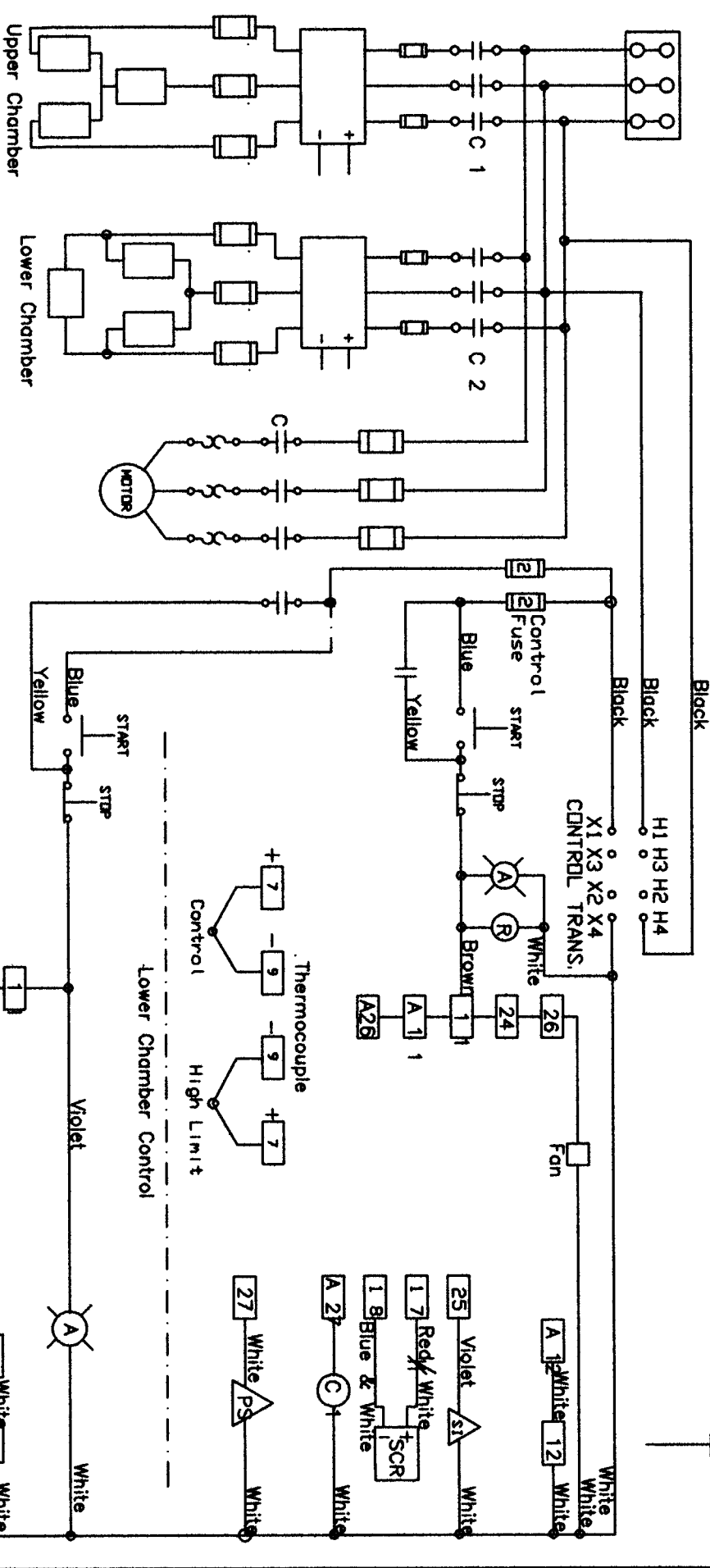


Power Supply **DUAL CHAMBER INDUSTRIAL UNIT** 230V / 460Wattlow 942 Or 945 Controller and Watlow 945 High Limit 3 Ph / 60 Hz And SCR On Both Chambers



- Control Inst. Terminals
- High Limit Cont. Term.
- Contactor Coils
- △ Solenoid, Incoming Atmos.
- △ Purge Solenoid
- Air Flow Switch
- Inst. Cabinet Cooling Fan
- Afs Air Flow Switch

A:\HeatTreat\ED00038 2/15/97
 McEnglevan Ind. Furnace Mfg. Co

DU 2020-30-1 Dual Chamber Industrial Furnace
 Watlow 942 Controller and 945 High Limit
 Watlow Din-A-Mite SCR On Both Chambers □_{Gr}

Equip.
Grounding

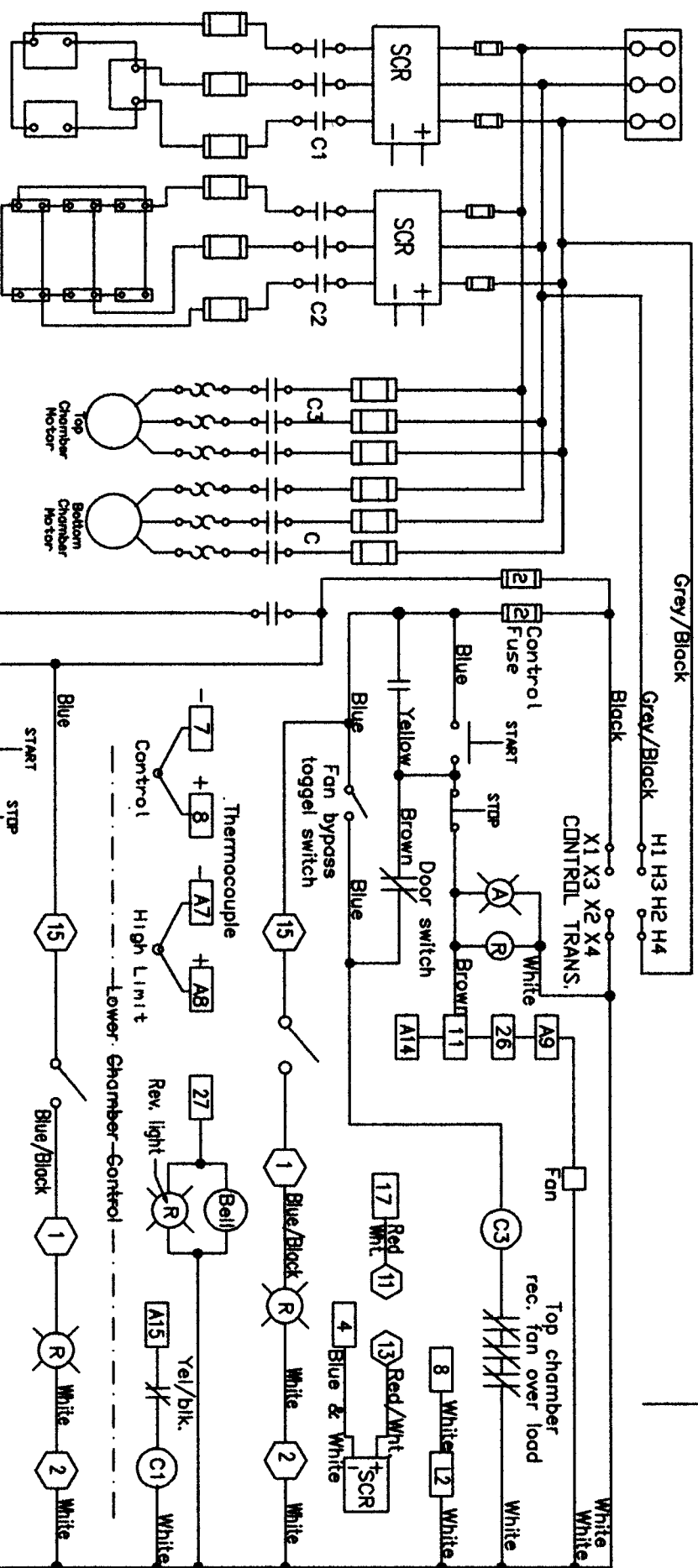


Wiring Diagram 230/460V, 3 Ph., 60 Hz.

4/2/98

Power Supply
230V
3 Ph / 60 Hz

DU 2020-30-1 Dual Chamber Industrial Furnace
Watlow 942 Controller and Watlow 97 High Limit
Watlow Din-A-Mite SCR on Both Chambers and ATC Timer



- ☐ Control Inst. Terminals
- ☐ High Limit Cont. Term.
- ☐ Contactor Coils
- ☐ Door inter lock
- ☐ Inst. Cabinet Cooling Fan
- ☐ Timer terminals

