Warm Morning® SERIES

MODEL LSC65T

COUNTERFLOW VENTED GAS WALL FURNACES

Installation, Operation and Maintenance Instructions

DANGER

FAILURE TO FOLLOW THESE INSTRUCTIONS CAREFULLY AND WITHOUT ERROR, OR FAILURE TO HEED ANY AND ALL WARNINGS IN THESE INSTRUCTIONS CAN RESULT IN AN EXPLOSION, FIRE OR THE PRODUCTION OF CARBON MONOXIDE GAS WHICH CAN CAUSE PROPERTY DAMAGE, BODILY INJURY OR DEATH.

WARNING: If the information in this manual is not followed exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

— **Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.**

— **WHAT TO DO IF YOU SMELL GAS**

- **Do not try to light any appliance.**
- **Do not touch any electrical switch; do not use any phone in your building.**
- **Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instuctions.**
- **If you cannot reach your gas supplier, call the fire department.**

— **Installation and service must be performed by a qualified installer, service agency or the gas supplier.**

FOR YOUR SAFETY
IF YOU SMELL GAS:
1. OPEN WINDOWS.
2. DON'T TOUCH ELECTRICAL SWITCHES.
3. EXTINGUISH ANY OPEN FLAME.
4. IMMEDIATELY CALL YOUR GAS SUPPLIER.

FOR YOUR SAFETY

DO NOT STORE OR USE GASOLINE OR OTHER FLAMMABLE VAPORS AND LIQUIDS IN THE VICINITY OF THIS OR ANY OTHER APPLIANCE.

DUE TO HIGH TEMPERATURES, THE FURNACE SHOULD BE LOCATED OUT OF TRAFFIC AND AWAY FROM FURNITURE AND DRAPERIES.

CHILDREN AND ADULTS SHOULD BE ALERTED TO THE HAZARD OF HIGH SURFACE TEMPERATURE AND SHOULD BE KEPT AWAY TO AVOID BURNS OR CLOTHING IGNITION.

YOUNG CHILDREN SHOULD BE CAREFULLY SUPERVISED WHEN THEY ARE IN THE SAME ROOM WITH THE FURNACE.

ANY SAFETY SCREEN OR GUARD REMOVED FOR SERVICING AN APPLIANCE MUST BE REPLACED PRIOR TO OPERATING THE APPLIANCE.

DO NOT PLACE CLOTHING OR OTHER FLAMMABLE MATERIAL ON OR NEAR THE FURNACE.

INSTALLATION AND REPAIR SHOULD BE DONE BY A QUALIFIED SERVICE PERSON. THE CLEANED FURNACE SHOULD BE INSPECTED BEFORE USE AND AT LEAST ANNUALLY BY A PROFESSIONAL SERVICE PERSON. MORE FREQUENT CLEANING MAY BE REQUIRED DUE TO EXCESSIVE LINT FROM SOME CARPETING, BEDDING MATERIAL, ETC. IT IS IMPERATIVE THAT CONTROL COMPARTMENTS, BURNERS AND CIRCULATING AIR PASSAGEWAYS OF THE FURNACE BE KEPT CLEAN.

WARNING: ANY CHANGE TO THIS FURNACE OR ITS CONTROLS CAN BE DANGEROUS.

This manual contains safety rules, installation guidelines, use and care instructions and repair parts information.

This manual must become the property of and be reviewed by all future users of this furnace. It is the responsibility of the installer to ensure that this manual is understood by the users of this furnace.

DANGER: THIS FURNACE, AS ANY GAS-FIRED APPLIANCE, CAN PRODUCE POISONOUS CARBON MONOXIDE ALONG WITH OTHER COMBUSTION PRODUCTS. CARBON MONOXIDE, IN STRONG CONCENTRATIONS, CAN CAUSE SICKNESS, SERIOUS PERSONAL INJURY AND DEATH.

THE SYMPTOMS OF CARBON MONOXIDE POISONING MAY RESEMBLE THE FLU WITH HEADACHES, DIZZINESS AND/OR NAUSEA (SICK STOMACH FEELING). IF YOU HAVE THESE SYMPTOMS, THE FURNACE MAY NOT BE WORKING OR VENTING PROPERLY. GET FRESH AIR AT ONCE.! AND HAVE THE FURNACE CHECKED BY A QUALIFIED SERVICE PERSON.

WHEN PROPERLY INSTALLED, USED AND MAINTAINED, THIS FURNACE WILL NOT PRODUCE CARBON MONOXIDE IN DANGEROUS QUANTITIES. HOWEVER, SINCE CARBON MONOXIDE CAN BE DEADLY POISONOUS, THE INSTALLER AND ALL USERS OF THIS FURNACE SHOULD READ AND FOLLOW THESE INSTRUCTIONS CAREFULLY.

GASEOUS FUELS ARE HIGHLY EXPLOSIVE IN CERTAIN CONCENTRATIONS AND ARE VERY FLAMMABLE. ANY GAS LEAKS IN THE PLUMBING SUPPLYING GAS TO THIS FURNACE CAN LEAD TO FIRE OR EXPLOSION.

This furnace is equipped with a manual reset vent control system. This control system is designed to shut the furnace off should it not be properly vented. If the vent switch trips, the main burner will not come on. Have the vent system inspected and corrected as necessary by a qualified service person before resetting the vent switch.

To reset the vent switch after the vent system is corrected, refer to figure A.

1. Turn off electrical supply to the furnace.
2. Remove the front air intake panel assembly, key no. 2 on repair part list.
3. Locate small hole in upper left area of fan shroud.
4. With a pencil or other small stick, push the button on the vent switch.

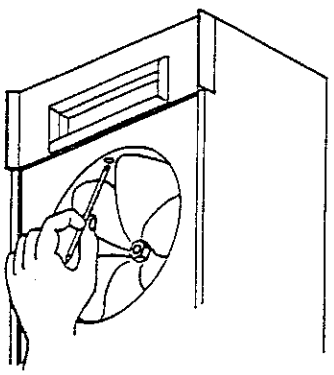


FIGURE A

WARNING: ANY TAMPERING WITH THE VENT SHUTOFF SYSTEM OR CONTINUED USE OF THE FURNACE WITH A POORLY FUNCTIONING VENT CAN LEAD TO CARBON MONOXIDE POISONING AND POSSIBLE DEATH.

The vent control system is **NOT** a substitute for proper venting.

This appliance must be properly connected to a venting system. This appliance is equipped with a vent safety shutoff system.

WARNING: Operation of this wall furnace when not connected to a properly installed and maintained venting system or tampering with the vent safety shutoff system can result in carbon monoxide (CO) poisoning and possible death.

Do not use this furnace if any part has been under water. Immediately call a qualified service technician to inspect the furnace and to replace any part of the control system and any gas control which has been under water.

