

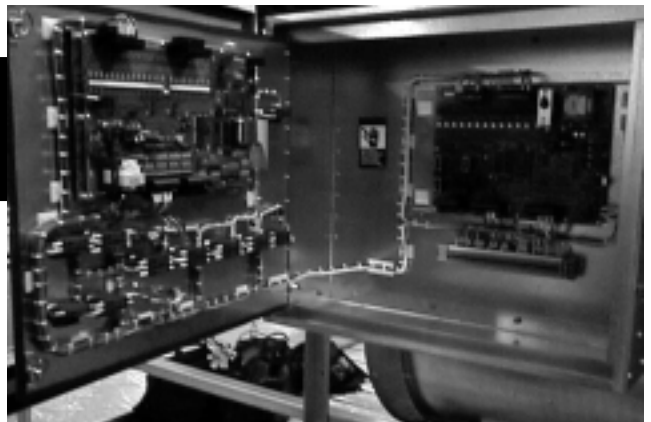
Top Dry Pre-98

Wiring Diagram Manual

PNEG-693



a division of
THE GSI GROUP



This equipment shall be installed in accordance iwth the current **INSTALLATION CODES FOR GAS BURNING APPLICANCES AND EQUIPMENT, CAN1_B149.1 and B149.2**, or applicable provincial regulations which should be carefully followed in all cases. Authorities having jurisdiction shuld be consulted before installations are made.

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Roof Damage Warning and Disclaimer



GSI DOES NOT WARRANT ANY ROOF DAMAGE CAUSED BY EXCESSIVE VACUUM OR INTERNAL PRESSURE FROM FANS OR OTHER AIR MOVING SYSTEMS. ADEQUATE VENTILATION AND/OR "MAKEUP AIR" DEVICES SHOULD BE PROVIDED FOR ALL POWERED AIR HANDLING SYSTEMS. GSI DOES NOT RECOMMEND THE USE OF DOWNWARD FLOW SYSTEMS (SUC-TION). SEVERE ROOF DAMAGE CAN RESULT FROM ANY BLOCKAGE OF AIR PASSAGES. RUN-NING FANS DURING HIGH HUMIDITY/COLD WEATHER CONDITIONS CAN CAUSE AIR EX-HAUST OR INTAKE PORTS TO FREEZE.

Fan/Heater Installation & Operating Instructions

Thank you for choosing a Top Dry. It is designed to give excellent performance and service for many years.

The principal concern of the GSI Group, Inc. ("GSI") is your safety and the safety of others associated with grain handling equipment. This manual is written to help you understand safe operating procedures, and some of the problems that may be encountered by the operator or other personnel.

As owner and/or operator, it is your responsibility to know what requirements, hazards and precautions exist, and to inform all personnel associated with the equipment, or who are in the fan area. Avoid any alterations to the equipment. Such alterations may produce a very dangerous situation, where serious injury or death may occur.

Safety Alert Symbol

The symbol shown is used to call your attention to instructions concerning your personal safety. Watch for this symbol; it points out important safety precautions. It means "ATTENTION", "WARNING", "CAUTION", and "DANGER". Read the message and be cautious to the possibility of personal injury or death.



WARNING! BE ALERT!

Personnel operating or working around electric fans should read this manual. This manual must be delivered with the equipment to its owner. Failure to read this manual and its safety instructions is a misuse of the equipment.

Grain Systems, Inc. recommends contacting your local power company, and having a representative survey your installation so the wiring is compatible with their system, and adequate power is supplied to your unit.

Safety decals should be read and understood by all people in the grain handling area. The rotating blade, fire warning decals and voltage danger decal must be displayed on the fan can. The bottom right decal should be present on the inside bin door cover of the two ring door, 24" porthole door cover and the roof manway cover.

If a decal is damaged or is missing contact:

Grain Systems, Inc.
1004 E. Illinois St.
Assumption, IL 62510
217-226-4421

A free replacement will be sent to you.



! WARNING

Stay clear of rotating blade. Blade could start automatically. Can cause serious injury. Disconnect power before servicing.

DC-1225



! WARNING

Flame and pressure beyond door. Do not operate with service door removed. Keep head and hands clear. Can cause serious injury.

DC-1227



! DANGER!

High voltage. Will cause serious injury or death. Lockout power before servicing.

DC-1224

! DANGER!



Automatic equipment can start at anytime. Do not enter until fuel is shut off and electrical power is locked in off position. Failure to do so will result in serious injury or death.

DC-973

READ THESE INSTRUCTIONS BEFORE OPERATION AND SERVICE SAVE FOR FUTURE REFERENCE

1. Read and understand the operating manual before trying to operate the dryer.
2. Power supply should be OFF for service of electrical components. Use CAUTION in checking voltage or other procedures requiring power to be ON.
3. Check for gas leaks at all gas pipe connections. If any leaks are detected, do not operate the dryer. Shut down and repair before further operation.
4. Never attempt to operate the dryer by jumping or otherwise bypassing any safety devices on the unit.
5. Set pressure regulator to avoid excessive gas pressure applied to burner during ignition and when burner is in operation. Do not exceed maximum recommended drying temperature.
6. Keep the dryer clean. Do not allow fine material to accumulate in the plenum or drying chamber.
7. Use CAUTION in working around high speed fans, gas burners, augers and auxiliary conveyors which START AUTOMATICALLY.
8. Do not operate in any area where combustible material will be drawn into the fan.
9. Before attempting to remove and reinstall any propellor, make certain to read the recommended procedure listed within the servicing section of the manual.
10. Clean grain is easier to dry. Fine material increases resistance to airflow and requires removal of extra moisture.

This product is intended for the use of grain handling only. Any other use is considered a misuse of the product.

Some edges of the product components can be sharp. It is recommended that each component of this product be examined to determine if there are any safety considerations to be taken. Any and all necessary personal protective equipment should be worn at all times when handling, assembling, installing and operation of the product and/or components.

Guards are removed for illustration purpose only. All guards must be in place before/during operation.

Use Caution in the Operation of this Equipment

The design and manufacture of this dryer is directed toward operator safety. However, the very nature of a grain dryer having a gas burner, high voltage electrical equipment and high speed rotating parts, does present a hazard to personnel, which can not be completely safeguarded against, without interfering with efficient operation and reasonable access to components.

Use extreme caution in working around high speed fans, gas-fired heaters, augers and auxiliary conveyors, which may start without warning when the dryer is operating on automatic control.

**KEEP THE DRYER CLEAN
DO NOT ALLOW FINE
MATERIAL TO ACCUMULATE
IN THE PLENUM CHAMBER
OR SURROUNDING THE
OUTSIDE OF THE DRYER**

Continued safe, dependable operation of automatic equipment depends, to a great degree, upon the owner. For a safe and dependable drying system, follow the recommendations within this manual, and make it a practice to regularly inspect the operation of the unit for any developing problems or unsafe conditions.

Take special note of the safety precautions listed above before attempting to operate the dryer.

Date

Employer's Signature

Employee

[illegible]

Power Supply

An adequate power supply and proper wiring are important factors for maximum performance and long life of the dryer. Electrical service must be adequate enough to prevent low voltage damage to motors and control circuits (see Electrical Load Information). **In 220V 1 phase and 220V 3 phase systems, a separate neutral wire is required for the 120V heater circuit, and should be connected to terminal #1 in the master heater. Do not run in conduit with motor power lines.**

Transformer and Wiring Voltage Drop

It is necessary to know the distance from the unit to the available transformer, and the horsepower of your fan unit. Advise the service representative of your local power supplier that an additional load will be placed on the line. Each fan motor should be wired through a fused or circuit breaker disconnect switch. Check on KVA rating of transformers, considering total horsepower load. The power supply wiring, main switch equipment and transformers must provide adequate motor starting and operating voltage. Voltage drop during motor starting should not exceed 14% of normal voltage, and after motor is running at full speed it should be within 8% of normal voltage. Check Electrical Load Information for HP ratings and maximum amp loads to properly size wire and fusing elements. Standard electrical safety practices and codes should be used. (Refer to National Electrical Code Standard Handbook by National Fire Protection Association).

Machine to Earth Grounding

It is very important that a *Machine To Earth Ground Rod* be installed at the fan. This is true even if there is a ground at the pole 15 feet away. Place the ground rod that comes standard, within 8 feet of the dryer and attach it to the dryer control panel with at least a #6 solid, bare, copper ground wire and the clamp provided. The grounding rod located at the power pole will not provide adequate grounding for the dryer. The proper grounding will provide additional safety in case of any short and will ensure long life of all circuit

boards, and the ignition system. The ground rod must be in accordance with local requirements.

Proper Installation of Ground Rod

It is not recommended that the rod be driven into dry ground.

Follow these instructions for proper installation:

1. Dig a hole large enough to hold 1 to 2 gallons of water.
2. Fill hole with water.
3. Insert rod through water and jab it into the ground.
4. Continue jabbing the rod up and down. The water will work its way down the hole, making it possible to work the rod completely into the ground. This method of installing the rod gives a good conductive bond with the surrounding soil.
5. Connect the bare, copper ground wire to the rod with the proper ground rod clamp. See Figure 8.
6. Connect the bare copper ground wire to the fan control boxes with a grounding lug.



7. Ground wire must not have any breaks or splices.

Dig a hole large enough to hold 1 or 2 gallons of water. Work the ground rod into the earth until it is completely in the ground.

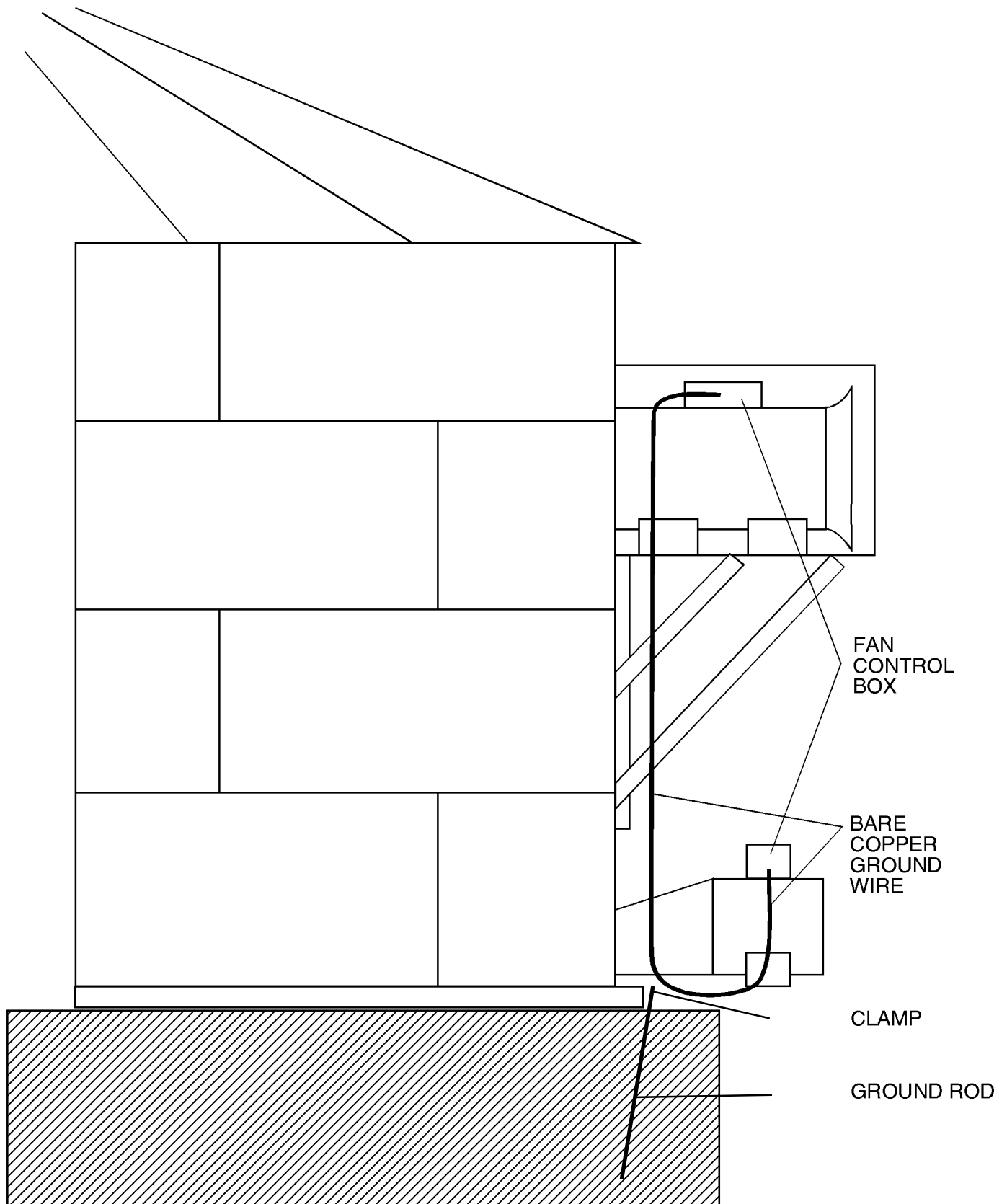
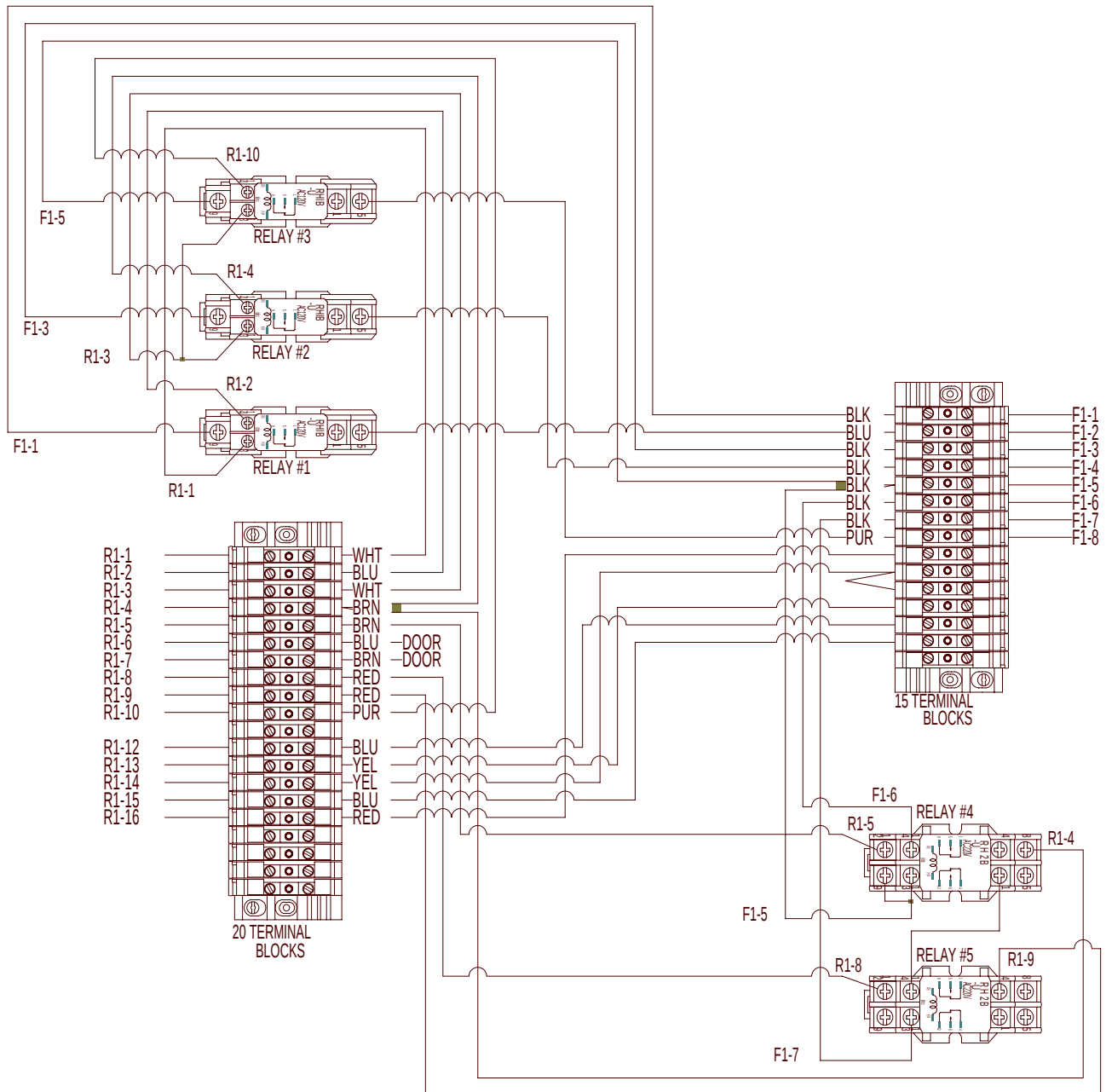


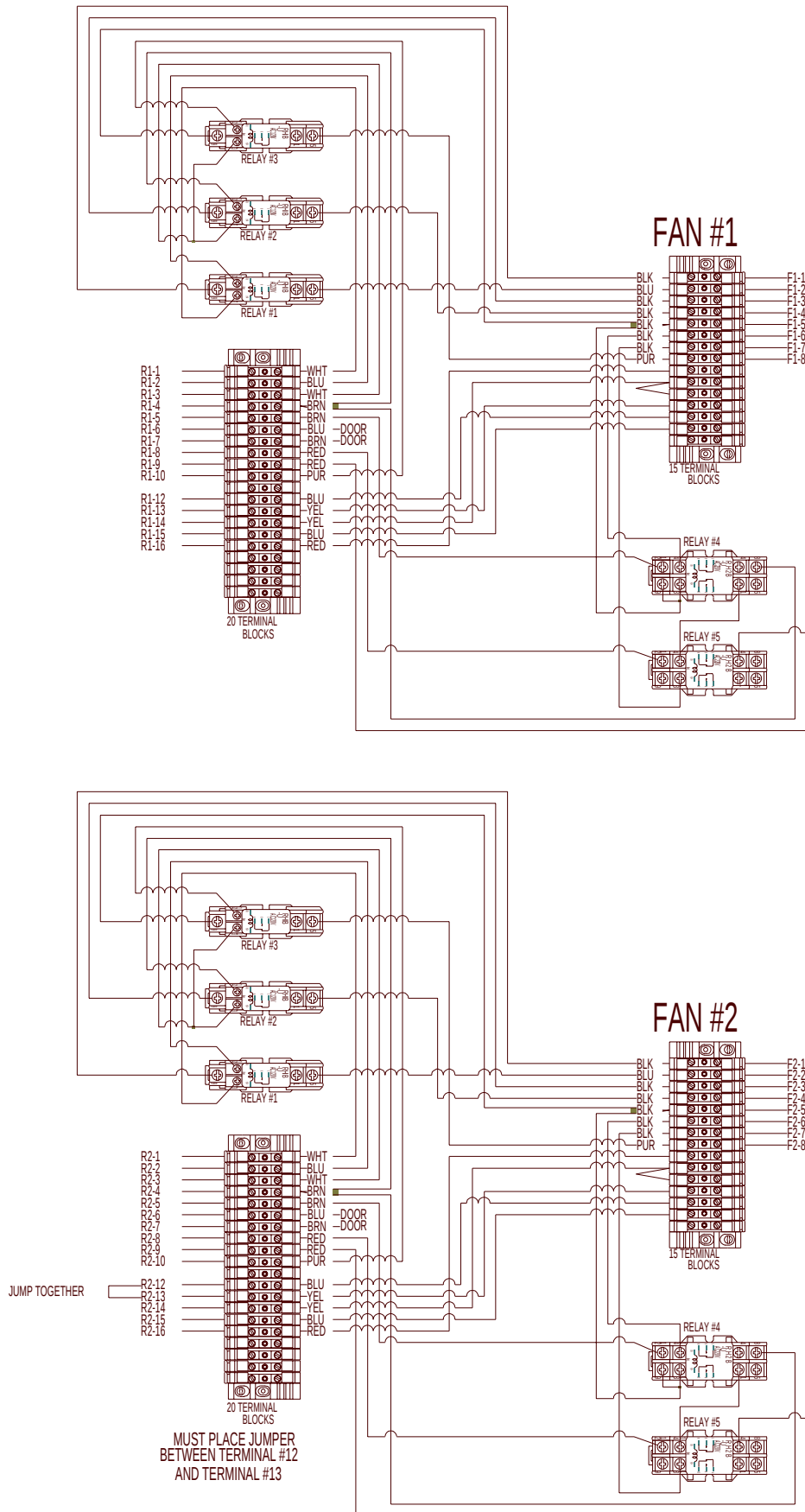
Figure 8: The Top Dry and ground rod attachment illustration.

Pre-1997 Farm Fans Autoflow Conversion

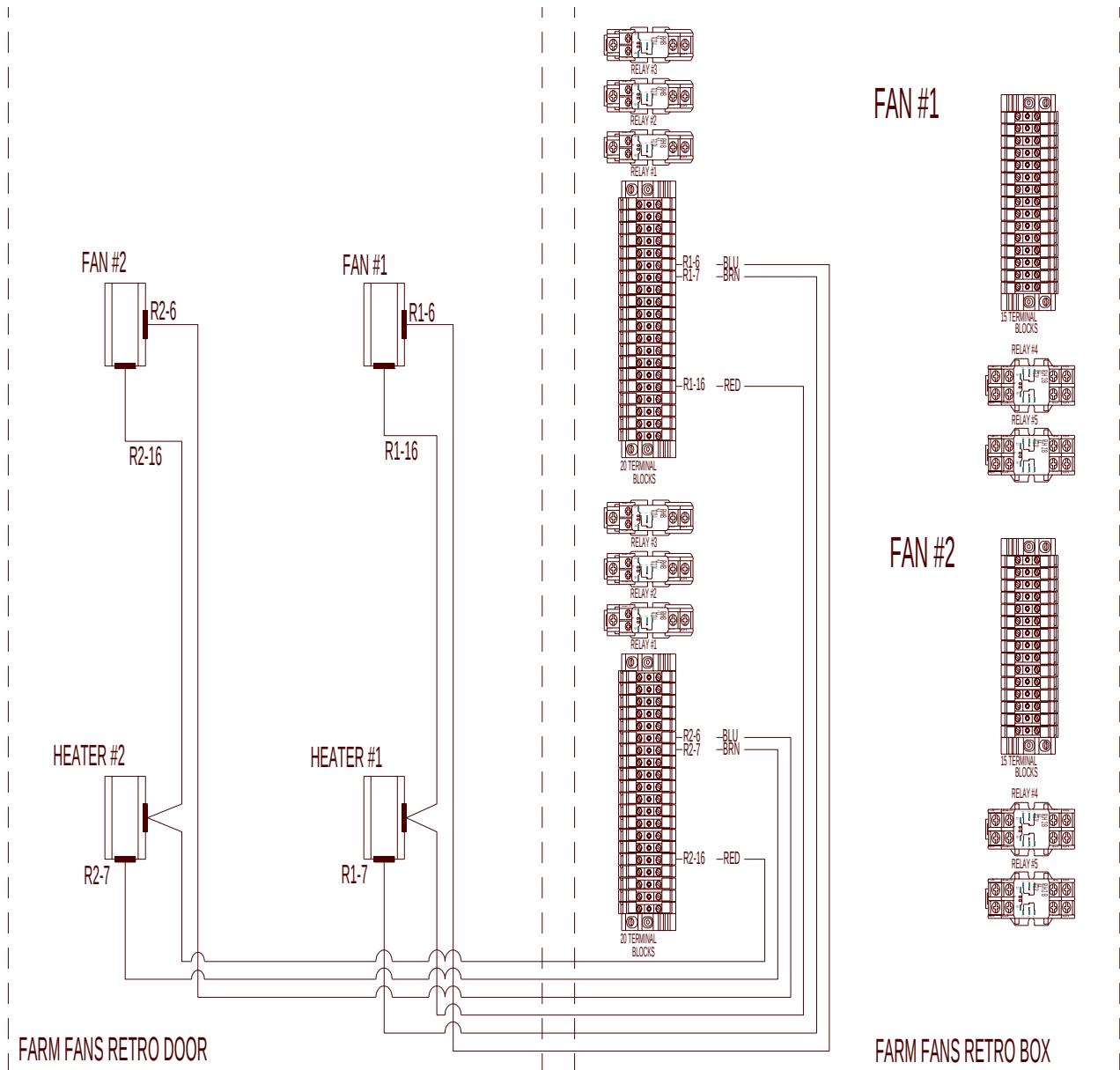
Pre-1997 Farm Fans Conversion-One Fan Wiring



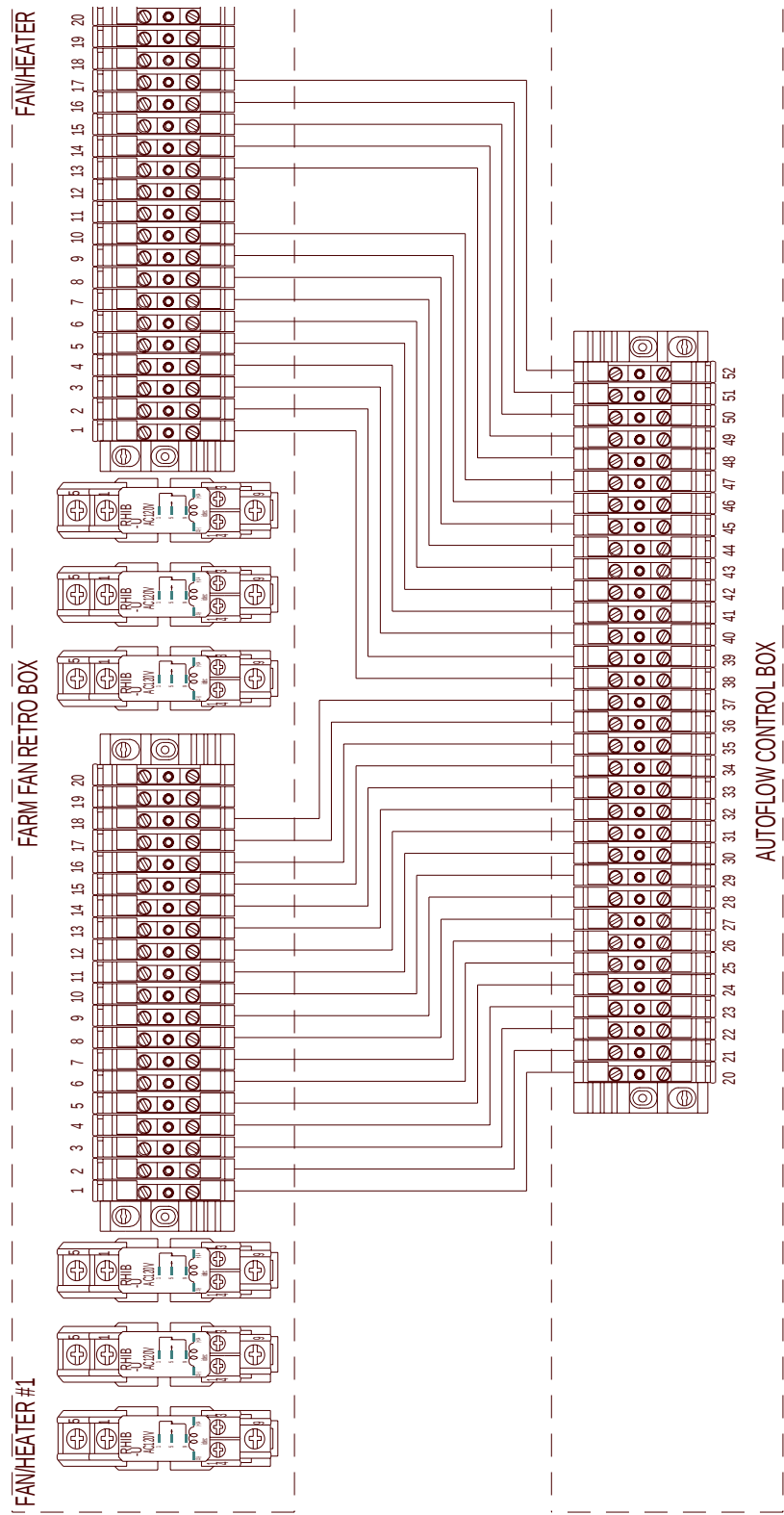
Pre-1997 Farm Fans Conversion-Two Fan Wiring



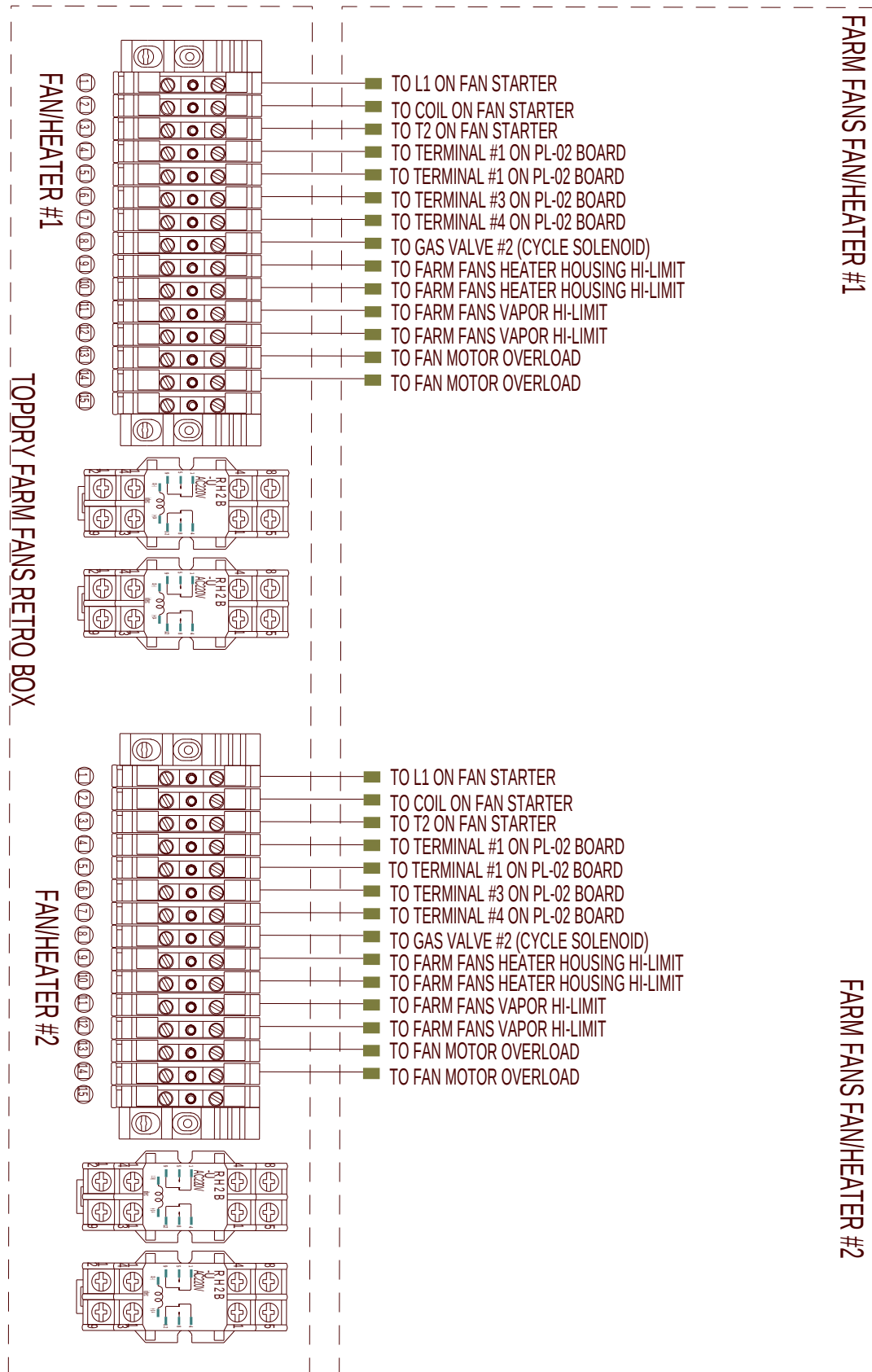
Pre-1997 Farm Fans Conversion-Door Wiring



Pre-1997 Farm Fans Conversion-Autoflow Control Box to
Conversion Box Interconnect



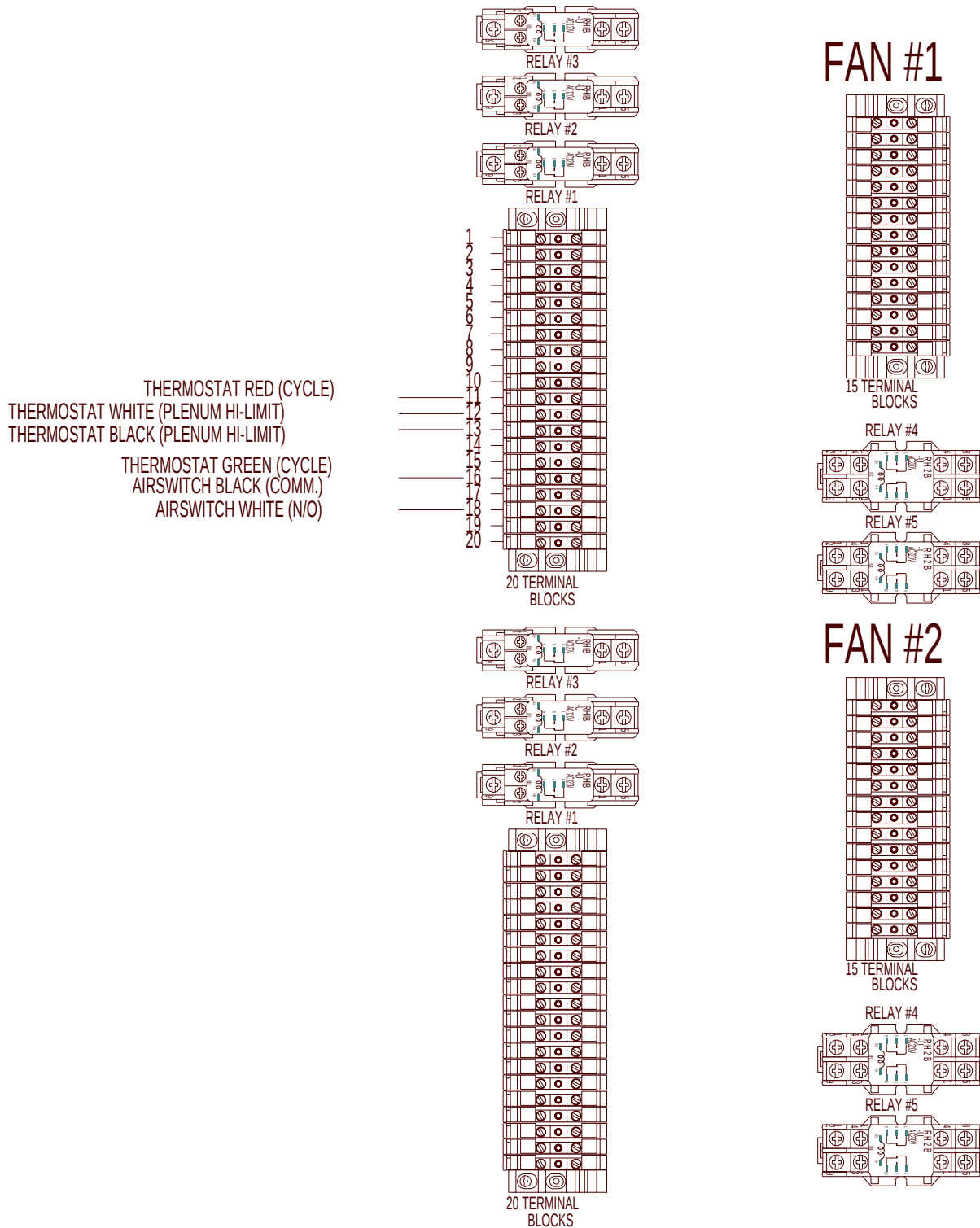
Pre-1997 Farm Fans Conversion-Conversion Box to Farm Fans Unit Interconnect



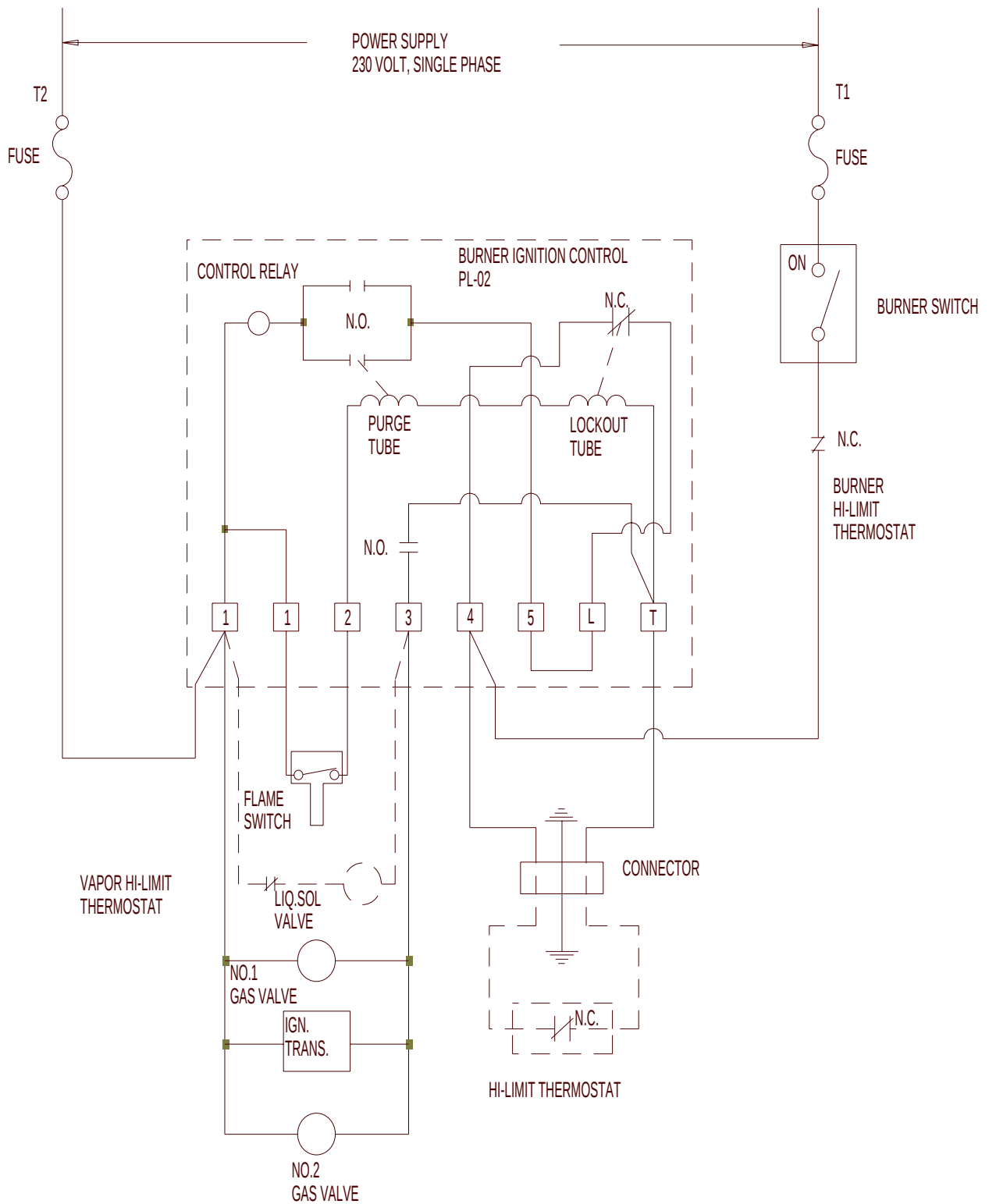
CONVERSIONS

Top Dry Pre-98 Wiring Diagrams

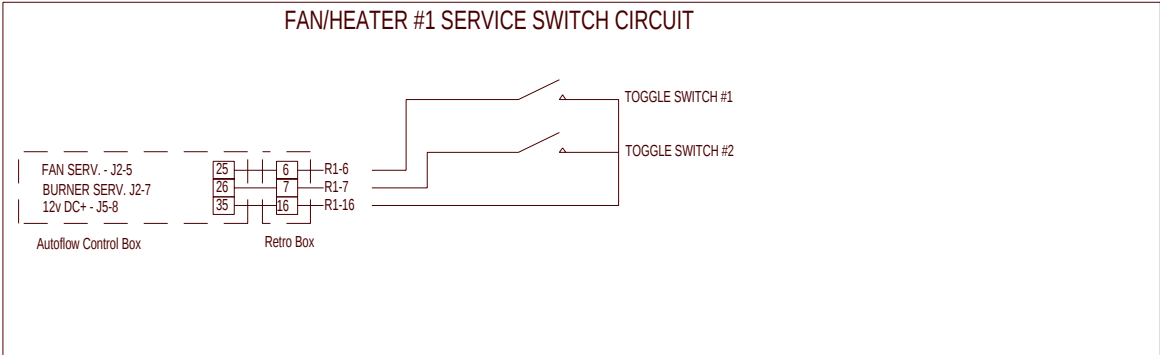
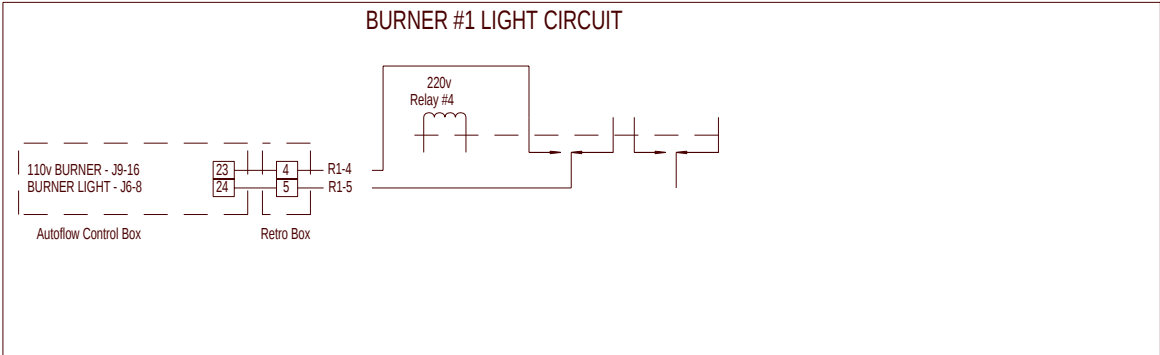
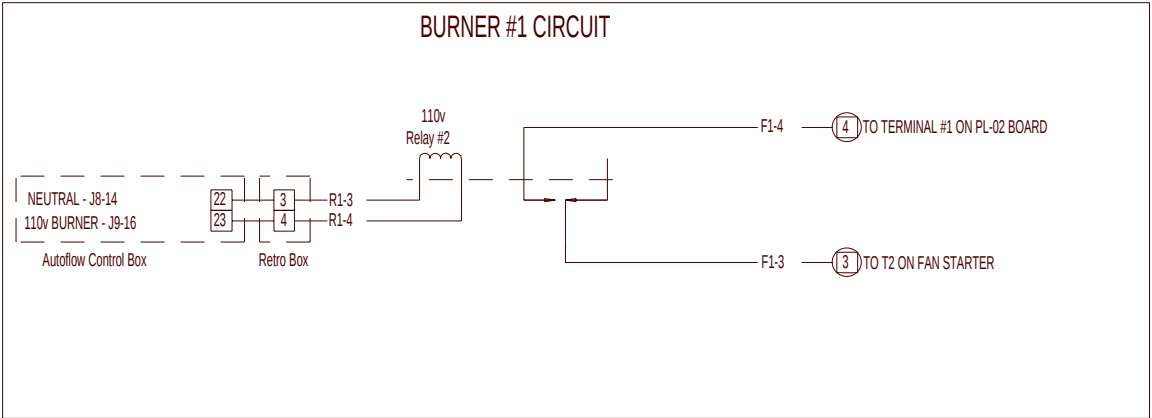
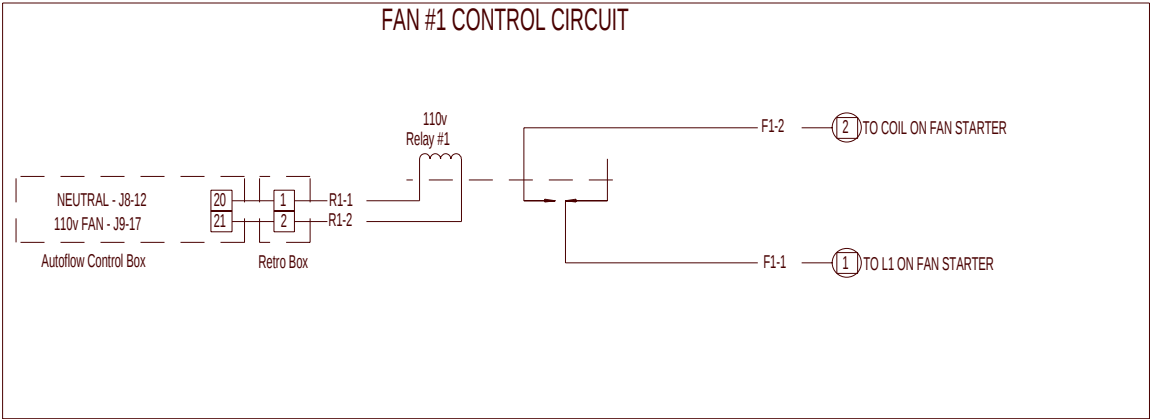
Pre-1997 Farm Fans Conversion-Conversion Box to Thermostat Interconnect



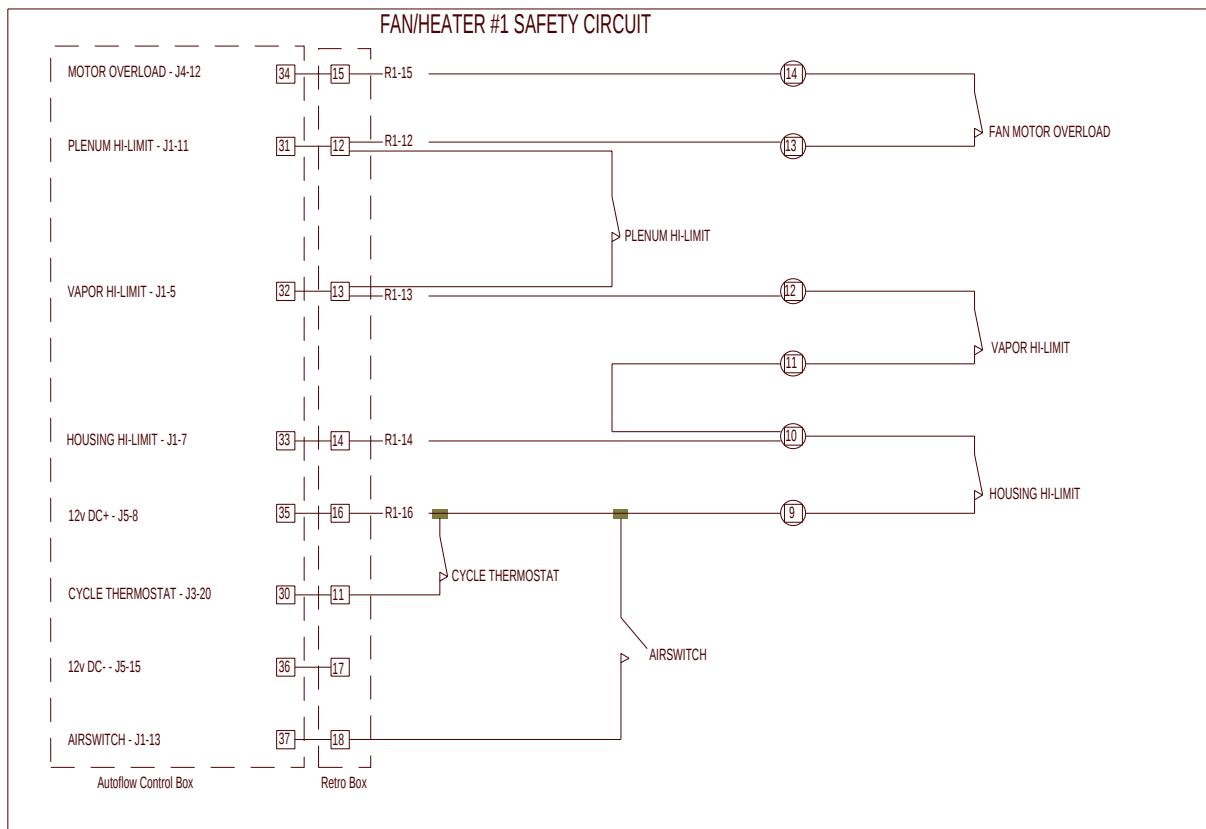
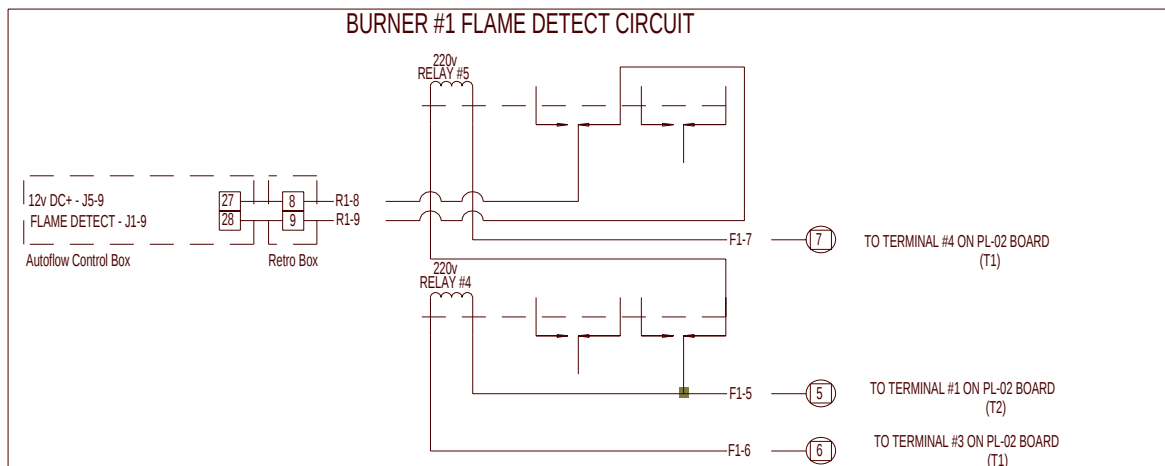
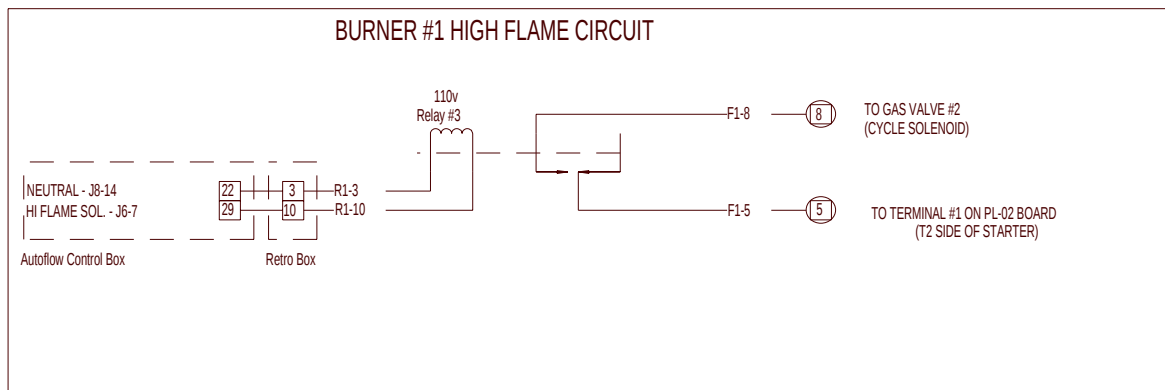
Pre-1997 Farm Fans Conversion- PL02 Schematic



