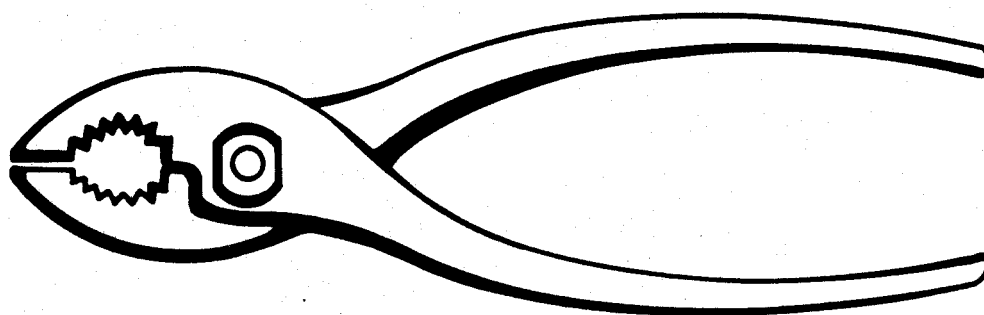




# ***SERVICE MANUAL***

**HU-60-1106**

GAS-FIRED HUMIDAIRE UNIT  
WITH 13800A CONTROL



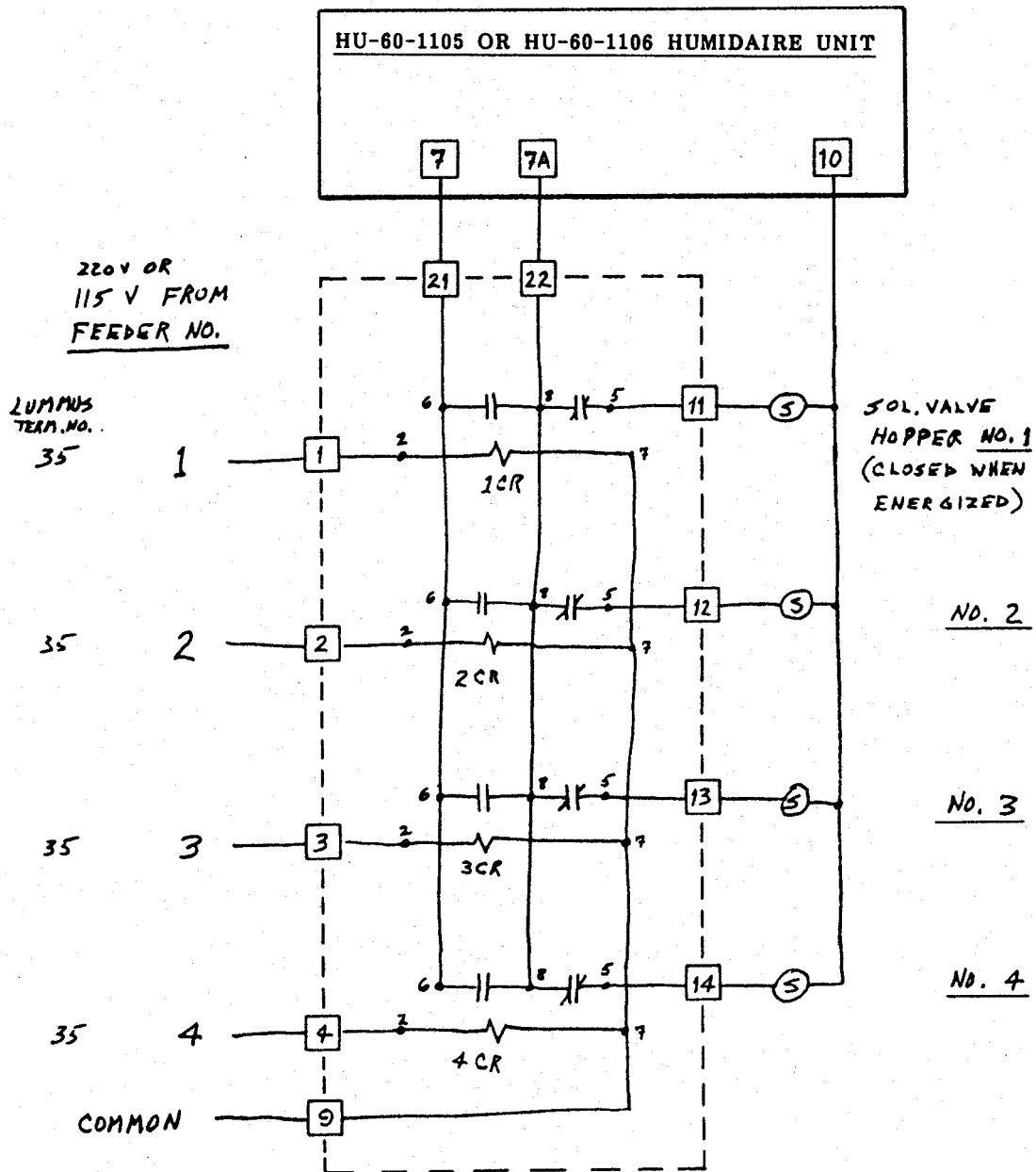
**SAMUEL JACKSON MANUFACTURING CORP.**

**LUBBOCK, TEXAS 79490**

# ELECTRICAL SCHEMATIC

## 13850 RELAY PANEL

### FOR JACKSON CONDITIONING HOPPERS



REF: LUMMUS EC-79 1253 B

4 NO. 13146 RELAYS, KRP 11A 120 VAC.  
USE 220 V RELAYS FOR LUMMUS EXPORT.  
SOLENOID VALVE COILS ARE ALWAYS  
120 VAC. THEIR POWER COMES FROM  
TERMINAL 7 OF HUMIDAIRE UNIT.

5-85

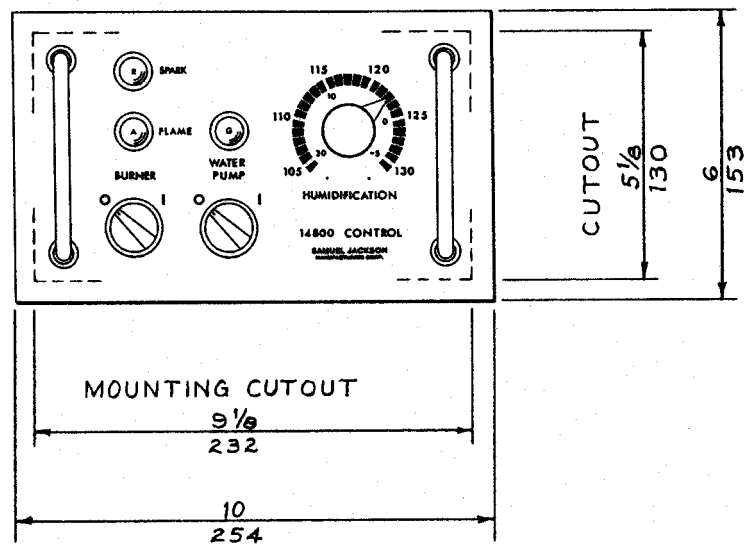
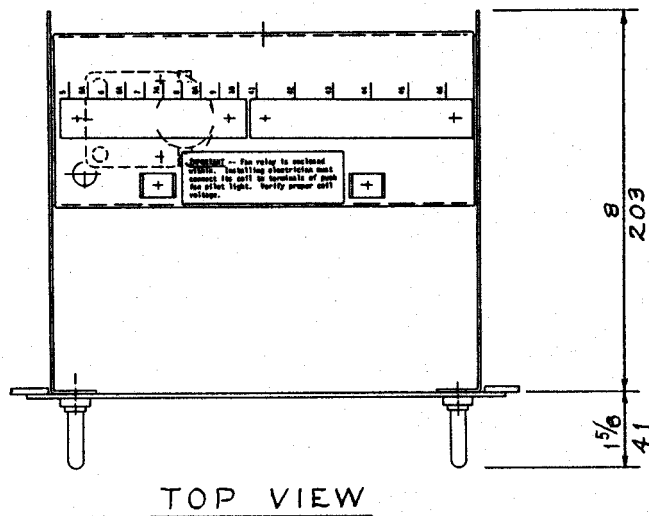
14-2330B

