

FOR QUESTIONS, CALL THE  
 FLO AIRE NATIONAL  
 REGION 22  
 PHONE: (610) 239-8405  
 EMAIL: courtney.hardin@floaire.com

**MUA FAN INFORMATION - JOB#5934934**

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	BLOWER	HOUSING	MIN CFM	DESIGN CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	MCA	MDCP	WEIGHT (LBS)	SDNES
1	4500/5000CFM	1	F2-D.500-20D	20MF-2-MDD	A2-D.500	2500	4500	0.500	1656	DDP,PREMIUM	5.000	2.6610	3	208	15.0	20.9A	35A	702	17.2

**GAS FIRED MAKE-UP AIR UNIT(S)**

FAN UNIT NO	TAG	INPUT BTUs	OUTPUT BTUs	TEMP RISE	REQUIRED INPUT GAS PRESSURE	GAS TYPE	BURNER EFFICIENCY(%)
1	4500/5000CFM	444174	408640	85°F	7 IN. W.C. - 14 IN. W.C.	NATURAL	92

**FAN OPTIONS**

FAN UNIT NO	TAG	QTY	DESCRIPTION
1	4500/5000CFM	1	SIZE 2 TEMPERED COMMERCIAL DOWN DISCHARGE FOR DIRECT DRIVE AHUS
		1	INLET PRESSURE GAUGE, 0-35"
		1	MANIFOLD PRESSURE GAUGE, -5 TO 15" WC
		1	BUTTERFLY MOD VALVE OPTION FOR MOD SIZE 2 (1" MOD VALVE)
		1	SHIP LOOSE GAS STRAINER 1"
		1	MOTORIZED BACKDRAFT DAMPER FOR A2-D HOUSING - MEETS AMCA CLASS 1A RATING
		1	LOW FIRE START
		1	FREEZESTAT (10)
		1	VAV PACKAGE W/ MANUAL/DDC CONTROL (571 VFD INCLUDED)
		1	VFD FACTORY MOUNTED AND WIRED IN COMMERCIAL CONTROL VESTIBULE FOR TEMPERED SUPPLY FAN
		1	CONTROL PANEL ENCLOSURE HEATER - RECOMMENDED FOR WINTER DESIGN TEMPERATURES LESS THAN 0°F
		1	CONVENIENCE OUTLET (GFCI), 15 AMP - REQUIRES SEPARATE 120V CONNECTION - INCLUDES RECEPTACLE AND J-BOX
1	2 YEAR PARTS WARRANTY		

**FAN ACCESSORIES**

FAN UNIT NO	TAG	EXHAUST			SUPPLY			
		GREASE CUP	GRAVITY DAMPER	WALL MOUNT	SIDE DISCHARGE	GRAVITY DAMPER	MOTORIZED DAMPER	WALL MOUNT
1	4500/5000CFM						YES	

**CURB ASSEMBLIES**

NO	DN FAN	TAG	WEIGHT	ITEM	SIZE
1	# 1	4500/5000CFM	76 LBS	CURB	31.000"W X 79.000"L X 16.000"H ALONG WIDTH, RIGHT INSULATED.

**FAN SOUND DATA**

FAN UNIT NO	TAG	MOTOR	SOUND DATA			OCTAVE BAND SOUND DATA								
			LWA	SDNES @ 5 FT	DBA @ 5 FT	DISTANCE (FT)	63 HZ	125 HZ	250 HZ	500 HZ	1 KHZ	2 KHZ	4 KHZ	8 KHZ
1	4500/5000CFM	SUPPLY	80.5	17.1767011270497	69	5	74.4	82	80	78.6	74.7	71.6	68.8	65.5

JOB 4500/5000cfm**Heater Stock	
LOCATION Southborough, MA,	
DATE 4/3/2023	JOB # 5934934
DWG # 1	DRAWN BY courtneyh
REV.	SCALE 3/8" = 1'-0"

