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# COX

Research and Technology, Inc.

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DUPLEX BLOWER  
CONTROL PANEL  
NATIONAL OIL WELL VARCO

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

CP-2386

VOLTAGE	<u>120/240V</u>	(480V, 277/480V, 240V, 120/240V, 208V, 120/208V)
PHASE/HZ	<u>1/60</u>	
NO. MOTORS	<u>2</u>	
HP	<u>2</u>	
FLA	<u>12</u>	
TYPE OF PUMP	<u>Blower</u>	(Self-Priming, Submersible)
MANUFACTURER	<u></u>	
CATALOG NUMBER	<u></u>	
CONTROL VOLTAGE	<u>120V</u>	(120V, Other)
ENCLOSURE	<u>NEMA 4X</u>	(NEMA 1, NEMA 3R, NEMA 4, NEMA 4X)
ENCLOSURE MATERIAL	<u>Fiberglass</u>	(Painted Steel, Stainless Steel, Fiberglass)
CONTROL SENSOR	<u></u>	(Floats, Bubbler, Other)
CAPACITORS	<u></u>	(Yes, No)
CAPACITOR WIRING FIGURE	<u></u>	
THERM. & SEAL FAIL WIRING FIGURE	<u></u>	


OPTIONS:

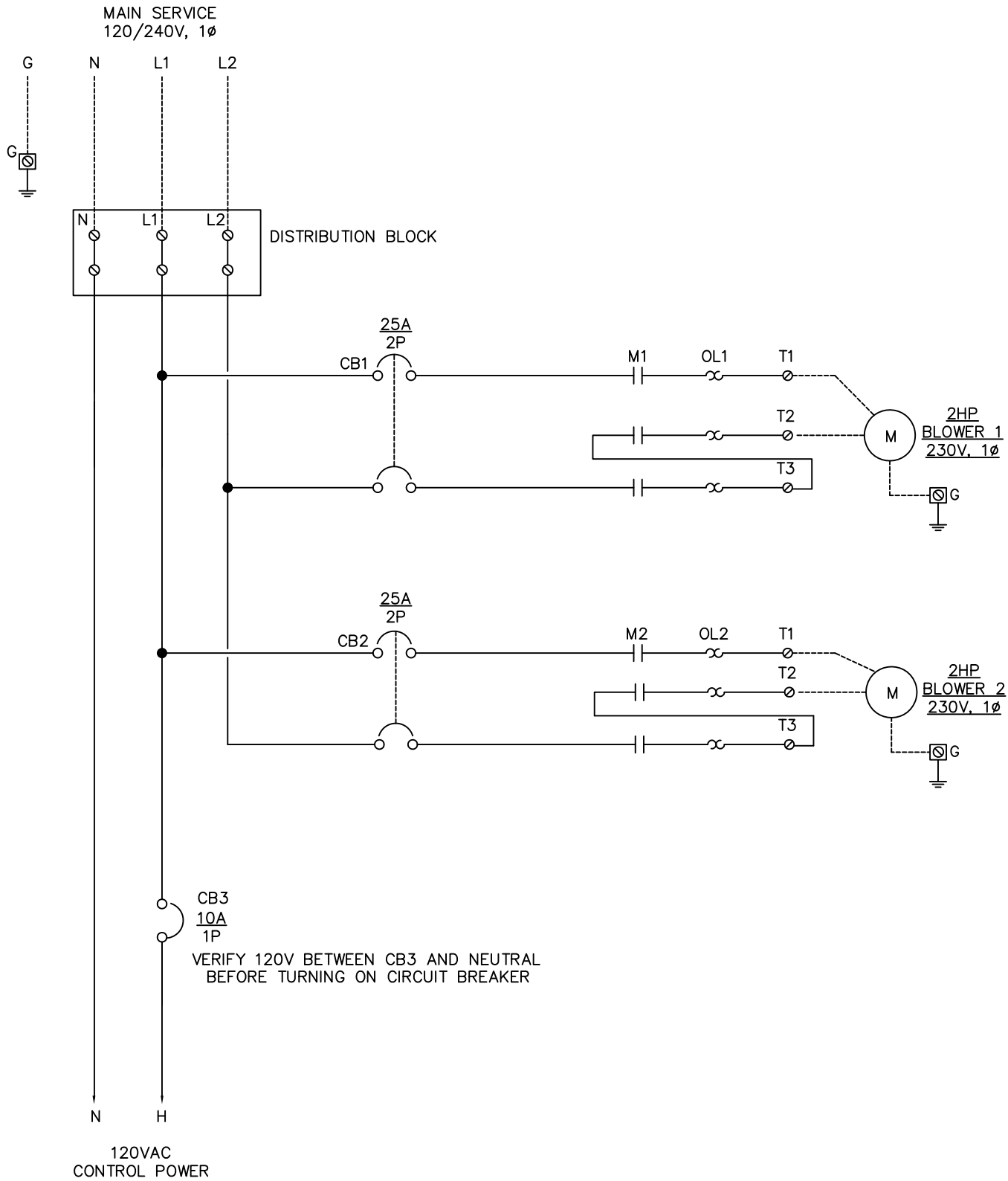
SEAL FAIL LIGHTS	<u></u>	(Submersible Only)
SEAL FAIL RELAYS	<u></u>	(Submersible Only)
SEAL FAIL PUMP SHUTDOWN	<u></u>	(Submersible Only)
HT PUMP SHUTDOWN	<u></u>	(Self-Primer, Submersible)
ALARM HORN	<u></u>	
ALARM LIGHT	<u></u>	
LIGHT PANEL MTD	<u></u>	
LIGHT REMOTE MTD	<u></u>	
LIGHT FLASHER	<u></u>	
LIGHTNING ARRESTER	<u></u>	
ELAPSED TIME METER	<u></u>	
PHASE MONITOR	<u></u>	
NEMA RATED STARTERS	<u></u>	
GROUND FAULT RECPT.	<u></u>	
GREEN RUN LIGHTS VS. RED	<u></u>	
POLE, BOX, SEAL	<u></u>	
INTRINSICALLY SAFE RELAYS	<u></u>	
HIGH TEMP. LOCKOUT, MANUAL RESET	<u></u>	
ECONOMY VERSION	<u></u>	