A. GENERAL INFORMATION

1. Type of Mounting

The Model LSC65T down-flow fan type vented wall furnace has been designed for use as:

a. Flush to wall mounted furnace (See Figs. 1a, 1b, 1c, & 1d).

b. In-the-wall unit for standard dry or wet wall construction, to be installed between 2 X 4 studs which are 16" on center (See Figs. 2a & 2b). Heater plate #878165 is required for recessed installations, available from your dealer as an optional accessory.

NOTE: Standard production units are tested and certified with a minimum of 4" clearance from the side of the unit to an adjacent wall made of combustible material. If flush to an adjacent wall made of combustible material is desired, an optional front air directional register is required. These registers can be purchased from your dealer. They direct air flow away from adjacent walls.

c. To insure adequate accessibility for servicing and clearances for proper operation, the clearances shown in Figures 1, 2 and 3 must be observed.

d. If the unit is installed directly on carpeting, tile or other combustible material other than wood flooring, the unit must be installed on a metal or wood panel extending the full width and depth of the unit.

Label part number 050398, enclosed with this manual, must be affixed in a conspicious location adjacent to the furnace.

The clearance below the unit is to be measured from the top surface of carpeting, tile or other combustible material.

Fig. 1 FLUSH TO REAR WALL

Fig. 1a

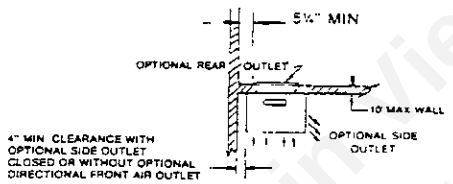


Fig. 1b

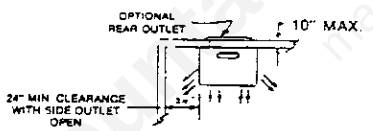


Fig. 1c

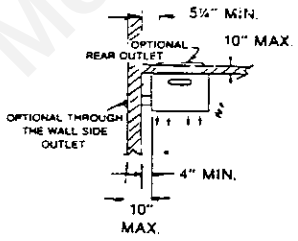
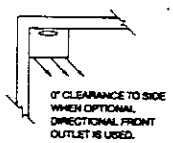


Fig. 1d



2. Air Intake and Discharge

The return of air for this unit is taken in at the top front of the cabinet and discharged at the front and/or side and or rear optional warm air outlets.

Fig. 2 RECESSED IN THE WALL INSTALLATION

Fig. 2b

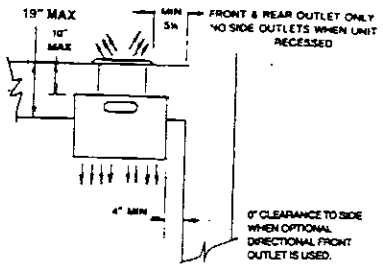
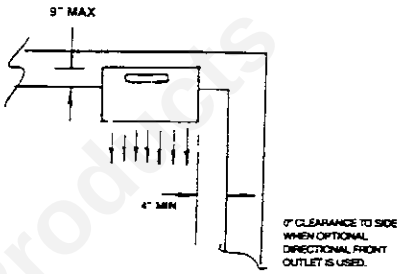


Fig. 2a



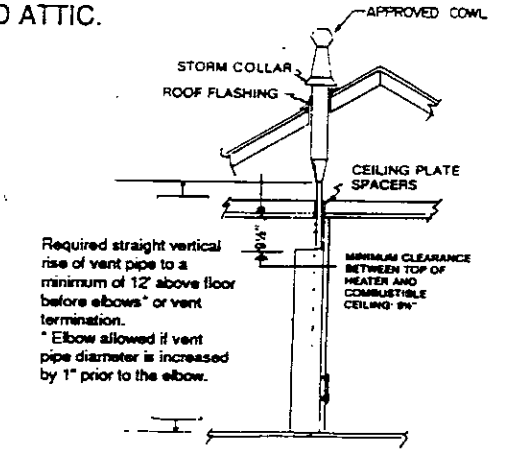
3. Vent Pipe

The unit is designed for use with a type BW Vent Pipe package manufactured and distributed by oval vent pipe manufacturers. A BW Vent Pipe package usually consists of two ceiling plate spacers and a base plate. Additional lengths of oval or round type B vent will be needed to continue the venting through the attic or upper floors and roof. The BW vent package is available from most heating supply jobbers; it is NOT supplied with the unit.

NOTE: THIS GAS APPLIANCE MUST NOT BE CONNECTED TO A CHIMNEY FLUE SERVING A SEPARATE SOLID FUEL BURNING APPLIANCE.

The vent pipes should be straight and vertical (no elbows) from the flue outlet of the unit to a minimum of 12' above the finished floor on which the unit rests, and the first section of oval vent pipe should be long enough to extend from the unit top to at least 6" above the ceiling plate, at which point an oval to round vent pipe adaptor may be installed. (See Fig. 3). An elbow can be used prior to a 12' rise if the vent pipe diameter is increased by 1" prior to the elbow. Keep horizontal run to a minimum.

Fig. 3 PROFILE OF RECESSED INSTALLATION WITH FLUE PIPE RUNNING THROUGH CEILING AND ATTIC.



NOTE: We recommend increasing the diameter of flue pipe used to vent more than one gas appliance or if flue elbows. Consult flue pipe manufacturer, too.

4. Types of Gas

The serial number and rating plate attached to the bottom of control compartment indicates the model number, input and type of gas for which this unit is equipped. All units are shipped from the factory with correct orifice sizes and equipement for only the type of gas specified on the serial number and rating plate.

DANGER: OPERATION OF THIS FURNACE ON GASES FOR WHICH IT IS NOT EQUIPPED MAY LEAD TO CARBON MONOXIDE POISONING.

WARNING: CONVERTING THIS FURNACE FOR USE WITH ANY GAS OTHER THAN THAT FOR WHICH IT IS FACTORY EQUIPPED MAY LEAD TO PERSONAL INJURY OR DEATH.

5. Optional Warm Air Outlets

Register and duct kits for installing extra warm air outlets are available as optional equipment. Kit No. SAO consists of a register frame and register for mounting directly to the side of the unit. Kit No. SDK consists of a side insulation box, side outlet air duct, side register frame and register for installation through an adjacent wall up to 10" thick. Kit No. C50R consists of a rear insulation box, rear outlet air box, register frame and register for installation through rear walls up to 10" thick. These kits are available from your dealer.

Optional Front Directional Outlet panels are available. These kits are designed to direct the air flow away from a flush, side wall, or to direct warm air down a hallway. See your dealer or write us for information regarding installation and kit numbers. Instructions for each kit start at "E. Optional Register Kits" on page 9. See Fig. 1d, too.

When unpacking the unit, make certain all items and parts are removed and inspected before the carton is discarded, as some parts are wrapped separately. Open all packages in the carton and/or inside the unit.

B. INSTALLATION AND ADJUSTMENT

The LSC65T vented wall furnace is shipped from the factory completely assembled.

