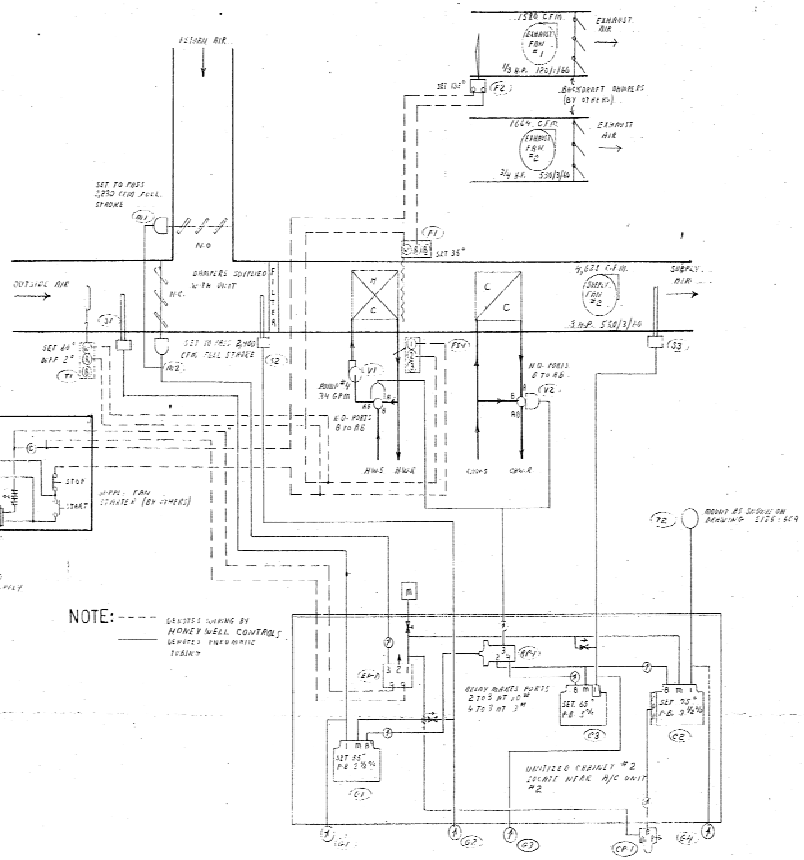
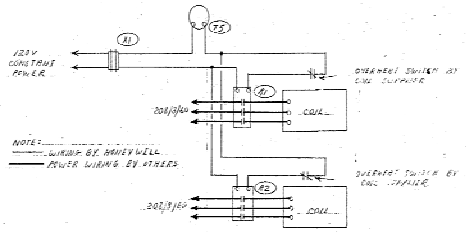
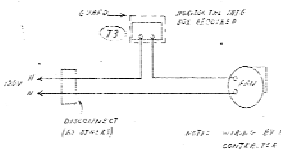
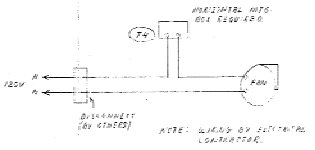


