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28 SERIES

INSTRUCTION MANUAL

SLIMBOY®

**AIR CONDITIONERS
for
ELECTRONIC ENCLOSURES**



McLean Midwest

A ZERO Corporation Company

TABLE OF CONTENTS

Section	Page
Unpacking and Inspection	See Below
Handling	2
Product Identification	2
Design Data	3
Bench Testing	3
Installation Instructions	4
Figures #1 - 4.....	5, 6
Principles of Operation	7
Maintenance	8
Compressor	8
Filter Installation, Removal & Cleaning	8, 9 & 10
Condenser & Evaporator Blowers	10
Loss of Refrigerant	10
Drawing 28-0000 & 28-0002	11 & 12
Illustrated Parts List	13
Accessories Parts List	13
Table	13
Exploded View	14
Wiring Schematics	15
Warranty	16

! WARNING !

Read this manual thoroughly before you attempt to install or test the SLIMBOY® air conditioner.

UNPACKING AND INSPECTION

Inspect the SLIMBOY® Air Conditioner. Check for concealed damage that may have occurred during shipment. Look for dents, scratches, loose assemblies, evidence of oil, etc. Any damage evident upon receipt should be noted on the freight bill. Damages should be brought to the attention of the delivering carrier and **NOT** to McLEAN MIDWEST, within 15 days of delivery. Save the carton and packing material and request an inspection. Then file a claim with the delivering carrier.

McLEAN MIDWEST cannot accept responsibility for freight damages; however, we are ready to assist you in any way possible.

Some of the information contained in this manual may not apply if a special unit was ordered. Additional drawings which would apply were inserted. Contact McLean Midwest if further information is required.

HANDLING

To avoid possible shipping damage and facilitate transportation and storage, the SLIMBOY® air conditioner may have been shipped in a horizontal position. If it is necessary to place the air conditioner in a horizontal position after uncartoning, be certain it is placed in an upright (vertical) or mounting position for a minimum of five (5) minutes before operating, in order to allow the compressor oil to drain to the compressor sump area.

CAUTION

NEVER attempt to operate the air conditioner while it is in a horizontal position, on its side, back or front. The refrigeration compressor is filled with lubricating oil. Running the compressor without oil in the lower part of the housing will cause permanent damage to the unit. This also voids the warranty.

Read this manual thoroughly before you attempt to install or test the SLIMBOY® air conditioner.

HOW TO IDENTIFY YOUR SLIMBOY® AIR CONDITIONER

For installation and maintenance as outlined in this manual, first refer to the nameplate on your unit. The nameplate will provide important data regarding capacity of the unit, minimum and maximum ambient operating temperatures, type and amount of refrigerant required for re-charging, and most important - electrical power characteristics when making electrical hook-ups or connections.

ELECTRONIC ENCLOSURE				
AIR CONDITIONER				
CUST. P/N	_____			
MODEL NO.	_____			
SERIAL NO.	_____			
COOLING:	_____	BTU	W	
HEATING:	_____	BTU	W	
AMB. TEMP. MIN/MAX	_____	°F	_____	°C
PHASE	_____	HERTZ	_____	FLA
VOLT	_____			
REFRIGERANT	_____	OZ.	_____	GRAMS
DESIGN PRESSURES P.S.I.G.	HIGH	_____	LOW	_____
USE A TIME DELAY FUSE OR CIRCUIT BREAKER				
 McLean Midwest A ZERO Corporation Company				
<small>11611 BUSINESS PARK BLVD. N., CHAMPLIN, MN 55316 USA U.S. PATENT 4,027,498 DES. PAT. D252705 CANADA PATENTED 1979 1105702, OTHER U.S. & FOREIGN PATENTS PENDING</small>				
<small>10-1002-05G</small>		<small>MADE IN U.S.A.</small>		

When ordering service parts, specify these numbers.

Before installing, make certain these parameters are met. Lower or higher ambient temperatures may cause permanent damage or malfunction of the unit.

Before operating, make certain outlet and power source match these requirements.

Leak test pressures.

DESIGN DATA

Model	Voltage	Hz	Full Load Amps	Ph.	BTU/Hr @ Max. Amp. Temp	Max. °F Amb. Temp.	Nt. Wt.
28-0216-GXXX	115	50/60	9.8/9.0	1	2200/2250	125	96 lbs.
28-0026-GXXX	220/230	50/60	5.0/4.5	1	2200/2200	125	96 lbs.
28-0316-GXXX	115	50/60	13.1/12.6	1	3000/3000	125	111 lbs.
28-0326-GXXX	230	50/60	6.9/6.0	1	3000/3000	125	111 lbs.
28-0416-GXXX	115	50/60	14.6/14.0	1	3800/4000	125	111 lbs.
28-0426-GXXX	230	50/60	7.4/6.9	1	3800/4000	125	111 lbs.
28-0515-001	115	50/60*	11.0	1	5000	125	121 lbs.
28-0516-001	115	60	11.0	1	5000	125	121 lbs.
28-0525-001	230	50	6.2	1	5000	125	121 lbs.
28-0526-001	230	60	6.2	1	5000	125	121 lbs.
28-0615-001	115	50/60*	15.0	1	6000	125	124 lbs.
28-0616-001	115	60	15.0	1	6000	125	124 lbs.
28-0625-001	230	50	7.3	1	6000	125	124 lbs.
28-0626-001	230	60	7.3	1	6000	125	124 lbs.

*Units wired for 50 Hz operation when shipped. A single internal wiring change is required for 50 Hz operation. Most models available with Hz selector switch. If desired, consult factory.

BENCH TESTING

CAUTION

To avoid possible damage to the air conditioner, it must be in an upright (vertical) position for a minimum of five (5) minutes before functional testing is started.

When "bench testing" the SLIMBOY® air conditioner before mounting to the electronic enclosure, follow the procedures outlined in the following paragraphs:

- Refer to nameplate for proper electrical current requirements, then connect the power cord to a properly grounded electrical outlet.

NOTE

Minimum circuit ampacity should be at least 125% of the amperage shown in the DESIGN DATA section. To prevent overloading, no other equipment should be connected to this circuit.