# DIMENSIONS

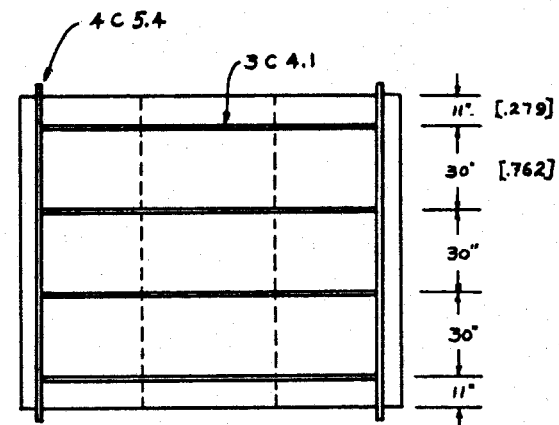
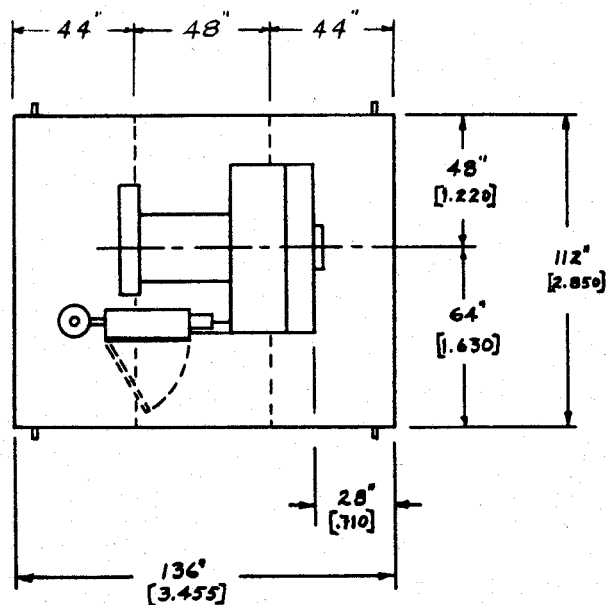
## 14800 AUTOMATIC CONTROL

### FOR HUMIDAIRE UNIT

(13800A DIMENSIONS SIMILAR)

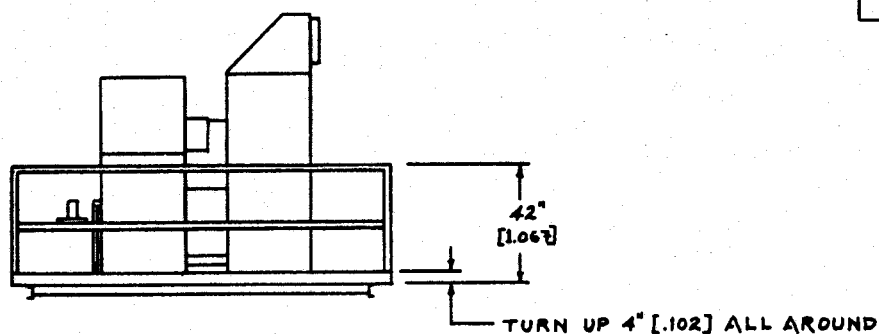


2-11



BOTTOM VIEW

QUAN.	MATERIAL	SIZE
3	1/8 FLOOR PLATE	4' x 10' [1.220 x 3.048]
2	4 C 5.4 CHANNEL	10'-0" [3.048]
4	3 C 4.1 CHANNEL	10'-0" [3.048]
100'	[30] ANGLE OR TUBE FOR HAND RAIL	



SAMUEL JACKSON MFG. CORP.

OVERHEAD PLATFORM  
FOR  
HU-60-1066  
HUMIDAIRE UNIT

DWN. BY SGJ  
DATE 4-28-78

DRAWING NO.  
14-2290

## WATER CONDUCTIVITY CONTROL SYSTEM

The Conductivity Control System measures the electrical conductivity of the recirculated water. This conductivity is a measure of the quantity of dissolved minerals, which will cause scale in the Humidaire Unit if not purged. On kerosene-fired Humidaire Units, sulphur in the fuel can cause the water to become acid and more conductive. In this case, the conductivity control prevents corrosion of the metal part. The dial of the controller is numbered in micromhos (reciprocal megohms).

The Conductivity Control system comprises:

- 14530 Conductivity Controller. This is the instrument mounted in the electrical control cabinet.
- 14532 Sensor, installed in the intake pipe before the water pump. The mark on the electrode must be aligned with the mark on top of its fitting.
- 14465 Solenoid air valve, which controls the compressed air which closes the
- 14680 Air-operated water purge valve. (Part No. 14427 on Humidaire units with serial numbers below 4826.) This valve, when opened, bleeds contaminated water from the Humidaire Unit.
- 14700 Descaler Injector Kit (Optional). When available, this device will inject a small quantity of liquid descaler into the water tank each time water is purged.

OPERATION When the water conductivity reaches the level set on the 14530 Controller, it closes the solenoid air valve. This opens the air-operated water purge valve, allowing contaminated water to be pumped out. Clean water comes in through the float valve, lowers the conductivity to a satisfactory level and the controller closes the purge valve until another purge cycle is required.

### INSTRUMENT SETTINGS

"ON/OFF" SWITCH. This turns controller on and off. No purge will occur in OFF position.

"CAL TEST/OPER" SWITCH. This switch is used to test the instrument independently of the sensor. Position the switches to ON and CAL TEST. The red "control" light should go on and remain on until the dial is turned to 6000 or close to it. Instrument calibration can be adjusted, if necessary, by means of a potentiometer on the printed circuit board inside the control. Return switches to ON and OPER for normal operation and for setting the control point.

SETTING CONTROL POINT. With fresh, clean water in the Humidaire Unit and the water pump operating, set to ON and OPER and allow instrument to warm up for about 3 minutes. Slowly turn the control pointer downscale until "control" light comes on. Note dial reading. This is the normal conductivity of your supply water. For operation, set the dial to a figure 400 to 1000 micromhos above the supply water conductivity. A smaller addition will bleed off more water and keep the water purer. A larger addition will bleed off less water, but increase the possibility of scale formation or acid corrosion. We recommend that you experiment to find the best setting.

# 13800A AUTOMATIC CONTROL FOR HUMIDAIRE UNIT

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## NOTES FOR THE INSTALLING ELECTRICIAN

In some instances, this control will be installed in a 13950 Box, furnished with it. This box is usually located at or near the gin's motor control console, but the gin manager may specify another location. If the 13800A Control is to be mounted in the console, it requires a CUTOUT 9-1/8" wide by 5-1/8" high (232 x 130 mm). On the face of the console, it occupies a space 10" wide by 6" high, and requires 10" clearance behind the panel (254 x 153 x 254 mm).

Note that each 13800A Control shipped with an HU-60 Humidaire Unit is factory calibrated for that HU-60 and marked with its serial number accordingly. Please match the control unit with its respective HU-60 if multiple installations are being made.

The 13800A Control includes a fan relay which kills the Humidaire Unit burner the instant the fan stop button is touched. This refers to the humid air fan on a lint slide installation or the push fan on a tower dryer installation. It is important that you connect the fan relay coil to the terminals of the fan pilot light. Make sure that the relay coil voltage is the same as the pilot light voltage.

Some units have a special order "override" position on the pump switch which bypasses the 13290A Condenser Air Switch and allows humidification in the conveyor distributor or conditioning hoppers before cotton reaches the battery condenser. Terminal "7A" is used when this feature is installed (See drawing 24-2338A).

In tower dryer applications, the sensor wires are usually run to the 13800A control. In Lint Slide Grid applications, it is usually more convenient to run the sensor wires to the Humidaire Unit. Both connection diagrams are enclosed. Either one can be used with the other type installation. Use the one which best fits the machinery plan and available conduits.

### INSTALLING SENSORS

The sensors are not thermocouples, but thermistors; therefore they do not require thermocouple wire. They are sensitive however, and their wires should be shielded or run in separate conduit. When shielding them, as well as the other sensitive wires shown on the wiring diagram, make sure that the shield is grounded on only one end. No. 16 copper wire is satisfactory for all connecting wires.

Both sensors will be installed adjacent to each other and their wires can share one conduit.

# 13800A AUTOMATIC CONTROL FOR HUMIDAIRE UNIT

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## OPERATING INSTRUCTIONS

### PURPOSE:

The purpose of the 13800A Automatic Control is to cause the Humidaire Unit to put out air of a constant temperature and relative humidity. This enables the operator to set the control for near maximum output without experiencing condensation or having to readjust the controls during the day.

### OPERATION:

The face of the 13800A Automatic Control, in addition to the usual switches and pilot lights, has two set-point dials. One is for air temperature. The other is for relative humidity.

The relative humidity dial should be set where tests indicate that you will obtain the desired moisture content in the cotton. This relative humidity setting will vary according to the outside air moisture content and outside air temperature. This setting should be set lower when outside air is cool or air has a high moisture content. At night, setting will be low. Foggy or wet weather setting will be low. Hot afternoon setting will be high. If cotton needs more moisture, setting will be high.

The temperature dial should normally be at 120°, no lower than 110°. If you cannot put enough moisture in the cotton with RH at 100%, then increase temperature setting so air can carry more moisture to the cotton. The main idea to remember about temperature is not to run the unit too cool. This will cause problems on the lint slide grid. (Cotton will not slide down the grid).

