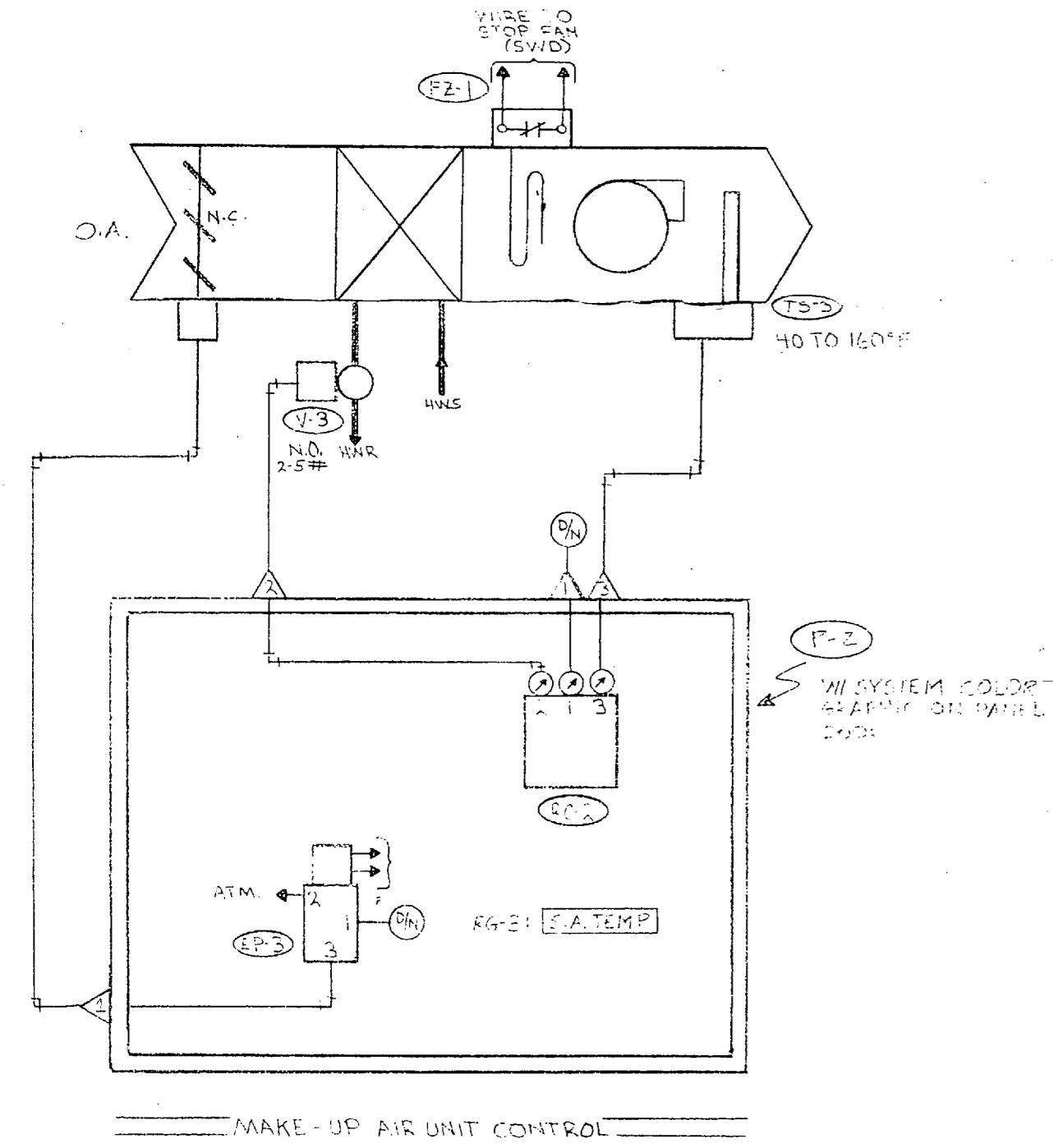
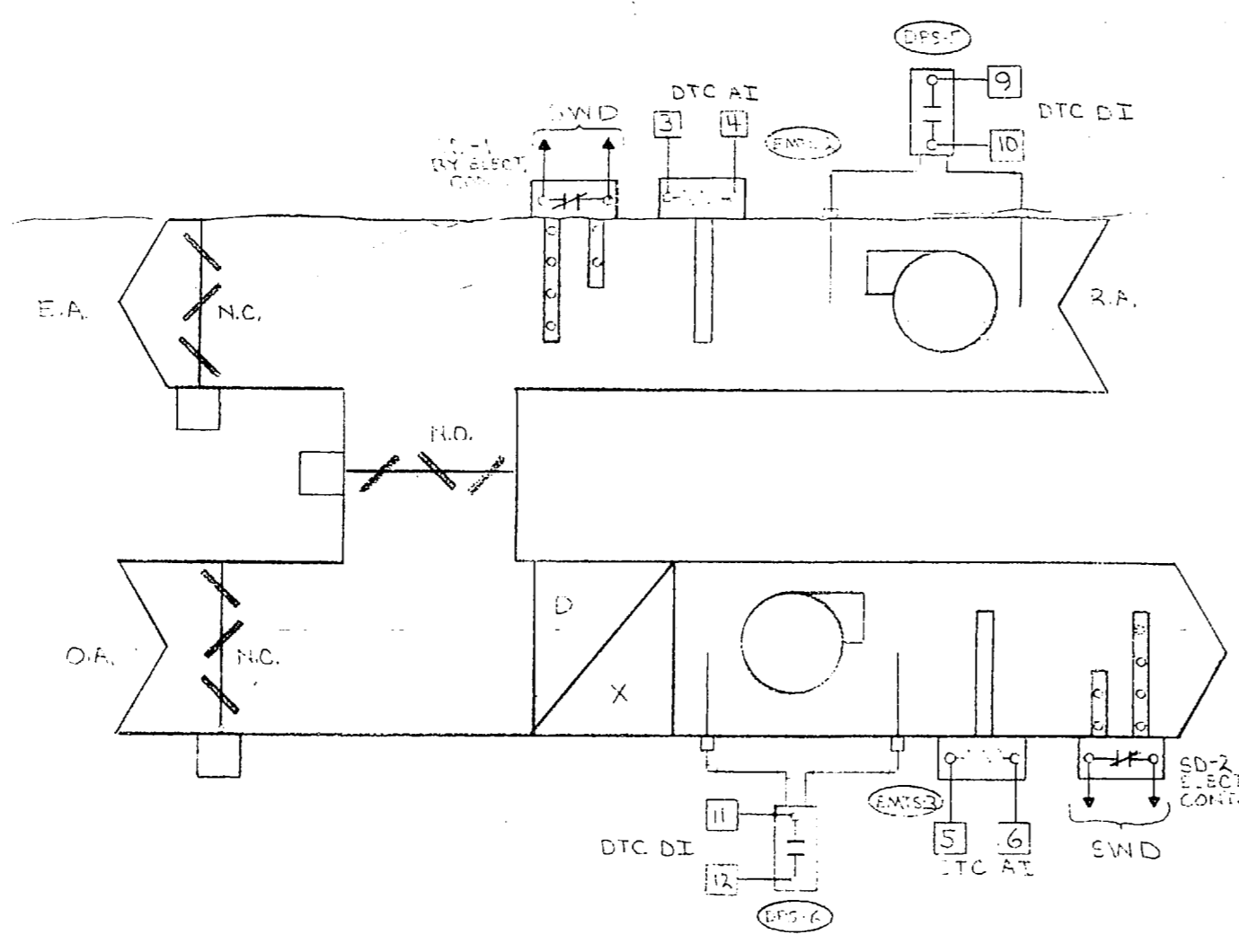