NOTE: **a.** Before beginning installation, be sure to refer to the local gas utility regulations and city ordinances governing units of this type. This appliance must be installed in accordance with local codes if any, if not, install according to the National Fuel Gas Code ANSI Z21.1-1992 in the United States or Installation Code CAN1-B149 in Canada.

b. This appliance should be installed in a location in which the facilities for ventilation permit satisfactory combustion of gas, proper venting and the maintenance of ambient temperatures at safe limits under normal conditions of use. The unit should be located so as not to interfere with proper circulation of air.

When a building is of unusually tight construction, air for combustion, ventilation and draft hood dilution must be obtained from outdoors or from spaces freely communicating with the outdoors. Under these conditions, a permanent opening or openings having a total free area of not less than one square inch per 5,000 Btu per hour of total input rating of all apliances shall be provided.

c. To insure adequate accessibility and safety, clearances for servicing and proper operation of this appliance are shown in Figure 1 "Flush to rear wall" or Figure 2 "Recessed in the wall installation" and Figure 3.

d. The appliance area must be kept clear and free from combustible materials, gasoline and other flammable vapors and liquids.

e. Units installed between bathrooms and adjoining rooms shall not circulate air from bathrooms to other parts of the building.

f. You may install this unit in single story or multistory buildings. Type "BW" gas vents shall be attached directly to base plate from a BW Vent Pipe package. If recessed, the stud space in which the unit is installed shall be ventilated at the first ceiling level by installation of the ceiling plate spacers usually furnished with a BW gas vent pipe package. Fire stop spacers shall be installed at each subsequent ceiling or floor level penetrated by the vent.

1. Removal of Front Panels

a. Air Intake Louver Panel. This panel is held in place with 4 Phillips head screws located in the corners of the panel. Remove screws and lift panel outward.

b. Upper Front Relief Opening Panel. This is held in place by the three Phillips head sheet metal screws. Remove these screws and pull bottom of panel forward and lift up.

c. Front Center Panel. Remove sheet metal screws at top edge, pull top forward, lift panel up and out.

d. Burner Compartment Door. Pull bottom forward and down until top studs clear slotted openings, and remove door.

e. Front Warm Air Outlet Panel. Remove two sheet metal screws at top right and left of register, and five sheet metal screws along the bottom edge.

2. To Install with Rear of Unit Flush to Wall (not recessed)

a. The first step is to cut a 3 5/8" X 12" wide opening in the ceiling to accommodate your ceiling plate spacers. The back edge of the opening should be flush with the wall, directly over the flue outlet of the furnace.

CAUTION: Before cutting the opening in the ceiling, the installer should carefully determine that there is no obstruction. The flue pipe will extend above the opening and through the roof. For example, if the ceiling joists run at a right angle to the wall, the unit should be positioned so that it is centered between two joists.

If ceiling joists run parallel to the wall, the installer should determine if, by chance, there is a joist close enough to the wall to obstruct the flue-pipe. Other possible obstructions are electrical wiring, water pipes and stand pipes.

b. If the unit is to be equipped with the optional rear warm air outlet, an opening in the wall behind the unit should be provided. The opening should be 12" wide and 8" high, with the lower edge of the opening 7 3/4" above the bottom of furnace. (See Figs. 4 and 10 and section "E. Optional Rgister Kits.")

c. Fasten the ceiling plate spacers, with lugs facing inward, to the rectangular opening in the ceiling. It will probably be necessary to frame in the opening above the ceiling with boards or 2 X 4's to provide a surface for nailing or screwing the spacer sections in position. (See Fig. 5)

d. Secure vent pipe kit base plate to top of unit with two sheet metal screws. Screw holes are provided in the top of the unit. (See Fig. 6)

e. Drill holes in floor or wall needed for gas supply and electrical connections before fastening unit in position. Two metal brackets are provided to anchor the top of the unit to the wall. Attach these brackets to the wall with screws, clamping the rear top flange of the unit to the wall. If possible, these brackets should be located at wall studs for secure fastening.

Fig. 4 SHOWING CUT-OUT IN WALL BETWEEN STUDS FOR RECESSED INSTALLATION. LOCATION OF CUT-OUT FOR OPTIONAL REAR OUTLET ALSO INDICATED.

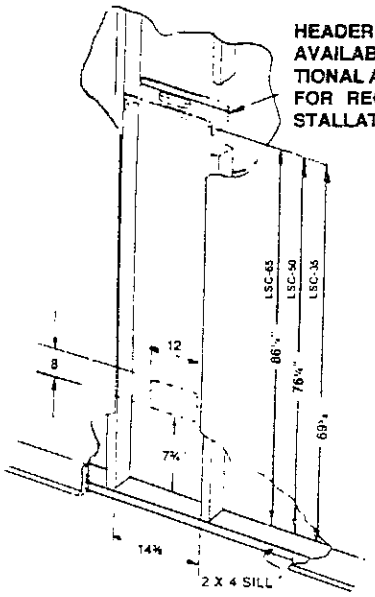


Fig. 5

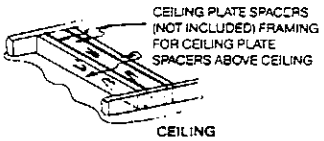
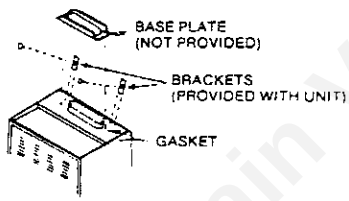


Fig. 6 BASEPLATE OF VENT PACKAGE, INSTALLED ON UNIT.

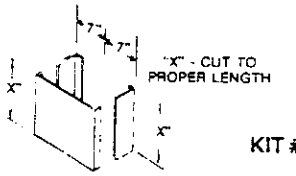


f. Install the "Type B" oval gas vent making certain that the vent pipe maintains a 1" clearance from any combustible material and is centered in ceiling plate. The first section of vent pipe should be straight and long enough to extend from the unit to the panel to at least 6" above the ceiling plate. Additional sections of straight pipe should be used to a point 12' (minimum) above the finished floor. Continue vent system for single story installation through attic and roof, using either oval or round Type B vent pipe and fittings. (See Fig. 3).

NOTE: The gas vent must extend at least three feet above the highest point where it passes through the roof of the building, and at least two feet higher than any portion of the building within ten feet of the vent. Also, the gas vent should not terminate less than twelve feet in vertical height above the bottom of the unit.

g. A vent pipe cover kit is required to hide the vent pipe between the top of the unit and the ceiling. The VCK Kit is a full Vent Cover Kit which hides the entire top of the unit. The kit consists of two side pieces, one front section and a length of rubber molding. Cut the sections to the proper length, fit the molding over the cut edge, and install as shown in figure 7. These kits are available from your dealer.

