

**U.S. Plumbing Products**  
3008 Anderson Drive, Suite 103  
Anderson Plaza West  
Raleigh, North Carolina 27619  
Tel. (919) 781-5533

15400 - 2.4.1  
2.4.2  
2.4.3  
2.4.4



OF American Standard Inc.  
MARCH 1, 1983

JOB NAME: COMBAT VEHICLE  
MAINT. SHOP

TRADE: SNEEDEN INC.  
DIST: NOLAND CO.  
KINSTON, N.C.

TO WHOM IT MAY CONCERN:

This is to certify that the following fixtures and fittings manufactured by American Standard Inc. are in accord with federal specifications WWP - 541 E and all appropriate ANSI standards.

LIST ALL FIXTURES AND FITTINGS

2477.016 WATER CLOSET	1363.082 SHOWER VALVE
2221.018 WATER CLOSET	7798.176 P-TRAP
6560.015 UPINAL	8340.242 SEP. SINK FITTING
4869.012 LAV	2350.057 LAV. FITTING
7692.049 SEP. SINK	

AMERICAN STANDARD

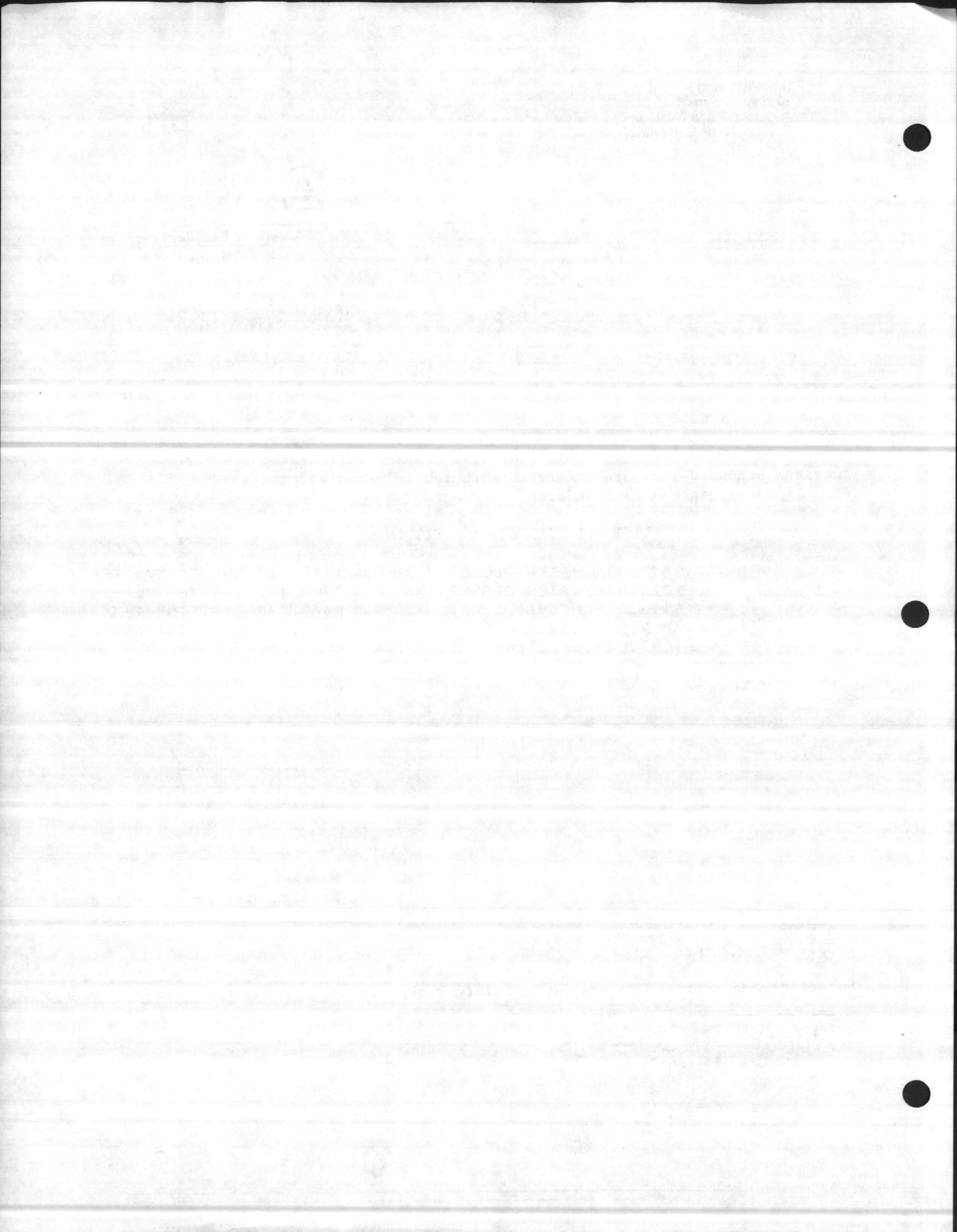
James E. Harris

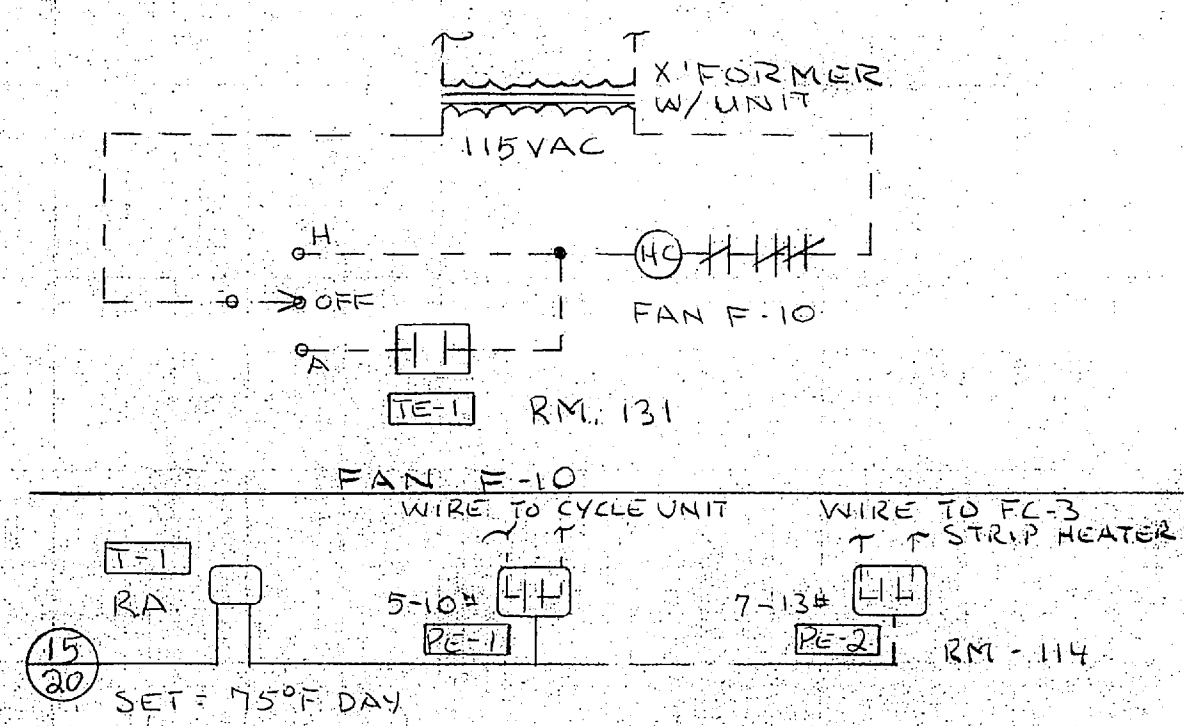
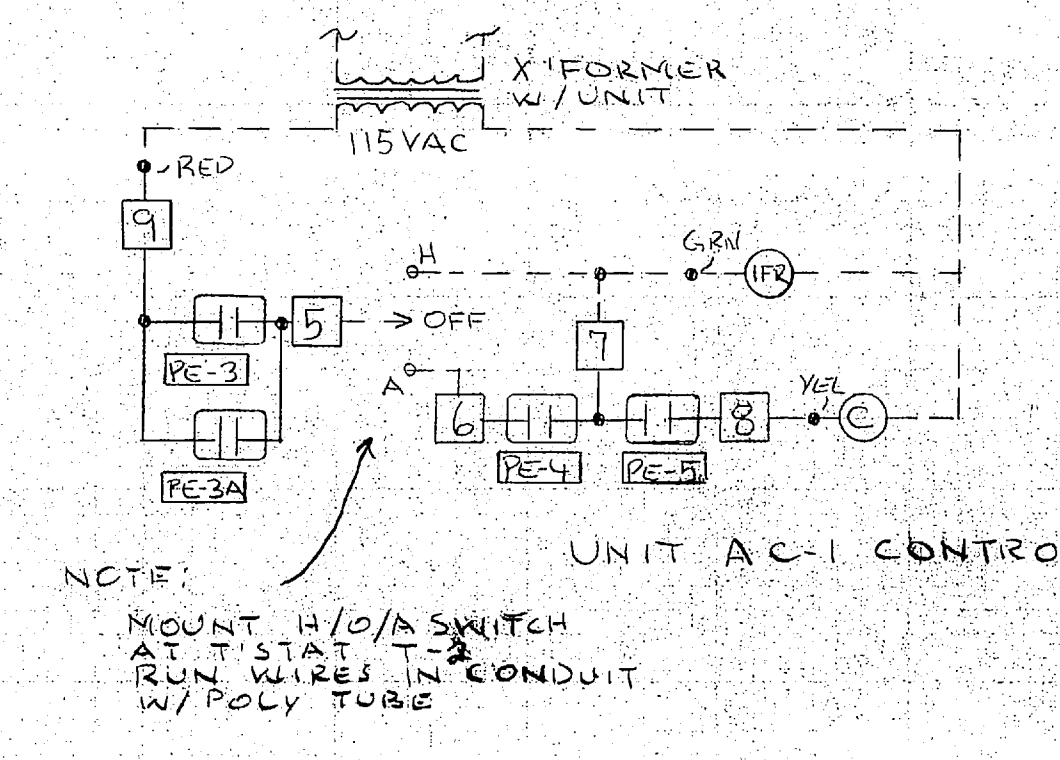
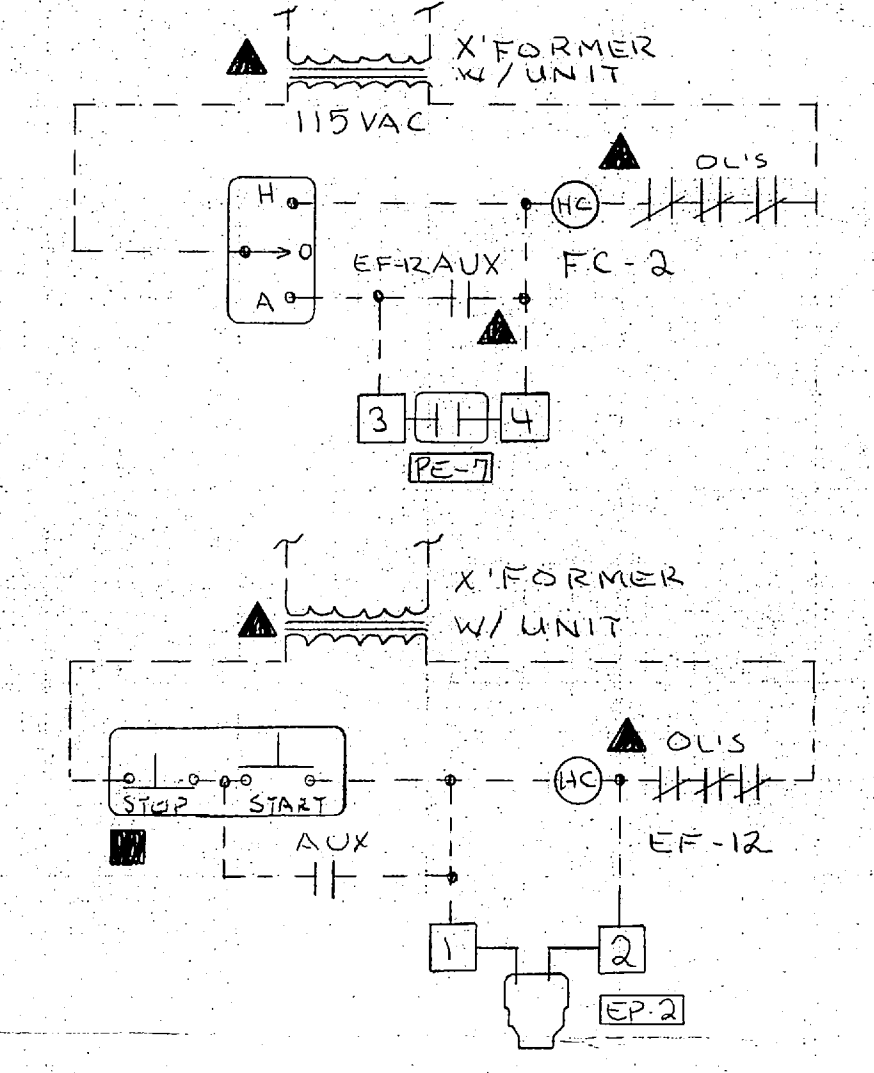
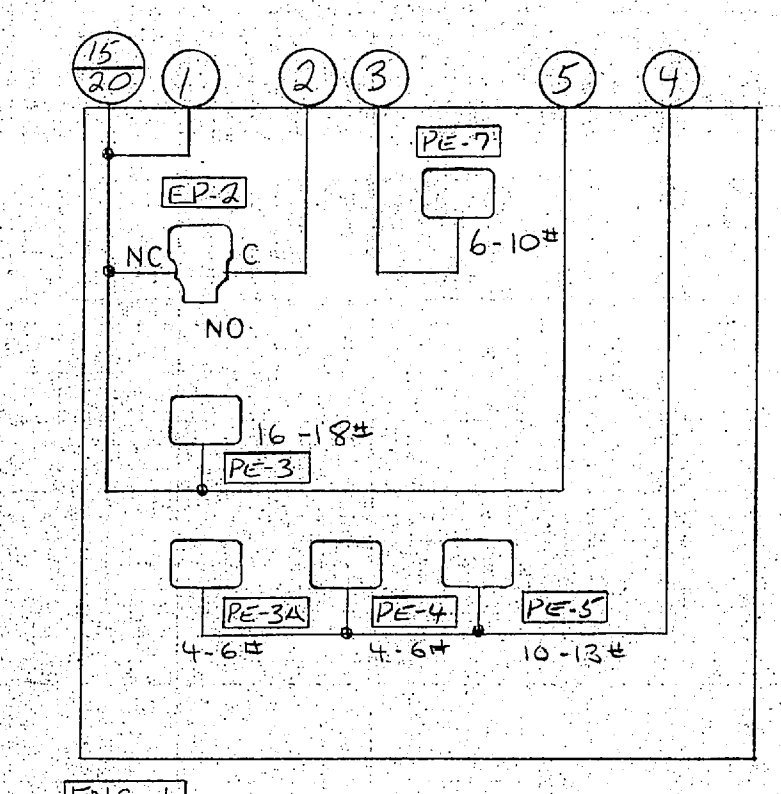
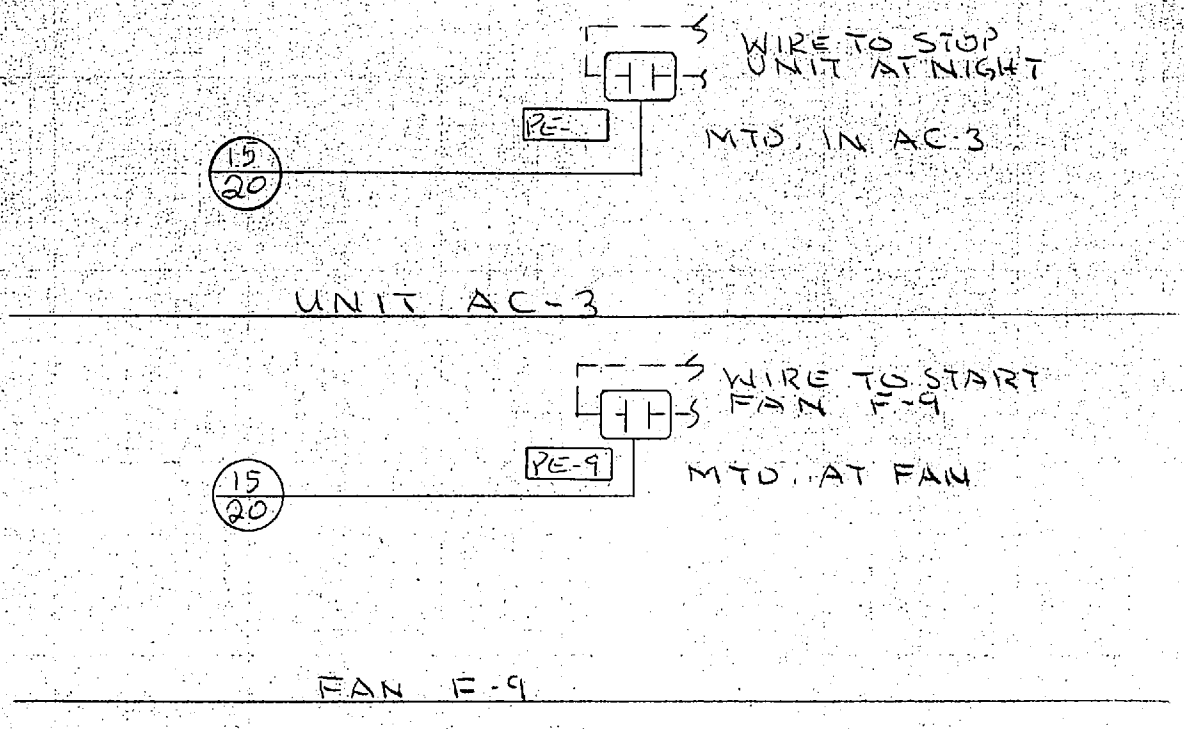
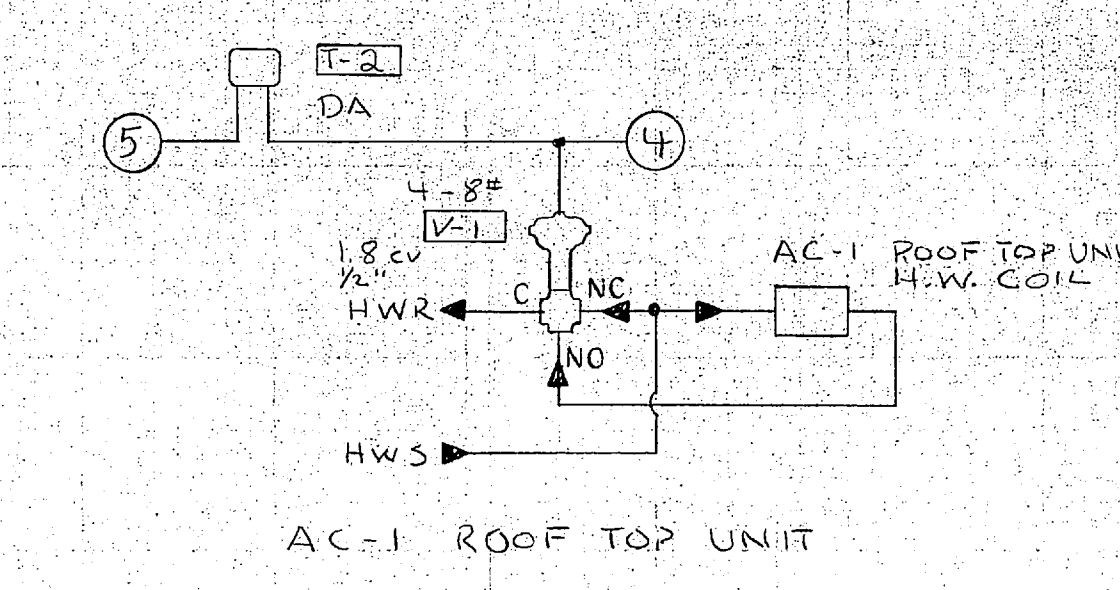
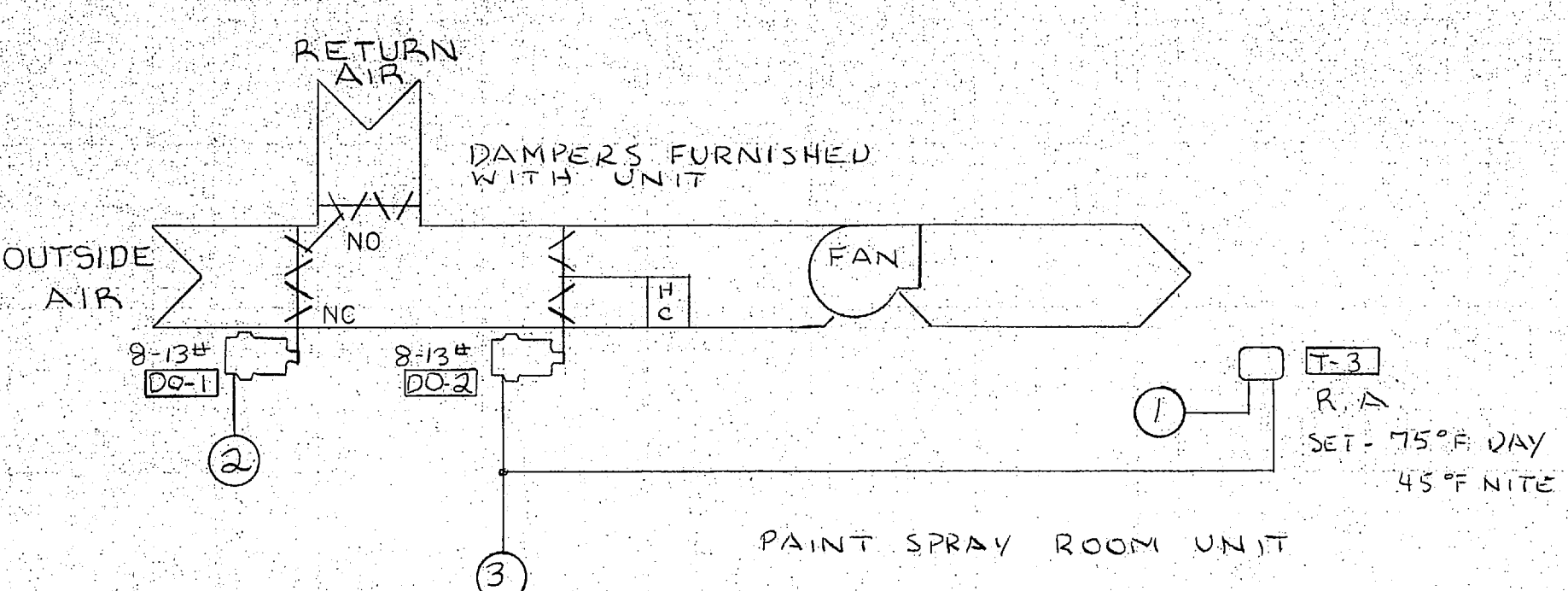
Manager  
Raleigh District