- Make sure the unit has been standing upright for five (5) minutes.
- Operate the air conditioner for five (5) or (10) minutes. No excessive noise or vibration should be evident during this run period. The condenser blower on top, the evaporator or cool air blower located in the lower portion of the unit and the compressor should be running. To check cool air output, use a reliable air temperature measuring device. The cool air output should be between 50° to 60° F. when room temperature is between 70° to 80° F.
- You may remove the air inlet filter to check further on the operation. The discharge line from the compressor (the uninsulated line) should become very warm. **Care should be taken to avoid possible burns.** Touch carefully! Condenser air temperatures should be warmer than normal room temperatures within a few minutes.

- The compressor is provided with automatic reset thermal overload protection. This thermo switch is located and mounted inside the plastic enclosure clipped to the compressor. The only time this switch should operate is when the compressor overheats due to clogged or dirty inlet air filter, if ambient air temperatures exceed nameplate rating or if enclosure dissipated heat loads exceed the rated capacity of the air conditioner. The thermal overload switch will actuate and stop compressor operation. Blowers will continue to operate, however, and the compressor will not restart until the compressor has cooled to within the thermal overload cut-in temperature setting.

INSTALLATION

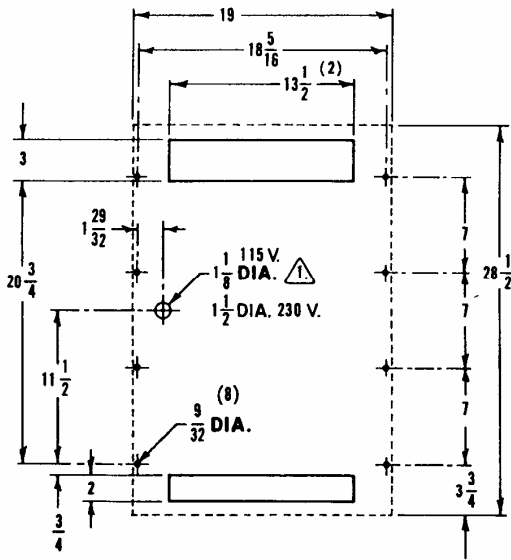
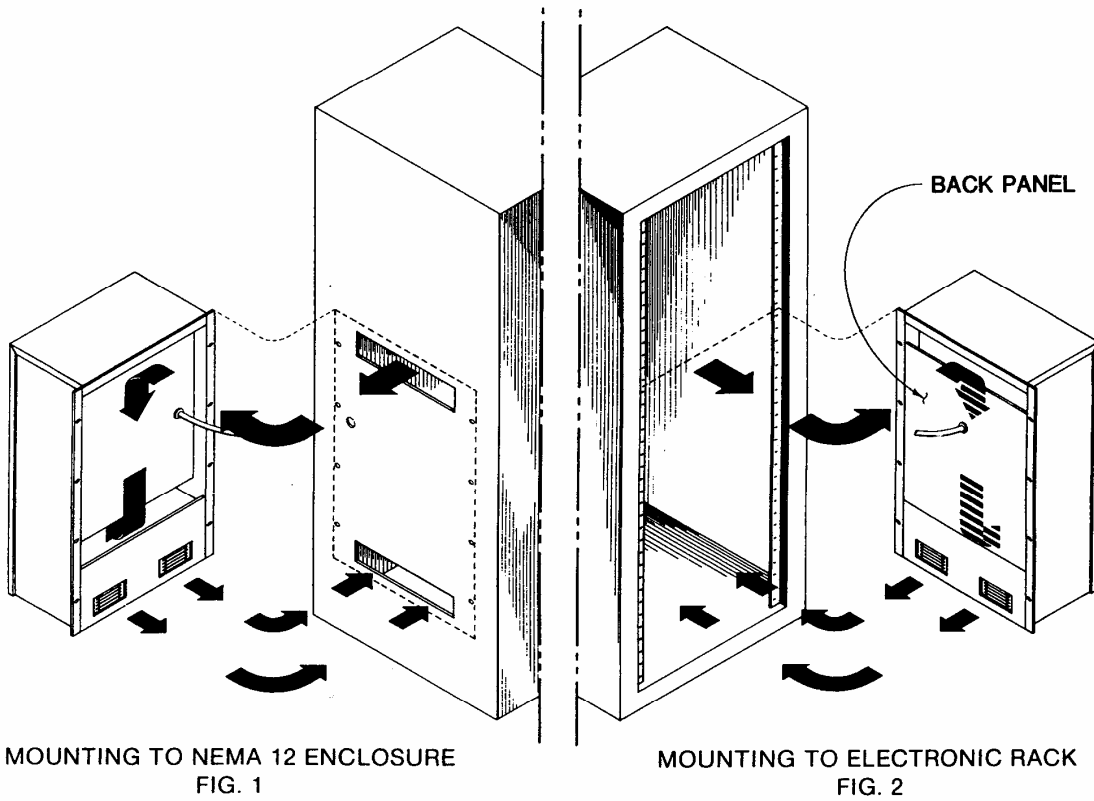
When mounting the SLIMBOY® air conditioner to the electronic cabinet or enclosure, the following procedures should be referred to:

