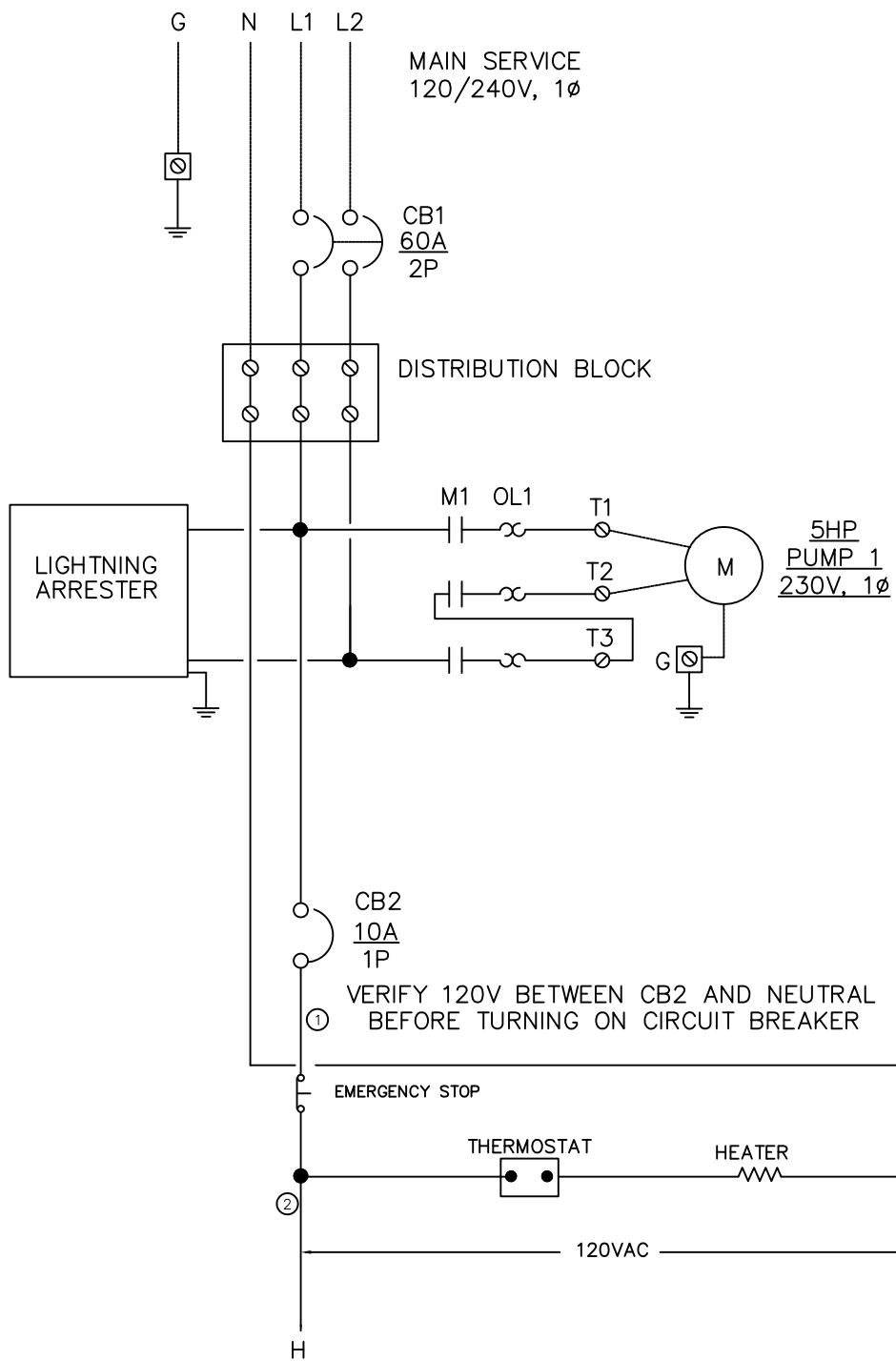

COX

Research and Technology, Inc.