STATE OF: North Carolina  
COUNTY OF: *Lenoir*

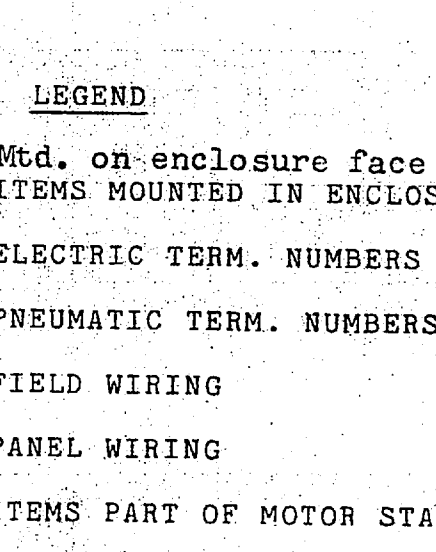
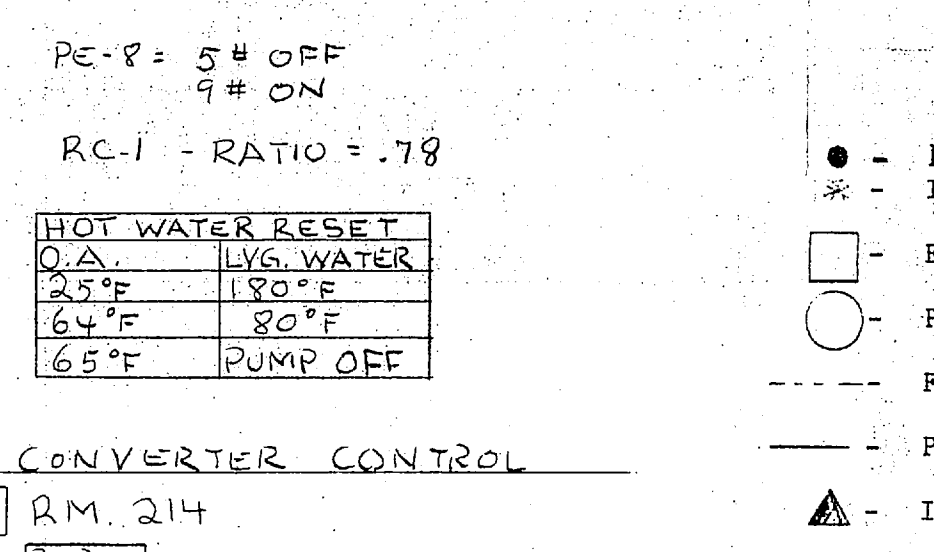
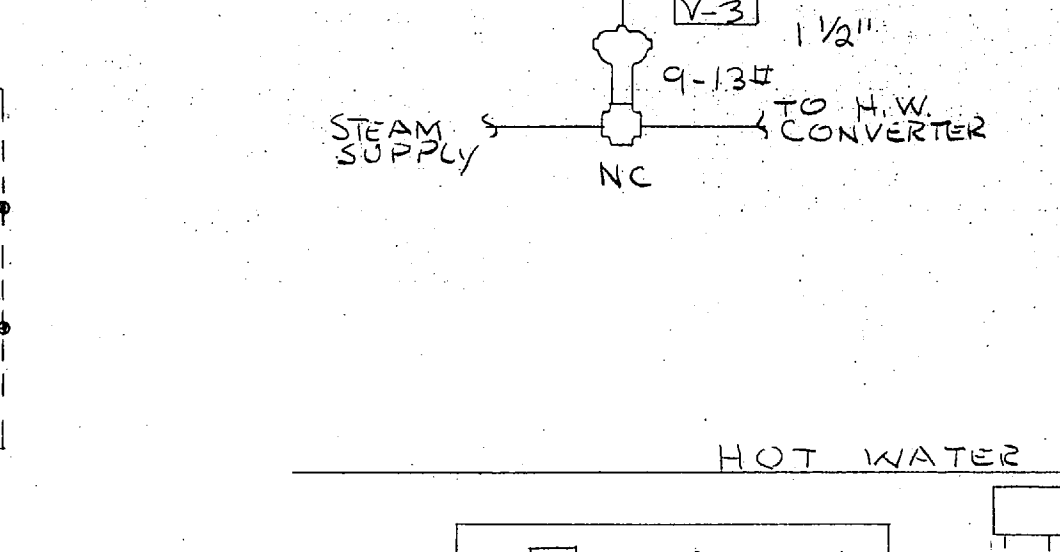
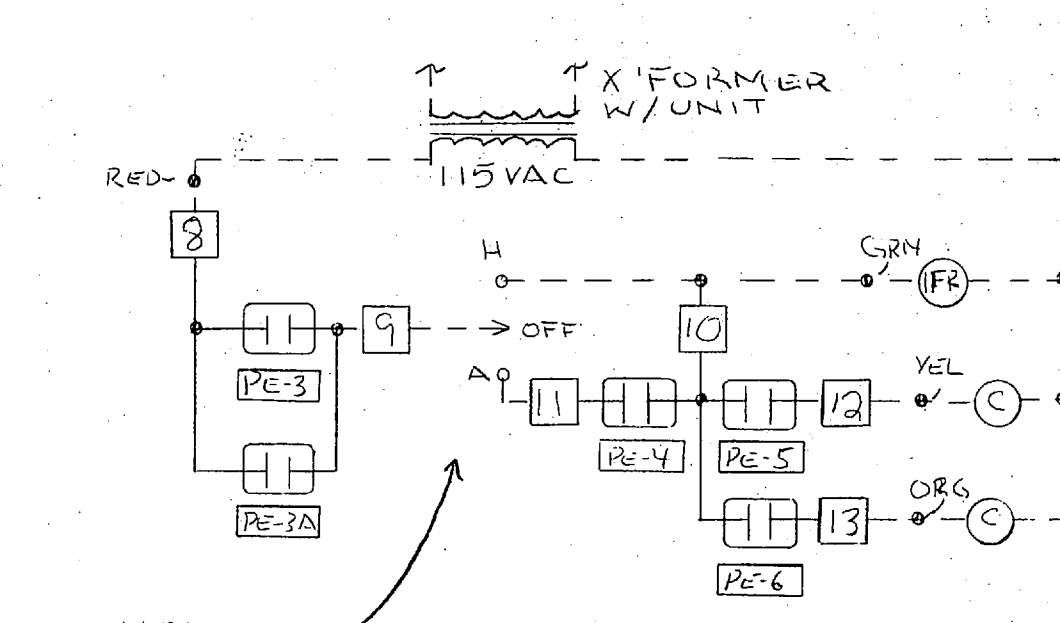
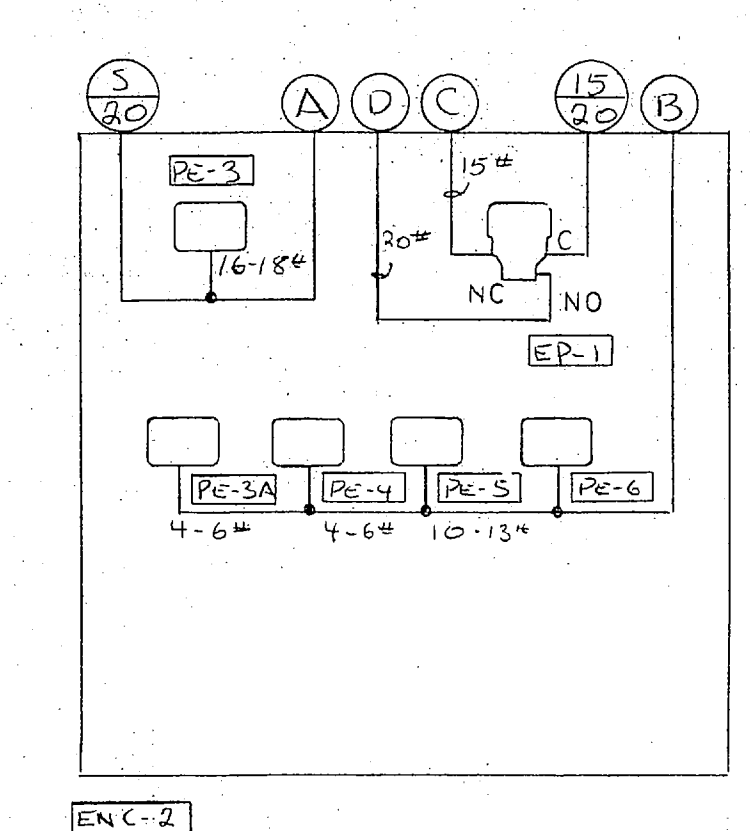