- FAN #1 F2-3500-200 - HEATER (4500/5000CFM)
1. DIRECT GAS FIRED HEATED MAKE UP AIR UNIT WITH 20" MIXED FLOW DIRECT DRIVE FAN.
  2. INTAKE HOOD WITH E2 FILTERS.
  3. DOWN DISCHARGE - AIR FLOW RIGHT -> LEFT.
  4. DOWN DISCHARGE CONSTRUCTION FOR SIZE 2 DIRECT DRIVE AHUS.
  5. GAS PRESSURE GAUGE, 0-30", 2 1/2" DIAMETER, 1/4" THREAD SIZE.
  6. GAS PRESSURE GAUGE, -5 TO +15 INCHES W.C., 2 1/2" DIAMETER, 1/4" THREAD SIZE.
  7. BUTTERFLY MOD VALVE OPTION FOR MOD SIZE 2 (1" MOD VALVE).
  8. SHIP LOOSE GAS STRAINER, TO BE INSTALLED UPSTREAM OF UNIT CONNECTION, 1" CONNECTION.
  9. MOTORIZED BACK DRAFT DAMPER 22.75" X 24" FOR SIZE 2 STANDARD & MODULAR HEATER UNITS W/EXTENDED SHAFT, STANDARD GALVANIZED CONSTRUCTION, 3/4" REAR FLANGE, LOW LEAKAGE, LF20S ACTUATOR INCLUDED.
  10. LOW FIRE START, ALLOWS THE BURNER CIRCUIT TO ENERGIZE WHEN THE MODULATION CONTROL IS IN A LOW FIRE POSITION.
  11. FREEZE STAT WITH 10" SENSOR, FACTORY SET AT 33°F AND 10 MINUTES.
  12. VAV (VARIABLE-AIR-VOLVED) WIRING PACKAGE FOR COMMERCIAL FANS.
  13. VFD FACTORY MOUNTED AND WIRED IN UNIT CONTROL VESTIBULE.
  14. CONTROL PANEL ENCLOSES HEATER, INCLUDES 100V, 200V HEATER, RECOMMENDED FOR WINTER DESIGN TEMPERATURE LESS THAN 0°F, OPERATES ON PCB CONTROLS IN IBT SINGLE MODULES DR RTU.
  15. GFCI 15 AMP CONVENIENCE OUTLET FOR HEATER ENCLOSURE, POWER SUPPLY BY OTHERS - INCLUDES RECEPTACLE AND J BOX.
  16. HINGED DOUBLE WALL INSULATED DOOR ASSEMBLY CORNER/BLOWER SECTION.
  17. 2 YEAR PARTS WARRANTY

NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE AS OUTLINED IN AMCA PUBLICATION 201. WHEN USING RECTANGULAR DUCTWORK, ELBOWS MUST BE RADIUS THROAT, RADIUS BACK WITH TURNING VANES, FLEXIBLE DUCTWORK AND SQUARE THROAT/SQUARE BACK ELBOWS SHOULD NOT BE USED. ANY TRANSITION AND/OR TURNS IN THE DUCTWORK WILL CAUSE SYSTEM EFFECT. SYSTEM EFFECT WILL INSTANTLY INCREASE STATIC PRESSURE AND REDUCE AIRFLOW. DO NOT RELY ON UNIT TO SUPPORT DUCT IN ANY WAY. FAILURE TO PROPERLY SIZE DUCTWORK MAY CAUSE SYSTEM EFFECTS AND REDUCE PERFORMANCE OF THE EQUIPMENT. SUGGESTED STRAIGHT DUCT SIZE IS 20" x 20".

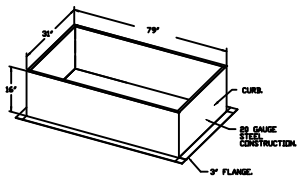
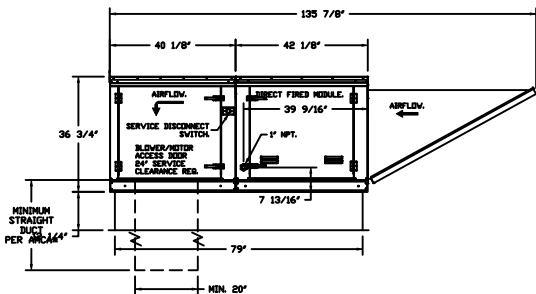
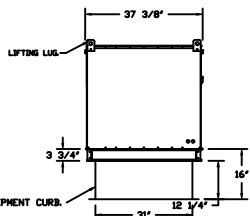
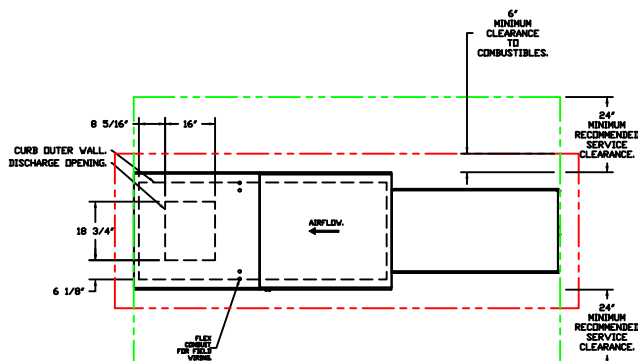
SUPPLY SIDE HEATER INFORMATION