Fig. 7 VENT COVER ASSY. IS CUT TO PROPER LENGTH AND INSTALLED AS SHOWN TO ENCLOSE FLUE PIPE RUNNING FROM UNIT TOP TO CEILING ON FLUSH-TO-WALL INSTALLATIONS



3. Recessed-in-the-Wall Installation

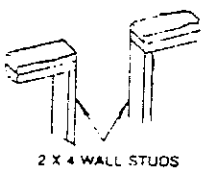
a. An opening in the front wall between the studs must be cut to a width of 14 3/8" and a height of 86 1/4" for the Model for the Model LSC65T, above the sill.

NOTE: Do not cut through the wall on the back side of the studs! (See Fig. 4)

b. If the unit is to be equipped with the optional rear warm air outlet, an opening in the wall of the room behind the unit should be provided. The opening should be 12" wide and 8" high, with the lower edge of the opening 7 3/4" above the top of the 2 X 4 sill. (Figs. 4 and 10.)

c. Cut away the 2 X 4's that form the ceiling plate to a width of 14 3/8" between the studs that are above the units location. (See Fig. 8)

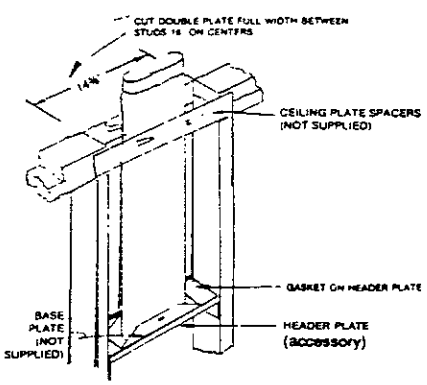
Fig. 8 CUT AWAY DOUBLE PLATE FOR FULL WIDTH OF STUD SPACE TO ACCOMMODATE CEILING PLATE SPACERS FOR BW GAS VENT.



d. Install the ceiling plate spacer sections of the BW venting package by nailing or screwing them to the 2 X 4's at each end of 14 3/8" opening. (See Fig. 9.) Be sure the lugs on the spacer plates face inward.

e. A separate header plate is available for use in recessed installations, as an accessory. Fasten the base plate furnished with the BW vent pipe kit to this header plate and to the gasket cemented to the integral unit header plate. Secure with sheet metal screws provided. (See Fig. 9.)

Fig. 9



f. Fasten a section of Type BW vent pipe to the base plate long enough to extend at least 6" above the ceiling plate spacers.

g. Locate the base plate-header plate assembly with the flue-pipe attached, between the studs at the top of the wall cut-out. The side flanges of the header plate should face downward. Nail the header plate in place.

h. If a rear wall register is to be used, refer to the section on Optional Rear Register Installation and Figure 10.

Fig. 10 OPTIONAL REAR OUTLET

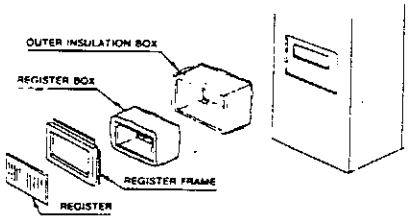
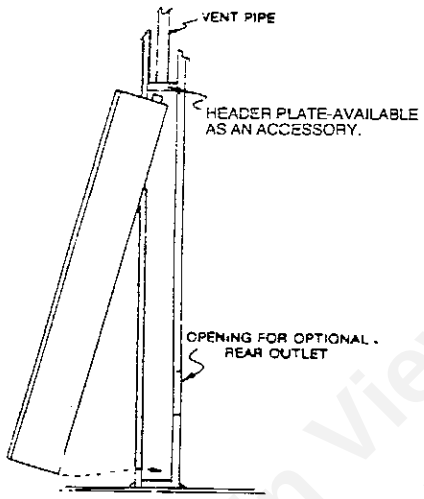


Fig. 11 SHOWING METHOD OF POSITIONING FURNACE IN WALL FOR RECESSED INSTALLATION.



i. To position the unit in the wall, it is recommended that one person lift the unit and a second person guide the vent outlet into the opening in the header plate. (See Fig. 11.) A 2 X 4 placed on the floor in front of the opening will help support the unit by holding it level with the top of the sill and make it easier to slide the unit into position.

j. If the edges of the cabinet do not fit firmly against the surrounding wall after the unit is in position, the installer should use wood molding or quarter round strips for a neat, attractive-looking installation.

k. Complete the venting of the unit through the attic and roof, using oval or round B-vent pipe. (See pararaph "f" under Flush-to-Wall instructions for correct venting procedure - also Fig. 3. Also refer to instructions furnished by BW vent manufacturer).

4. Connecting Gas

a. The gas supply line should be 1/2" N.P. size or larger.

b. A gas cock valve and ground joint union should be installed in the gas line upstream of all controls to aid in servicing.

c. A 1/8-inch N.P.T. plugged tapping accessible for test guage connection should be installed immediately upstream of the gas supply connection to the appliance.

d. All gas piping should be installed or replaced by a person, or persons, qualified to do such work.

e. Reference should always be made to your local gas company regulations and your local building, plumbing and other codes in effect in the area in which the installation is to be made.

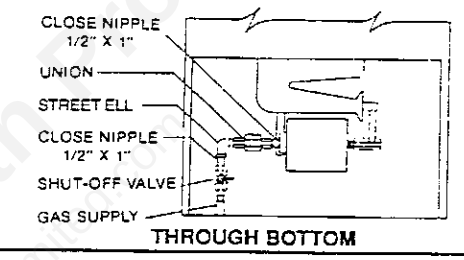
f. Be sure to use pipe thread compound that will be resistant to the action of LP gas.

CAUTION: Do not put unnecessary strain on the unit manifold or control valves with pipe wrenches.

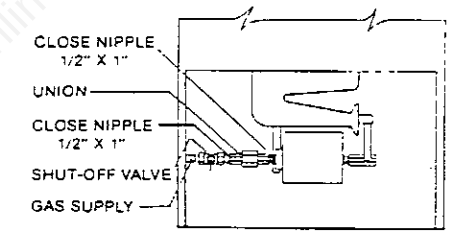
g. The gas line must be checked for leaks before lighting the appliance. Use a soapy solution and brush on all connections. If leaks are present, bubbles will appear - NEVER USE A MATCH OR AN OPEN FLAME TO CHECK FOR A GAS LEAK.

NOTE: The National Fuel Gas Installation Code requires that if a vertical section of the piping is required for installation of the unit, a drip line must be installed near the gas inlet. This should consist of a vertical length of pipe, capped on the bottom, in which condensation and foreign matter may collect.

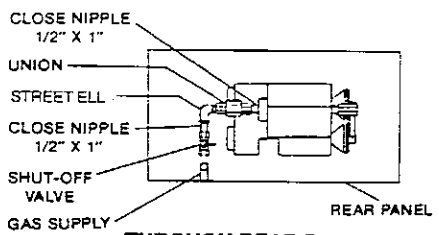
SUGGESTED SUPPLY LINE PLUMBING



THROUGH BOTTOM



THROUGH SIDE



THROUGH REAR PANEL
(BOTTOM VIEW)

CAUTION: To user of Propane/LP gas:

1. Piping and fittings for installation, in addition to those furnished with the unit, should be of a type approved for use with Propane/LP gas. The piping should be suitable for working pressure not less than 125 lbs. per square inch guage.