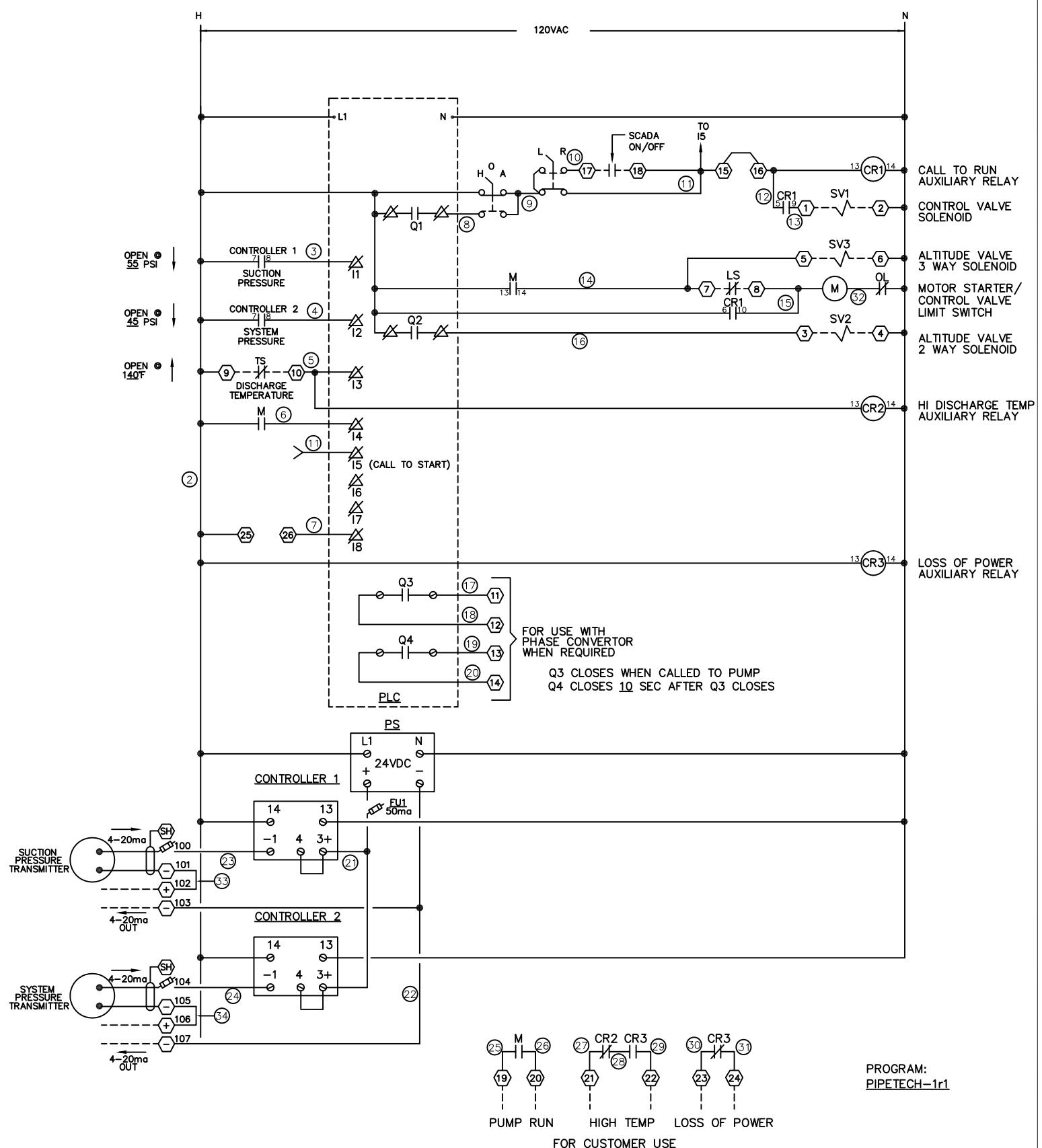
BOOSTER PUMP CONTROL PANEL LEWISBURG-BELLVIEW

Cox Research and Technology, Inc.
14697 S. Harrells Ferry Road
Baton Rouge, LA. 70816
(225) 756-3271 Fax (225) 755-1030

CP-2385-A



	Drawing Title POWER DIAGRAM				
		REFERENCE DRAWING S/N	NO. Sales Engineer C.C.	REVISION-LOCATION DRAWN T.L. BY C.RACHAL	ECN APPROVED BY DATE
DATE 5/12/06					
	Project Title BOOSTER PUMP CONTROL PANEL		COX Research and Technology, Inc.	P.O. Box 77808 Baton Rouge, LA 70809 Ph. (225)756-3271 Fax (225)755-1030	PURCHASE ORDER NUMBER DRAWING NUMBER CP-2385 SHEET NUMBER 1



	Drawing Title						
		REFERENCE DRAWING		NO.	REVISION-LOCATION		ECN
DATE	S/N		Sales Engineer	Application Engineer	DRAWN	APPROVED	DATE
5/12/06	C.C.			T.L.	BY C.RACHAL	BY	
	Project Title		COX		P.O. Box 77808 Baton Rouge, LA 70809		PURCHASE ORDER NUMBER
	BOOSTER PUMP CONTROL PANEL		Research and Technology, Inc.		Ph. (225)756-3271 Fax (225)755-1030		DRAWING NUMBER CP-2385
					SHEET NUMBER 2		