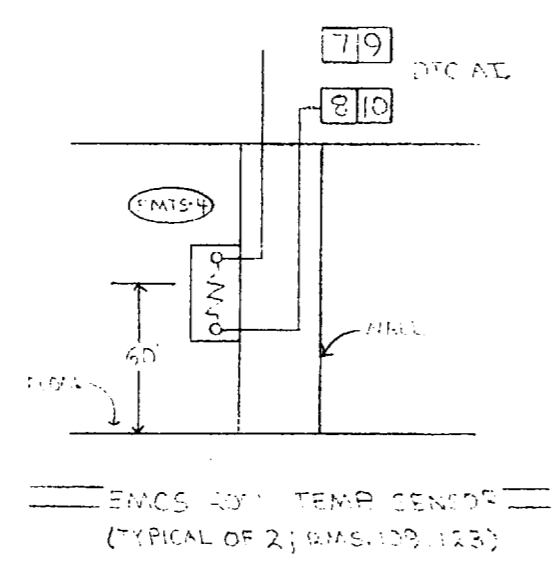
TEAM AND HOT WATER FLOW CONTROL DIAGRAM



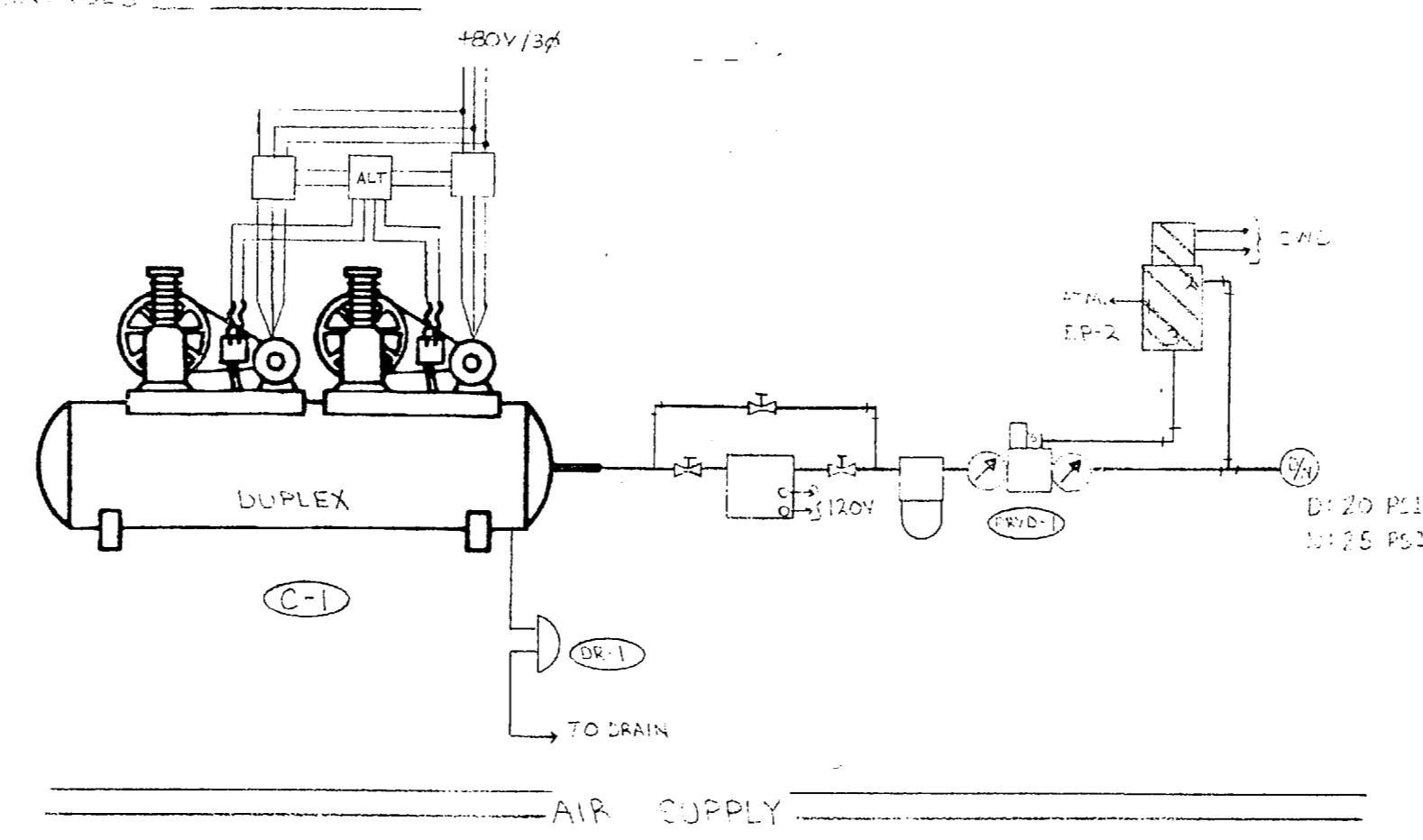
MAKE-UP AIR UNIT CONTROL



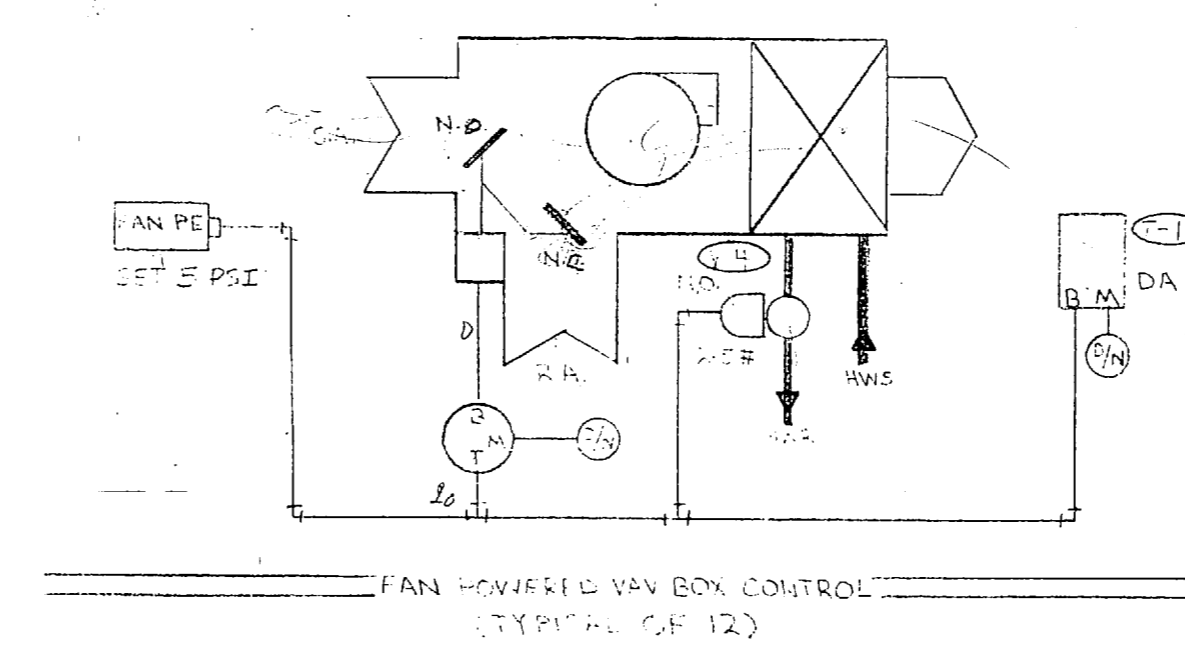
ROOF TOP AC UNIT & EMCS CONTROL