WARNING

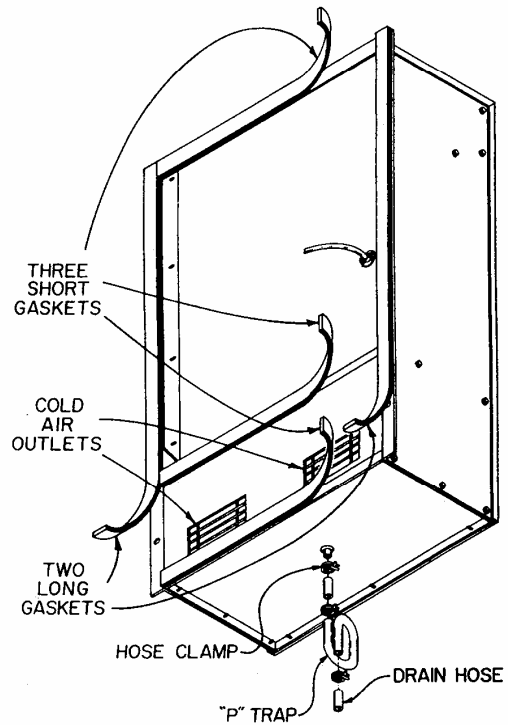
TO AVOID POSSIBLE PERSONAL INJURY OR PROPERTY DAMAGE WHEN THE AIR CONDITIONER IS TO BE MOUNTED ON DOOR OF CABINET, BE SURE THAT HINGES WILL SUPPORT THE ADDED WEIGHT OF AIR CONDITIONER. ALSO BE CERTAIN AIR CONDITIONER DOES NOT OVER-BALANCE THE ELECTRONIC CABINET CAUSING IT TO TIP OVER WHEN THE DOOR IS OPENED. WEIGHT OF THE UNIT CAN BE FOUND IN THE DESIGN DATA SECTION. USE ALL MOUNTING HOLES TO INSURE STABILITY AND EFFICIENT SEAL.

- To protect the integrity of the "closed loop" design (see Principles of Operation), adhesive backed gasket tape is provided (shipped loose) for sealing around the enclosure's air conditioner mounting opening. The gasket kit contains pre-cut lengths that are to be adhered to the air conditioner as shown in Fig. 4.
- When mounting to a standard electronic rack the air conditioner must be ordered equipped with a return air plenum back panel as shown in Fig. 2.
- When mounting to a NEMA 12 type enclosure, interfacing air "in" & "out" openings must be provided as shown in Fig. 1. Refer to layout in Fig. 3.
- The copper "P" trap (see Fig. 4) is provided in the drain system to prevent counter air flow up the drain tube from interfering with proper drainage. The drain outlet must not be submerged, nor may any portion of the drain system be elevated above the exit point of the air conditioner, or overflowing of the condensate pan may occur.
- The use of an extension cord is not recommended.

**STANDARD 28 SERIES AIR CONDITIONER
WITH SIDE MOUNTING RAILS**



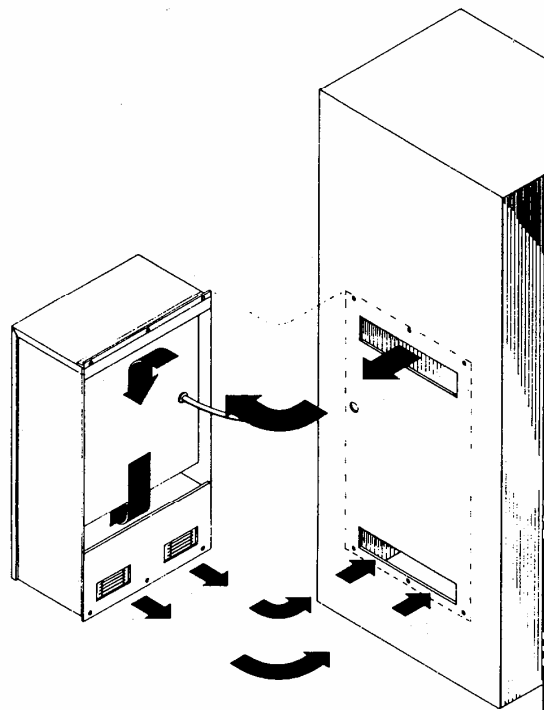
NOTE:
 ⚠ THIS CORD HOLE MAY BE DELETED IF THE SERVICE CORD IS ROUTED THROUGH THE 3"x13-1/2" RETURN AIR OPENING.
 2. DASHED LINES REPRESENT AIR CONDITIONER.



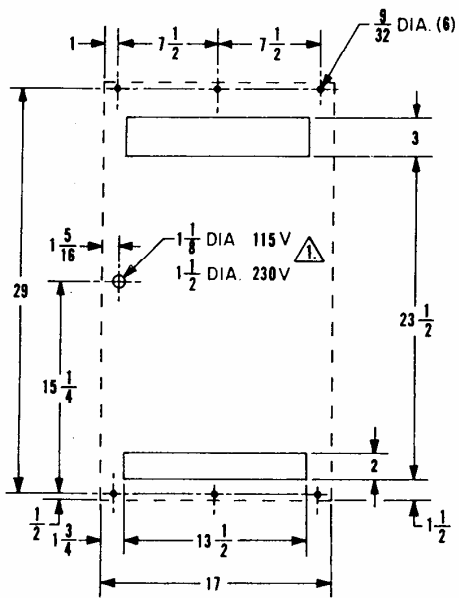
**CUT-OUT DIMENSIONS FOR NEMA 12 ENCLOSURES
FIG. 3**

**GASKET INSTALLATION
FIG. 4**

**NARROW 28 SERIES AIR CONDITIONER
WITH TOP AND BOTTOM MOUNTING RAILS**

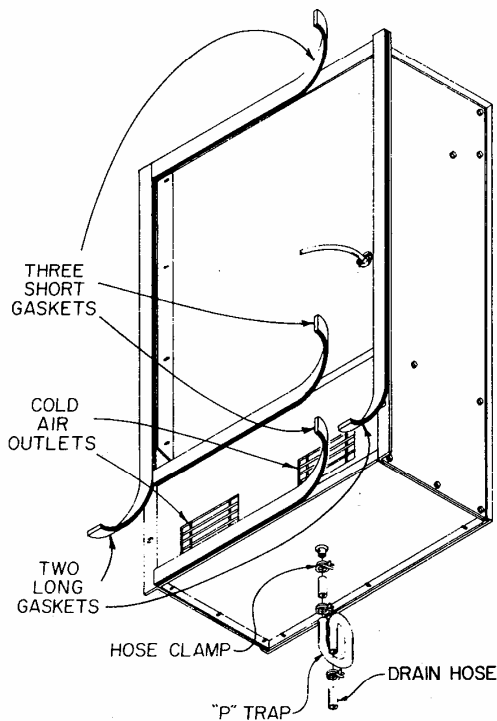


**MOUNTING TO NEMA 12 ENCLOSURE
FIG. 1A**



NOTES:
 ⚠️ CORD HOLE MAY BE DELETED IF CORD IS ROUTED THROUGH 3" x 13-1/2" RETURN AIR OPENING
 2 DASH LINES REPRESENT AIR CONDITIONER

**CUT-OUT DIMENSIONS FOR NEMA 12 ENCLOSURES
FIG. 3A**



**GASKET INSTALLATION
FIG. 4**

PRINCIPLES OF OPERATION

SLIMBOY® air conditioners are designed specifically to cool and dehumidify the internal environments of cabinets and enclosures which are used to package electronic components, thus assuring a cool, clean atmosphere for reasons of optimum performance and longevity.