WINTER TEMPERATURE = -10°F, TEMP. RISE = 85°F.  
 BTUS CALCULATED OFF ACTUAL AIR DENSITY.  
 OUTPUT BTUs AT ALTITUDE OF 00 FT. = 408640.  
 INPUT BTUs AT ALTITUDE OF 00 FT. = 444174.



DUCT FITTING PEOPLE FLAKE ASSEMBLY

**WARNING: INSTALLATION INSTRUCTIONS**  
 THIS UNIT MUST BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING INSTRUCTIONS. FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN PROPERTY DAMAGE, PERSONAL INJURY, OR DEATH. ALWAYS FOLLOW THE MANUFACTURER'S INSTRUCTIONS FOR THE INSTALLATION OF THIS UNIT. THE FOLLOWING INSTRUCTIONS ARE FOR THE INSTALLATION OF THIS UNIT. ALWAYS FOLLOW THE MANUFACTURER'S INSTRUCTIONS FOR THE INSTALLATION OF THIS UNIT. ALWAYS FOLLOW THE MANUFACTURER'S INSTRUCTIONS FOR THE INSTALLATION OF THIS UNIT. ALWAYS FOLLOW THE MANUFACTURER'S INSTRUCTIONS FOR THE INSTALLATION OF THIS UNIT.



FloAire

JOB 4500/5000cfm\*\*Heater Stock

LOCATION Southborough, MA,

DATE 4/3/2023

JOB # 5934934

DWG # 2

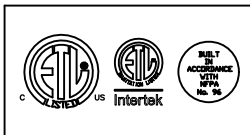
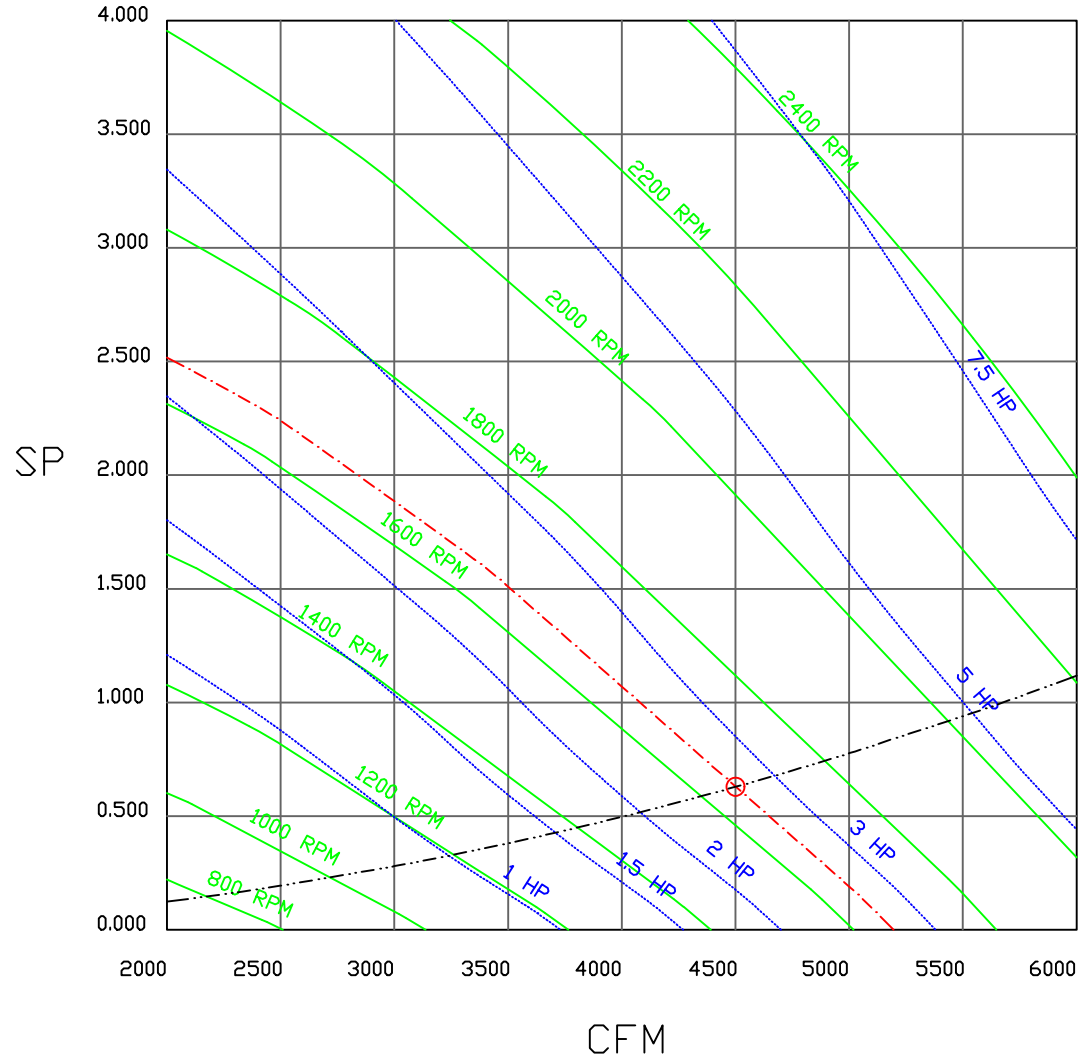
DRAWN BY courtneyh

