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

OPTIONS:

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

SOLD TO: Delta Process Equipment, Inc.  
TAG : NATIONAL OIL WELL VARCO

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

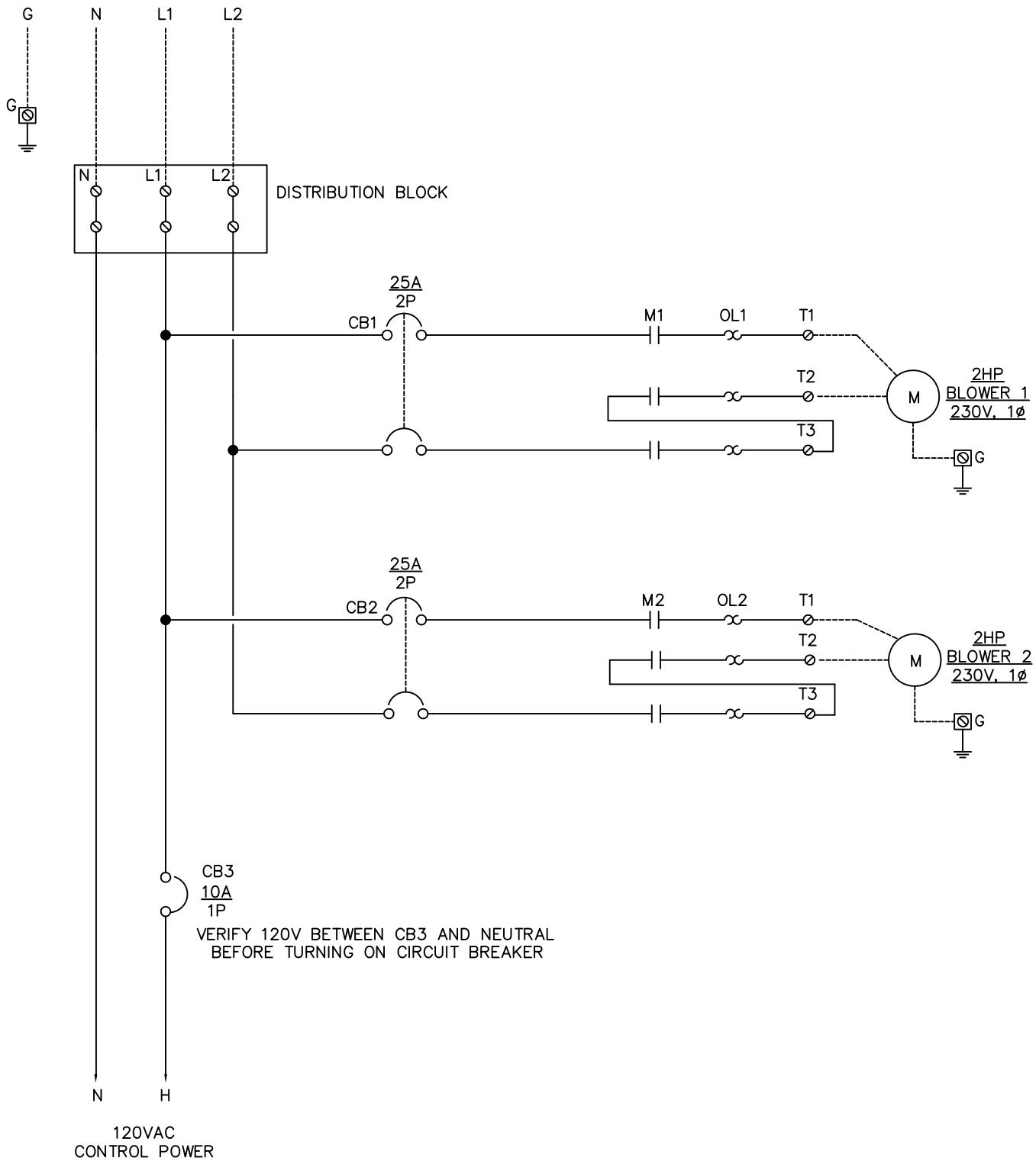
Drawing Title	PANEL DESCRIPTION	REFERENCE DRAWING		NO. R.C.	REVISION-LOCATION		ECN	DATE	BY
		S/N	Sales Engineer C.C.		Application Engineer	DRAWN BY C. RACHAL			
DATE 5/16/06	Project Title  DUPLEX BLOWER CONTROL PANEL								