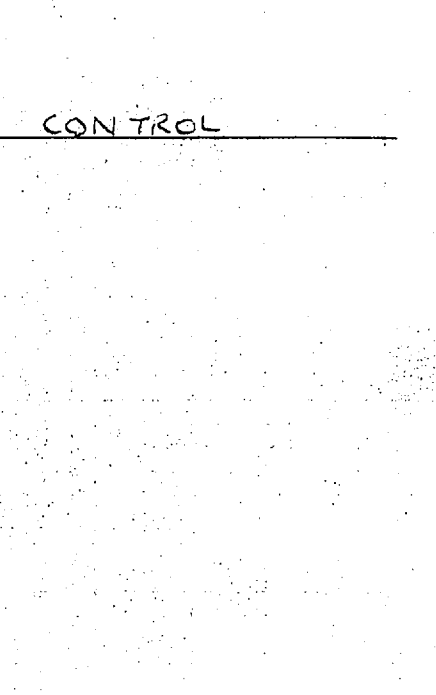
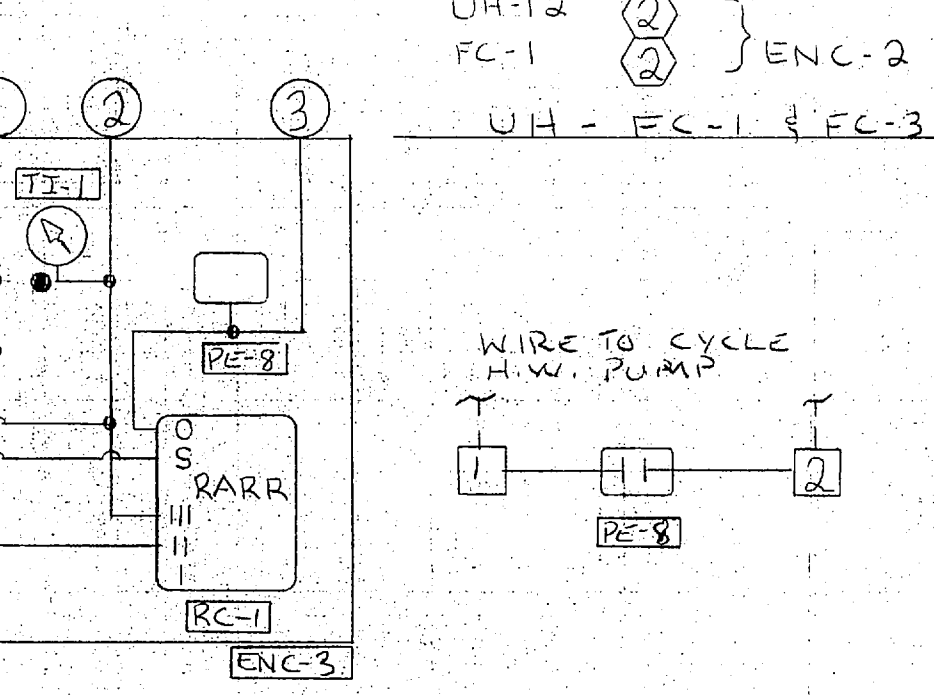
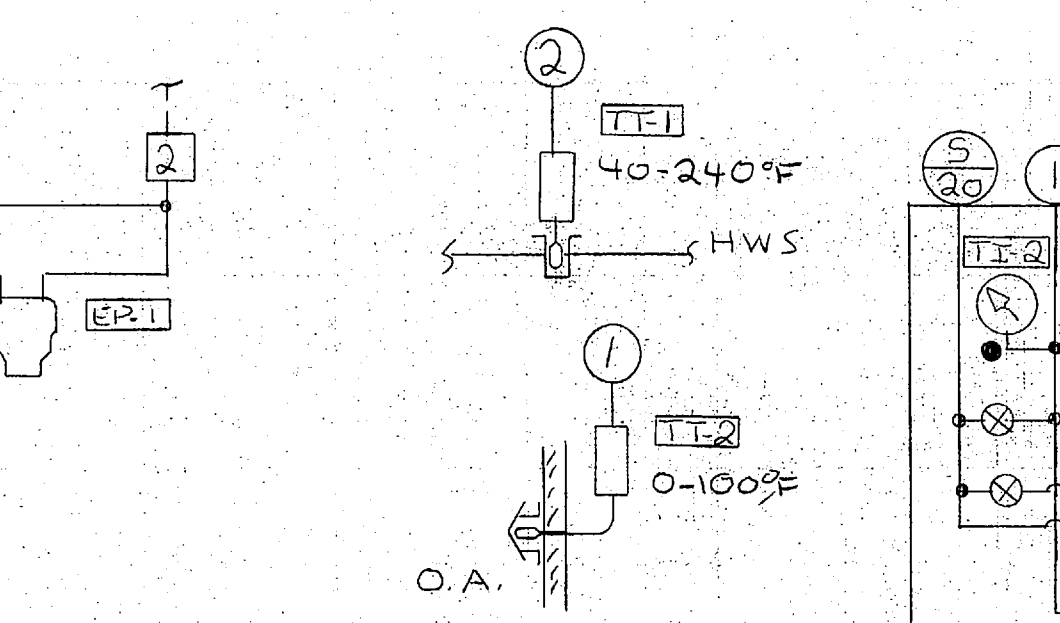
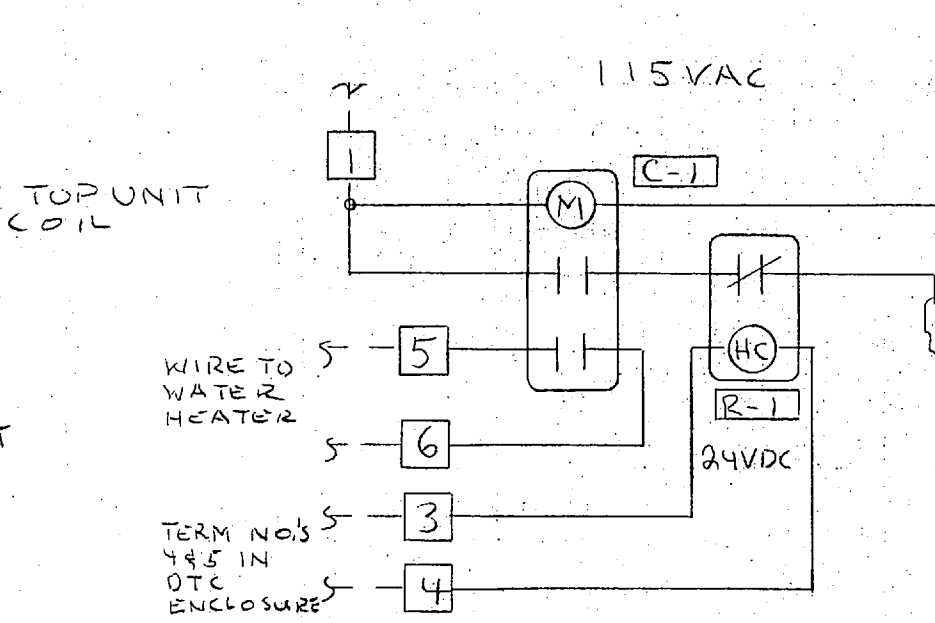
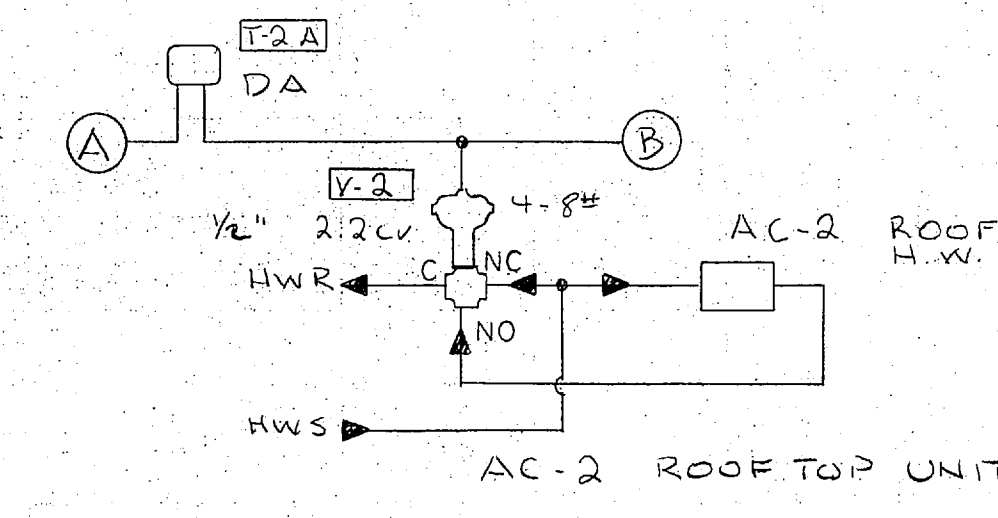
Subscribe and sworn to before me, a Notary Public this 1<sup>st</sup> day of March 1983