REV.

SCALE 3/16" = 1'-0"

FAN#1 (4500/5000CFM) - HEATER PERFORMANCE CURVES.

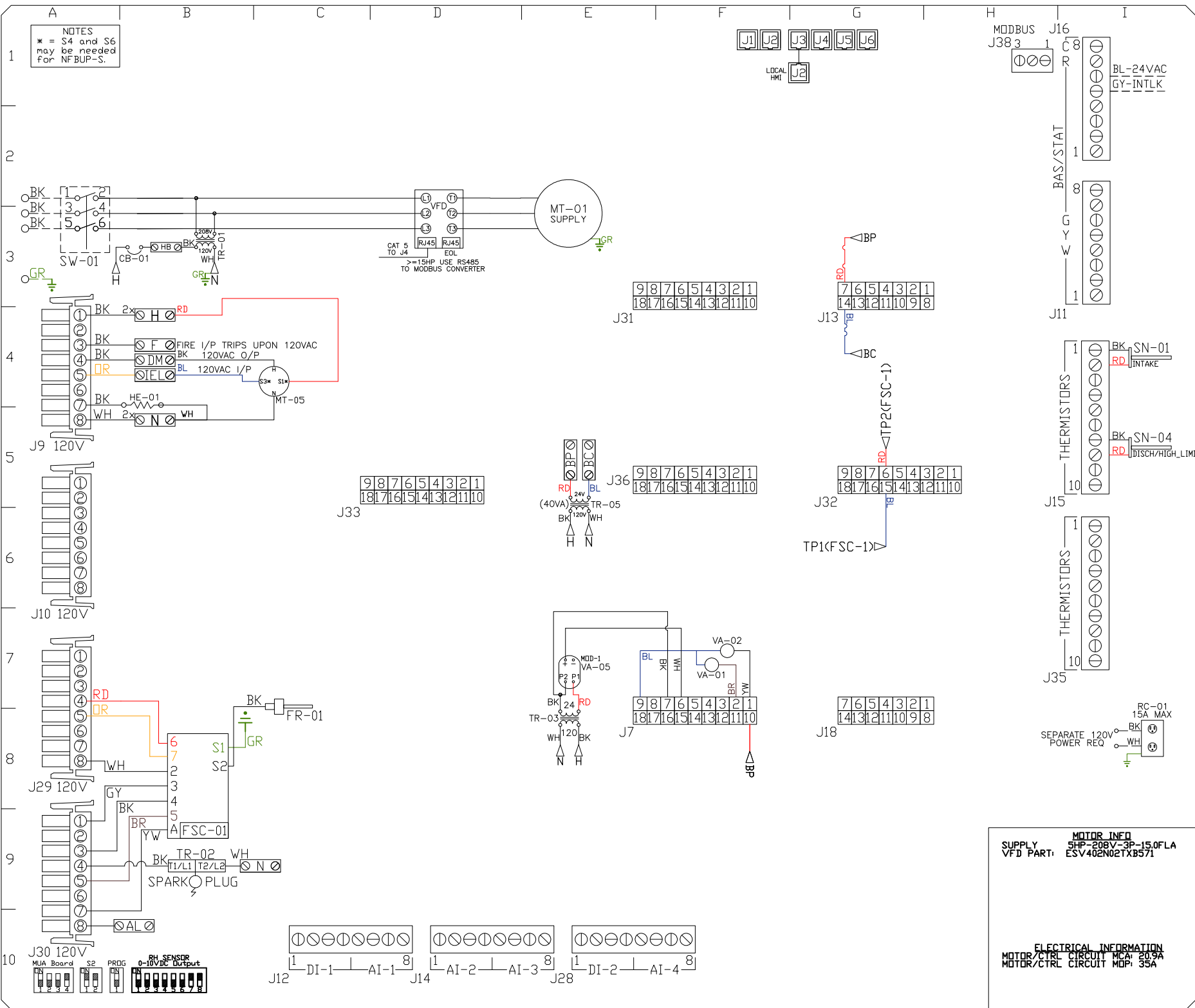
4500 CFM, 0.629 SP @ 1656 RPM AND 2.661 BHP AT 0 FEET AND 75 DEG F.  
 \* PLEASE NOTE THAT THESE CURVES WERE ADJUSTED FOR JOB SPECIFIC TEMPERATURE AND ALTITUDE.