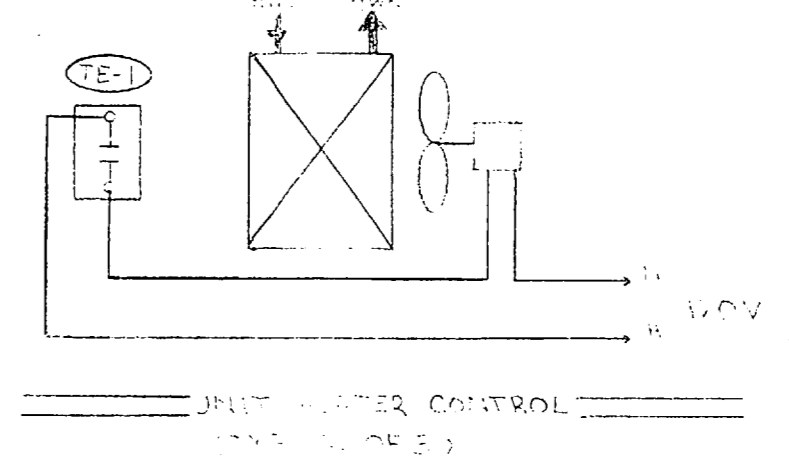
EMCS BY TEMP SENSOR (TYPICAL OF 2) WMS-139-1123



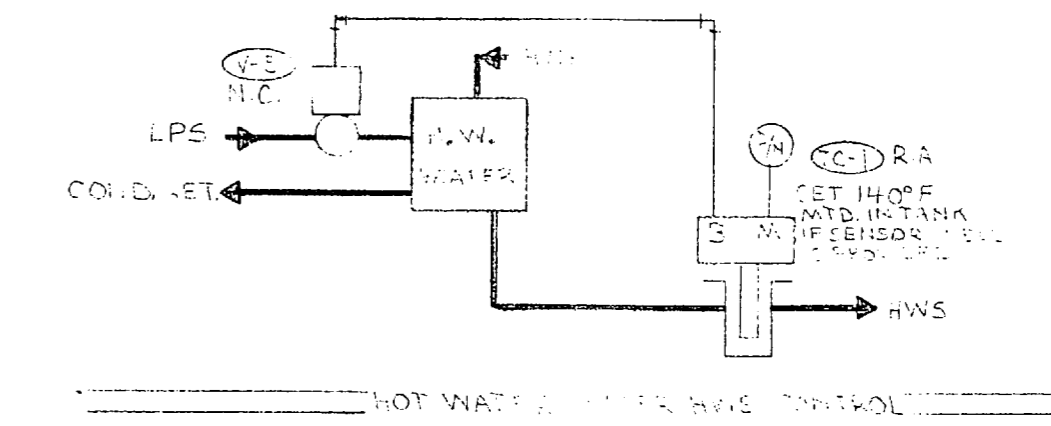
AIR SUPPLY



FAN POWERED VALVE BOX CONTROL (TYPICAL OF 12)