**COX**  
Research and Technology, Inc.

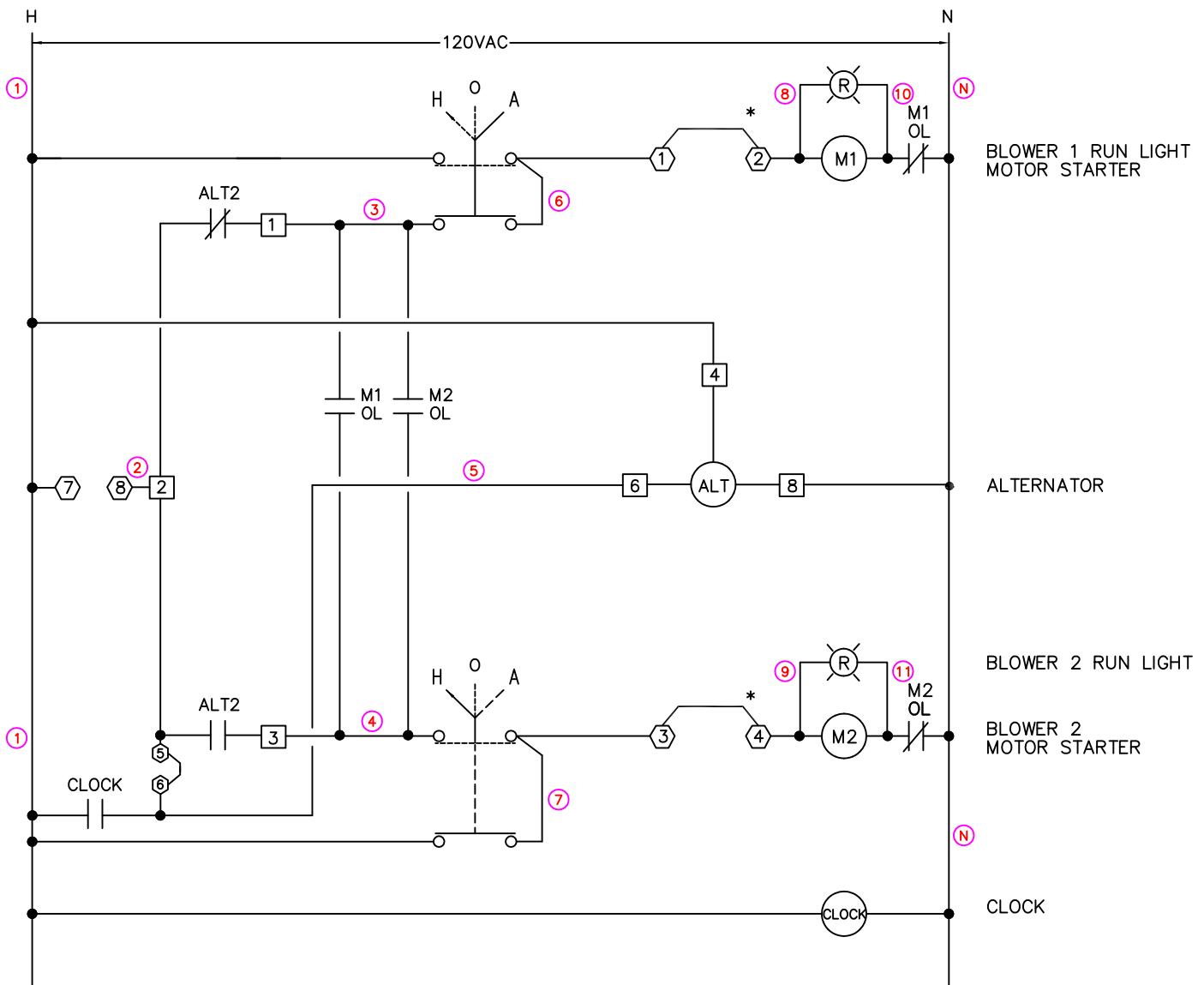
P.O. Box 77808  
Baton Rouge, LA  
70809  
Ph. (225)756-3271  
Fax (225)755-1030