2. Use a pipe thread compound that will provide a pure, non-metallic film and will be resistant to the actions of Propane/LP gas. Under no circumstances should ordinary pipe dope be used on pipe connections.

NOTE: The minimum inlet gas supply pressure must be 4.5" W.C. for natural gas and 11" W.C. for Propane/LP gas. The maximum inlet gas supply pressure should be no greater than 7" W.C. on natural gas and 14" W.C. on Propane/LP gas.

The appliance and its individual shutoff valves must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of 1/2 psig.

The appliance must be isolated from the gas supply piping system by closing its individual manual shutoff valves during any pressure testing of the gas supply piping system at test pressures equal to or less than 1/2 psig.

5. Electrical Wiring

a. The unit is completely wired at the factory for operation. Connect the supply line (115v) as follows:

1. The Junction Box is located at the top left front corner inside the casing. To gain access to the Junction Box, first remove the Air Inlet Panel. Second, remove the Vinyl Front Panel and the Draft Relief Panel. Third, disconnect the fan wires at the connector at the lower left of the fan assembly, then remove the Fan Assembly. Remove two screws from the plate on the bottom of the Junction Box to gain access to the leadwires for supply connection.

2. The Supply Line to the unit should be in metal conduit. Connect the conduit to the larger hole in the Connection Plate on the top of the unit above the Junction Box.

3. Connect the 115v supply to leads marked L1 and L2.

CAUTION: All wiring must conform with local or, in the absence of local codes, with the National Electrical Code ANSI/NFPA No. 70-1992 in the United States and the current Canadian Electrical Code CSA C22.1 in Canada. The appliance must be grounded in accordance with the applicable code.

NOTE: If any of the original wire as supplied with the appliance must be replaced, it must be replaced with 18 GA., 3/64" - 105°C Thermosplastic Type wire or its equivalent.

b. Install and connect the thermostat. It is recomended that the thermostat be located on an inside wall. Run the thermostat wire (furnished with unit) from the thermostat to the junction box. Connect the thermostat to the leads marked T1 and T2.

c. After making supply and thermostat wire connections. replace the plate on the bottom of the Junction Box, being sure all wires are inside the box. Replace Fan Assembly. WARNING: BE SURE TO RECONNECT FAN WIRING TO CONNECTOR. Replace all panels in reverse order.

"WARNING: IF NOT INSTALLED, OPERATED AND MAINTAINED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS, THIS PRODUCT COULD EXPOSE YOU TO SUBSTANCES IN FUEL OR FROM FUEL COMBUSTION WHICH CAN CAUSE DEATH OR SERIOUS ILLNESS AND WHICH ARE KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER, BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM. ALSO, OPERATION, INSTALLATION AND SERVICING OF THIS PRODUCT COULD EXPOSE YOU TO AIRBORN PARTICLES OF GLASS WOOL FIBERS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER THROUGH INHALATION."

6. Lighting and Operation of Heater

FOR YOUR SAFETY READ BEFORE LIGHTING

WARNING: IF YOU DO NOT FOLLOW THESE INSTRUCTIONS EXACTLY, A FIRE OR EXPLOSION MAY RESULT CAUSING PROPERTY DAMAGE, PERSONAL INJURY OR LOSS OF LIFE.

A. THIS APPLIANCE HAS A PILOT WHICH MUST BE LIGHTED BY HAND. WHEN LIGHTING THE PILOT. FOLLOW THESE INSTRUCTIONS EXACTLY.

B. BEFORE LIGHTING SMELL ALL AROUND THE APPLIANCE AREA FOR GAS. BE SURE TO SMELL NEXT TO THE FLOOR BECAUSE SOME GAS IS HEAVIER THAN AIR AND WILL SETTLE ON THE FLOOR.

WHAT TO DO IF YOU SMELL GAS:

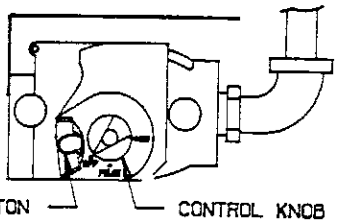
- DO NOT TRY TO LIGHT ANY APPLIANCE.
- DO NOT TOUCH ANY ELECTRIC SWITCH; DO NOT USE ANY PHONE IN YOUR BUILDING.
- IMMEDIATELY CALL YOUR GAS SUPPLIER FROM A NEIGHBORS PHONE. FOLLOW THE GAS SUPPLIERS INSTRUCTIONS.
- IF YOU CANNOT REACH YOUR GAS SUPPLIER, CALL THE FIRE DEPARTMENT.

C. USE ONLY YOUR HAND TO PUSH IN OR TURN THE GAS CONTROL KNOB. NEVER USE TOOLS. IF THE KNOB WILL NOT PUSH IN OR TURN BY HAND, DON'T TRY TO REPAIR IT. CALL A QUALIFIED SERVICE TECHNICIAN. FORCE OR ATTEMPTED REPAIR MAY RESULT IN A FIRE OR EXPLOSION.

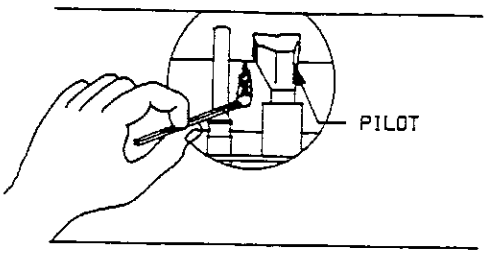
D. DO NOT USE THIS APPLIANCE IF ANY PART HAS BEEN UNDER WATER. IMMEDIATELY CALL A QUALIFIED SERVICE TECHNICIAN TO INSPECT THE APPLIANCE AND TO REPLACE ANY PART OF THE CONTROL SYSTEM AND ANY GAS CONTROL WHICH HAS BEEN UNDER WATER.

LIGHTING INSTRUCTIONS

1. STOP! READ THE SAFETY INFORMATION ON THE FIRST LABEL.
2. SET THE THERMOSTAT TO LOWEST SETTING AND TURN OFF ALL ELECTRIC POWER TO THE FURNACE.
3. REMOVE THE CONTROL ACCES PANEL. TURN THE CONTROL KNOB CLOCKWISE ↷ TO "OFF".