If the control causes the Humidaire Unit burner throttling valve to run wide open, it may be necessary to use a larger burner orifice in order to get the desired output.

It is important to remember that whether the Automatic Control is used or not, the Humidaire Unit burner should be run before the pump is turned on in order to preheat the lint slide or tower dryer to prevent condensation. If the serial number of the Humidaire Unit is 4731 or above, it will be equipped with a time delay relay which will prevent the water pump from turning on until the burner has been on for at least two minutes. Some of these models are also equipped with an "override" switch on the pump to bypass the 13290A Condenser Air Switch control in order to humidify cotton in the conveyor distributor or conditioning hoppers before it reaches the battery condenser.

# 13800A AUTOMATIC CONTROL FOR HUMIDAIRE UNIT

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## OPERATING INSTRUCTIONS

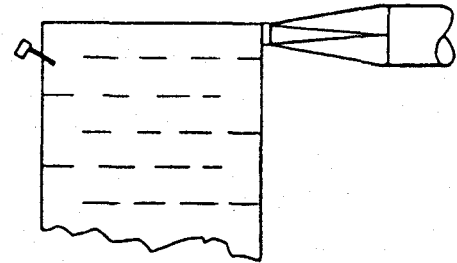
### PRINCIPLE:

The 13800A controls the temperature by means of a thermistor sensor in the air stream which modulates the fuel valve on the burner. It controls the relative humidity of the air by comparing two temperatures, one in the air stream, the other in the water tank of the Humidaire Unit. The water temperature is equal to the wet bulb temperature of the air delivered from the Humidaire Unit. By maintaining a constant difference between this temperature and the dry bulb temperature, a constant relative humidity is maintained. This is accomplished by modulating the water spray pressure. Recent Humidaire Units are equipped with an advanced, air-injection system to vary the water pressure instead of the old water throttling valve. The electronic controllers for both the temperature and relative humidity are enclosed inside their respective modulating motors.



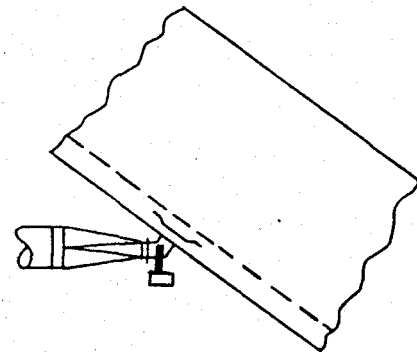
### TOWER DRYER SENSORS

When used at the tower dryer, the two temperature sensors should be located in the top shelf of the tower. This location is unusual, but it is IMPORTANT and NECESSARY for proper operation of the control.



### LINT SLIDE GRID SENSORS

These two temperature sensors are to be installed in the humid air flow path between the lint slide floor and the 13730 transition. They should be installed in the two 7/8" (22 mm) hole provided in the 13392 elbow. Do not separate these two sensors. See drawing 14-2306A for assemblies of the 13392 elbow and 13730 transition.



### CHECKING THE SENSORS

In shooting trouble, the temperature sensors may be checked with an ohmmeter from the 13800A Control or from the Humidaire Unit. Simply disconnect the sensor wires from the terminals and measure the resistance between the wires. The following table shows the proper resistance of a sensor at different temperatures. Significant deviation from these values indicates a fault in the lead wires, a faulty sensor, an improperly grounded shield, or other problem. Remember, the temperatures in the table are SENSOR temperatures. Resistance of the wires to ground should be infinite.

$^{\circ}\text{C}$	$^{\circ}\text{F}$	$R_{\text{ohms}}$
20	68	1345
	70	1322
	80	1208
30	86	1139
	90	1093
	100	979
40	104	933
	110	865
	120	750
50	122	727

# 13960 AIR INJECTION VALVE

## PURPOSE

In order to control the humidification output of the Samuel Jackson Humidair Unit, it is necessary to vary the water spray pressure from almost zero up to the maximum the pump will produce. As an improvement over the water throttling valves previously used, we have introduced a system of injecting a small amount of compressed air into the intake of the water pump in order to reduce its output pressure. The 13960 Air Injection Valve (patent applied for) regulates the flow of injected air to produce a stable water pressure.

## PRINCIPLE OF OPERATION

A Honeywell Modutrol motor with a standard valve linkage is mounted on top of the 13960 valve. This motor moves through its stroke in response to the 13800A relative humidity controller or in response to a remote manual control potentiometer. The valve linkage is attached to the valve stem nut 2, and moves the valve stem 3 downward, compressing the spring 6. The compression of the spring causes it to exert more force on the top of the valve shuttle 13 which presses against a Neoprene seal ring 14, which stops the flow of compressed air. The lower section 18 of the valve is connected to the pump outlet water pressure, which presses upward on the Neoprene diaphragm 17. This pressure acts through the pressure plate 16 to push the shuttle 13 up, allowing air to pass.

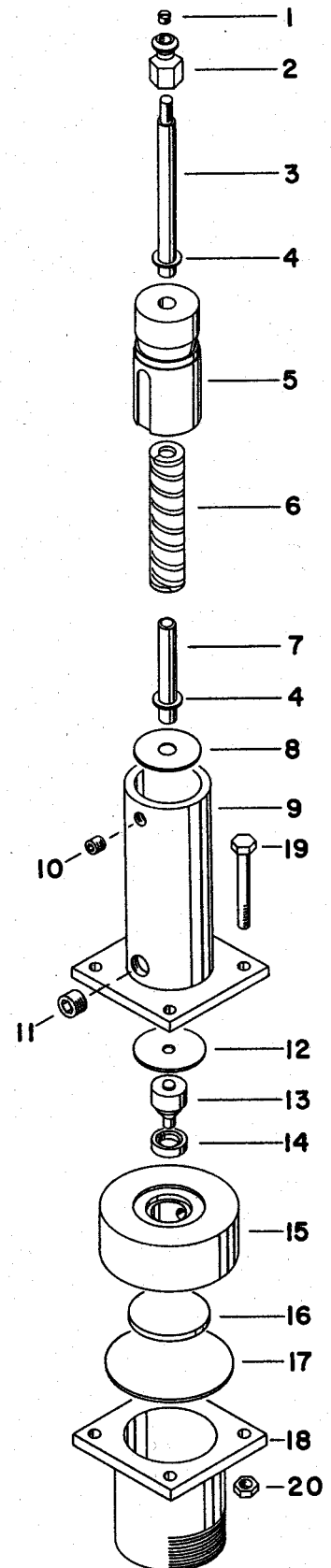
When the water pressure force exceeds the spring force, the shuttle will be lifted to admit enough compressed air to lower the water pump pressure to the desired level. In this way, the water pressure on the spray nozzles is proportional to the stroke of the Modutrol motor.