FloAire

JOB 4500/5000cfm**Heater Stock	
LOCATION Southborough, MA,	
DATE 4/3/2023	JOB # 5934934
DWG # 3	DRAWN BY courtneyh
REV.	SCALE 3/8" = 1'-0"

NOTES  
 \* = S4 and S6 may be needed for NF-BUP-S.



COMPONENT LIST

LABEL	DESCRIPTION
CB-01	CIRCUIT_BREAKER
FR-01	EVD/ECM-ACU+S1.1-MP
FSC-01	FIREYE_FLAME_SAFETY
HE-01	CABINET_HEATER
MT-01	SUPPLY_MOTOR
MT-05	INTAKE_DAMPER_MTR
RC-01	CONV_OUTLET
SN-XX	TEMP_SENSOR 14/15/16/17
SW-01	DISCONNECT_SWITCH
TR-01	CTRL_TRANSFMR
TR-02	IGNITION_TRANSFMR
TR-05	BOARD_POWER_TRFMR
VA-01	PILOT_GAS_VALVE
VA-02	MAIN_GAS_VALVE
VA-05	MOD_GAS_VALVE

**LEGEND**

--- FIELD WIRING  
 --- FACTORY WIRING

BK- BLACK YW- YELLOW  
 BL- BLUE GR- GREY  
 BR- BROWN PR- PURPLE  
 DR- DRAZNE RD- RED  
 WH- WHITE GR- GREEN  
 DR/BL- DR/BL STRIPE  
 BL/RD- BL/RD STRIPE  
 RD/GN- RD/GN STRIPE  
 WH/BL- WH/BL STRIPE