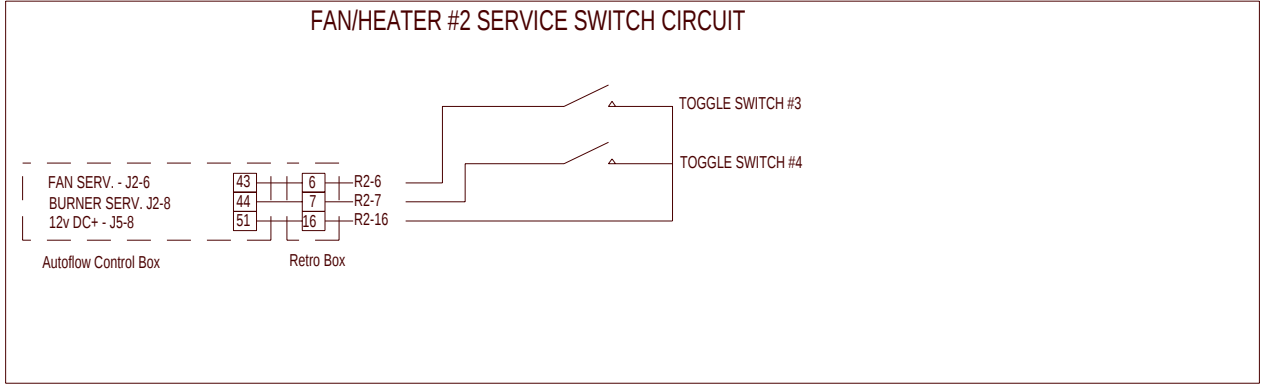
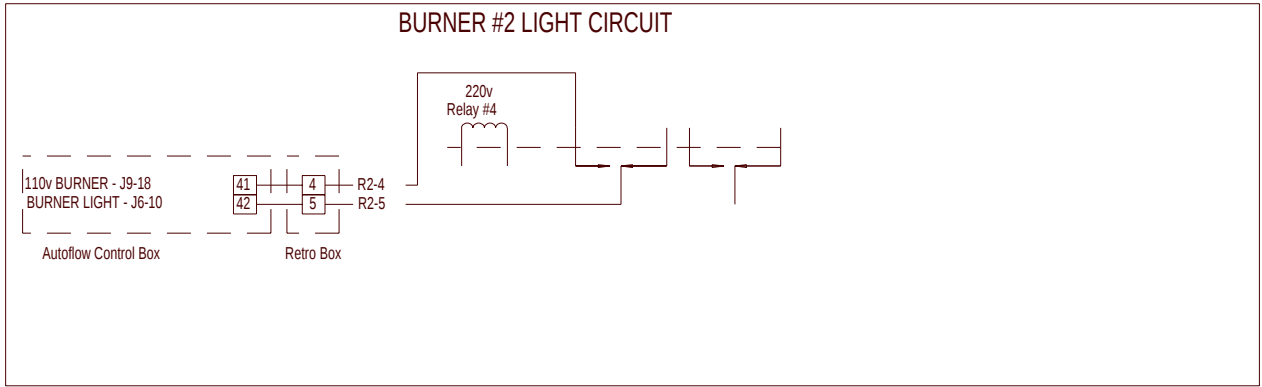
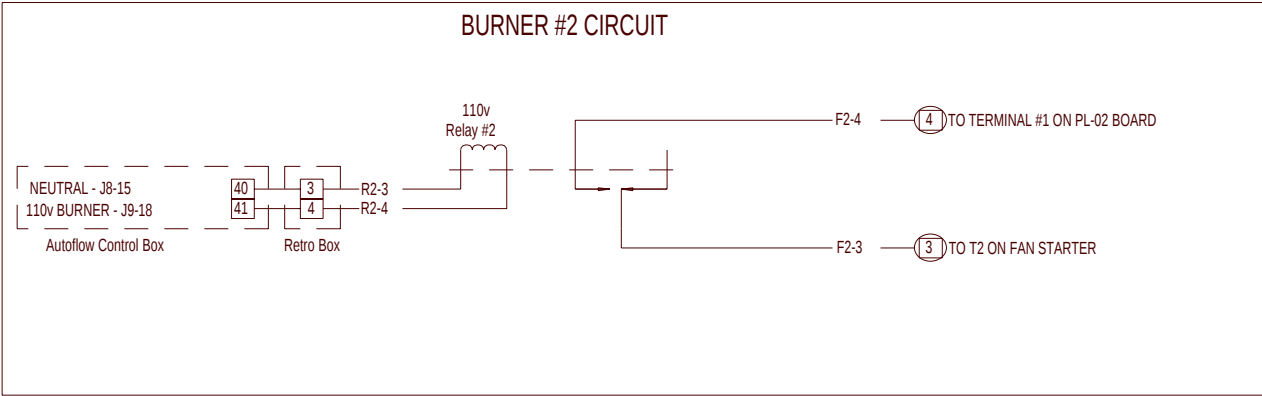
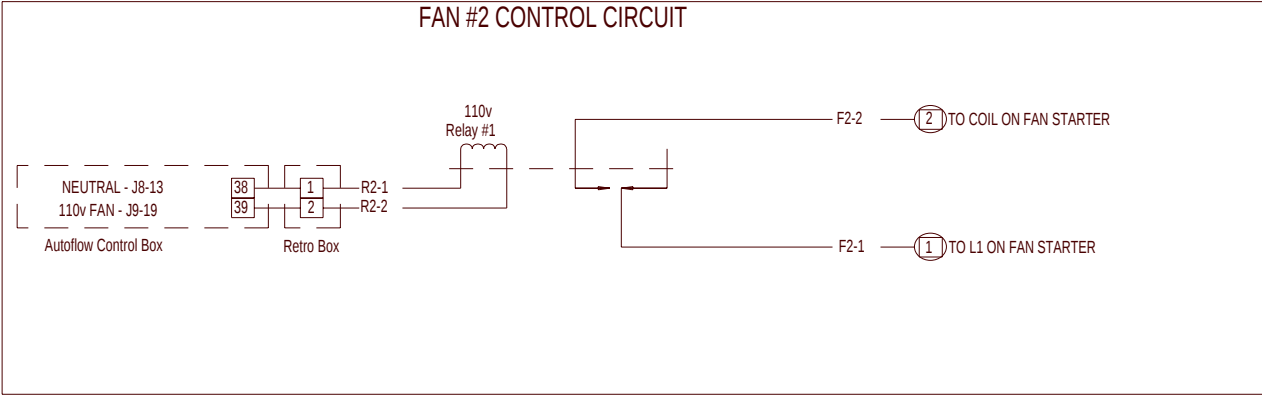
Pre-1997 Farm Fans Conversion-Schematics



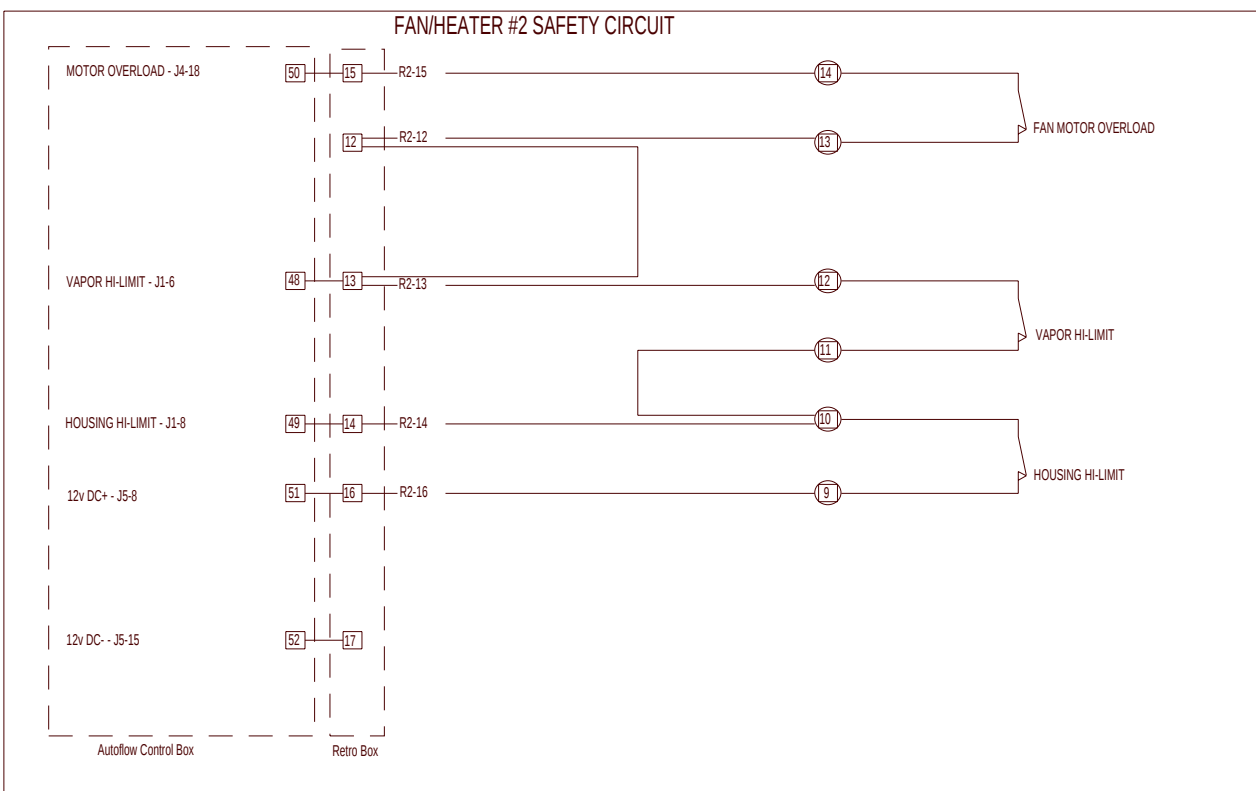
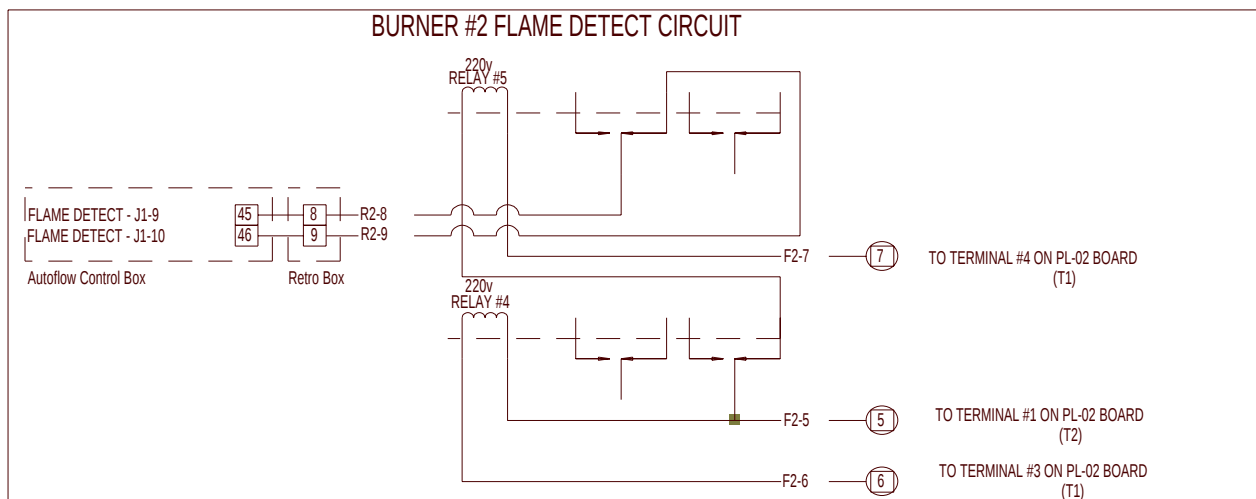
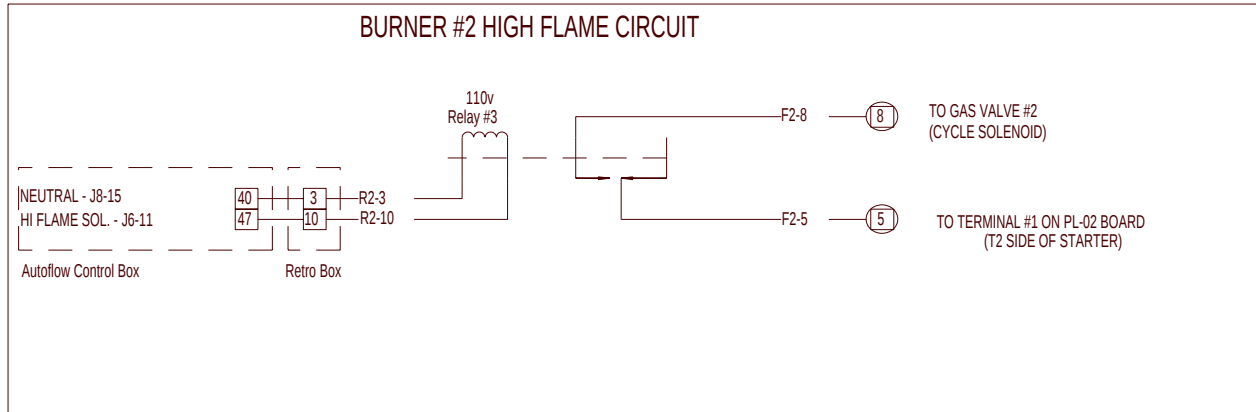
Pre-1997 Farm Fans Conversion-Schematics



Pre-1997 Farm Fans Conversion-Schematics

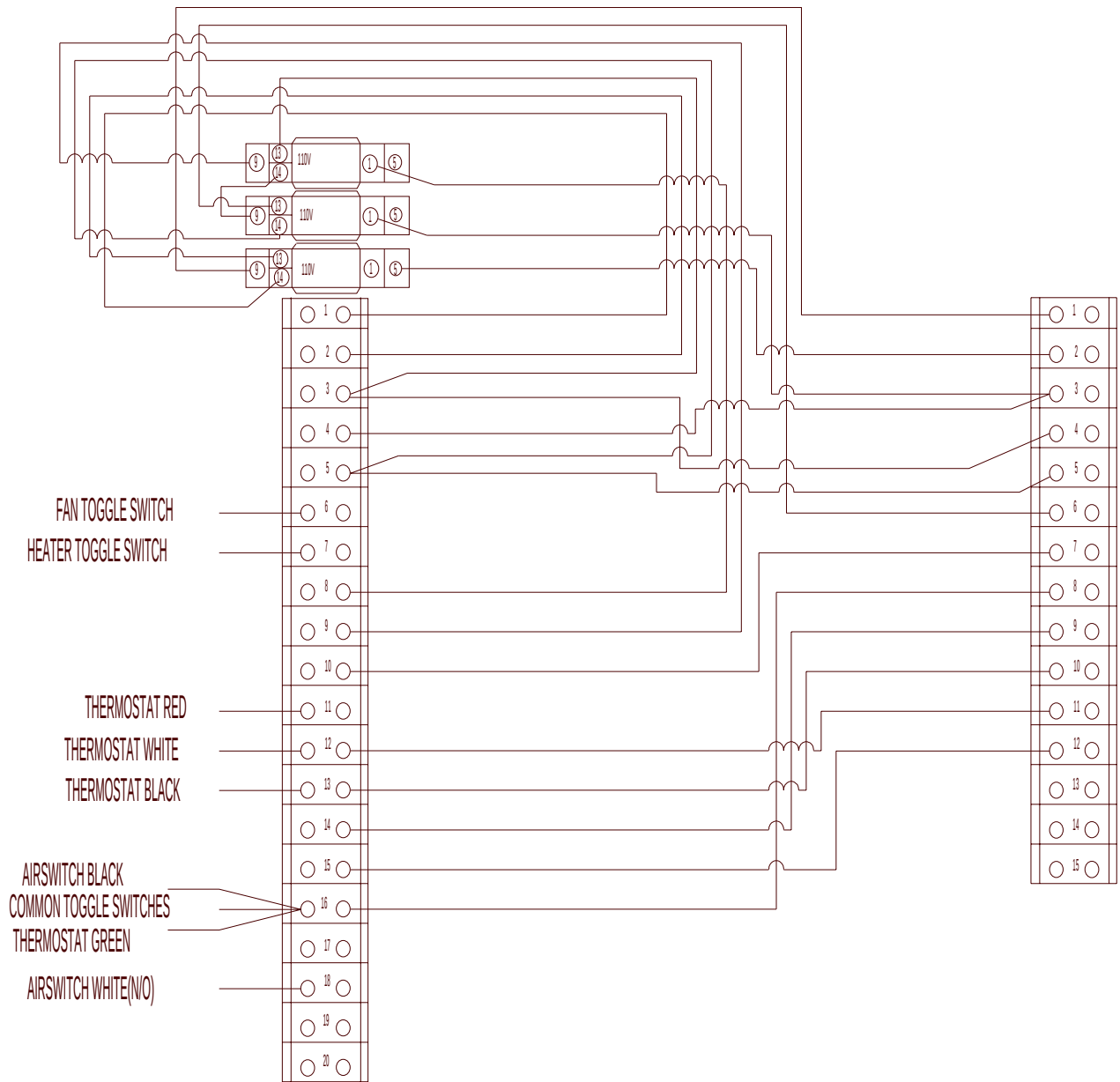


Pre-1997 Farm Fans Conversion-Schematics

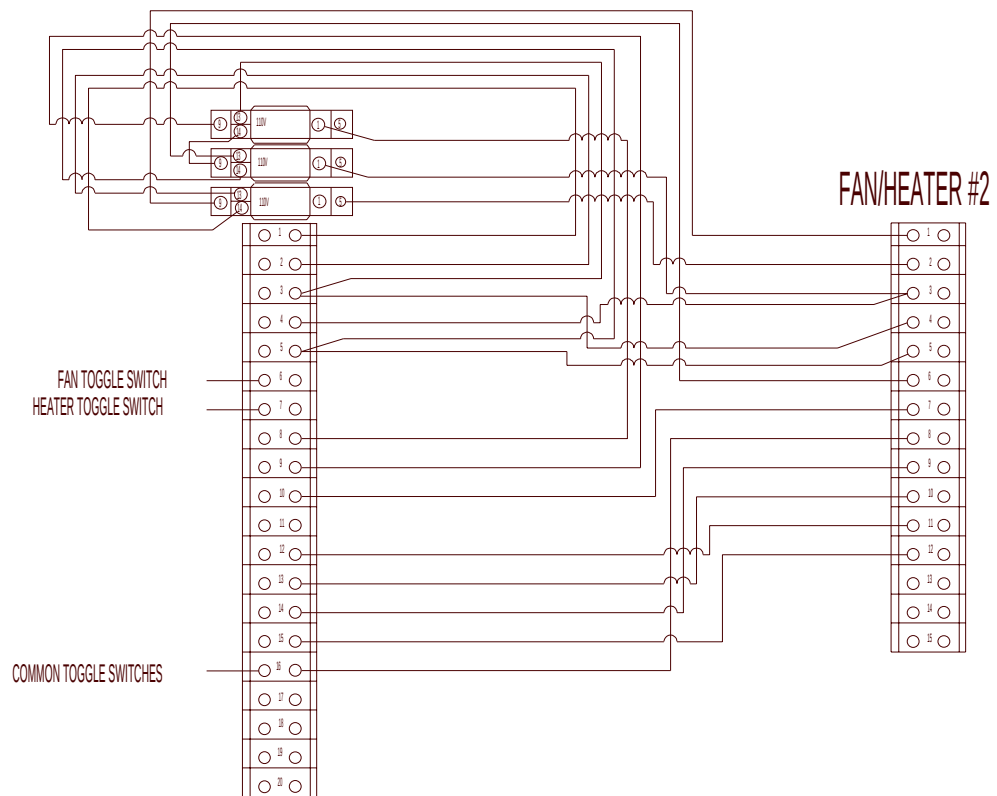
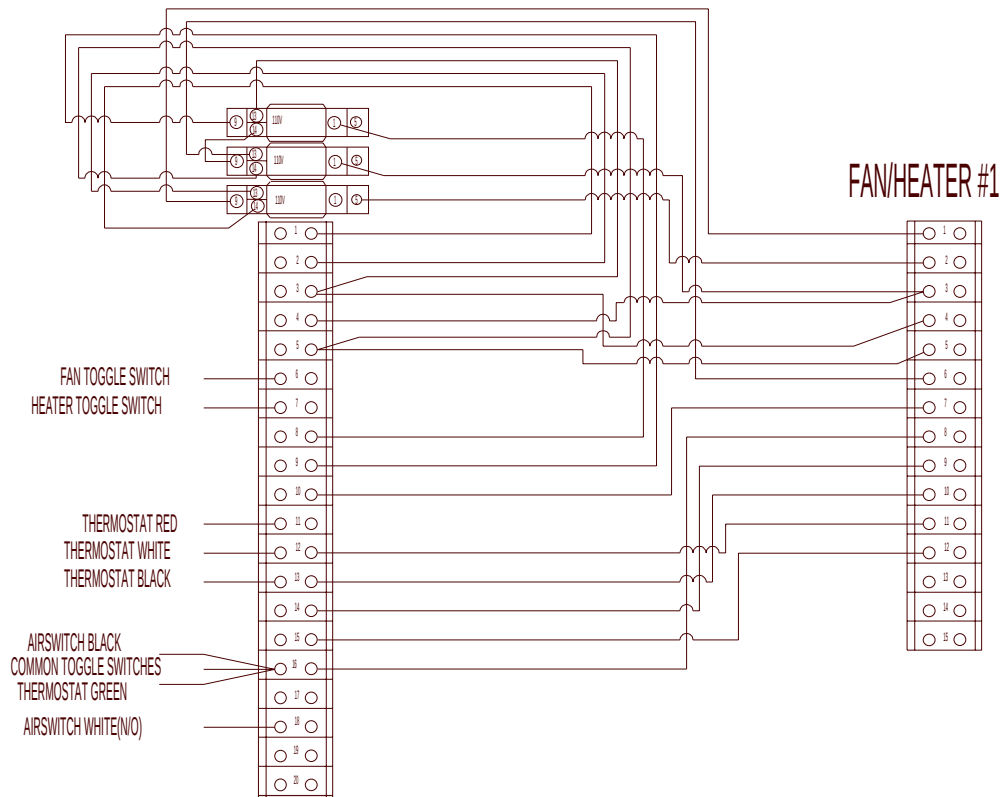


Pre-1997 GSI Fan/Heater Autoflow Conversion

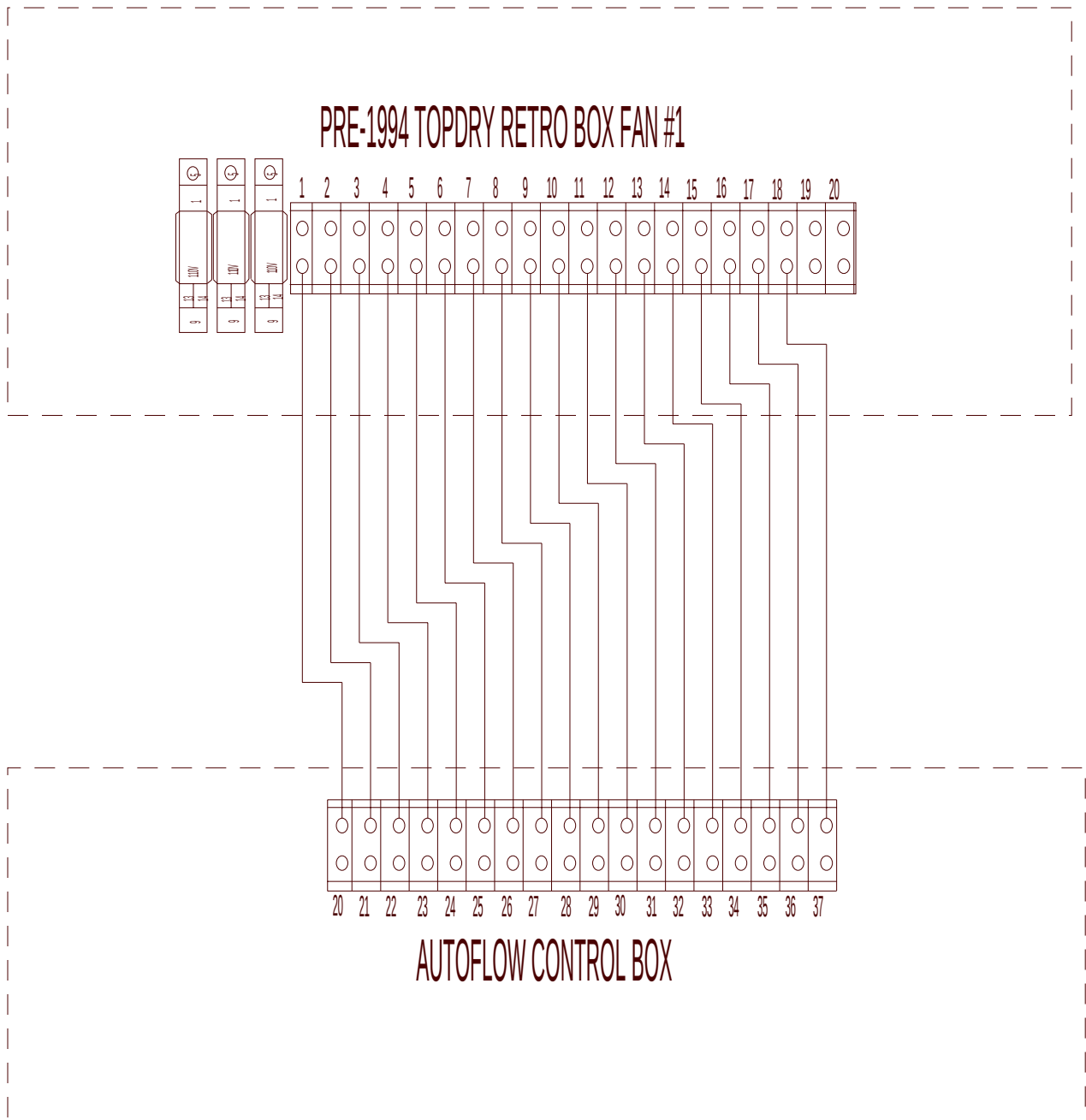
Pre-1997 GSI Conversion-One Fan Wiring



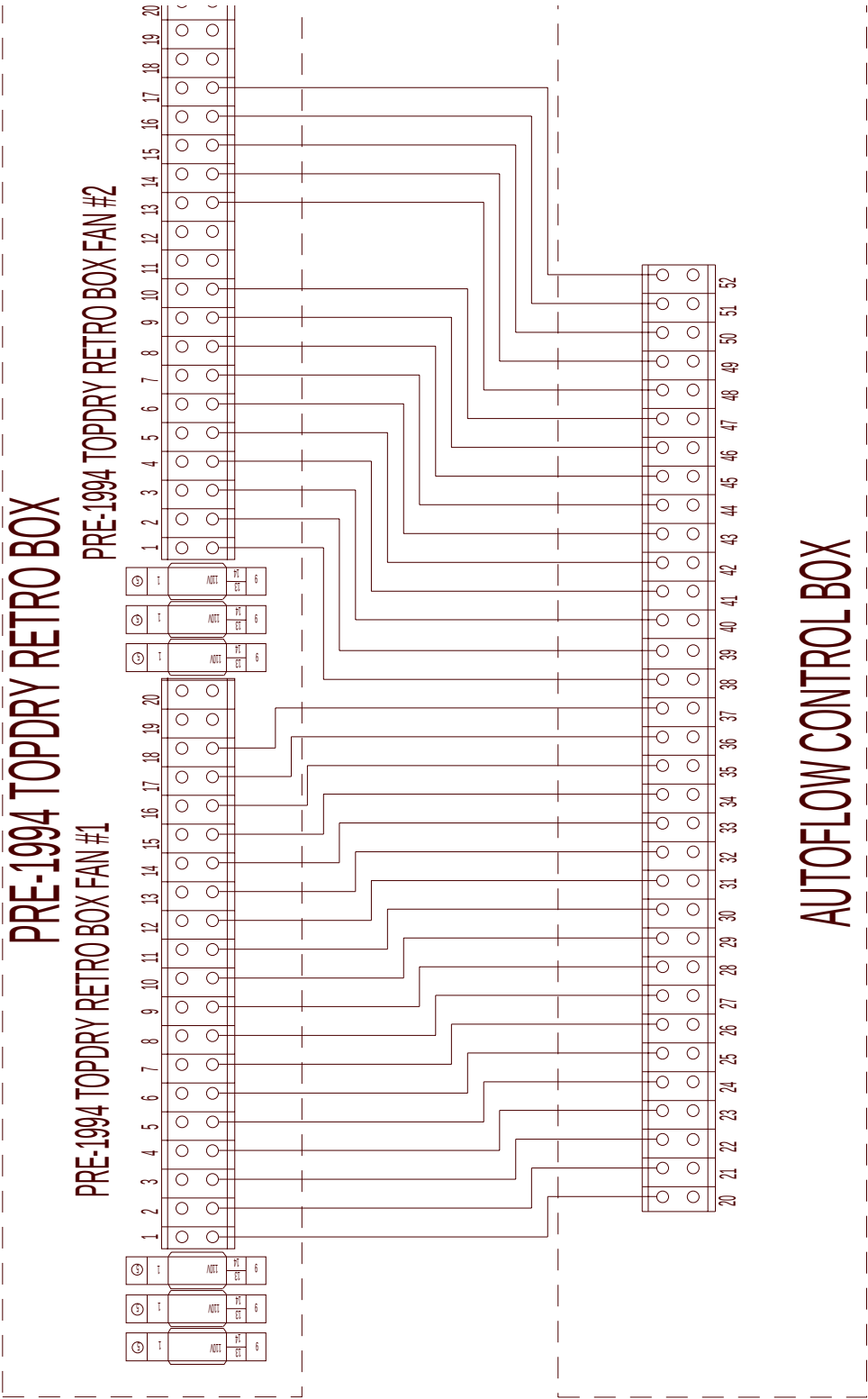
Pre-1997 GSI Conversion-Two Fan Wiring



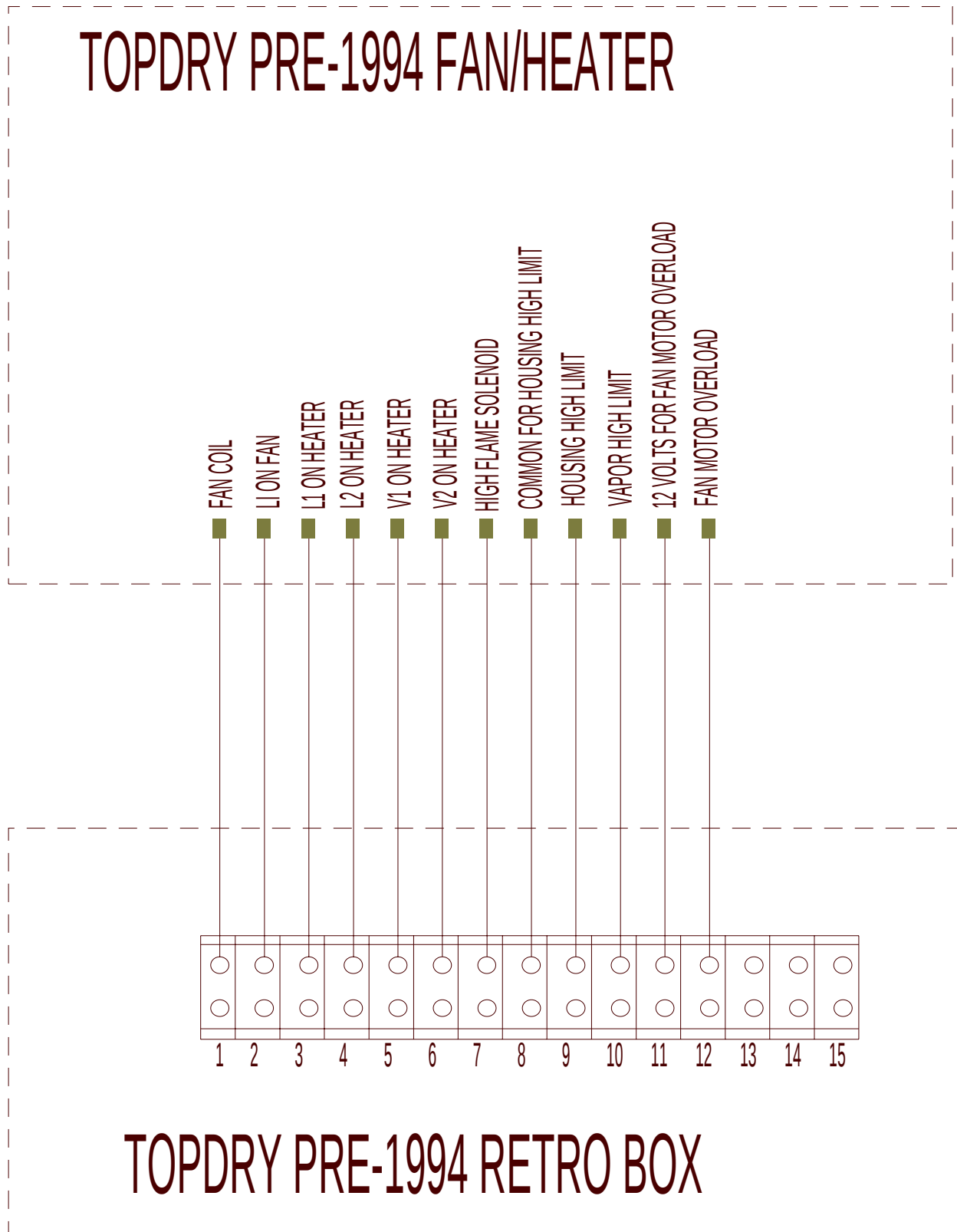
Pre-1997 GSI Conversion-Autoflow Control Box to
Conversion Box Interconnect



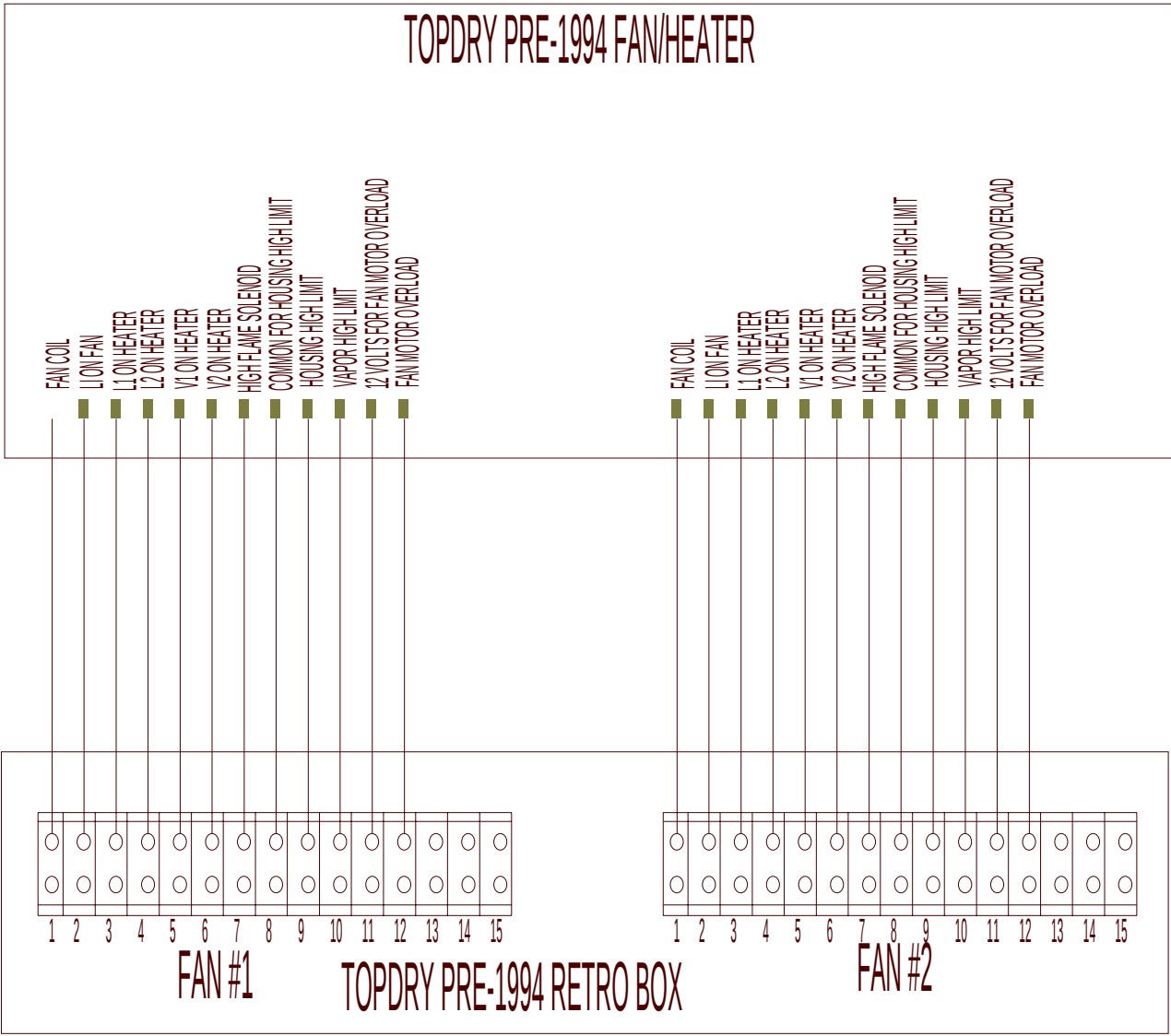
Pre-1997 GSI Conversion-Autoflow Control Box to
Conversion Box Interconnect Two Fan



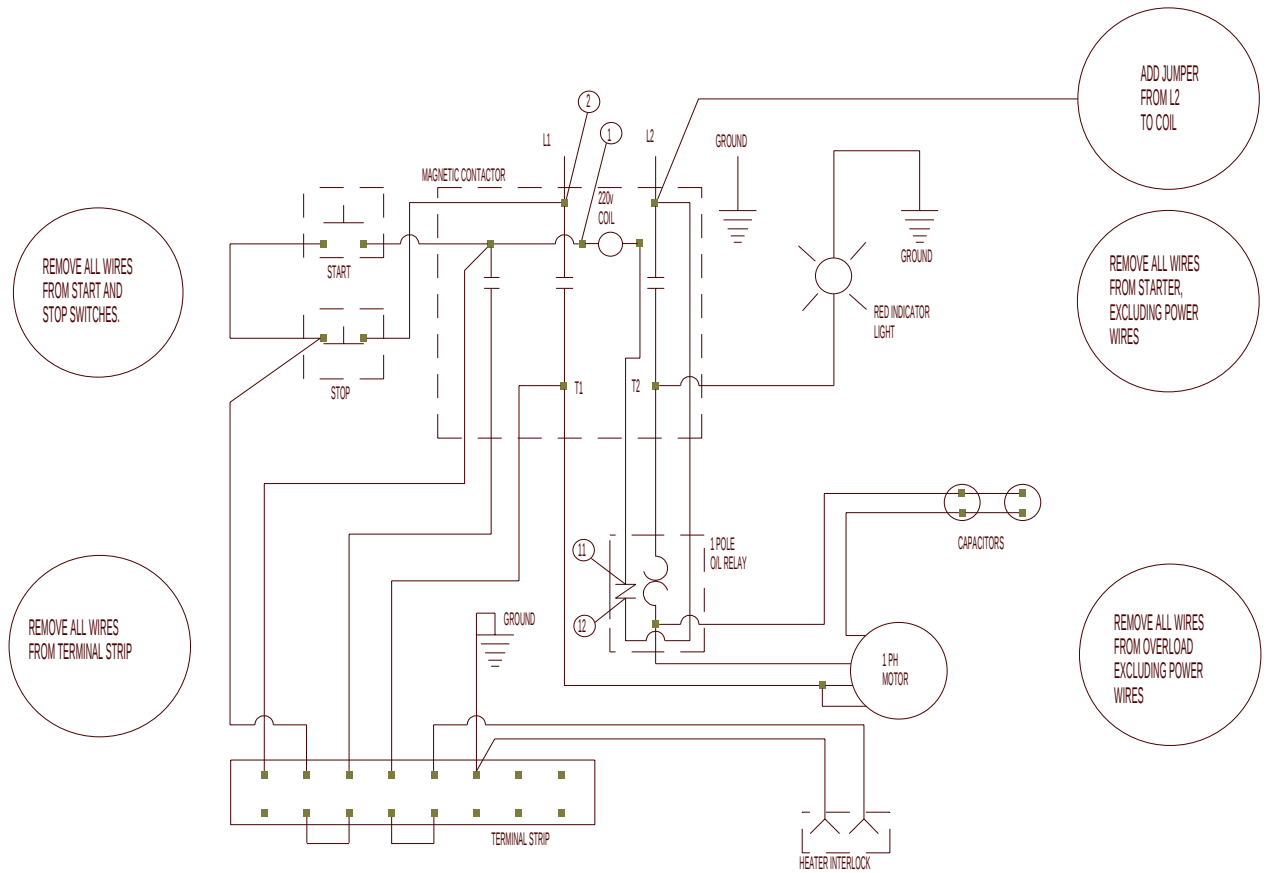
Pre-1997 GSI Conversion-Conversion Box to
Fan/Heater Interconnect One Fan



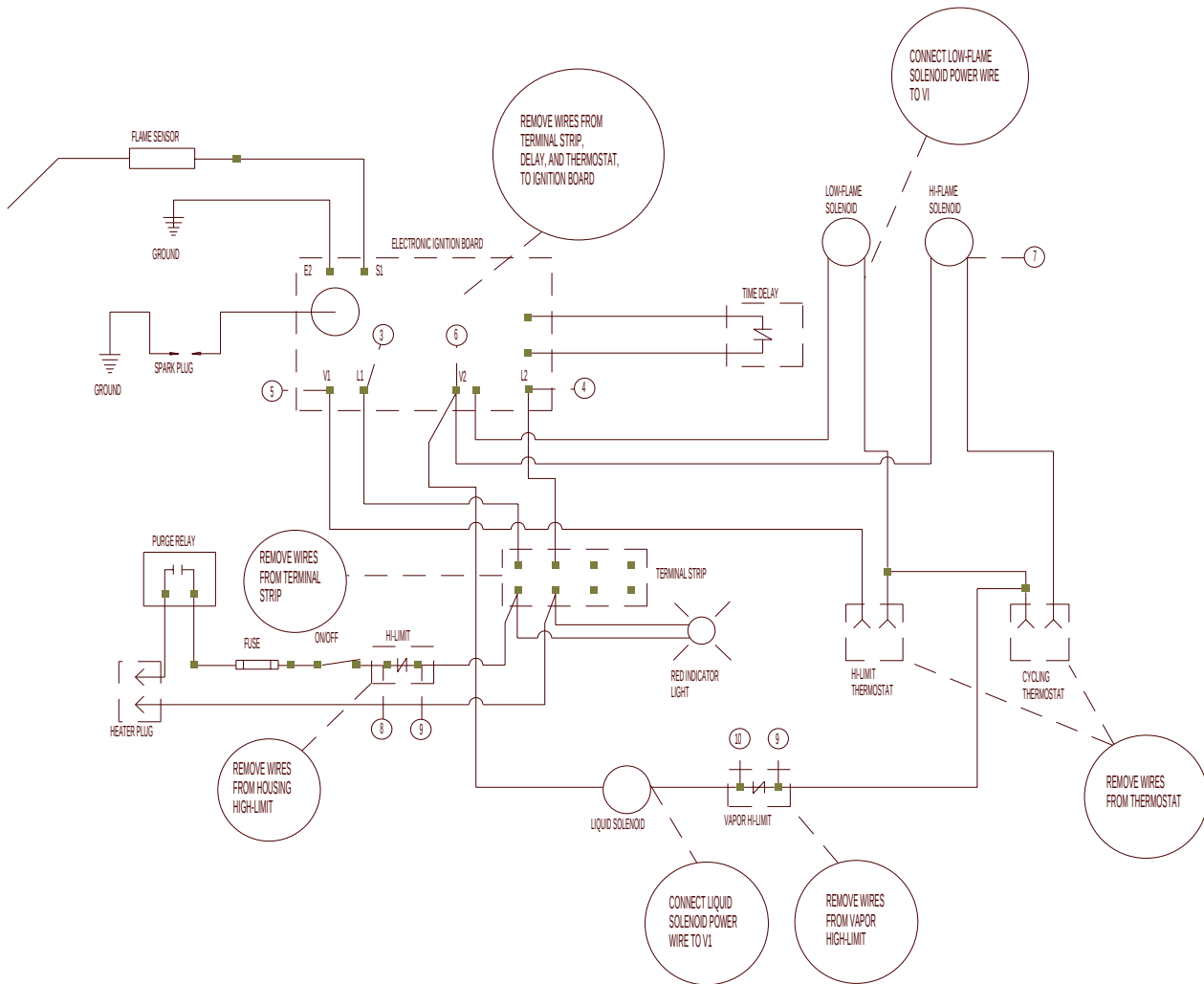
Pre-1997 GSI Conversion-Conversion Box to
Fan/Heater Interconnect Two Fan