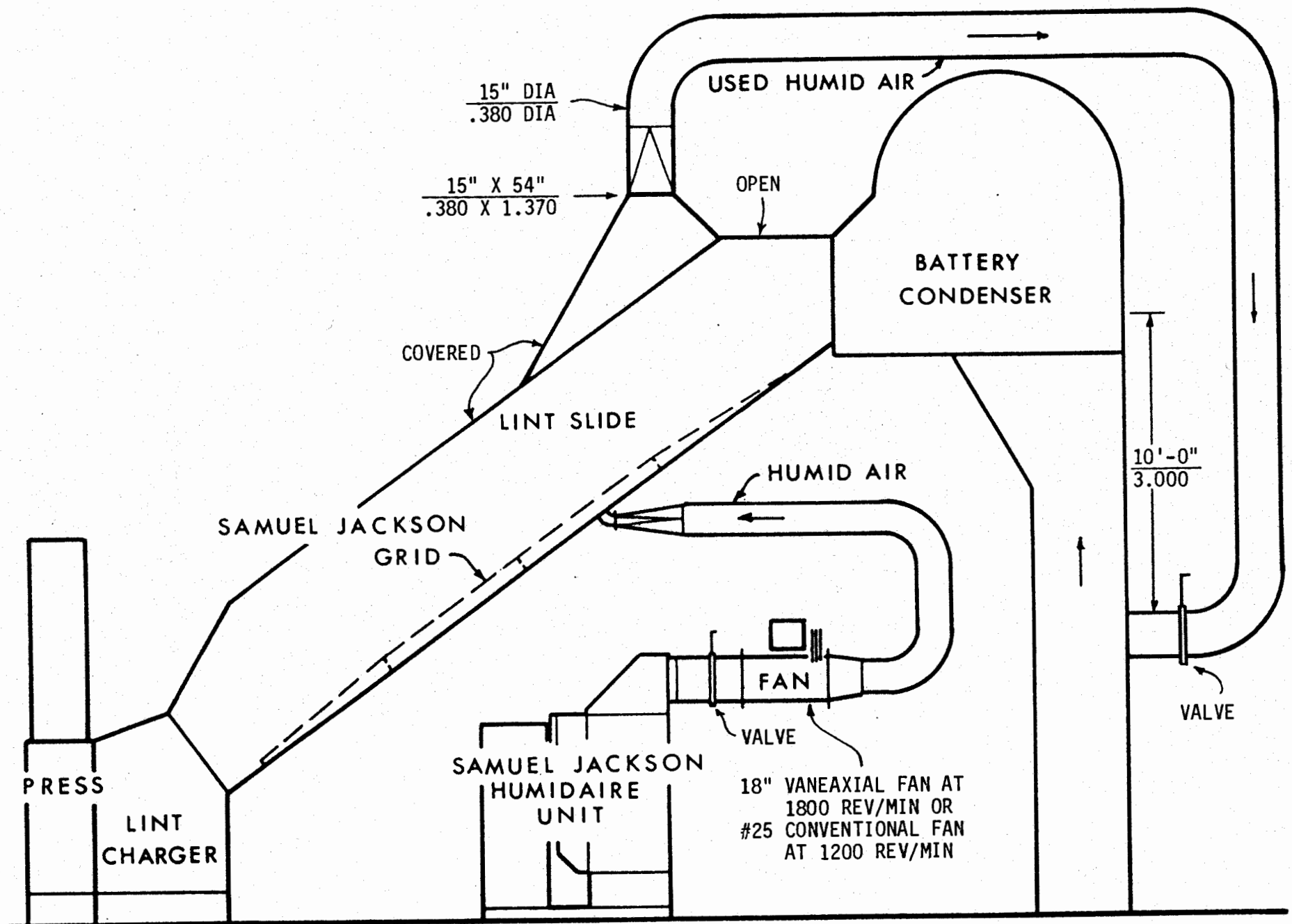
The compressed air filter and regulator is located inside the cabinet of the Humidair unit. A pressure of 7 to 10 psi applied to the 13960 valve is usually satisfactory. When the water pump is turned off, the spring should force the shuttle firmly closed, stopping the flow of compressed air.

To adjust the valve, the Modutrol motor should be run to its upper or open position. Loosen the set screw 10 and raise or lower the entire motor-linkage assembly until the water pressure is about 1 or 2 psi. Tighten set screw.

1	13449	Set Screw	11	13975	Socket pipe plug
2	13448	Valve stem nut	12*	13970A	Upper Diaphragm
3	13979	Valve stem	13*	13966	Valve shuttle
4	13745	Klipring (2 req.)	14*	13968	Seal ring
5	13980	Actuator mounting stub	15	13965	Valve Body
6	13986	Spring, 4½"	16	13967	Pressure Plate
	13987	Spring, 5"	17*	13969	Lower Diaphragm
7	13978	Lower push rod	18	13961	Lower Section
8*	13977	Felt washer	19	15720	½ x 2 Screw (4 req.)
9	13972	Flanged sleeve	20	15701	½ nut (4 req.)
10	13976	Socket set screw			

\* Recommended spares





LINT SLIDE GRID INSTALLATION

14-2355

If the optional descaler injector is used, a low setting will also inject descaler more often. If some scale does form during the operating season, remove it by applying Part No. 14000 Powdered Acid Descaler.

CLEANING: Periodically remove the 14532 sensor from the pipe and wipe its carbon buttons clean. If stubborn scale is present, a fine grain emery cloth may be used for cleaning. Take care not to disturb the temperature sensor, which is encased in a glass bead just below the surface level.

### TROUBLE SHOOTING

#### PROBLEM

#### POSSIBLE CAUSES AND REMEDIES

Power light not on.

ON-OFF switch off.

Water pump not running.

Fuse blown. Replace with 10-amp fuse.

Fuse blows.

Short or ground in solenoid air valve or wiring to it.

Control light stays on.

Switch in CAL TEST position. Move to OPER.

Drain line plugged or water purge valve not operating.

Control pointer set below conductivity of incoming water supply.

Sensor leads or sensor may be shorted. Unplug to test.

Scale builds up in Humidaire unit or corrosion occurs in kerosene-fired unit.

ON-OFF switch off.

Control pointer set too high above conductivity of supply water.

Sensor fouled or dirty. Clean it per instructions or replace it.

Drain line plugged or water purge valve not operating.

## ELECTRICAL INSTALLATION NOTES

THREE-PHASE SUPPLY TO HUMIDAIRE UNIT Run three-phase power to the Humidaire Unit from a 30-ampere fusible disconnect switch or circuit breaker which you will install. A motor starter for the water pump motor is included in the Humidaire unit, also a stepdown transformer for 120-volt control power. Look at the slinger on pump motor shaft to check proper rotation direction. Note that a time delay relay normally prevents the water pump from starting until the burner has operated for 90 seconds, but the water pump "Jog" pushbutton will run the pump to check rotation. If three-phase voltage supplied does not correspond with that shown on shipping tag of Humidaire Unit, the overload relay on the water pump motor starter and the connections on the control voltage transformer must be changed.

14800 AUTOMATIC CONTROL See pages 5-31 et seq for installation instructions.

FAN SAFETY RELAY The installing electrician must connect the coil of this relay to the pilot light for the Humidaire fan. Although every Humidaire Unit has an air flow switch, this relay is an extra safety device. It turns off the burner instantly when the fan motor stop button is touched. This relay is mounted under the chassis of the automatic control. Make sure the voltage stamped on the relay coil agrees with the voltage of the pilot light.

## GAS PIPING

Size of pipe supplying gas to heaters and other appliances should be large enough to prevent excessive pressure losses when all of them are in use. See following Table of sizes, flows and pressure losses.

Where LPG (Liquefied Petroleum Gas, Propane, Butane) is used as the fuel, see following drawing which shows recommended practices.

Emergency shut-off valves should be provided to permit turning off the fuel in an emergency. They should be located so that they are accessible in an emergency situation.

IRI (Industrial Risk Insurers) and some state and local authorities require venting the gas regulator and normally-open vent valve. NFPA 86\* states:

3-3.4.3.2 Regulators shall be vented to a safe location, where vented gas cannot re-enter the building without extreme dilution. The terminating end shall be protected against water entry and bug-screened. Vent pipe shall be of adequate size so as to not lengthen response time.

3-3.4.3.3 Vent lines from multiple regulators, where manifolded together, shall be piped in such a manner that diaphragm rupture of one will not backload the others.

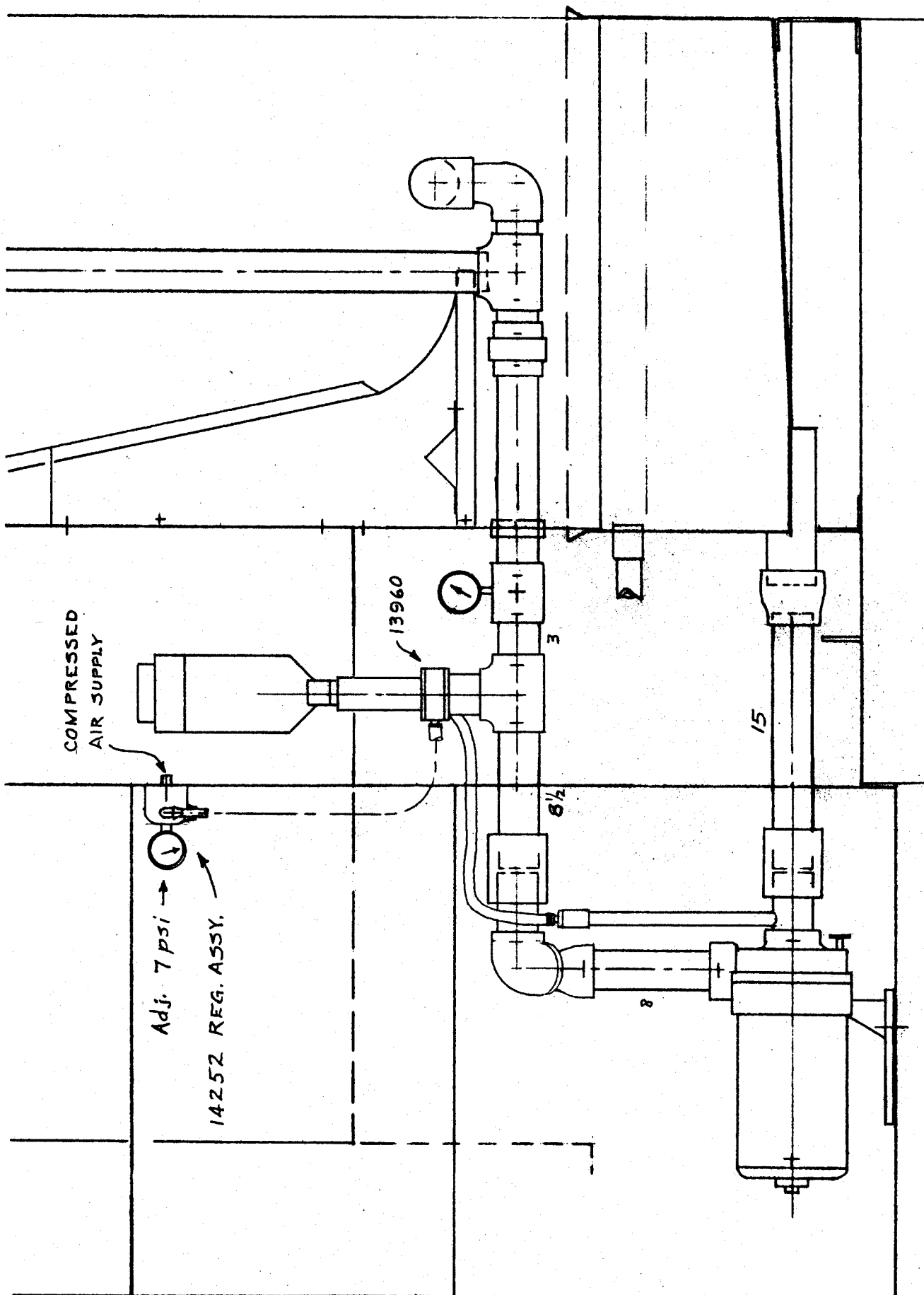
3-3.4.3.4 Vents from gas pressure switches, but from no other devices, may be vented into the regulator vent lines provided that switch or regulator diaphragm failure will not backload the regulator.