**MOTOR INFO**  
 SUPPLY SHP-208V-3P-15.0FLA  
 VFD PART: ESV402N02XB571

**ELECTRICAL INFORMATION**  
 MOTOR/CTRL CIRCUIT MCA: 20.9A  
 MOTOR/CTRL CIRCUIT MDP: 35A

**JOB NAME**  
 4500/5000cfm\*\*H...

**DRAWING TITLE**  
 MUA BOARD

**DESCRIPTION OF OPERATION**  
 (DETAILS TO FOLLOW)

**JOB NO**  
 5934934

**DRAWN BY**  
 AUTO

**TYPE**  
 FACTORY

**DATE**  
 4/3/2023

**DWG**  
 MW5934934-1



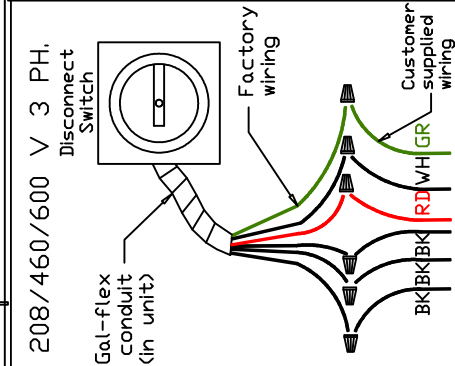
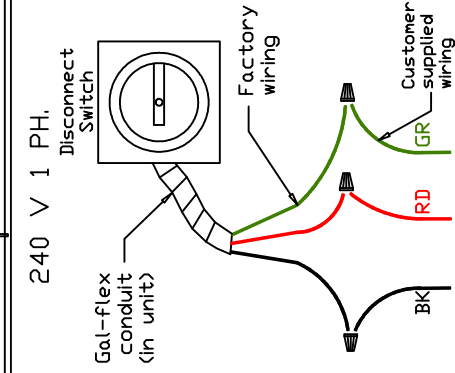
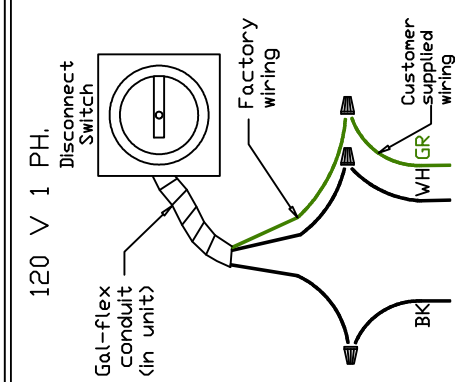
# Installation Wiring

DRAWING NUMBER RP5934934-1

SHIP DATE 4/3/2023

MODEL F2-D.500-20D

JOB 5934934 - 4500/5000c-fm\*\*Heater Stock



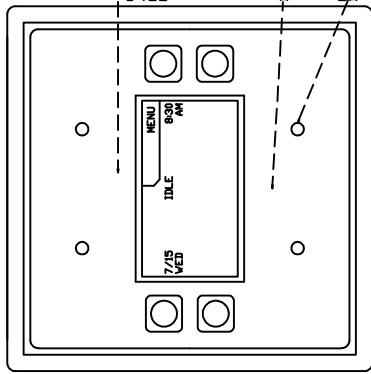
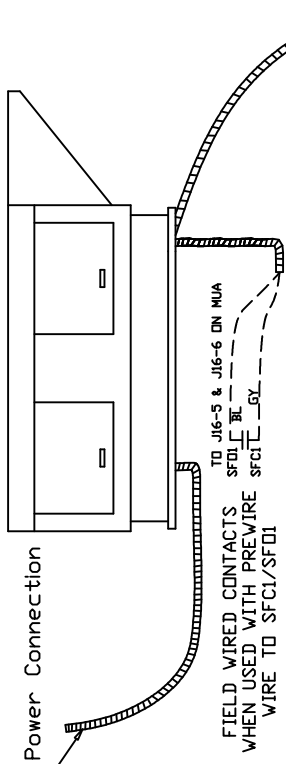
Field Wired Switch

Installed Options

STANDING POWER  
RD & WH Wire (115V, 1 PHASE)

SEPARATE CIRCUIT REQUIRED FOR SERVICE RECEPTACLE (15amp)

See above details.



CAT-5 CONNECTIONS ON REVERSE  
J5 ON PH01 TO J2 OF MUA CAN BE BARELY CHANGED  
PLACE END OF LINE DEVICE IN LAST PORT

NOTES

WIRE COLOR

BK	-	BLACK	YW	-	YELLOW
BL	-	BLUE	GR	-	GREEN
BR	-	BROWN	GY	-	GRAY
OR	-	ORANGE	PR	-	PURPLE
RD	-	RED	PK	-	PINK
WH	-	WHITE			