SOLD TO: Delta Process Equipment, Inc.

TAG : NATIONAL OIL WELL VARCO

SHIP TO: Delta Process Equipment, Inc. - Ruston, LA

	Drawing Title						
	PANEL DESCRIPTION						
DATE 5/16/06		REFERENCE DRAWING S/N	NO. Sales Engineer C.C.	REVISION-LOCATION Application Engineer R.C.	DRAWN BY C. RACHAL	ECN	DATE
	Project Title	<div style="text-align: center;">   <b>COX</b>  Research and Technology, Inc. </div>			P.O. Box 77808 Baton Rouge, LA 70809		PURCHASE ORDER NUMBER
	DUPLEX BLOWER CONTROL PANEL				Ph. (225)756-3271 Fax (225)755-1030		DRAWING NUMBER CP-2386
							SHEET NUMBER 1



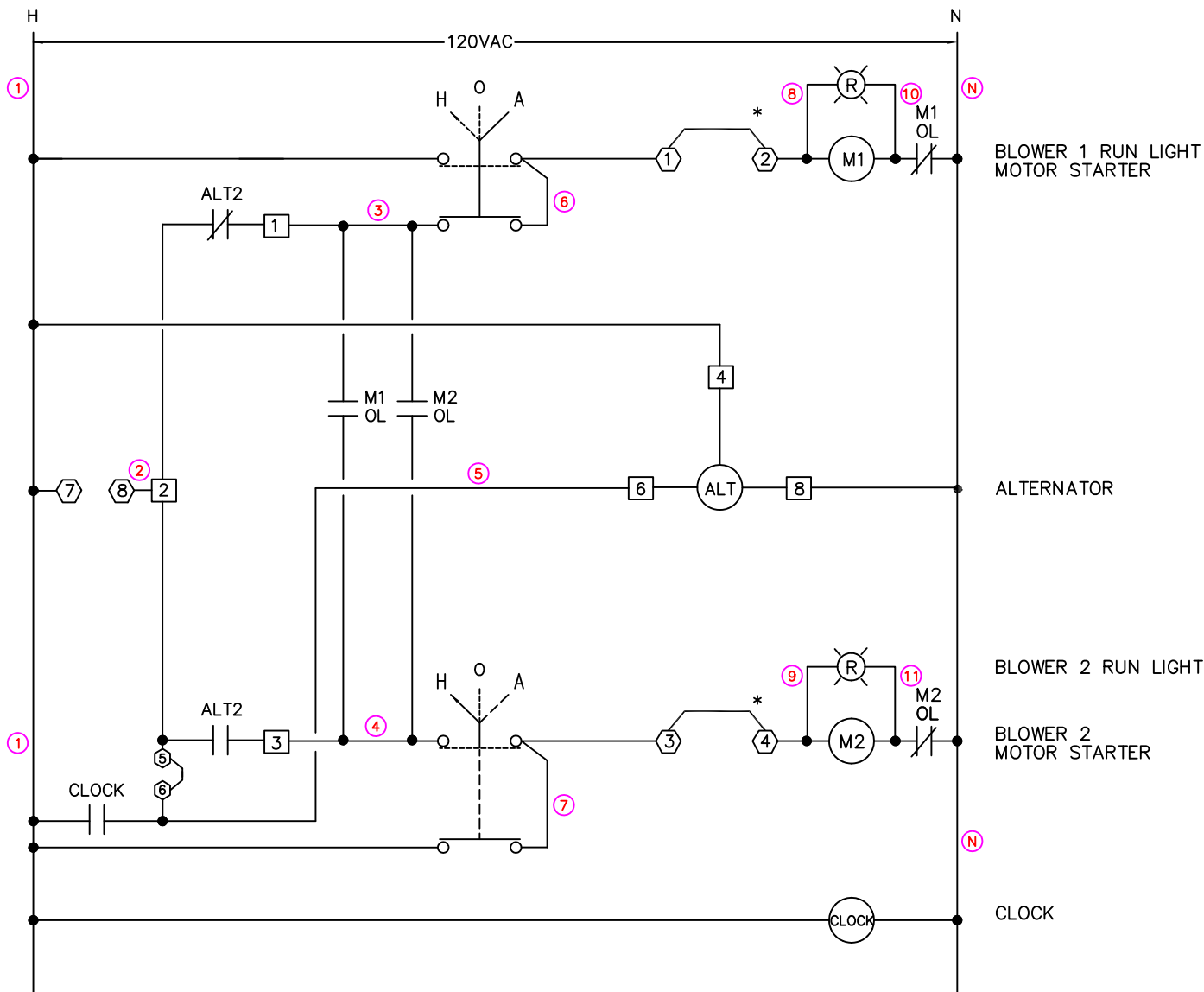
	Drawing Title						
	POWER DIAGRAM						
DATE 5/16/06		REFERENCE DRAWING S/N	NO. Sales Engineer C.C.	REVISION-LOCATION Application Engineer R.C.	DRAWN BY C. RACHAL	ECN	DATE BY
	Project Title	PURCHASE ORDER NUMBER			APPROVED		
	DUPLEX BLOWER CONTROL PANEL	DRAWING NUMBER CP-2386			DATE		
		SHEET NUMBER			2		

**COX**

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Baton Rouge, LA  
70809

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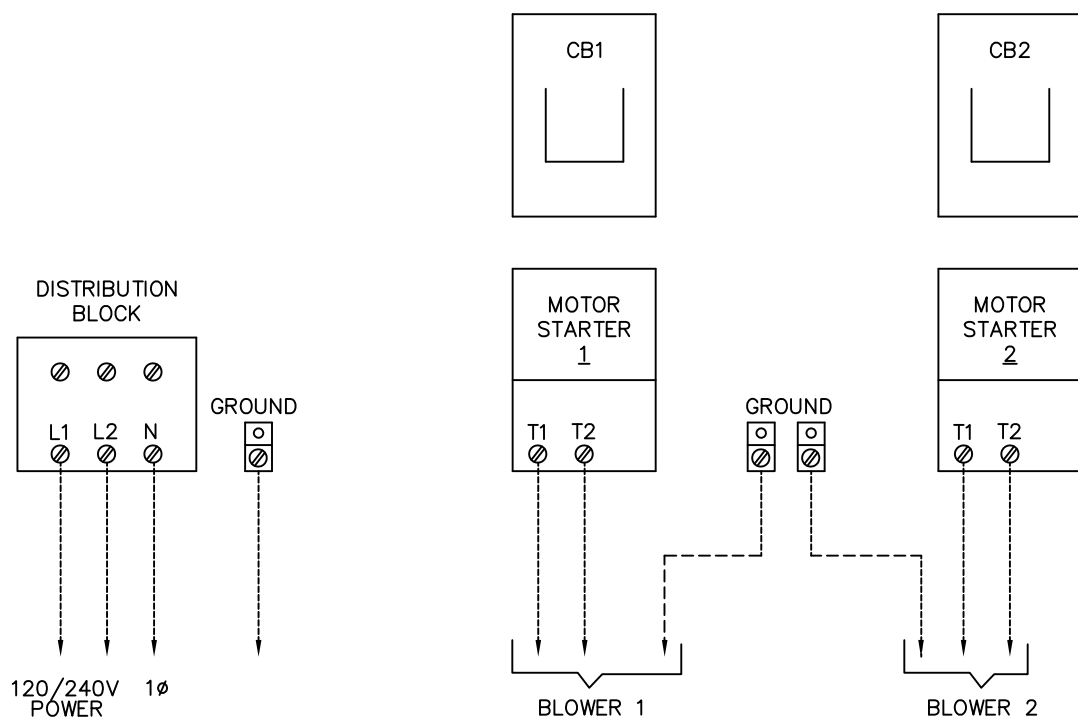