UNIT WATER CONTROL (TYPICAL OF 3)



HOT WATER WATER CONTROL



HOT WATER WATER CONTROL

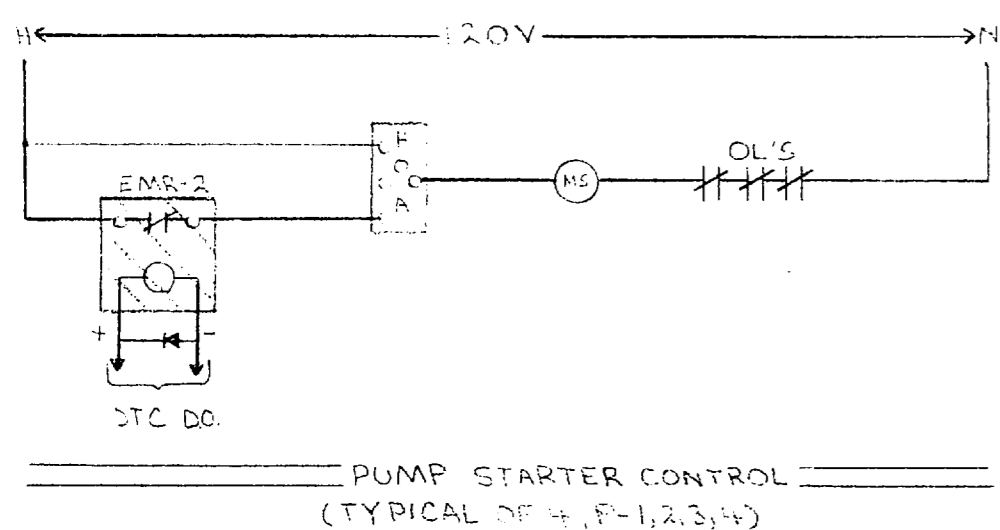
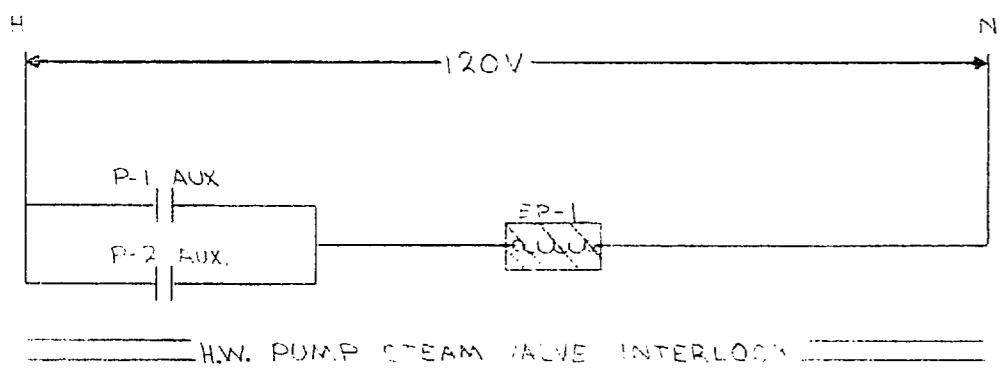
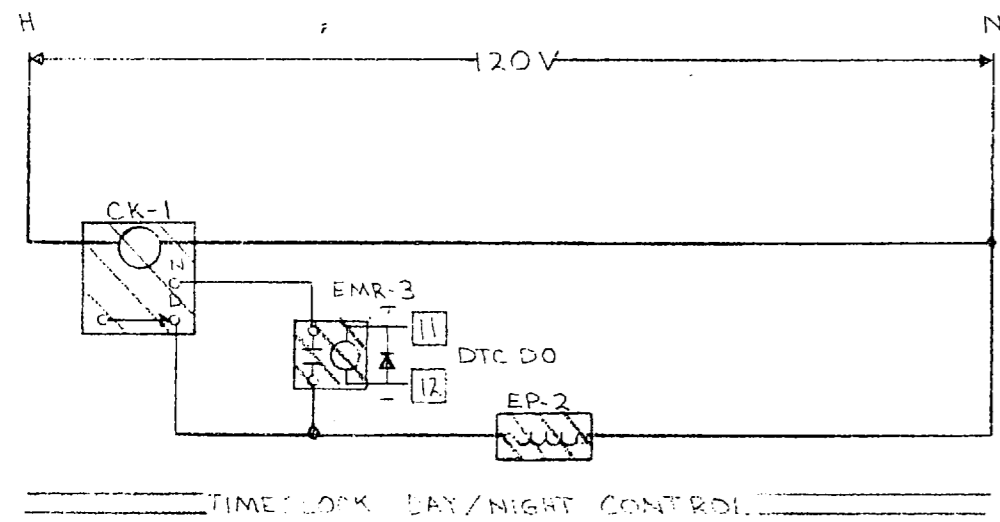
CODE	PART NUMBER	DESCRIPTION
TS-1	LP914A1052	Temp. Sensor -40 to 240 Deg. F.
TS-2	313046B	Copper Well
TS-3	LP914A1250	Temp. Sensor -20 to 80 Deg. F.
TS-4	LP914A1003	Temp. Sensor -40 to 160 Deg. F.
FZ-1	L480G1044	Freezestat Man. Reset
V-1	V5011C1326	Steam Valve 25.0 CV 1/2" NPT
V-2	MP953D1107	Valve Actuator RA 8-13 PSI
V-3	V5011C1268	Steam Valve 25.0 CV 1/4" NPT
V-4	MP953D1172	Valve Actuator RA 3-7 PSI
V-5	VP525A1192	2-Way HW Valve 5.0 CV 2-5 PSI 1/2" NPT
V-6	VP531A1004	2-Way HW Valve 1.6 CV 2-5 PSI 1/2" NPT
C-1	6DR7	Curtis Air Comp Duplex 2 HP 480V/3Ø
DP-1	AK3485D	Tank Drain Kit
PRVD-1	HKN8210C	Air Dryer W/PRV & Filter Station 100 PSI
T-1	TP971A1094	Room T'nal Day/Night D.A. 60-90 D.
TE-1/2	14002467-170	Plastic Cover Beige
	T6051A1016	Elec. Room T'nal 45 to 85 Deg. F.
	Q651B1008	Manual Switching Subbase Auto-Drum
TE-2,3	T651A1269	Electric Room T'nal 56-94 Deg. F.
V-5	V5011C1201	Steam Valve 10.0 CV 1" NPT
TC-1	MP953D1131	Valve Actuator RA 4-11 PSI
	LP920B1011	Temp. Controller -30 to 150 Deg. F.
EMCS:		
DPS-1 to 4	AKDEPD1HAA40	Differential Pressure Switch
DPS-5,6	CLEAFS405	Differential Pressure Switch
EMTS-1	T221C-5-B-1-A	BEC Temp. Transmitter 100 to 250 Deg. F.
	1W-20-S-8	BEC Thermowell SS
EMTS-2,3	T221B-3-B-1-A	BEC Temp. Transmitter 40 to 140 Deg. F.
PS-1	C-280E	Sakra Pressure Transmitter 0 to 100 PSI
EMTS-4	T221A-HB-1-0-1-A	BEC Temp. Transmitter 50 to 85 Deg. F.
EMR-1	RR2P24VDC	DPST Relay 24 VDC