Hot air inside the electronic cabinet or enclosure is drawn into the return air plenum area of the air conditioner by means of the evaporator duplex blower located in the lower section of the air conditioner. This air is drawn through the evaporator coil, cooled and discharged back through the two (2) cold air outlets into the cabinet or enclosure. Any moisture in this air condenses on the evaporator coil and ultimately collects in the condensate tray where it is then discharged to the outside of the air conditioner by the condensate drain tube which projects out of the bottom of the air conditioner.

The "closed loop" design of the air conditioner assures that this clean cooled air never mixes with the hot, dirty ambient air that is used only for cooling the compressor and accomplish the heat exchange through the condenser coil. Generally, the cabinet or enclosure air which is being cooled and recirculated over and over again does not require any filtering media.

Room, or ambient air drawn into the air conditioner through the inlet filter, across the compressor and through the condenser coil is usually dirty, dusty and/or humid air, depending upon the specific environment in which the air conditioner is required to operate. This ambient air is discharged by the condenser duplex blower back to the ambient environment. The temperature of this discharged air will be quite warm or actually hot, depending on the ambient temperature and the work load imposed on the air conditioner.

Providing the inlet filter is properly maintained by frequent cleaning and/or replacement, the inlet filter will assure relatively clean air to pass through the condenser coil. Dirty filters will hamper the optimum operating efficiency of the air conditioner.

NOTE

The condenser filter will require periodic maintenance as explained on Pages 7 through 9.

If the SLIMBOY® air conditioner is to be mounted on the door of the cabinet or enclosure, it is recommended that an electrical lock-out or safety switch be installed in the enclosure to stop the operation of the unit while the door is open.

If electrical power is momentarily interrupted to the air conditioner and reapplied immediately, (within 3 to 5 seconds), the compressor may not restart due to the high back pressure of the compressor.

DO NOT ATTEMPT TO RE-START THE AIR CONDITIONER FOR AT LEAST ONE (1) MINUTE AFTER THE UNIT HAS BEEN SHUT OFF EITHER ACCIDENTALLY OR INTENTIONALLY.

It takes at least one (1) minute after shut-down for the compressor suction and discharge pressures to equalize in order to restart the air conditioner.

OPERATING THE SLIMBOY® AIR CONDITIONER AT AMBIENT TEMPERATURES BELOW MINIMUM OR ABOVE MAXIMUM TEMPERATURES INDICATED ON THE NAMEPLATE WILL VOID ALL WARRANTIES.

IT IS RECOMMENDED THAT THE WARRANTY SECTION OF THIS MANUAL BE READ IN ORDER TO FAMILIARIZE YOURSELF WITH PARAMETERS OF RESTRICTED OPERATION.

The moisture that the enclosure air can contain is limited. If moisture flows from the drain tube continuously this can only mean that ambient air is entering the enclosure. Remember that frequent opening of the enclosure's door admits humid air which the air conditioner must then dehumidify.

MAINTENANCE

COMPRESSOR

The compressor requires no maintenance. It is hermetically sealed, properly lubricated at the factory and should provide years of satisfactory operating service.

Should the refrigerant charge be lost, recharging ports (access fittings) on the suction and discharge sides of the compressor are provided for recharging and/or checking suction and discharge pressures.

UNDER NO CIRCUMSTANCE SHOULD THE ACCESS FITTING COVERS BE LOOSENED, REMOVED OR TAMPERED WITH.

Recharging ports are provided for the ease and convenience of reputable refrigeration repair service personnel for recharging the air conditioner. (See Page 9)

INLET FILTER

Proper maintenance of the inlet filter will assure normal operation of your SLIMBOY® air conditioner. If filter maintenance is delayed or ignored, the maximum ambient temperatures under which the unit is designed to operate will be decreased.

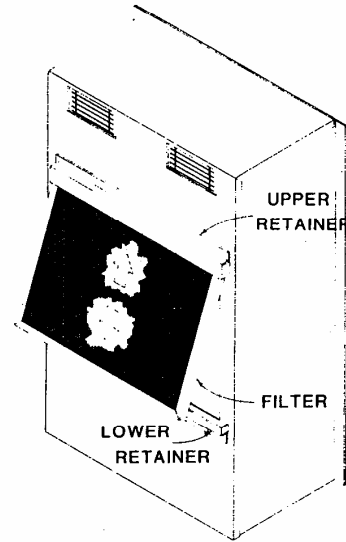
As the compressor operating temperature increases above normal due to dirty or clogged inlet filter (or plugged condenser coil), the air conditioner's compressor will stop operating due to actuation of the thermal overload cut-out switch located on the compressor housing. As soon as the compressor temperature has dropped to within the switch's cut-in setting, the compressor will restart automatically. However the above condition will continue to take place until the inlet filter has been cleaned or replaced.

It is recommended that power to the air conditioner be interrupted intentionally when abnormally high compressor operating temperatures cause automatic shut-down of the unit. The above described shut-down is symptomatic of clogged or dirty filters, thus causing a reduction in cooling air flow across the surface of the compressor and condenser coil.

CONTINUED OPERATION UNDER THE ABOVE CONDITIONS CAN AND WILL DAMAGE AND SHORTEN COMPRESSOR LIFE. THE AIR CONDITIONER FEATURES AN EASILY REMOVABLE INLET FILTER TO FACILITATE NECESSARY CLEANING. THERE SHOULD BE NO REASON TO NEGLECT THIS NECESSARY MAINTENANCE.