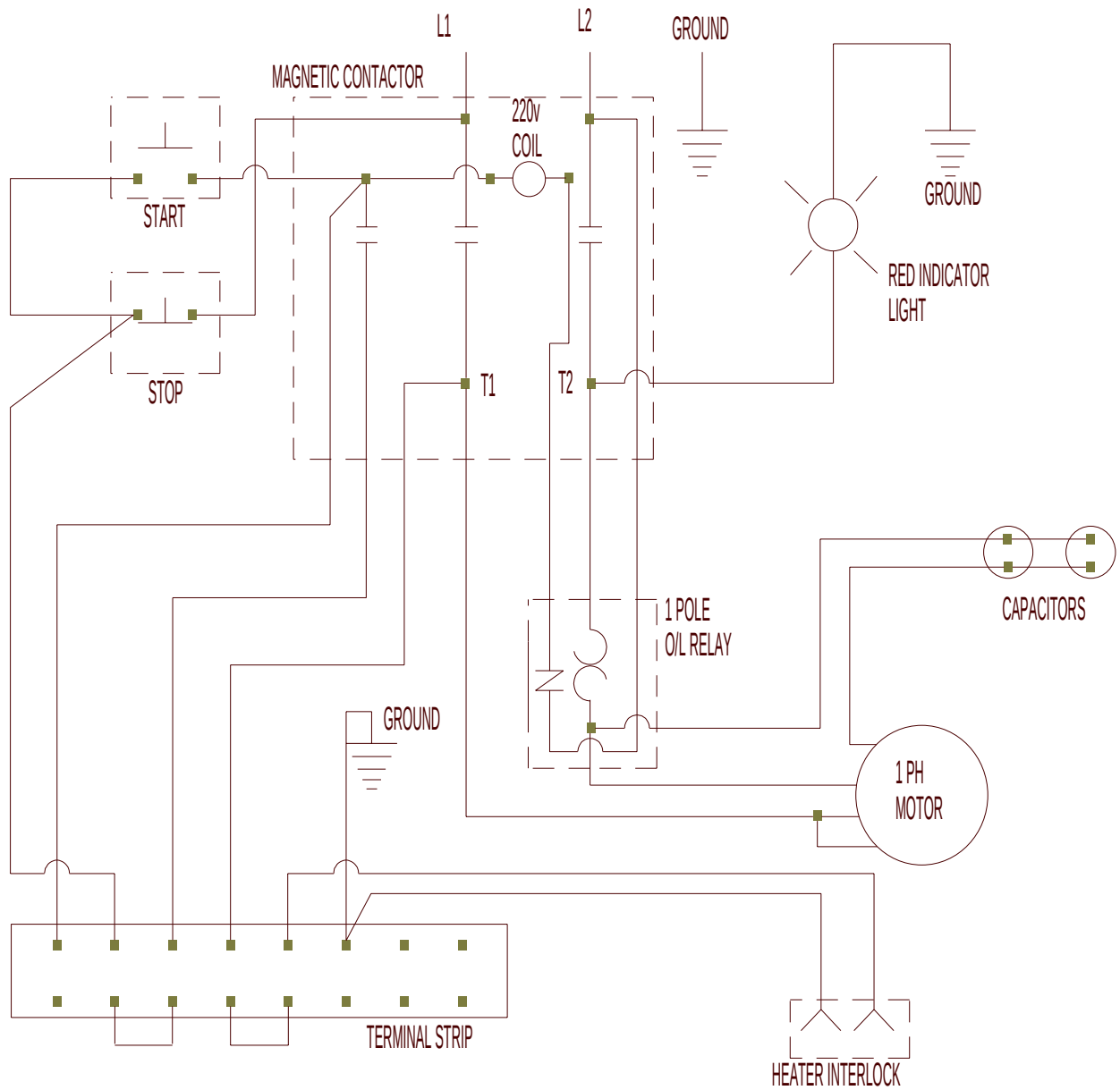
Pre-1997 GSI Conversion-Fan Interconnect



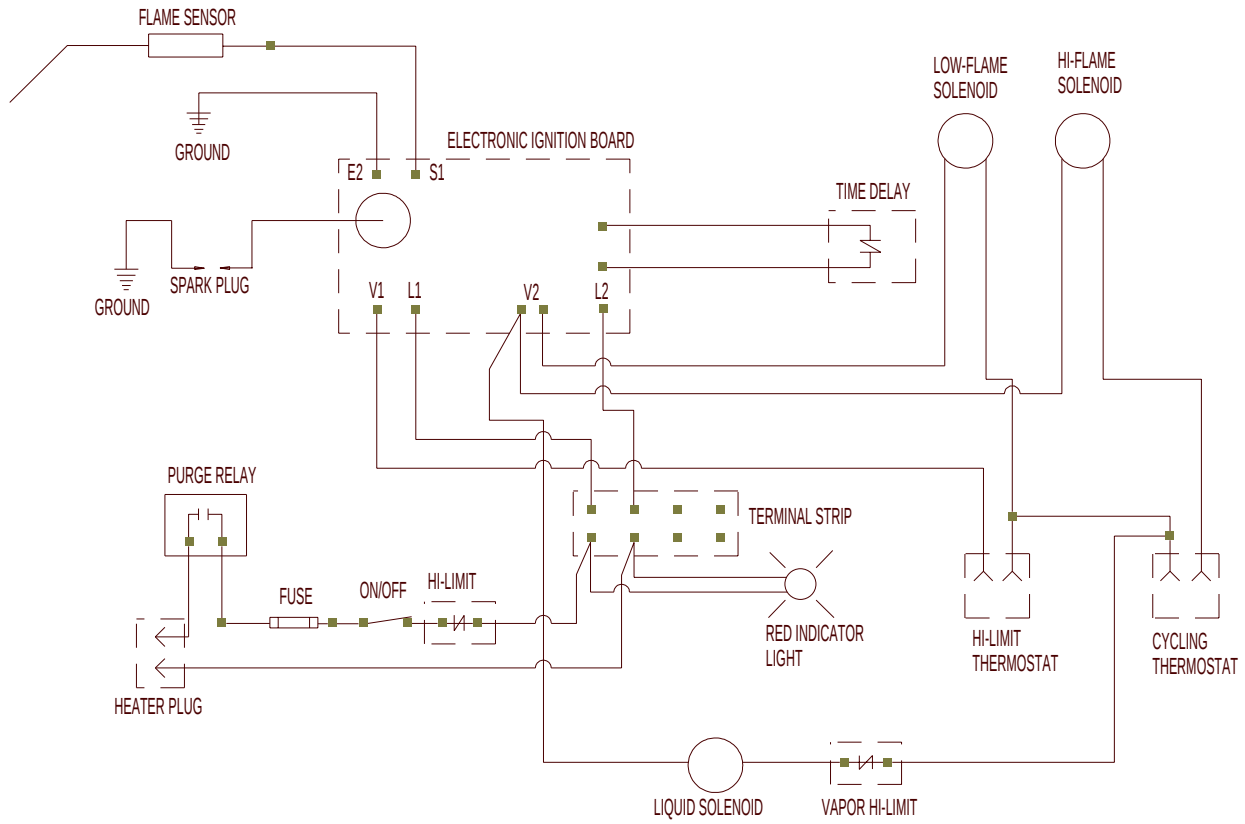
Pre-1997 GSI Conversion-Heater Interconnect



Pre-1997 GSI Conversion-Fan Schematic

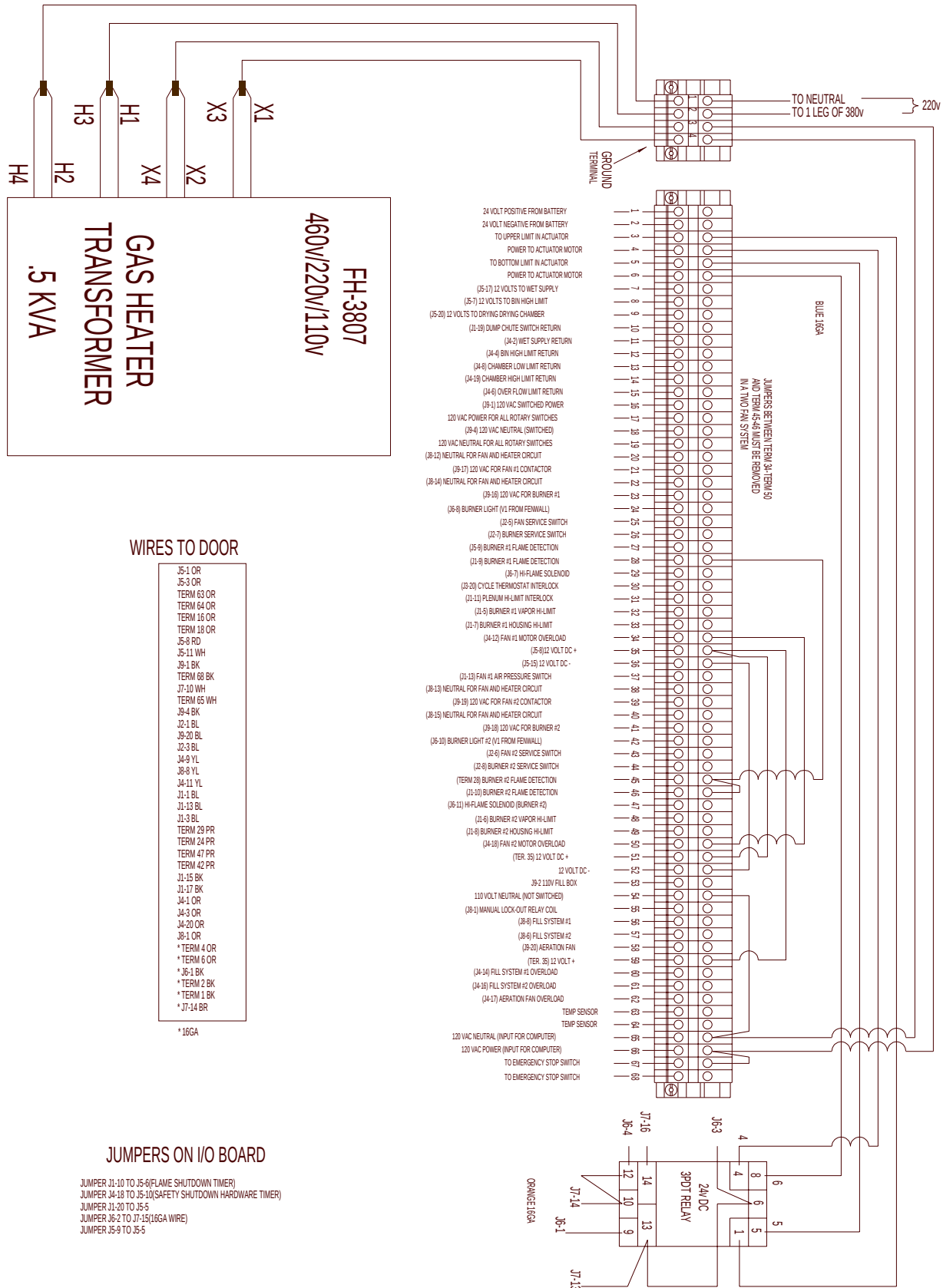


Pre-1997 GSI Conversion-Heater Schematic



Pre-1997 Autoflow Wiring

Pre-1997 Autoflow-380v Terminal Strip



Pre-1997 Autoflow-Terminal Strip

WIRES TO DOOR

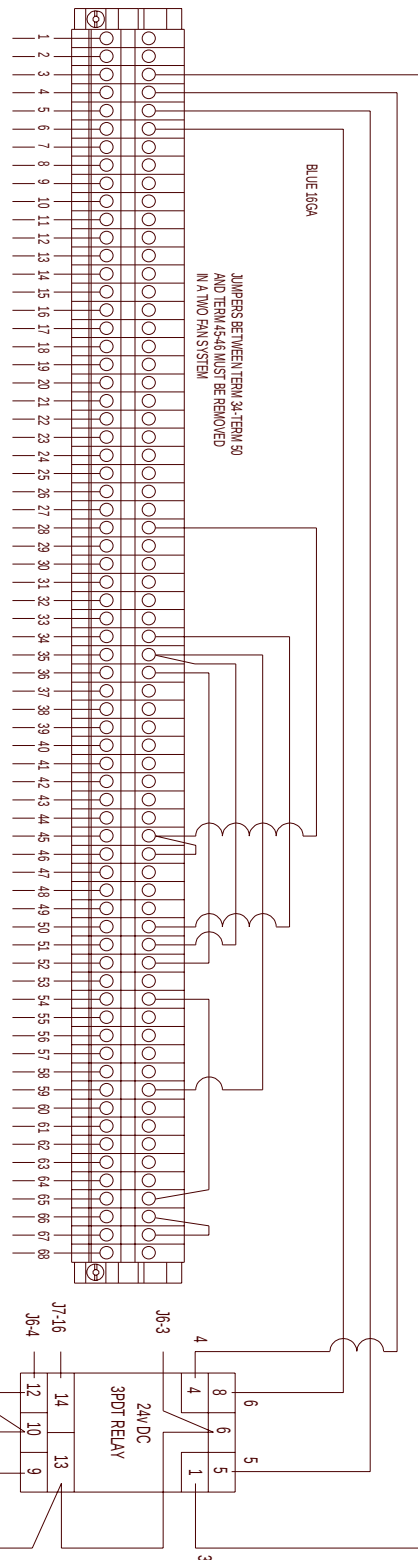
J5-1 OR
J5-3 OR
TERM 63 OR
TERM 64 OR
TERM 16 OR
TERM 18 OR
J5-8 RD
J5-11 WH
J9-1 BK
TERM 68 BK
J7-10 WH
TERM 65 WH
J9-4 BK
J2-1 BL
J9-20 BL
J2-3 BL
J4-9 YL
J8-8 YL
J4-11 YL
J1-1 BL
J1-13 BL
J1-3 BL
TERM 29 PR
TERM 24 PR
TERM 47 PR
TERM 42 PR
J1-15 BK
J4-1 OR
J4-3 OR
J4-20 OR
J8-1 OR
* TERM 4 OR
* TERM 6 OR
* J6-1 BK
* TERM 2 BK
* TERM 1 BK
* J7-14 BR

* 16GA

JUMPERS ON I/O BOARD

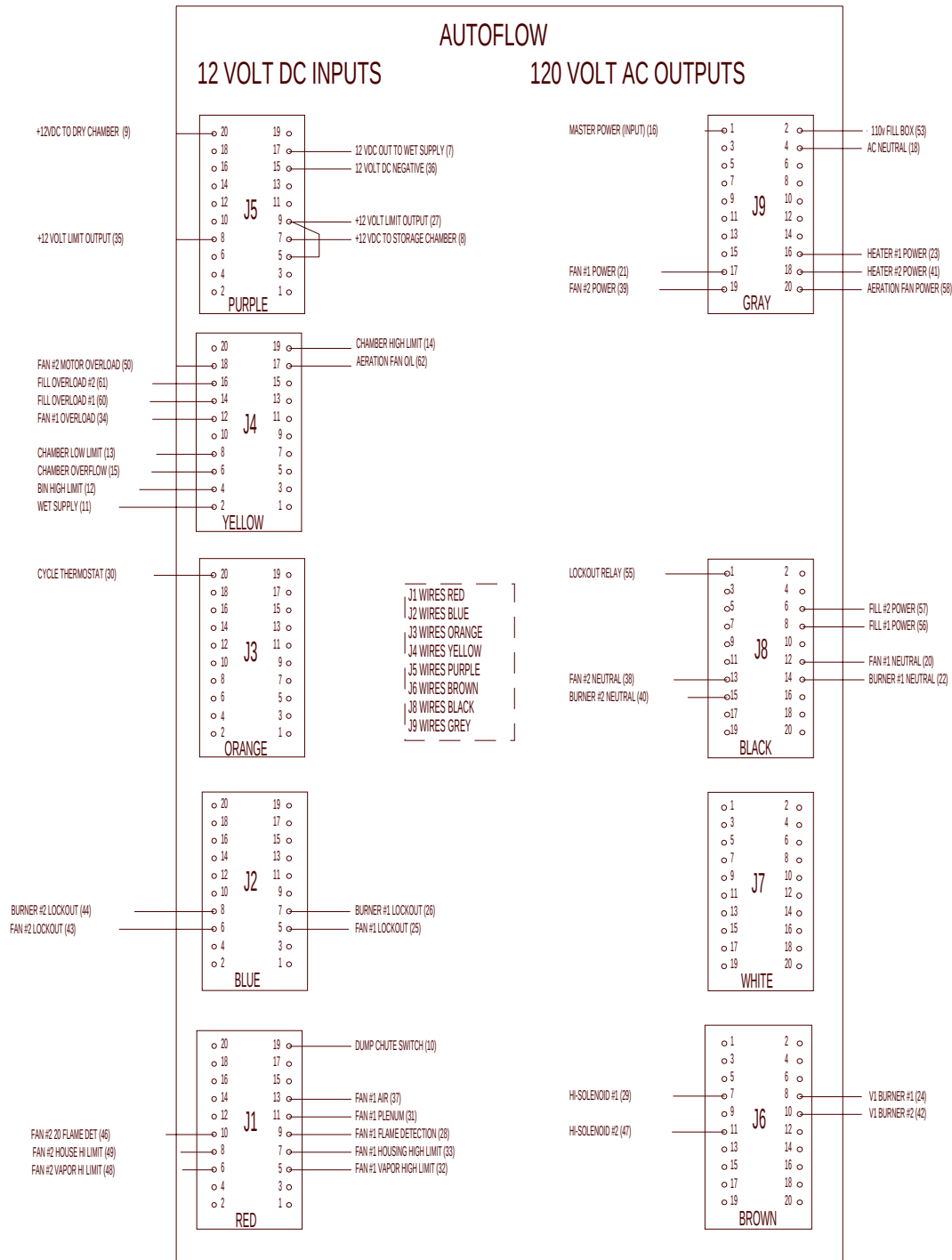
JUMPER J1-10 TO J5-6 (FLAME SHUTDOWN TIMER)
JUMPER J4-18 TO J5-10 (SAFETY SHUTDOWN HARDWARE TIMER)
JUMPER J1-20 TO J5-5
JUMPER J6-2 TO J7-15 (16GA WIRE)
JUMPER J5-9 TO J5-5

24 VOLT POSITIVE FROM BATTERY
24 VOLT NEGATIVE FROM BATTERY
TO UPPER LIMIT IN ACTUATOR
POWER TO ACTUATOR MOTOR
TO BOTTOM LIMIT IN ACTUATOR
POWER TO ACTUATOR MOTOR
(J5-17) 12 VOLTS TO WET SUPPLY
(J5-7) 12 VOLTS TO BIN HIGH LIMIT
(J5-20) 12 VOLTS TO DRYING DRYING CHAMBER
(J1-19) DUMP CHUTE SWITCH RETURN
(J4-2) WET SUPPLY RETURN
(J4-4) BIN HIGH LIMIT RETURN
(J4-8) CHAMBER LOW LIMIT RETURN
(J4-19) CHAMBER HIGH LIMIT RETURN
(J4-6) OVER FLOW LIMIT RETURN
(J9-1) 120 VAC SWITCHED POWER
120 VAC POWER FOR ALL ROTARY SWITCHES
(J9-4) 120 VAC NEUTRAL (SWITCHED)
120 VAC NEUTRAL FOR ALL ROTARY SWITCHES
(J8-12) NEUTRAL FOR FAN AND HEATER CIRCUIT
(J9-17) 120 VAC FOR FAN #1 CONTACTOR
(J8-14) NEUTRAL FOR FAN AND HEATER CIRCUIT
(J9-16) 120 VAC FOR BURNER #1
(J6-8) BURNER LIGHT (V1 FROM FENWALL)
(J2-5) FAN SERVICE SWITCH
(J2-7) BURNER SERVICE SWITCH
(J5-9) BURNER #1 FLAME DETECTION
(J1-9) BURNER #1 FLAME DETECTION
(J6-7) HI-FLAME SOLENOID
(J3-20) CYCLE THERMOSTAT INTERLOCK
(J1-11) PLENUM HI-LIMIT INTERLOCK
(J1-5) BURNER #1 VAPOR HI-LIMIT
(J1-7) BURNER #1 HOUSING HI-LIMIT
(J4-12) FAN #1 MOTOR OVERLOAD
(J5-8) 12 VOLT DC +
(J5-15) 12 VOLT DC -
(J1-13) FAN #1 AIR PRESSURE SWITCH
(J8-13) NEUTRAL FOR FAN AND HEATER CIRCUIT
(J9-19) 120 VAC FOR FAN #2 CONTACTOR
(J8-15) NEUTRAL FOR FAN AND HEATER CIRCUIT
(J9-18) 120 VAC FOR BURNER #2
(J6-10) BURNER LIGHT #2 (V1 FROM FENWALL)
(J2-6) FAN #2 SERVICE SWITCH
(J2-8) BURNER #2 SERVICE SWITCH
(TERM 28) BURNER #2 FLAME DETECTION
(J1-10) BURNER #2 FLAME DETECTION
(J6-11) HI-FLAME SOLENOID (BURNER #2)
(J1-6) BURNER #2 VAPOR HI-LIMIT
(J1-8) BURNER #2 HOUSING HI-LIMIT
(J4-18) FAN #2 MOTOR OVERLOAD
(TER. 35) 12 VOLT DC +
12 VOLT DC -
J9-2 110V FILL BOX
110 VOLT NEUTRAL (NOT SWITCHED)
(J8-1) MANUAL LOCK-OUT RELAY COIL
(J8-8) FILL SYSTEM #1
(J8-6) FILL SYSTEM #2
(J9-20) AERATION FAN
(TER. 35) 12 VOLT +
(J4-14) FILL SYSTEM #1 OVERLOAD
(J4-16) FILL SYSTEM #2 OVERLOAD
(J4-17) AERATION FAN OVERLOAD
TEMP SENSOR
TEMP SENSOR
120 VAC NEUTRAL (INPUT FOR COMPUTER)
120 VAC POWER (INPUT FOR COMPUTER)
TO EMERGENCY STOP SWITCH
TO EMERGENCY STOP SWITCH



Pre-1997 Autoflow-Input/Output Board

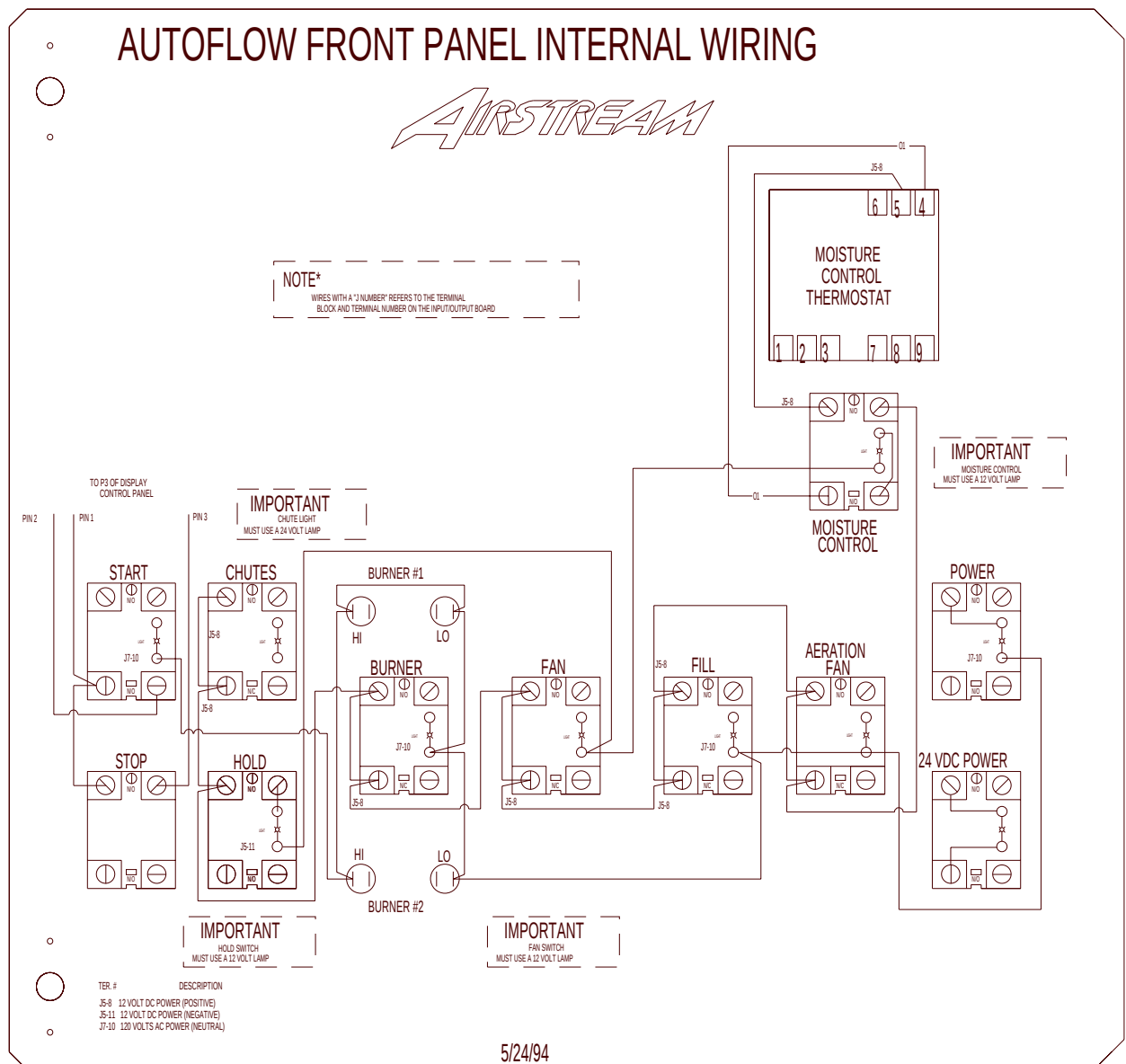
INPUT/OUTPUT BOARD TERMINAL IDENTIFICATION



JUMPER TER.#18 TO TER.#19 WHITE
 JUMPER TER.#28 TO TER.#45 RED
 JUMPER TER.#35 TO TER.#51 PURPLE
 JUMPER TER.#36 TO TER.#52 PURPLE
 JUMPER TER.#45 TO TER.#46 (REMOVE TWO FAN SYS.)
 JUMPER TER.#51 TO TER.#59 PURPLE
 JUMPER TER.#54 TO TER.#65 WHITE
 JUMPER TER.#66 TO TER.#68 BLACK

JUMPER J1-10 TO J5-6 RED
 JUMPER J1-20 TO J5-5 RED
 JUMPER J4-12 TO J4-18 YELLOW (REMOVE TWO FAN SYS.)
 JUMPER J4-18 TO J5-10 YELLOW
 JUMPER J5-9 TO J5-5 RED
 JUMPER J6-2 TO J7-15 (16GA WIRE) ORANGE
 JUMPER TER.#16 TO TER.#17 BLACK

Pre-1997 Autoflow-Front Panel Internal Wiring



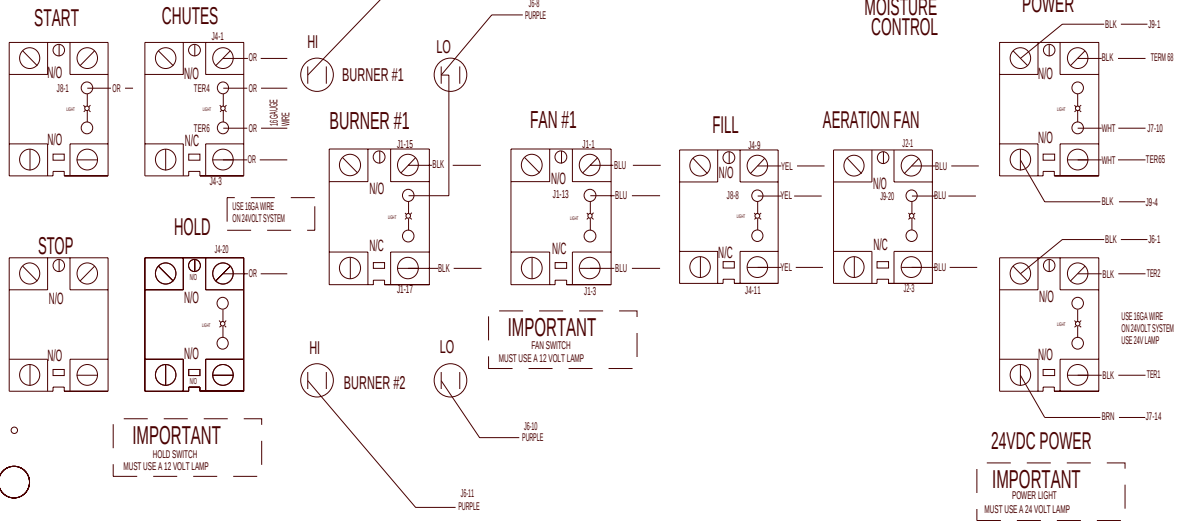
Pre-1997 Autoflow-Front Panel External Wiring

AUTOFLOW FRONT PANEL EXTERNAL WIRING

AIRSTREAM

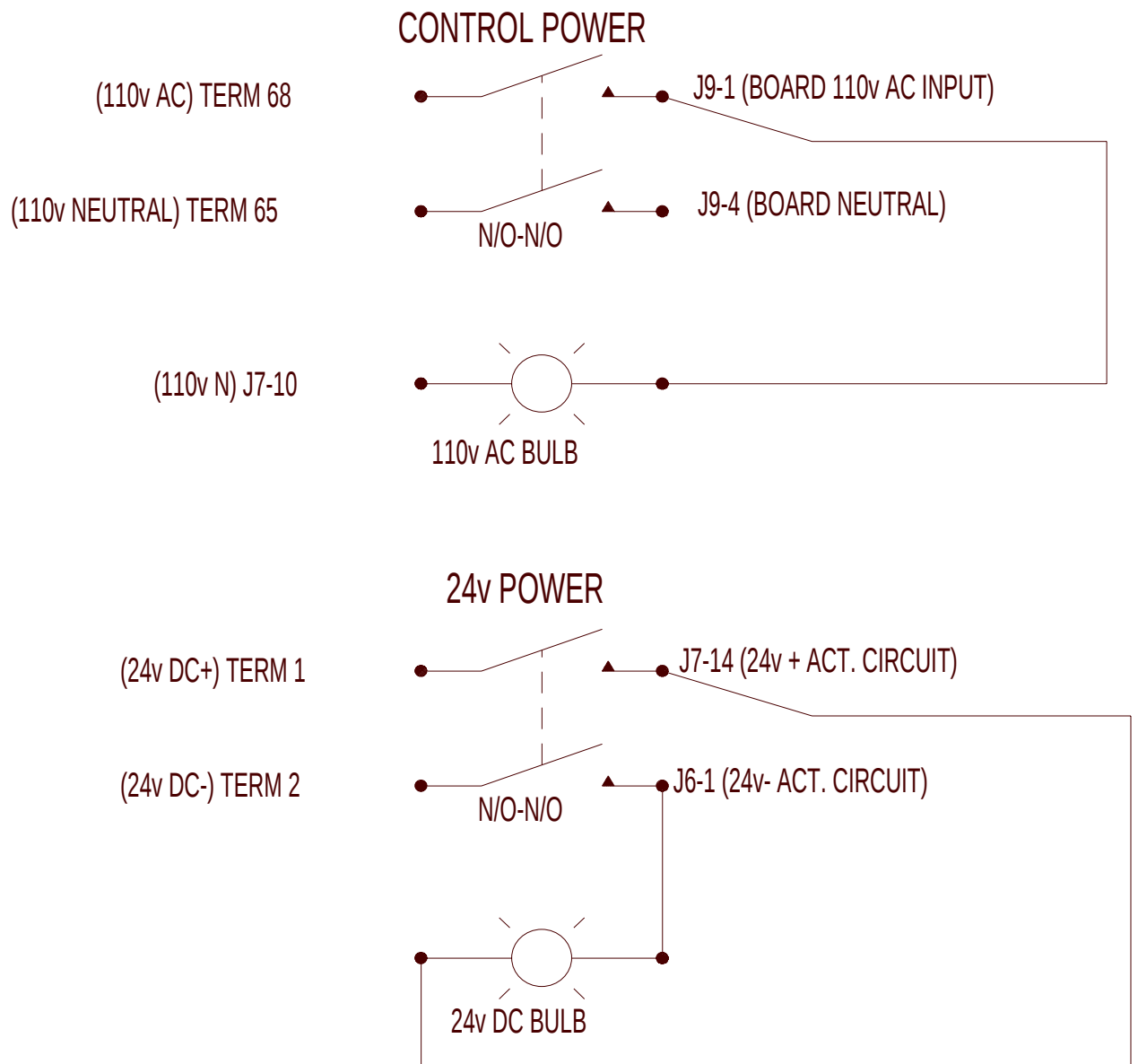
NOTE*
WIRES WITH A "J" NUMBER* REFERS TO THE TERMINAL BLOCK AND TERMINAL NUMBER ON THE INPUT/OUTPUT BOARD

IMPORTANT
CHUTE LIGHT
MUST USE A 24 VOLT LAMP

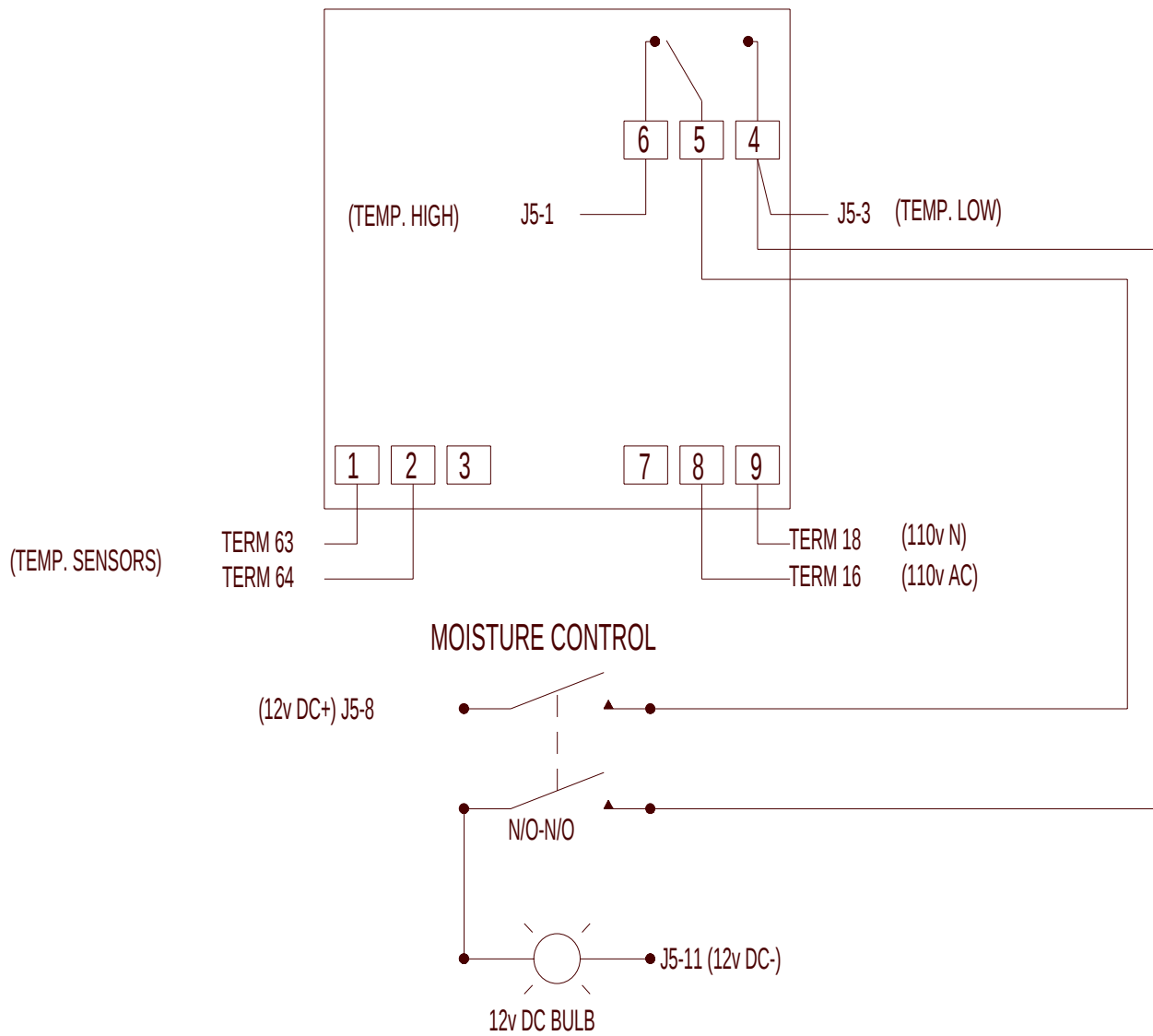


22395

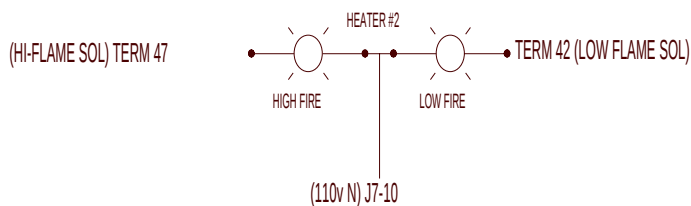
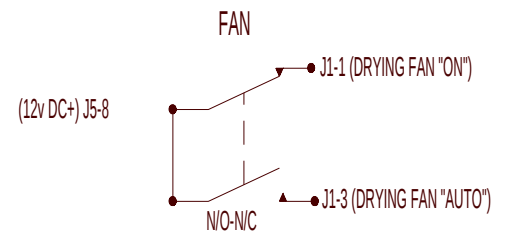
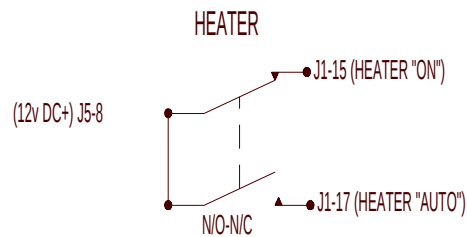
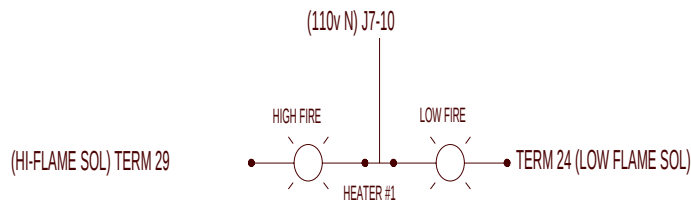
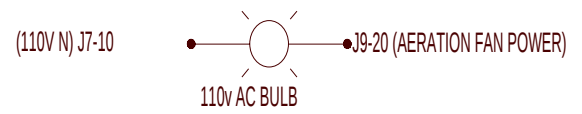
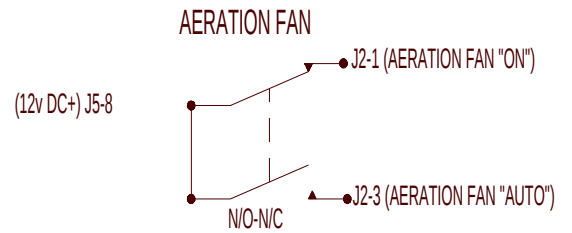
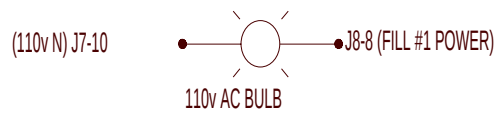
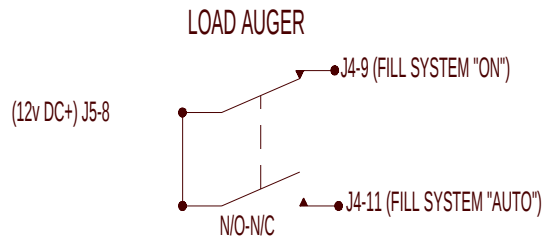
Pre-1997 Autoflow-Front Panel Switch Circuits



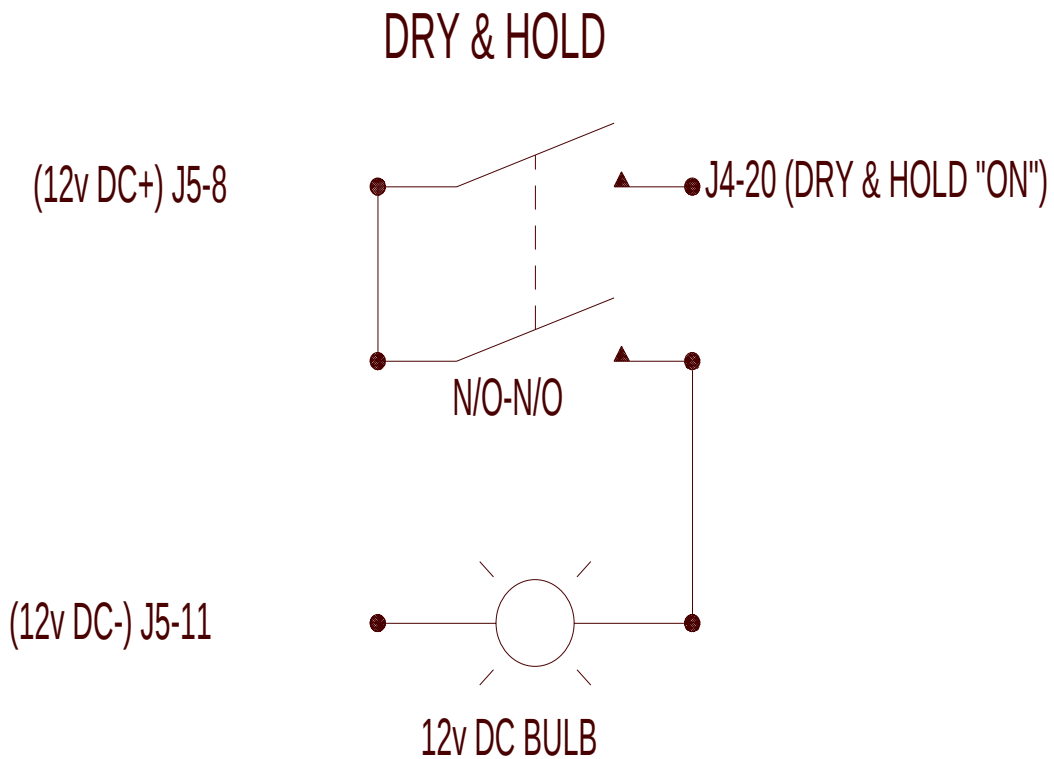
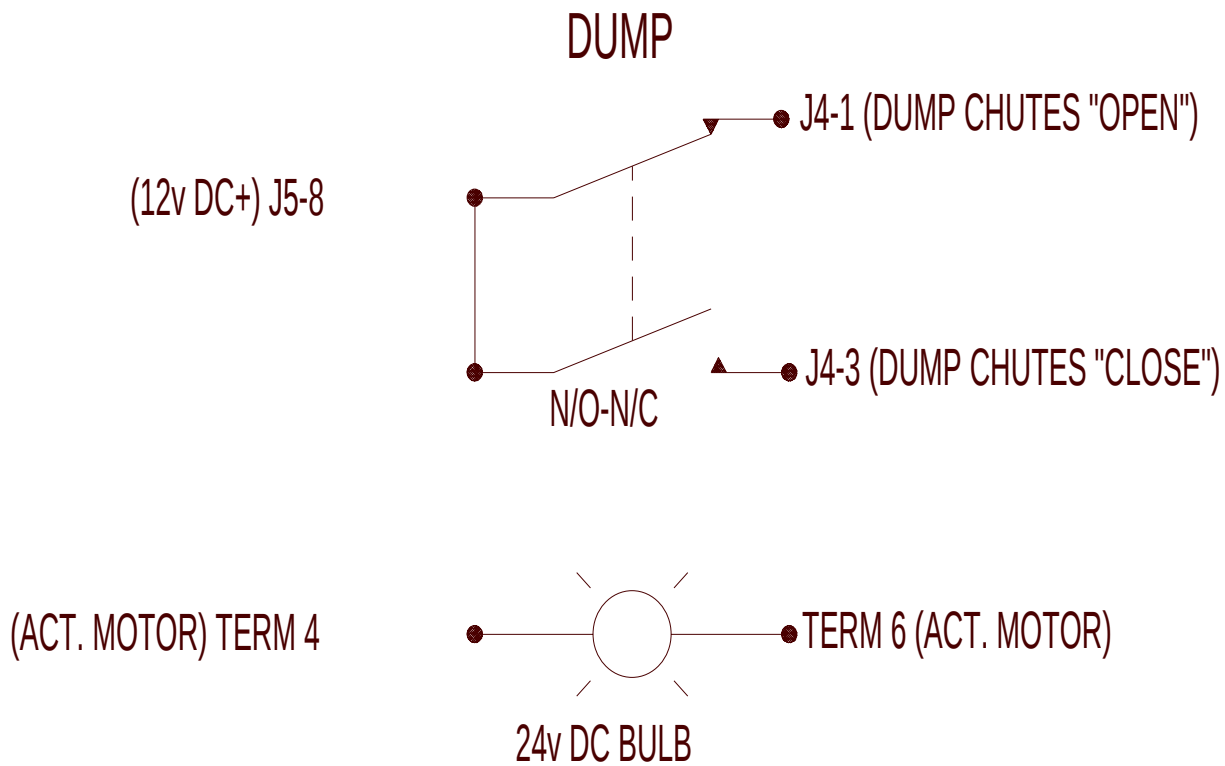
Pre-1997 Autoflow-Front Panel Switch Circuits



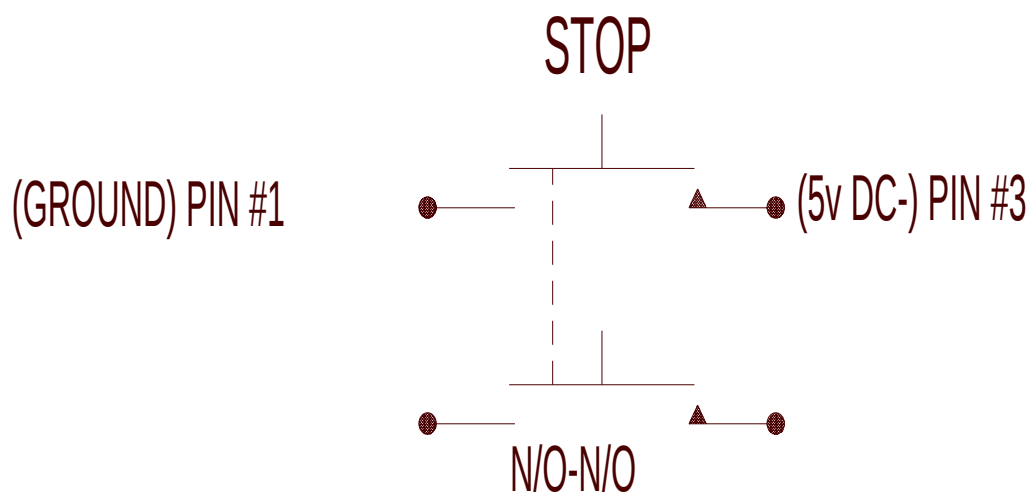
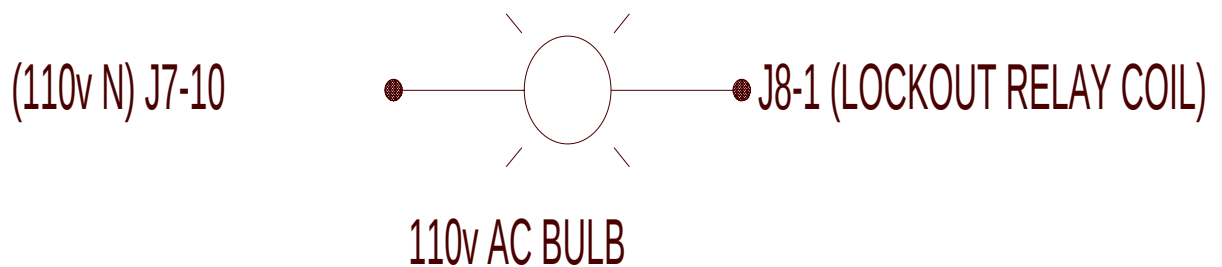
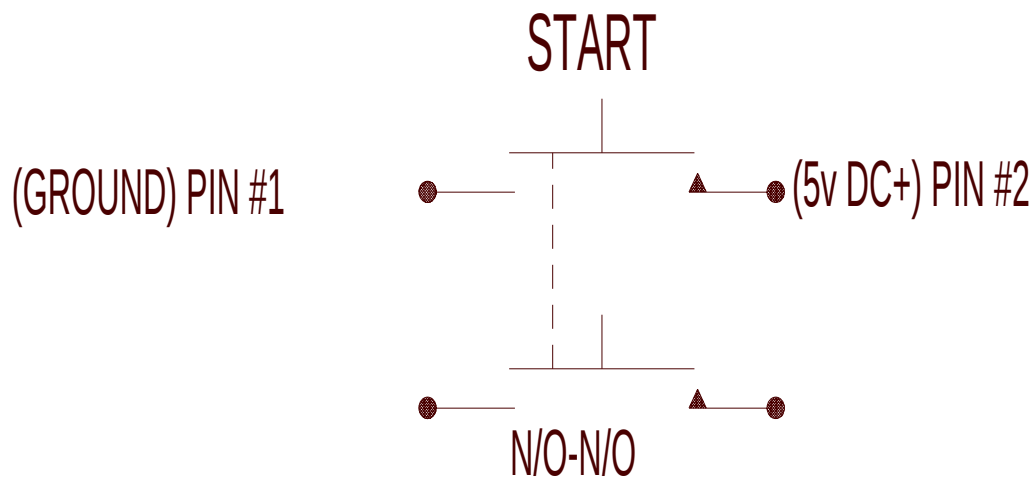
Pre-1997 Autoflow-Front Panel Switch Circuits