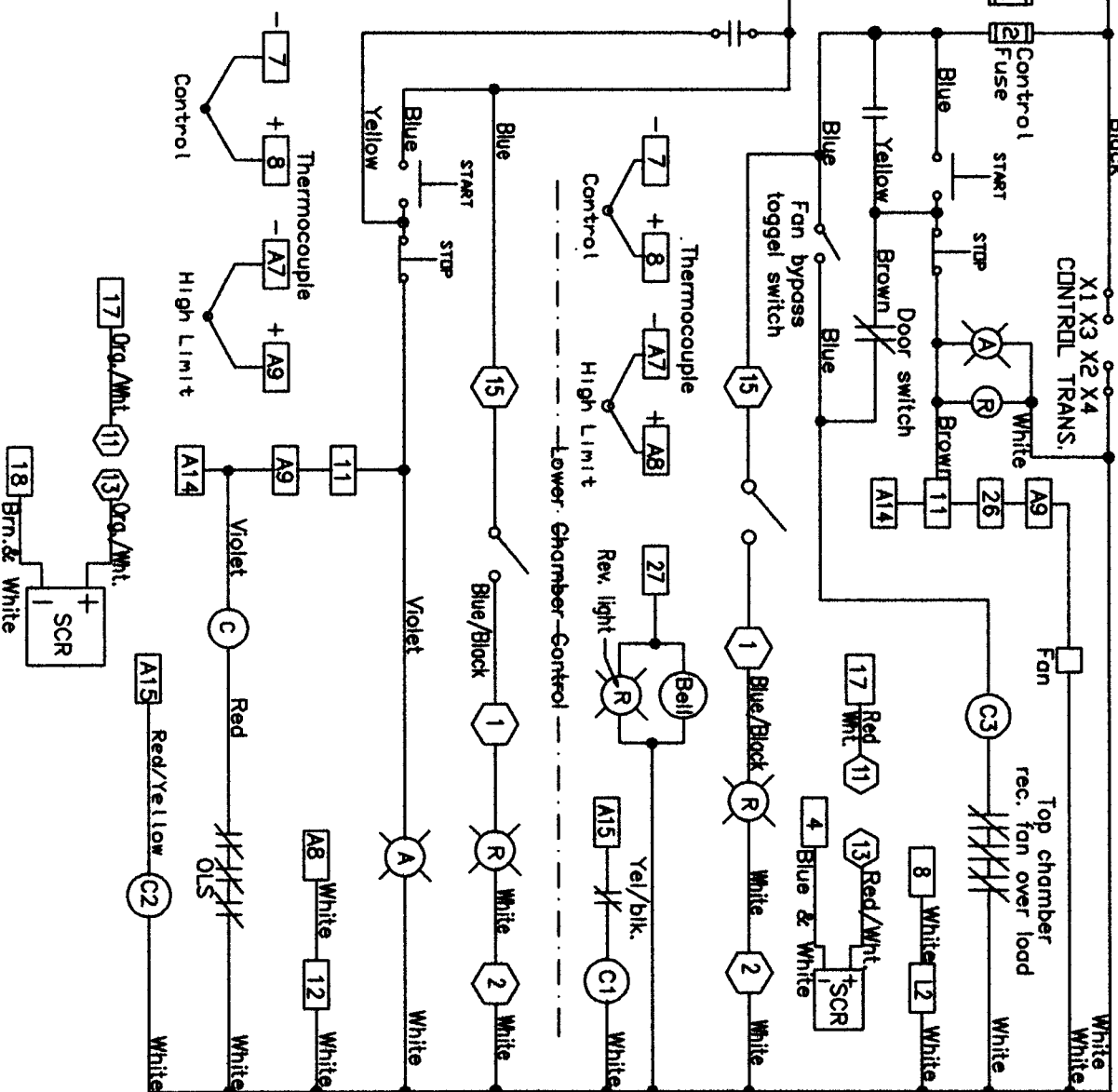
A:\ED0073

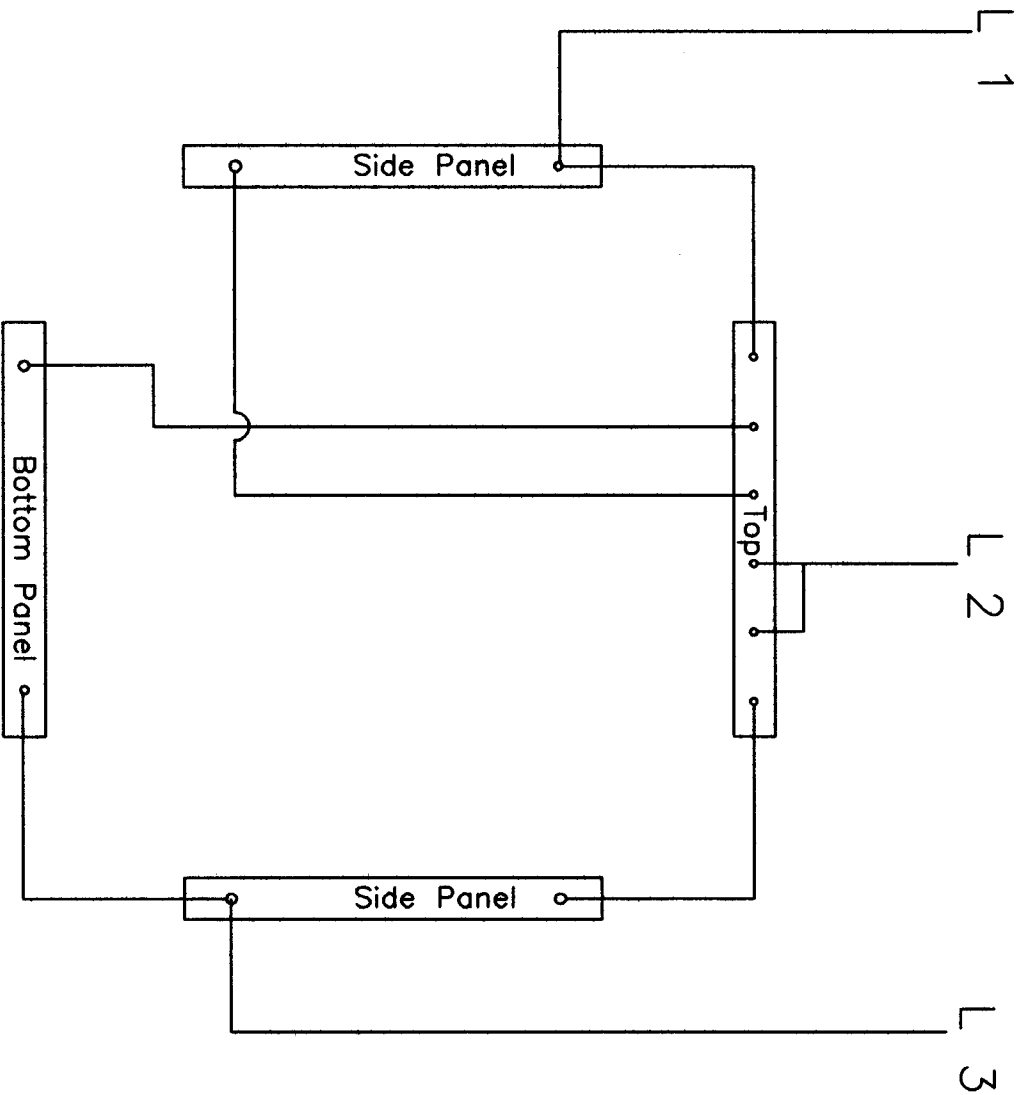
DU 2020-30 Dual Chamber Heat Treat Furnace

Wiring Diagram 230/460V, 3 Ph., 60 Hz.

M I F C O

8/3/2000





230 Volt 3 Ph

A:\ED0041

DU-1020, DU-1224 With Watlow Panels
Heating Panel Wiring Connection
230 v 3 Ph
M I F C O
9/24/97

LTE 1824 And LTE 1830

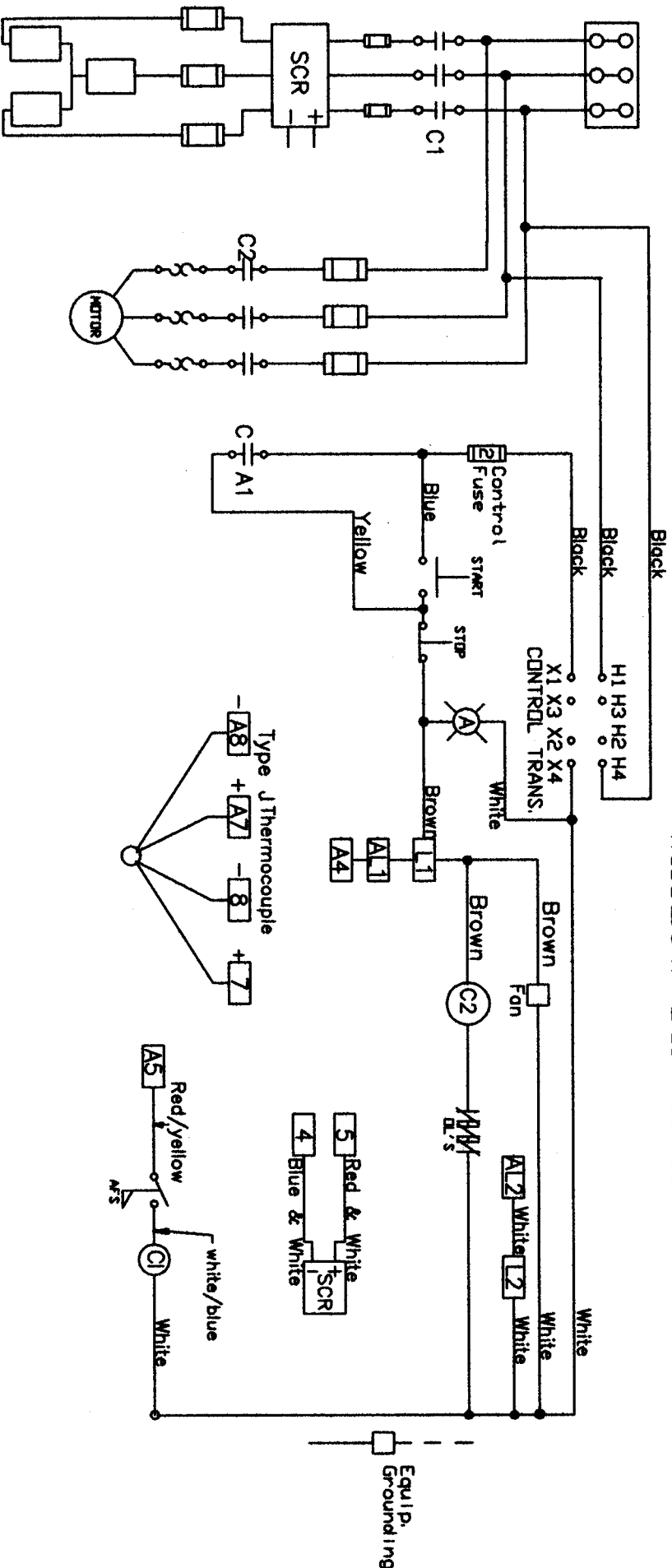


LTE 1824 and LTE 1830

MIFFCO

5/7/96

Power Supply **LT 1824-LT 1830 INDUSTRIAL UNIT**
 230V / 460V Honeywell 2000C Controller And Honeywell 2000H High Limit
 3 Ph / 60 Hz WATLOW DIN-A-MITE SCR



- ☐ Control Inst. Terminals
- ☐ High Limit Cont. Term.
- ☐ Contactor Coils

- ☐ Inst. Cabinet Cooling Fan
- ☐ Afs Air Flow Switch

HEAT-TRE\ED00060

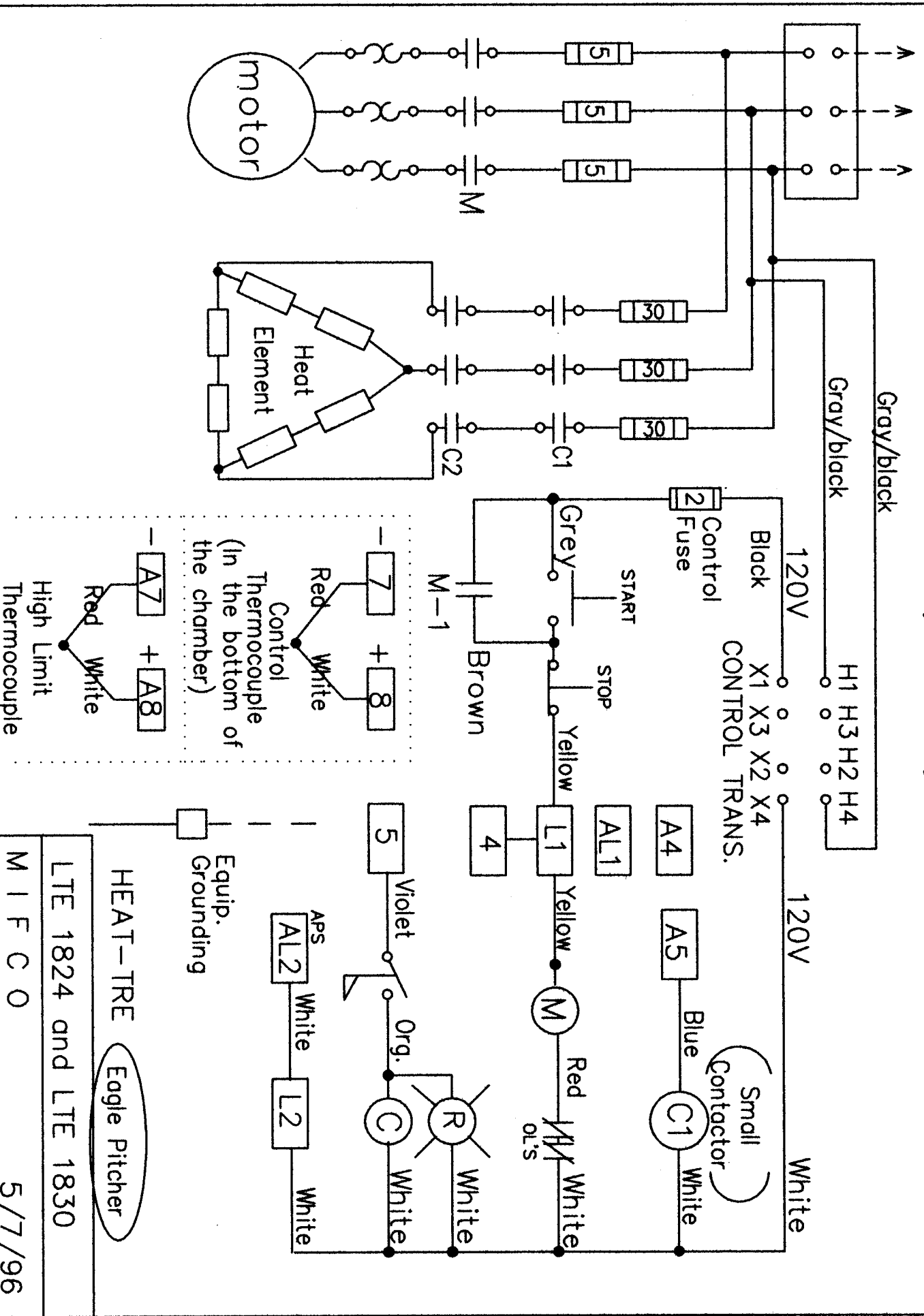
LT 1824--LT 1830

M I F C O

6/21/96

Terminal Block
460 V / 3Ph. / 60 HZ.

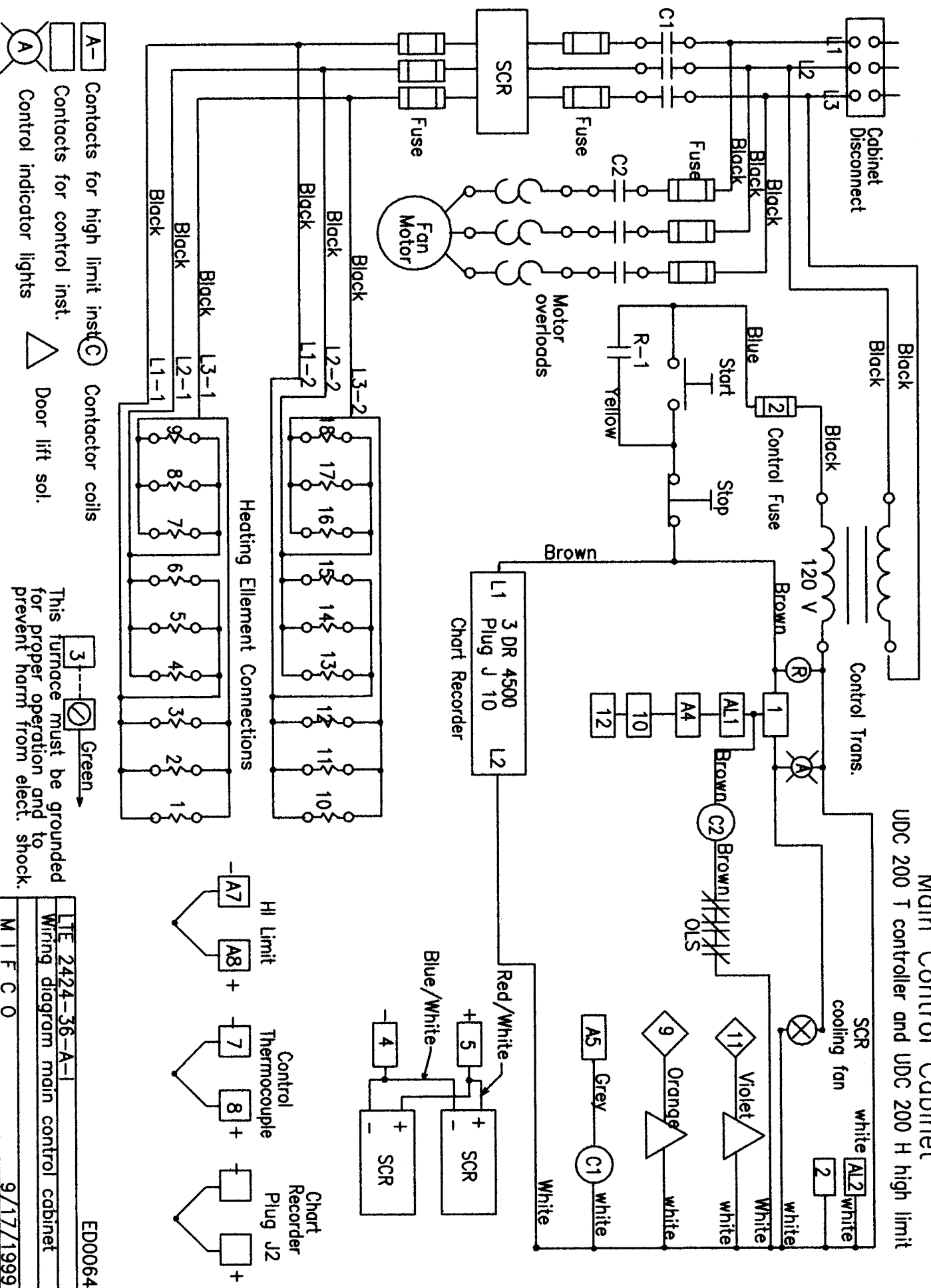
LTE 1824 And LTE 1830 Honeywell 230B controller Honeywell 230L High Limit