CONTROL SEQUENCE

					ENERGIZE TO CLOSE A.V.		
					SV3	TANK	SYSTEM
						A.V.	
3:00 PM	[BOO1]	X	X	0	X		
10:00 PM	[BOO1]	0	0	0	0		
* SUCTION <u>58 PSI</u> ↓		0	0	0	0		
** SYSTEM <u>58PSI</u> ↓		0	0	X	0		
*** TS <u>140 ° F</u> ↑		0	0	0	0		

The logic diagrams illustrate the control logic for the system.
 - Top diagram: Valve A.V. is closed (indicated by a crossed circle). Pump P is energized (indicated by a rectangle with 'P').
 - Middle diagram: Valve A.V. is open (indicated by a circle). Pump P is energized.
 - Third diagram: Valve A.V. is open. Pump P is energized.
 - Fourth diagram: Valve A.V. is open. Pump P is energized.
 - Bottom diagram: Valve A.V. is open. Pump P is energized.

* REMAINS ONE-WAY UNTIL 3:00 PM THE NEXT DAY

** REMAINS TWO-WAY UNTIL 3:00 PM THE NEXT DAY

*** RETRY EVERY 5-20 MIN (ADJ) [BOO3]

OVERRIDE SUCTION & SYSTEM PRESSURE TRIPS FOR 0-5 MIN (ADJ)

WHEN PUMP STARTS [BOO2]

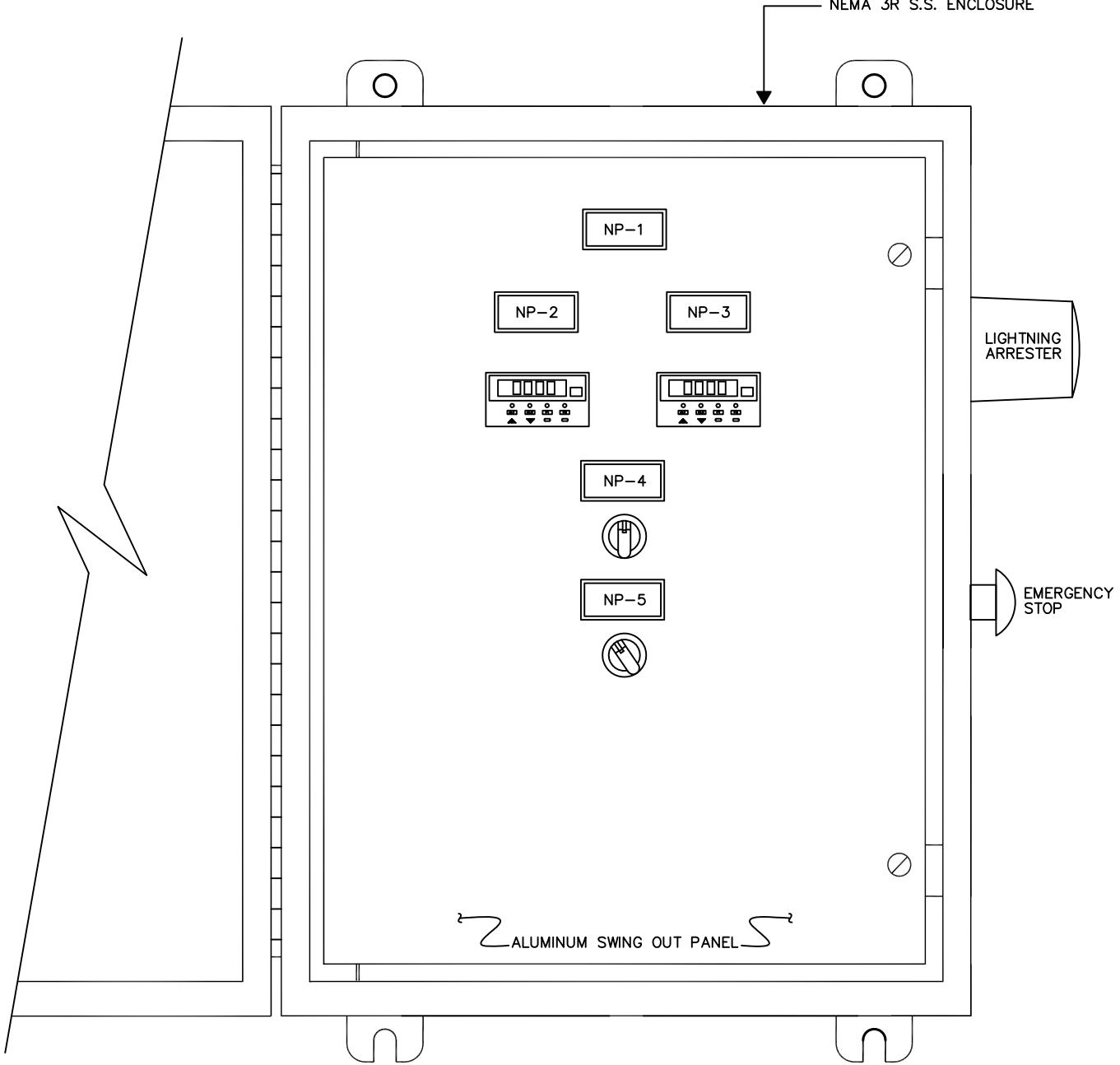
TIMES, PRESSURES AND TEMPERATURES SHOWN ON THIS SHEET ARE TYPICAL
AND MAY NOT BE THE ACTUAL SET POINTS ON A PARTICULAR PROJECT.