*Elizabeth C Jones*  
Notary

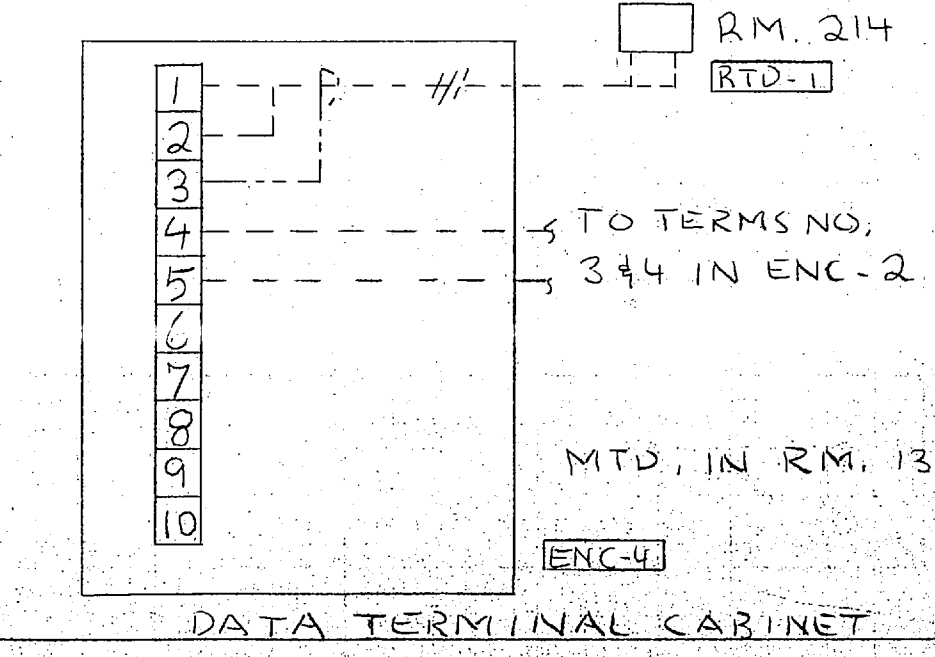




PAINT SPRAY ROOM UNIT - EF-12 - AC-1 CONTROL



AC-2 ROOF TOP UNIT CONTROL - CLOCK C-1



- EQUIP. PE- LOCATION (SEE ELEC. PLANS E 3 & 4)
- UH-1
  - UH-2
  - UH-3
  - UH-4
  - UH-5/6
  - UH-7
  - UH-8
  - UH-9
  - UH-10
  - UH-12
  - FC-1
- ENC-3  
ENC-1  
ENC-2

Inst. ID.	QTY.	CODE NO.	DESCRIPTION	RANGE SETTING	REMARKS	TASK
A-1	1	A4000-602	Filter			
C-1	1	C7351-3	Clock	120V	w/c 7351-103	
DO-1&2	2	D3353-5	Damper Operator	8-13#		
ENC-1	1	M8100-11	Enclosure	12"x18"	Poteau	
ENC-2	1	M8100-12	Enclosure	18"x24"	Poteau	
ENC-3	1	M8100-13	Enclosure	24"x24"	Poteau	
ENC-4	1		Enclosure		Stock	
EPI&2	2	VIIHAA-100	Sol. Air Valve	120V		
G-1	1	G2010-23	Gage	0-100PSI	2"	
PEL-8	21	P108C-7	Press. Elec. SW.		See Dwg.	
PRV-1	1	A4000-101	Press. Reducer	15#		
PRV-2	1	A4000-101	Press. Reducer	20#		
R-1	1	KUP	Relay	24VDC		
AC-1	1	T9002-1	Receiver Control			
RTD-1	1	S421	RTD Sensor			
T-1	11	T4504-217	Thstat RA		w/14002-124 T4002-2139	
T-2	2	T4504-203	Thstat DA		" "	
T-3	1	T4504-217	Thstat RA		" "	
TI-1	1	T26S-18	Thstat			
TI-2	1	T5500-1055	Temp. Indicator	40-240°F		
TI-3	1	T5500-1052	Temp. Indicator	0-100°F		
TT-1	1	T5210-1004	Temp. Trans.	40-240°F	T800-1605 w/well	
TT-2	1	T5210-1114	Temp. Trans.	0-100°F	SHL 10A-603R w/sunshield	
V-1	1	V4324-1001	Heating Valve	1"-1.81v	AC-1	
V-2	1	V4324-1001	Heating Valve	1"-2.2 cv	AC-2	
V-3	1	V5462-2	Steam Valve	1 1/2"-11cv	H. W. Converter	
W	2	R3710-2007	Restrictor			
	22		Terminal Block		Stock	

**SEQUENCE OF OPERATION**

**HOT WATER CONVERTER CONTROL**  
Outside air thermostat (TT-2) will reset the hot water supply temperature through reset controller (RC-1) which modulates steam valve (V-3). Pressure electric switch (PE-8) will start the hot water circulating pump before steam valve (V-3) opens.

**UNIT HEATER AND FAN COIL CONTROL**  
Space thermostat (T-1) will operate pressure electric switch (PE-1) to starter units.

**ROOFTOP UNIT AC-1 & 2**  
Thermostat (T-2) will start the unit fan through pressure electric switch if the hand/off/auto switch has been placed in its selected mode. T-2 will either modulate the hot water control valve or start the single stage cooling compressor as space conditions dictate.

**AC-3**  
A pressure electric switch (PE-6) will stop AC-3 at night.

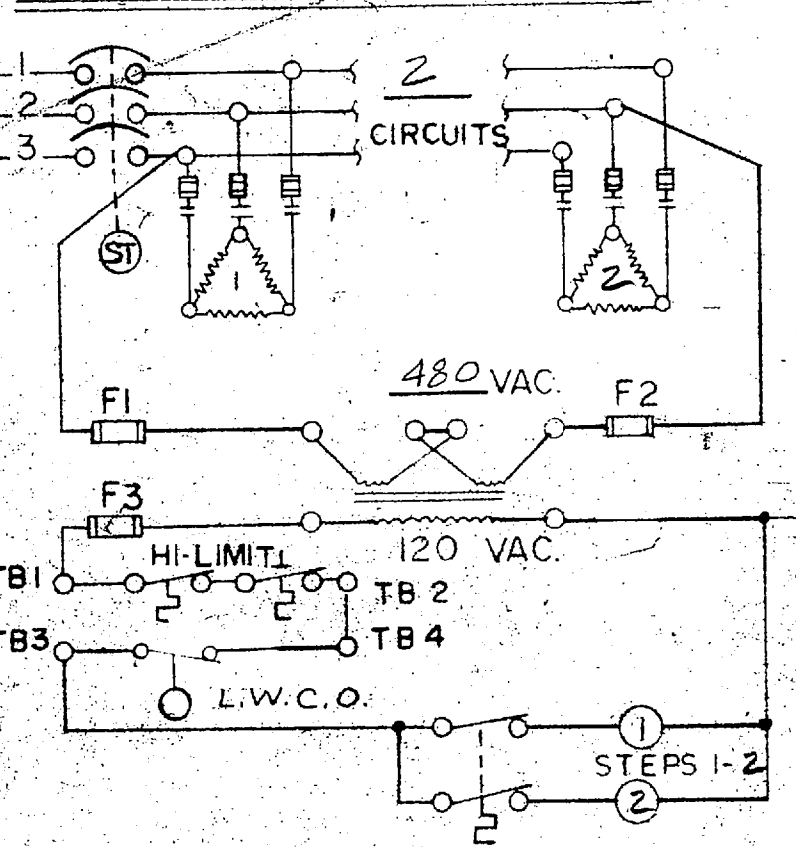
**FAN F-10**  
When fan F-10 switch is in the auto position, the fan will run under control of space thermostat (TE-1).

Time clock (C-1) will control the water heater and the day or night control of the controls.

DRAWING TITLE		REVISION		DATE	
HVAC CONTROLS		1	REWORK		3/23/70
REFERENCE DRAWINGS	NO.	REVISION - LOCATION	ECH	DATE	BY
SALES ENGR.	T. FRENCH	APPLICATION ENGR.	M. HOVSAR	DRAWN	BY: R2 DATE 6-14-63
PROJECT			CONTRACT NUMBER		
COMBAT VEHICLE SHOP MARINE CORPS BASE CAMP LEJEUNE, N.C.			3121-0010		
JOHNSON CONTROLS Systems & Services Division			DRAWING NUMBER		101