AIR CONDITIONING UNIT #2
1 SYSTEM





UNIT HEATER CONTROL
1 SYSTEM



FORCE-FLO CONTROL
1 SYSTEM

ELECTRIC FORCE-FLO CONTROL symbol e5
1 system

AIR CONDITIONING UNIT #2

M1,2	2	MP904B1028	Damper Motor	1	8018A3B	Box	
S1,2,3	3	BP911A1003	-40 to 160° Sensor	1	AM023917A	Door c/w lock and cutouts TAO: Unitized Cabinet #2	
G1,2,3	3	8A40734	-40 to 160° Sensor				
F1	1	LA8001002	Freezestat	1	AM023920A	Nameplate	
F2	1	LA0249L086	Firestat	1	279895-1	Perf. Plate	
T1	1	T675A1003	Controller				
	1	3112660	Bulb Holder	UNIT HEATER CONTROL			
FS1	1	FS4-1	Flow Switch				
RP1	1	RP403D1058	120V e-p Relay	T3	1	T4T3A1003	Thermostat
C1	1	RP906A1039	Controller c/w C.P.A.		1	2717548	Guard
C3	1	RP908A1062	Limit Controller	FORCE-FLO CONTROL			
CP1	1	SP9341013	Control Point Adjustor	T4	1	T4T3A1003	Thermostat
	1	3159787	Warmer-Cooler Scaleplate	ELECTRIC FORCE-FLO CONTROL			
RP1	1	RP404A1004	Switching Relay				
T2	1	TP97A1001	Temp. Sensor	T5	1	T86A1000	Thermostat
	1	3114409-38	Cover	R1,2	2	R8195C1000	Electric Heat Relay
	1	3118859	Fitting	X1	1	AT72D1188	120/24 transformer
	1	314323	Insulator				
	5	309009	0 to 30# Gauge				
V1	1	VP51AC	Motorized Valve Assy c/o TAO: Unit #2 Heating Coil				
		V5013A1054	1½" Valve CV25				
		MP953C1083	8" Motor				
G4	1	8A40730	50 to 100° Gauge				
V2	1	VP51CC	Motorized Valve Assy c/o TAO: Unit #2 Cooling Coil				
		V5013A1062	2" Valve CV 40				
		MP953C1083	8" Motor				

Air Conditioning Unit #2:
When the supply fan is running, electro-pneumatic relay RP1 is energized passing main air to damper motors M1 and M2 positioning them to pass the amount of air shown on the drawings. When the outside air temperature is below the setpoint of controller C1, relay RP1 is made ports 4 to 3 thus allowing controller C2 to position heating and cooling valves V1 and V2 in sequence through low limit controller C3 in order to maintain the space temperature at the setpoint of controller C2. When the outside air temperature is above the setpoint of controller C1, relay RP1 is made ports 2 to 3 thus allowing room controller C2 to position valves V1 and V2 directly in order to maintain the space temperature at the setpoint of C2. Controller C2 can be manually adjusted by means of control point adjuster CP1 located on the face of panel. Freezestat F1 stops the supply fan should it sense an abnormally low temperature condition downstream from the heating coil. Firestat F2 stops the supply fan should it sense an abnormally high temperature being exhausted from the building. When the outside air temperature is below the setpoint of controller T1, flow switch FS1 is capable of stopping the fan should it sense a no flow condition in the heating coil loop. When the outside air temperature is above the setpoint of controller T1, FS1 is incapable of stopping the fan. When the supply fan is not running, electro-pneumatic relay RP1 is de-energized and therefore the fresh air damper is closed, the return air damper is fully open. Indication of the outside air temperature, mixed air temperature and supply air temperature is provided on the face of the panel by means of gauges G1 to G3.

Unit Heater Control:
When the space temperature falls below the setpoint of thermostat T3, T3 starts the fan. When the room temperature rises above the setpoint of thermostat T3, T3 stops the fan.

Force Flo Control:
When the space temperature falls below the setpoint of thermostat T4, T4 starts the fan. When the room temperature rises above the setpoint of thermostat T4, T4 stops the fan.

Electric Force Flo Control:
When the space temperature falls below the setpoint of thermostat T5, T5 energizes relays R1 and R2 providing the t their respective overheat switches are closed in order to complete the electrical circuit to the respective coil and thereby heat the space. When the space temperature rises above the setpoint of T5, T5 de-energizes the contactors.

RECEIVED
OCT 2 2 1969
SEMANS PLUMBING & HEATING LTD.

DET.	MAT'L	DESCRIPTION	REQ.

DRN'T SPEC. DAB
FINISH
REF. No.
JOB No. 311374
DRAWN DAB | CHECKED | APPROVED
DATE Sept. 3, 1968
SCALE

LENGTH UNLESS NOTED:
± ONE PLACE DECIMALS
± TWO PLACE DECIMALS
± THREE PLACE DECIMALS
± OTHER LINEAR DIMENSIONS
± FORMED ANGLES

HONEYWELL
CONTROLS LIMITED
HEAD OFFICE
740 ELLESMERE RD.
SCARBOROUGH, ONT.

TITLE
Metro Transit Garage
Osborne St. & Brandon Ave.
Winnipeg, Manitoba

FOR Semans Plbg. & Htg. Co. Ltd.
DWG. No. 311374-5 of 8
REV.

No.	REVISION	DATE	E.C.N.	APP'D

CA1697