HOW TO REMOVE, CLEAN OR INSTALL A NEW FILTER

1. Lift filter high enough for bottom to clear the lower filter retainer.
2. Pull bottom of filter toward you, pressing downward until the top of the filter clears the upper filter retainer. Remove CAREFULLY if unit is operating in order to assure that no dirt from the filter enters the air intake opening.
3. Follow cleaning instructions below.
4. Re-install cleaned or install new filter by sliding filter top into upper retainer; push filter against unit, and slide filter bottom into lower retainer.
5. **Re-install filters according to AIR FLOW arrow on filter.**

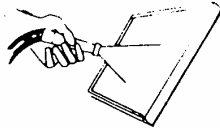


For replacement filters, disposable filters, and filter adhesive see illustrated parts lists page 11.

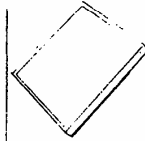
SERVICING AND CLEANING INSTRUCTIONS FOR RP AIR FILTERS

RP aluminum washable air filters are designed to provide excellent filtering efficiency with a high dust holding capacity and a minimum amount of resistance to air flow. Because they are constructed entirely of aluminum they are light weight and easy to service. Optimum filter performance is maintained by re-coating the filters after washing with RP Super Filter Coat adhesive. To achieve maximum performance from your air handling equipment, air filters should be cleaned on a regular basis.

CLEANING INSTRUCTIONS



1. Flush the filter with warm water from the exhaust side to the intake side. DO NOT USE CAUSTICS.



2. After flushing allow filter to drain. Placing it with a corner down will assure complete drainage.



3. Recoat the filters with RP Super Filter Coat adhesive by dipping or spraying. If filter is sprayed do so from both sides for maximum concentration of adhesive.

It is impossible to recommend a filter cleaning interval due to the wide variety of air quality conditions, as well as not knowing the particular operating duty cycles of the air conditioner. Amounts of airborne dust/dirt particles are different in every location. It is recommended that when a fine layer of dust or lint is visible on the surface of the filter, that it be removed and inverted so as to use the entire effective filter surface area before it is flushed, drained, coated with proper coating and re-installed.

Do not run the SLIMBOY® air conditioner for extended periods of time with the inlet filter removed. Particles of dust, lint, etc. can plug the fins of the condenser coil which will give the same reaction as a plugged filter. The condenser coil is not visible through the filter opening, so protect it with a clean filter!

CONDENSER AND EVAPORATOR BLOWERS

Blower motors require no maintenance. All bearings, shafts, etc. are lubricated during manufacturing for the life of the motor.

CAUTION

Operation of the SLIMBOY® air conditioners in areas containing airborne caustics or chemicals can rapidly deteriorate filters, condenser coils, blowers and motors, etc. Contact McLean Midwest for special recommendations.

If the condenser blower motor (Top blower) should fail, it is not necessary to remove the air conditioner from the cabinet or enclosure to replace the blower. The condenser blower is mounted on its own bulkhead and is easily accessible by removing the front access panel.

REFRIGERANT LOSS

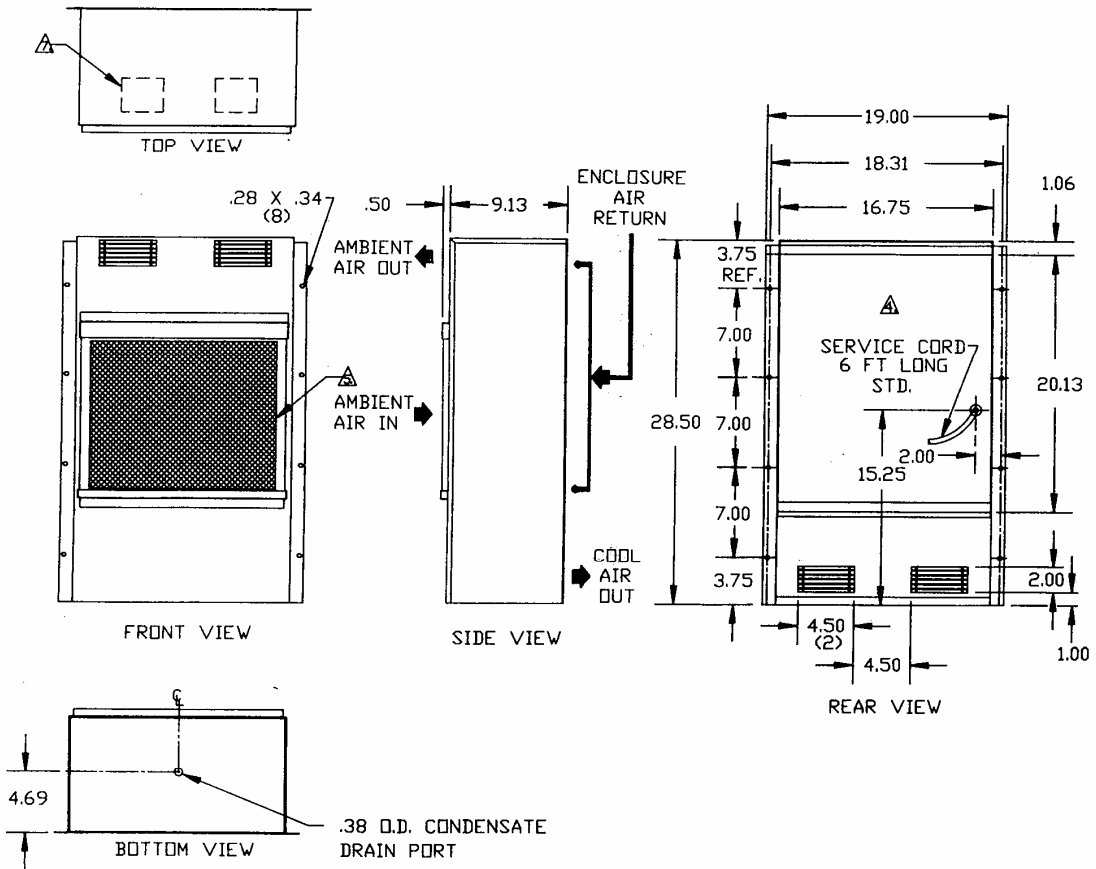
Your SLIMBOY® air conditioner was thoroughly tested before leaving the factory to insure against refrigeration leaks. Shipping damage or microscopic leaks not found with sensitive electronic refrigerant leak detection equipment during manufacture may require repair and recharging of the system. This work should be performed by qualified professionals only, generally available in any reputable air conditioning repair or service company in your local area.