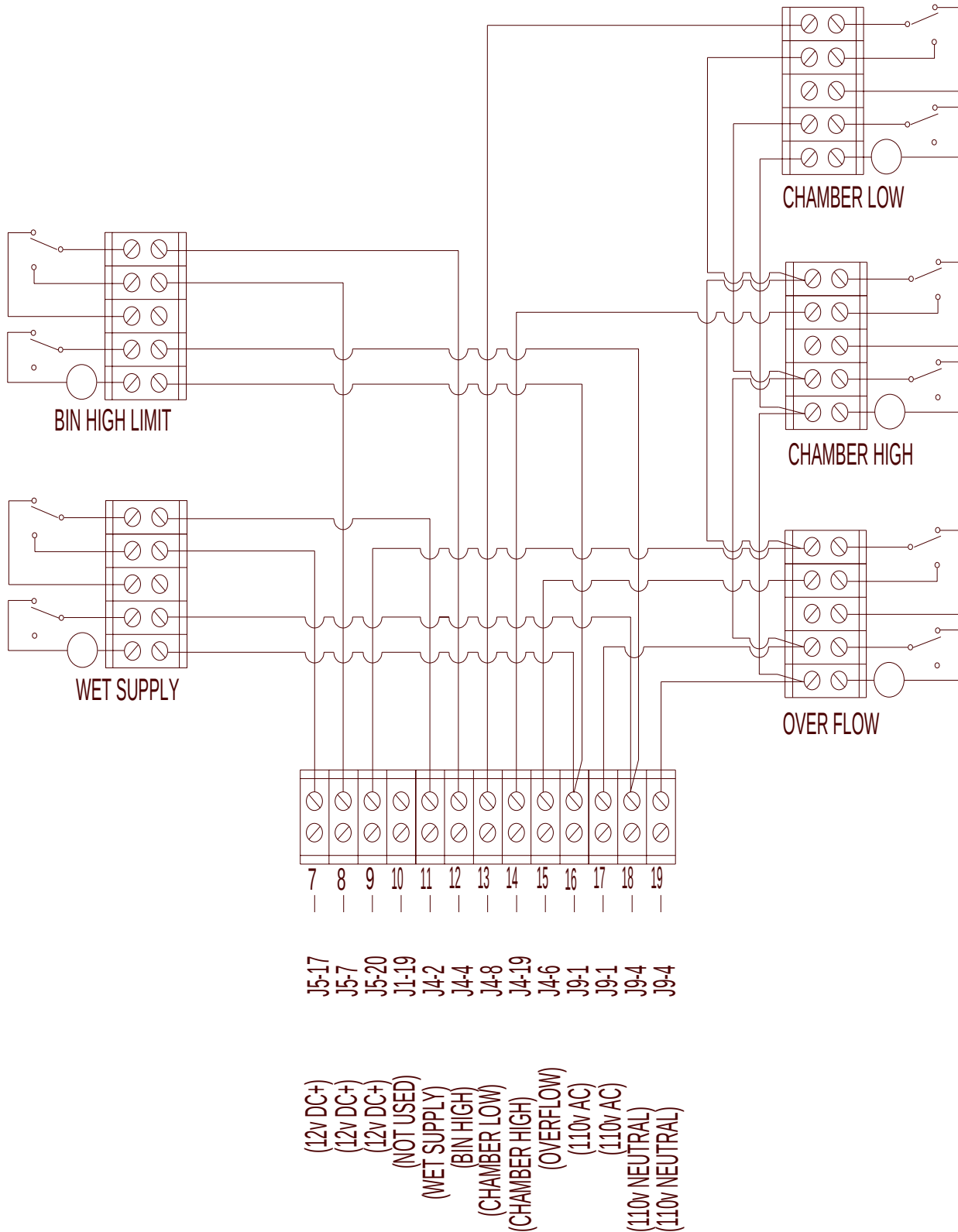
Pre-1997 Autoflow-Front Panel Switch Circuits



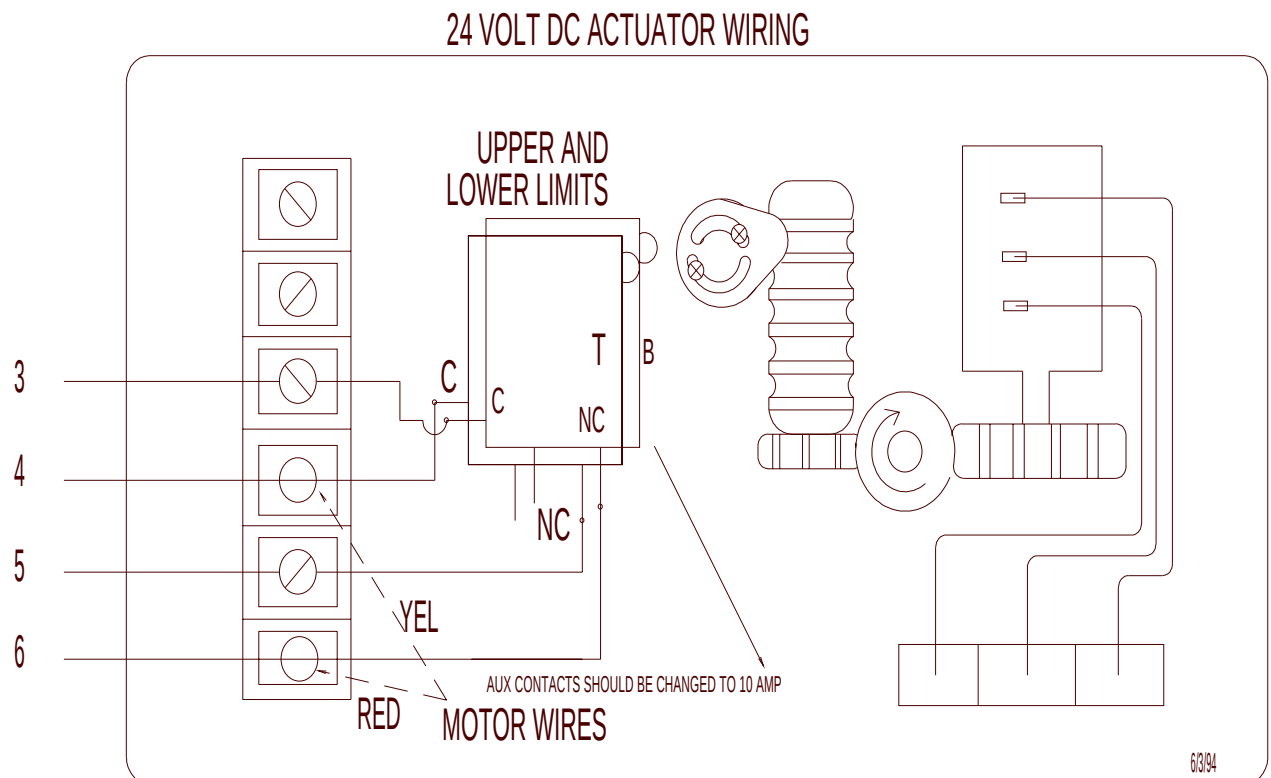
Pre-1997 Autoflow-Front Panel Switch Circuits



Pre-1997 Autoflow-Rotary Switch Circuits

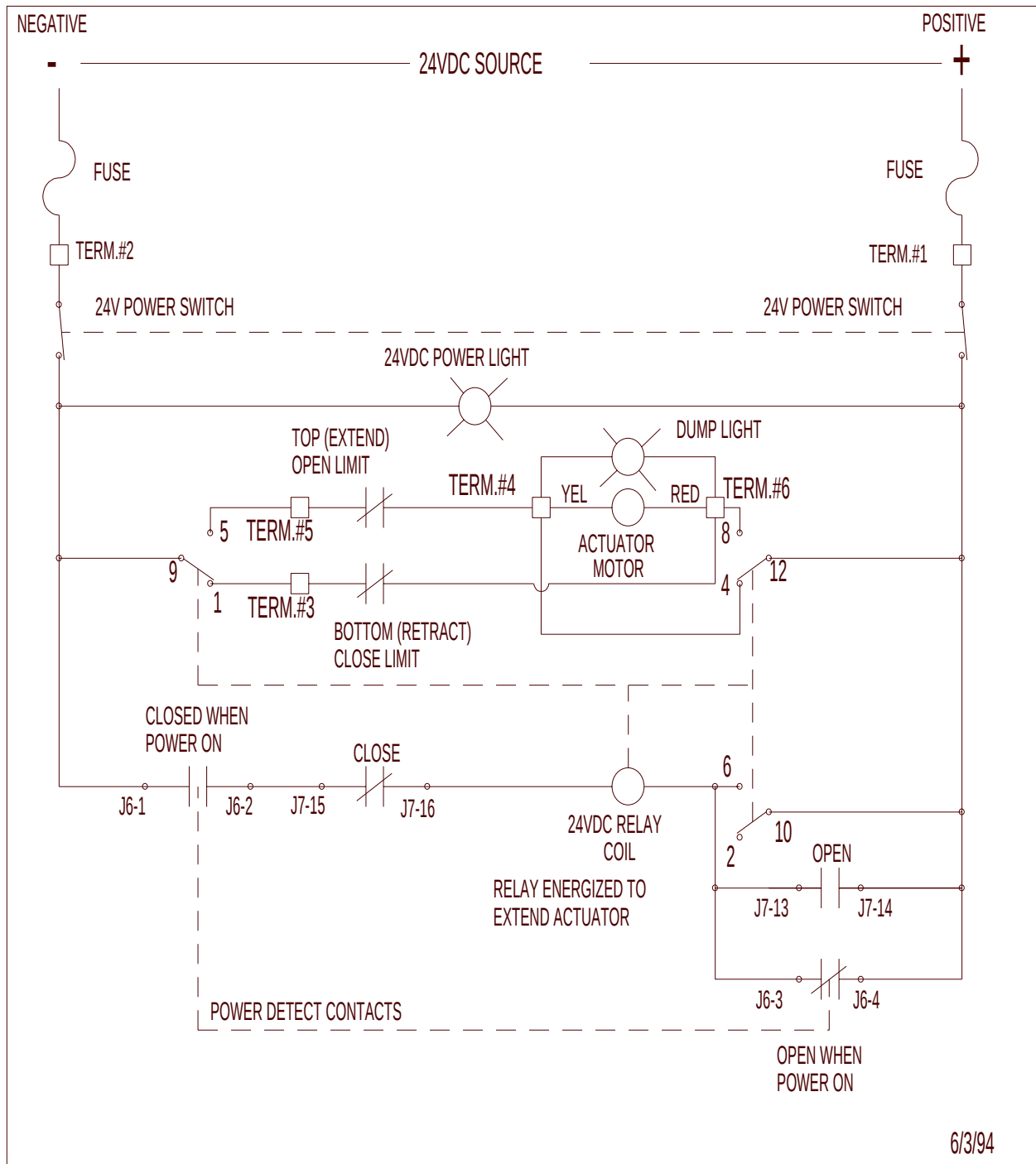


Pre-1997 Autoflow-Actuator Wiring



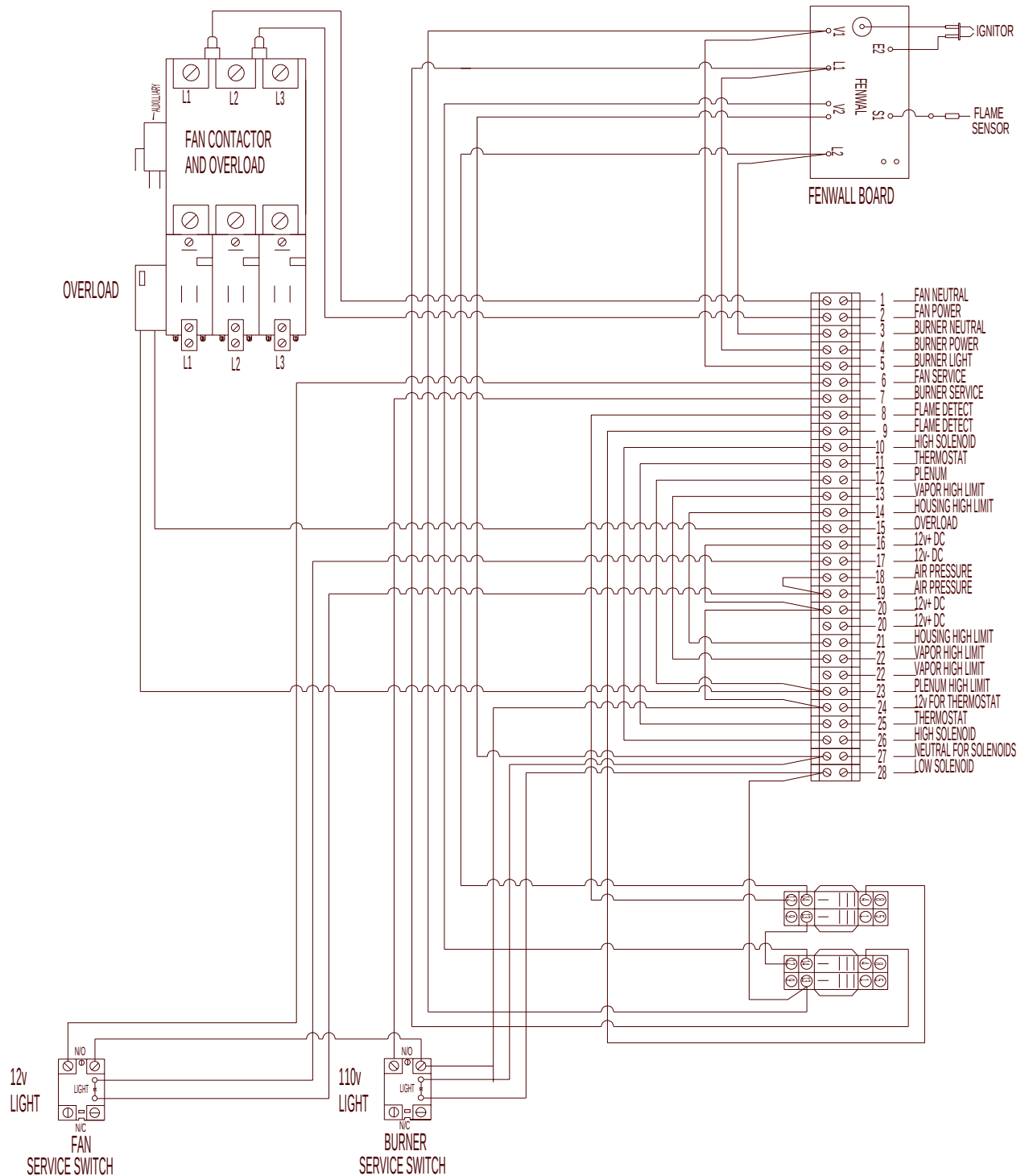
Pre-1997 Autoflow-Actuator Schematic

TOPDRY AUTOFLOW 24V CIRCUIT SCHEMATIC

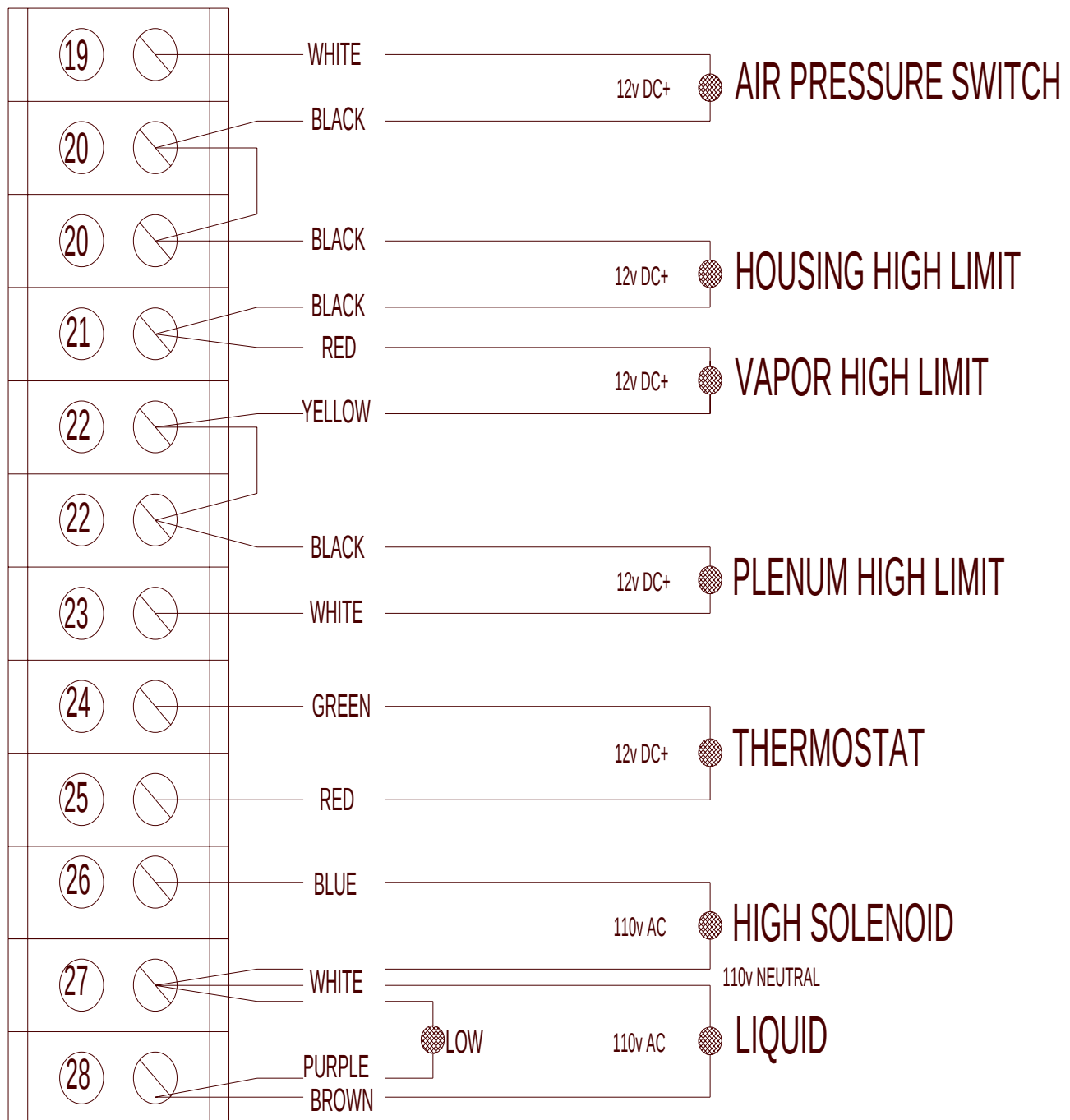


6/3/94

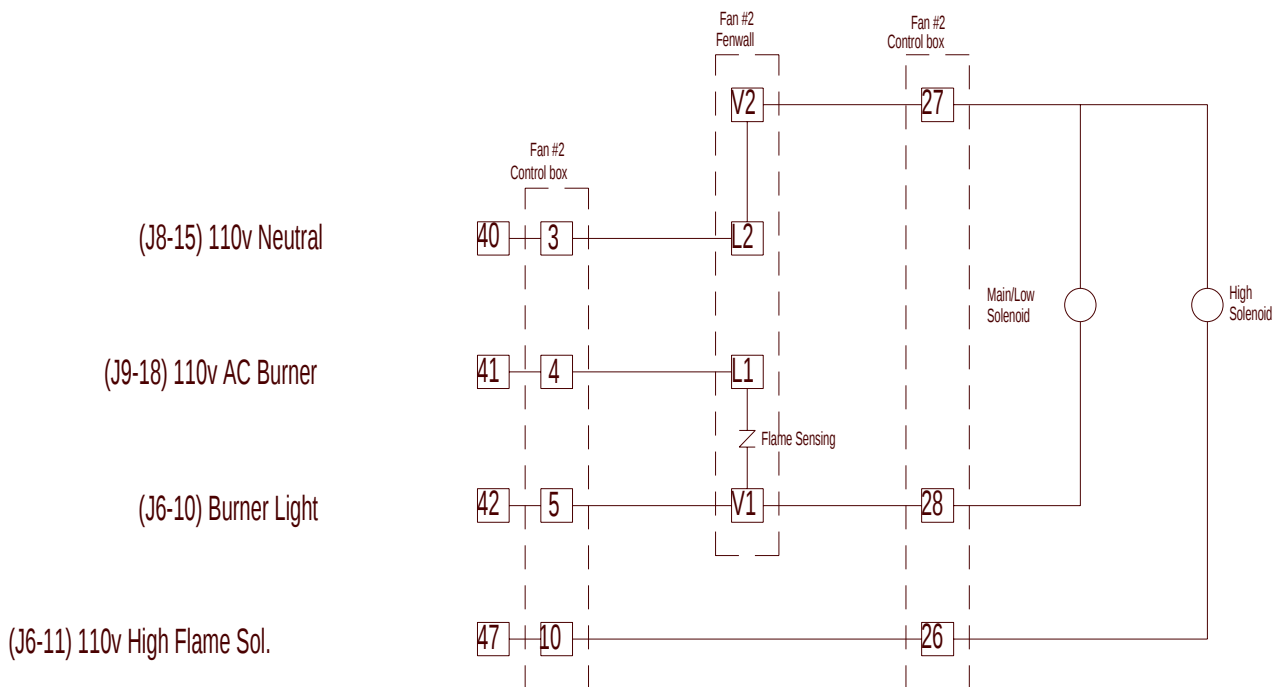
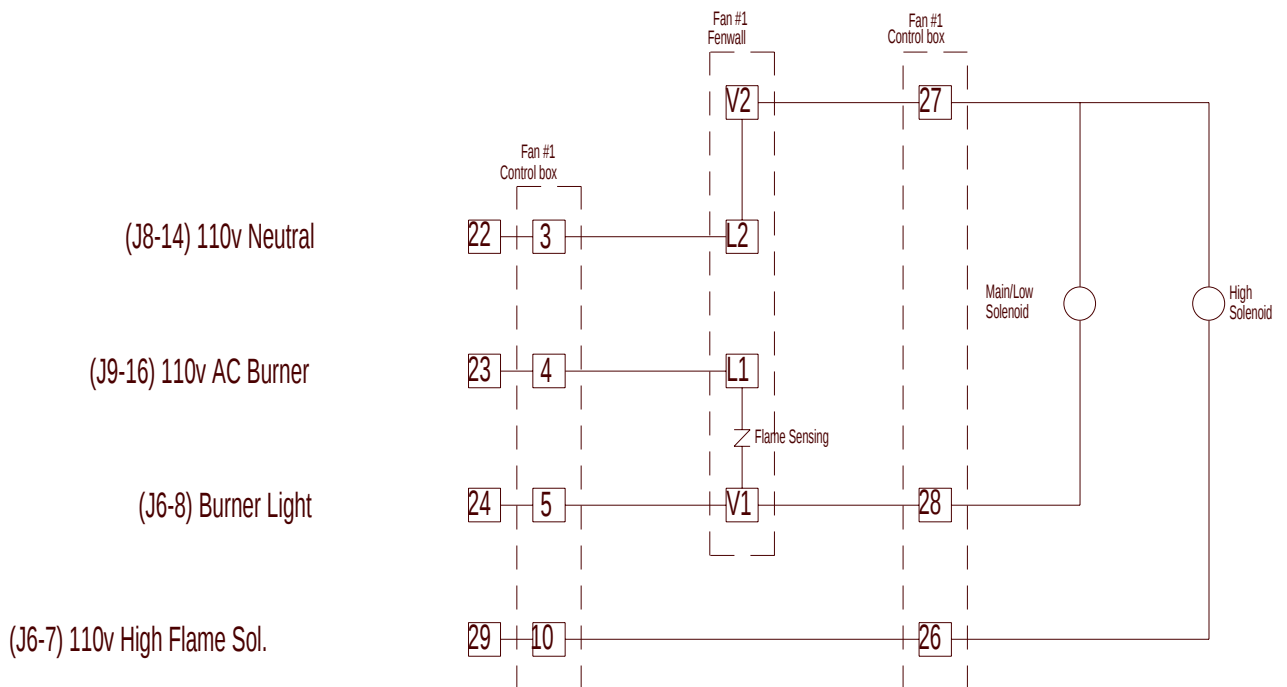
Pre-1997 Autoflow-Fan/Heater Control Box Wiring



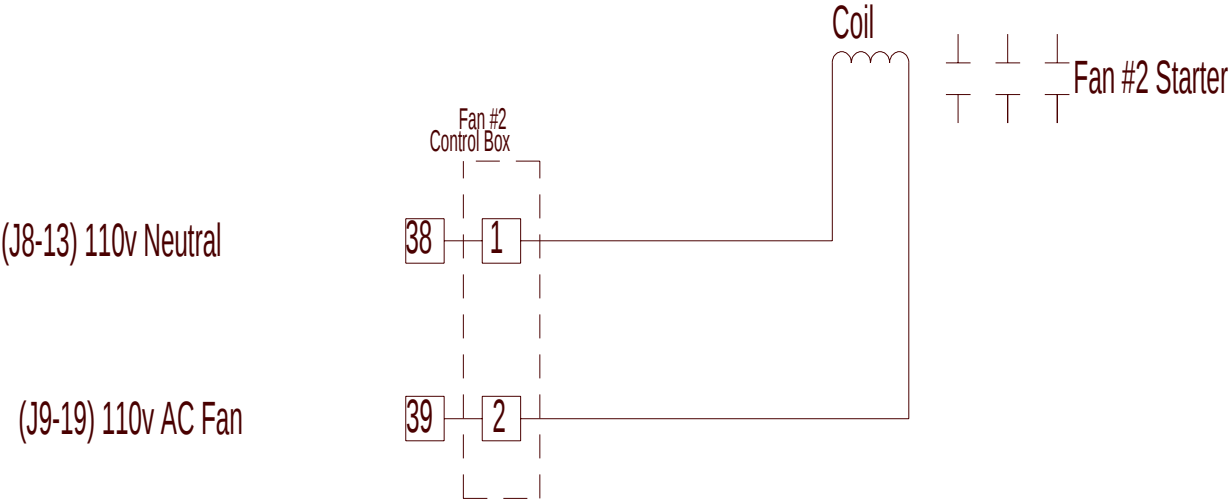
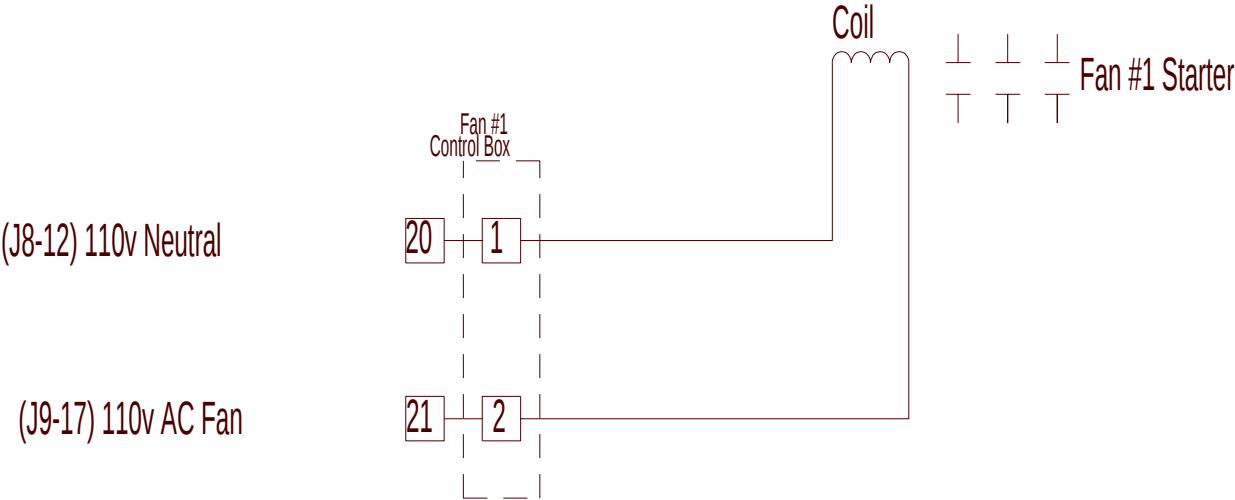
Pre-1997 Autoflow-Fan/Heater External Wiring



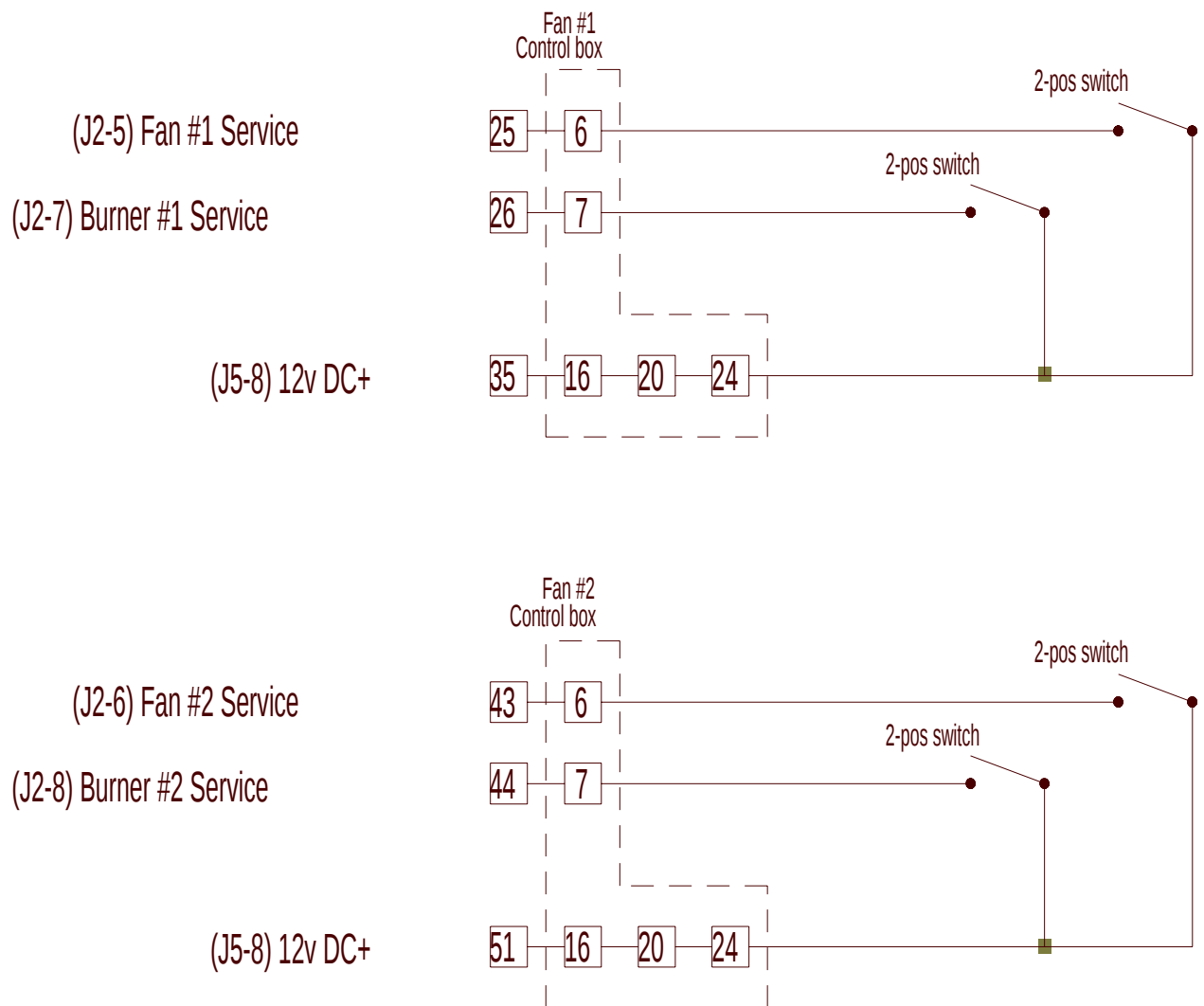
Pre-1997 Autoflow-Fan/Heater Burner Circuits



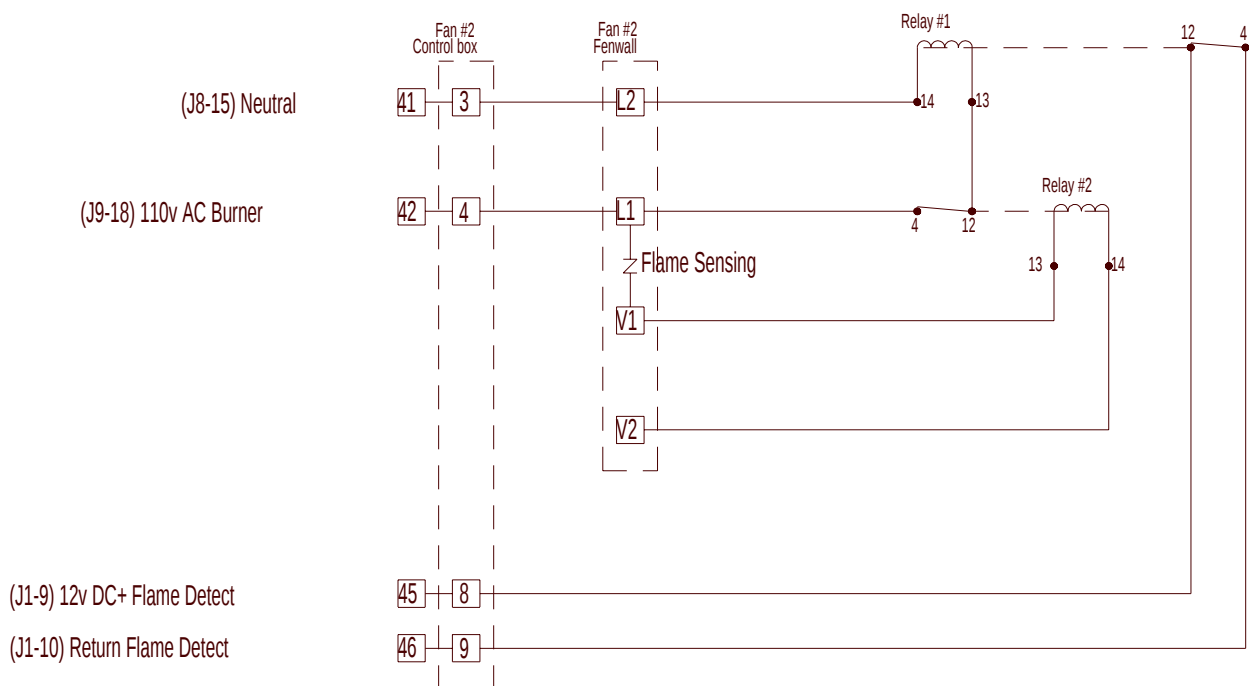
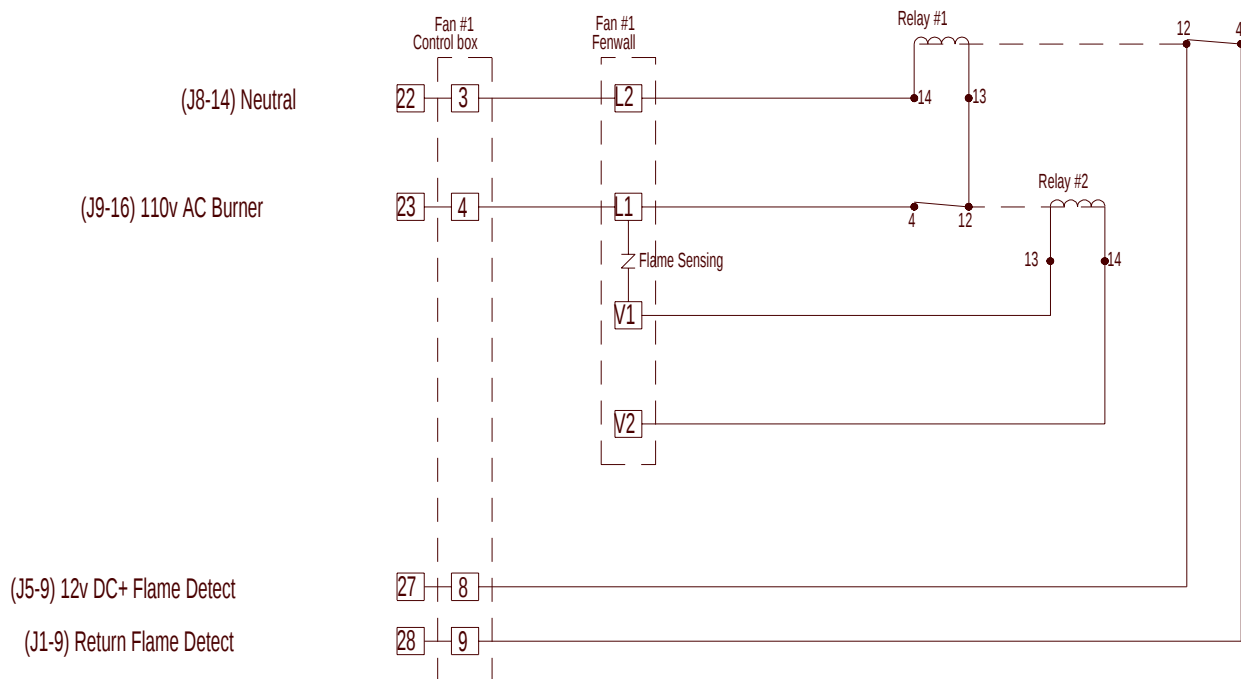
Pre-1997 Autoflow-Fan/Heater Fan Circuit



Pre-1997 Autoflow-Fan/Heater Service Switch Circuits



Pre-1997 Autoflow-Fan/Heater Flame Detection Circuits



Pre-1997 Autoflow-Fan/Heater Safety Circuits

(J3-20) Cycle Thermostat

(J4-12) Fan Motor O/L

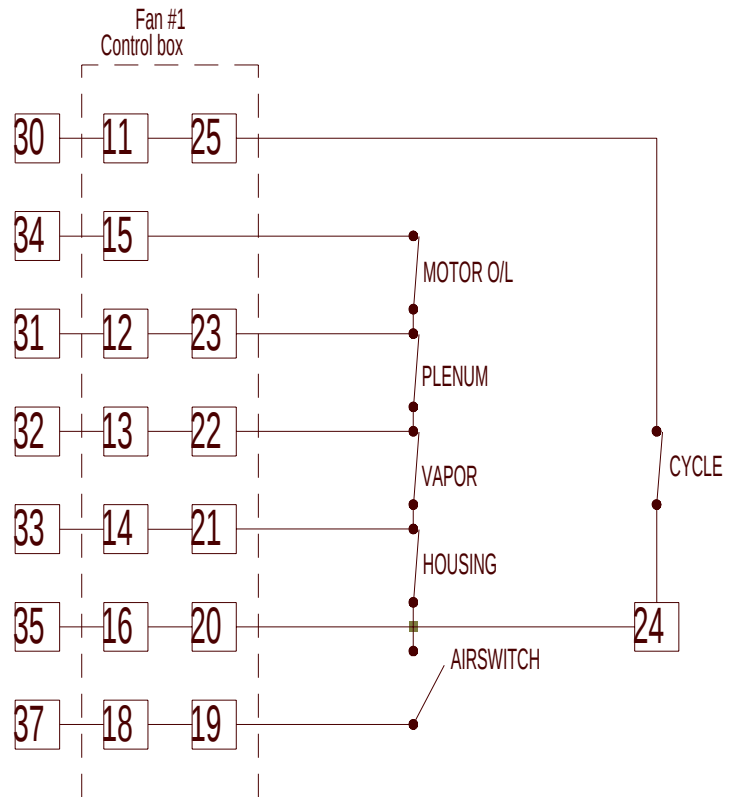
(J1-11) Plenum Hi-Limit

(J1-5) Vapor Hi-Limit

(J1-7) Housing Hi-Limit

(J5-8) 12v DC+

(J1-13) Airswitch

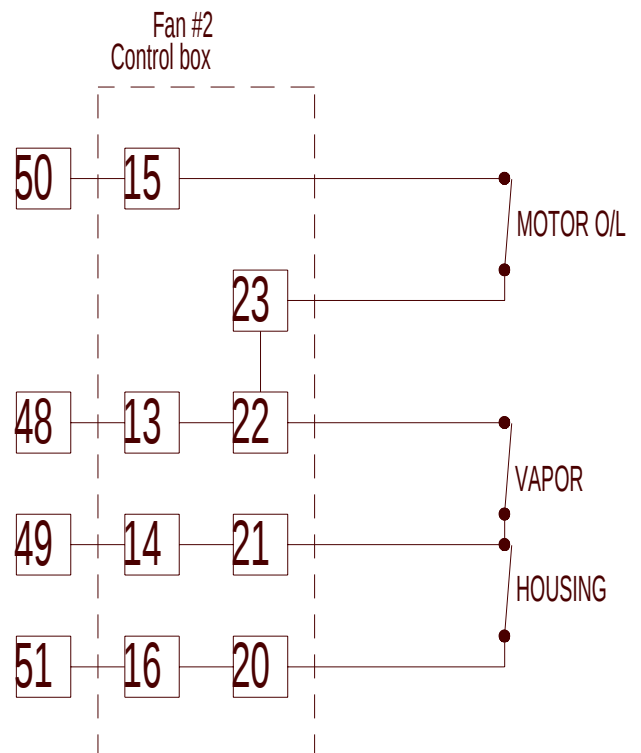


(J4-18) Fan Motor O/L

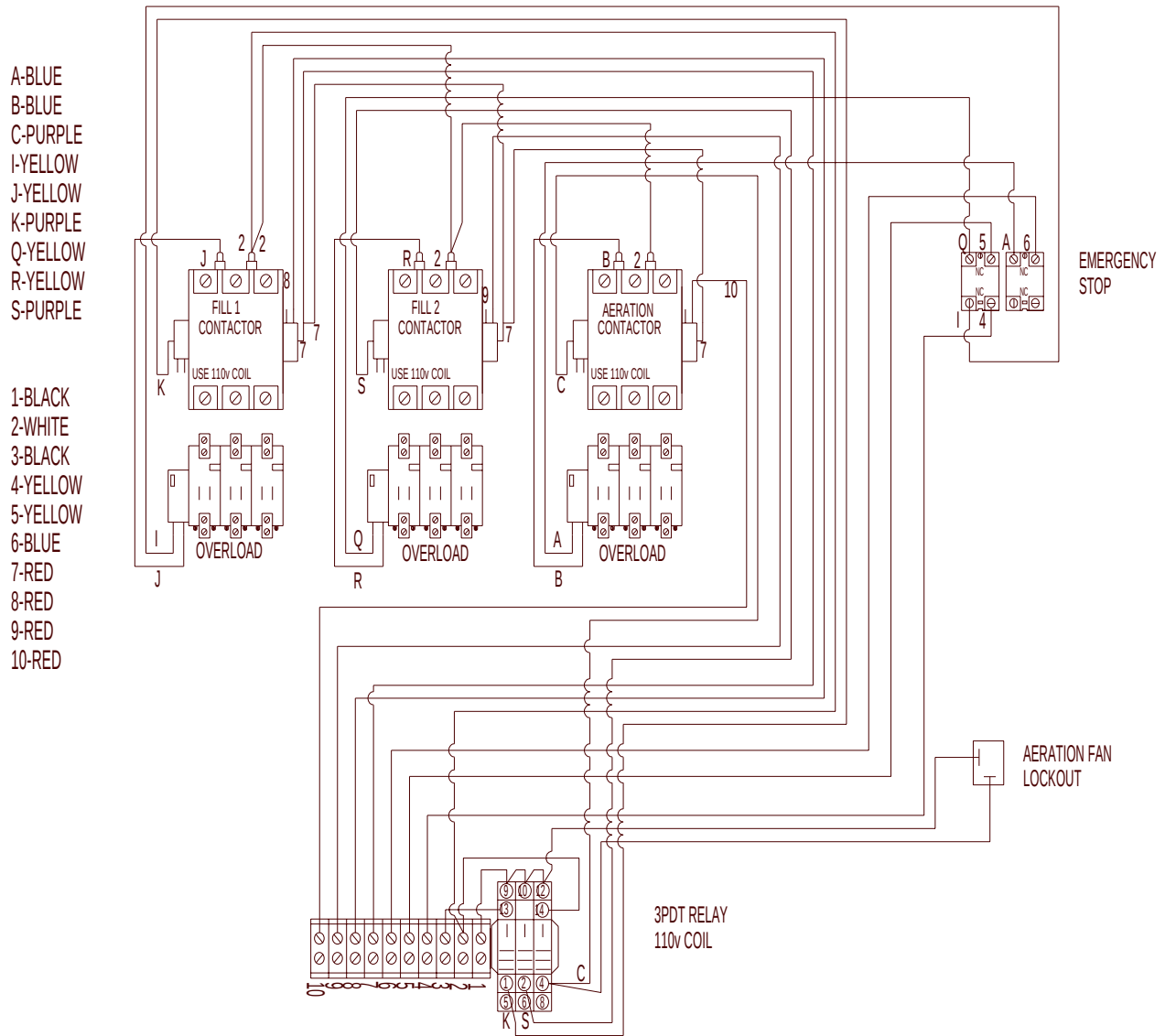
(J1-6) Vapor Hi-Limit

(J1-8) Housing Hi-Limit

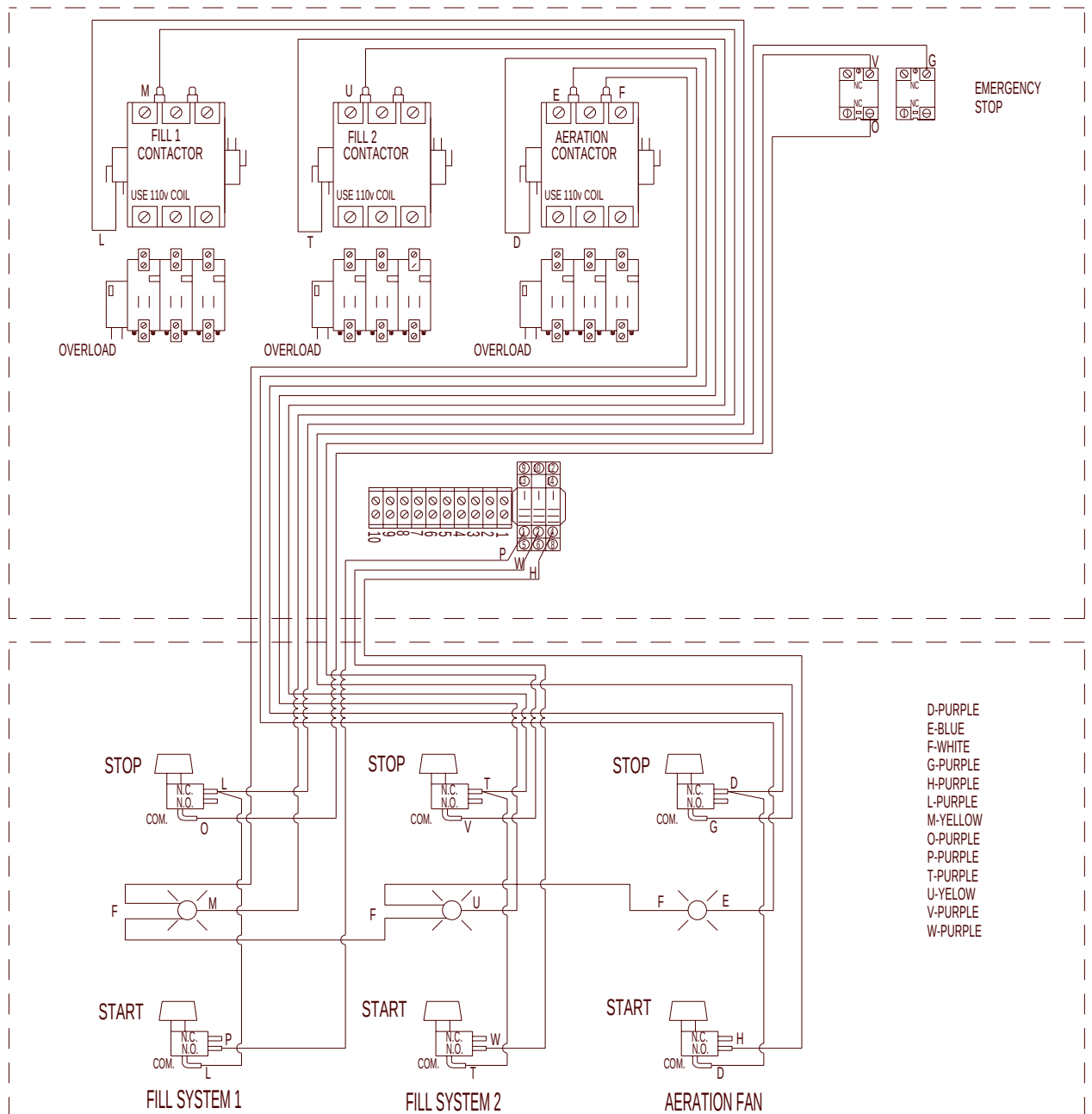
(J5-8) 12v DC+



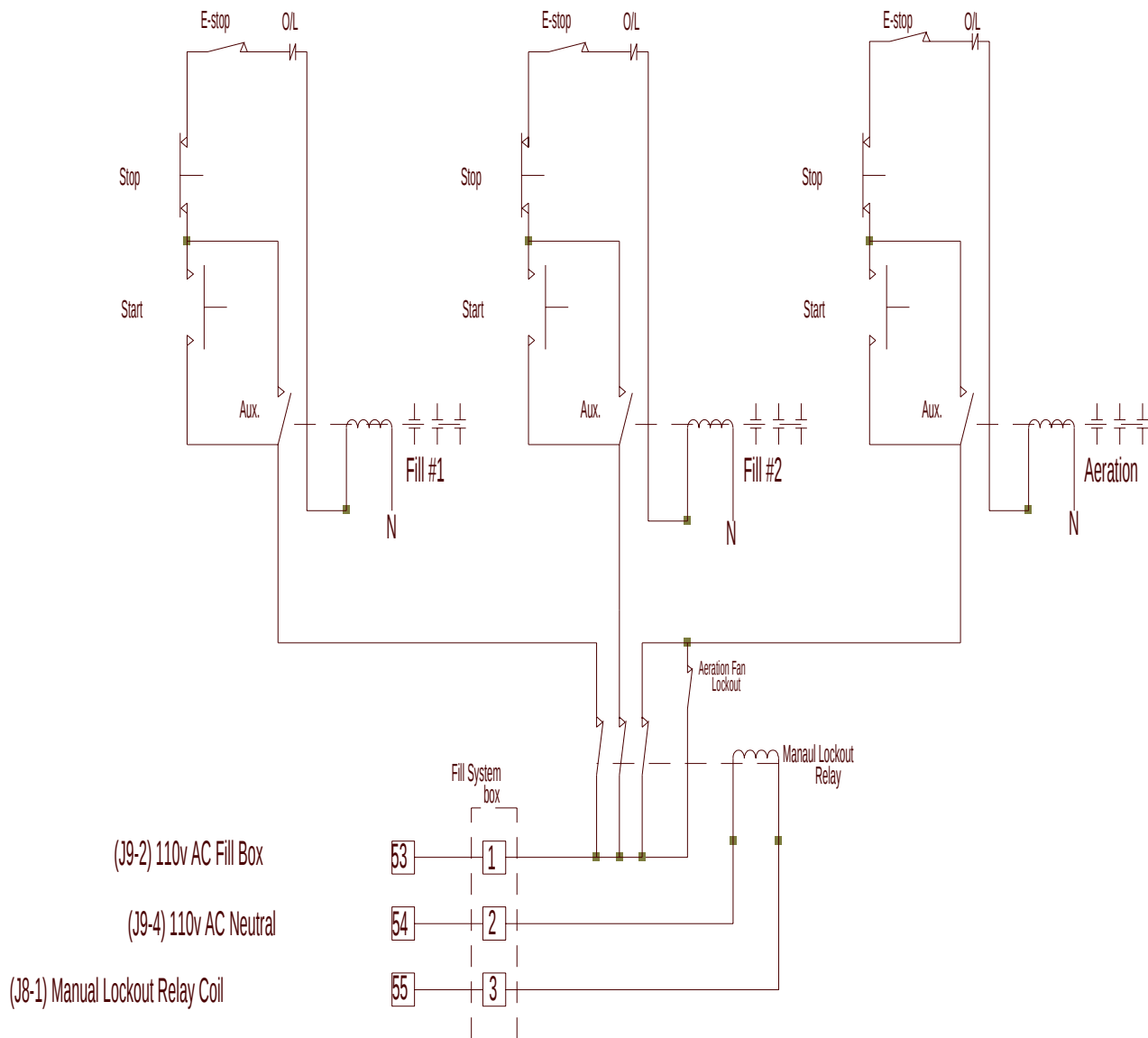
Pre-1997 Autoflow-Fill System Control Box Internal Wiring