\*Reprinted with permission from NFPA 86-1985, Standard for Ovens and Furnaces, copyright © 1985, National Fire Protection Association, Quincy, Mass. 02269. This reprint of material is not the complete and official position of the NFPA on the referenced subject which is represented only by the standard in its entirety.

TOTAL HEATER CAPACITY MILLION BTU/HR	PIPE LENGTH FEET	RECOMMENDED MINIMUM PIPE SIZES				
		PRESSURE AT SERVICE REGULATOR OR VAPORIZER OUTLET, PSIG				
		NATURAL GAS			PROPANE*	
		6	10	15	10	15
2	100	$\frac{1}{4}$	1	$\frac{3}{4}$	$\frac{3}{4}$	$\frac{3}{4}$
	200	$\frac{1}{4}$	1	1	$\frac{3}{4}$	$\frac{3}{4}$
	500	$\frac{1}{2}$	$\frac{1}{4}$	1	1	$\frac{3}{4}$
4	100	$\frac{1}{2}$	$\frac{1}{4}$	1	$\frac{3}{4}$	$\frac{3}{4}$
	200	2	$\frac{1}{2}$	$\frac{1}{4}$	1	1
	500	2	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$
8	100	2	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{4}$	1
	200	$2\frac{1}{2}$	2	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{4}$
	500	3	2	2	$\frac{1}{2}$	$\frac{1}{2}$
16	100	3	2	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{4}$
	200	3	$2\frac{1}{2}$	2	2	$\frac{1}{2}$
	500	4	$2\frac{1}{2}$	$2\frac{1}{2}$	$2\frac{1}{2}$	2
24	100	3	$2\frac{1}{2}$	2	2	$\frac{1}{2}$
	200	4	3	$2\frac{1}{2}$	$2\frac{1}{2}$	2
	500	5	3	$2\frac{1}{2}$	$2\frac{1}{2}$	$2\frac{1}{2}$

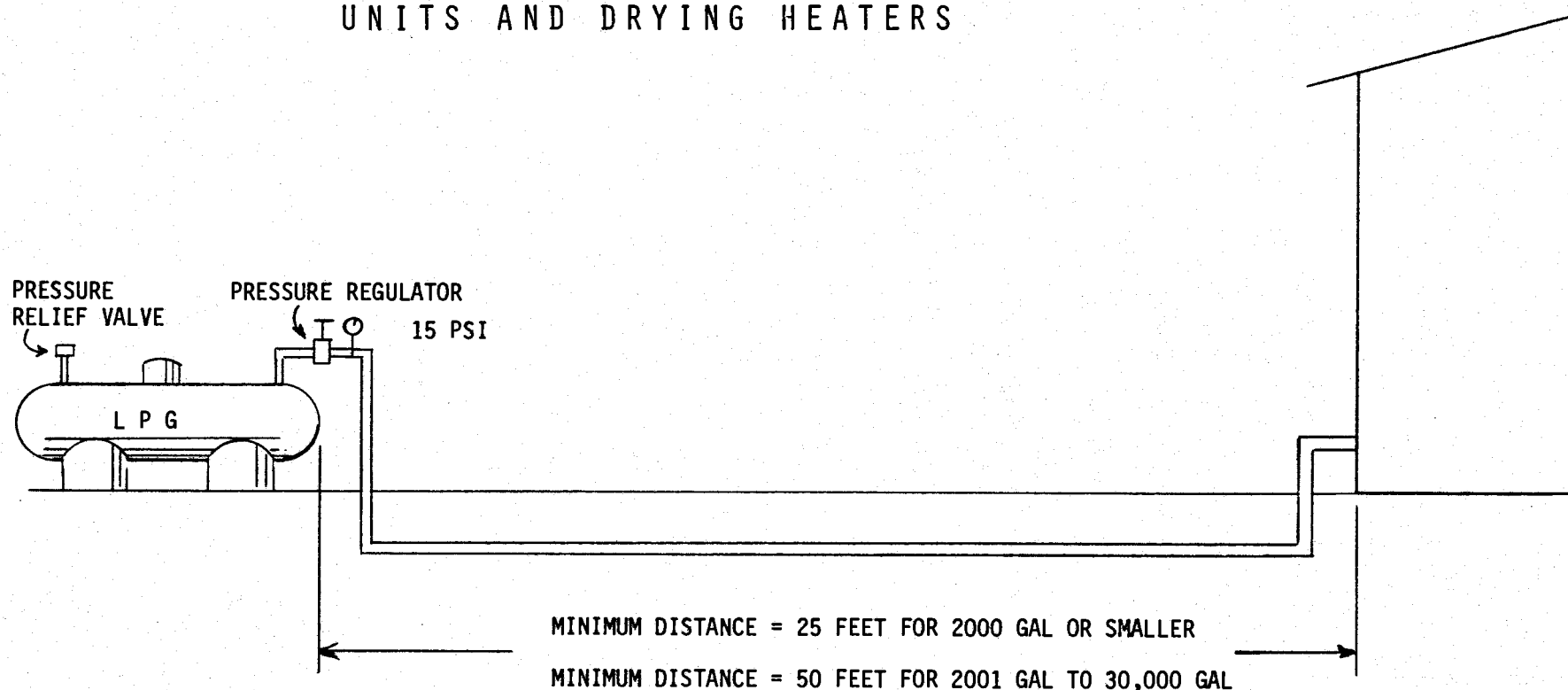
\*OR BUTANE

PIPE SIZES ARE NOMINAL DIAMETERS, SCHEDULE 40, AND ARE BASED ON 5 PSIG BEING REQUIRED AT INLETS OF COMBUSTION REGULATORS.





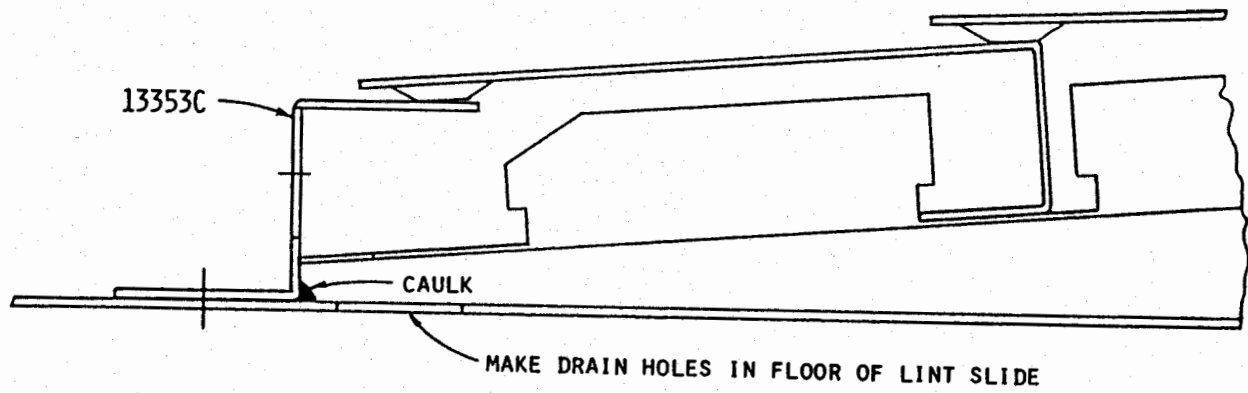
# LIQUEFIED PETROLEUM GAS TANK INSTALLATION FOR HUMIDAIRE UNITS AND DRYING HEATERS