HEAT-TRE Eagle Pitcher
LTE 1824 and LTE 1830
M I F C O 5/7/96

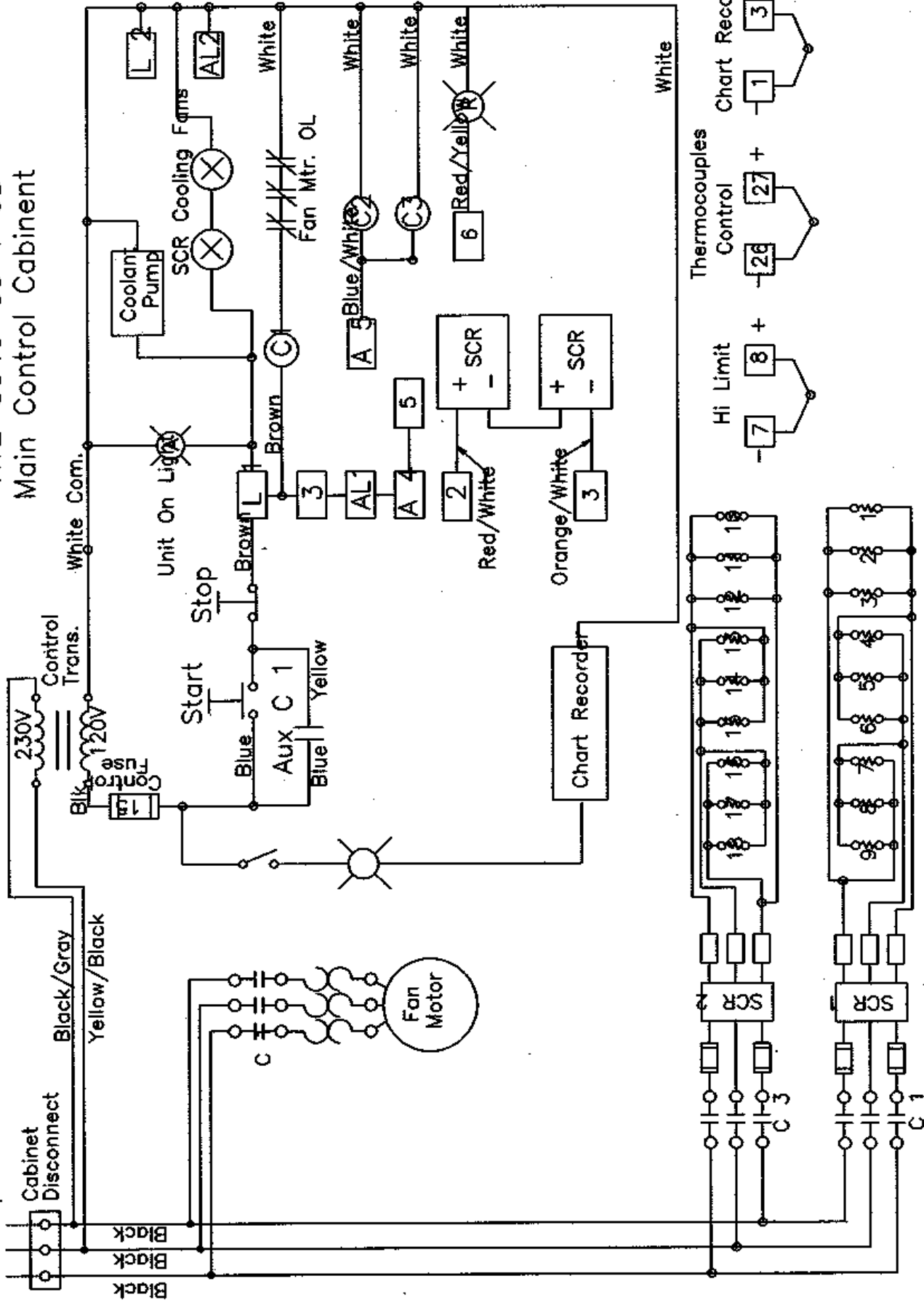
230 V, 3 Ph, 60 Hz.
200 Amp.

LTE 2424-36-1 Main Control Cabinet UDC 200 T controller and UDC 200 H high limit



230 V, 3 Ph., 60 Hz.
200 Amp.

HTE-5540-55-I-CB Main Control Cabinet



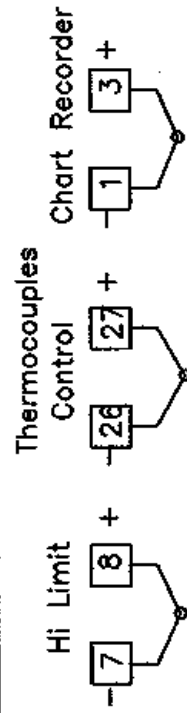
Cont Terminals

Indicator Lights

Contactor Coils



This Furnace Must
Be Grounded To Prevent
Harm From Electric
Shock!!



A/ED0054

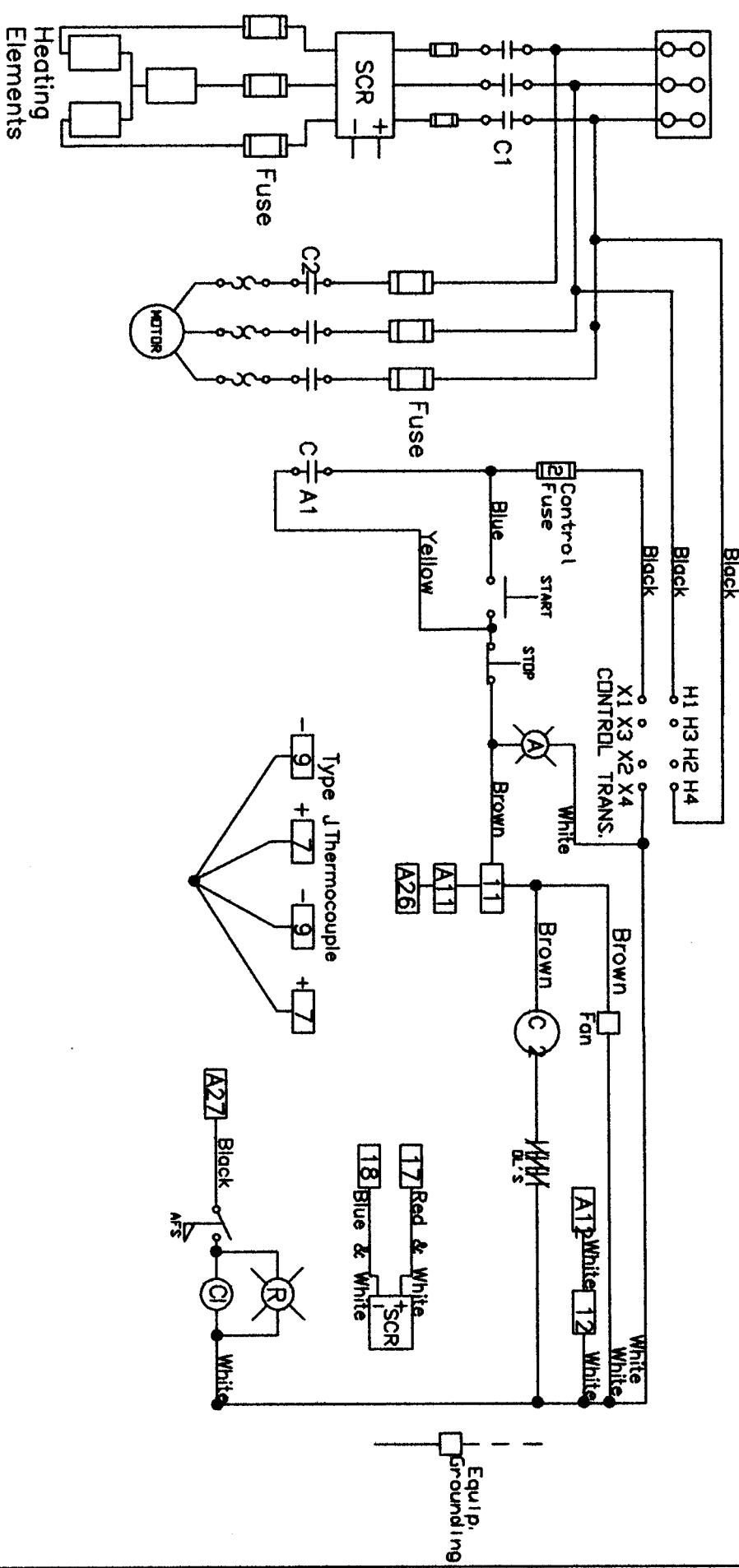
LTE 5682-60-CB-I

Wiring Diagram Main Control Cabinet

M I F C Q

9/15/97

Power Supply **LT 1824-LT 1830 INDUSTRIAL UNIT**
 230V / 460V **Watlow 942 Controller And Watlow 945 High Limit**
 3 Ph / 60 Hz **WATLOW DIN-A-MITE SCR**



- ☐ Control Inst. Terminals
- ☐ High Limit Cont. Term.
- ☐ Contactor Coils

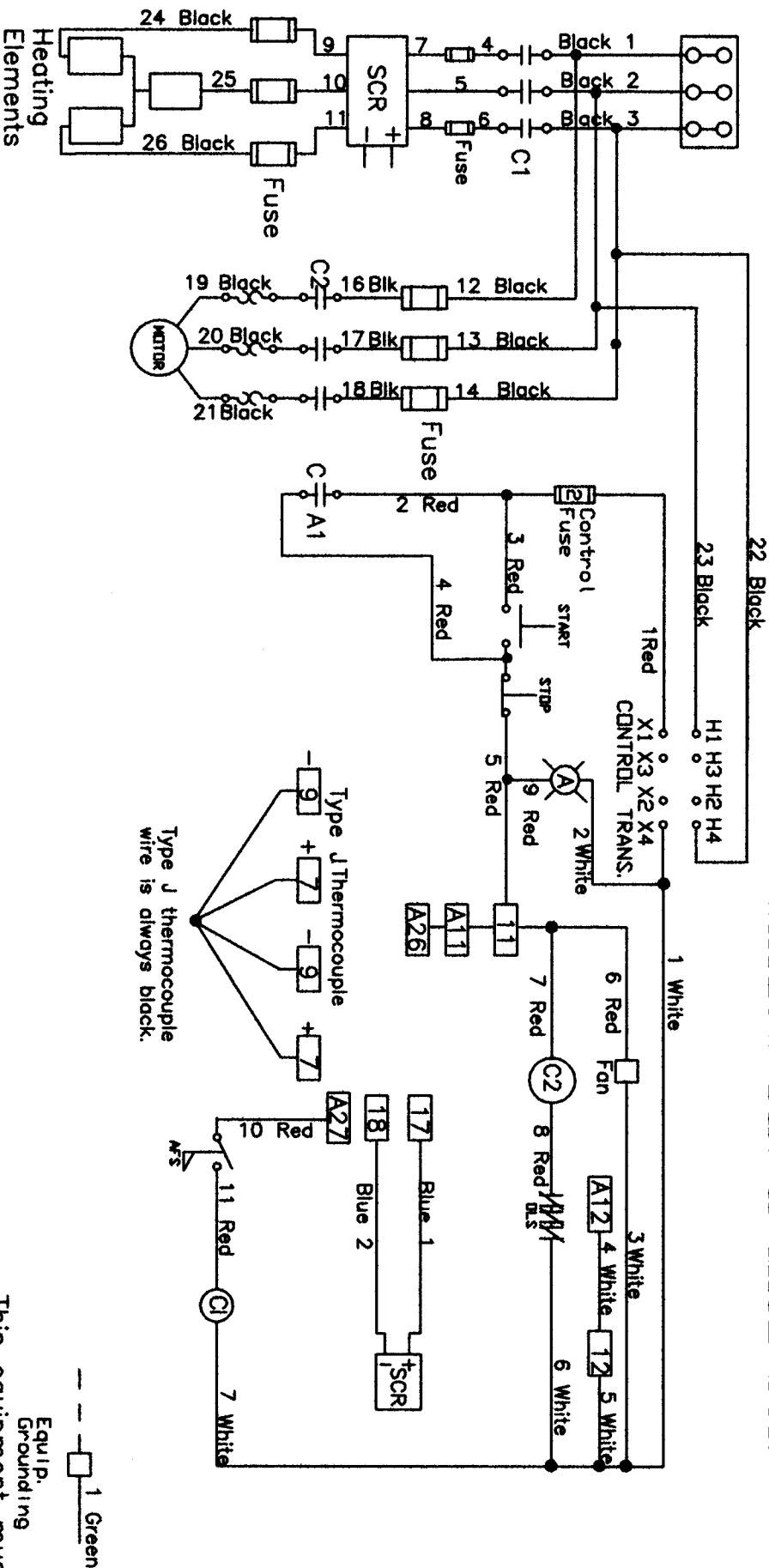
- ☐ Inst. Cabinet Cooling Fan
- ☐ Afs Air Flow Switch

HEAT-TRE\ED0024
LT 1824--LT 1830
M I F C O
6/21/96

Power Supply
230V / 460V
3 Ph / 60 Hz

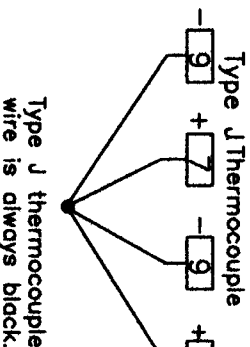
LTE 1824-LTE 1830 IND. UNIT

Watlow 942 Controller And Watlow 945 High Limit
WATLOW DIN-A-MITE SCR



- ☐ Control Inst. Terminals
- ☐ High Limit Cont. Term.
- ☐ Contactor Coils
- ☐ Inst. Cabinet Cooling Fan
- ☐ Afs Air Flow Switch

Black wire line voltage.
Red wire control voltage (less than line voltage)
White wire neutral control wires
Blue wire direct voltage.
Green wire ground only.