CODE	PART NUMBER	DESCRIPTION
PANEL 1:		
F-1	14505941-001	Half-Size Ring
	14505584-002	Half-Size Sub-Panel
	14505940-001	Half-Size Door
RC-1	RP920D1045	Rec-Controller Dual Input RA 0-120V
EP-1,2	RP418B1071	EP Relay 120V
CK-1	14505526-004	Timeclock 7-day 50 Hour Reserve
EMR-2,3	RR2P24VDC	DPST Relay 24 VDC
	305929	TEMP GAUGE -40 TO 160° F 1/2" IN.
	305931	TEMP GAUGE -40 TO 200° F 1/2" IN.
	305935	PRESSURE GAUGE 0 TO 30 PSI 1/2" IN.
PANEL 2:		
P-2	14505941-001	Half-Size Ring
	14505584-002	Half-Size Sub-Panel
	14505940-001	Half-Size Door
RC-2	RP920A1053	Rec-Controller DA
EP-3	RP418B1071	EP Relay 120V
	305929	TEMP GAUGE -40 TO 160° F 1/2" IN.
	305932	PRESSURE GAUGE 0 TO 30 PSI 1/2" IN.
PANEL 3:		
F-2	14505941-001	Half-Size Ring
	14505584-002	Half-Size Sub-Panel
	14505940-001	Half-Size Door

