AUTOMATIC "PLC" CONTROLLED ATMOSPHERE ISOLATOR/GLOVE BOX (ANAEROBIC CHAMBER)

This chamber has been designed for automatic atmosphere control when working with Oxygen sensitive materials, product containment needs, and/or general isolation control. The chamber features an internal "PLC" control system with multifunctional operator interface.

This glove box is perfect for working in anaerobic conditions.

SIMPLICITY-888 & SIMPLICITY-888/EXP
With Catalyst Heater Unit and Palladium Canisters

Features included are:

- Internal "PLC" control system.
- Three (3) drying train canisters filled with Molecular Sieve™ and quick dis-connects.
- White ambidextrous Hypalon™ gloves.
- Two (2) 1/4" hose barb (tubing) gas connections.
- "Bright Light" system (40,000 hour lamp guarantee).
- Programmable Catalyst Heater unit with two (2) Palladium (Pd) filled canisters.
- Multiple electric outlet (socket) strip. UL, CSA, and CE approved.
- Two (2) ground key cock valves for purging the main chamber.
- Standard 24 month warranty (Not gloves or consumables).

The operator can program these features:

- The number of purging cycles.
- Gas selection (inert or anaerobic blend).
- Drying train reaction time frame.
- Pressure "hold" function.
- Anaerobic gas reaction time frame.
- Selection of chamber to be purged (Main or transfer).

Product Specifications

Inside Dimensions	41" w x 28" d x 26" h 1,040 mm x 712 mm x 660 mm h
*Outside Dimensions	55" w x 35" d x 38" h 1,400 mm x 890 mm x 965 mm h
Approximate Volume	17.3 Cubic Feet 489 Liters
Electrical Requirements	N. American 115-120 Volts, 60 Hz. 10 Amps. Export Model 220-240 Volts, 50 Hz. 5 Amps.
Maximum Working Pressure	6.0" of H_20 1.49kPa
Approximate Shipping (crated) weight	250 Pounds 112.5 Kilos

*Includes transfer chamber.

"PLC" Control Board close up

The operator interface continually displays the "PLC" functions and working pressures within the main chamber or transfer chamber. It can also support an additional 4-20 mAmp analog input. These inputs are used to create your own unique atmosphere chamber. Examples are percentage of O_2 analyzer, humidity information, etc.

#800-HEATER w/#800-PC

The programmable Catalyst Heater has two basic functions. It reduces trace amounts of Oxygen that enter the main chamber and it maintains incubation temperatures from ambient up to 42 degrees C.

*Refer to Accessories Section for more details about this device.

CONTROLLED ATMOSPHERE (ANAEROBIC CHAMBER) GLOVE BOX

The **#855-AC** (Anaerobic Chamber) has been designed for manually controlling your atmosphere when working with Oxygen sensitive materials. It is perfect for working in situations requiring low levels of Oxygen during critical isolation of the operator or your research materials. Any inert gas may be used.

Its main advantage is minimizing the risk of Oxygen entry into the main working chamber. If trace amounts of Oxygen happen to enter the main chamber, the Catalyst Heater reduces it to water vapor. The drying train can then be activated to remove any excess water vapor.

The **#855-AC** is offered as a complete system ready to use. There are no other components required. All you need to add are your work samples and gas of choice.

This glove box has a capacity of 348 culture plates when using our suspended shelf accessory. Please refer to the Accessories Section **(#800-SHELF-1).**

Some typical applications include:
Microbiology, Biochemistry, Plasma environment work, animal science studies, and electronic sub-assembly work.

The Basic Chemical Reaction.
The internal atmosphere is drawn off the floor of the glove box and is pushed up through the heating elements and the warm Palladium (Pd) pellets. The Hydrogen in the special gas mixture then reacts with trace amounts of Oxygen to create water vapor. The excess water vapor is then absorbed by the Molecular Sieve™ in the three drying train canisters. The canisters are re-chargeable.

The Catalyst Heater Function.
The catalyst heater has two main functions. It reduces trace amounts of Oxygen and it maintains the correct incubation temperature level for cultivating anaerobes (35 to 39 degrees C).

Did you Know?
Molecular Sieve™ can absorb 20-25% of its own weight in water (H_2O).

#855-AC with Catalyst Heater Unit
#855-AC/EXP (Export Model)

Refer to #800-ONEG and dimensions on page #7.