This equipment must be grounded to operate properly and to prevent exposure to electrical shock.

ED 0065

LTE 1824--LTE 1830

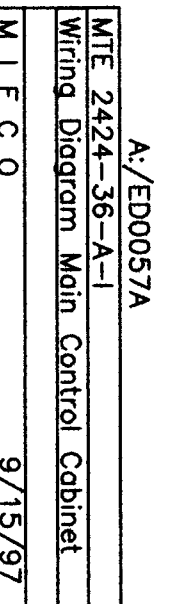
Wiring diagram

M I F C O

6/21/96

MHT 2424--36-A-1

With Atmosphere

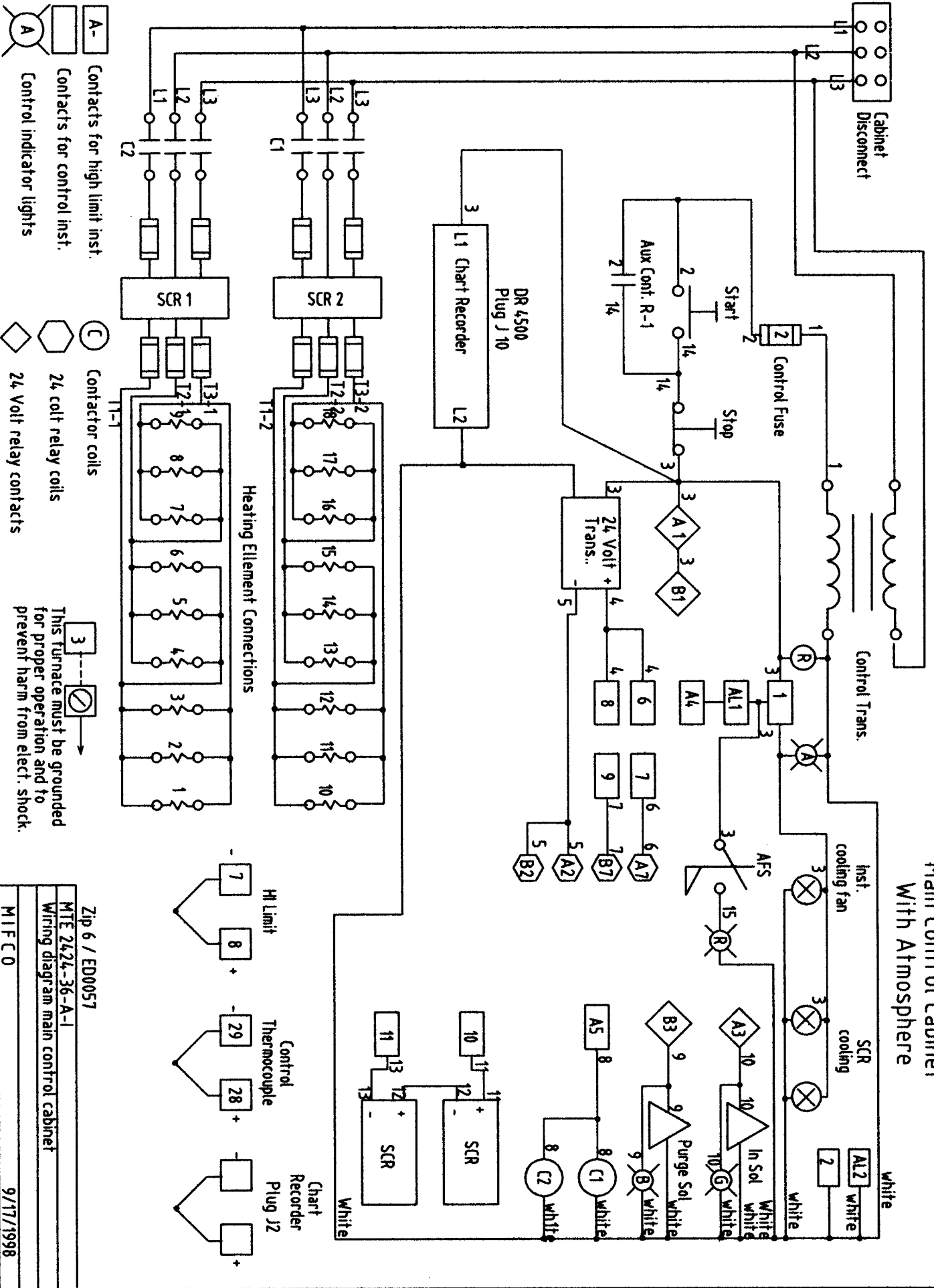


230 V, 3 Ph, 60 Hz.
200 Amp.

MTE 2424-36-A-1

Main Control Cabinet

With Atmosphere



Zip 6 / ED0057

MTE 2424-36-A-1

Wiring diagram main control cabinet

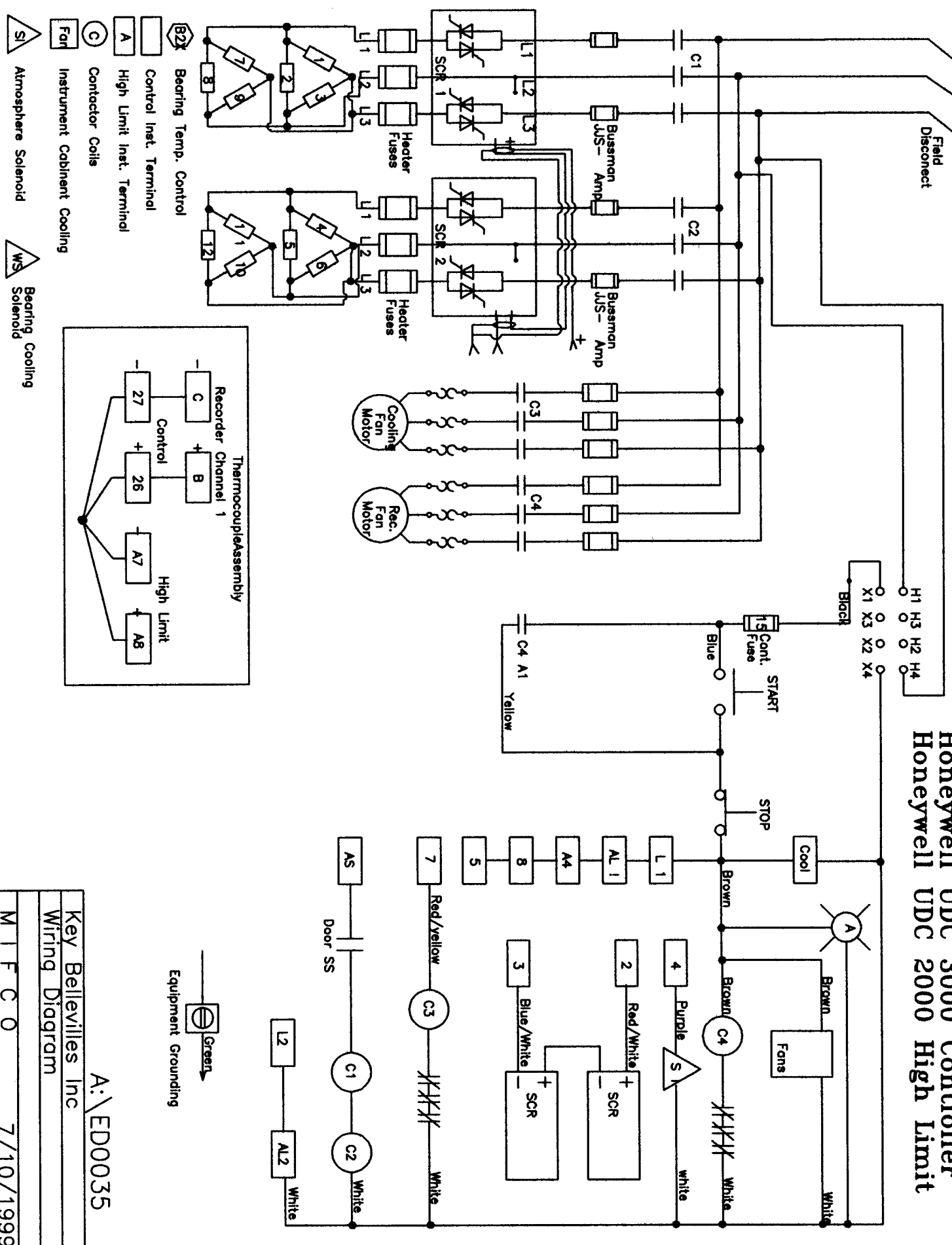
MIFCO

9/17/1998

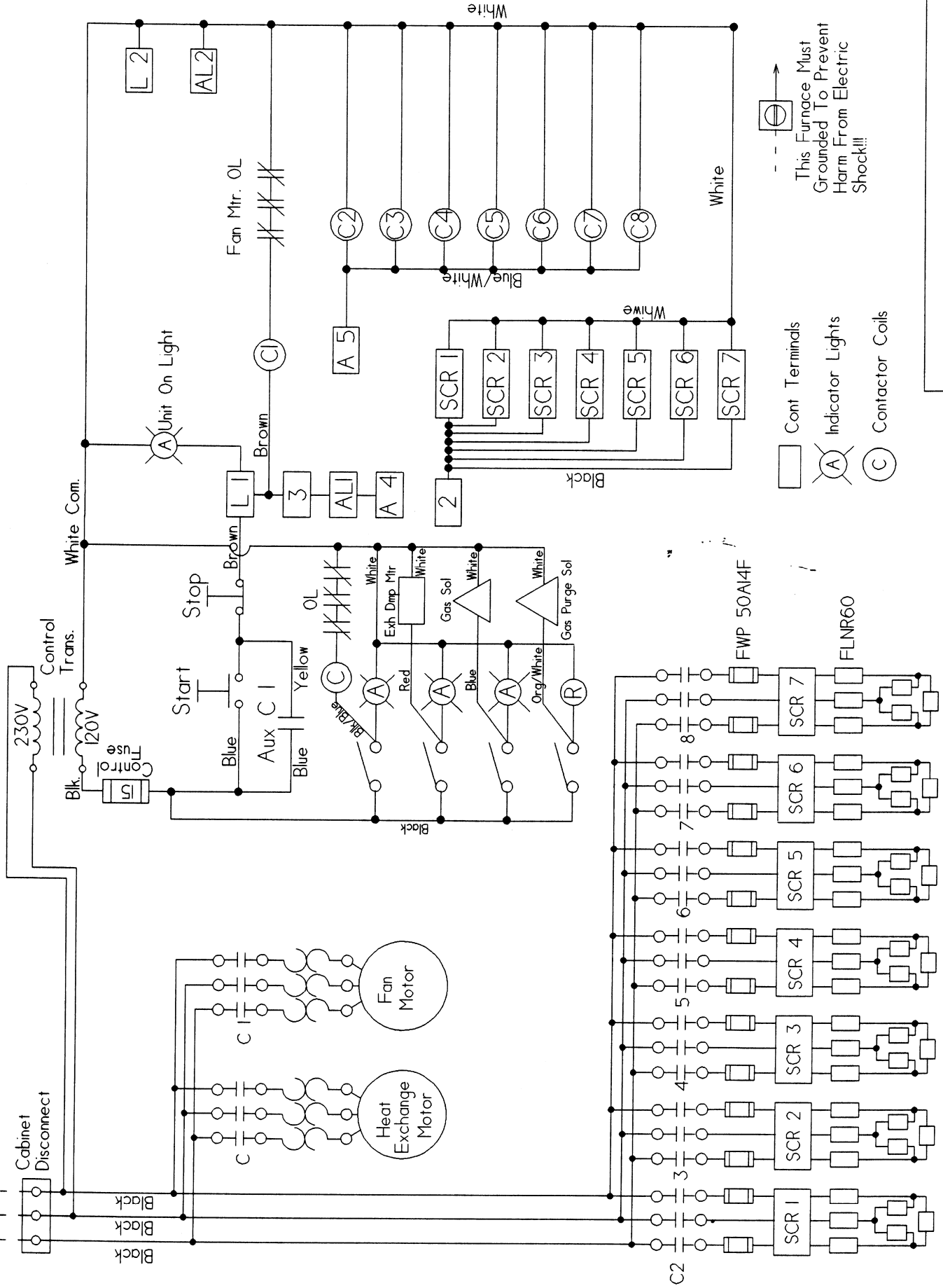
480V, 3 Ph, 60 Hz.
L 1 L 2 L 3

Heat Treat Furnace With Atmosphere

Honeywell UDC 3000 Controller
Honeywell UDC 2000 High Limit



230 V .3 Ph. .60 Hz.
200 Amp.



Heating Elements Delta Connection

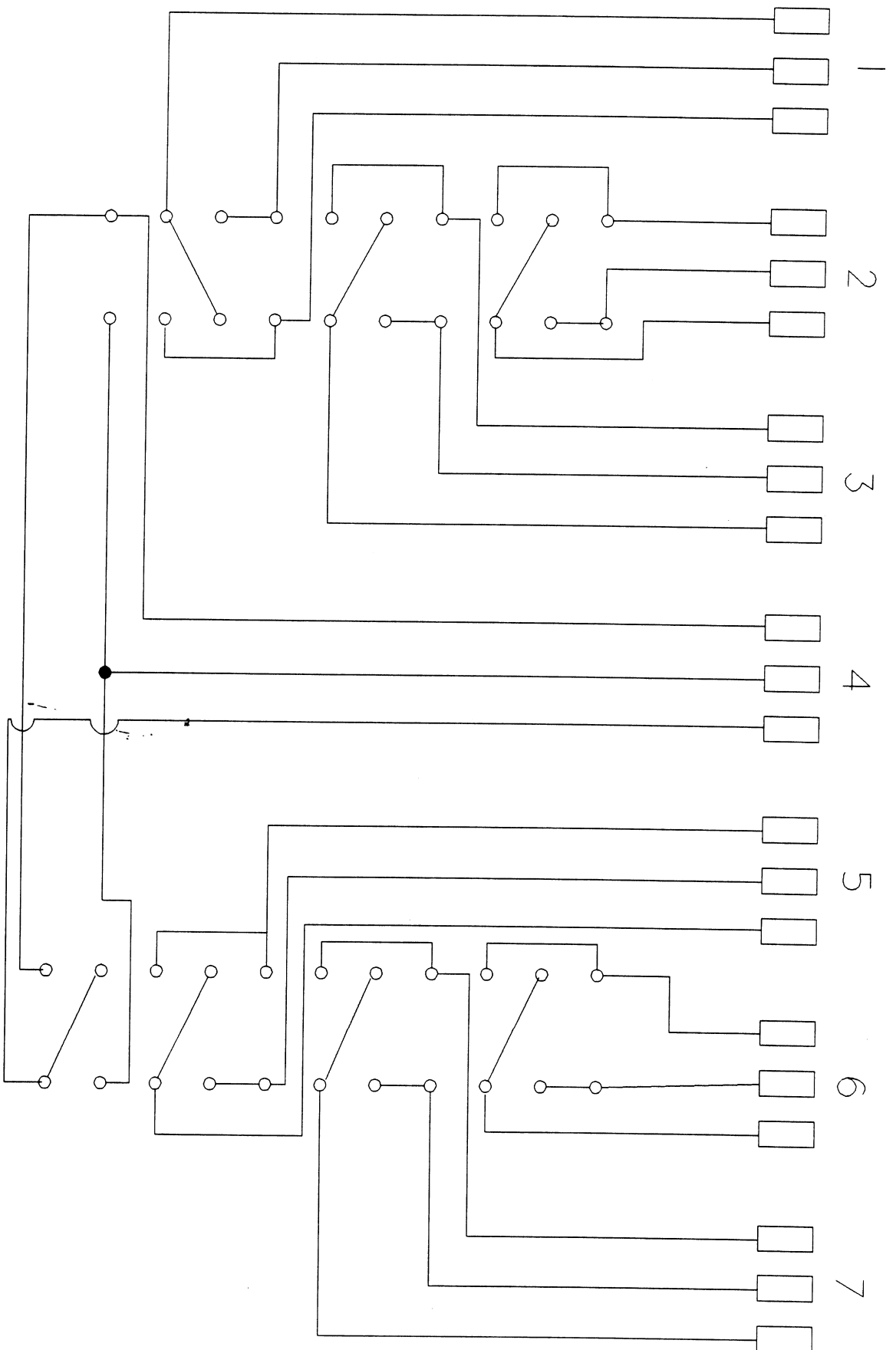

 This Furnace Must