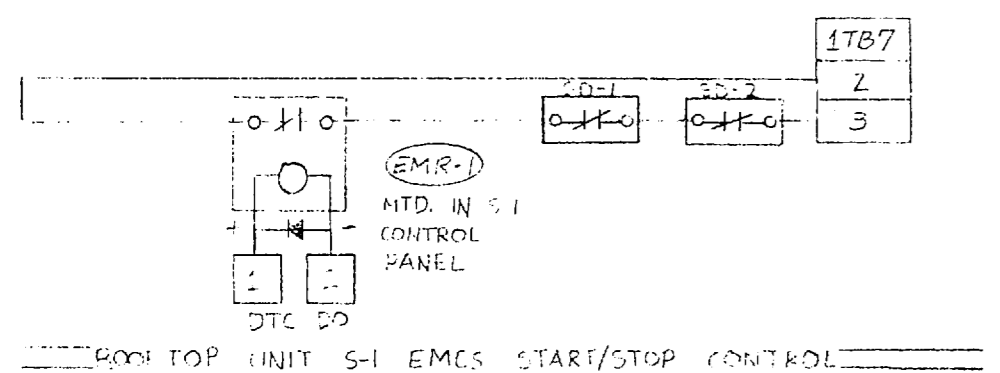
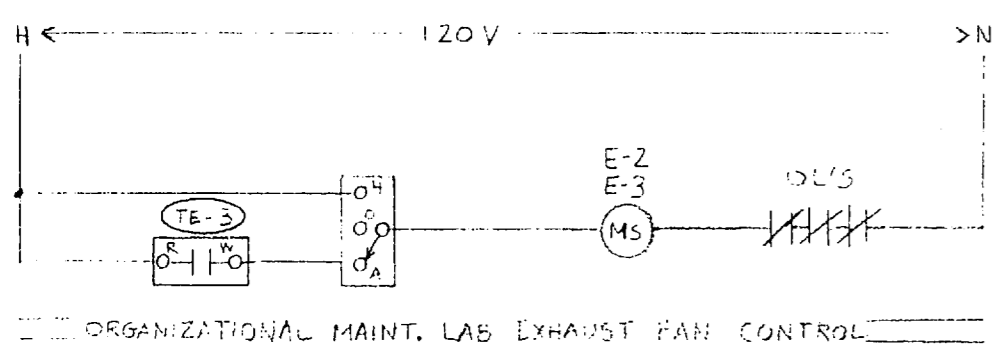
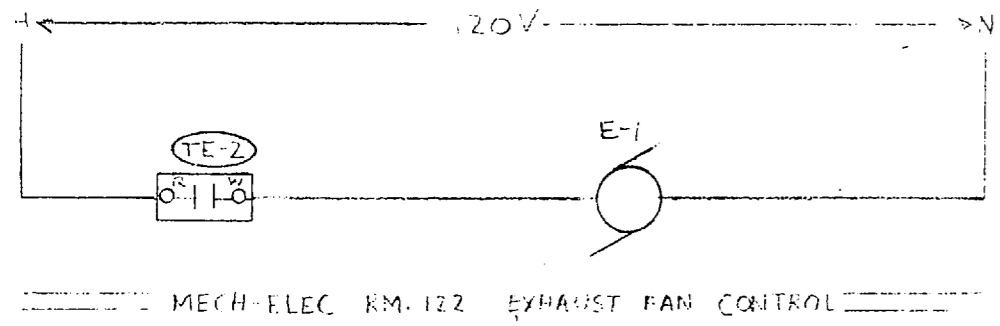
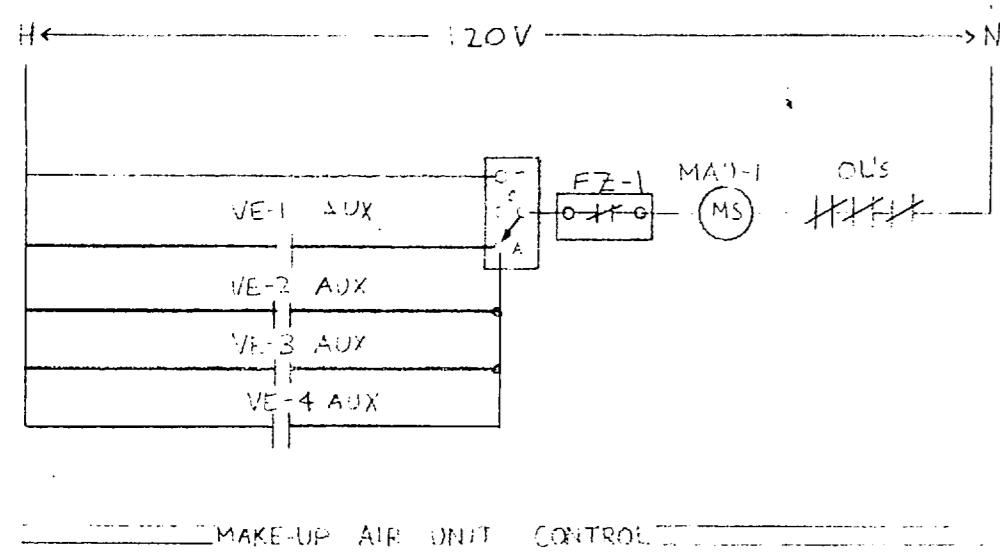
ARCHITECT: NAVFAC  
 ENGINEER: NAVFAC  
 CONTRACTOR: SNEEDEN INC.  
 SYSTEM ENGINEER: RICK MANALOTO  
 INSTALLATION SUPERVISOR:

HONEYWELL, INC.			
APPLIED INSTRUCTIONS			
CAMP LEJEUNE, NC.			
Revisions	Date	Appd.	
Superseded	Drawn By: GD/AM	Date 4-16-87	DRAWING NUMBER 939-87611-IXI
Superseded By	Approved By:	Sheet 1 of 2	Rev.





NOTE: STARTERS TO BE FURNISHED BY ELECTRICAL CONTR.