4. WAIT FIVE (5) MINUTES TO CLEAR OUT ANY GAS. THEN SMELL FOR GAS, INCLUDING NEAR THE FLOOR. IF YOU SMELL GAS, STOP! FOLLOW "B" IN THE SAFETY INFORMATION ON THE FIRST LABEL. IF YOU DON'T SMELL GAS, GO TO THE NEXT STEP.
5. DEPRESS THE RED BUTTON SLIGHTLY AND TURN THE CONTROL KNOB COUNTERCLOCKWISE ↶ TO PILOT. RELEASE THE RED BUTTON AND KNOB.
6. PLACE A BURNING MATCH BETWEEN THE PILOT END AND THERMOCOUPLE. FULLY DEPRESS THE RED BUTTON AND HOLD IT DOWN FOR 60 SECONDS AFTER THE PILOT LIGHTS. RELEASE THE BUTTON AND IT WILL POP BACK OUT. THE PILOT SHOULD REMAIN LIT. IF IT GOES OUT, REPEAT STEPS 2 THROUGH 6.



- IF THE KNOB DOES NOT POP BACK UP WHEN RELEASED, STOP AND IMMEDIATELY CALL YOUR SERVICE TECHNICIAN OR GAS SUPPLIER.
- IF THE PILOT WILL NOT STAY LIT AFTER SEVERAL TRIES, TURN THE GAS CONTROL KNOB CLOCKWISE ↷ TO "OFF", THEN CALL YOUR SERVICE TECHNICIAN OR GAS SUPPLIER.

7. TURN THE CONTROL COUNTERCLOCKWISE ↶ TO ON.
8. REPLACE THE CONTROL ACCESS PANEL.
9. TURN ON ALL ELECTRIC POWER TO THE APPLIANCE.
10. SET THE THERMOSTAT AS DESCRIBED.

TO TURN OFF GAS TO APPLIANCE

1. SET THE THERMOSTAT TO LOWEST SETTING.
2. TURN OFF ALL ELECTRIC POWER TO THE APPLIANCE IF SERVICE IS TO BE PERFORMED.
3. PUSH IN GAS CONTROL KNOB SLIGHTLY AND TURN CLOCKWISE ↷ TO "OFF". DO NOT FORCE.
4. REPLACE CONTROL ACCESS PANEL.

7. Checking Input

GAS	HEATING VALUES	Seconds required for One Cu. Ft. of gas to pass through meter.		
			LSC65T	
NATURAL	Approx. 1,000 BTU per Cu. Ft.		60 Seconds	
PROPANE	Approx. 2,500 BTU per Cu. Ft.		150 Seconds	

Check input rating upon completion of installation. All units are set at the factory to within 2% of the rated input for average natural and propane gases. To verify the input rating, time the number of seconds required for one cubic foot of gas to pass through the meter.

NOTE: All other gas burning appliances in the house must be turned off during the time check. The time for one cubic foot of gas to pass through the meter should correspond to the chart shown.

C. CONTROLS

1. This appliance has a Single Rate main valve. When on it will operate at the BTU input shown on the Serial Number Plate.

2. Automatic Limit Controls

An automatic limit control is a safety device that prevents overheating of the unit, should an abnormal condition exist.

CAUTION: These safety devices should not be bypassed or removed.

3. Wall Thermostat

The wall thermostat puts the temperature control at the user's fingertips. Just set the thermostat at the desired room temperature. The thermostat will control operation of the burners to maintain heat at this level.

4. Automatic Fan Control

a. This switch is automatically activated after main burner has been operating for approximately 1 1/2 minutes. It is mounted on the air baffle behind the front panel.

b. To remove this switch for servicing or replacement, follow instructions under B, Installation and Adjustments, steps a, b, and c under Removal of Front Panels.

D. MAINTENANCE

1. Fan Care

The blower motor on model LSC65T must be lubricated annually.

a. Follow instructions under B, Installations and Adjustments, steps a, b, and c under 1. Removal of Front Panels.

b. Disconnect motor plug behind lower left corner of fan housing. Motor plug has a safety lock. Lift this lock with edge of screwdriver and disconnect plug.

c. Remove 4 screws holding fan housing and lift housing forward from unit.

d. Apply three or four drops of electric motor oil to two oil holes in the motor.

e. Reassemble in reverse sequence.

CAUTION: Don't forget to plug in motor. Motor plug can not be connected incorrectly unless unusual force is used.

2. Control Compartment

Never tamper with or use force or tools on the gas control system. If a knob will not operate by hand or if the control has gotten wet, have it replaced. The control compartment must be kept clean at all times. If, for any reason, servicing in control compartment is necessary, remove control compartment door by pulling out at the bottom, then pulling down and out. For removal of complete valve, burner and manifold assembly, follow these instructions:

a. Shut off gas supply to unit and disconnect gas line and 24v leads from gas valve. Turn off electric supply.

b. Remove two 1/4 - 20 X 3/4 bolts from the wing of manifold (underneath the combustion chamber base).

c. Drop the right side of the burner assembly until the studs on the left end of the burner will slip out of holes in chamber side. The assembly may now be removed. Use a brush or forced air to remove any lint or dust which may have accumulated on the burner, pilot or manifold assembly.

d. Reassemble in reverse sequence.

See figure 12 for proper pilot-burner relationship.

3. Venting System

It is recommended that the venting system be inspected periodically, at least once each year before first use, by a qualified service person for possible damage, corrosion, blockage and for proper joint connections.

If blockage of the system is encountered, steps should be taken to relieve the blockage.

If any corrosion or damage is noted, the flue pipe and/or vent cap must be replaced.

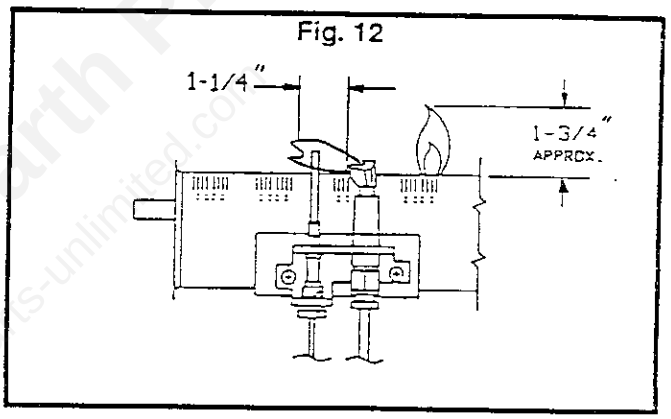
4. Appliance Area

The appliance area must be clear and free from combustible materials, gasoline and other flammable vapors and liquids. Also, the flow of combustion and ventilation air for the appliance must not be obstructed.

5. Pilot and Burner

At least monthly during the heating season, more frequently in abnormally dusty areas, visual inspection of the pilot and burner flame patterns should be done. Refer to figure 12 of this manual for information about how these flame patterns should appear.

Fig. 12



6. Servicing & Replacement of Parts

If your unit needs service or a replacement part, consult your dealer. If he cannot properly serve you, write supplying the following information:

a. Description of the operating problem or the necessary replacement part. See parts list for description and proper name.

b. Model number and serial number of the unit and type of gas used.

c. Copy of dated proof of purchase.

d. Name and Address of the dealer.