Features included are:
- Standard 24 month warranty (Not gloves or consumables).
- Formed one-piece clear plastic top section with “Easy Clean” corners.
- Matched die molded white thermoset bottom with “Easy Clean” corners.
- Two vacuum diaphragm pumps, one each for the drying train and the transfer chamber (purging).
- Drying train includes three (3) clear plastic canisters filled with Molecular Sieve™.
- All controls are illuminated.
- “Bright Light” system (40,000 hour lamp guarantee).
- White ambidextrous Hypalon™ gloves.
- All clamps are adjustable to compensate for wear.
- Adjustable vacuum gauge on transfer chamber.
- Four (4) ground key cock valves for purging.
- Transfer chamber is 12” (305 mm) long x 11” (280 mm) I.D.
- Electrical outlet (socket) strip (UL, CSA, & CE).
- Self sealing quick disconnects allow changing of the drying train without disturbing the internal atmosphere.

Electrical requirements.
North American 115-120 Volts, 60 Hz. 10 Amps.
Export Models 220-240 Volts, 50 Hz. 5 Amps.

CONTROLLED ATMOSPHERE (ANAEROBIC) CHAMBER FOR MULTIPLE OPERATORS

Our **#855-ACB** contains all the features of our single operator unit, but it has more capacity. It is ideal for two or more operators working together up to a maximum of four (4) people. Two people each side.
NOTE: The maximum working pressure is 6" of WC.

The Drying Train Function.
The drying train includes its own vacuum pressure pump and six (6) polycarbonate canisters filled with Molecular Sieve™. The canisters are attached in series on the top and back of the unit. All canisters are connected using self sealing quick disconnects so as not to disturb the inner atmosphere when recharging them.

The Molecular Sieve™ acts as an atmosphere purifying medium. Most impurities produced by research will adhere to the granules. It also acts as a drying agent as moisture is produced. As moisture is absorbed, the Molecular Sieve™ will turn color to a dark brown.

The Molecular Sieve™ can be rejuvenated by heating in a hot oven for three (3) hours at 450° F.
NOTE: You must remove the Molecular Sieve™ from the plastic canisters before recharging (baking).

What's included with the glove box:
- Two (2) pairs of white ambidextrous Hypalon™ gloves.
- Two (2) vacuum pressure pumps. One each for the drying train and the transfer chamber purging cycle.
- Two (2) Catalyst Heaters and four (4) Palladium canisters.
- Manual controls for purging, lights, and drying train operation.
- A "Bright Light" illumination system with a 40,000 hour lamp guarantee.
- Hospital grade multiple electric outlet (socket) strip.
- Optically clear plastic top and bottom sections with "Easy Clean" corners.
- Transfer chamber size 12" long X 11" I.D. (305 mm X 280 mm I.D).
- Two year (24 month) standard warranty (Not gloves or consumables).

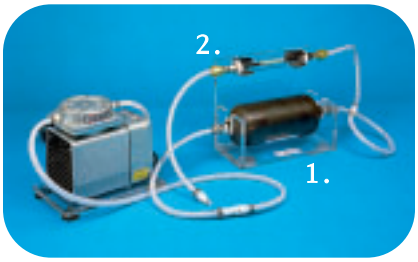
Electrical requirements:
North American 115-120 Volts, 60 Hz. 15 Amps.
Export models 220-240 Volts, 50 Hz. 8 Amps.

#855-ACB for Multiple Operators
#855-ACB/EXP for Export Use

Product Data	#855-AC	#855-ACB
I.D.	41"w x 28"d x 26"h 1,040 mm x 710 mm x 660 mm h	60"w x 38"d x 31"h 1,520 mm x 960 mm x 790 mm h
O.D. Includes Transfer Chamber	55"w x 35"d x 38"h 1,400 mm x 890 mm x 970 mm h	76"w x 47"d x 42"h 1,930 mm x 1,190 mm x 1,070 mm h
Approximate Volume	17.3 Cubic Ft. 489 Liters	40.9 Cubic Ft. 1,157 Liters
Approximate Shipping Wt. (Crated)	250 Pounds 113 Kilos	300 Pounds 136 Kilos

#800-ONEG Oxygen reducing accessory w/pump not included

This accessory further reduces the trace amounts of Oxygen remaining in the glove box after initial purging. Part #1 is the Oxygen trap. Part #2 is the Oxygen indicator (sensor). The accessory is attached only after the initial purge cycles have been completed. It will reduce trace amounts of Oxygen down to about ten (10) ppb.



Refer also to Page #41.