PANEL IS DESIGNED TO RUN BLOWERS WITH A MINIMUM OF 15 MINUTES OF OFF TIME BETWEEN ALTERNATION. PINS PUSHED OUT ON CLOCK INDICATE RUN TIME. PINS PUSHED IN INDICATE OFF TIME. EACH PIN IS EQUAL TO 15 MINUTES.

IF NO OFF TIME IS REQUIRED BETWEEN ALTERNATION, REMOVE JUMPER FROM TERMINALS ⑤ AND ⑥. PLACE JUMPER ACROSS TERMINALS ⑦ AND ⑧. NOW BLOWERS WILL RUN CONTINUOUSLY. SET 1 PIN IN AT THE TIME YOU WISH THE BLOWERS TO ALTERNATE. ALL REMAINING PINS SHOULD BE PUSHED OUT.

\* REMOVE JUMPERS AND INSTALL LOCKOUT DEVICES IF REQUIRED

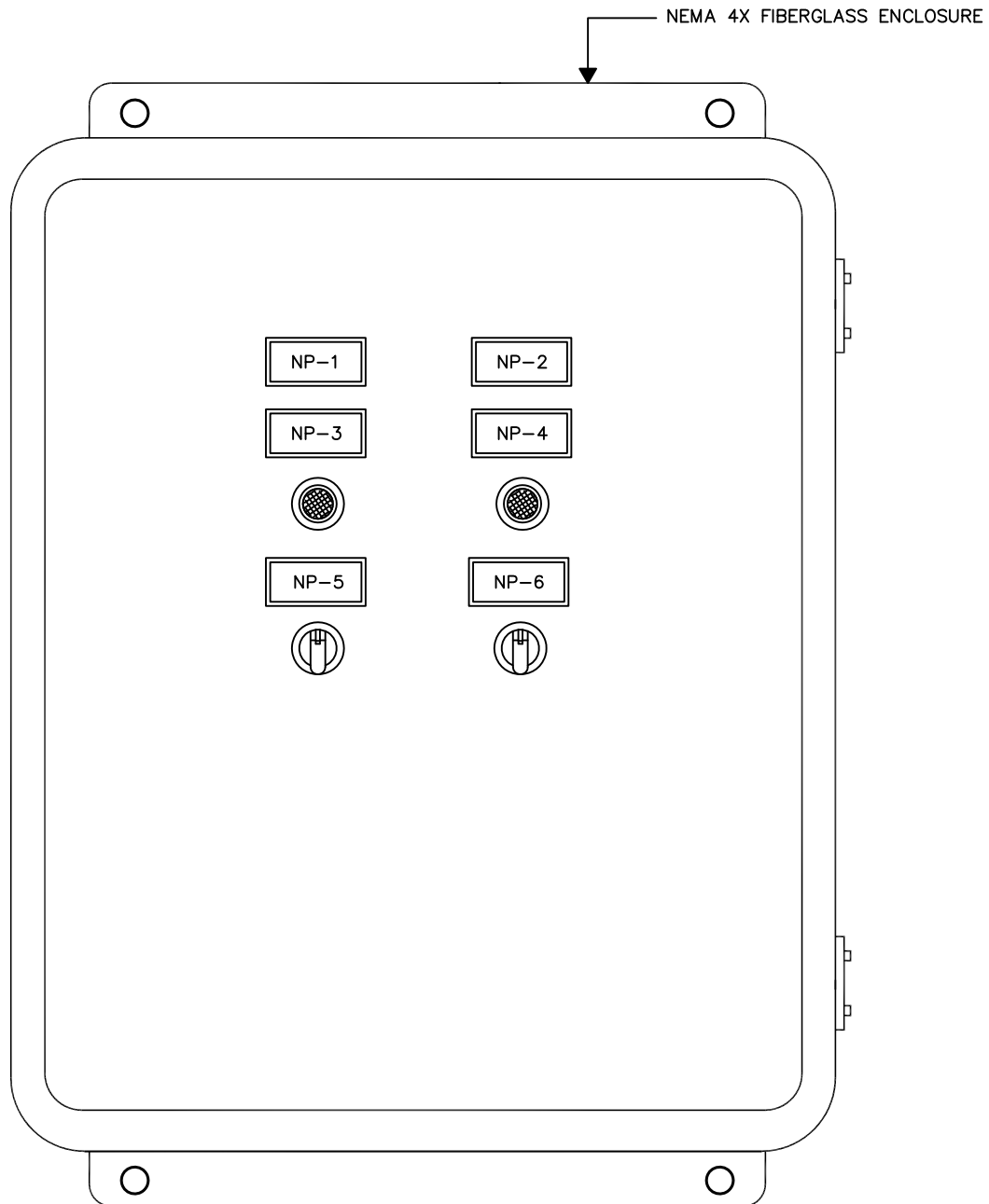
	Drawing Title  	
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REMOVE JUMPERS & INSTALL  
LOCKOUT DEVICES IF REQUIRED