CAUTION: To insure safety and good performance, all adjustments, servicing, and replacement of parts should be handled by your Dealer or a trained gas service technician.

E. OPTIONAL REGISTER KITS

Rear Register Kit C50R:

A through-the-wall rear warm air outlet may be installed on LSC65T Wall Heaters. The Model C50R rear register kit offered as optional equipment is used for this purpose.

To install the Rear Register Kit: (Figures 4 and 10).

a. Cut a rectangular opening 12" wide and 8" high in the wall behind the unit. The bottom edge of this opening should be 7-3/4" above the top of the 2 X 4 floor plate if the unit is being installed recessed in the wall, and 7-3/4" above the floor for a flush to the wall installation.

b. To faciliate installation, a knockout 6-1/4" X 10-1/4" has been provided in the rear of the unit outer casing. Before removing this knockout drill 14 #29 (1/8") holes located by the center punch marks around the knockout. Remove the knockout by prying outward with a screwdriver.

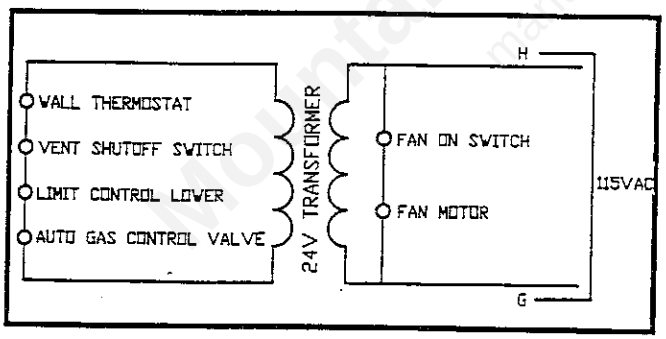
c. After removing the above knockout from the rear casing, another in the inner casing will be visible. Remove this knockout (2-5/8" X 8-3/4") with air baffle attached, by prying outward with a screwdriver.

d. With the unit in position, measure distance from rear outer casing to outside surface of wall in room behind unit. Cut rear register outer box to this length plus 1/2" for lap into rear register frame. Slip the box through the opening in the wall and secure the flanges to the rear outer casing with screws provided.

e. Measure distance from rear of inner casing to outside surface of wall in room behind unit and add 3/4" for lap into rear register frame. Cut duct to this total length. Position duct in opening and secure to rear inner casing with sheet metal screws provided.

f. (1.) Install the register frame, making certain the flanges of frame fit over the end of the duct. **(2.)** Secure to the wall with screws or expansion bolts. **(3.)** Drill a hole through the warm air duct to the register frame.

g. Install the register on the register frame with screws provided.



Side Outlet Register Kit (Side air outlets on Flush to Rear Wall mounted units only):

1. Air outlet mounted directly to side of unit. (Fig. 13A) Kit.

a. To facilitate installation 4-1/8" X 10-1/8" knockouts have been provided in the casing sides. Remove these knockouts by prying outward with a screwdriver.

b. After removal of the 4-1/8" X 10-1/8" knockout from the casing side, a knockout in the inner casing will be visible. Remove this knockout (3" X 9" rectangle) by prying outward with a screwdriver.

c. Insert the register frame and mark 4 holes to be drilled in side of the outer casing. Drill 4 # 29 (1/8") holes. Secure the register frame to the side of the outer casing.

d. Place the register on the side panel with the directional louvers inside register frame. (Note direction of air flow. The arrow should be pointing towards the unit's front.) Drill the corresponding # 29 (1/8") holes at the top and the bottom of the register.

e. Secure the register to the register frame and the side panel.

2. Air outlet for adjacent room. (Fig. 13b) kit.

Fig. 13 OPTIONAL SIDE OUTLETS

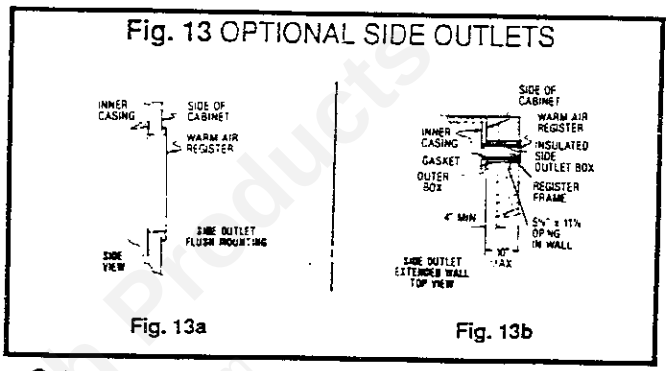


Fig. 13a Fig. 13b

a. Cut a rectangular opening in the wall through which the optional side outlet air duct is to pass - 11-1/8" high X 5-1/8" wide. The bottom edge must be 13-3/16" from the floor.

b. Repeat steps 1a and 1b under "air outlet mounted directly to side of unit."

c. Place the flanged end of the outer duct (uninsulated) against the rectangular opening in the unit side panel. Align the flanges of the outer duct with the rectangular opening and mark 8 holes. Drill 8 # 29 (1/8") holes in the unit side panel.

d. With the unit in position, slip the outer duct (uninsulated) through the wall opening and line up the flanges with the 10-1/8" X 4-1/8" opening cut into the outer casing, then measure the distance from the outer casing to the opening on the outside surface of the wall in the room with the optional side outlet. Cut the duct to this length.

e. With the unit still in positon, measure the distance from the inner casing opening (3" X 9") to the outside surface of the wall. Cut the insulated outlet air duct to this length.

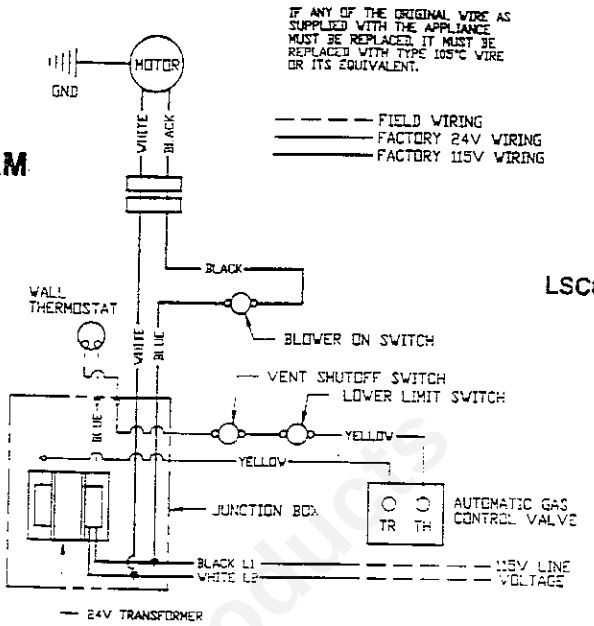
f. Slip the outer duct (uninsulated) through the wall opening and secure it to the outer casing with sheet metal screws.

g. Slip the insulated outlet air duct inside the outer duct and secure it to the inner liner with sheet metal screws.

h. Install the Register Frame in the outlet air duct. Drill 2 # 29 (1/8") holes through corresponding holes in the flanges or the Register Frame to the outlet air duct with sheet metal screws.

i. Place the register on the register frame with the directional louvers inside the frame. (Note the direction of air flow. The arrow should be pointing towards the unit's front). Drill corresponding # 29 (1/8") holes at the top and bottom of the register.