Refer to the data on your nameplate which specifies the type of refrigerant and the charge size in ounces.

Before recharging, make sure there are no leaks and that the system has been properly evacuated by deep vacuum.

MODEL DRAWING

Standard Series

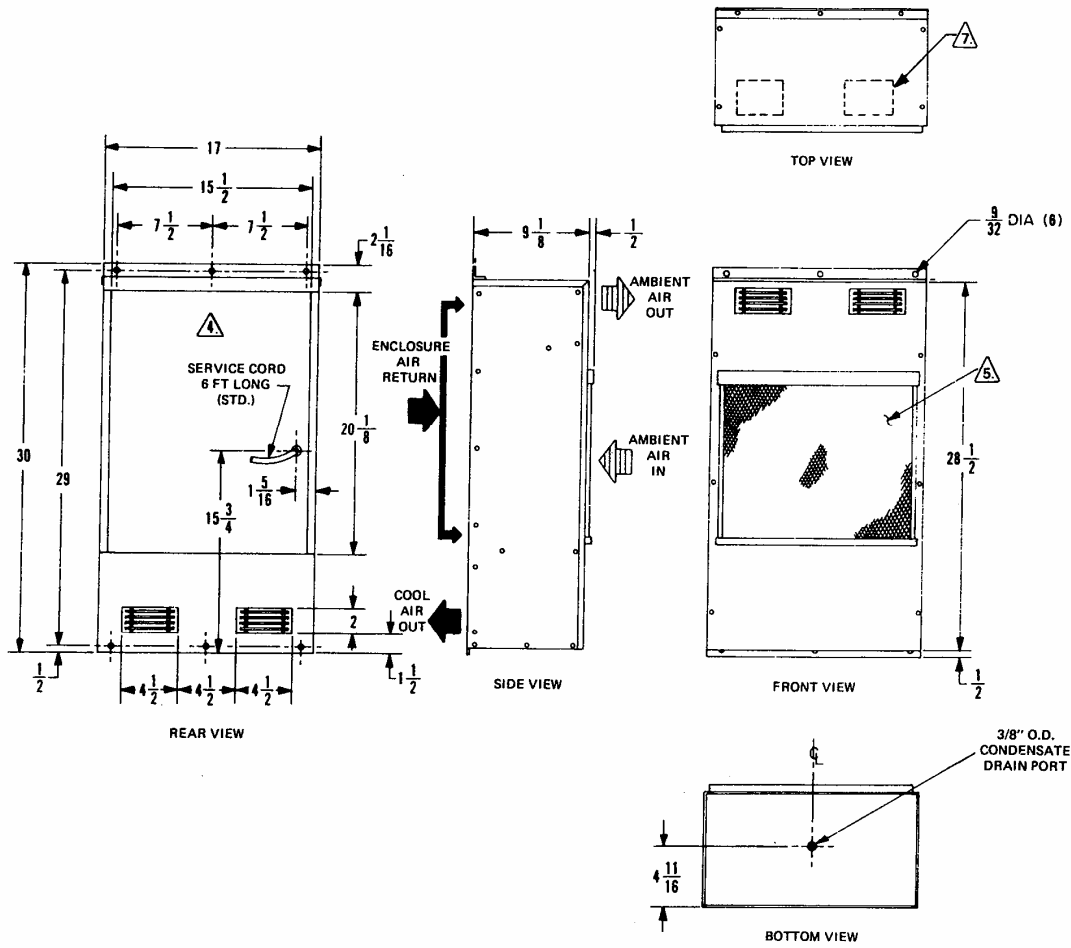


NOTE:

1. GASKET KIT FOR MOUNTING TO ENCLOSURE INCLUDED.
 2. SERVICE CORD TERMINATED WITH APPROPRIATE PLUG CAP.
 3. CONDENSATE DRAIN HOSE WITH "P" TRAP INCLUDED.
- △ THIS 20.13×16.75 AREA IS RECESSED .93 FROM REAR SURFACE. (REFERRED TO AS THE "PLENUM")
- ⊠ EQUIPPED WITH CLEANABLE, REUSABLE ALUMINUM INLET FILTER.
- △ CONDENSER AIR DISCHARGES OUT TOP OF 5000 AND 6000 BTU/H. MODELS.

MODEL DRAWING

Narrow Series



NOTE:

1. GASKET KIT FOR MOUNTING TO ENCLOSURE INCLUDED.
 2. SERVICE CORD TERMINATED WITH APPROPRIATE PLUG CAP.
 3. CONDENSATE DRAIN HOSE WITH "P" TRAP INCLUDED.
- ⚠ THIS $20\frac{1}{8} \times 16\frac{3}{4}$ AREA IS RECESSED $15\frac{1}{16}$ FROM REAR SURFACE. (REFERRED TO AS THE "PLENUM")
- ⚠ EQUIPPED WITH CLEANABLE, REUSABLE ALUMINUM INLET FILTER.
- ⚠ CONDENSER AIR DISCHARGES OUT TOP OF 5000 AND 6000 BTU/Hr MODELS.