IF NO OFF TIME IS REQUIRED BETWEEN  
ALTERNATION, REMOVE JUMPER FROM  
TERMINALS ⑤ AND ⑥. PLACE JUMPER ACROSS  
TERMINALS ⑦ AND ⑧. NOW BLOWERS WILL RUN  
CONTINUOUSLY. SET 1 PIN IN AT THE TIME YOU  
WISH THE BLOWERS TO ALTERNATE.  
ALL REMAINING PINS SHOULD BE PUSHED OUT.

	Drawing Title							
	EXTERNAL CONNECTIONS							
DATE		REFERENCE DRAWING	NO.	REVISION-LOCATION	ECN	DATE	BY	
5/16/06		S/N	Sales Engineer C.C.	Application Engineer R.C.	BY C. RACHAL	APPROVED		
	Project Title				P.O. Box 77808 Baton Rouge, LA 70809	PURCHASE ORDER NUMBER		
	DUPLEX BLOWER CONTROL PANEL	COX			Ph. (225)756-3271 Fax (225)755-1030	DRAWING NUMBER CP-2386		
		Research and Technology, Inc.				SHEET NUMBER 4		



VIEW OF FRONT OF ENCLOSURE

NOTE:

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

NAMEPLATE SCHEDULE

NP-1	BLOWER 1
NP-2	BLOWER 2
NP-3	RUN
NP-4	RUN
NP-5	HOA
NP-6	HOA

DATE 5/16/06	Drawing Title								
	ENCLOSURE								
	Project Title		REFERENCE DRAWING		NO.	REVISION-LOCATION		ECN	DATE
	DUPLEX BLOWER CONTROL PANEL		S/N	Sales Engineer C.C.	Application Engineer R.C.	DRAWN		BY	APPROVED
						BY C. RACHAL		BY	DATE
								PURCHASE ORDER NUMBER	
								DRAWING NUMBER	
								CP-2386	
								SHEET NUMBER	
								5	

# BILL OF MATERIAL

ITEM	QTY	MANUFACTURER	PART NO.	DESCRIPTION
1	1	STAHLIN	RJ1816HPL	ENCLOSURE
2	1	STAHLIN	BP1816AL	BACKPLATE
3	2	ABB	A16-30-10-84	STARTER
4	2	ABB	TA25DU14	O.L. (10-14A)
5	2	SQUARE D	QOU225	CIRCUIT BREAKER 1,2
6	1	MARATHON	1323580	DISTRIBUTION BLOCK
7	2	ACI	JR22P3M20B	H.O.A. SWITCH
8	2	ACI	JR22FR	RED PILOT LIGHTS
9	1	TIMEMARK	261DT120	ALTERNATING RELAY
10	1	SQUARE D	QOU110	CB1
11	1	GRASSLIN	FM/1 STUZH-L	TIMER
12				

	Drawing Title							
	<h2 style="margin: 0;">BILL OF MATERIALS</h2>							
DATE 5/16/06		REFERENCE DRAWING S/N	NO. Sales Engineer C.C.	REVISION-LOCATION Application Engineer R.C.	DRAWN BY C. RACHAL	ECN	DATE	BY
						APPROVED		
	Project Title	<div style="border: 1px solid black; padding: 5px; margin: 0 auto; width: 100px;"> <h1 style="margin: 0;">COX</h1> </div> <p style="margin: 0;">Research and Technology, Inc.</p>			P.O. Box 77808 Baton Rouge, LA 70809  Ph. (225)756-3271 Fax (225)755-1030		PURCHASE ORDER NUMBER  DRAWING NUMBER CP-2386 SHEET NUMBER <div style="text-align: right;">6</div>	
	<h2 style="margin: 0;">DUPLEX BLOWER CONTROL PANEL</h2>							