Be Grounded To Prevent
Harm From Electric
Shock!!!

-  Contactor Coils
-  Indicator Lights
-  Cont Terminals

Wiring Diagram Main Control Cabinet

M I F C O

9/15/97



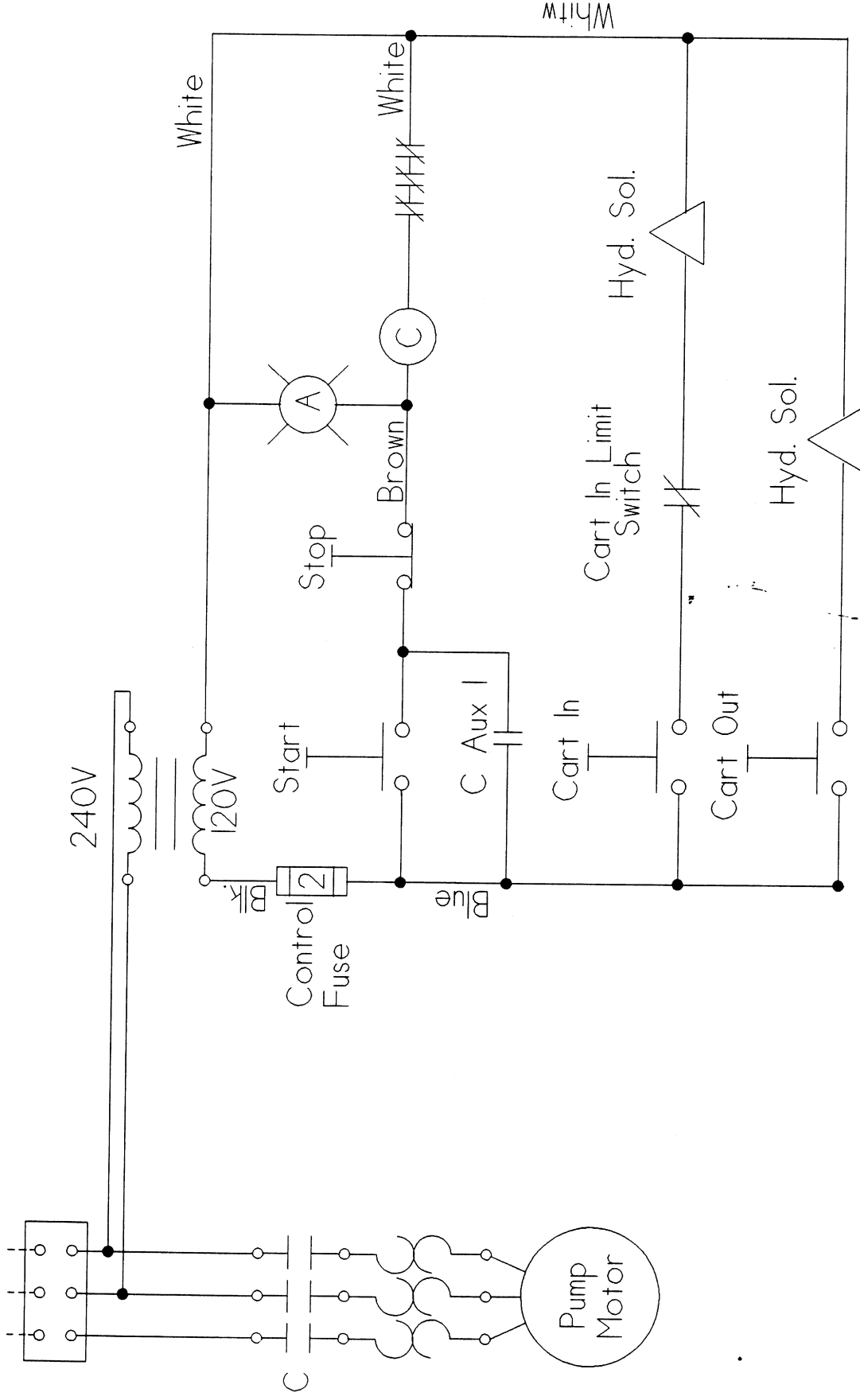
All Heater Hookup Wire Is 8 Ga.
Stranded Copper Wire.

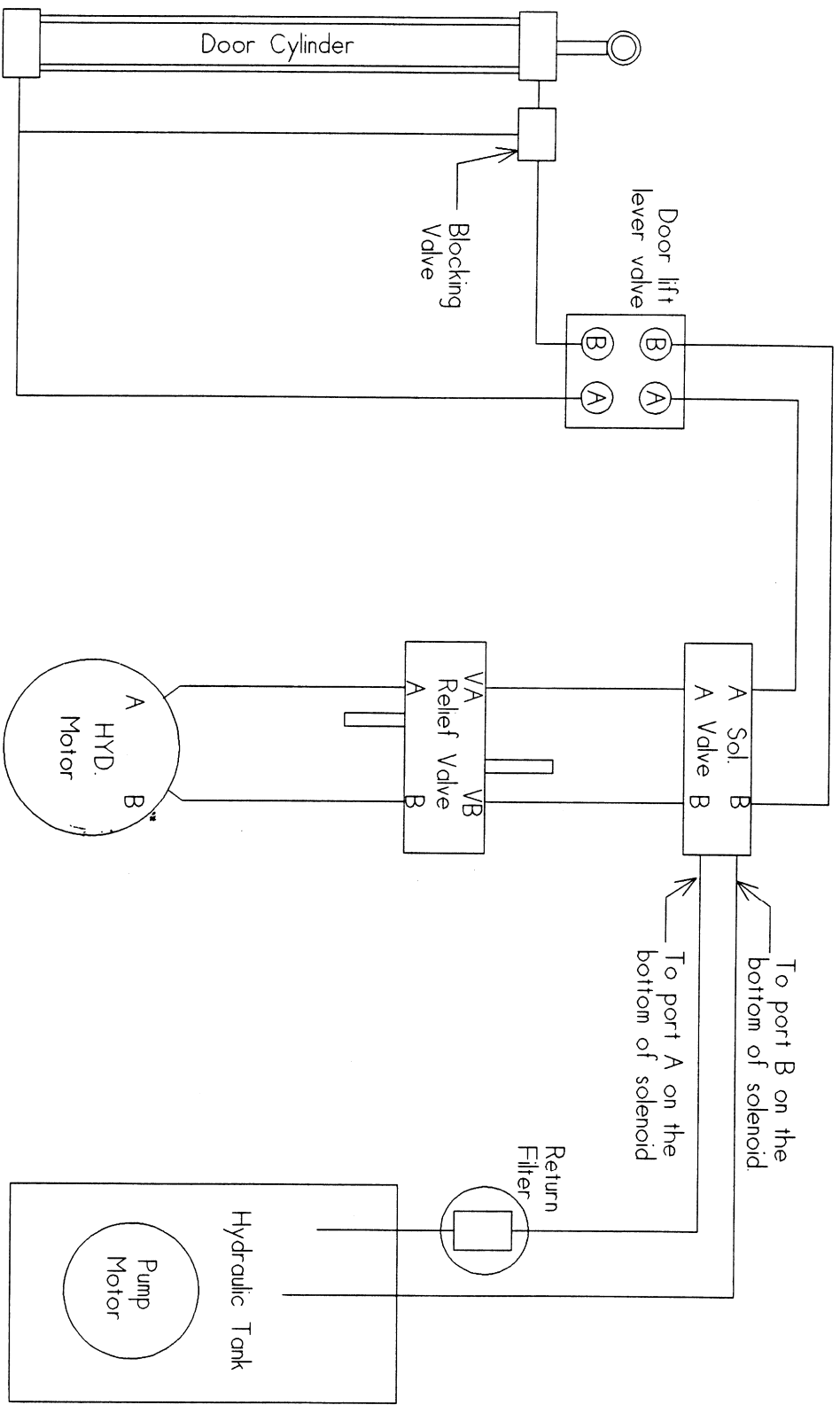
Heater Wiring Schematic

MIFCO

9/16/97

230 V.. 3 Ph.. 60 Hz.





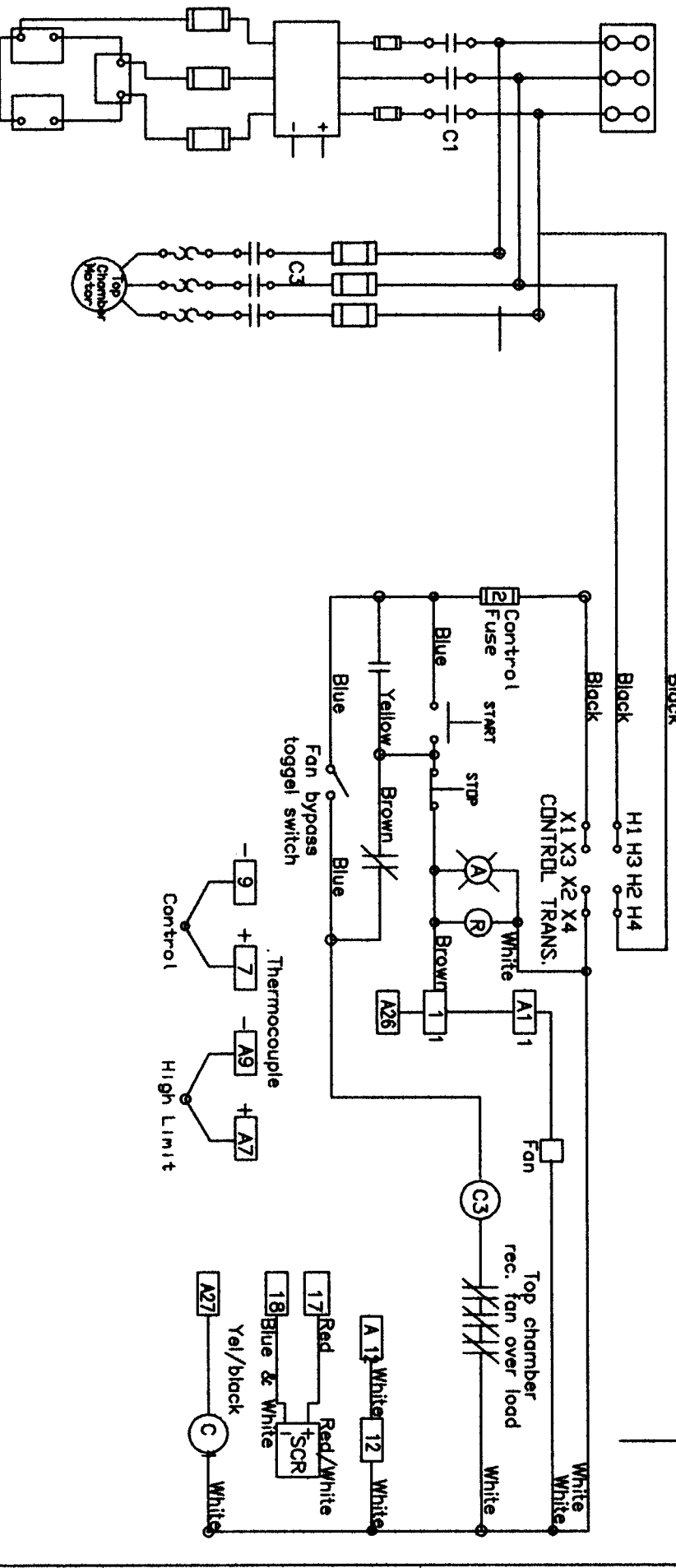
Hydraulic Diagram

MIFCO

9/16/97

Power Supply
230V / 460V
3 Ph / 60 Hz

MTE 2424-36-1 Medium Temperature Furnace, Watlow 942 Controller and 945 High Limit Watlow Din-A-Mite SCR



- ☐ Control Inst. Terminals
- ☐ High Limit Cont. Term.
- ☐ Contactor Coils
- ☒ Door inter lock
- ☐ Inst. Cabinet Cooling Fan

A:\ED0053

MTE 2424-36-1 Medium Temperature Furnace
Wiring Diagram 230/460V, 3 Ph., 60 Hz.