X = ENERGIZE

O = DE-ENERGIZE

[BOO1] = PLC SETPOINT BLOCK NUMBER 1

	Drawing Title					
	CONTROL SEQUENCE					
		REFERENCE DRAWING	NO.	REVISION-LOCATION	ECN	DATE BY
DATE 5/12/06		S/N	Sales Engineer	Application Engineer	DRAWN	APPROVED
			C.C.	T.L.	BY C.RACHAL	BY DATE
	Project Title			P.O. Box 77808 Baton Rouge, LA 70809	PURCHASE ORDER NUMBER	
	BOOSTER PUMP CONTROL PANEL		COX		DRAWING NUMBER	CP-2385
		Research and Technology, Inc.		Ph. (225)756-3271 Fax (225)755-1030	SHEET NUMBER	3



VIEW OF SWING OUT PANEL

NAMEPLATE SCHEDULE

NP-1	BOOSTER PUMP CONTROL PANEL
NP-2	SUCTION PRESSURE
NP-3	SYSTEM PRESSURE
NP-4	HAND-OFF-AUTO
NP-5	LOCAL-REMOTE

NOTE:
SEWER GASSES WILL DESTROY COMPONENTS IN PANEL.
PROPER SEALS MUST BE INSTALLED EXTERNAL TO THE
PANEL TO PREVENT ENTRY OF GASSES.

	Drawing Title					
	ENCLOSURE					
		REFERENCE DRAWING	NO.	REVISION-LOCATION	ECN	DATE BY
DATE 5/12/06		S/N	Sales Engineer	Application Engineer	DRAWN	APPROVED
			C.C.	T.L.	BY C.RACHAL	BY DATE
	Project Title	<hr/> <hr/> <hr/> COX <hr/> <hr/>			P.O. Box 77808 Baton Rouge, LA 70809	PURCHASE ORDER NUMBER
	BOOSTER PUMP CONTROL PANEL	Research and Technology, Inc.			Ph. (225)756-3271 Fax (225)755-1030	DRAWING NUMBER CP-2385
						SHEET NUMBER 4

BILL OF MATERIAL

ITEM	QTY	MANUFACTURER	PART NO.	DESCRIPTION
1	1	C & I	C-201610SRHPL	ENCLOSURE
1a	1	C & I	CI-2016P	BACKPLATE
2	1	ABB	A30-30-10-84	CONTACTOR
3	1	ABB	TA25DU32	O.L. RELAY (24-32A)
4	1	A-B	800H-FRXT6A1	EMERGENCY STOP
5	1	SIEMENS	LOGO! OBA5	PLC
6	1	A-B	800H-JR2A	HOA SWITCH
7	1	A-B	800H-HR2A	LOCAL REMOTE SWITCH
8	1	DELTA	LA302	LIGHTNING ARRESTER
9	1	MARATHON	1323580	DISTRIBUTION BLOCK
10	1	ABB	CAL-5	AUXILIARY CONTACTS
11	1	SQUARE D	QOU260	CB1
12	1	SQUARE D	QOU110	CB2
13	3	IDEC	RU4SA110	CR1-3
14	1	SIEMENS	-	24VDC POWER SUPPLY
15	2	DIGITEC	D3221	DIGITAL CONTROLLER
16	1	HOFFMAN	-	CORROSION INHIBITOR
17	1	DAYTON	4BA54	30W HEATER
18	1	SAGINAW	SCE-TMNC	THERMOSTAT
19				

	Drawing Title							
	BILL OF MATERIALS							
			REFERENCE DRAWING	NO.	REVISION-LOCATION	ECN	DATE	BY
			S/N	Sales Engineer	Application Engineer	DRAWN	APPROVED	
DATE 5/12/06				C.C.	R.C.	BY C. RACHAL	BY	DATE
	Project Title		COX		PURCHASE ORDER NUMBER			
	BOOSTER PUMP CONTROL PANEL		Research and Technology, Inc.		DRAWING NUMBER CP-2385			
					SHEET NUMBER 5			