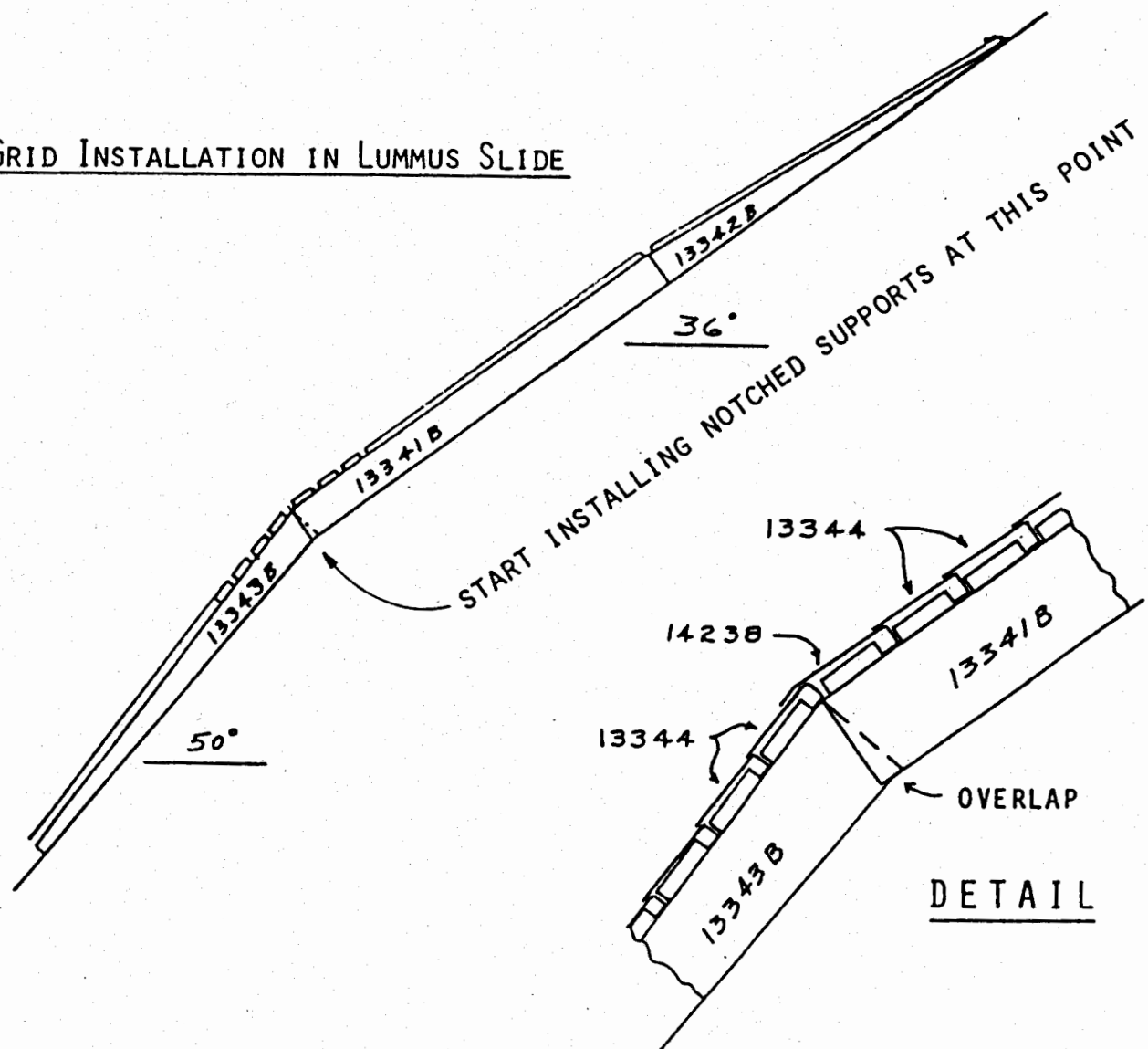
For LPG installations, the tank should be at least 1200 Gals. (US) to provide adequate surface area to absorb heat of vaporization from the atmosphere so that a vaporizer will not be necessary. To be compatible with the quantity of LPG received in each delivery, a larger tank may be necessary. A battery of small tanks of the desired total capacity has more heat-absorbing area than one large tank.

Whether or not a vaporizer is used, make sure that a regulator reduces the pressure to 15 psi (1 bar) BEFORE the pipe goes underground. Otherwise, reliquefaction will take place in the cool earth and cause MUCH trouble. If the gas line in your building feels extremely cold during operation, liquid is in the line and the situation should be corrected IMMEDIATELY.

## INSTALLATION OF 13353 C BOTTOM GRID CLOSURE



## GRID INSTALLATION IN LUMMUS SLIDE



# 13290A

## CONDENSER AIR SWITCH CONTROL

### INSTALLATION INSTRUCTIONS

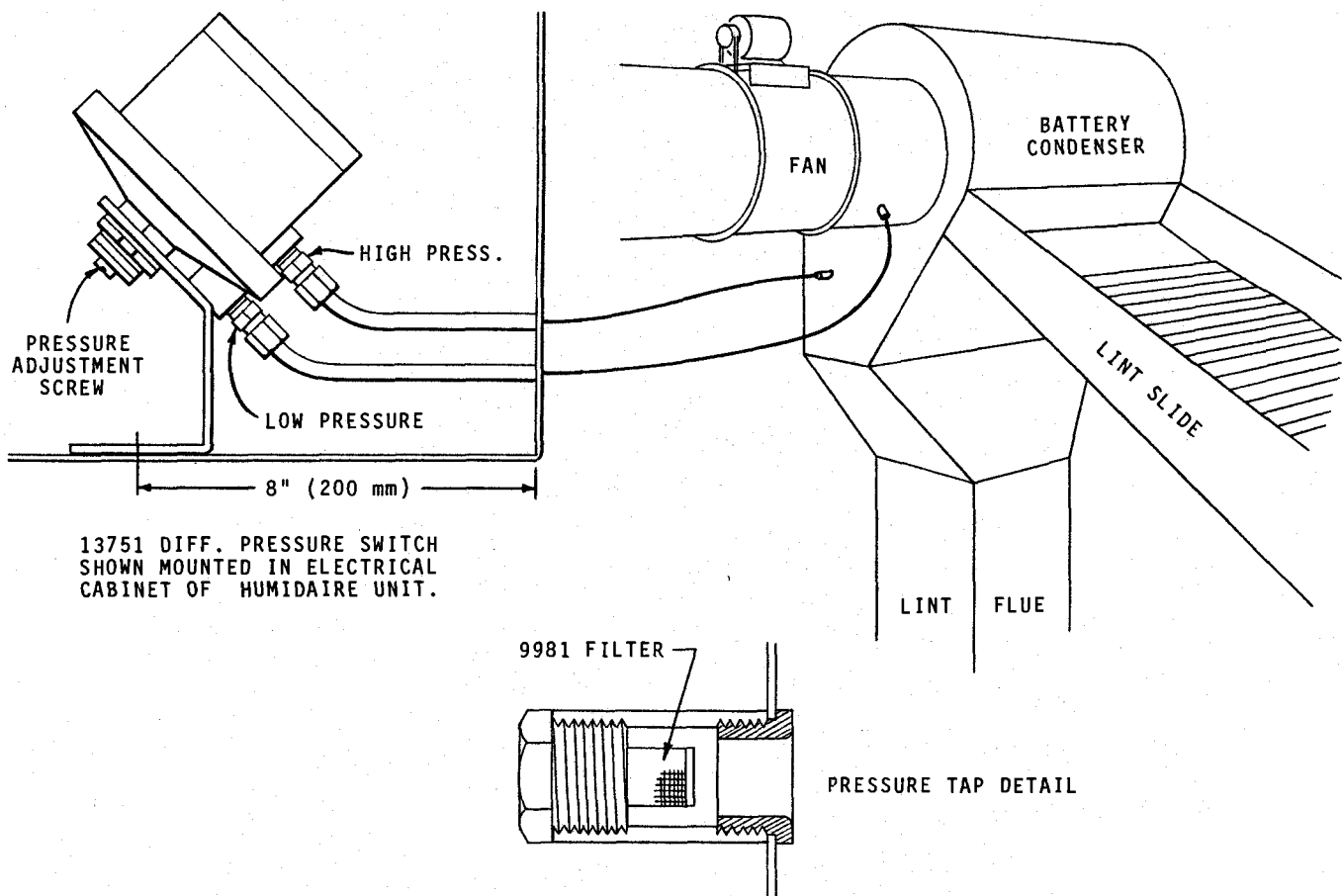
**1. Application** The 13290A control is used to determine when cotton is passing through a battery condenser. It is used with the Samuel Jackson Humidaire Unit to stop its water pump and turn down its burner when no cotton is being ginned. It can also be used to control a model LS Lint Slide Spray unit.