**ELECTRIC SCHEMATIC**



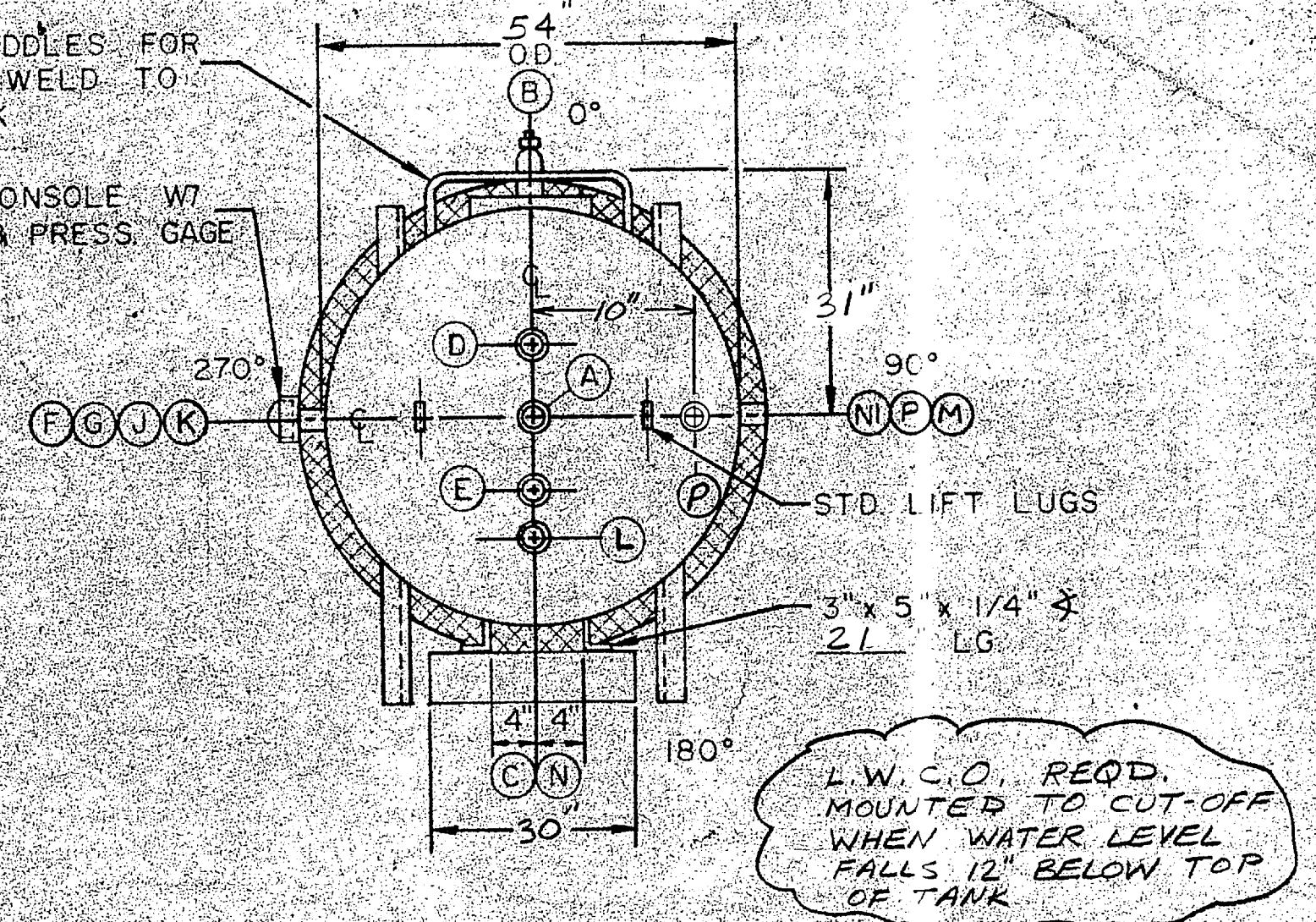
**B.W. ELEMENT SPECS.**

ELEMENT MODEL NO U-4-7.4 WT 7.4  
 SQ. FT. OF HEATING SURFACE  
 DESIGN PRESSURE 125 P.S.I.G.  
 TEST PRESSURE 188 P.S.I.G.  
 DESIGN TEMP 250 °F  
 TUBES ARE 3/4" O.D. SEAMLESS COPPER  
 TUBESHEET IS COPPER CLAD  
 ELEMENT NECK IS CU. SI.  
 ELEMENT HEAD IS CAST IRON.

**NOZZLE SCHEDULE**

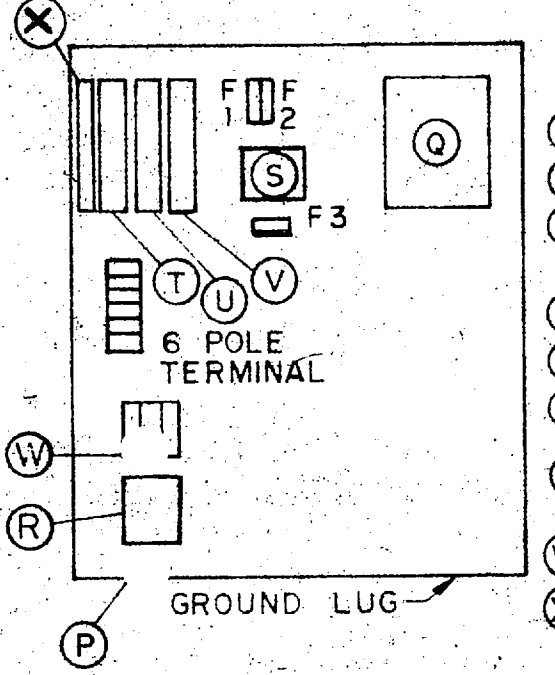
SIZE	TYPE	PURPOSE
A 2 1/2"	THRD.	HOT WATER OUTLET
B 2 1/2"	THRD.	COLD WATER INLET
C 4"	FLGD.	ELECTRIC HTG ELEMENT
D 3/4"	THRD.	P & T RELIEF VALVE
E 3/4"	THRD.	HI-LIMIT CONTROL
F 3/4"	THRD.	THERMOMETER
G 3/4"	THRD.	PRESSURE GAUGE
H 2"	THRD.	DRAIN & BOWDOWN
J 3/4"	THRD.	ELECTRIC ELE T-STAT
K 2"	THRD.	RECIRCULATING LINE
L 3/4"	THRD.	HI-LIMIT CONTROL
M 3/4"	THRD.	SHUNT TRIP T-STAT
N 4"	FLGD.	B.W. HTG ELEMENT
NI 1/4"	THRD.	B.W. ELE T-STAT
P 1"	THRD.	L.W.C.O.