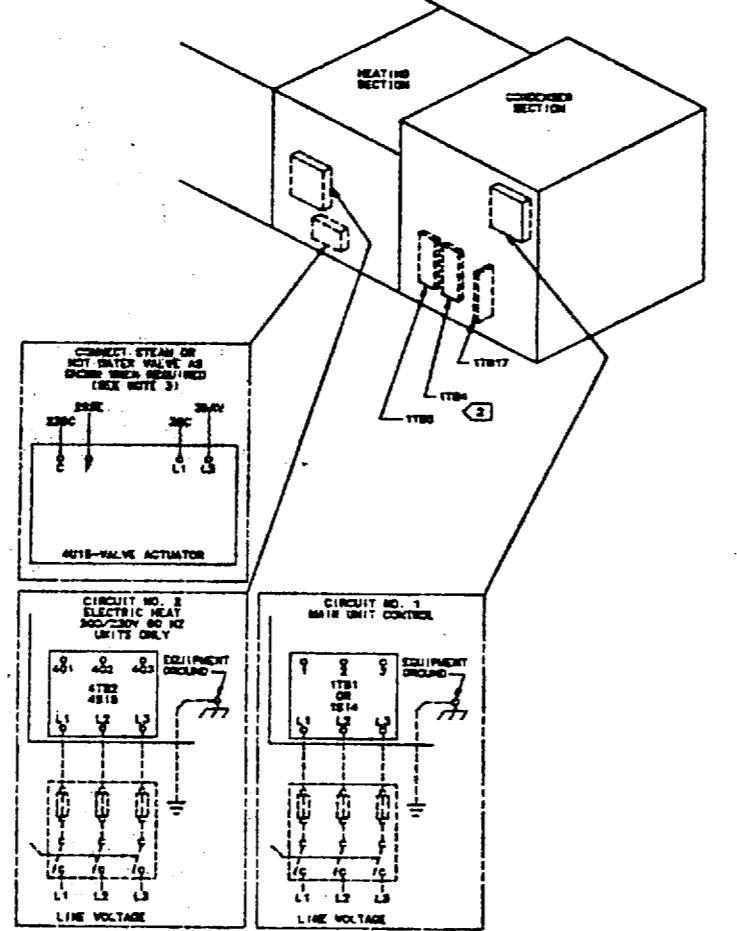
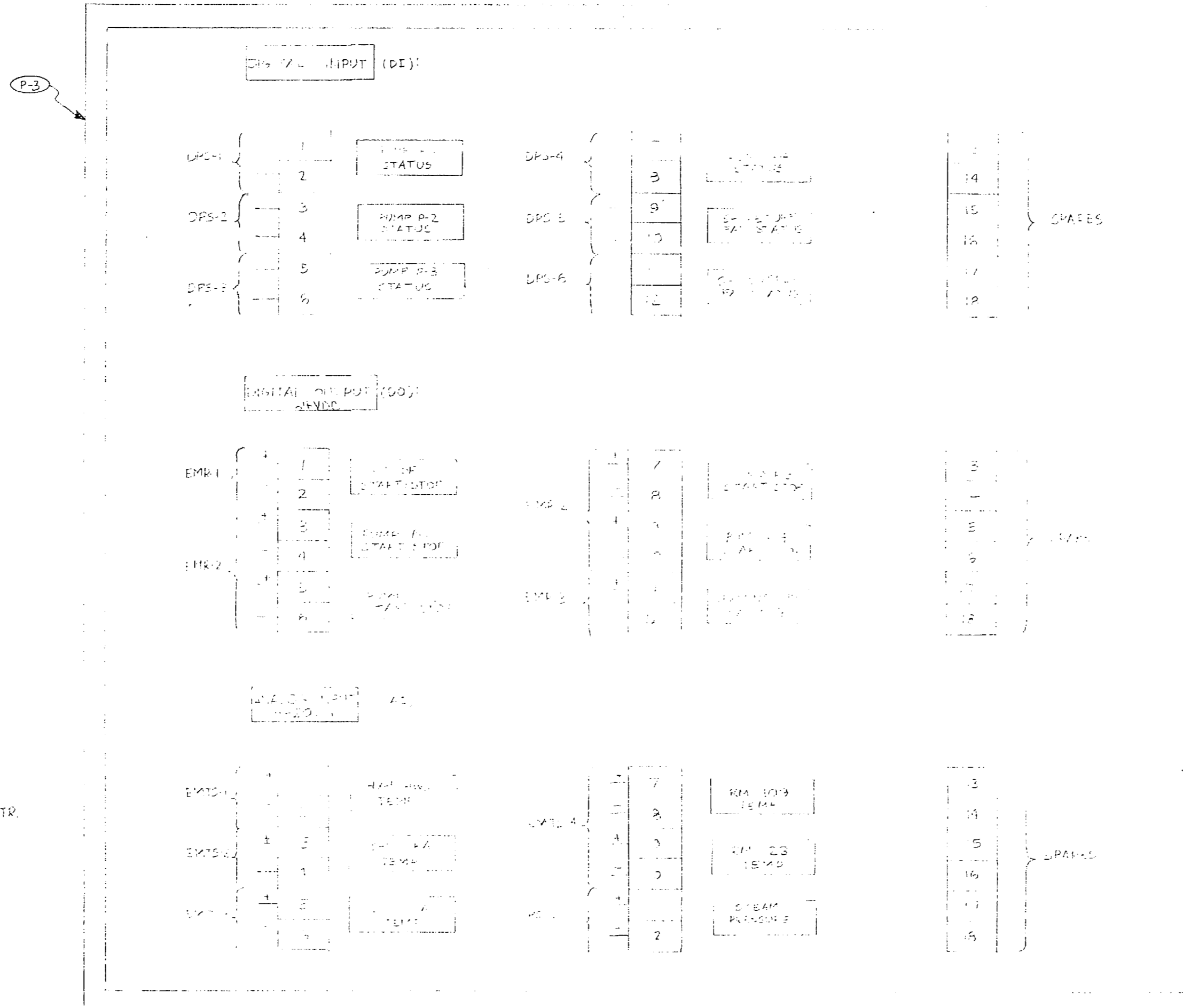
ARCHITECT: NAFAC  
ENGINEER: NAFAC  
CONTRACTOR: SNEEDEN INC.  
SYSTEM ENGINEER: JOR MANA MD  
INSTALLATION SUPERVISOR:

TRANSIT TAG: PL-UN-RT-SAHC-SW-104\_02 REPLACES: SAHC-SW-104\_01 SAHC-SW-104\_02  
ROOFTOP PACKAGED AIR CONDITIONER  
FIELD WIRING  
SUPPLY AIR VAV  
SAHC, SBHC, SEHC, SFHC, SLHC, SSHC, SHHC 40 THRU 80 TON  
SUBMITTAL