This control works by sensing the difference in air pressure between the two sides of the condenser screen. When no cotton is on the screen, the pressure difference will be almost zero. When a batt of cotton is being condensed, the air pressure inside the screen will be lower than the air pressure in the lint flue. The control senses this difference and closes an electrical contact.

**2. Pressure Range** With the previous 13290 control, the differential pressure across the screen had to be at least .6 inches (15 mm) water column when a batt was being condensed. The 13290A control will operate on .3 inches (8 mm). If even greater sensitivity is required, the operating point can be reduced to .15 inches (4 mm) by installing the 13760 orange calibration spring in place of the red spring which is in the 13751 differential pressure switch. One can replace the calibration spring by removing the pressure adjustment screw in the center of the mounting stud.

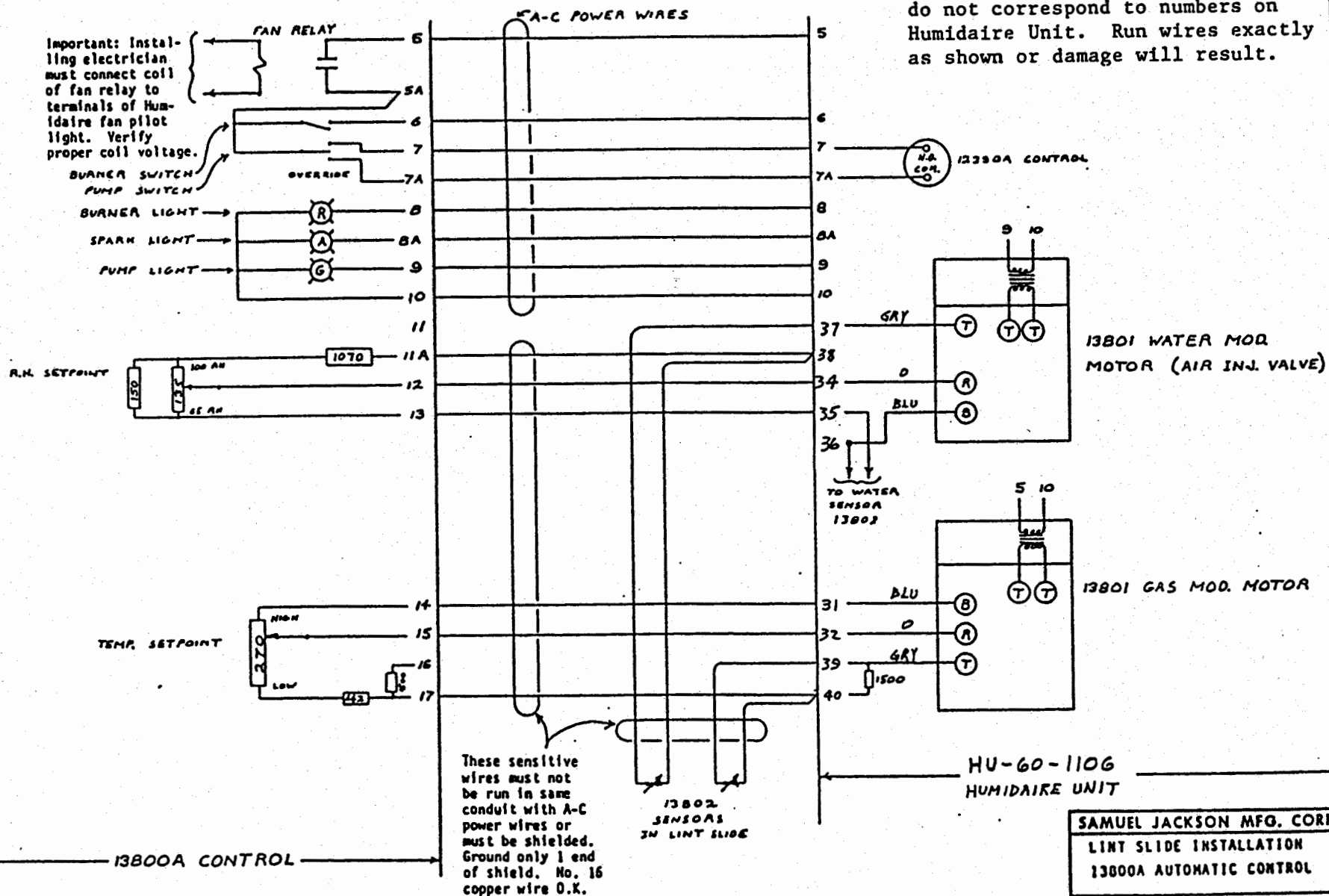
**3. Pressure Taps** Pressure taps should be made as shown in the sketch. The high-pressure tap should be made in the lint flue or in the side of the battery condenser. The low-pressure tap should be made in the condenser air discharge line between the condenser and its suction fan. Both taps should be made within arms length of an access door to facilitate installation. Both taps should be located where they will be easily accessible for occasional inspection and cleaning of the filter. The high pressure tap should usually be located near the condenser screen. It should not be located upstream of an elbow or other restriction in the lint flue. It is necessary to make a 7/8-inch diameter (22 mm) hole for each pressure tap. A hole saw is provided for this purpose.

**4. Mounting the Switch** The 13751 differential pressure switch should be mounted near the battery condenser. Enough tubing is supplied for the switch to be 25 ft. (7.6 m) from the condenser. If more tubing is obtained, the switch may be mounted at twice this distance and still operate satisfactorily. The switch may be mounted in the electrical control cabinet of the HU-60 Humidaire unit as shown in the sketch. Be sure to connect the high-pressure port to the lint flue pressure tap and connect the low-pressure port to the other pressure tap.



2-7A

Important: Installing electrician must connect coil of fan relay to terminals of Humidaira fan pilot light. Verify proper coil voltage.



SAMUEL JACKSON MFG. CORP.  
LINT SLIDE INSTALLATION  
13800A AUTOMATIC CONTROL

OWN. CJ	DRAWING NO.
DATE 5-2-68	14-2413

3-25-63



**5. Electrical Wiring** The wiring diagram below shows how this control may be connected to a Humidaire unit. If used to control a model LS Lint Slide Spray unit, connect the 13751 pressure switch to terminals 9 and 10 of the LS unit in place of the wand switches. In both cases, use only the "common" and "normally open" terminals of the 13751 pressure switch. Do not use the center terminal.

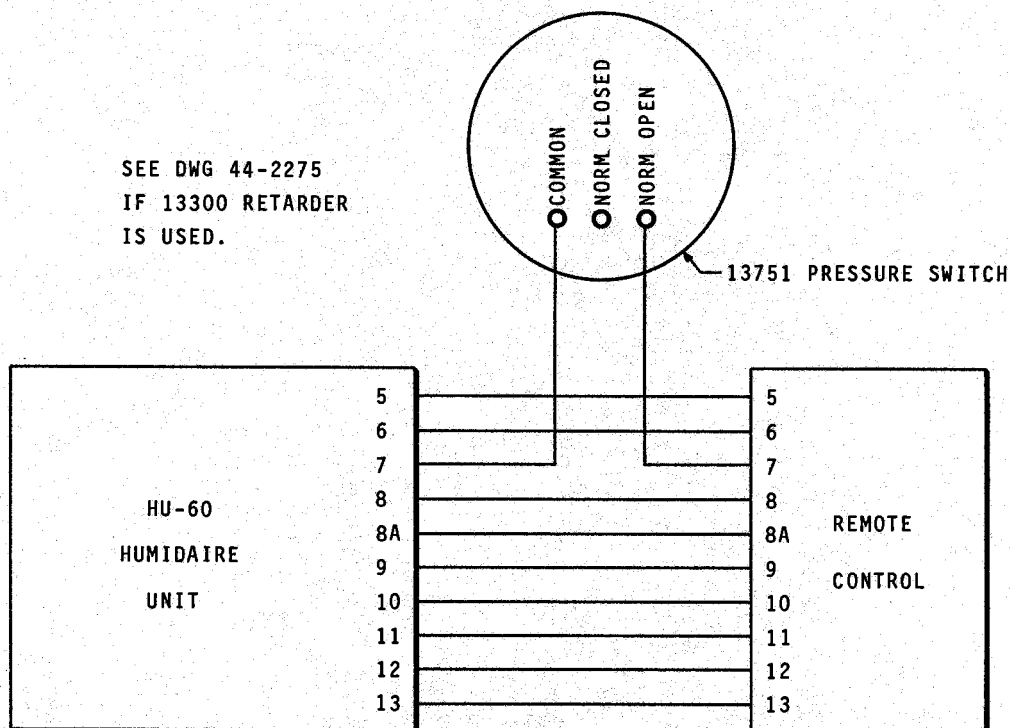
**6. Adjustment** The 13751 pressure switch can be adjusted only while the cotton gin is in operation. The pressure adjustment screw is located in the center of the mounting stud. The differential pressure required to operate the switch (operating point) is increased by turning the screw clockwise and decreased by turning it counter clockwise. The operating point should be increased if necessary to make the switch contacts open when no batt is being condensed. The operating point should be decreased if necessary to make the switch contacts close when a batt is being condensed.