(2) STD. SADDLES FOR SHIPPING, WELD TO THE TANK  
 GAGE CONSOLE W/ TEMP & PRESS GAGE



L.W.C.O. REQD. MOUNTED TO CUT-OFF WHEN WATER LEVEL FALLS 12" BELOW TOP OF TANK

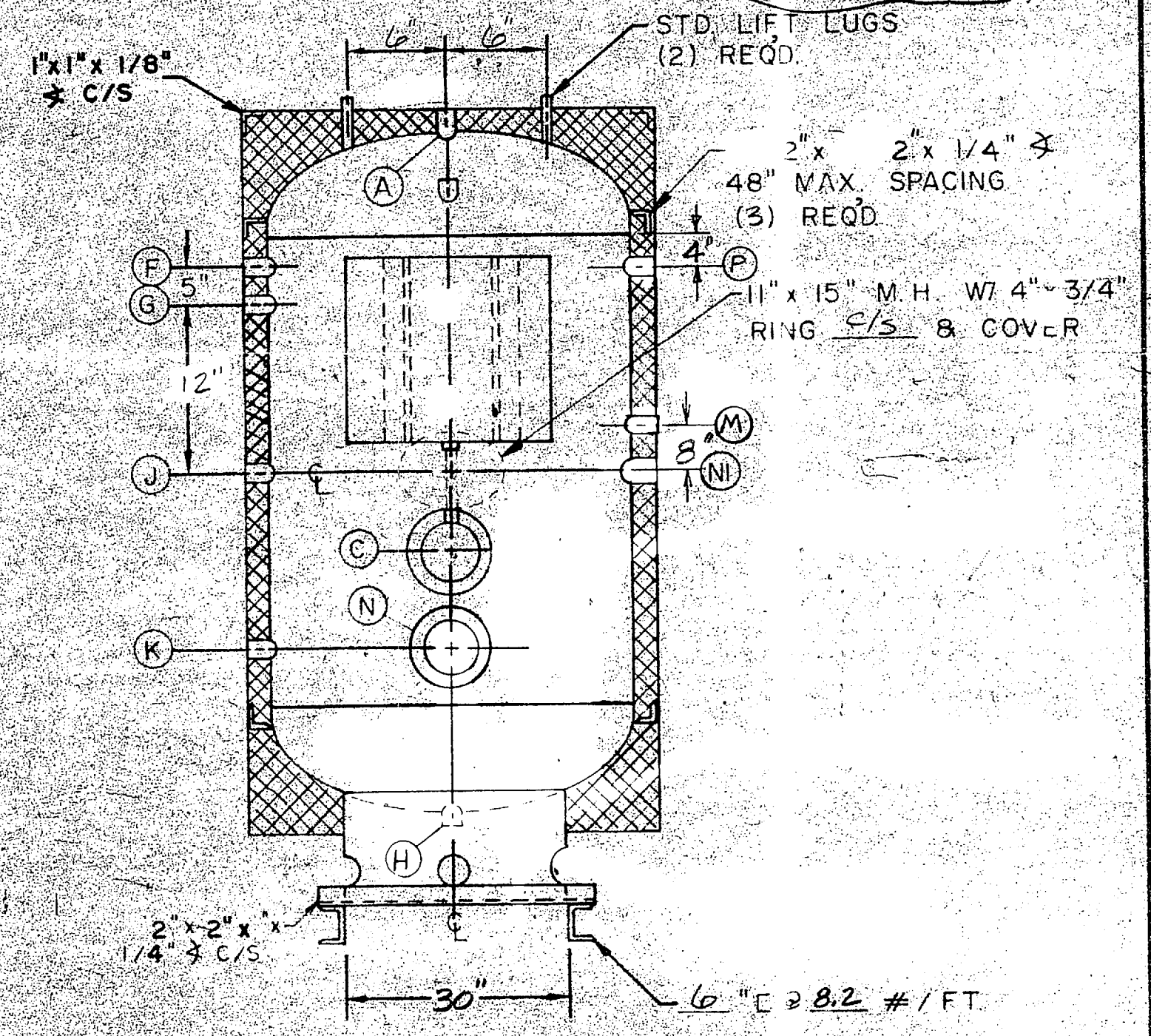
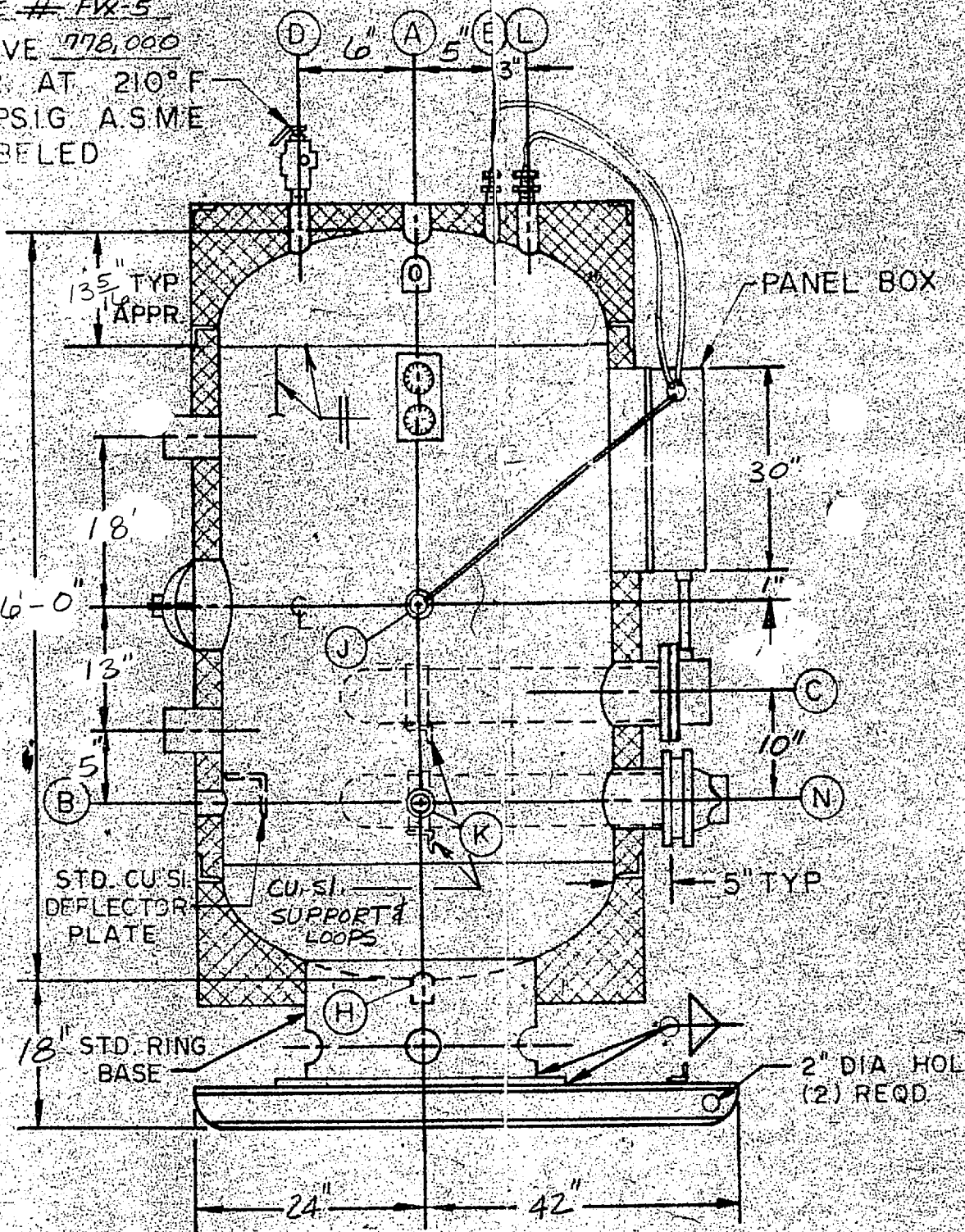
MANUAL STOP ON MAN. HI-LIMIT SET AT 190°F  
 UL LABELED UNDER GUIDE BDCS 4010



**ELECTRICAL ACCESSORIES**

- (P) NEMA 1 PANEL BOX W/ SAFETY HANDLE
- (Q) 30 AMP CIRCUIT BREAKER 480 VAC, 3 PH
- (R) 30 AMP CONTACTORS, DEFINITE PURPOSE 3 POLE W/ 120 VAC COILS
- (S) 100 VA. TRANSFORMER 480 V TO 120 V.
- (T) 2 STEP THERMOSTAT PENN
- (U) AUTO RESET HI-LIMIT CONTROL HONEYWELL L 41 BA
- (V) MANUAL RESET HI-LIMIT CONTROL HONEYWELL L 400B E
- (W) 15 AMP FUSES (6) REQUIRED
- (X) HI-LIMIT T-STAT L6008C1032

CASH ACME # FX-5  
 TO RELIEVE 778,000  
 B.T.U./HR. AT 210°F  
 & 125 PSIG ASME LABELED



**TANK SPECIFICATIONS**

- DESIGN PRESSURE 125 P.S.I.G. TEST PRESSURE 188 P.S.I.G.
- DESIGN TEMP 250 °F
- ASME LABELED SECT IV, LATEST EDITION, STAMPED WITH THE "H" SYMBOL INSPECTION CERTIFICATES FURNISHED SIGNED BY AN A.S.M.E. INSPECTOR
- INTERIOR LINING RECO CEMENT
- INSULATION IS 2" TK HEAVY DENSE FIBERGLASS WITH 22 GA. GALVANIZED STEEL JACKET AND PAINTED WITH BLUE HAMMERTONE ENAMEL
- STORAGE CAPACITY 630 GAL
- MATERIAL:  
 SHELL 5/16" TK SA-516-GR70  
 HEAD 1/2" TK SA-516-GR70 44'K.P. 1 3/4" K.R.  
 THRD. OPENINGS CU. SI.  
 FLGD. OPENINGS CU. SI.

**ELECTRIC ELEMENT SPECIFICATIONS**

- ELECTRIC ELEMENT TO HEAT 63 G.P.H. FROM 63 °F TO 180 °F
- ELEMENT IS RATED AT 18 KW 480 V 3 PH 60 HZ
- COPPER SHEATHED TUBULAR BLADES ON A 4 150# FLG WITH A COPPER FACE

COMPLETELY FACTORY PACKAGED & ASSEMBLED UNIT WIRED IN ACCORDANCE WITH THE N.E.C.

NO. UNITS REQD. ONE  
 CUSTOMER NOLAND CO. INC  
 P.O. NO 2601-E73830  
 JOB  
 REP DOZIER & SON SALES  
 ENGINEER

REV. NO.		CHANGE NOTICE NO.	DESCRIPTION	BY	DATE	APPROVAL	ENG. I. D.A.
1			RELEASE FOR FAB	LEO	4-6-83	RES	
JOB NO.		DATE	DRAWN BY	DRAWING NO.	REV.		
N-7737		5-20-83	LEO	C-83-108	1		
CHECKED BY		APPROVED					
RES		GFS					

**RICHMOND ENGINEERING CO., INC.**  
 RICHMOND VIRGINIA  
**B.W. -ELECTRIC PKGD. WATER HEATER**