Illustrated Parts List

Specify Model and Serial Numbers when ordering Parts

Item No.	Part No.	Qty.	Description	Accessories
1	10-1000-01	1	Inlet Filter, Reusable Aluminum	
5	SEE TABLE	1	Condenser Blower	
6	28-1065-01M	1	Evaporator Blower (115V)	
	28-1065-02M	1	Evaporator Blower (230V)	
7	24-1001-00	1	Condenser Coil	
8	52-6028-00	1	Filter/Dryer, Refrigerant	
9	SEE TABLE	1	Compressor	
10	SEE TABLE	1	Switch, Compressor Thermal Overload	
14	SEE TABLE	1	Evaporator Coil	
30	SEE TABLE	1	Service Cord	
38	28-1056-06	1	Mounting Gasket Kit	
45	SEE TABLE	1	Capacitor, Compressor Run	

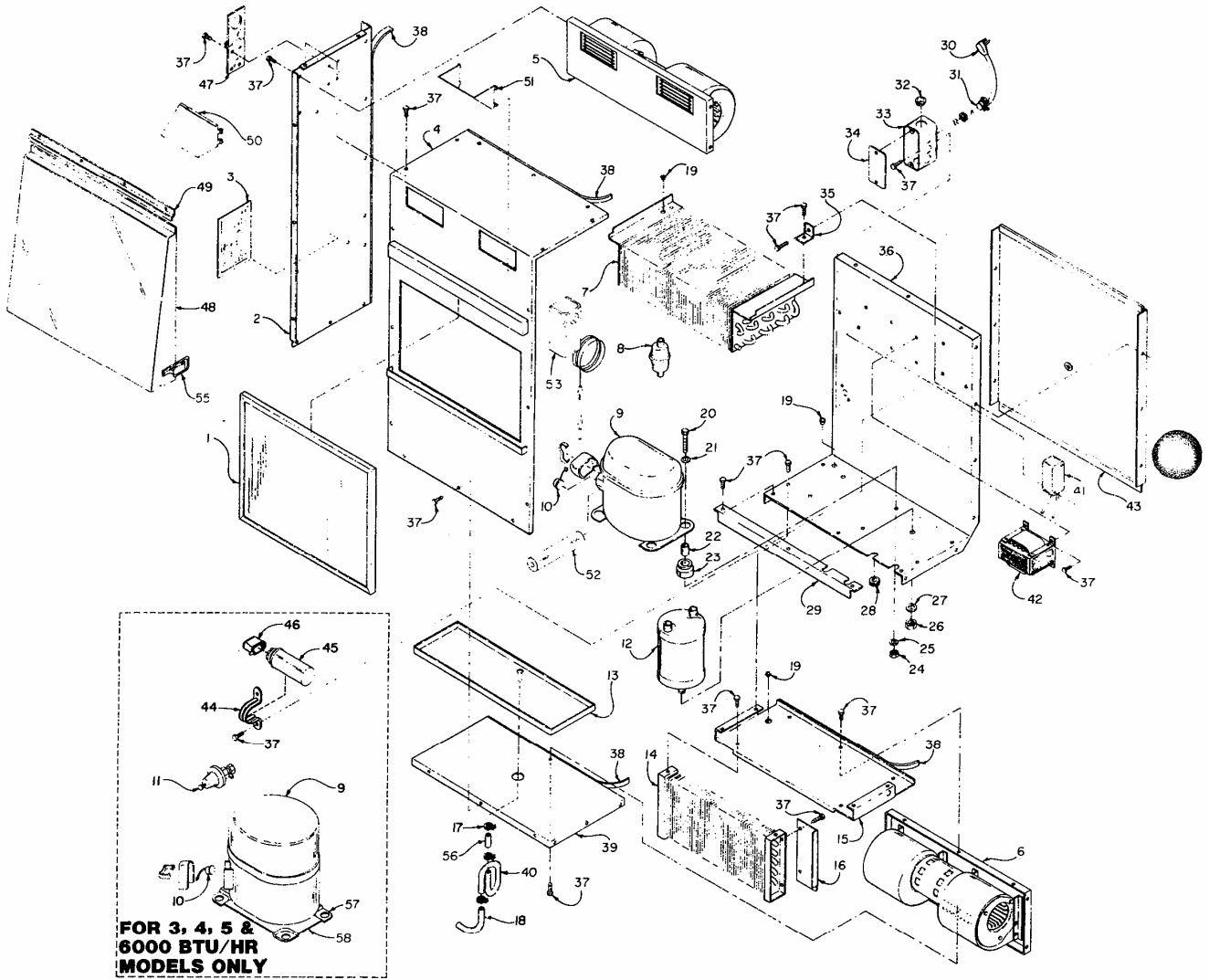
Description	Part No.
Thermostat Kit (Customer Installed)	52-6100-00
Filter Coat - 1 pt. Spray Dispenser	52-6064-03
Disposable Filter	10-1000-16

TABLE

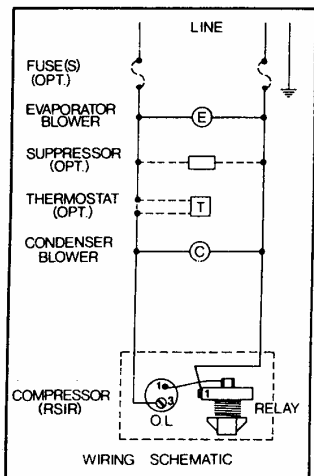
Model No.	Item #5 Condenser Blower	Item #9 Compressor	Item #10 Overload	Item #14 Evaporator Coil	Item #30 Service Cord	Item #45 Capacitor
28-0216-GXXX	28-1064-01M	10-1016-22	10-1007-44	52-6002-03	52-6035-01	NONE
28-0226-GXXX	28-1064-02M	10-1026-74	10-1007-57	52-6002-03	52-6035-74	10-1032-09
28-0316-GXXX	28-1064-01M	10-1016-26	10-1007-45	52-6002-00	52-6035-01	10-1032-13
28-0326-GXXX	28-1064-02M	10-1026-77	10-1007-51	52-6002-00	52-6035-75	10-1032-14
28-0416-GXXX	28-1064-01M	10-1016-26	10-1007-45	52-6002-00	52-6035-01	10-1032-13
28-0426-GXXX	28-1064-02M	10-1026-77	10-1007-51	52-6002-00	52-6035-75	10-1032-14
28-0515-XXX	38-2019-00	10-1016-07	10-1007-02	52-6002-00	52-6035-01	52-6031-01
28-0516-XXX	38-2019-00	10-1016-07	10-1007-02	52-6002-00	52-6035-01	52-6031-01
28-0525-XXX	38-2020-00	10-1026-07	10-1007-28	52-6002-00	52-6035-24	52-6031-01
28-0526-XXX	38-2020-00	10-1026-07	10-1007-28	52-6002-00	52-6035-16	52-6031-01
28-0615-XXX	28-2019-00	10-1016-08	10-1007-03	14-1002-00	52-6035-33	52-6031-01
28-0616-XXX	38-2019-00	10-1016-08	10-1007-03	14-1002-00	52-6035-33	52-6031-01
28-0625-XXX	38-2020-00	10-1026-08	10-1007-11	14-1002-00	52-6035-13	52-6031-01
28-0626-XXX	38-2020-00	10-1026-08	10-1007-11	14-1002-00	52-6035-32	52-6031-01

Note: For items shown but not listed, contact the factory.