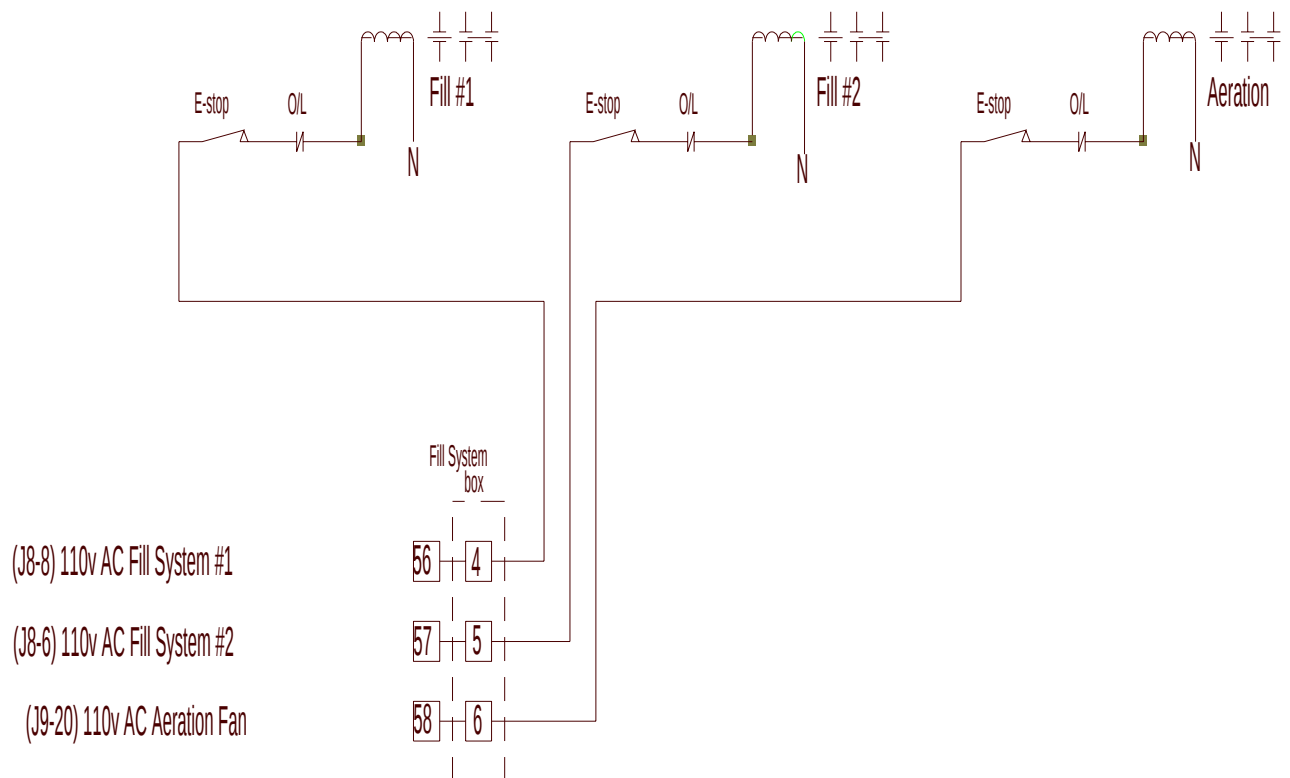
Pre-1997 Autoflow-Fill System Control Box External Wiring



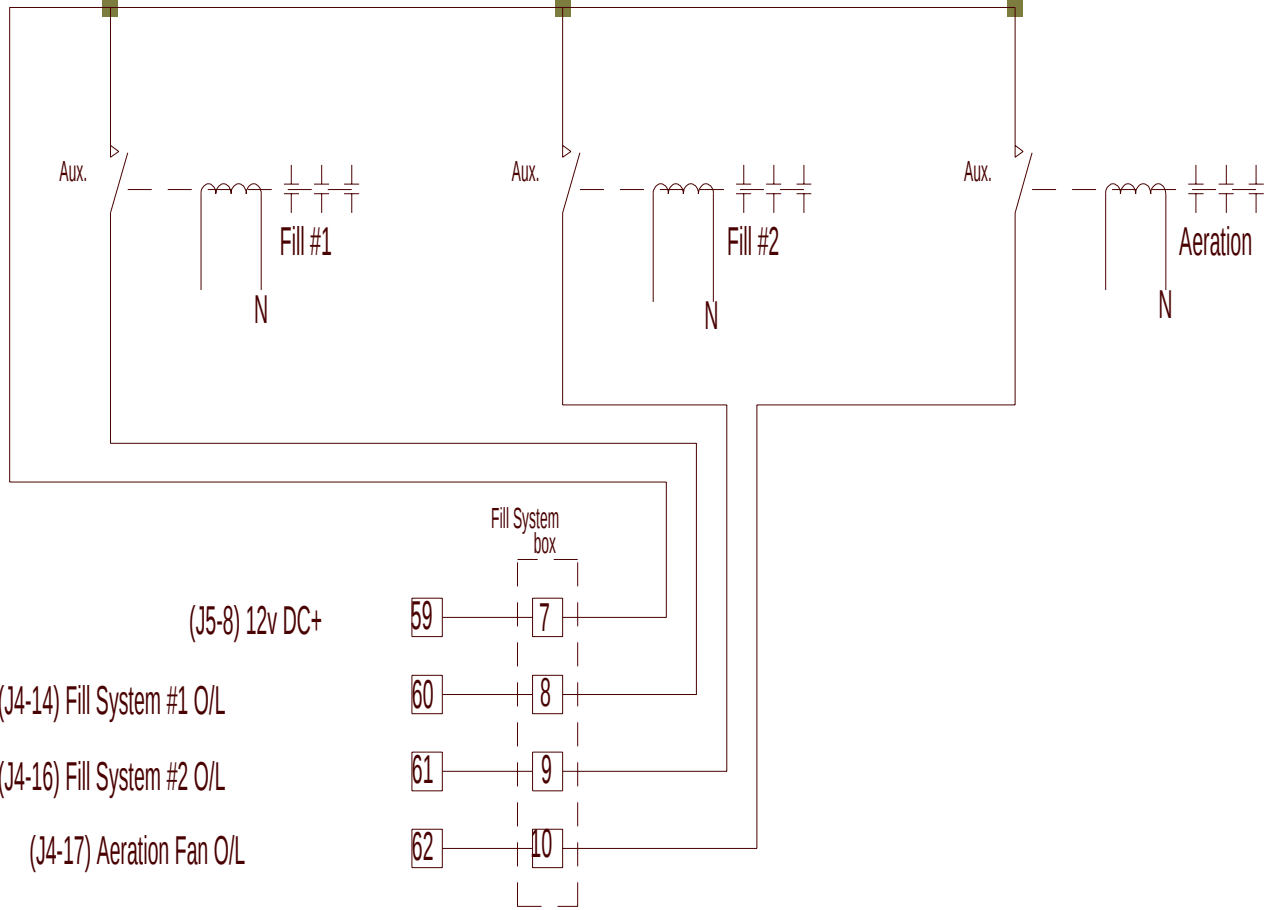
Pre-1997 Autoflow-Fill System Manual Start/Stop Circuit



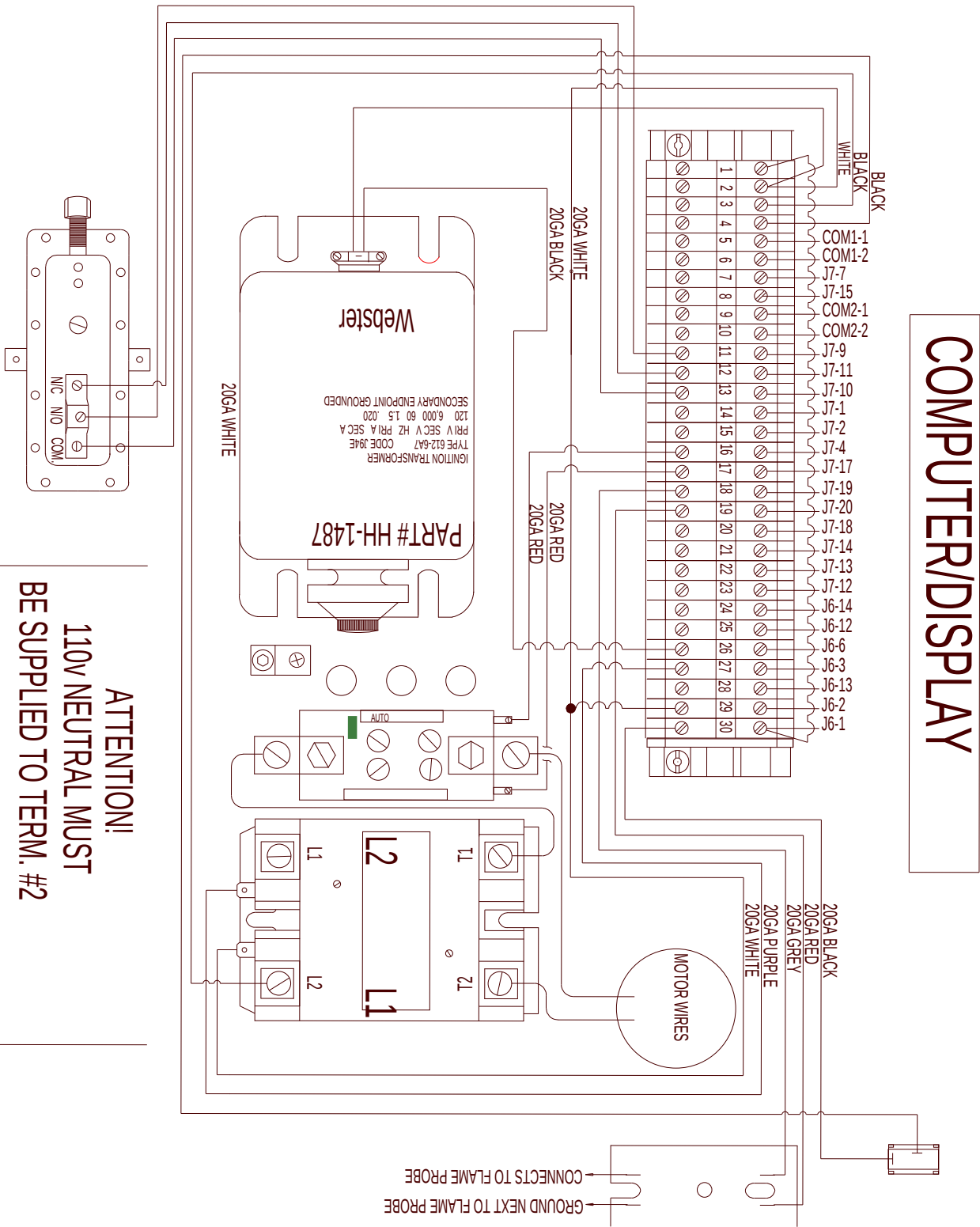
Pre-1997 Autoflow-Fill System Automatic Start Circuit



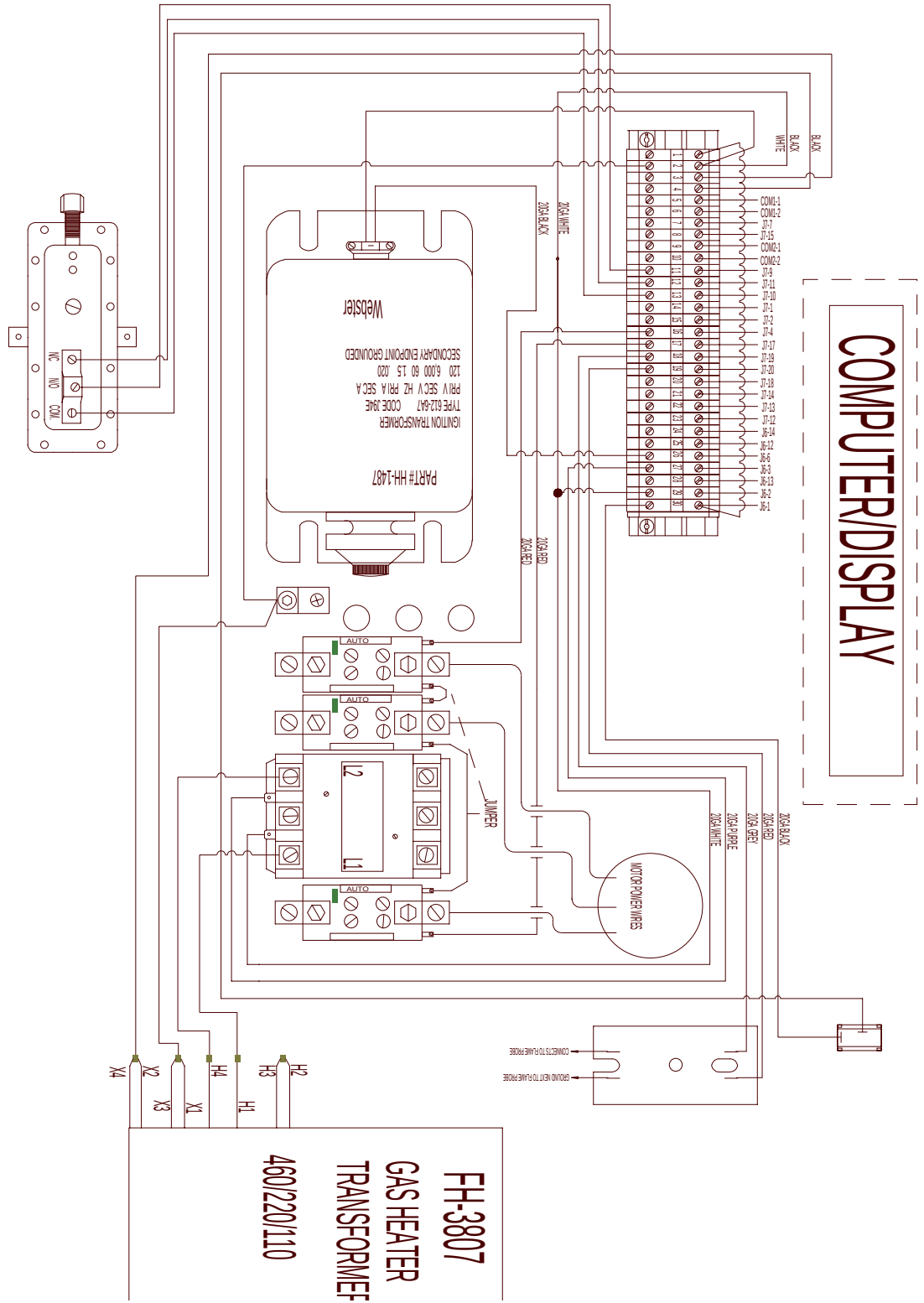
Pre-1997 Autoflow-Fill System Safety Circuit

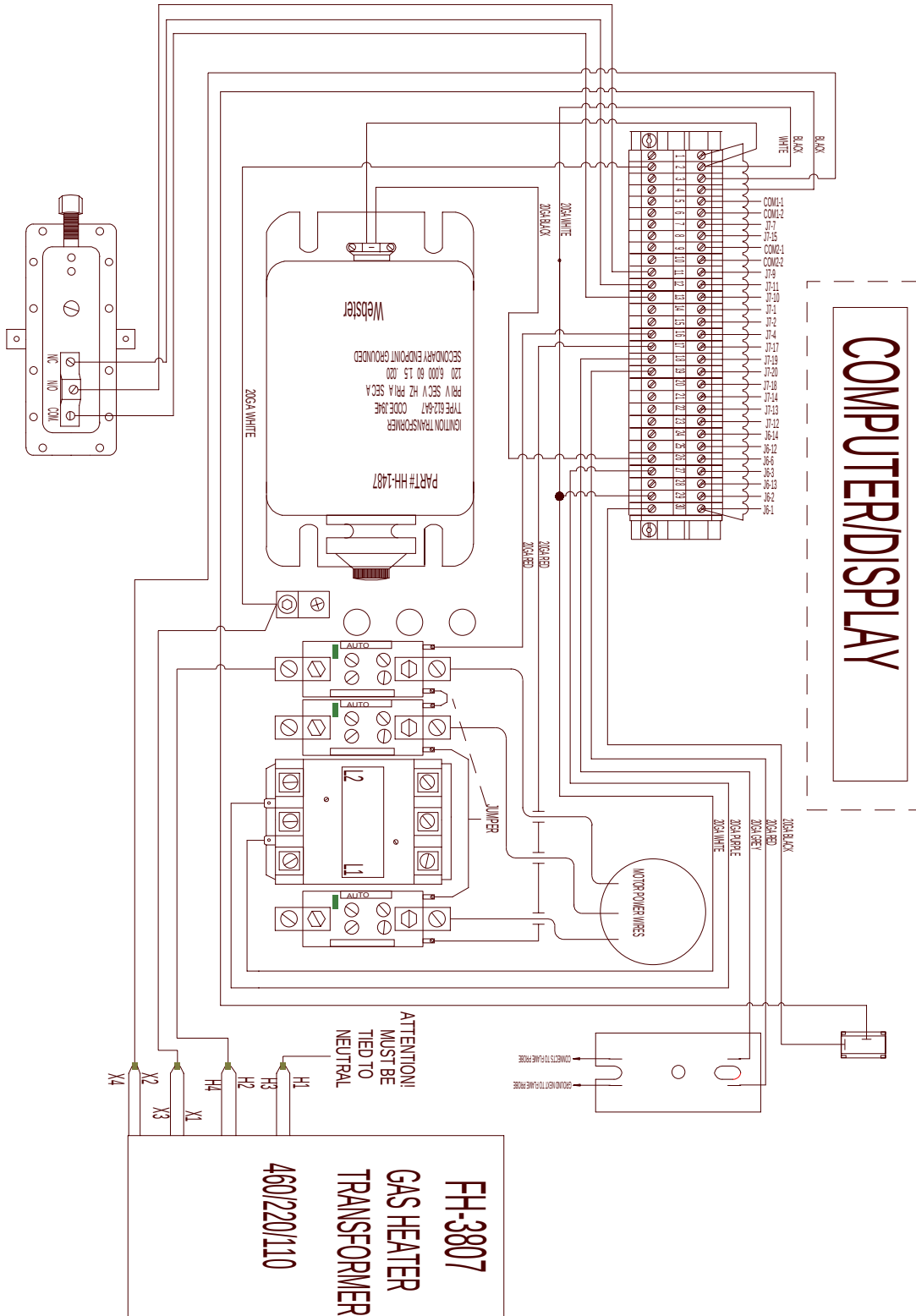


Pre-1997 Series 2000 Batch



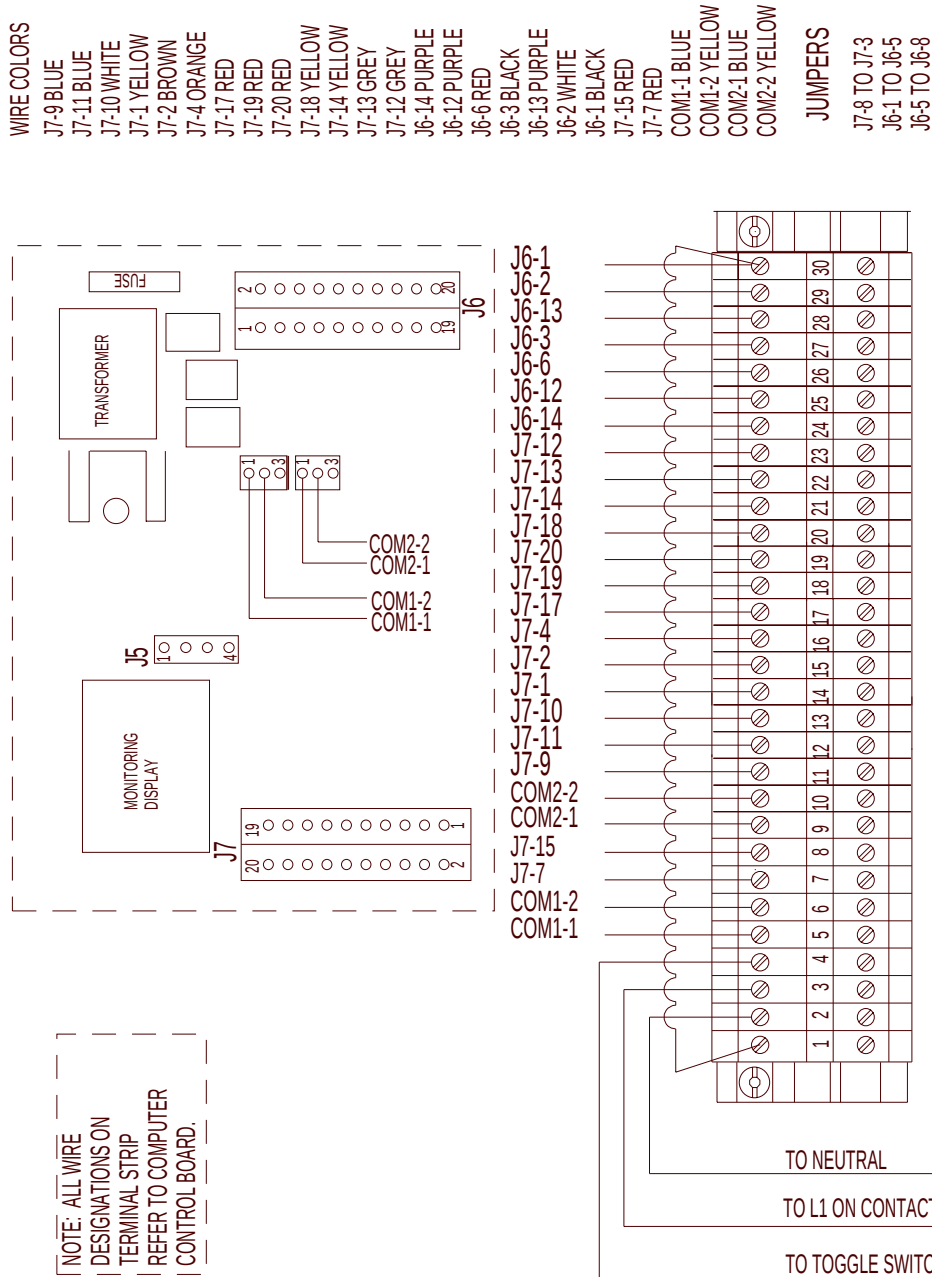
Top Dry Pre-98 Wiring Diagrams



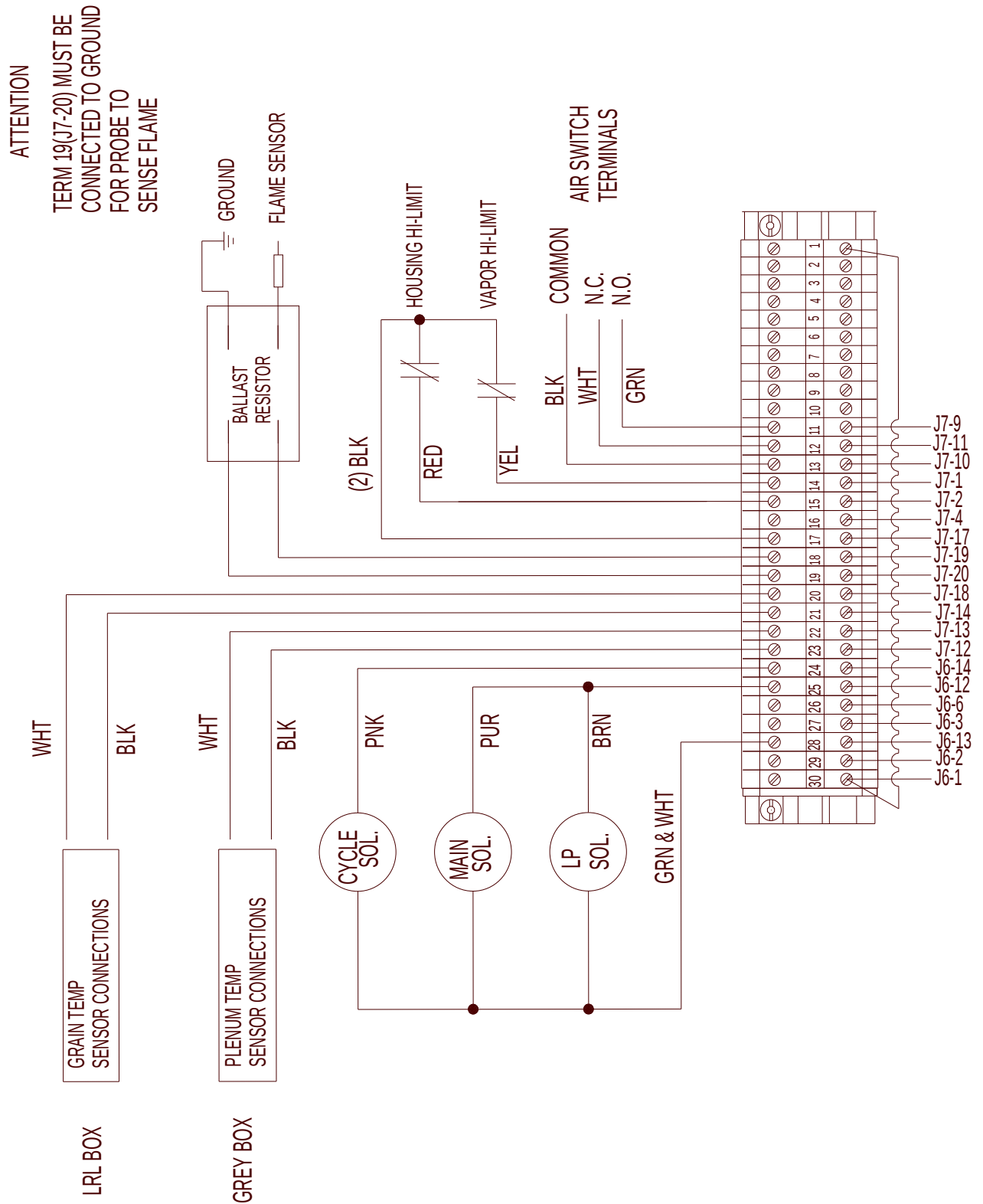




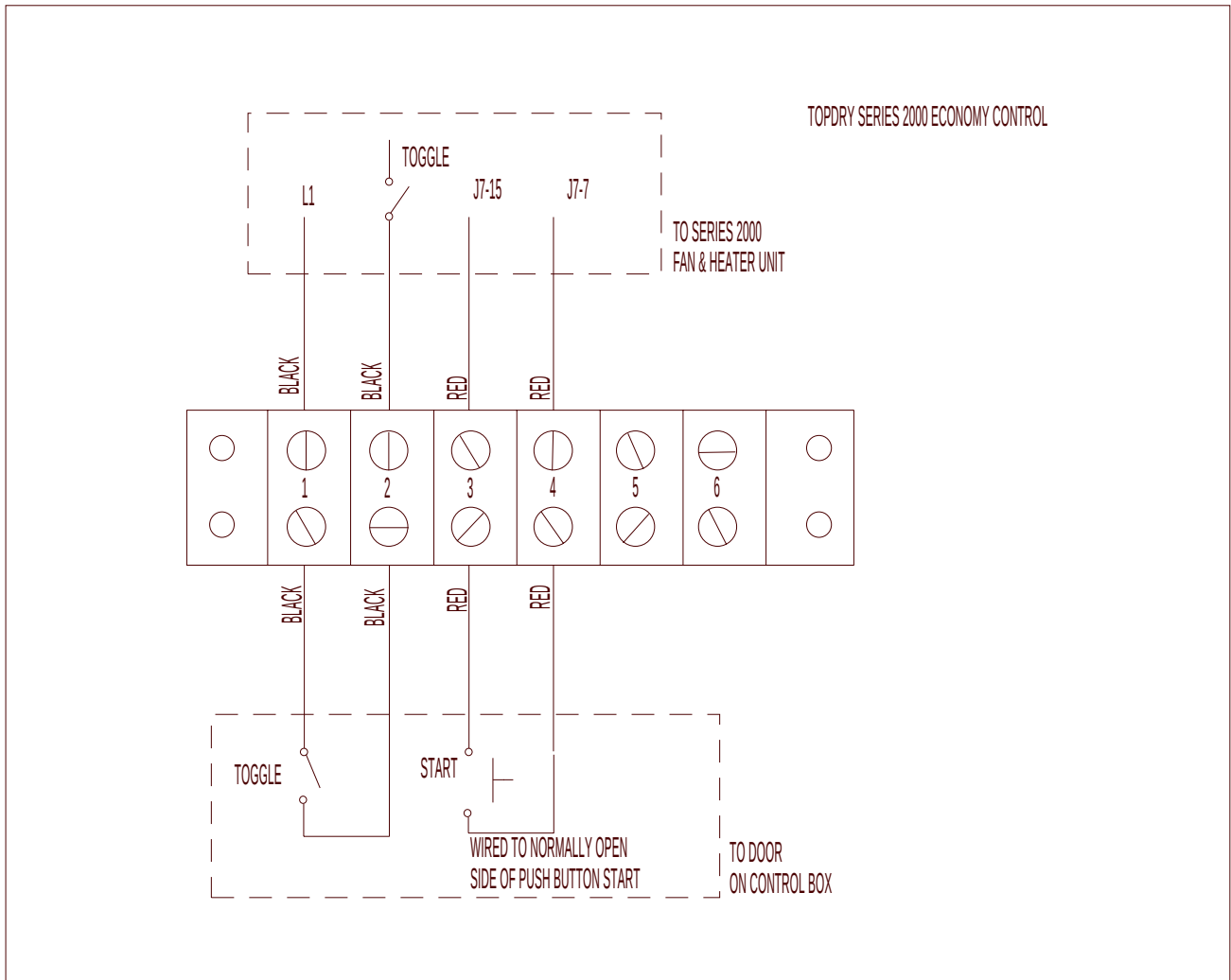
Pre-1997 Series 2000-Terminal Strip

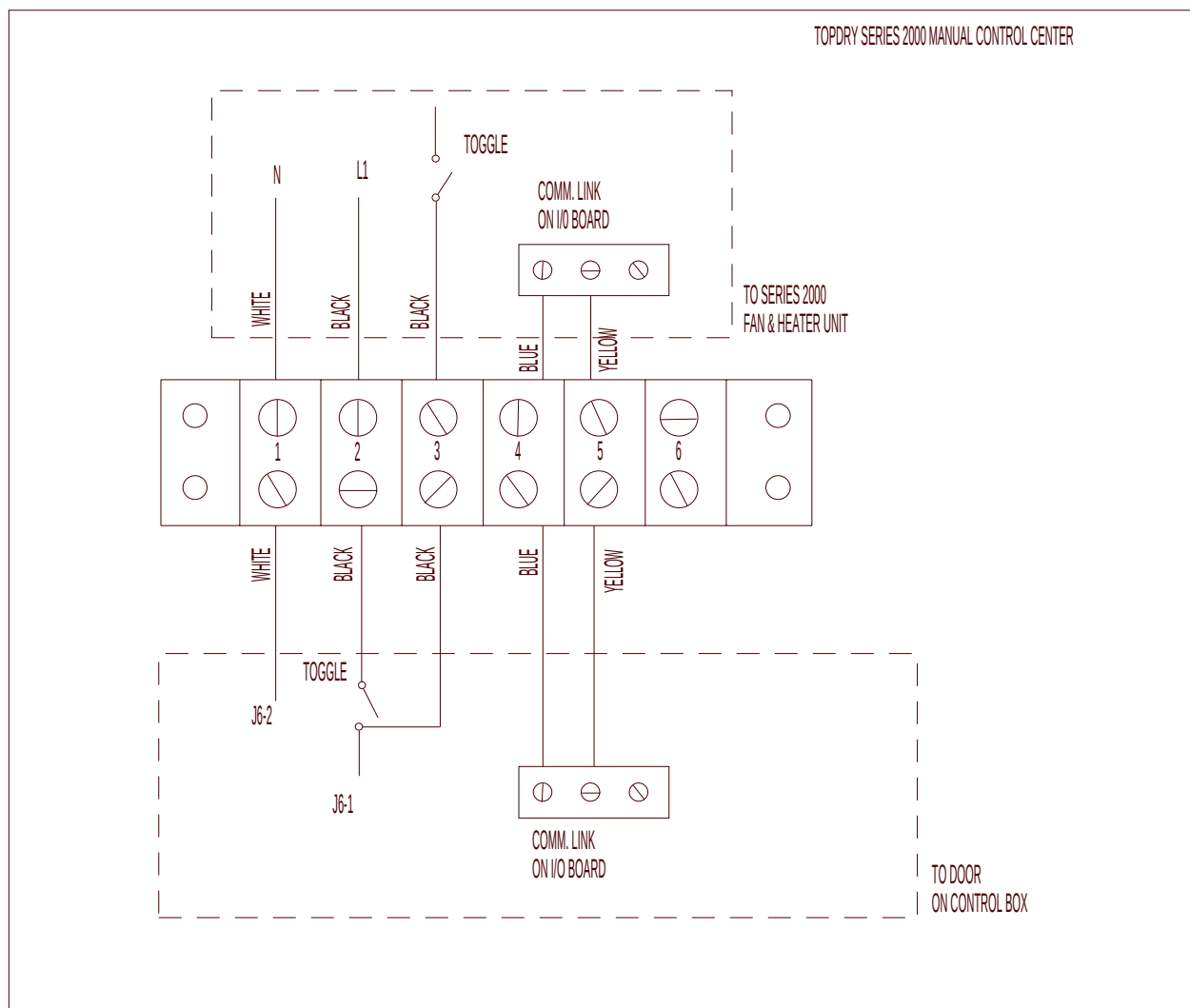


Pre-1997 Series 2000-External Wiring

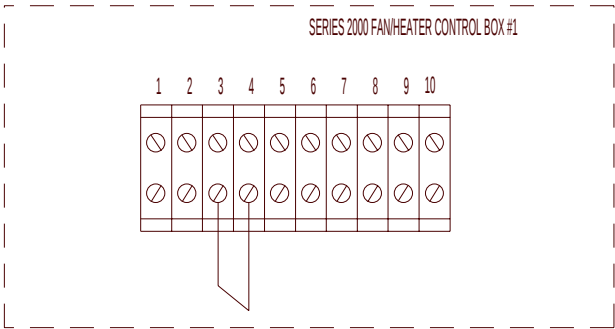


Pre-1997 Series 2000-Economy Control

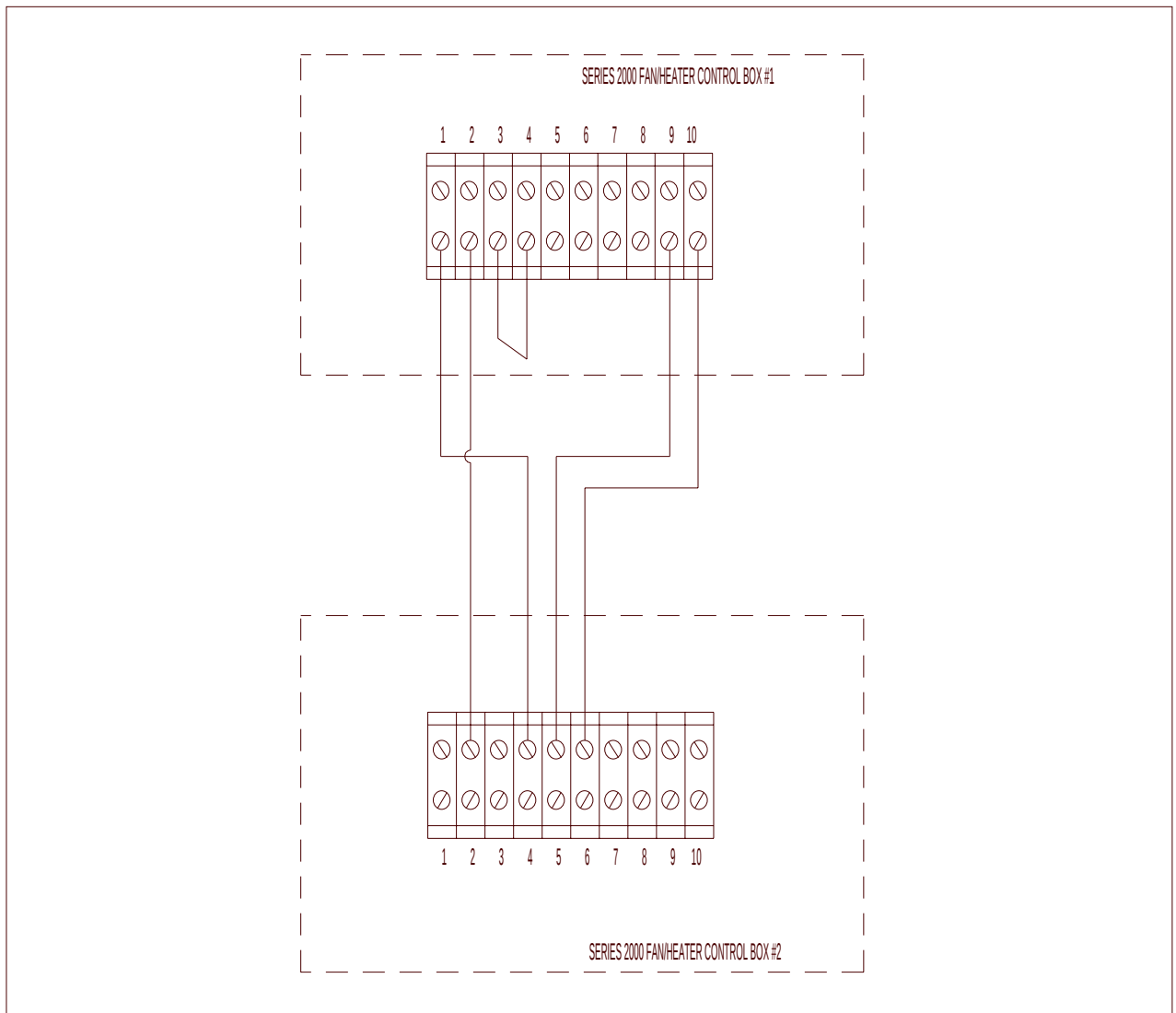




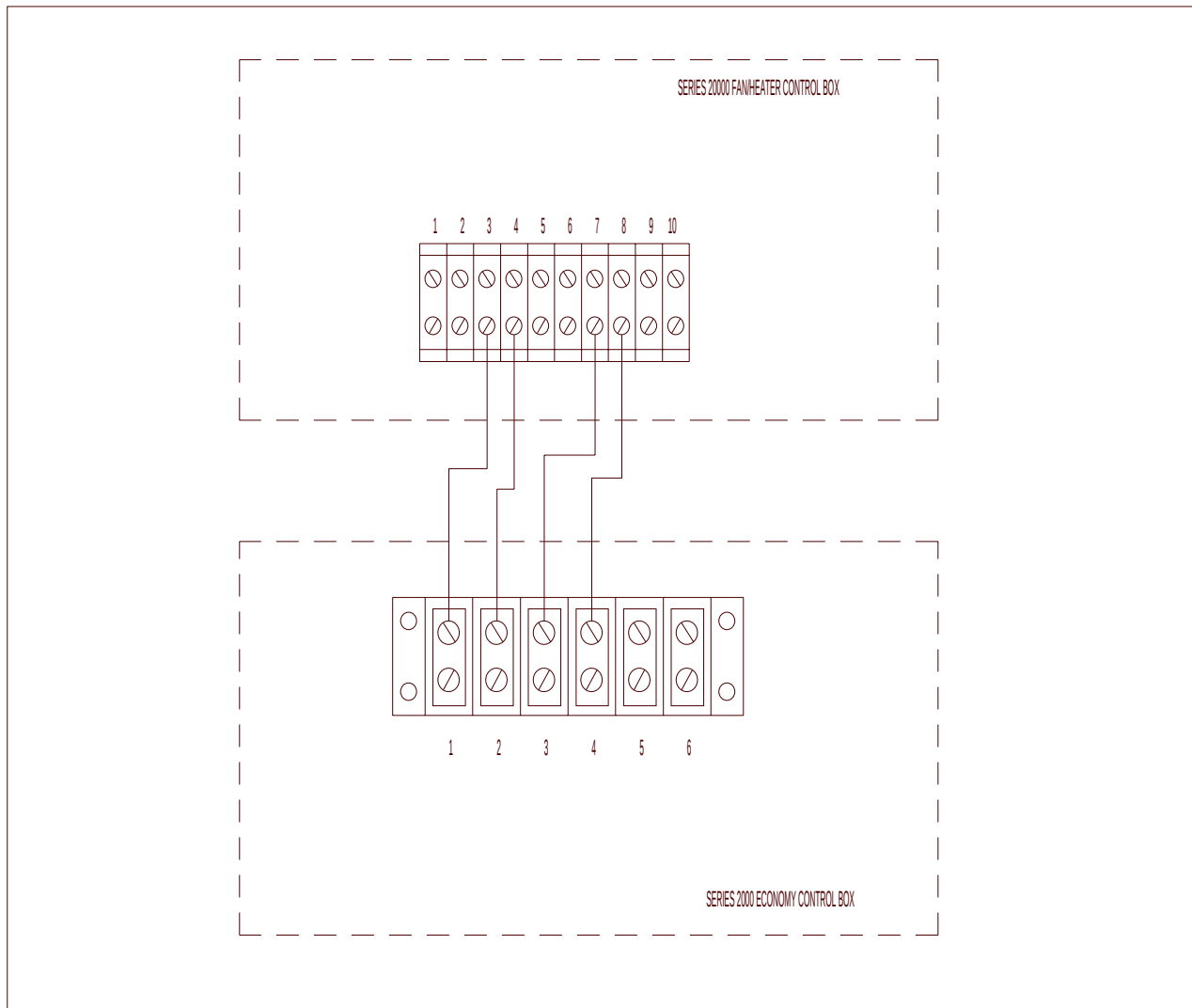
Pre-1997 Series 2000-Stand Alone Heater Interconnect



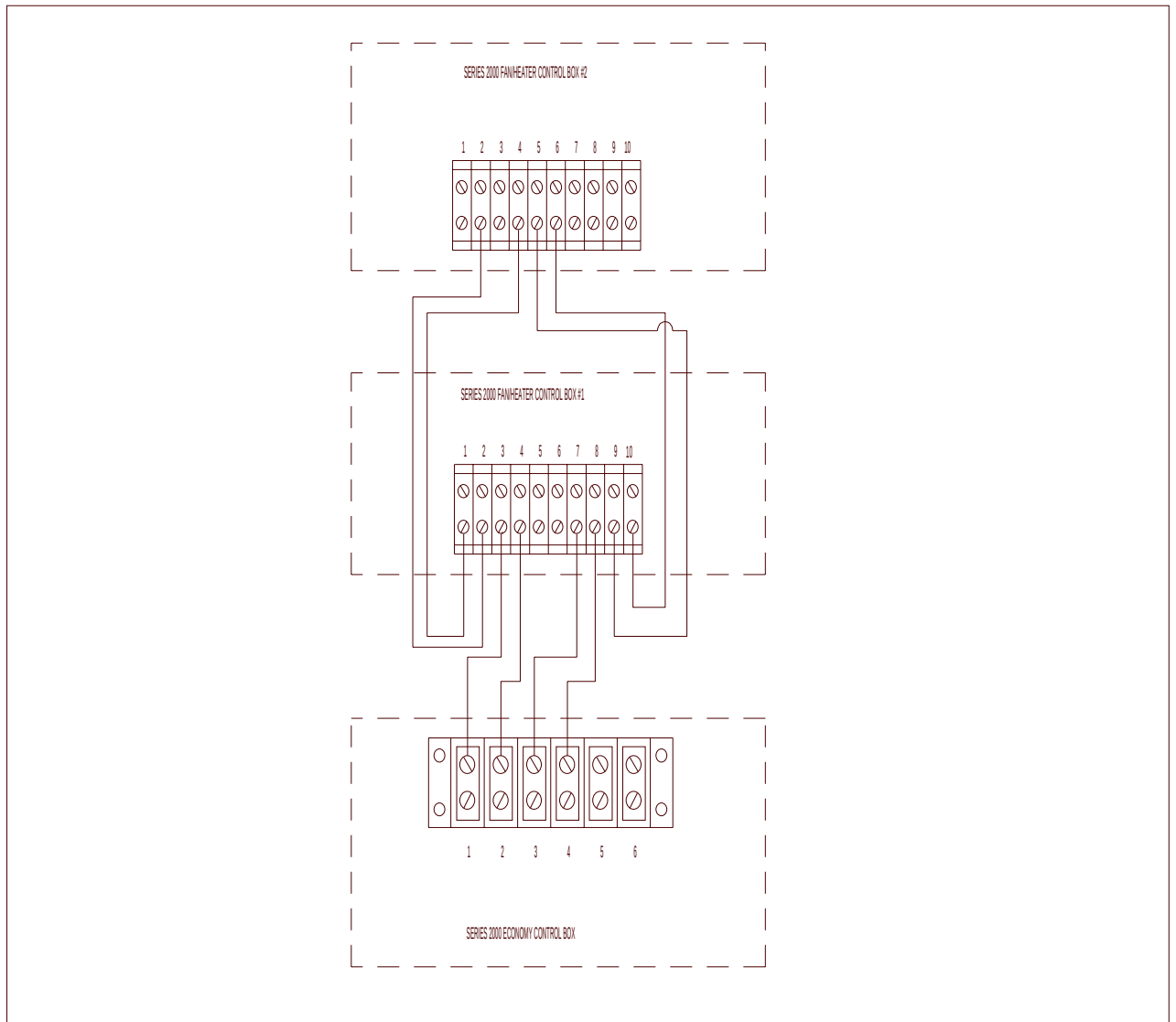
Pre-1997 Series 2000-Stand Alone Master Fan to Slave Fan Interconnect