M I F C O

4/2/98

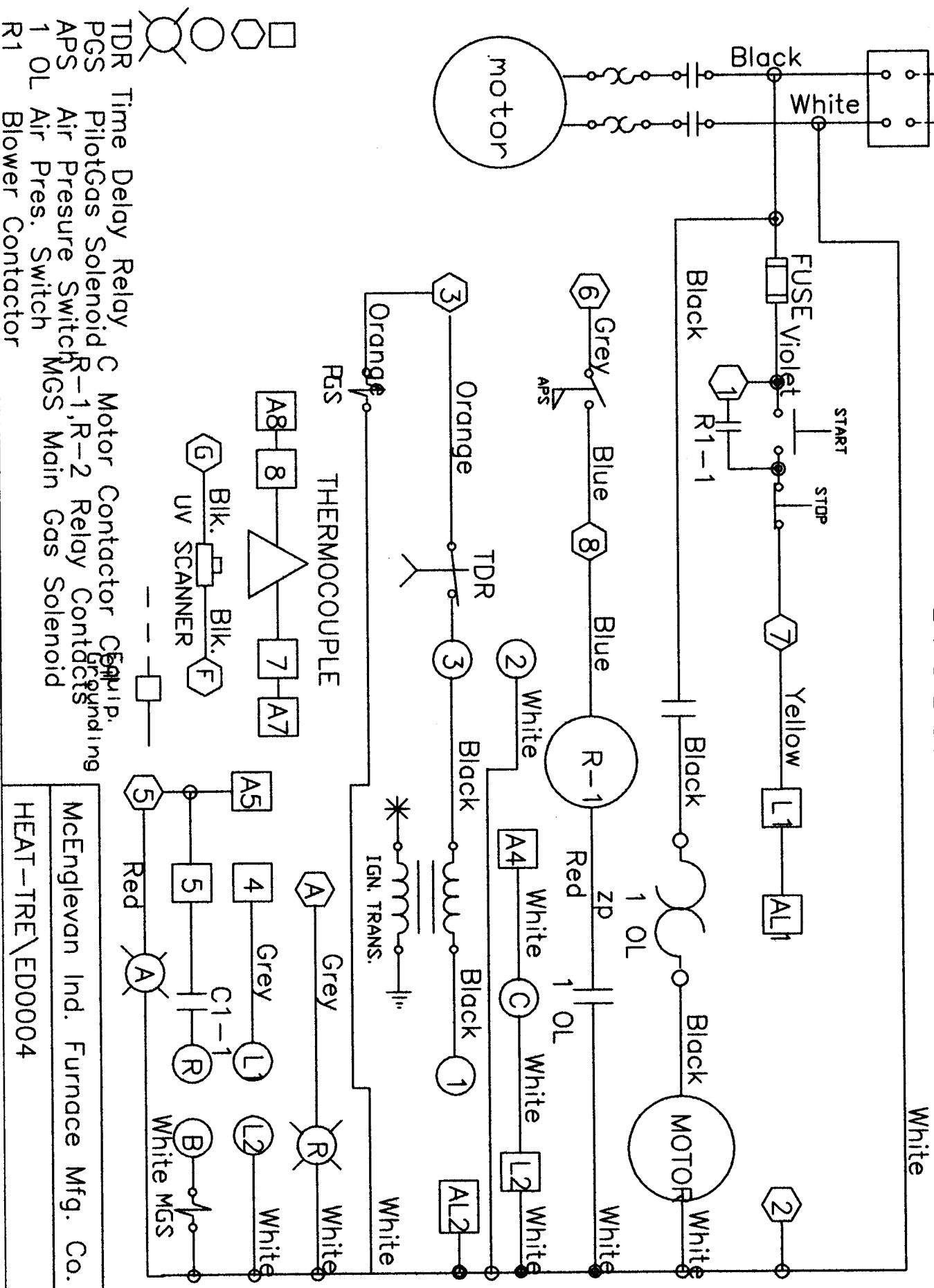
POWER BLOCK

COMBUSTION SAFEGUARD SYSTEM

NUMBER 6

120 V 1 PH 60 HZ

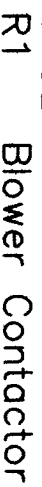
White



120 V / 1 PH /

604Z

White

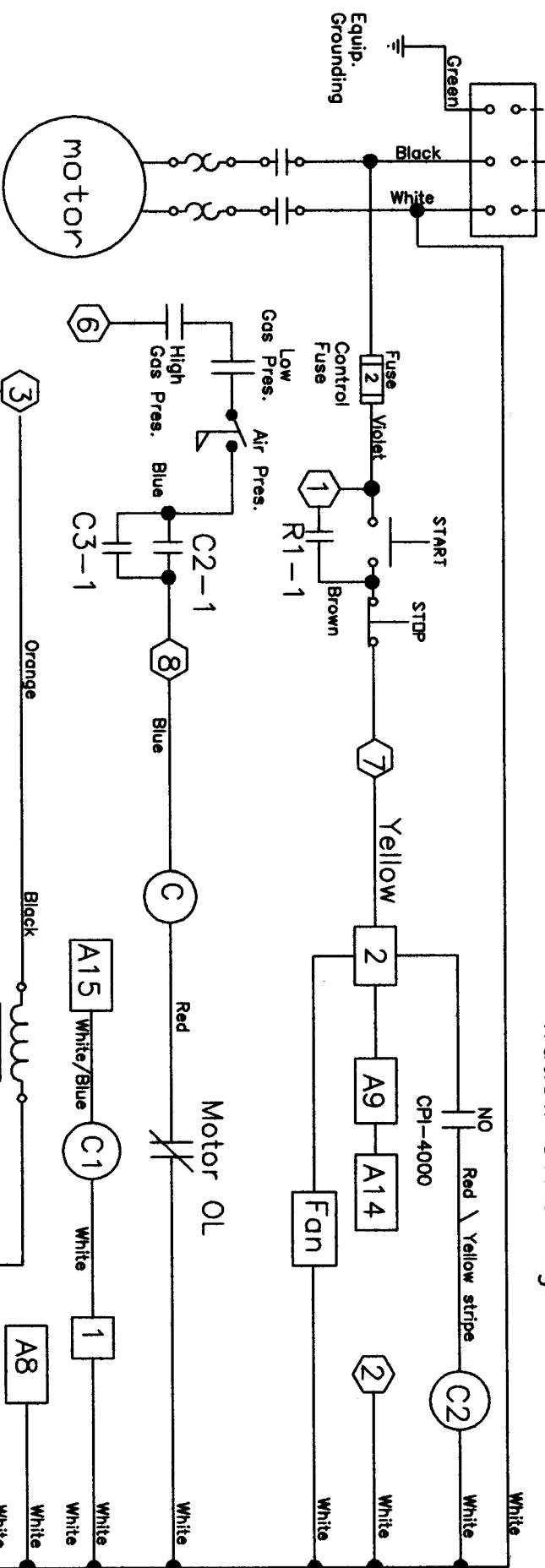


Heat-Tre / ED00008

3/22/95

With FM proof of closure switch.
Fireye MC 120
Honeywell DC 11T Controller
Watlow 97AO High Limit

With FM proof of closure switch.
Fireye MC 120
Honeywell DC 11T Controller
Watlow 97AO High Limit



	High limit term.
	Temp. control term.
	Flame safety term.
	Contactor coils
	Pilot lights
PGS	PilotGas Solenoid
APS	Air Pressure Switch
1 OL	Air Pres. Switch
R1	Blower Contactor