EXPLODED VIEW

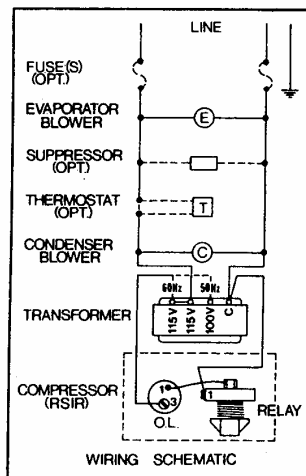


WIRING SCHEMATICS



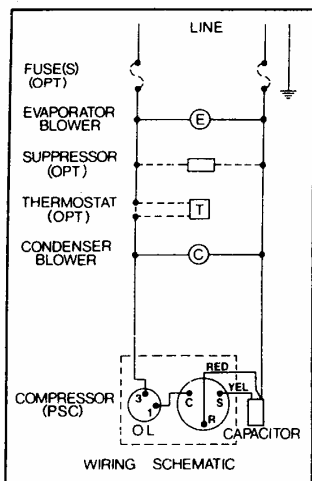
10-1001-37

2000 BTU UNITS



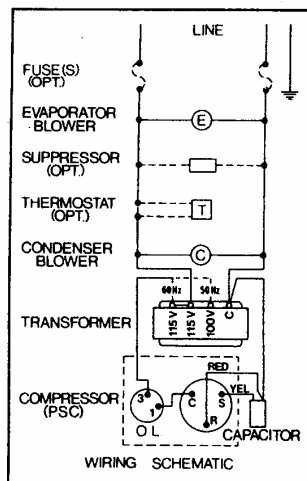
10-1001-39

3000 & 4000 BTU UNITS



10-1001-01B

5000 & 6000 BTU UNITS



10-1001-06B

McLEAN MIDWEST WARRANTY

Please note: Warranty effective at time of shipment.

McLean Midwest warrants that all material and workmanship are free of defects in quality which impair the usefulness of the air conditioner or heat exchanger for a period of five (5) years for non-operating parts, except for the filter; and for one (1) year for everything else when installed and operated under the following conditions:

- A. Maximum voltage variation no greater than plus or minus 10 % of nameplate nominal rating.
- B. Maximum frequency variation no greater than plus or minus 3 Hz. of nameplate nominal rating.
- C. Must not exceed minimum and maximum stated temperatures on the nameplate.
- D. Not to exceed (BTU/Hr.) rating, including any heat sink, as indicated on the nameplate.
- E. The unit must not be restarted for a period of one (1) minute after intentional or accidental shut-off. (This does not apply to heat exchanger or filter fan.)

McLean Midwest warrants that all material and workmanship are free of defects in quality which impair the usefulness of the filter fan package and all custom air conditioners and heat exchangers for a period of one (1) year, except for the filter, when installed and operated under conditions A, B, C, and D as listed above.

Not covered in this warranty is damage to the air conditioner or heat exchanger due to the introduction of other than the nameplate – designated refrigerant. Operation of any McLean Midwest product that has not been designed with proper protective coatings and/or options and is in an abnormal or corrosive environment voids the warranty. Prolonged operation with dirty filters also voids the warranty.

Should any part prove defective within the above warranty period, the customer may choose to return the defective product that is under warranty to McLean Midwest for repair at no charge or the customer has the option to repair the defective products at his own expense and McLean Midwest will supply repair parts at no charge providing the defective part is returned and found to have failed under warranty. Parts supplied as warranty replacement parts will assume the balance of the warranty on the part returned for warranty consideration.

Please be advised: According to the Federal Register, no person maintaining, servicing, repairing, or disposing of appliances may knowingly vent or otherwise release into the environment any class I or class II substance used as refrigerant.

McLean Midwest assumes no liability beyond the repair or replacement of its own product. Customer modification of any McLean Midwest product voids this warranty.

The purchaser assumes the responsibility of grounding the unit and installing it in accordance with local electrical and safety codes, as well as the National Electric Code (NEC) and OSHA.

This express warranty constitutes the entire warranty with respect to the PRODUCT and IS IN LIEU OF ALL OTHERS, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OR MERCHANTABILITY AND WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE AND IN NO EVENT IS McLEAN MIDWEST RESPONSIBLE FOR ANY CONSEQUENTIAL DAMAGES OF ANY NATURE WHATSOEVER.

HOLD HARMLESS

In consideration of purchase of equipment from McLean Midwest by a customer, McLean Midwest agrees to indemnify and hold harmless such customer and users with a defense, as to any claim, demand, statutory court costs, fees for attorney's services provided for below, and/or judgment, for actual or alleged patent infringement in any country, arising out of the use, sale or advertisement of any equipment manufactured or sold by McLean Midwest to McLean Midwest's own specifications, provided that the customer or user shall promptly notify McLean Midwest in writing of any such claim or demand, provided further that McLean Midwest shall have the right and option to undertake and control the entire defense of such claim, or demand instituted against the customer or user, but limited to the products made or sold by McLean Midwest, through counsel selected by McLean Midwest, and to settle and pay any claim award arising out of such claim or demand, and provided further that the customer or user will provide such information and assistance as McLean Midwest may request subject to reimbursement by McLean Midwest for any out-of-pocket expense incurred in providing such requested assistance. Liability of McLean Midwest for any infringement or claim thereof shall be limited to the above undertaking.

McLEAN MIDWEST