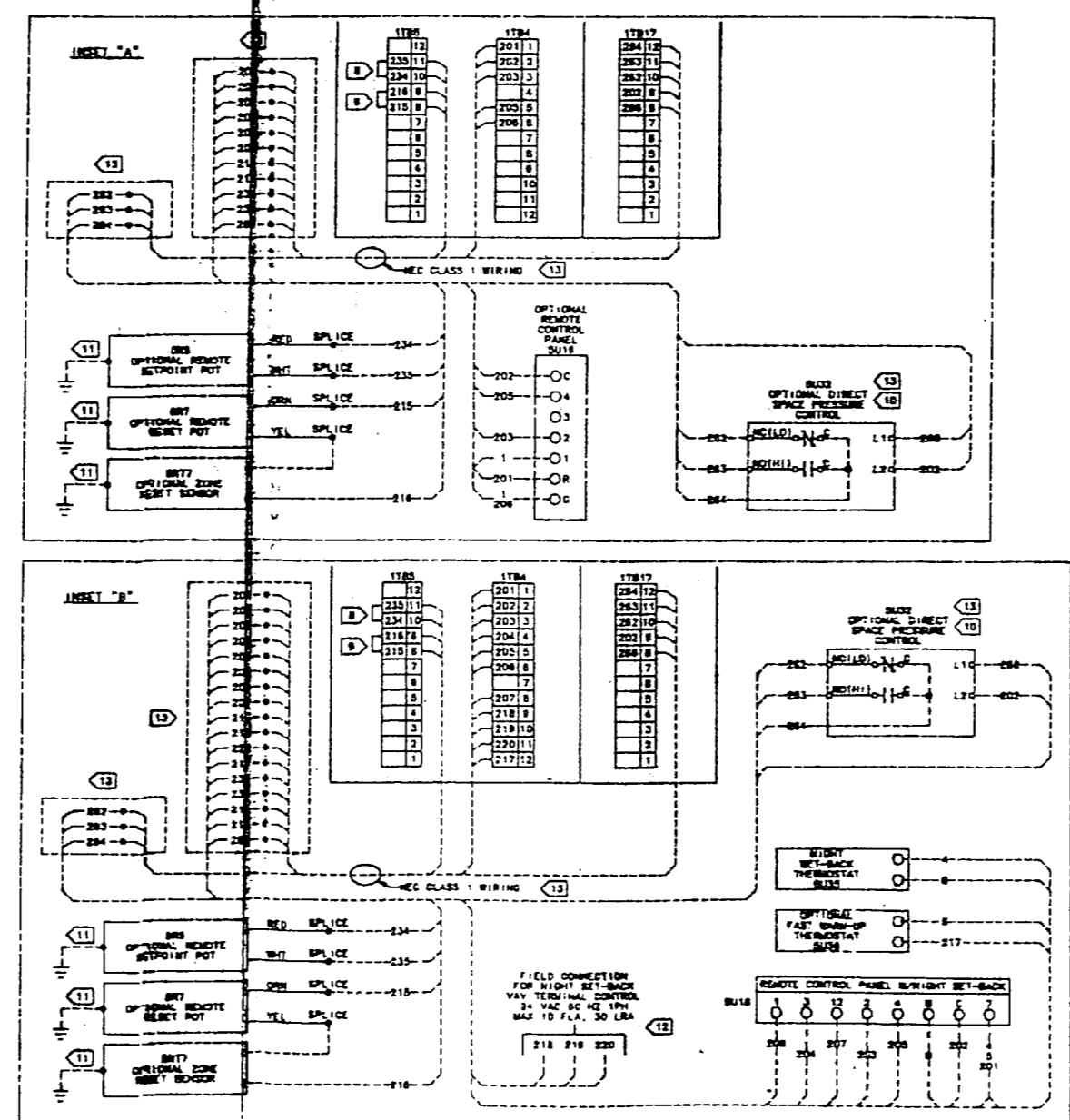
Table with 4 columns: Description, Unit, Quantity, and Remarks. Includes items like 'ROOFTOP PACKAGED AIR CONDITIONER' and 'FIELD WIRING'.

CAUTION  
DISCONNECT POWER BEFORE SERVICE  
USE COPPER CONDUCTORS ONLY  
DO NOT TERMINAL AND NOT OVERHEAT

- 1. ALL ELECTRICAL WORK SHALL BE INSTALLED AND TESTED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC) AND ALL APPLICABLE LOCAL CODES.
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL AUTHORITIES.
- 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL AUTHORITIES.



ROOFTOP UNIT S-1 CONTROL WIRING



MAKEUP AIR UNIT

When any one or more of the carbon monoxide exhaust fans is energized, the makeup air fan will be energized.

Outdoor air damper will open.

Discharge air temperature sensor/controller will modulate the hot water coil valve to maintain 65 Deg. F.

Low temperature ductstat will stop the fan on a fall in temperature to 38 Deg. F.

When all of the carbon monoxide exhaust fans are de-energized the makeup air unit will be de-energized.

The outdoor damper will close.

The makeup air fan may be energized using the "hand" position on the starter. (HDA)

UNIT HEATER

The space thermostat will cycle the unit heater fan to maintain temperature (70 Deg. F Nom).

The manual switch built into the thermostat allows the fan to be energized for air circulation purposes.

FAN POWERED VARIABLE VOLUME UNITS

Space thermostat will provide a 3 to 13 PSIG signal to the unit and the hot water coil valve to maintain temperature (70 Deg. F). All controls, sequencing devices, pneumatic-electric relay, etc., will be provided with the unit.

During the night or unoccupied cycle, the box fan will be de-energized. On a fall in temperature, the fan will be energized and the valve will be open. On a rise in temperature, the fan will be de-energized and the valve will be closed.

Night setback temperature 55 Deg. F.

STEAM-TO-HOT WATER CONVERTER

Temperature controller will modulate in sequence the one third capacity steam valve (first) and the two thirds capacity steam valve (second). The controller's proportional plus integral control mode will function to provide an essentially constant hot water supply temperature at any given temperature setpoint.

Hot water pump de-energized.

Steam valves close.

WARMUP CYCLE

The warmup cycle will be initiated by the time clock one hour prior to occupancy time. An electric-pneumatic relay connected to the time clock will trigger the day-night signal line. All of the space thermostats are restored to the day temperature setpoint, which causes the fans in the terminal units to run with the heating coil valves open, until each thermostat is satisfied.

ROOF TOP UNIT

Supply and return fan will start thru the unit's own time clock.

Static pressure controller will maintain static pressure setting by modulating inlet vanes on the supply and return fans.

Leaving air temperature will be maintained from a discharge air sensor.

When discharge air temperature rises above discharge air setting the economizer dampers will modulate to maintain discharge air temperature setting. If the discharge air temperature continues to rise then mechanical refrigeration will start and the economizer will go to minimum outdoor air temperature setting.

The reverse action will take place as the discharge air temperature drops below the discharge air setting.

HW PUMPS

Pumps will be manually started and stopped. Either pump P-1 or P-2 will run all the time. Pumps P-3 and P-4 will also be running all the time.

EXHAUST FANS

Exhaust fans VE-1 to 4 will be manually started and stopped. Exhaust fans E-1 to 3 will be controlled by room thermostats.

Table with columns: Revisions, Date, Appd., Supersedes, Drawn By, Date, Approved By, Sheet, Of, Drawing Number, Rev.