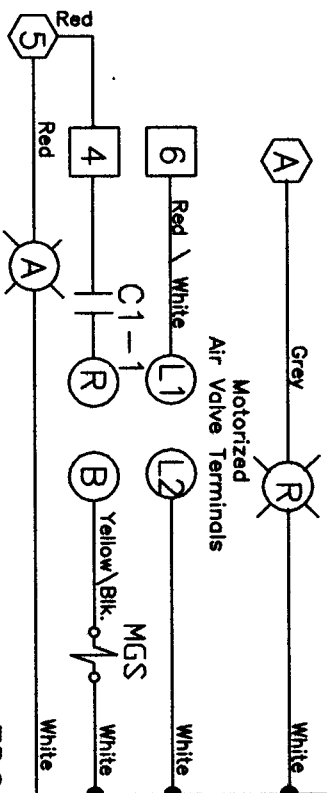
FGS THERMOCOUPLE

A7 — 8 —  — 9 — A6 —

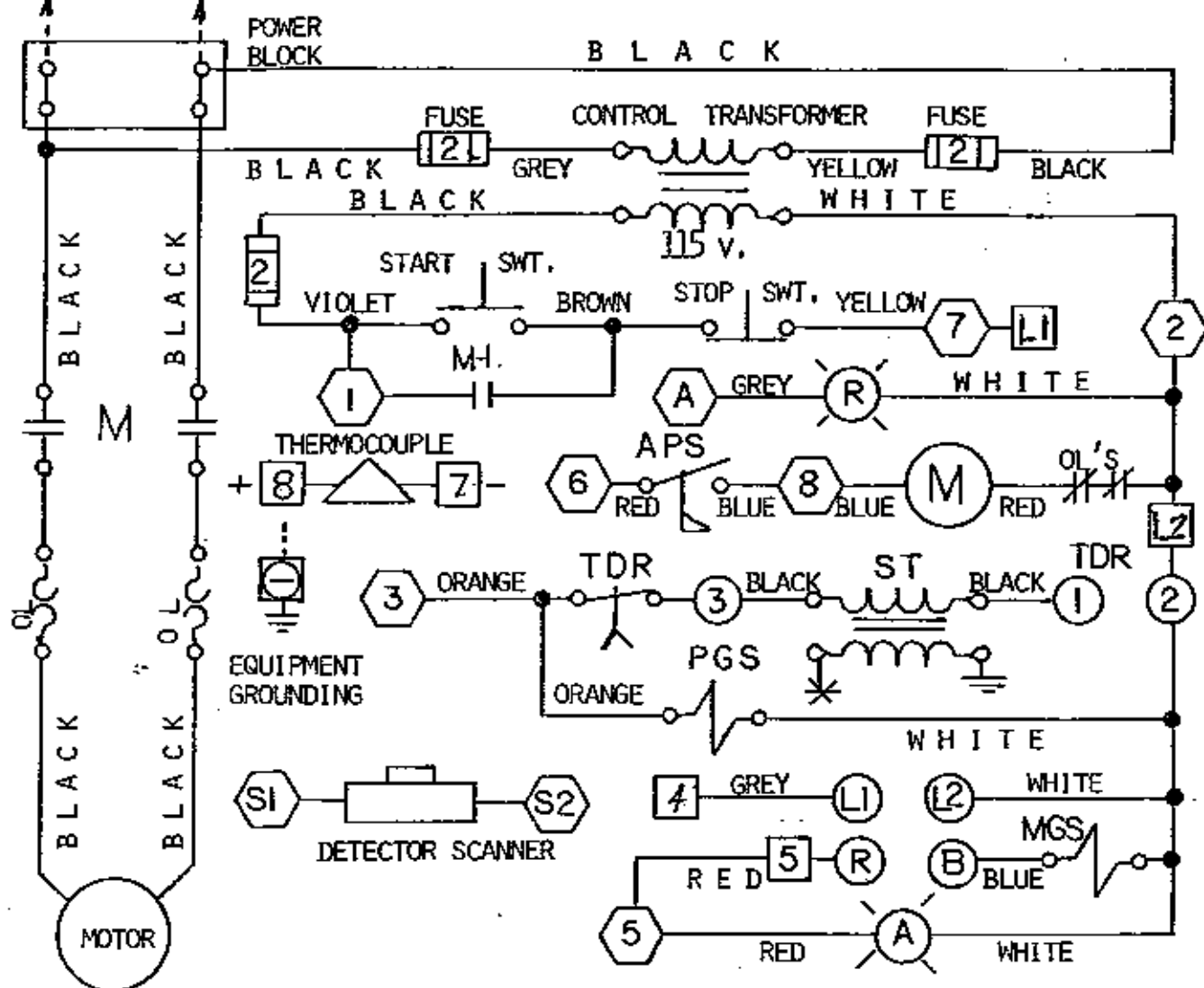
S1 — Black —  — Black — S2

UV SCANNER

C Motor Contactor Coil
R-1, R-2 Relay Contacts
MGS Main Gas Solenoid



FUSED POWER SUPPLY
230 V / 1 PH / 60 HZ



COMBUSTION SAFEGUARD SYSTEM No. 6UV

LEGEND

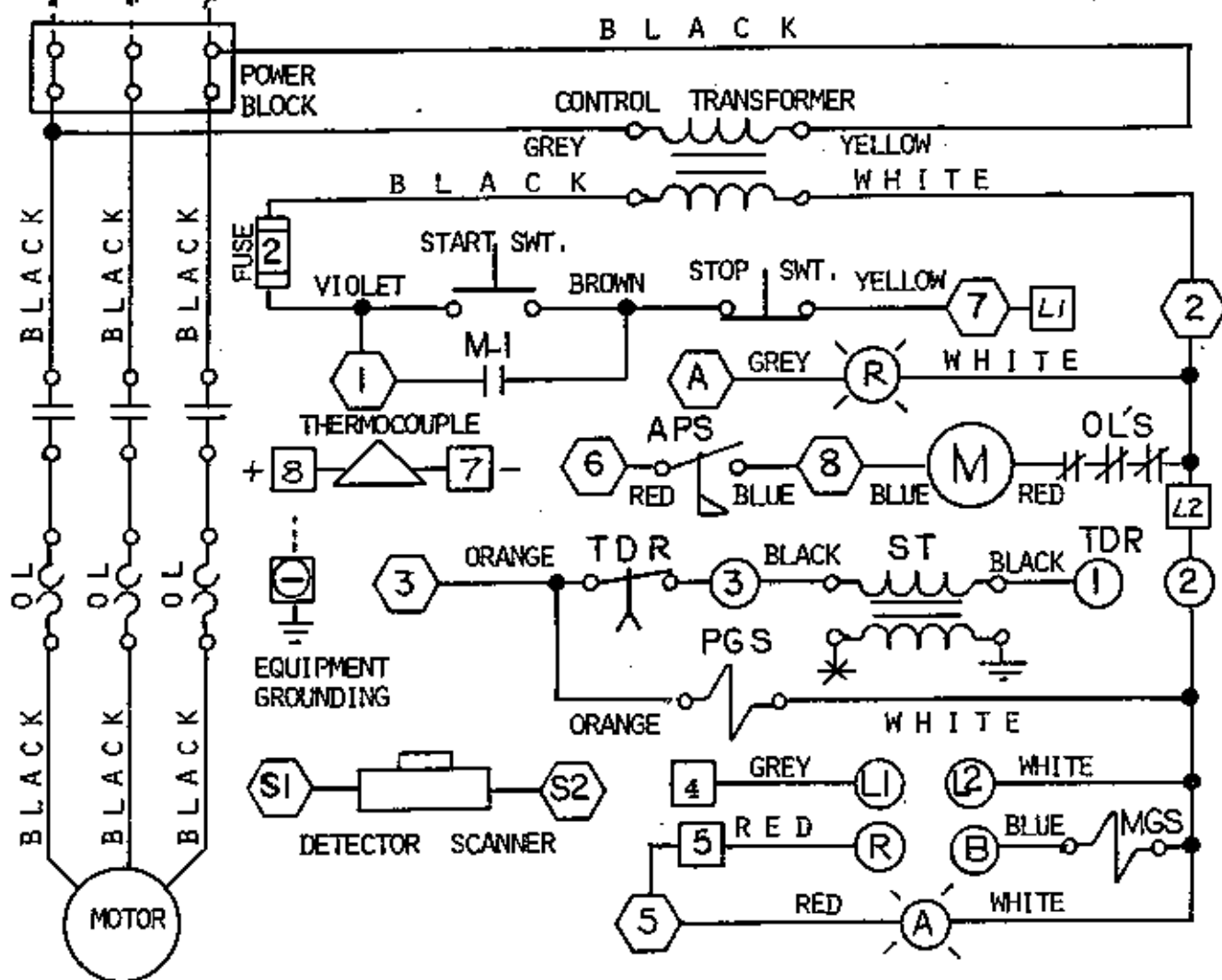
- ☐ TEMPERATURE CONTROL TERMINALS
- ☐ ULTRA VIOLET CONTROL TERMINALS
- ☐ TIME DELAY RELAY TERMINALS
- ☐ CONTROL LIGHTS
- ST SPARK TRANSFORMER
- PGS PILOT GAS SOLENOID
- APS AIR PRESSURE SWITCH
- OL'S MOTOR OVERLOAD RELAYS
- M BLOWER MOTOR MAGNETIC STARTER
- M I STARTER CONTACTS
- MGS MAIN GAS SOLENOID
- T CONTROL TRANSFORMER .250KVA

NOTES

- I THE WIRE SELECTION WERE BASED ON CONDUCTORS FOR HIGH TEMPERATURE RATING PER N.E.C. TABLE 312-12
- II FIELD MUST PROVIDE GROUNDED POWER SUPPLY PER O.S.H.A. REQUIREMENTS.
- III IN CASE OF POWER FAILURE THE SAFETY SYSTEM WILL AUTOMATICALLY SHUT DOWN AND WILL NOT RE-START UNTIL IT IS ENERGIZED BY THE START SWITCH.
- IIII FACTORY WIRED _____
FIELD WIRED - - - - -

F

FUSED POWER SUPPLY
230 V / 3 PH / 60 HZ



COMBUSTION SAFEGUARD SYSTEM 6UV

LEGEND

- TEMPERATURE CONTROL TERMINALS
- ULTRA VIOLET CONTROL TERMINALS
- TIME DELAY CONTROL TERMINALS
- CONTROL LIGHTS
- ST SPARK TRANSFORMER
- PGS PILOT GAS SOLENOID VALVE
- OL'S MOTOR OVERLOAD RELAYS
- M MOTOR MAGNETIC STARTER
- M I STARTER CONTACTS
- MGS MAIN GAS SOLENOID VALVE
- APS AIR PRESSURE SWITCH

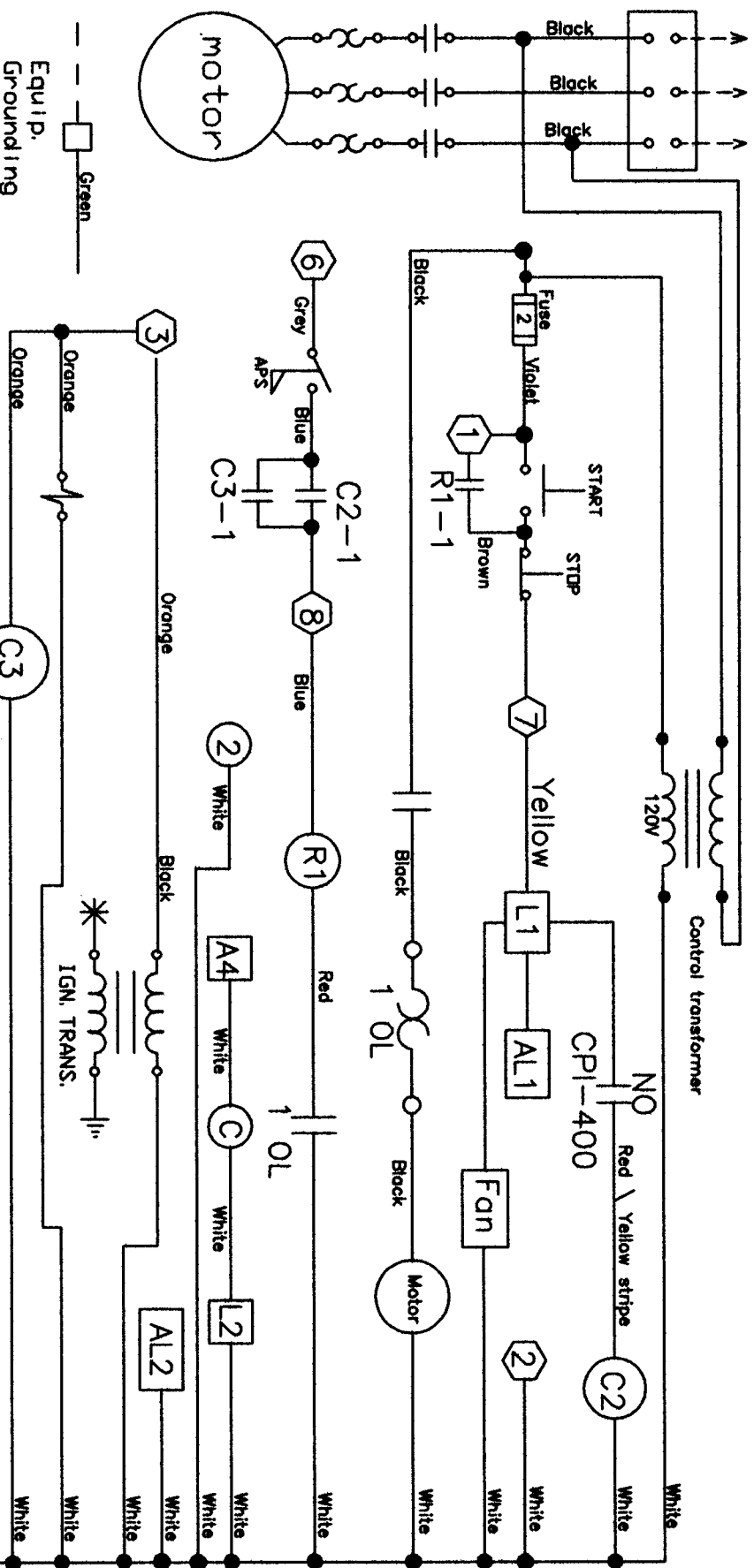
NOTE

- I THE WIRE SELECTION WERE BASED ON CONDUCTORS FOR HIGH TEMPERATURE RATING PER N.E.C. TABLE 312-12
- II FIELD MUST PROVIDE GROUNDED POWER SUPPLY PER O.S.H.A. REQUIREMENTS.
- III IN CASE OF POWER FAILURE THE SAFETY SYSTEM WILL AUTOMATICALLY SHUT DOWN AND WILL NOT RE-START UNTIL IT IS ENERGIZED BY THE START SWITCH.
- IIII FACTORY WIRED _____
FIELD WIRED - - - -

E

POWER BLOCK
230 V \ 3 Ph \ 60 Hz

COMBUSTION SAFEGUARD SYSTEM NUMBER 6 With proof of closure switch.



- AL1 High limit term.
- Temp. control term.
- Flame safety term.
- Contactor coils
- Pilot lights
- PGS PilotGas Solenoid
- APS Air Pressure Switch
- 1 OL Air Pres. Switch
- R1 Blower Contactor

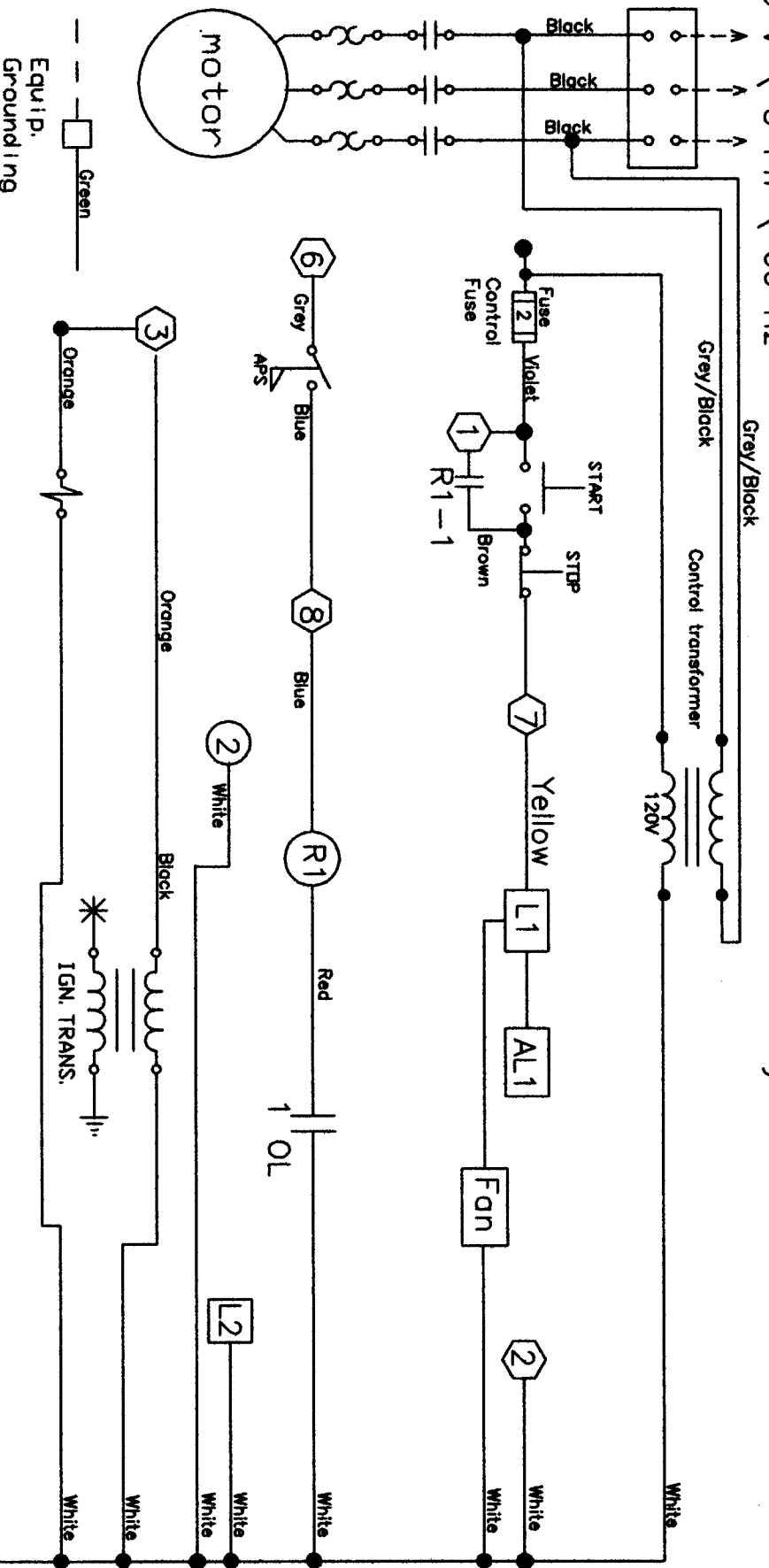
- FGS THERMOCOUPLE
- A8 8
- A7 7
- G Black
- UV SCANNER
- F Black
- C Motor Contactor Coil
- R-1,R-2 Relay Contacts
- MGS Main Gas Solenoid