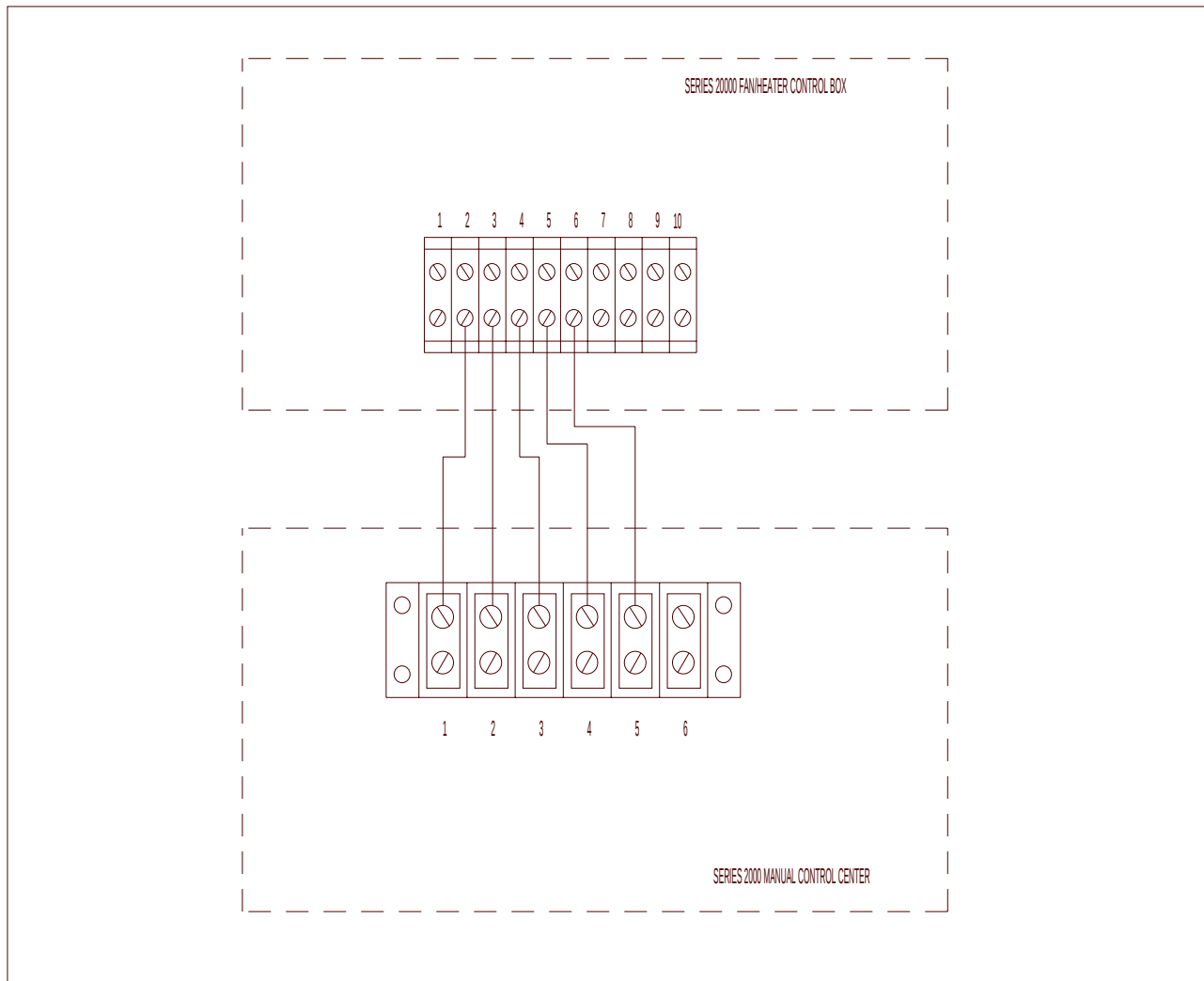
Pre-1997 Series 2000-Economy Control to Master Fan Interconnect



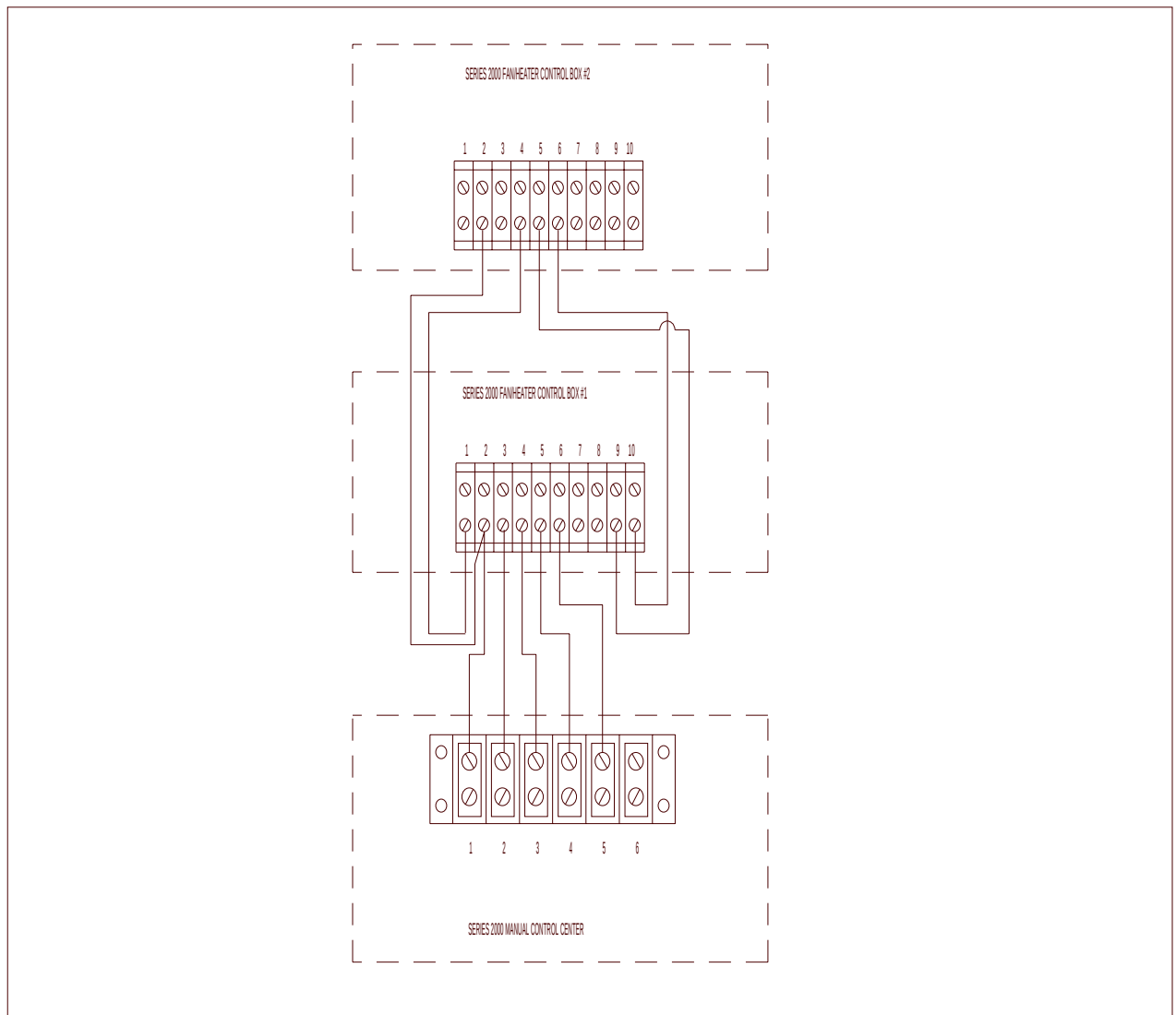
Pre-1997 Series 2000-Economy Control to Master Fan to Slave Fan Interconnect



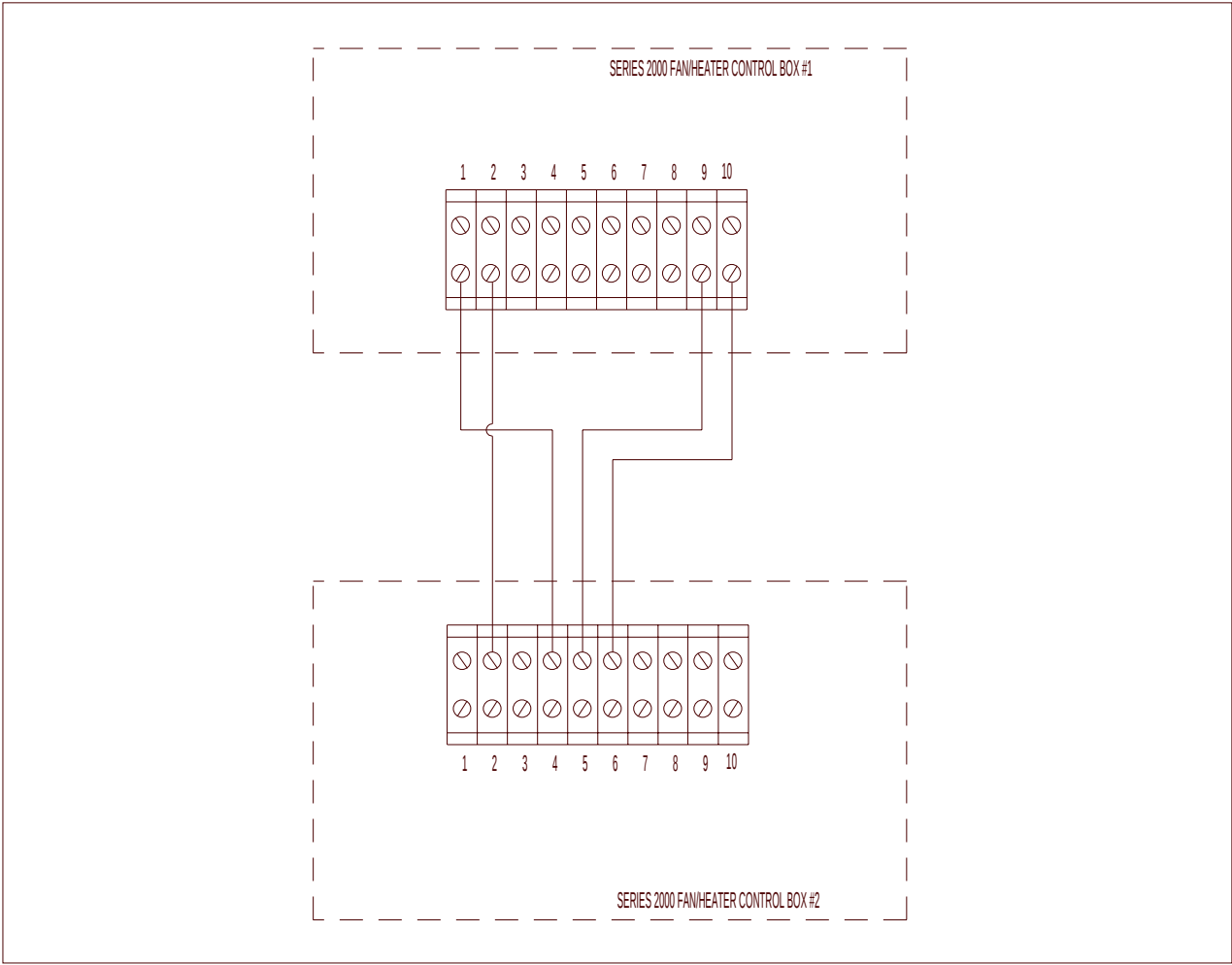
Pre-1997 Series 2000-Manual Control Center to Master Fan Interconnect



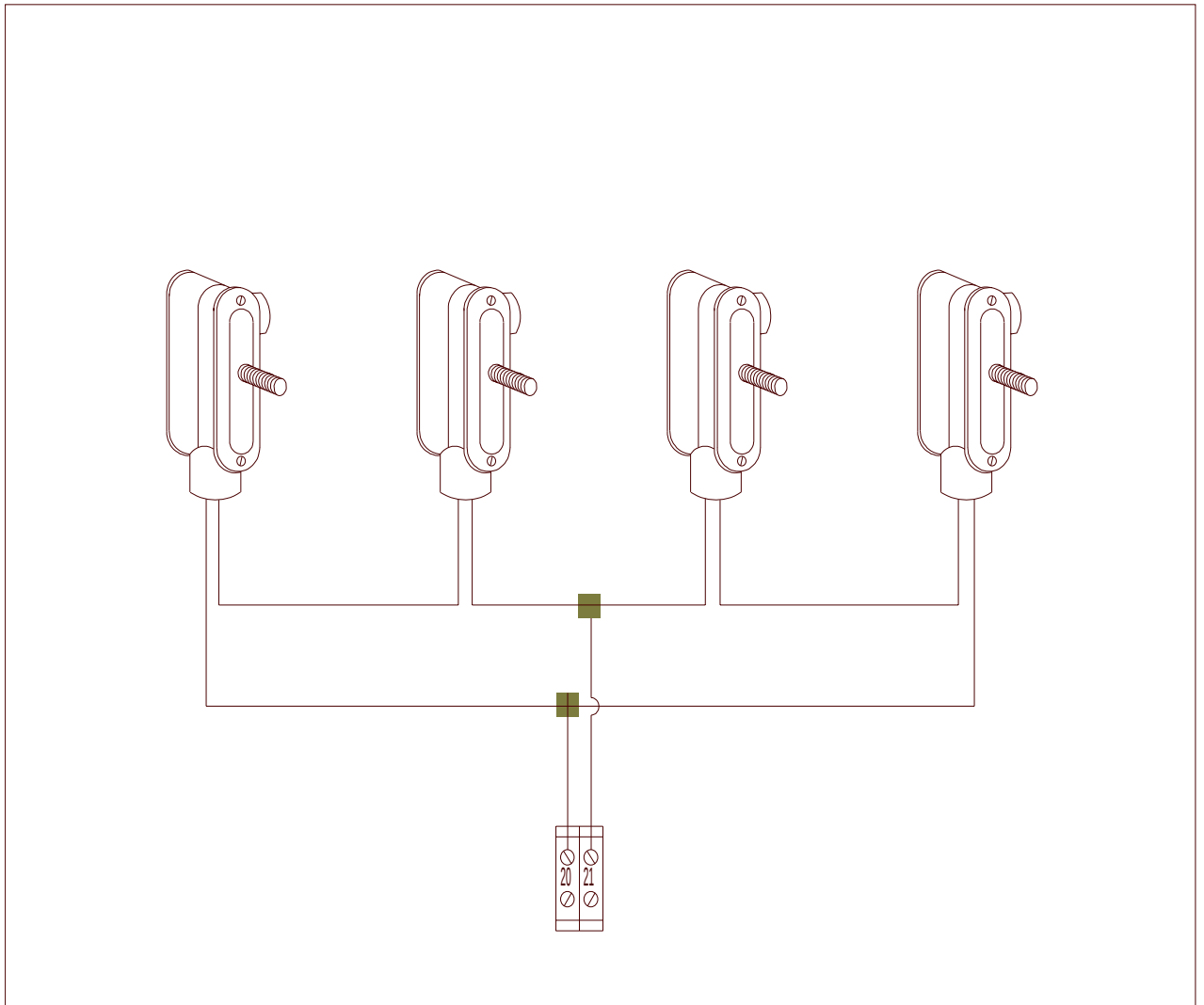
Pre-1997 Series 2000-Manual Control Center to Master Fan to Slave Fan Interconnect



Pre-1997 Series 2000-Master Fan to Slave Fan Interconnect



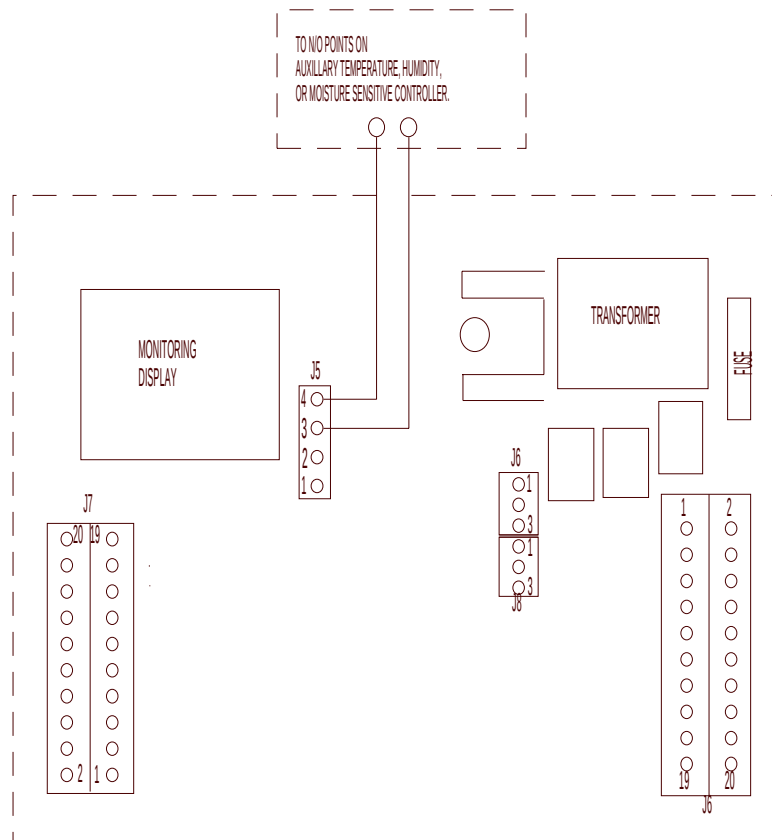
Pre-1997 Series 2000-Multi-Grain Temperature Sensor Wiring



Pre-1997 Series 2000-Auxilliary Moisture Control to Master Fan Interconnect

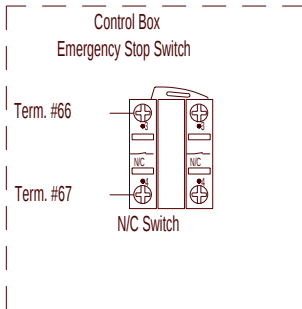
TO CONTROL THE OPERATION OF THE FAN/HEATER FROM AN AUXILIARY MOISTURE, HUMIDITY, OR TEMPERATURE SENSITIVE CONTROLLER, INSTALL WIRES AS SHOWN. WHEN J5-3 AND J5-4 ARE LEFT IN AN OPEN STATE THE FAN/HEATER WILL OPERATE AS STATED IN THE OWNERS MANUAL. WHEN J5-3 AND J5-4 ARE SHORTED TOGETHER THE FAN/HEATER WILL IMMEDIATELY CONTINUE TO THE COOL CYCLE.

TO INSURE HIGH GRAIN QUALITY AND PREVENT OVERDRYING, THE TIME/TEMPERATURE SETTINGS ON THE SERIES 2000 SHOULD BE SET AT THE RECOMMENDATIONS STATED IN THE SERIES 2000 OWNERS MANUAL.



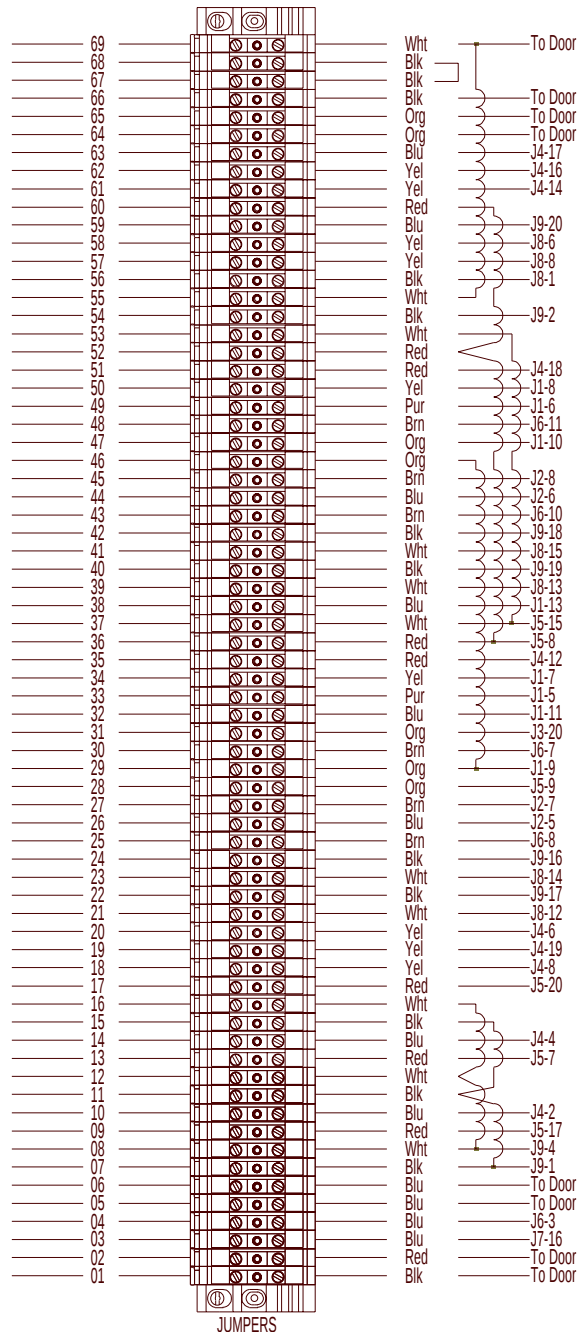
1997 Autoflow

1997 Autoflow-Terminal Strip



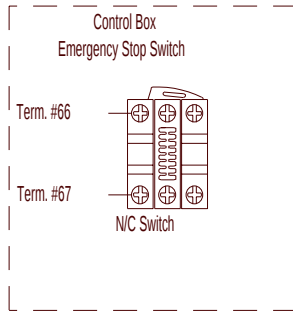
- 120v N Input
- 120v AC Input
- To Emergency Stop Switch
- To Emergency Stop Switch
- Temperature Sensor
- Temperature Sensor
- 12v DC+ from Aeration Fan Overload
- 12v DC+ from Fill System #2 Overload
- 12v DC+ from Fill System #1 Overload
- 12v DC+ to Fill System Safety Circuit
- 120v AC to Aeration Fan
- 120v AC to Fill System #2
- 120v AC to Fill System #1
- 120v AC to Manual Lockout Relay Coil
- 120v N to Fill System Control Box
- 120v AC to Fill System Control Box
- 12v DC- to #2 Safety Circuit
- 12v DC+ to #2 Safety Circuit
- 12v DC+ from #2 Motor Overload
- 12v DC+ from #2 Housing Hi-Limit
- 12v DC+ from #2 Vapor Hi-Limit
- 120v AC to #2 Cycling Solenoid
- 12v DC+ from #2 Flame Detection Circuit
- 12v DC+ to #2 Flame Detection Circuit
- 12v DC+ from #2 Burner Service Switch
- 12v DC+ from #2 Fan Service Switch
- 120v AC from #2 Fenwall V1
- 120v AC to #2 Burner Circuit
- 120v N to #2 Burner Circuit
- 120v AC to #2 Fan Starter
- 120v N to #2 Fan Starter
- 12v DC+ from Air Pressure Switch
- 12v DC- to #1 Safety Circuit
- 12v DC+ to #1 Safety Circuit
- 12v DC+ from #1 Motor Overload
- 12v DC+ from #1 Housing Hi-Limit
- 12v DC+ from #1 Vapor Hi-Limit
- 12v DC+ from Plenum Hi-Limit
- 12v DC+ from Cycling Thermostat
- 120v AC to #1 Cycling Solenoid
- 12v DC+ from #1 Flame Detection Circuit
- 12v DC+ to #1 Flame Detection Circuit
- 12v DC+ from #1 Burner Service Switch
- 12v DC+ from #1 Fan Service Switch
- 120v AC from #1 Fenwall V1
- 120v AC to #1 Burner Circuit
- 120v N to #1 Burner Circuit
- 120v AC to #1 Fan Starter
- 120v N to #1 Fan Starter
- 12v DC+ from Drying Chamber Overflow Rotary Switch
- 12v DC+ from Drying Chamber High Level Rotary Switch
- 12v DC+ from Drying Chamber Low Level Rotary Switch
- 12v DC+ to Drying Chamber Rotary Switches
- 120v N to Drying Chamber Rotary Switches
- 120v AC to Drying Chamber Rotary Switches
- 12v DC+ from Storage Chamber Rotary Switch
- 12v DC+ to Storage Chamber Rotary Switch
- 120v N to Storage Chamber Rotary Switch
- 120v AC to Storage Chamber Rotary Switch
- 12v DC+ from Wet Supply Rotary Switch
- 12v DC+ to Wet Supply Rotary Switch
- 120v N to Wet Supply Rotary Switch
- 120v AC to Wet Supply Rotary Switch
- 24v DC from Actuator Motor
- 24v DC from Actuator Relay Coil
- 24v DC to Actuator Relay Coil
- 24v DC+ from Actuator
- 24v DC- from Actuator

Jump Together:
Terminals #46 to #47
&
Terminals #35 to #51
in Single Fan Units.



JUMPERS
Term. #69 to Term. #55
Term. #68 to Term. #67
Term. #60 to Term. #52
Term. #53 to Term. #37
Term. #52 to Term. #36
Term. #46 to Term. #29
Term. #16 to Term. #12
Term. #15 to Term. #11
Term. #12 to Term. #08
Term. #11 to Term. #07

Top Dry Pre-98 Wiring Diagrams



1997 Autoflow-Terminal Strip

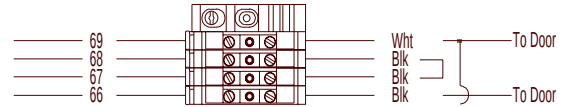
JUMPERS

Jump Together:
Terminals #46 to #47
&
Terminals #35 to #51
in Single Fan Units.

Term. #69 to Term. #55
Term. #68 to Term. #67
Term. #60 to Term. #52
Term. #53 to Term. #37
Term. #52 to Term. #36
Term. #46 to Term. #29
Term. #16 to Term. #12
Term. #15 to Term. #11
Term. #12 to Term. #08
Term. #11 to Term. #07

Power

120v N Input
120v AC Input
To Emergency Stop Switch
To Emergency Stop Switch



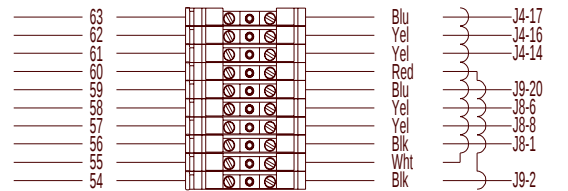
Temp.
Sensors

Temperature Sensor
Temperature Sensor



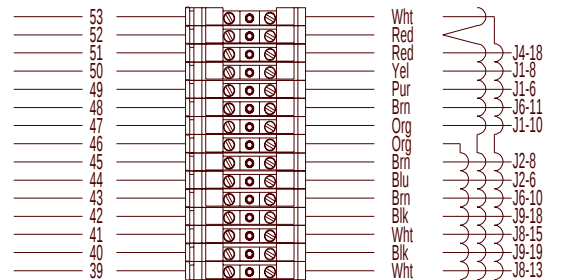
Fill
System
Box

12v DC+ from Aeration Fan Overload
12v DC+ from Fill System #2 Overload
12v DC+ from Fill System #1 Overload
12v DC+ to Fill System Safety Circuit
120v AC to Aeration Fan
120v AC to Fill System #2
120v AC to Fill System #1
120v AC to Manual Lockout Relay Coil
120v N to Fill System Control Box
120v AC to Fill System Control Box



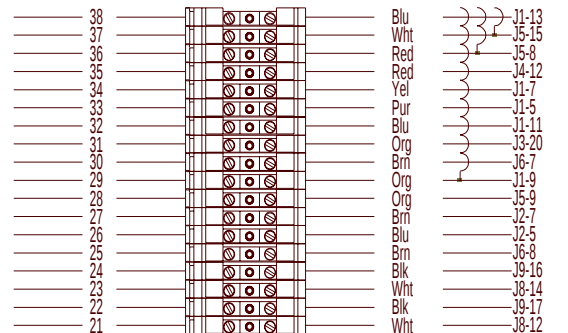
Fan
#2

12v DC- to #2 Safety Circuit
12v DC+ to #2 Safety Circuit
12v DC+ from #2 Motor Overload
12v DC+ from #2 Housing Hi-Limit
12v DC+ from #2 Vapor Hi-Limit
120v AC to #2 Cycling Solenoid
12v DC+ from #2 Flame Detection Circuit
12v DC+ to #2 Flame Detection Circuit
12v DC+ from #2 Burner Service Switch
12v DC+ from #2 Fan Service Switch
120v AC from #2 Fenwall V1
120v AC to #2 Burner Circuit
120v N to #2 Burner Circuit
120v AC to #2 Fan Starter
120v N to #2 Fan Starter



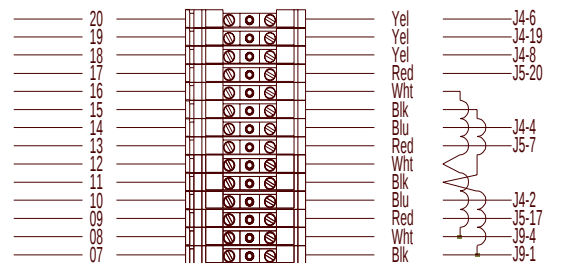
Fan
#1

12v DC+ from Air Pressure Switch
12v DC- to #1 Safety Circuit
12v DC+ to #1 Safety Circuit
12v DC+ from #1 Motor Overload
12v DC+ from #1 Housing Hi-Limit
12v DC+ from #1 Vapor Hi-Limit
12v DC+ from Plenum Hi-Limit
12v DC+ from Cycling Thermostat
120v AC to #1 Cycling Solenoid
12v DC+ from #1 Flame Detection Circuit
12v DC+ to #1 Flame Detection Circuit
12v DC+ from #1 Burner Service Switch
12v DC+ from #1 Fan Service Switch
120v AC from #1 Fenwall V1
120v AC to #1 Burner Circuit
120v N to #1 Burner Circuit
120v AC to #1 Fan Starter
120v N to #1 Fan Starter



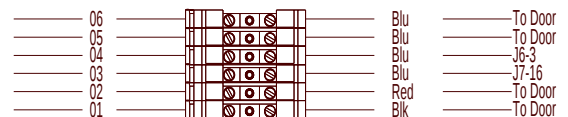
Rotary
Switches

12v DC+ from Drying Chamber Overflow Rotary Switch
12v DC+ from Drying Chamber High Level Rotary Switch
12v DC+ from Drying Chamber Low Level Rotary Switch
12v DC+ to Drying Chamber Rotary Switches
120v N to Drying Chamber Rotary Switches
120v AC to Drying Chamber Rotary Switches
12v DC+ to Storage Chamber Rotary Switch
12v DC+ to Storage Chamber Rotary Switch
120v N to Storage Chamber Rotary Switch
120v AC to Storage Chamber Rotary Switch
12v DC+ from Wet Supply Rotary Switch
12v DC+ to Wet Supply Rotary Switch
120v N to Wet Supply Rotary Switch
120v AC to Wet Supply Rotary Switch

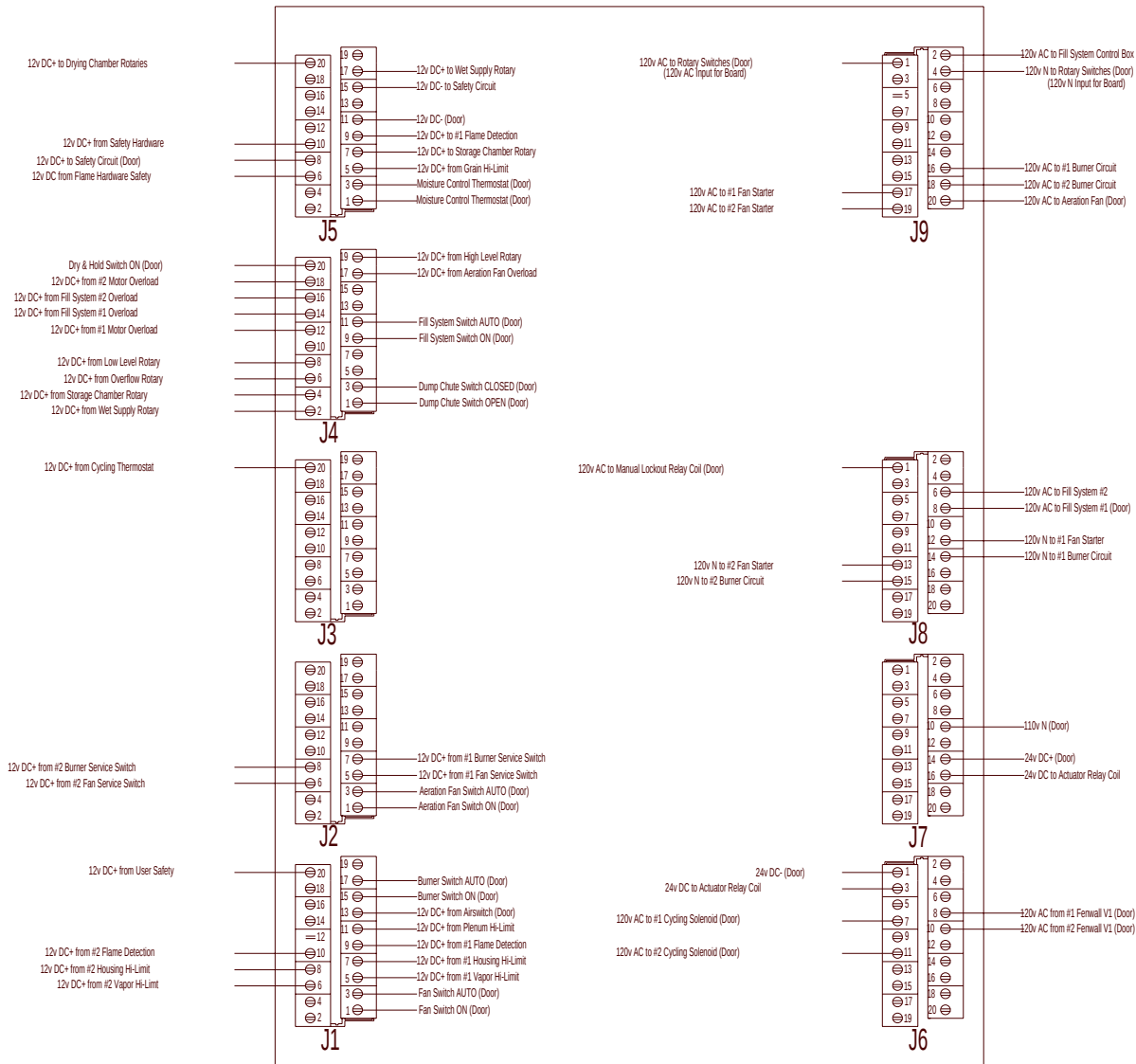


Actuator

24v DC from Actuator Motor
24v DC from Actuator Motor
24v DC to Actuator Relay Coil
24v DC to Actuator Relay Coil
24v DC+ from Actuator
24v DC- from Actuator



1997 Autoflow-Input/Output Board



Wire Colors

To Terminal Strip

J1-5 Pur	J4-2 Blu	J6-3 Blu
J1-6 Pur	J4-4 Blu	J6-7 Bm
J1-7 Yel	J4-6 Yel	J6-8 Bm
J1-8 Yel	J4-8 Yel	J6-10 Bm
J1-9 Org	J4-12 Red	J6-11 Bm
J1-10 Org	J4-14 Yel	J7-15 Blu
J1-11 Blu	J4-16 Yel	J8-1 Bk
J1-13 Blu	J4-17 Blu	J8-6 Yel
J2-5 Blu	J4-18 Red	J8-8 Yel
J2-6 Blu	J4-19 Yel	J8-12 Wht
J2-7 Bm	J5-7 Red	J8-13 Wht
J2-8 Bm	J5-8 Red	J8-14 Wht
J3-20 Org	J5-9 Org	J8-15 Wht
	J5-15 Wht	J9-1 Bk
	J5-17 Red	J9-2 Bk
	J5-20 Red	J9-4 Wht
		J9-16 Bk
		J9-17 Bk
		J9-18 Bk
		J9-19 Bk
		J9-20 Blu

Wire Colors

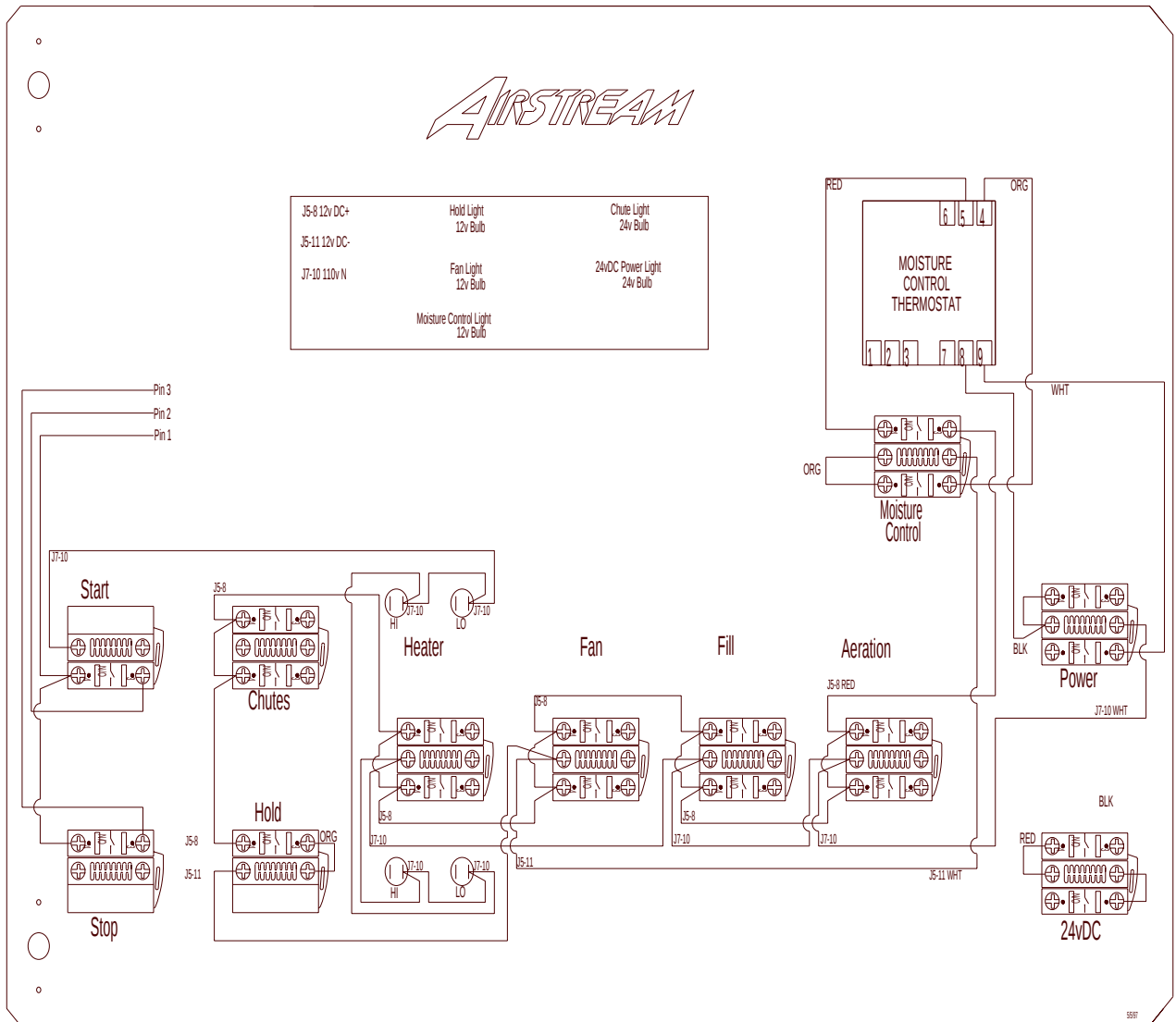
To Door

J1-1 Blu	J6-1 Bk
J1-3 Blu	J6-7 Bm
J1-13 Blu	J6-8 Bm
J1-15 Bk	J6-10 Bm
J1-17 Bk	J6-11 Bm
J2-1 Blu	J7-10 Wht
J2-3 Blu	J7-14 Red
J4-1 Org	J8-1 Bk
J4-3 Org	J8-8 Yel
J4-9 Yel	J9-1 Bk
J4-11 Yel	J9-4 Wht
J4-20 Org	J9-20 Blu
J5-1 Org	
J5-3 Org	
J5-8 Red	
J5-11 Wht	

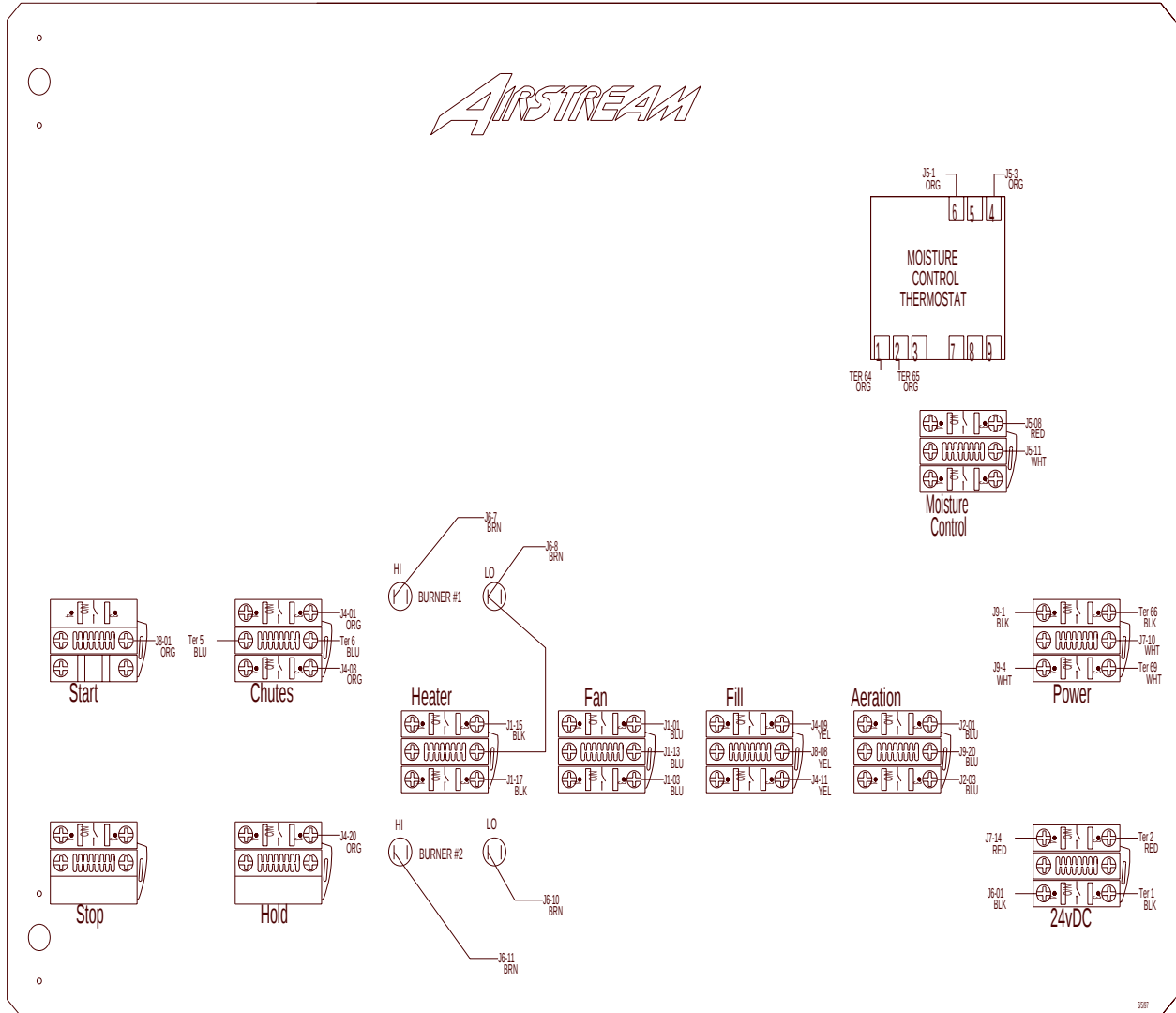
Jumpers:

J1-10 to J5-6 (Red)
J4-18 to J5-10 (Red)
J1-20 to J5-5 (Red)
J5-9 to J5-5 (Red)
J6-2 to J7-15 (Blu)
J6-4 to J7-14 (Blu)
J7-13 to J6-3 (Blu)

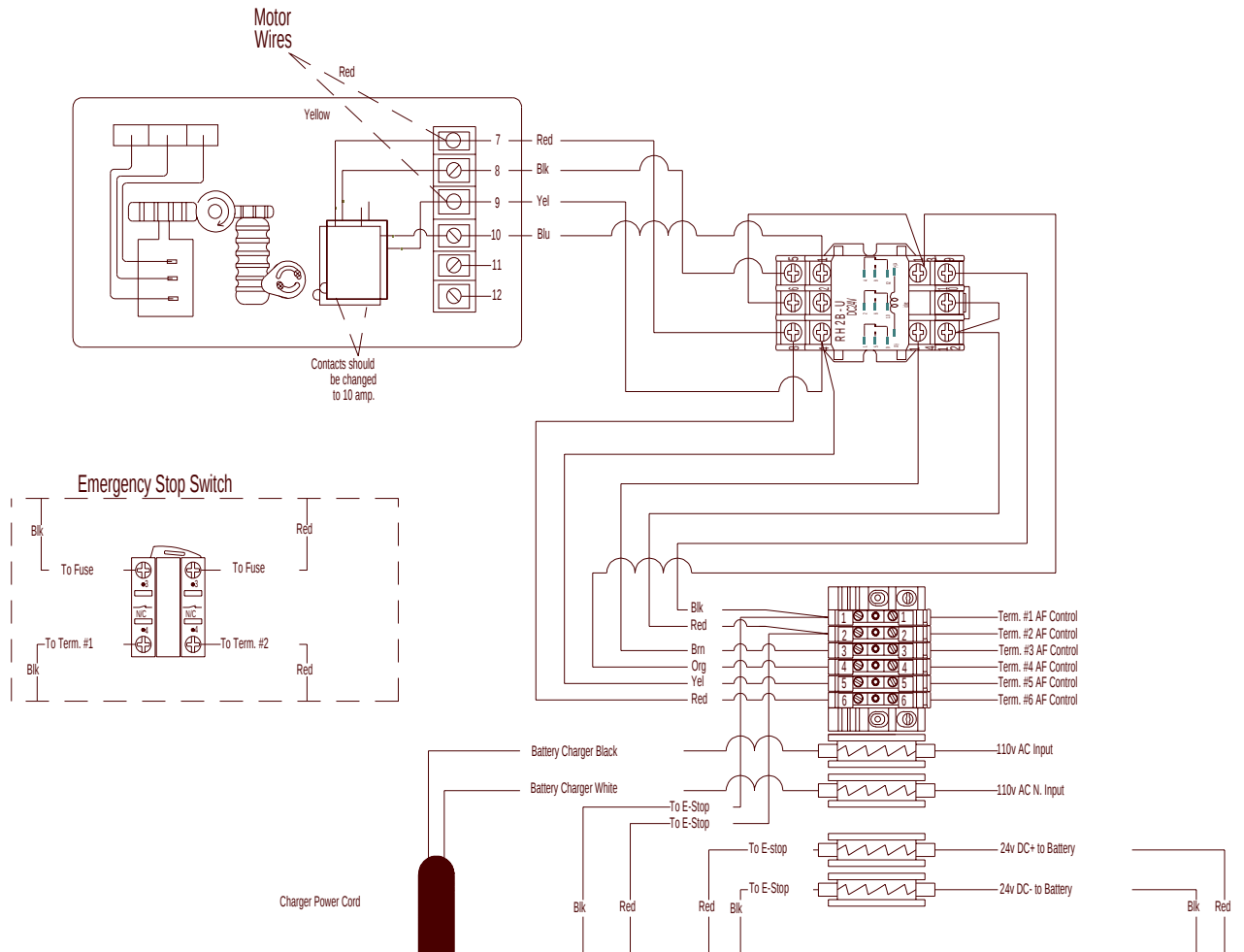
1997 Autoflow-Front Panel Internal Wiring



