.com**

Email AirClean® Systems at: **info@aircleansystems.com**

MODEL NO.

☐ **AC710C**

☐ **AC710TC**

☐ **AC720C**

☐ **AC720TC**

SERIAL NO.

AC710C _____

AC710TC _____

AC720C _____

AC720TC _____

FILTER INFORMATION

MAIN FILTER(S) INSTALLED

ACF_____

ACF_____

PRE-FILTER INSTALLED

ACF_____

AirClean® Systems

"THE FUME CONTROL EXPERTS"

Raleigh, NC 27604

Phone: 919-255-3220   Toll Free: 800-849-0472   Fax: 919-255-6120

E-mail: info@aircleansystems.com

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