ED00068
Combustion Safeguard System No 6
With proof of closure Switch
M I F C O
3/15/2000

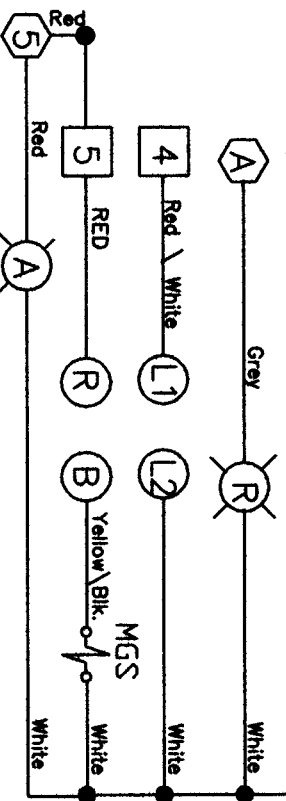
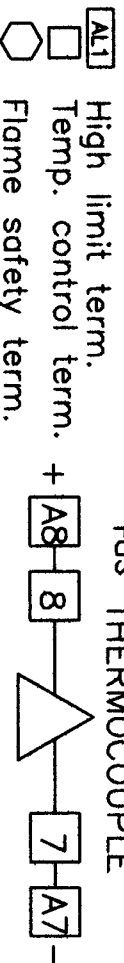
POWER BLOCK
230 V \ 3 Ph \ 60 Hz

COMBUSTION SAFEGUARD SYSTEM NUMBER 6

Fireeye MC 120
Honeywell DC230B-EO Controller



FGS THERMOCOUPLE



High limit term.
Temp. control term.
Flame safety term.
Contactor coils
Pilot lights
PGS PilotGas Solenoid
APS Air Pressure Switch
1 OL Air Pres. Switch
R1 Blower Contactor

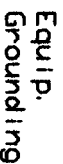
C Motor Contactor Coil
R-1,R-2 Relay Contacts
MGS Main Gas Solenoid

Combustion Safeguard System No 6
With proof of closure Switch
M I F C O
3/15/2000

ED0071

Fireye MC 120	
Honeywell DC230B-E0	Controller
Honeywell DC230L	High Limit

Grey/Black



$\frac{1}{2}$

☐ Temp. control term



A diagram showing a black box with two inputs. The left input is labeled 'S1' and the right input is labeled 'S2'. Both inputs are connected to the box by lines labeled 'Black'.

○
=

D-1 D-2 Delay Contacts

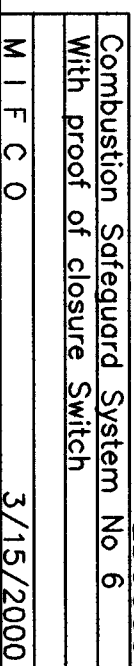
MG5 Main Gas Solenoid

ED00070
Combustion Safeguard System No 6
With proof of closure Switch
M I F C O
3/15/2000

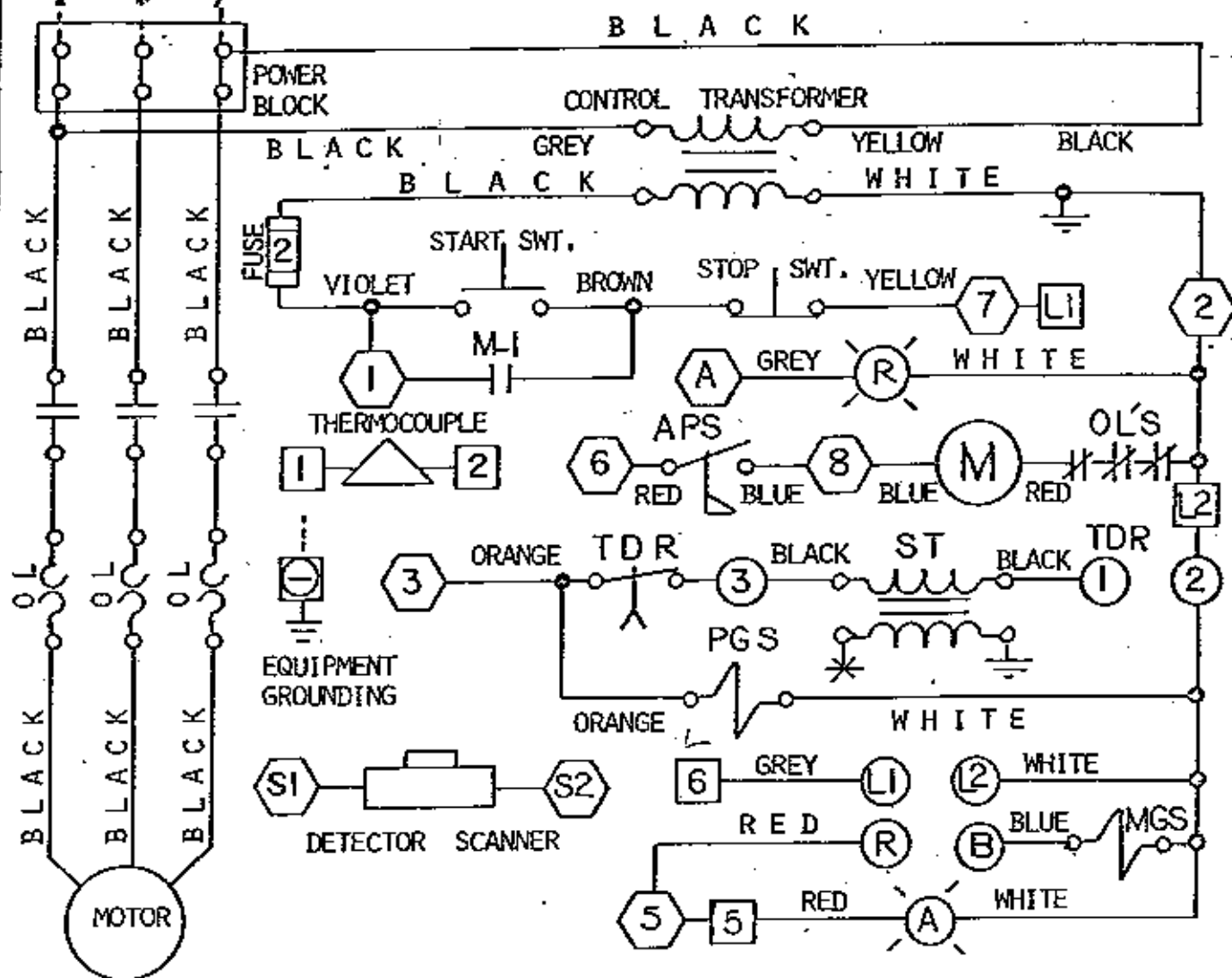
POWER BLOCK
230 V \ 3 Ph \ 60 Hz

Fireye MC 120

Honeywell DC230L High Limit



FUSED POWER SUPPLY
460 V / 3 PH / 60 HZ



COMBUSTION SAFEGUARD SYSTEM 6UV

LEGEND

- TEMPERATURE CONTROL TERMINALS
- ULTRA VIOLET CONTROL TERMINALS
- TIME DELAY CONTROL TERMINALS
- CONTROL LIGHTS
- ST SPARK TRANSFORMER
- PGS PILOT GAS SOLENOID VALVE
- OL'S MOTOR OVERLOAD RELAYS
- M MOTOR MAGNETIC STARTER
- M I STARTER CONTACTS
- MGS MAIN GAS SOLENOID VALVE
- APS AIR PRESSURE SWITCH

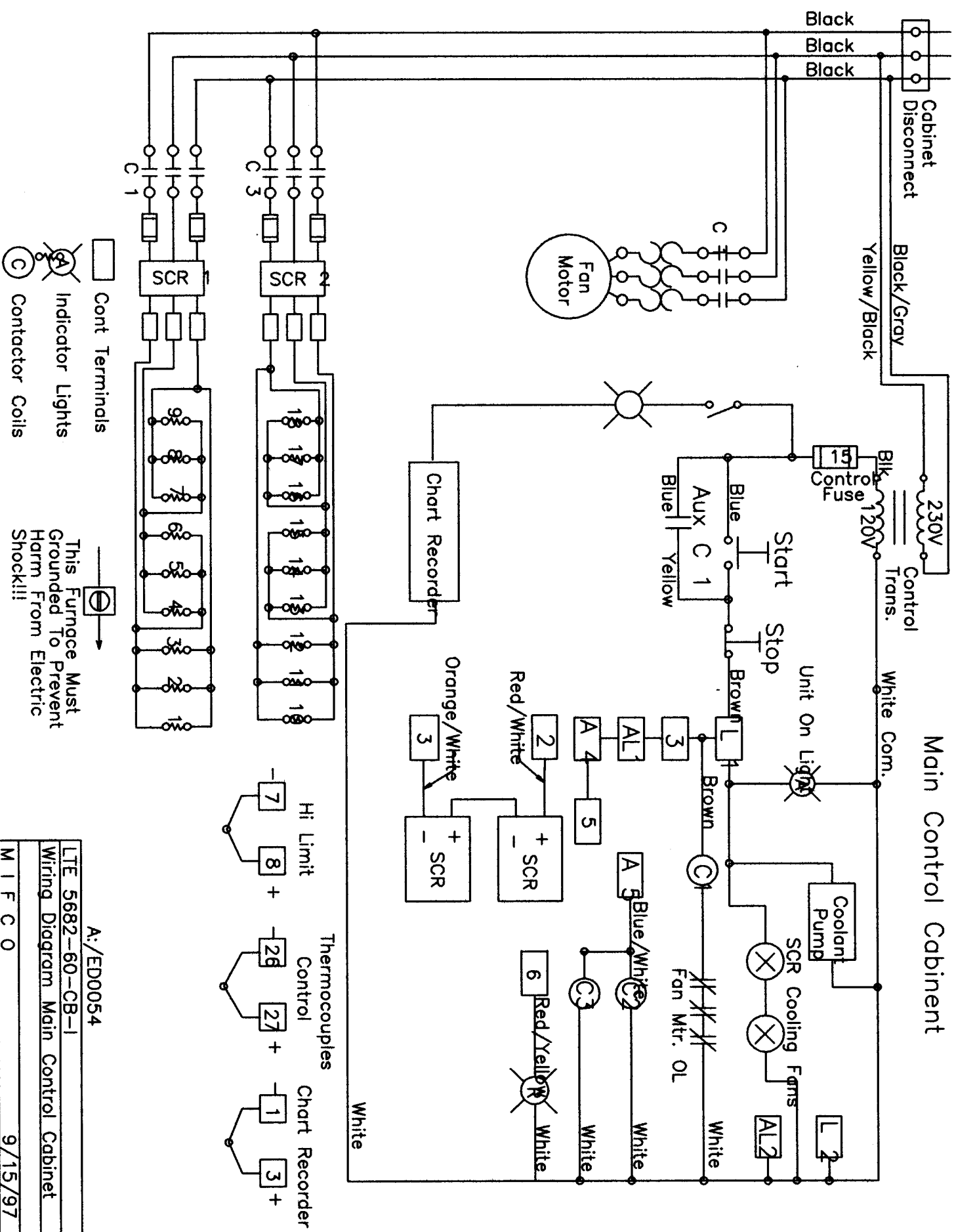
NOTE

- I THE WIRE SELECTION WERE BASED ON CONDUCTORS FOR HIGH TEMPERATURE RATING PER N.E.C. TABLE 312-12
- II FIELD MUST PROVIDE GROUNDED POWER SUPPLY PER O.S.H.A. REQUIREMENTS.
- III IN CASE OF POWER FAILURE THE SAFETY SYSTEM WILL AUTOMATICALLY SHUT DOWN AND WILL NOT RE-START UNTIL IT IS ENERGIZED BY THE START SWITCH.
- IIII FACTORY WIRED _____
FIELD WIRED _____

PART NAME	PART NUMBER	MATERIAL	QUANTITY PER UNIT	MATERIAL DIMENSION
McENGLEEVAN Heating & Air Conditioning Co., Inc.				

230 V, 3 Ph., 60 Hz.
200 Amp.

HTE-5540-55-1-CB Main Control Cabinet



A:/ED0054

LTE 5682-60-CB-1
Wiring Diagram Main Control Cabinet
M I F C O
9/15/97