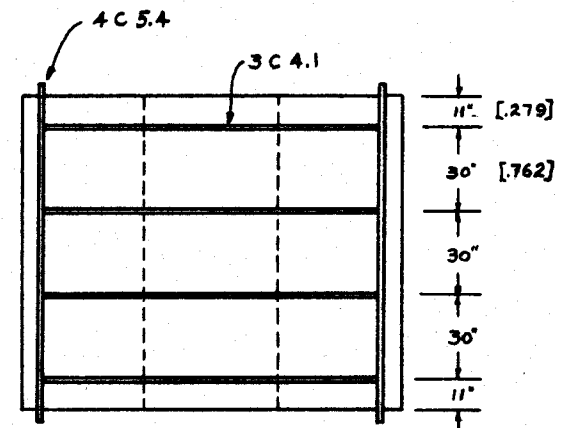
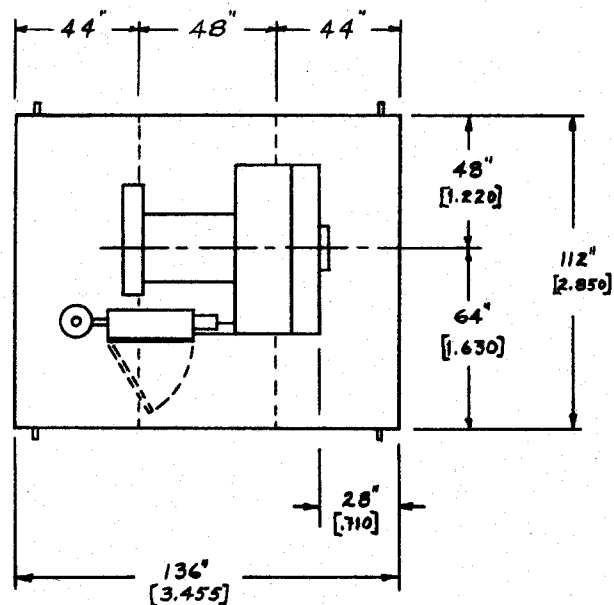
If the adjustment screw has been turned all the way to the left and the contacts still do not close, it may be necessary to change the calibration spring as described in Section 2. Before doing this, make sure the high-pressure port is connected to the high-pressure tap, and that the tubes are not reversed. This can be checked by connecting a sensitive manometer to the tubes in place of the pressure switch and observing the differential pressure when a batt is being condensed and when not. Observe not only which tube has the higher pressure, but that the pressure differential does increase when a batt is being condensed and that its magnitude is greater than the values given in Section 2. If a proper pressure signal is not obtained, re-examine the location of the pressure taps. The high-pressure tap in particular may be subjected to a blast of air which affects its operation.

**7. Periodic Maintenance** The only maintenance required is to clean the filter screens at the pressure taps once a year. If necessary to blow accumulated dirt out of the pressure sensing lines, DO NOT APPLY COMPRESSED AIR TO THE CONTROL SWITCH. This will rupture its diaphragm.

#### P A C K I N G   L I S T

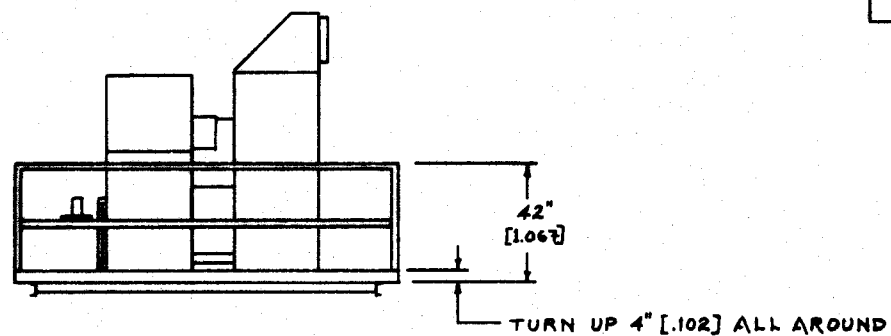
1	13751	Dwyer Pressure Switch 1823-1
1	13354A	Mounting Bracket for switch
1	13293	50-ft. roll 1/4-inch copper tubing
1	14-2300	Instruction Sheet
		Bag assembly:
2	13294A	Pressure tap and filter assemblies
2	13299	1/4 x 1/8 MPT tube elbow connector
2	10200	1/4 x 1/8 MPT tube connector
1	13298	7/8 Holesaw (Mandrel and saw)
1	13760	Orange spring and label to reduce pressure range of 13751 switch
2		1/4 x 3/4 Hex cap screw
2		1/4 Hex nut





BOTTOM VIEW

QUAN.	MATERIAL	SIZE
3	1/8 FLOOR PLATE	4' X 10' [1.220 X 3.048]
2	4 C 5.4 CHANNEL	10'-0" [3.048]
4	3 C 4.1 CHANNEL	10'-0" [3.048]
100'	[30] ANGLE OR TUBE FOR HAND RAIL	



SAMUEL JACKSON MFG. CORP.

OVERHEAD PLATFORM  
FOR  
HU-60  
HUMIDAIRE UNIT

DRWN. BY SGJ  
DATE 4-28-78

DRAWING NO.  
14-2290



## LIMITED WARRANTY

### SAMUEL JACKSON, INCORPORATED

For Commercial and Industrial Customers of Samuel Jackson Moisture Control Products

SAMUEL JACKSON, INCORPORATED ("Sam Jackson") warrants to its customers who purchase Sam Jackson products that its equipment is free from defects in material and workmanship under normal use and service for 12 months from the date of shipment from its Lubbock, Texas factory.

THIS WARRANTY DOES NOT EXTEND TO EQUIPMENT SUBJECTED TO MISUSE, NEGLIGENCE, OR ACCIDENT: NOR DOES THIS WARRANTY APPLY UNLESS THE PRODUCT COVERED BY IT IS PROPERLY INSTALLED BY A QUALIFIED, COMPETENT TECHNICIAN, WHO IS LICENSED WHERE STATE AND LOCAL CODES REQUIRE, AND WHO IS EXPERIENCED IN MAKING SUCH INSTALLATIONS.

Equipment, which is defective in material or workmanship and within the warranty period, will be repaired or replaced, at Sam Jackson's option, in order to facilitate proper operation.

THIS WARRANTY IS LIMITED TO THE PRECISE TERMS SET FORTH ABOVE, AND PROVIDES EXCLUSIVE REMEDIES EXPRESSLY IN LIEU OF ALL OTHER REMEDIES, AND IN PARTICULAR THERE SHALL BE EXCLUDED THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT WILL SAM JACKSON BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGE OF ANY NATURE.

Sam Jackson neither assumes nor authorizes any person to assume for Sam Jackson any other liability or obligation in connection with the sale of this equipment. Sam Jackson's liability and Customer's exclusive remedy being limited to repair or replacement as set forth above.

**SAMUEL JACKSON, INCORPORATED**  
3900 Upland Avenue Lubbock, Texas 79407



## **IMPORTANT!**

**The following notice affects your warranty.**

### **Electrical Controls and Your Safety**

Your new Sam Jackson product may be equipped with electrical controls, or designed to interact with controls on a related Sam Jackson product.

In the event that local, state, federal or other specified safety compliance is required, we will consider modifications to meet the particular requirements. Implementation of alternative safety devices may incur additional charges. No warranty of compliance with a particular standard is made in the absence of specific reference to it in our quotation.

If you modify, or permit others to modify, these controls without specific written permission from Sam Jackson, Inc. the warranty on your product will be void and there is a possibility of serious damage to machinery, damage to product, serious injury to personnel, or death. The modifier of the controls assumes all liability for these consequences.

Samuel Jackson, Incorporated  
3900 Upland Avenue  
Lubbock, Texas 79407  
806-795-5218