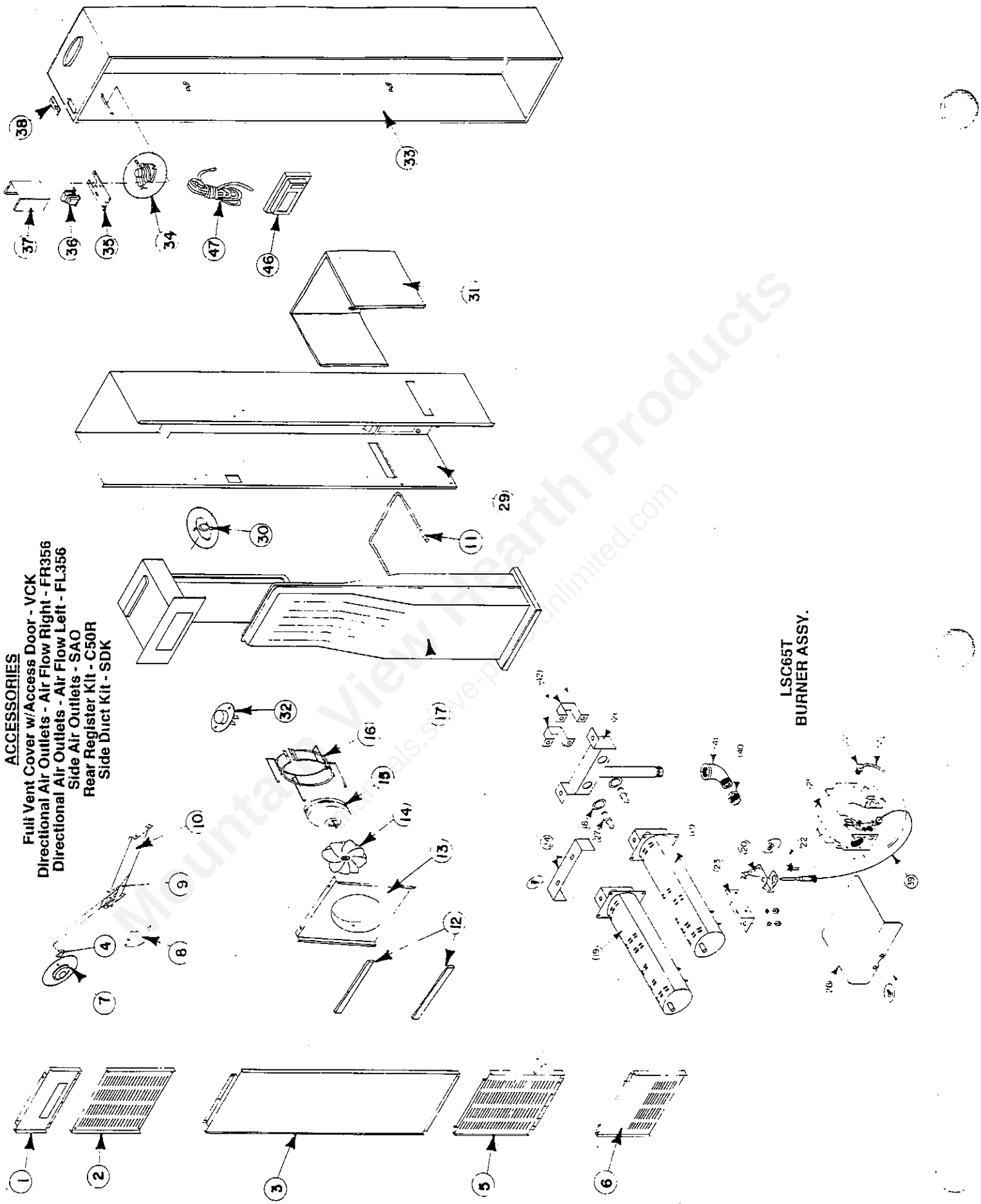
WIRING DIAGRAM



LSC65T

KEY NO.	PART NAME	QTY. PER UNIT	LSC65T PART NO.
1	Relief Opening Panel Ptnd.	1	056451
2	Front Air Intake Panel Assy.	1	794191PB
3	Panel Front Center Assy.	1	049436
4	Fan Switch 60T12	1	056338
5	Air Outlet Panel Ptnd.	1	049430
6	Compt Door Panel Ptnd.	1	048833
7	DNA		
8	Wire Shield	1	783512
9	DNA		
10	Front Air Baffle Assy	1	056341
11	Thermocord 35 In	1	100301
12	Fiberx Gasket 75 x 13	2	440Jx75x13
13	Fan Housing Assy.	1	743120P
14	Dynacone Assembly	1	804709P
15	Motor	1	048822
16	Motor Mount	1	753264
17	Chamber Comb. w/Gasket	1	049431
18	10mm IDX 16mm AL Washer	2	S96
19	Burner	2	W5065
20	Pilot Burner Nat. Gas	1	J999EHA7218D
	Pilot Burner L.P. Gas	1	J999EHA4210D
21	Tubing Aluminum	1	032970
22	Fitting Compression 1/4"	2	033346
23	Pilot Mounting Bracket	1	880144
24	Flame Roll Out Shield	1	880111
25	Control Nat. Gas	1	VR8200C1058
	Control L.P. Gas	1	VR8200C1082
26	Manifold Assembly	1	880104
27	Orifice Nat. Gas	2	056336
	Orifice L.P. Gas	2	056335
28	Valve Radiation Shield	1	880069
29	Inner Casing	1	804645
30	Lower Limit 60T11	1	201888
31	Insulation	2	1x11x36
32	Switch Vent	1	049681
33	Outside Casing Assy.	1	836733PC
34	DNA		
35	Junction Box Bottom	1	773427
36	Transformer 24V	1	048856
37	Junction Box	1	722977
38	Electric Supply Cover Plt.	1	723002
39	Thermocouple	1	K15DA12
40	Reducer 1/2" to 3/8"	1	500x375
41	Street Ell, 90 Degree	1	P1028
42	Burner Mounting Bracket	2	880070
43	DNA		
44	DNA		
45	DNA		
46	Wall Thermostat	1	CM260
47	Wire Thermostat	1	P7541
48	Wiring Harness (Not Shown)	1	056329

(DNA- Does Not Apply)



FORM NO. 056342-0-893

LSC65T

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