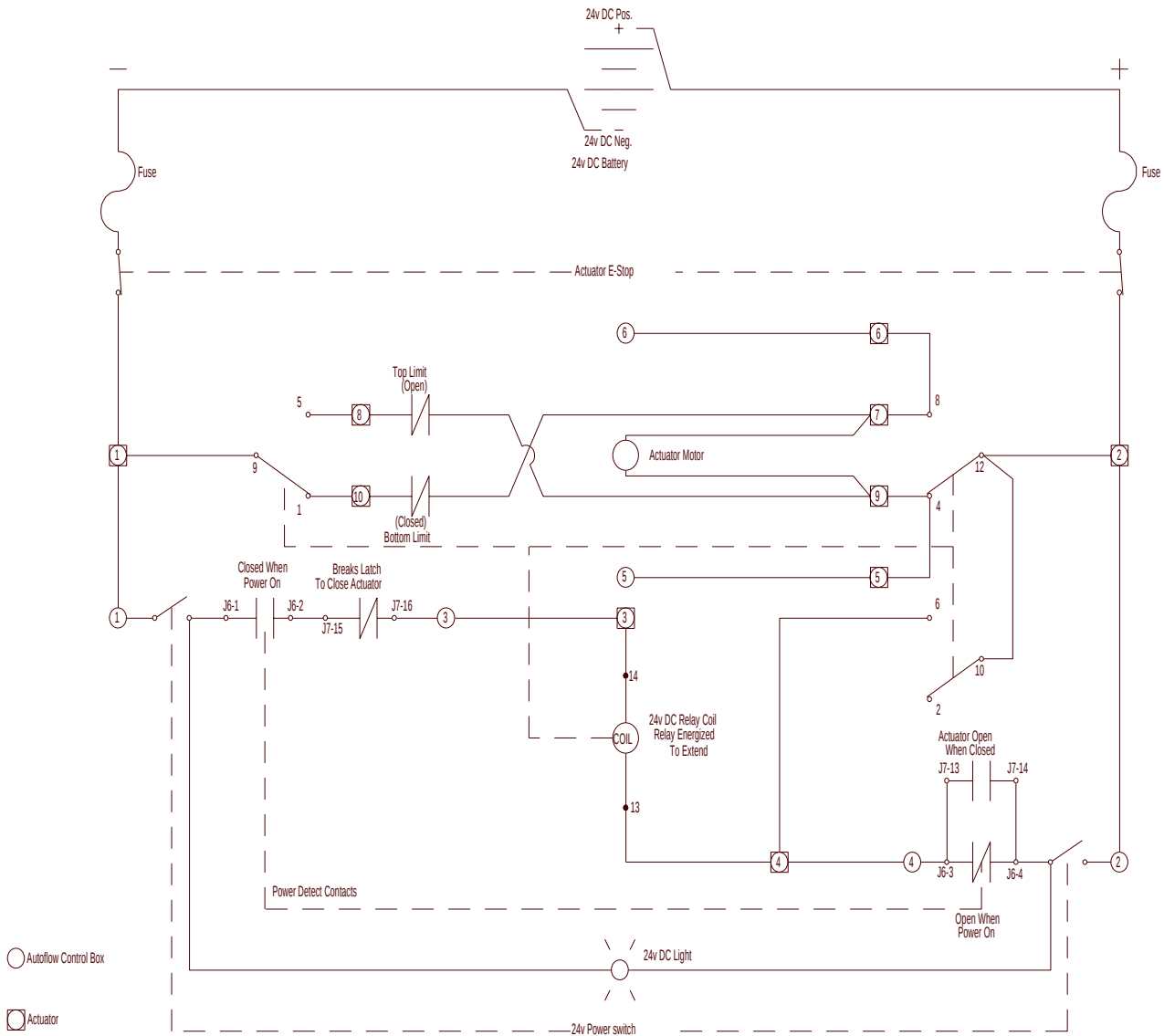
1997 Autoflow-Front Panel External Wiring



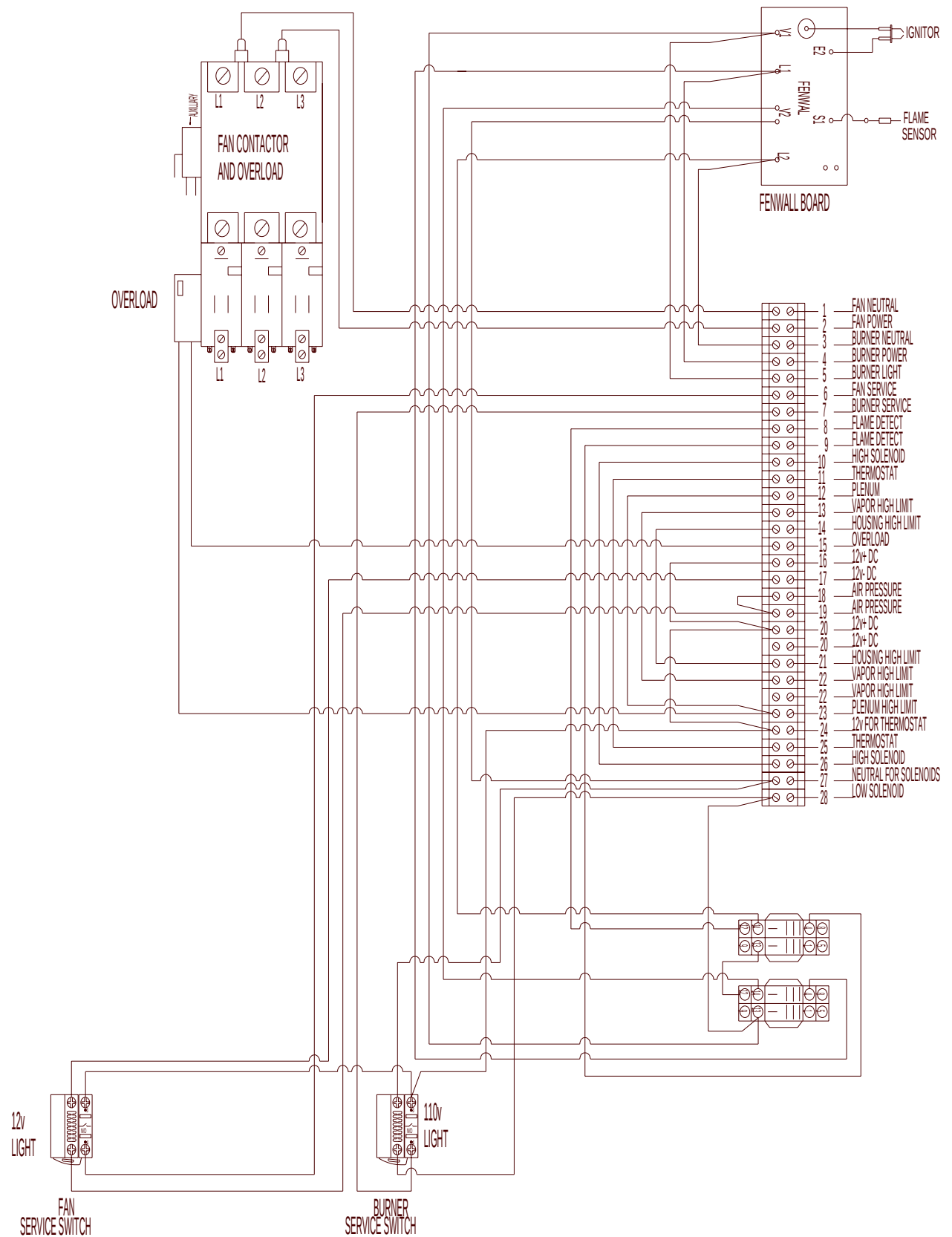
1997 Autoflow-Actuator Wiring



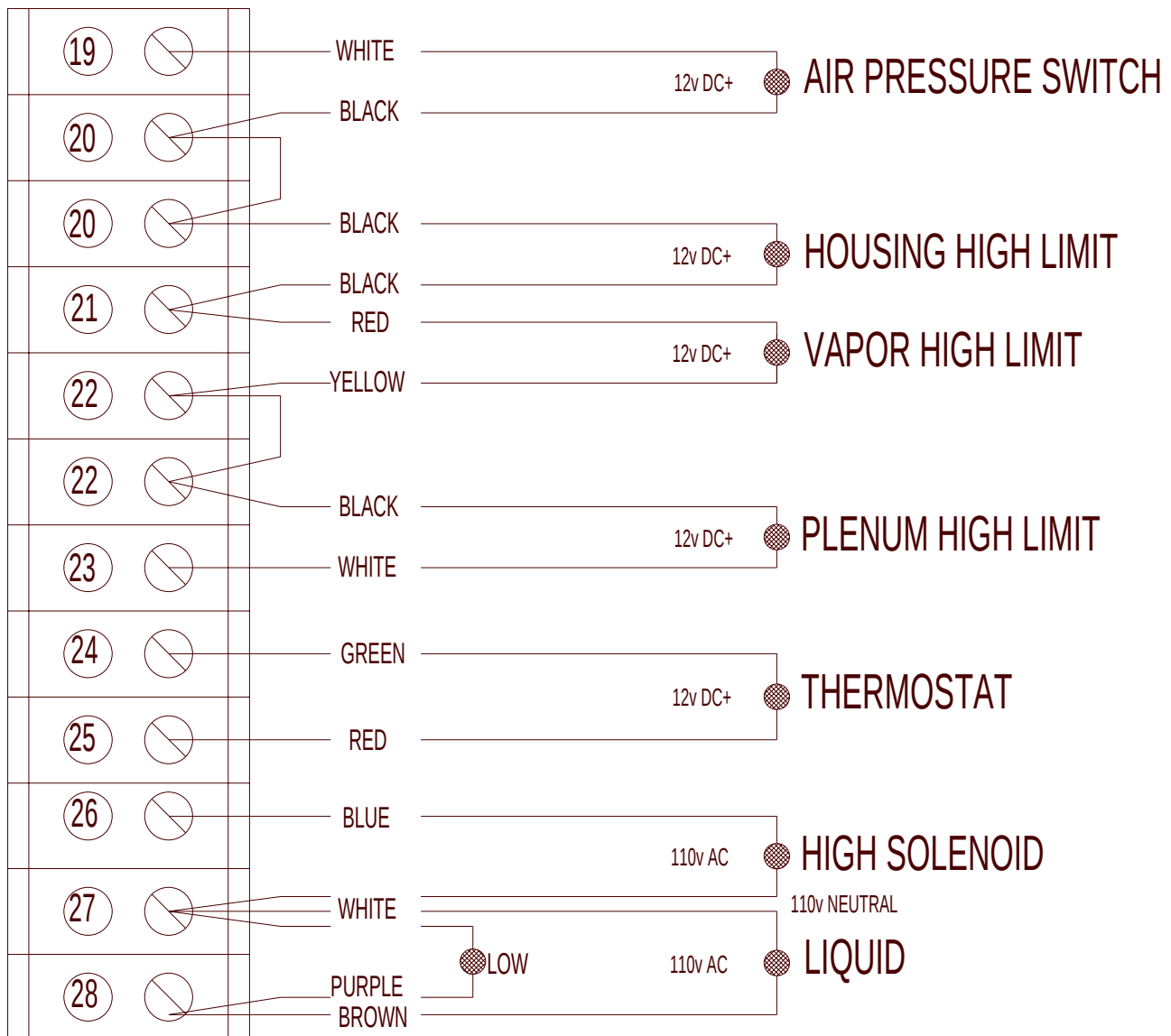
○ Autoflow Control Box



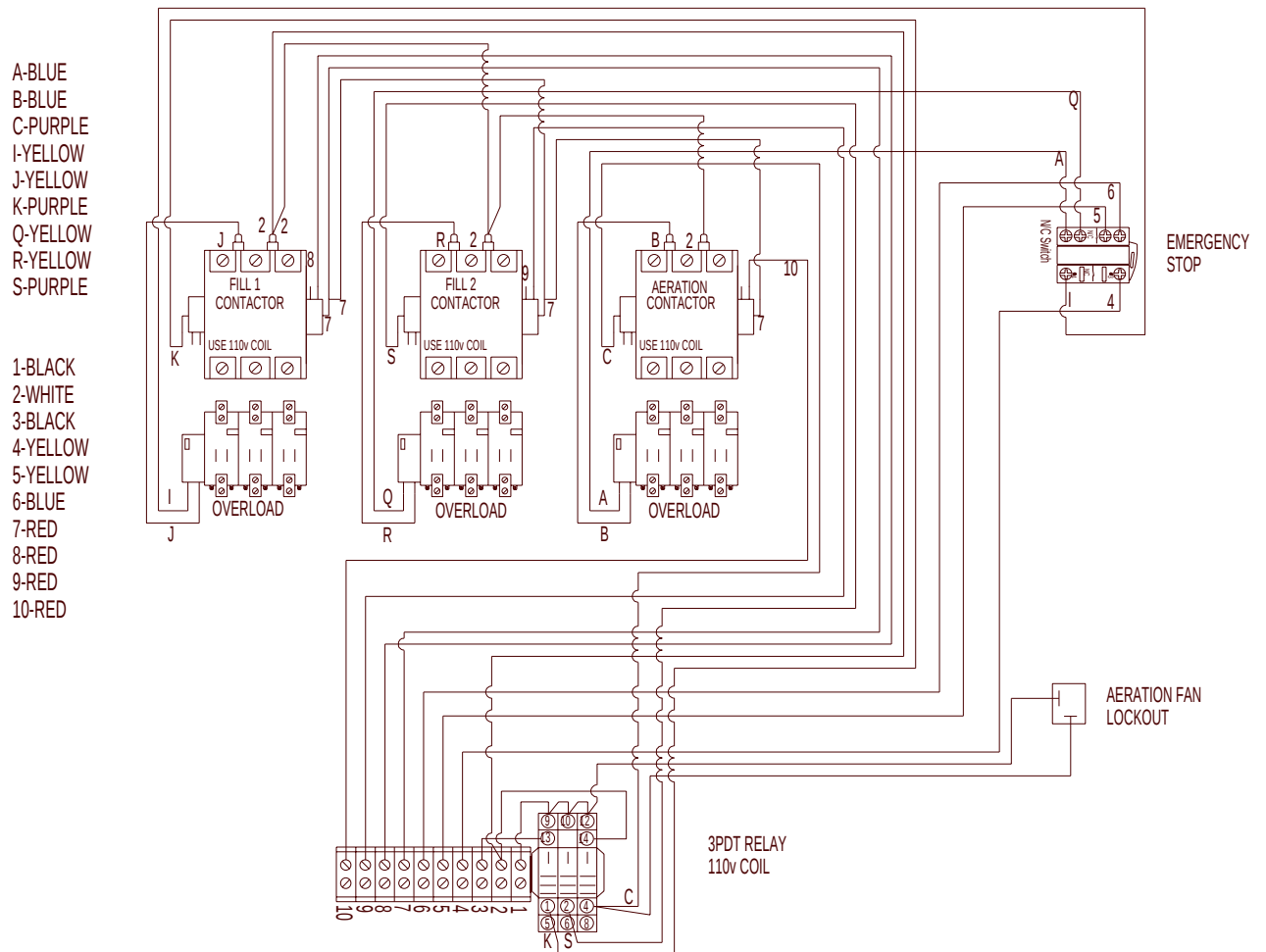
1997 Autoflow-Fan/Heater Internal Wiring



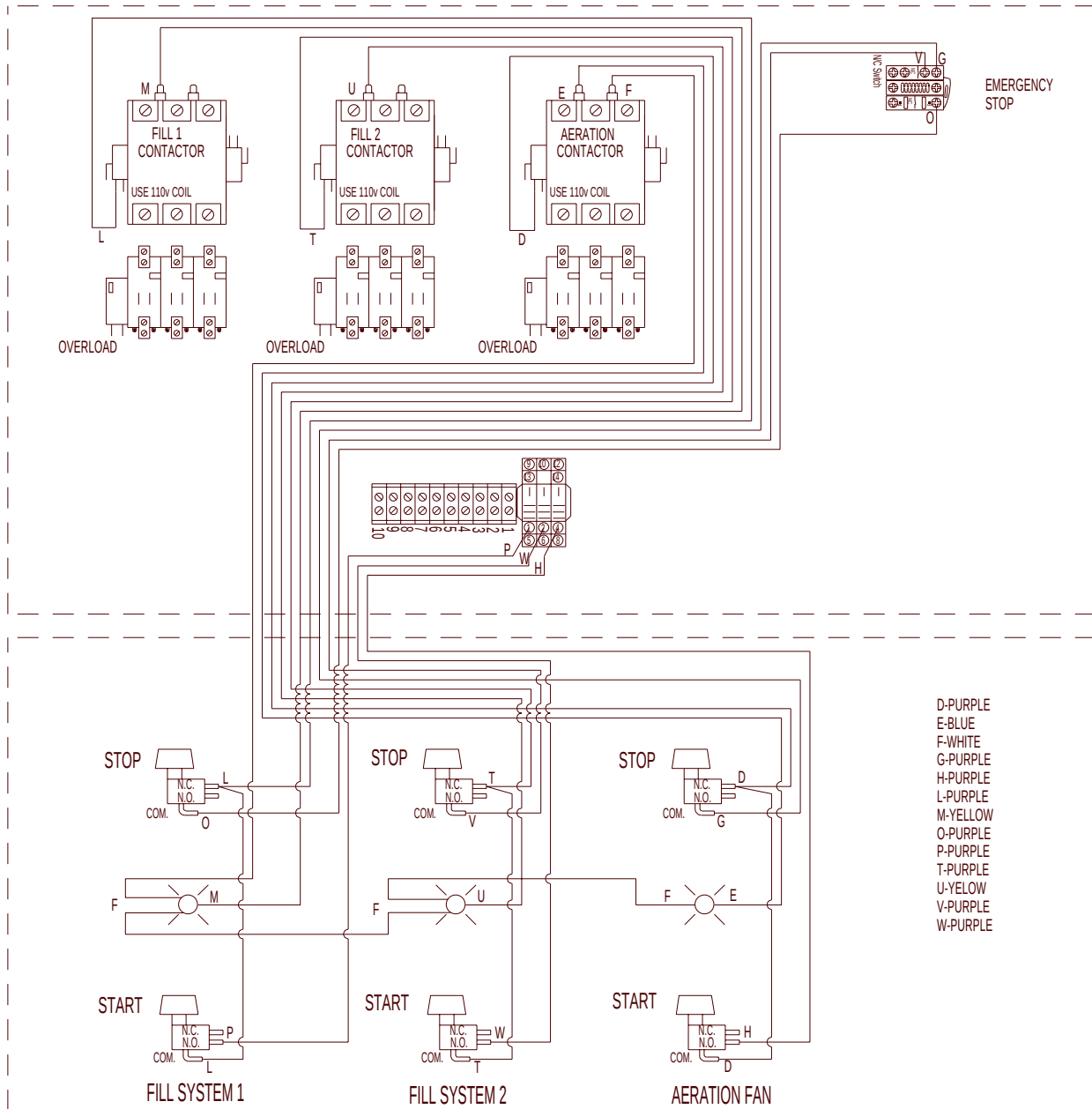
1997 Autoflow-Fan/Heater External Wiring



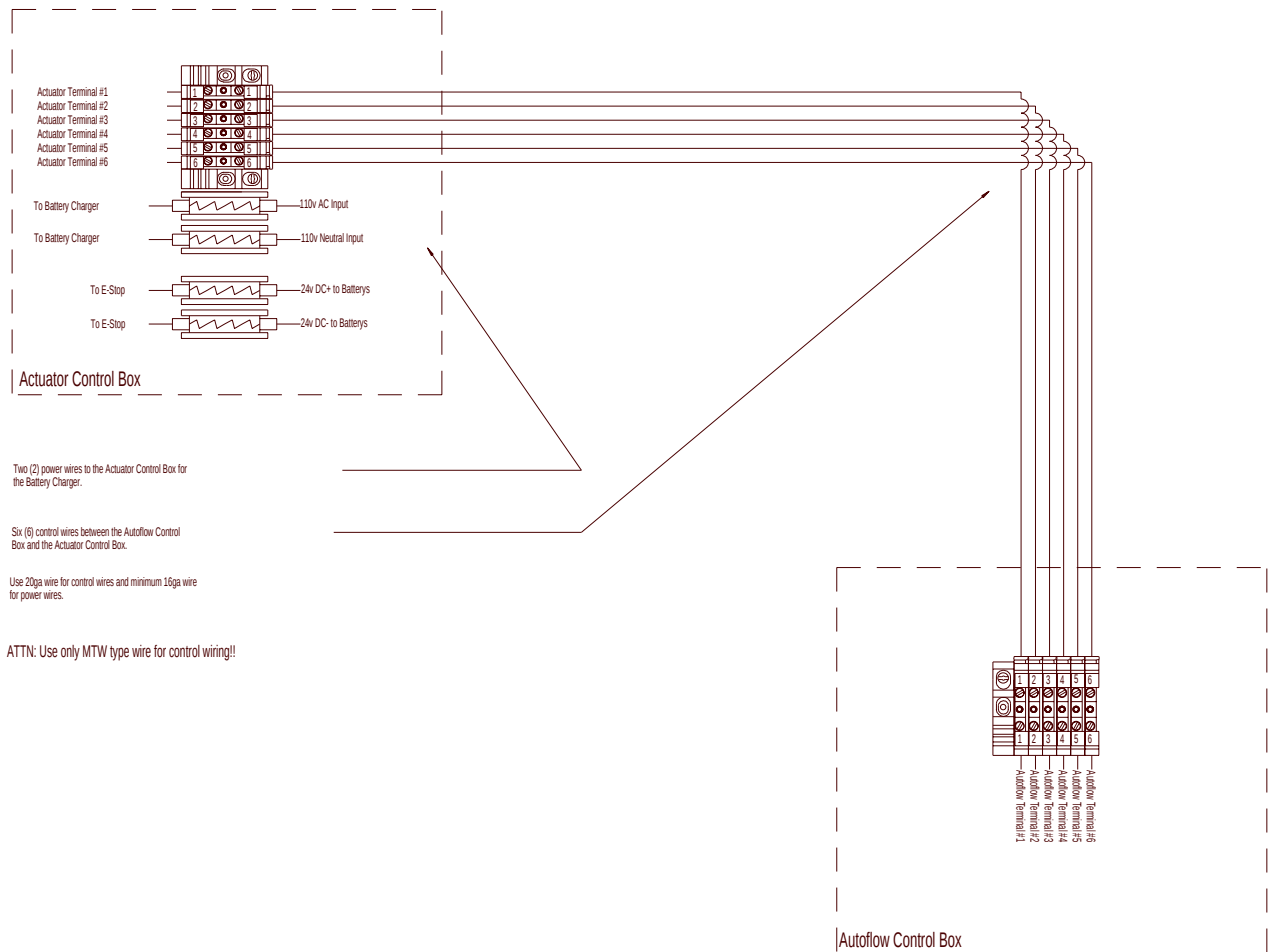
1997 Autoflow-Fill System Control Box Internal Wiring



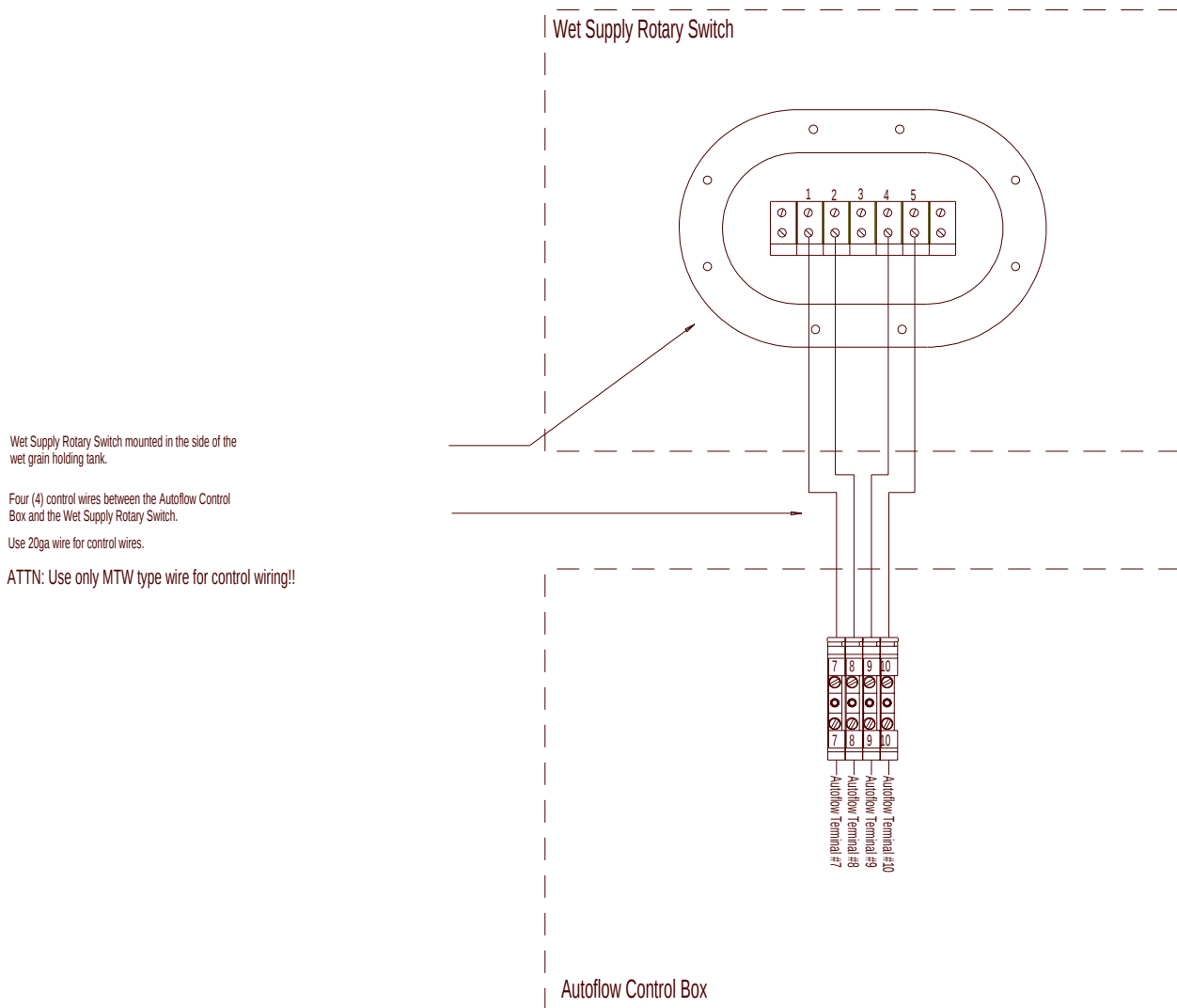
1997 Autoflow-Fill System Control Box External Wiring



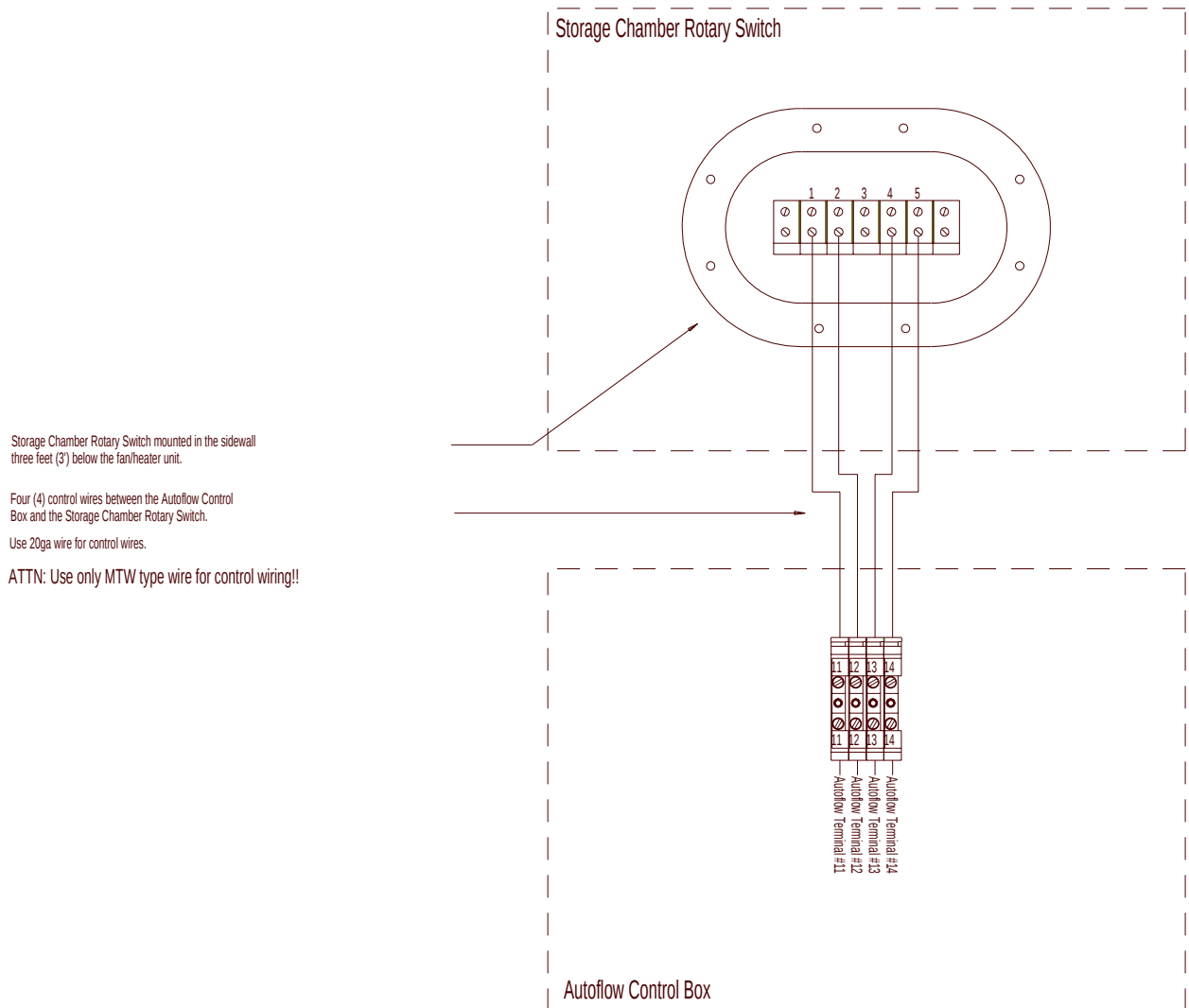
1997 Autoflow-Autoflow to Actuator Interconnect



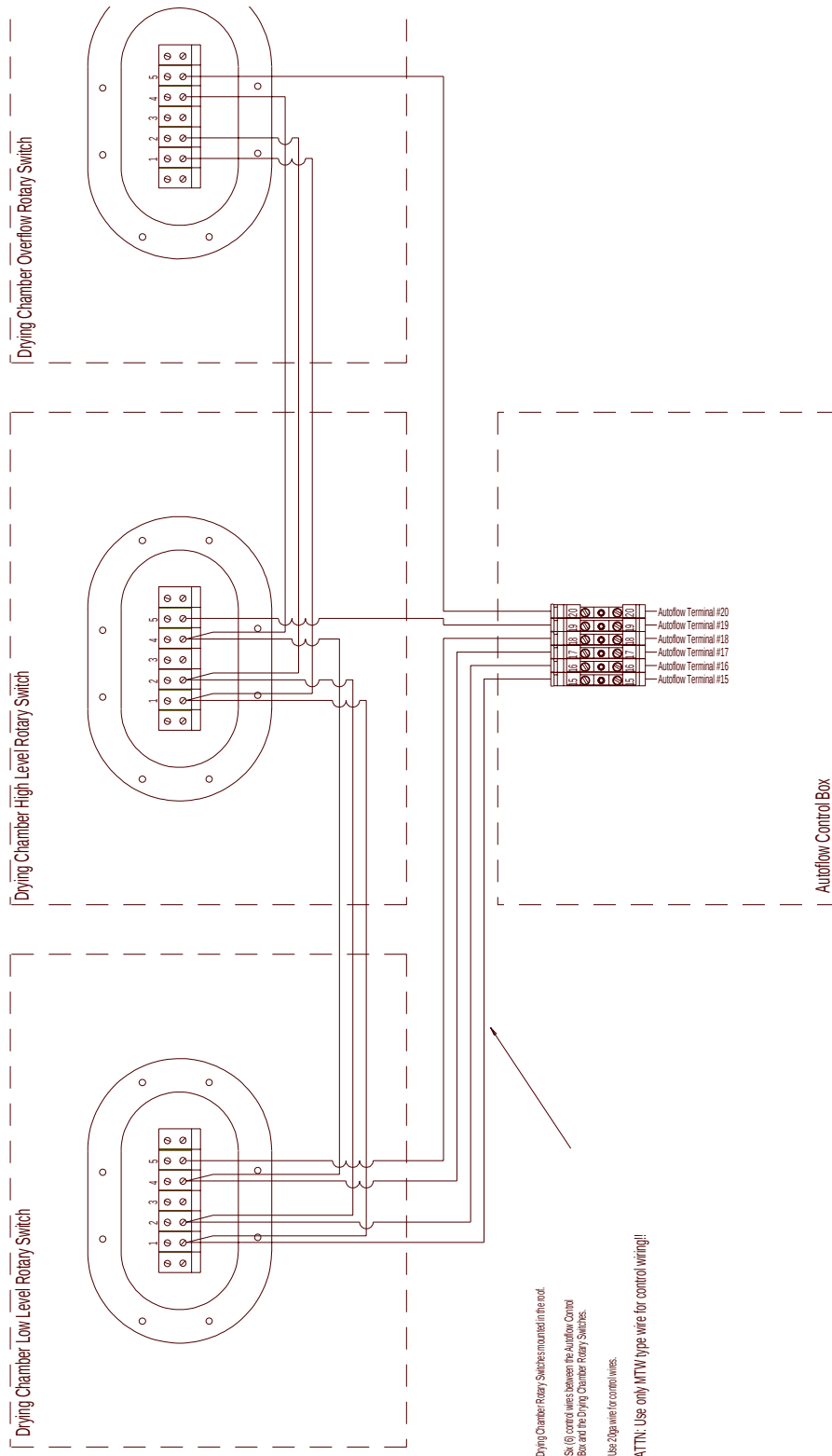
1997 Autoflow-Autoflow to Wet Supply Rotary Switch Interconnect



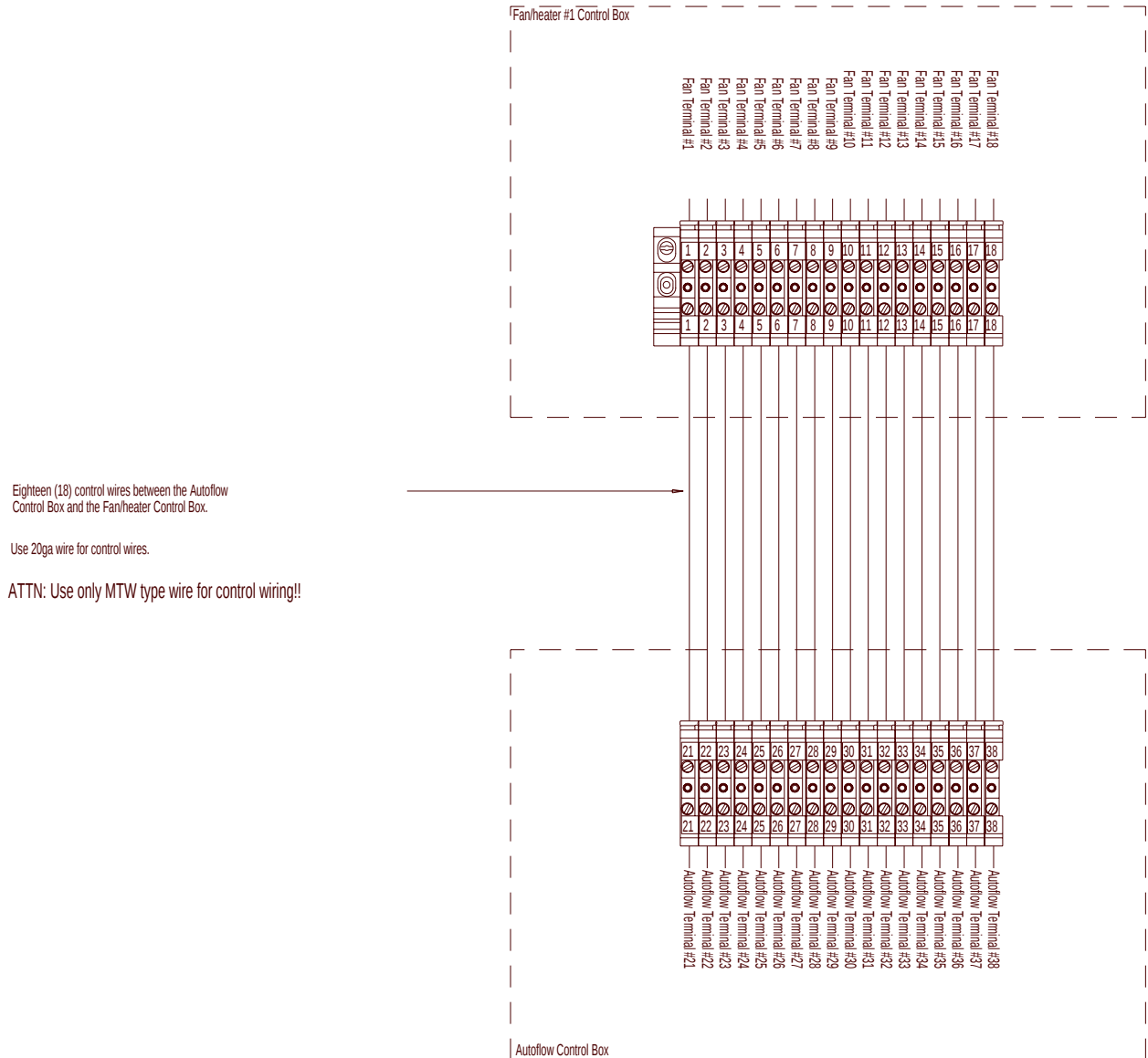
1997 Autoflow-Autoflow to Storage Chamber Rotary Switch Interconnect



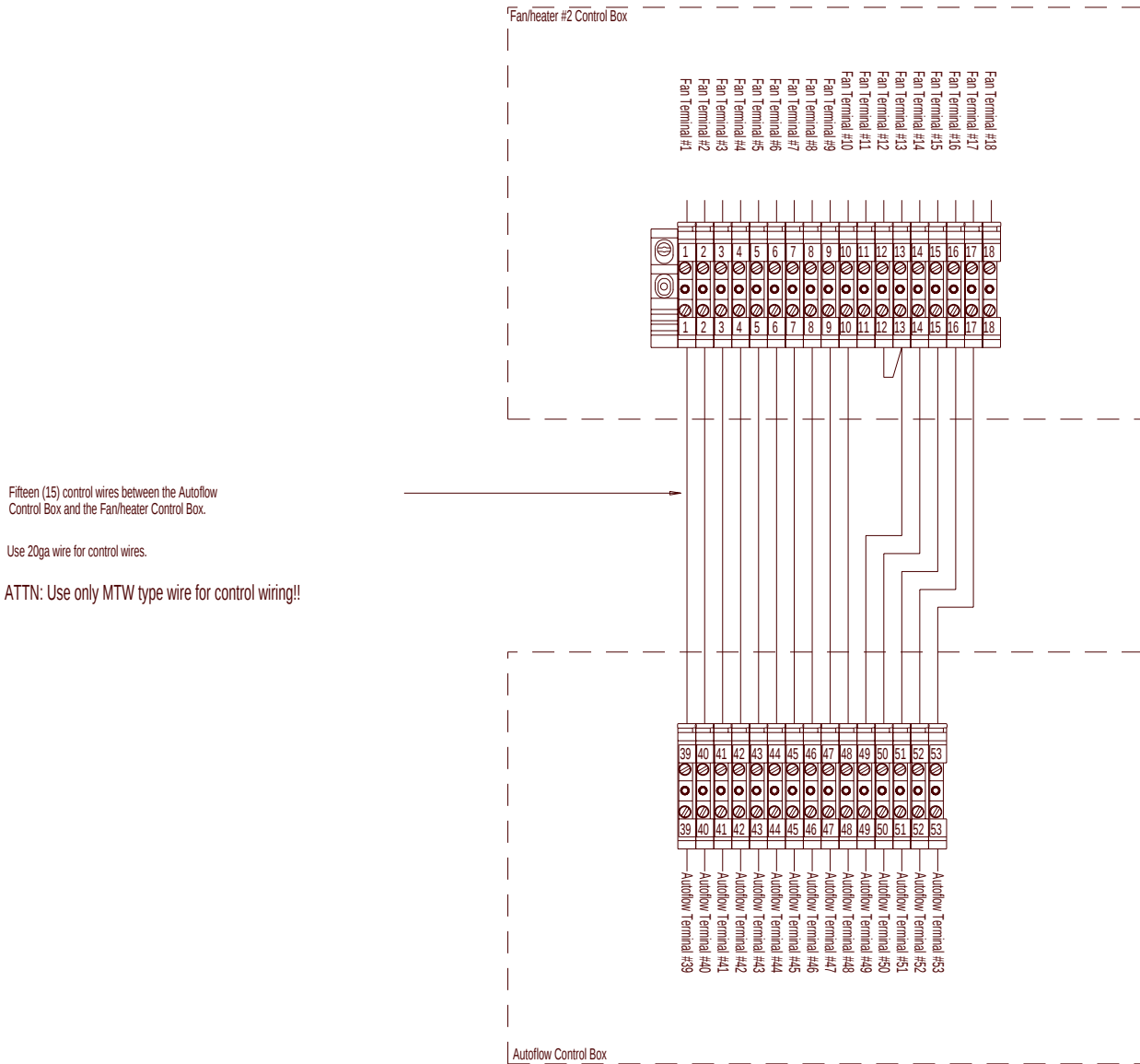
1997 Autoflow-Autoflow to Drying Chamber Rotary Switches Interconnect



1997 Autoflow-Autoflow to Master Fan/Heater Interconnect



1997 Autoflow-Autoflow to Slave Fan/Heater Interconnect



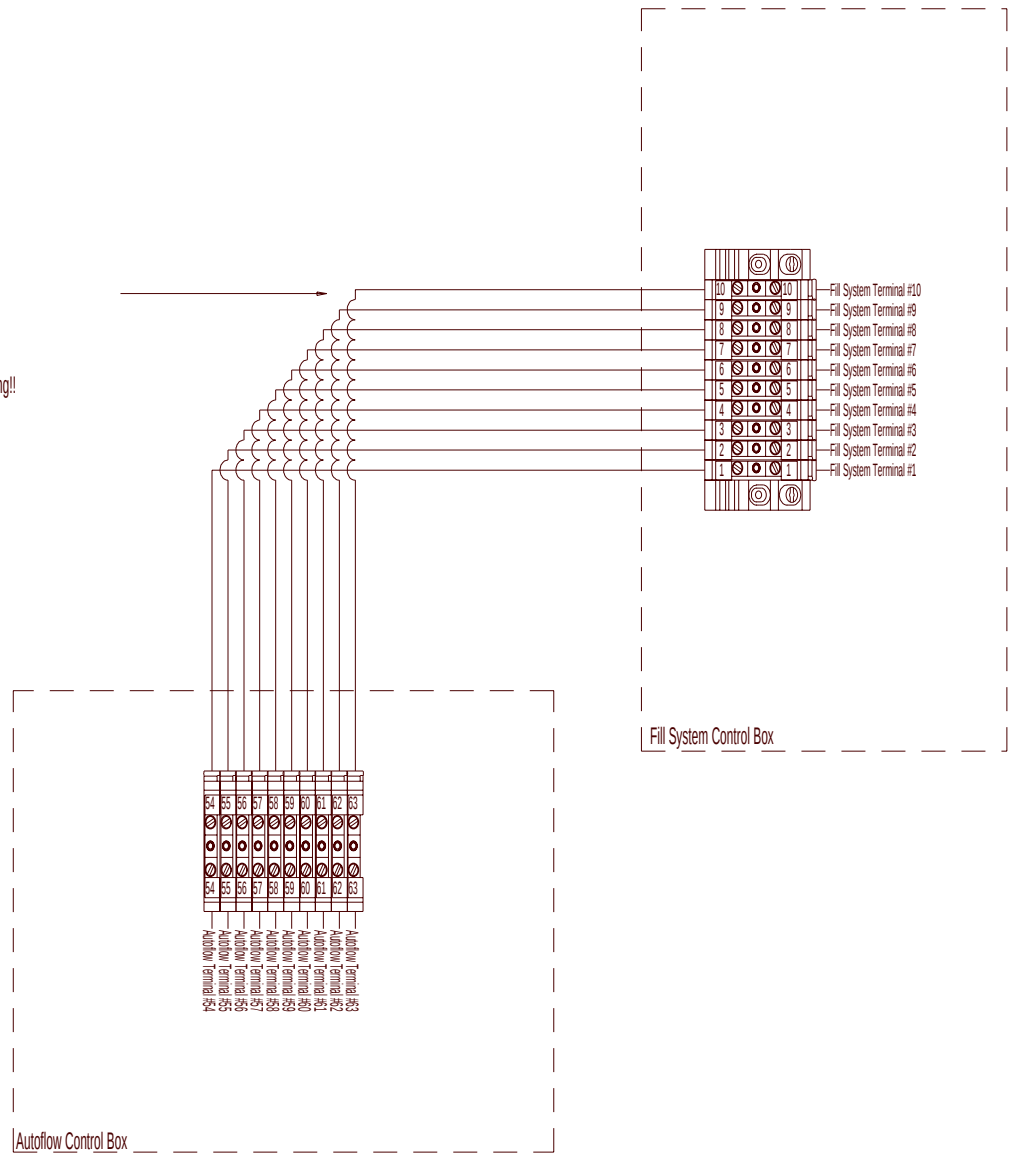
Top Dry Pre-98 Wiring Diagrams

1997 Autoflow-Autoflow to Fill System Control Box Interconnect

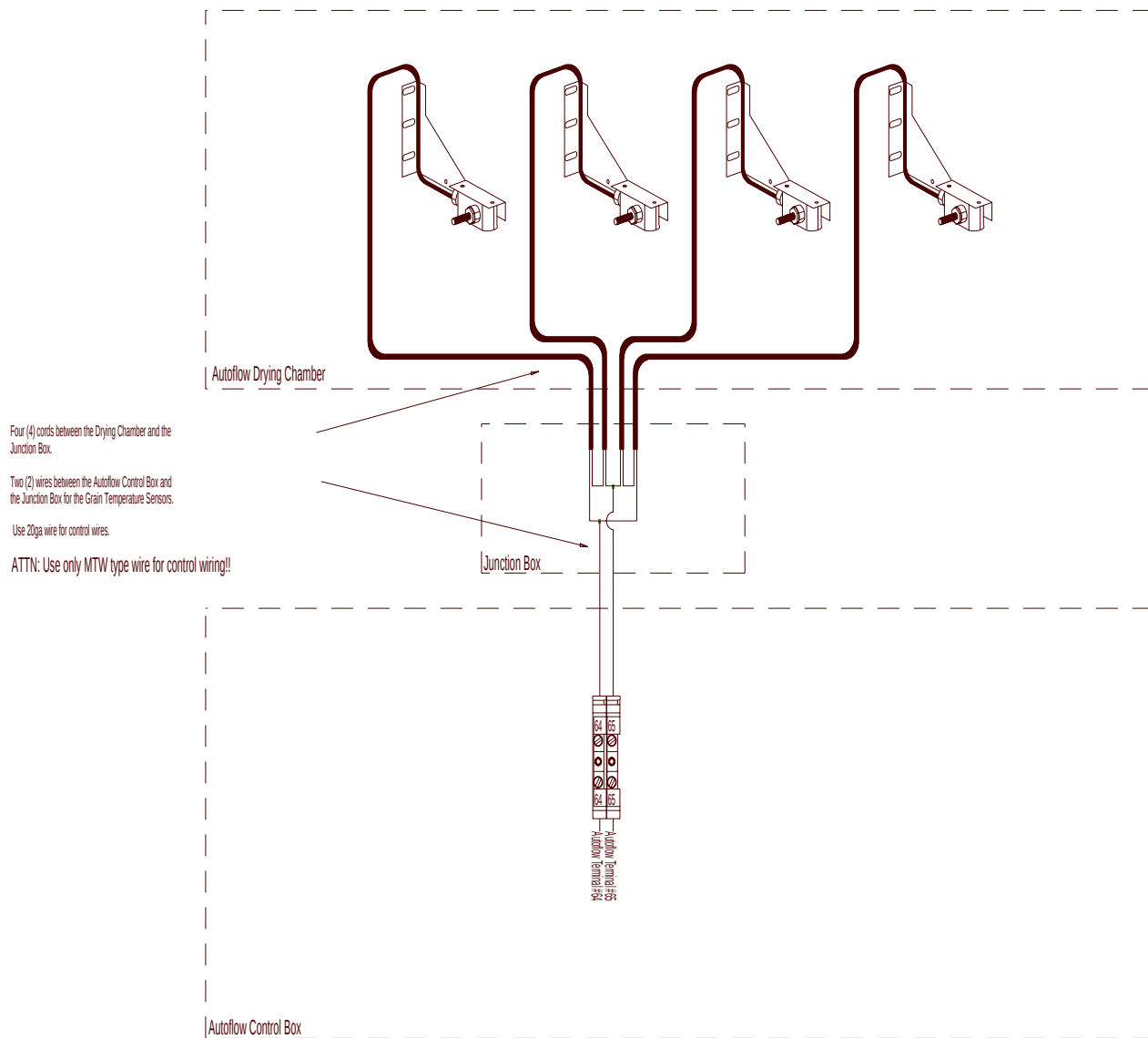
Ten (10) control wires between the Autoflow Control Box and the Fill System Control Box.

Use 20ga wire for control wires.

ATTN: Use only MTW type wire for control wiring!!



1997 Autoflow-Autoflow to Grain Temperature Sensors Interconnect



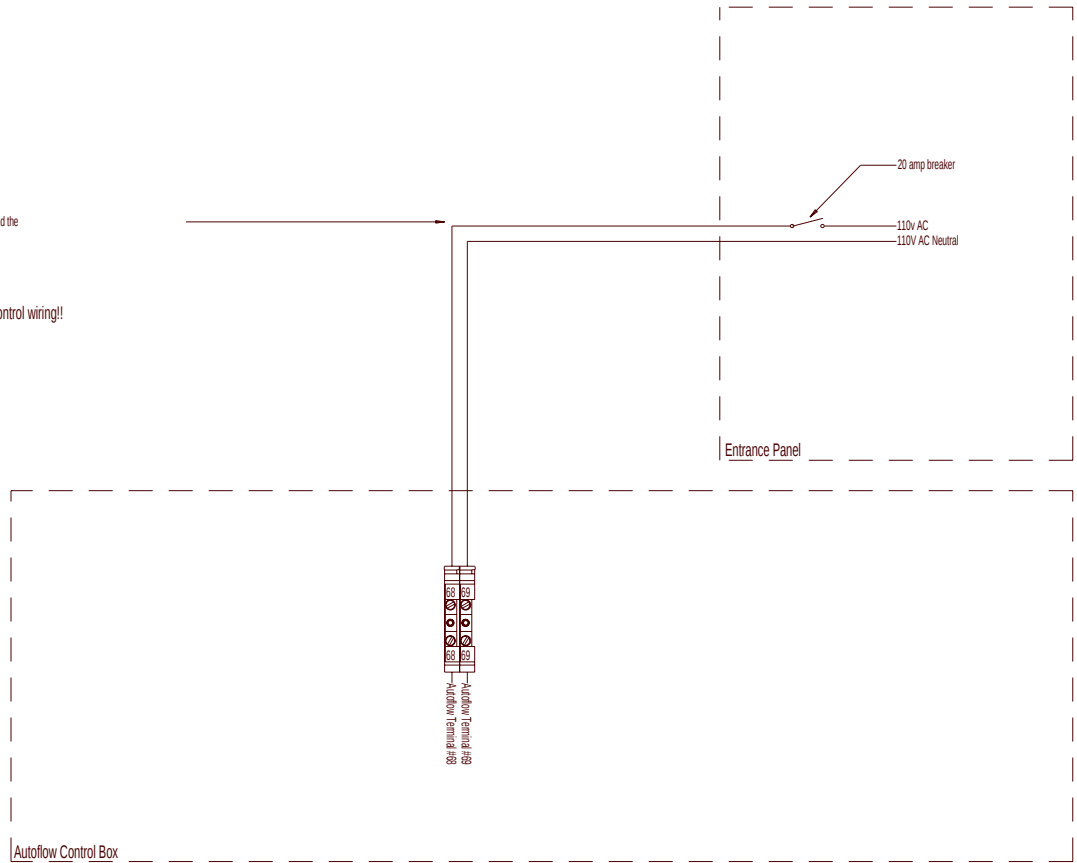
Top Dry Pre-98 Wiring Diagrams

1997 Autoflow-Autoflow to Input Power Interconnect

Two (2) wires between the Autoflow Control Box and the Entrance Panel (20 amp breaker).

Use 16ga wire for Power Wires.

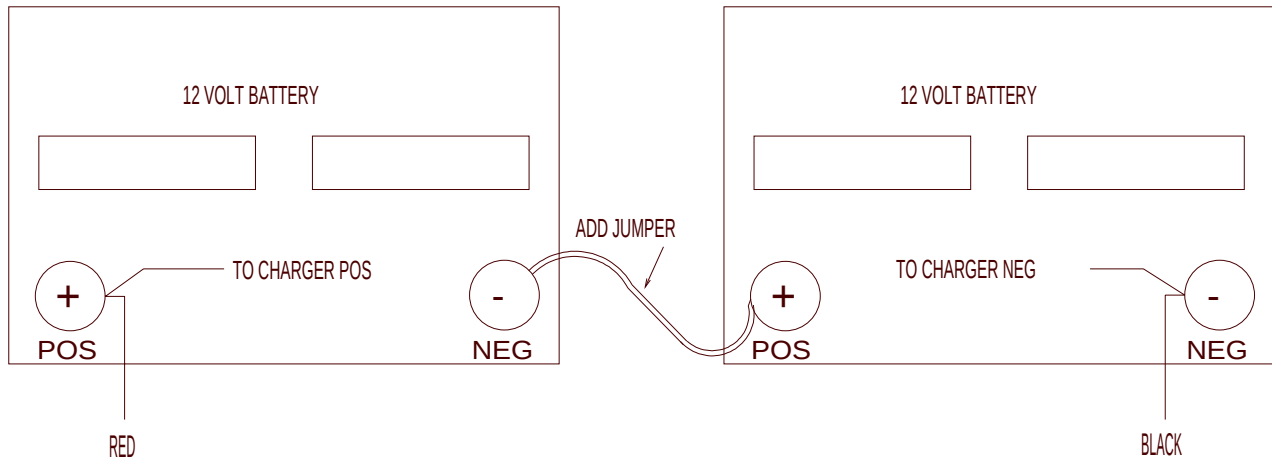
ATTN: Use only MTW type wire for control wiring!!



1997 Autoflow-Actuator Battery Hook-up

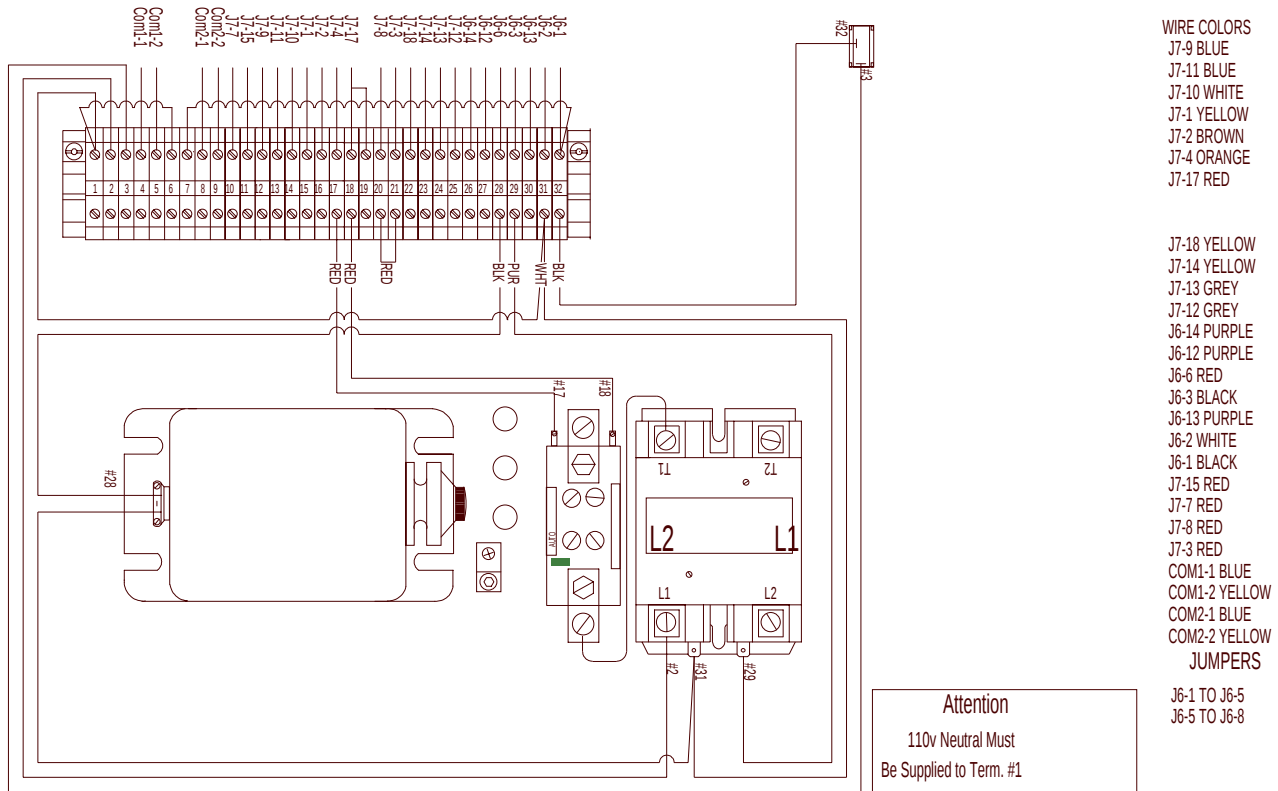
12 VOLT BATTERIES ARE NOT SUPPLIED BY GSI. USE 12V LAWN AND GARDEN TYPE

24 VOLT CHARGER SHOULD HOOK UP TO POS AND NEG AS SHOWN. CHECK POLARITY



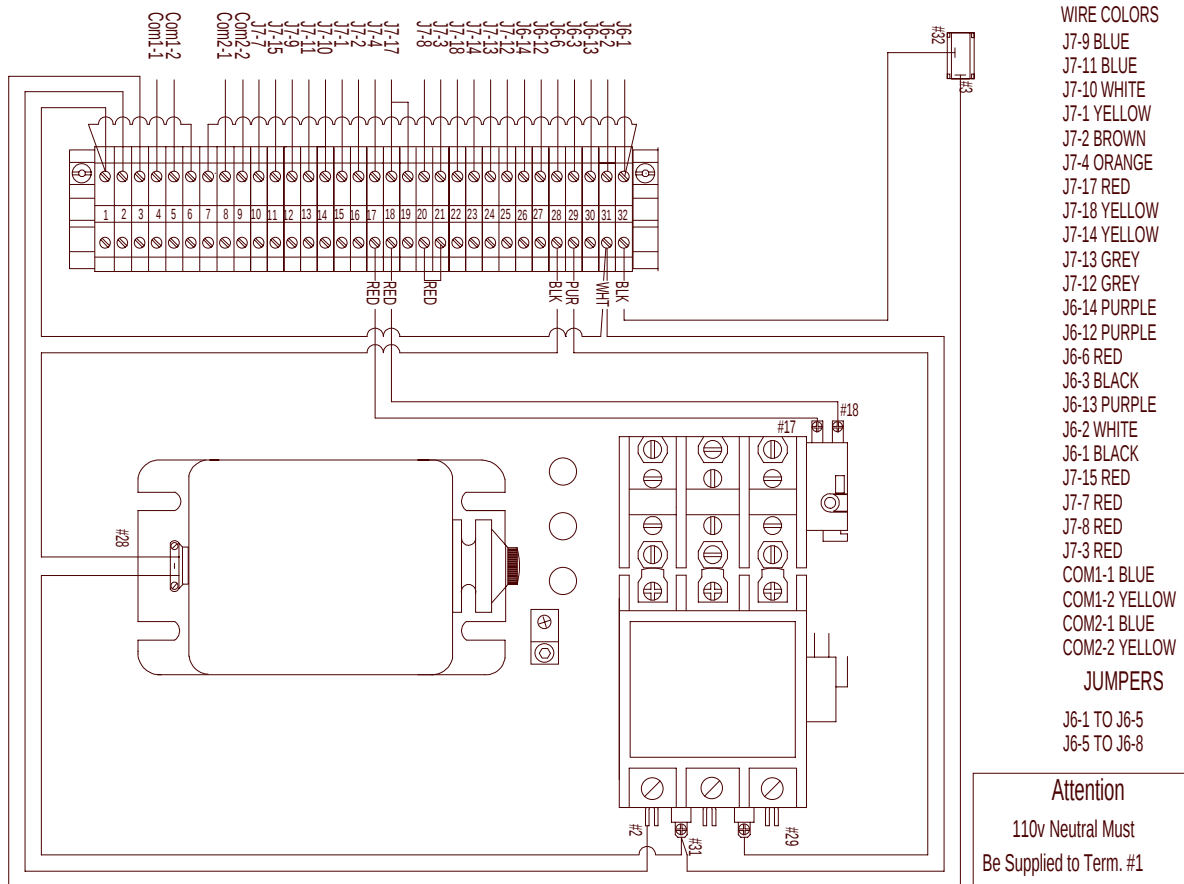
1997 Series 2000 Batch Wiring Diagrams

1997 Series 2000-220v1ph Master Wiring



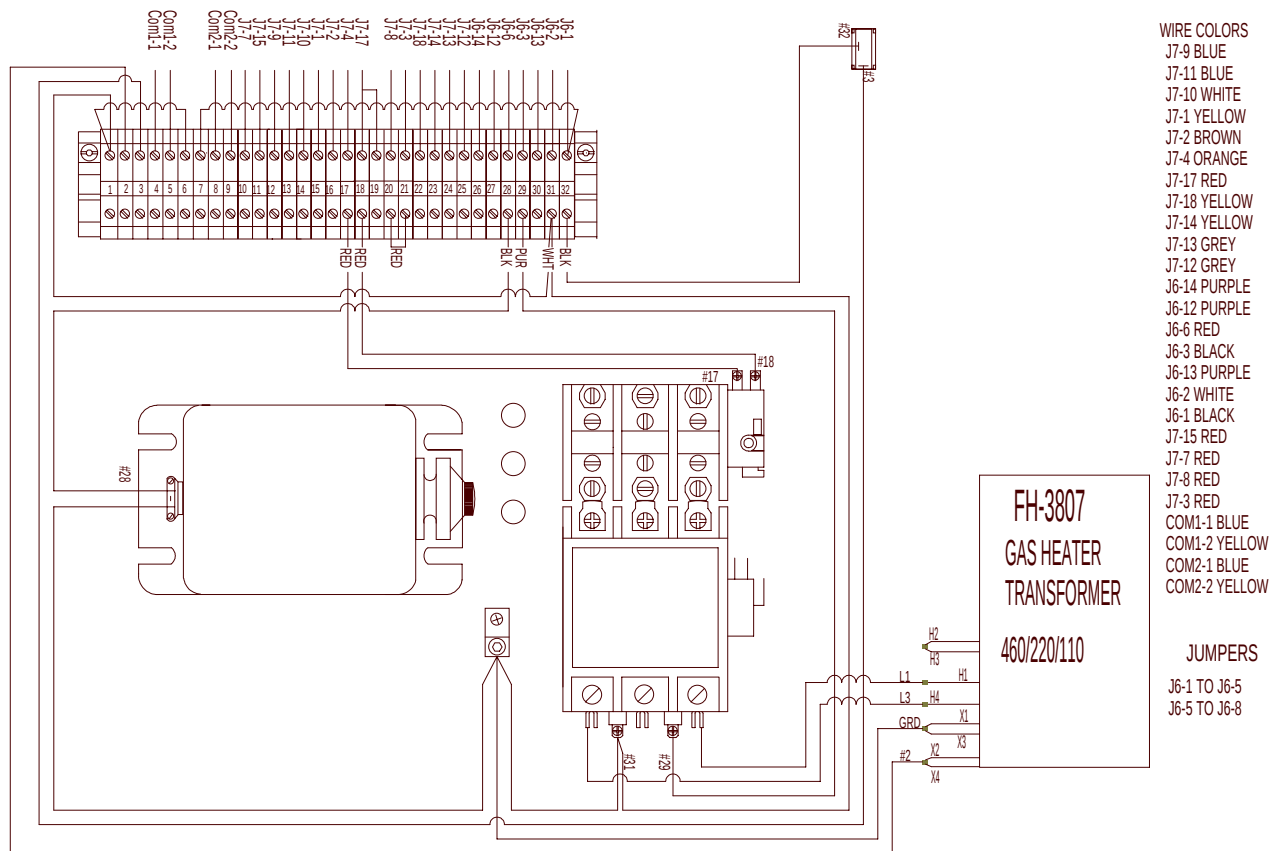
Top Dry Pre-98 Wiring Diagrams

1997 Series 2000-220v3ph Master Wiring

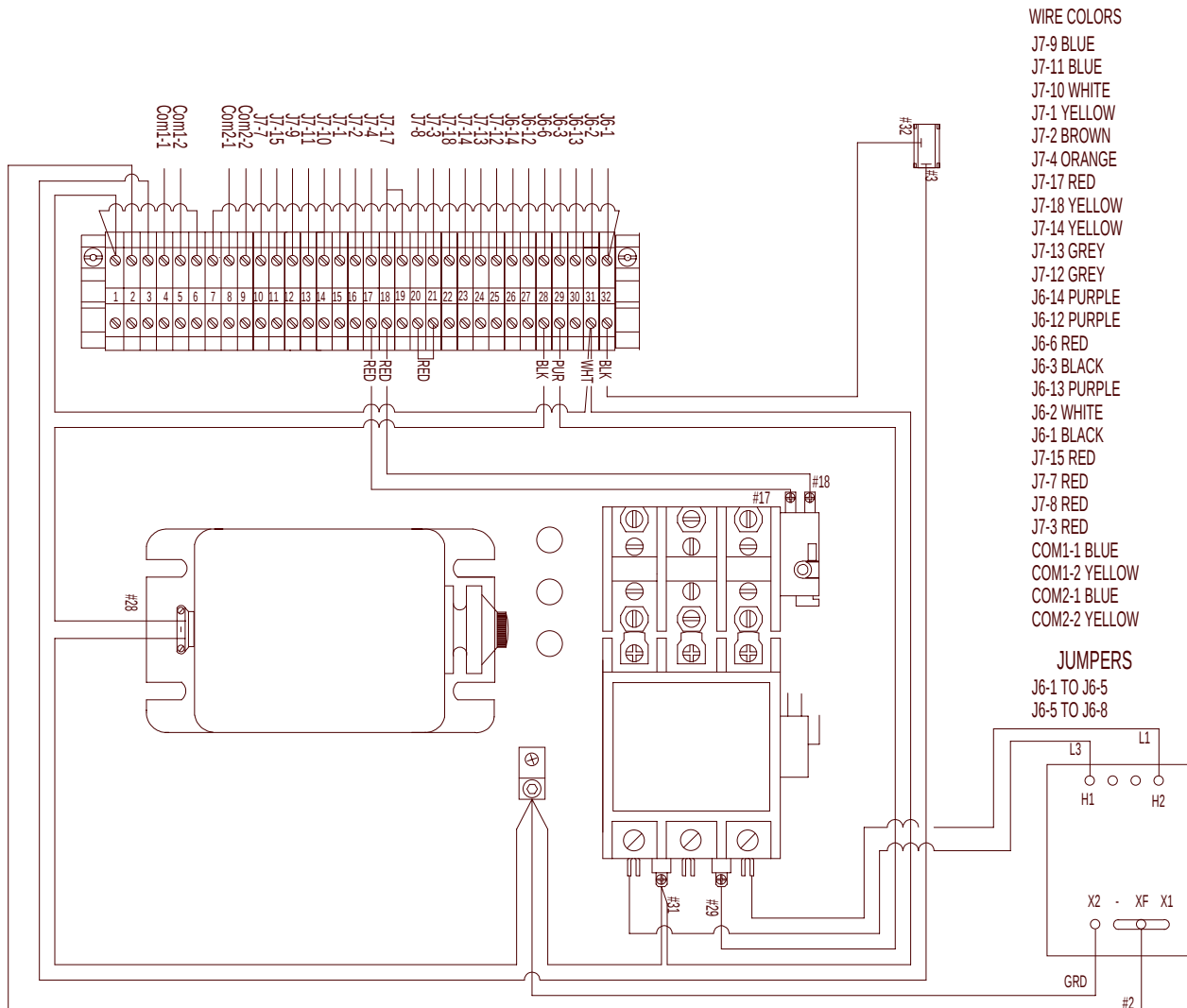


[illegible]

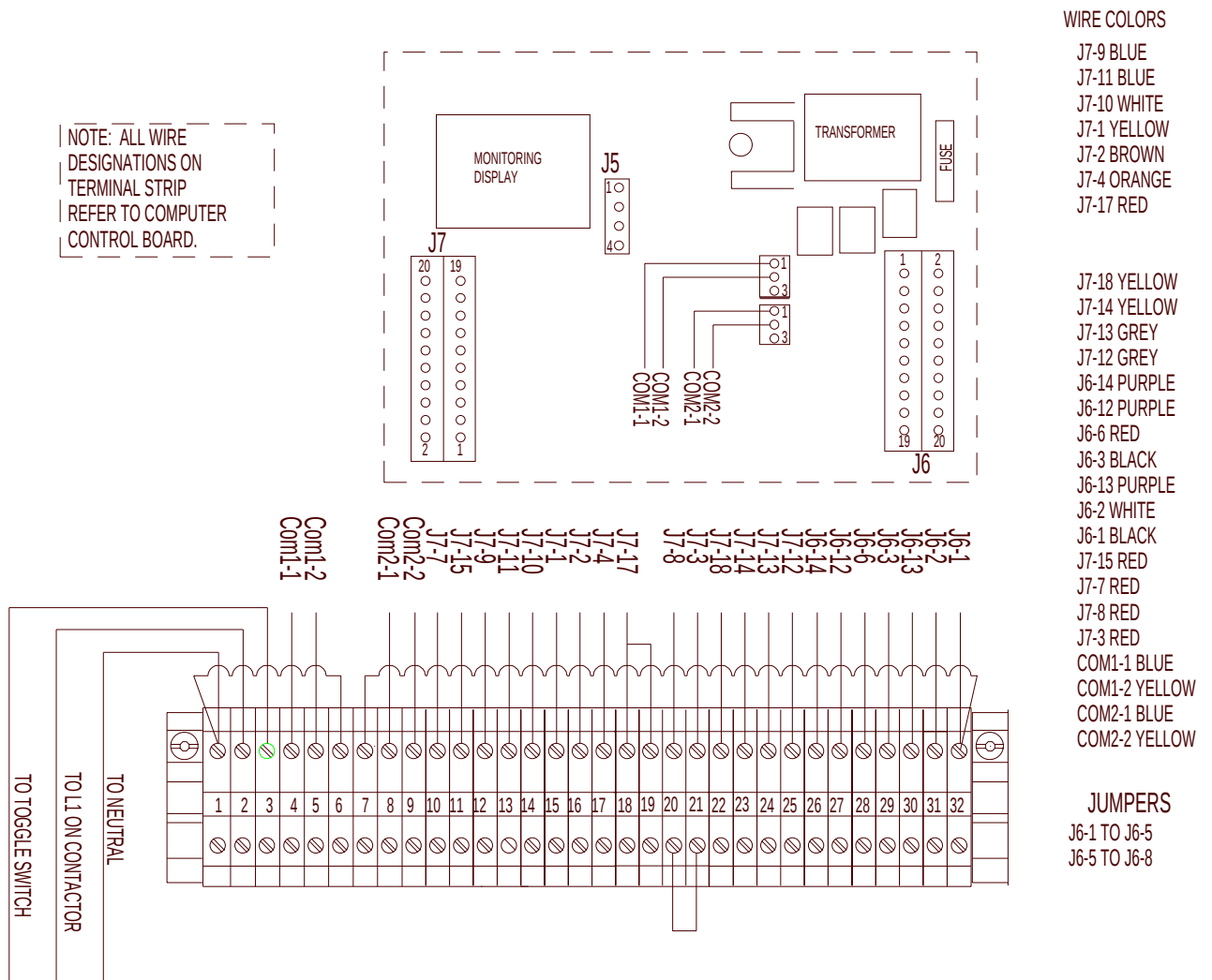
1997 Series 2000-460v 3ph Master Wiring



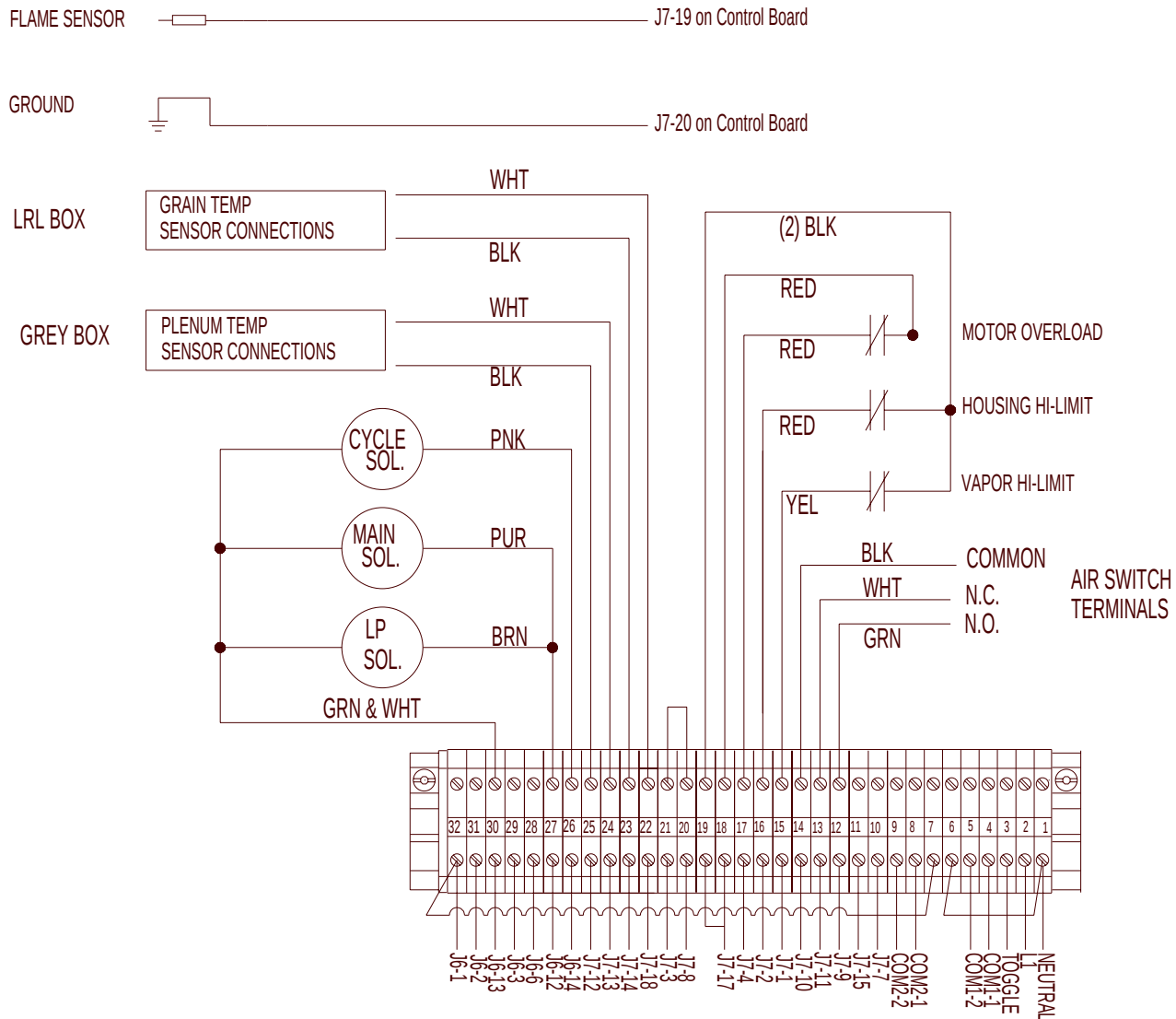
1997 Series 2000-575v 3ph Master Wiring



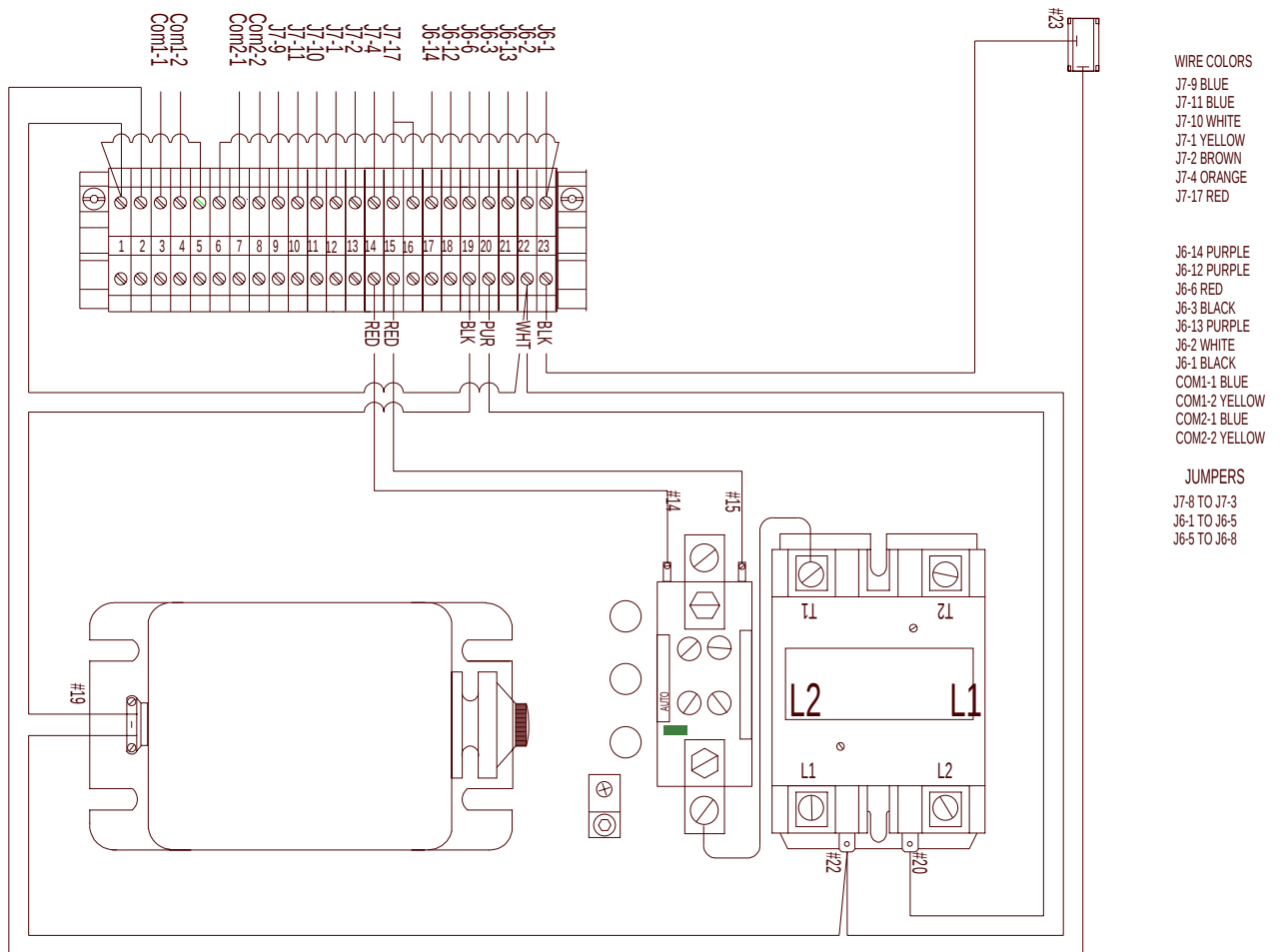
1997 Series 2000-Master Heater Terminal Strip



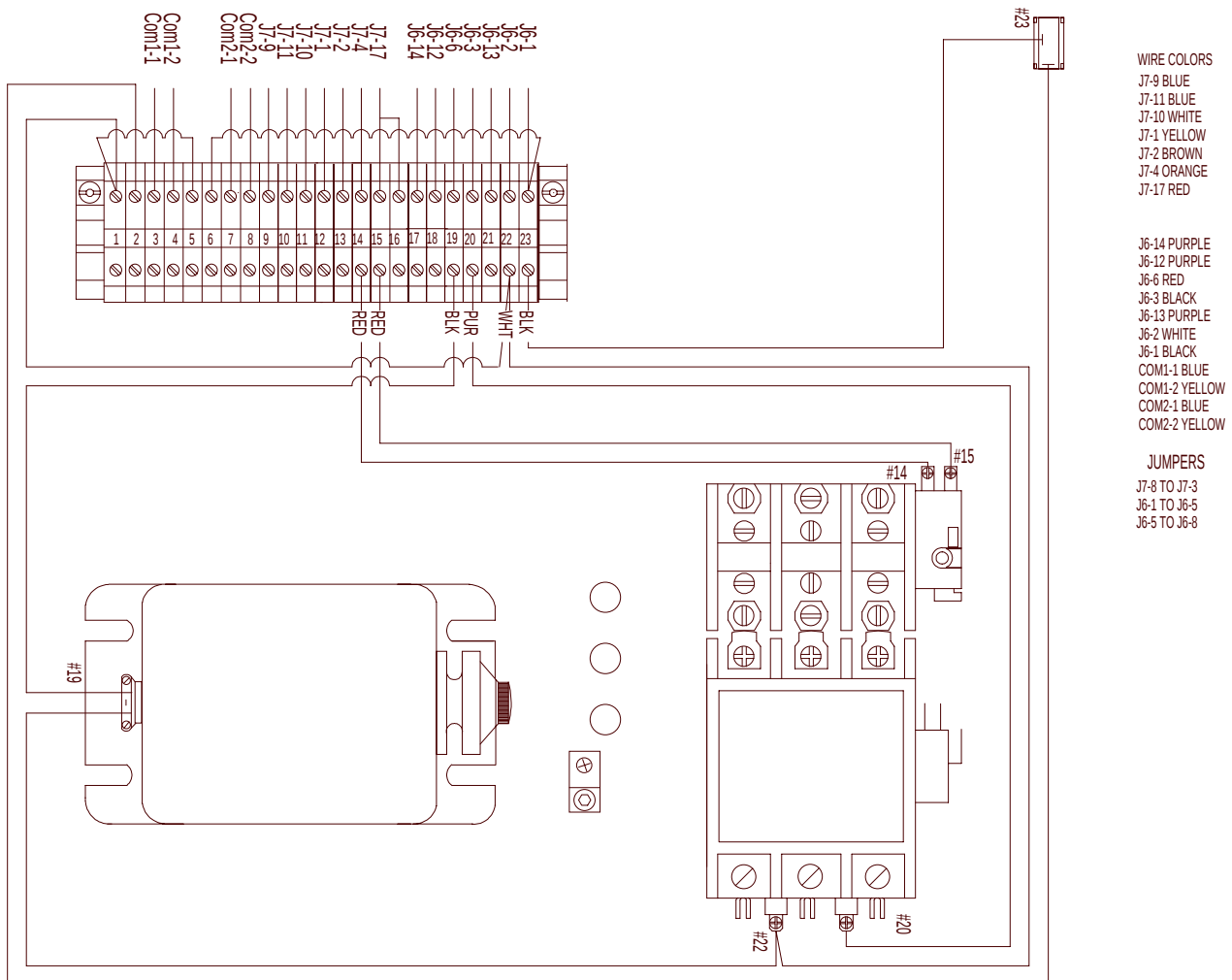
1997 Series 2000-Master Heater External Wiring



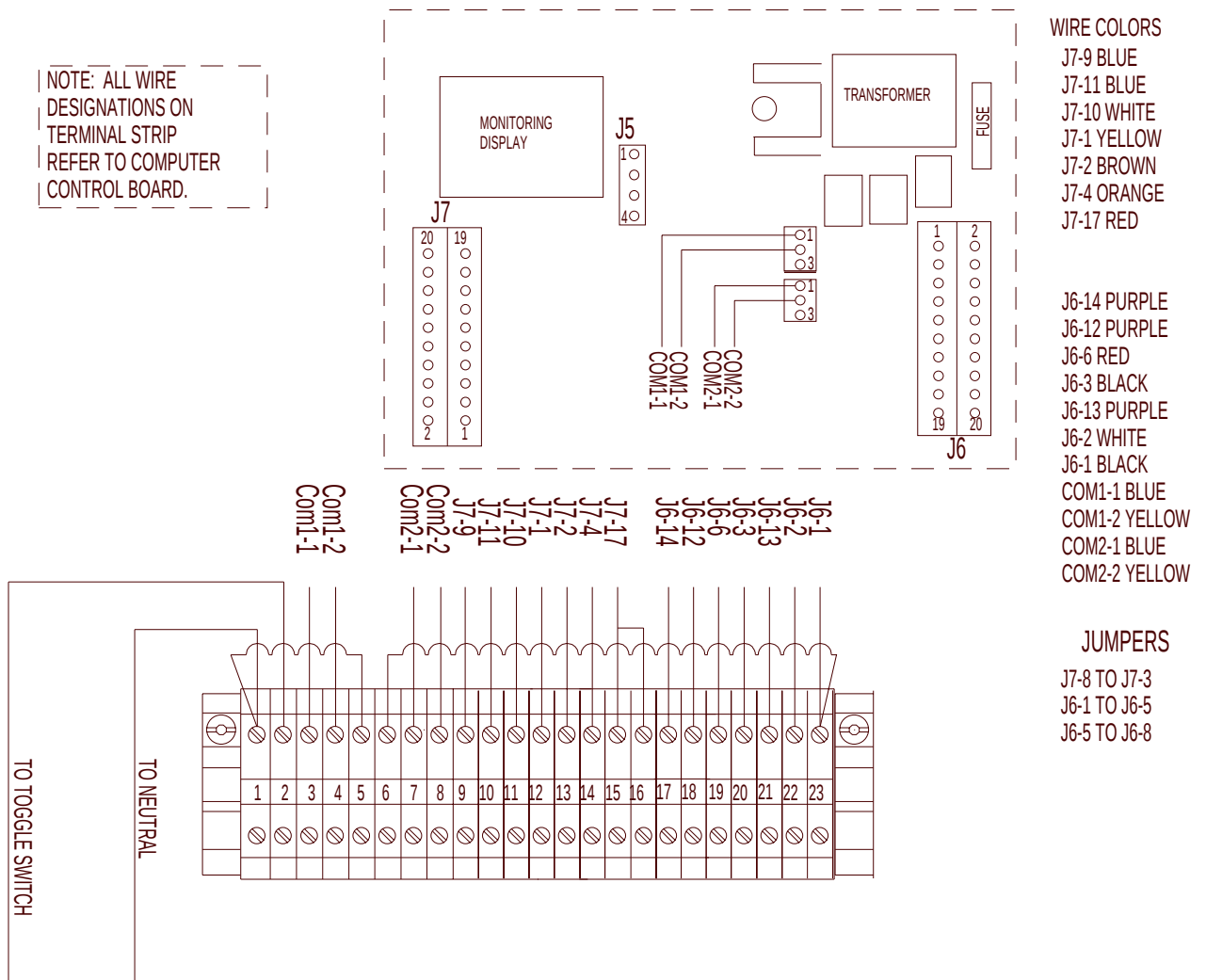
1997 Series 2000-Slave Heater Single Phase Wiring



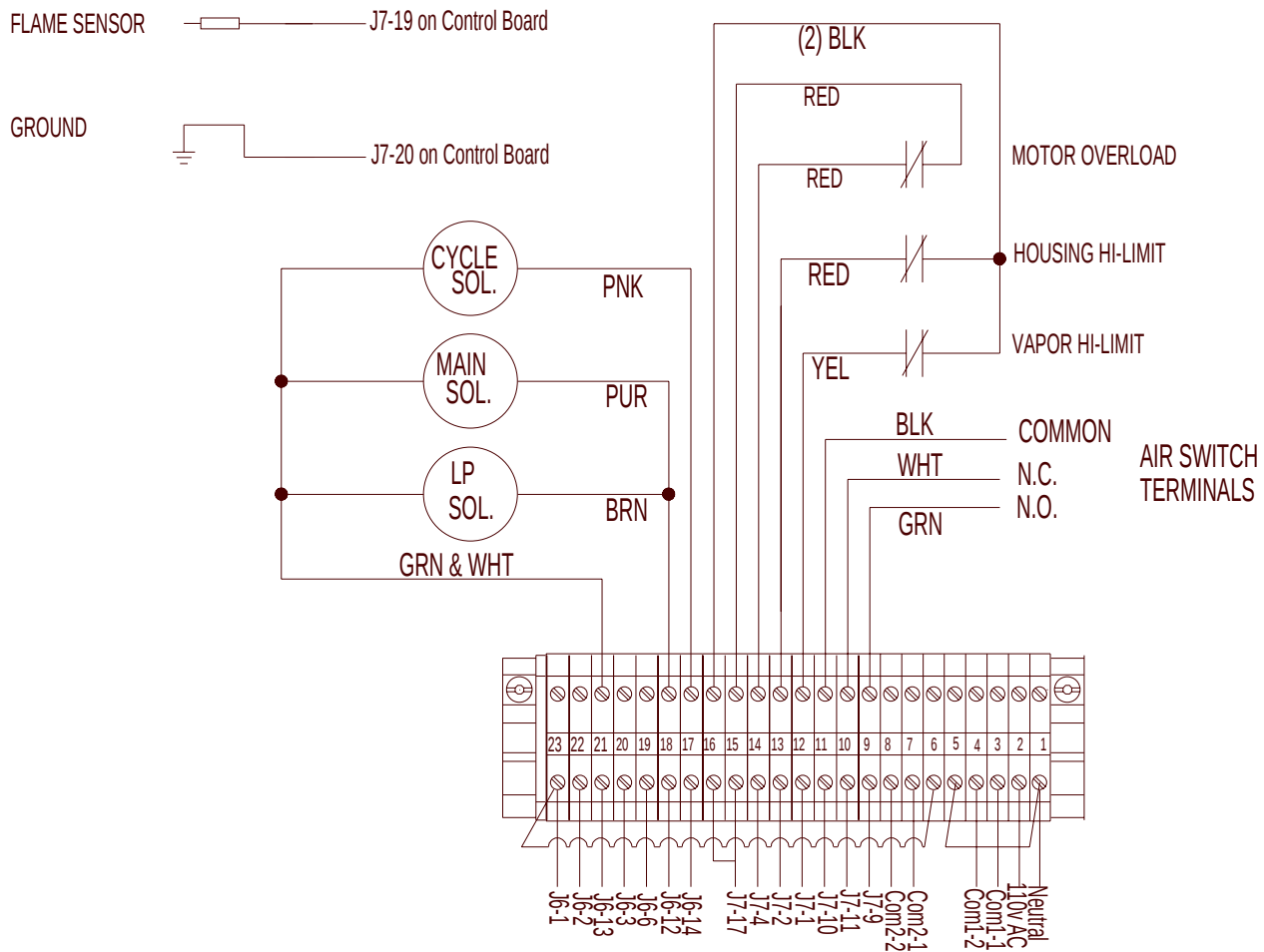
1997 Series 2000-Slave Heater Three Phase Wiring



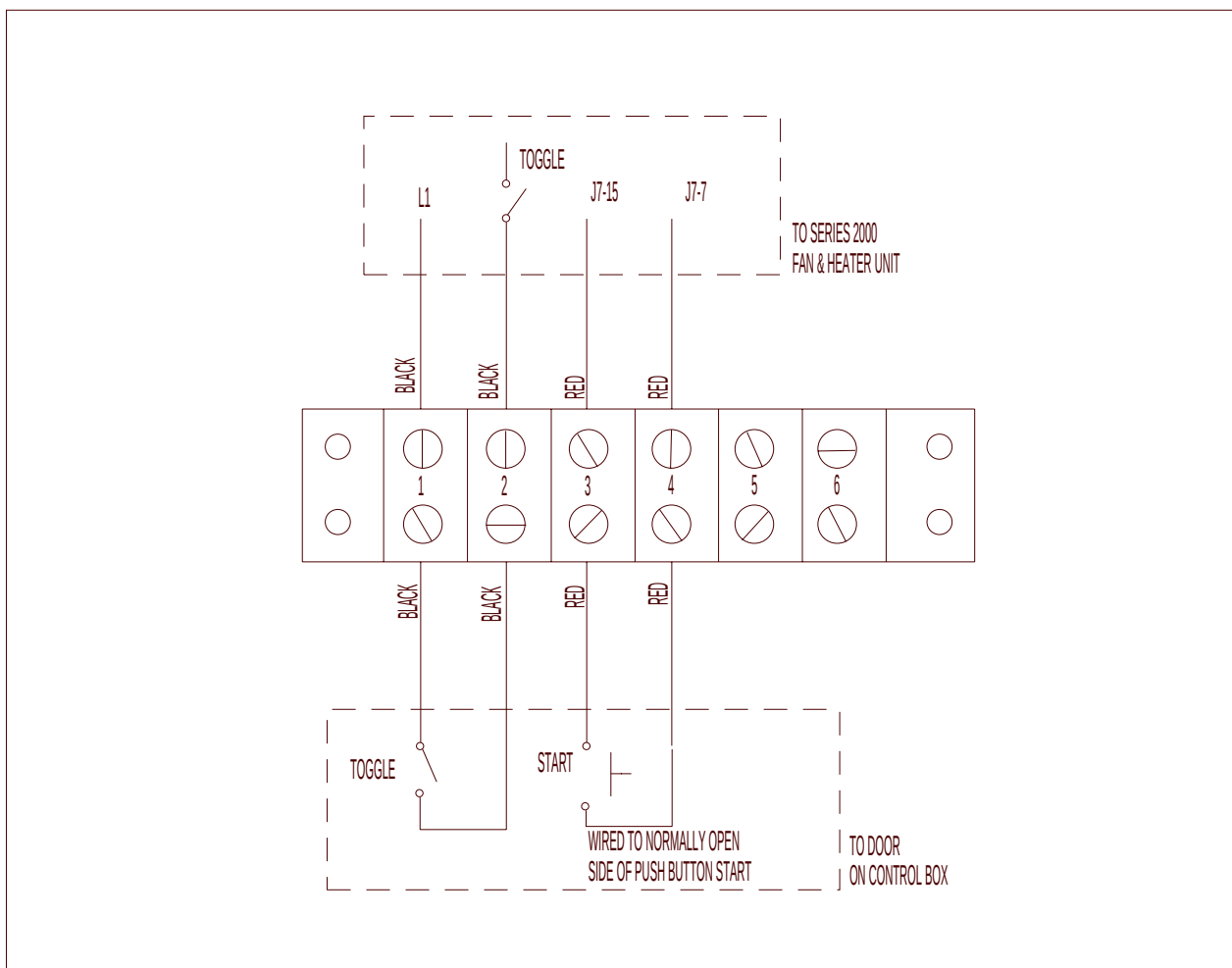
1997 Series 2000-Slave Heater Terminal Strip



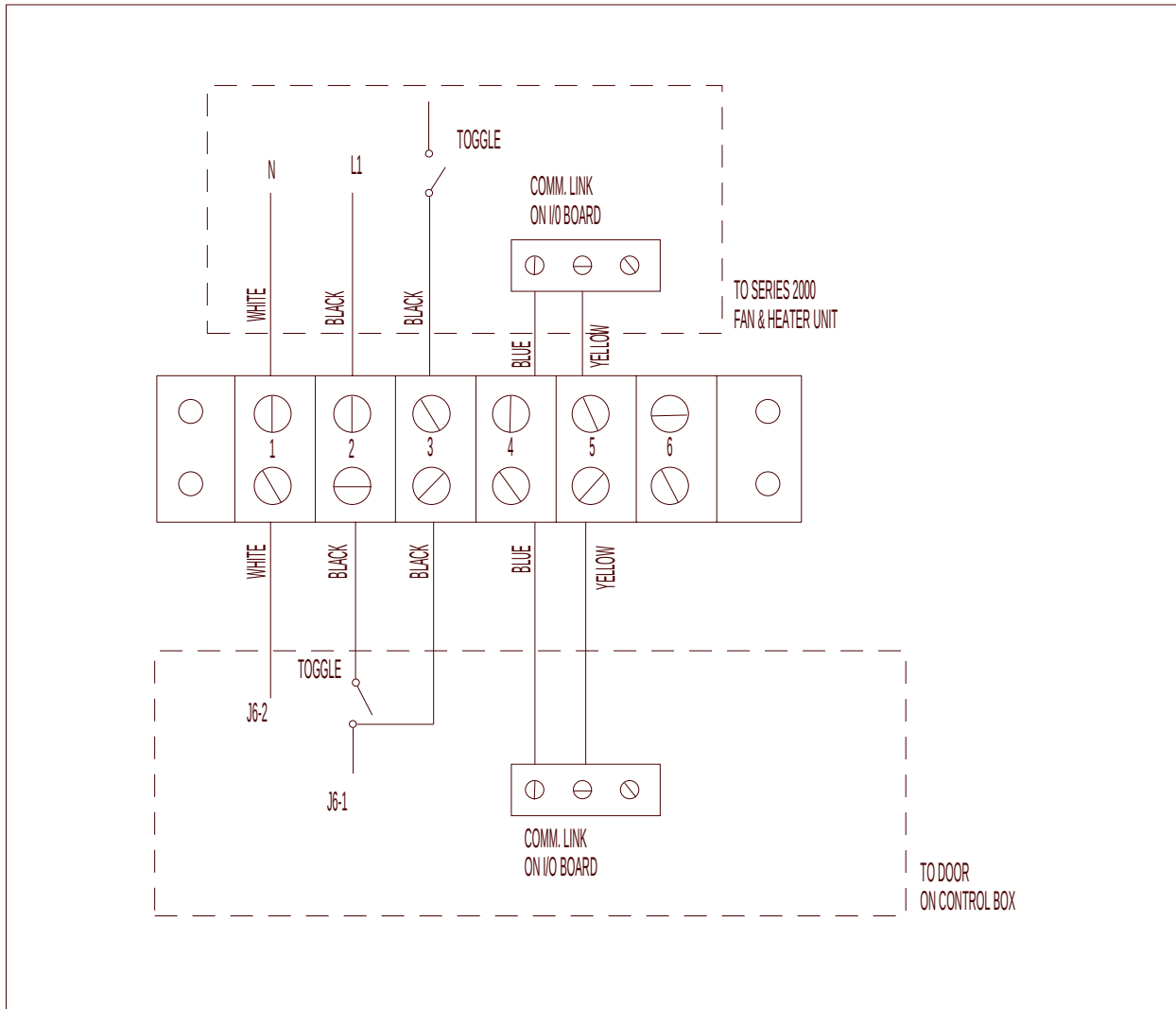
1997 Series 2000-Slave Heater External Wiring



1997 Series 2000-Economy Control Center Wiring



1997 Series 2000-Manual Control Center Wiring



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March 1998