PURCHASE ORDER NUMBER
DRAWING NUMBER CP-2386
SHEET NUMBER 1

MAIN SERVICE  
120/240V, 1Ø



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

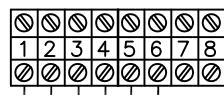
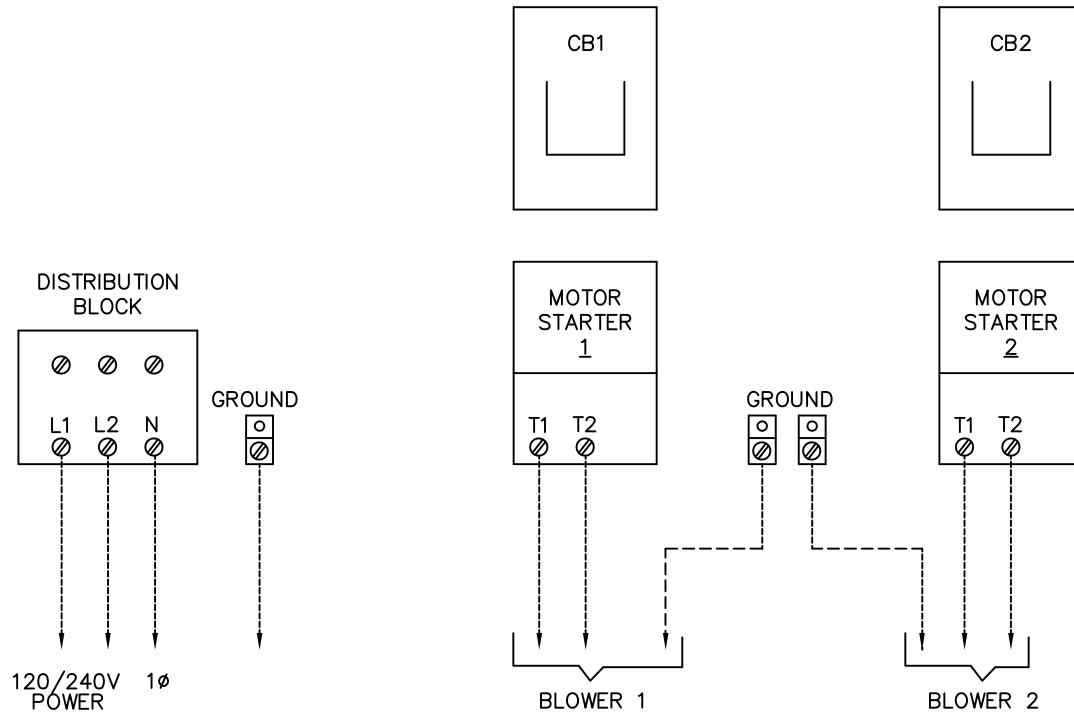


PANEL IS DESIGNED TO RUN BLOWERS WITH A MINIMUM OF 15 MINUTES OF OFF TIME BETWEEN ALTERNATION. PINS PUSHED OUT ON CLOCK INDICATE RUN TIME. PINS PUSHED IN INDICATE OFF TIME. EACH PIN IS EQUAL TO 15 MINUTES.

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

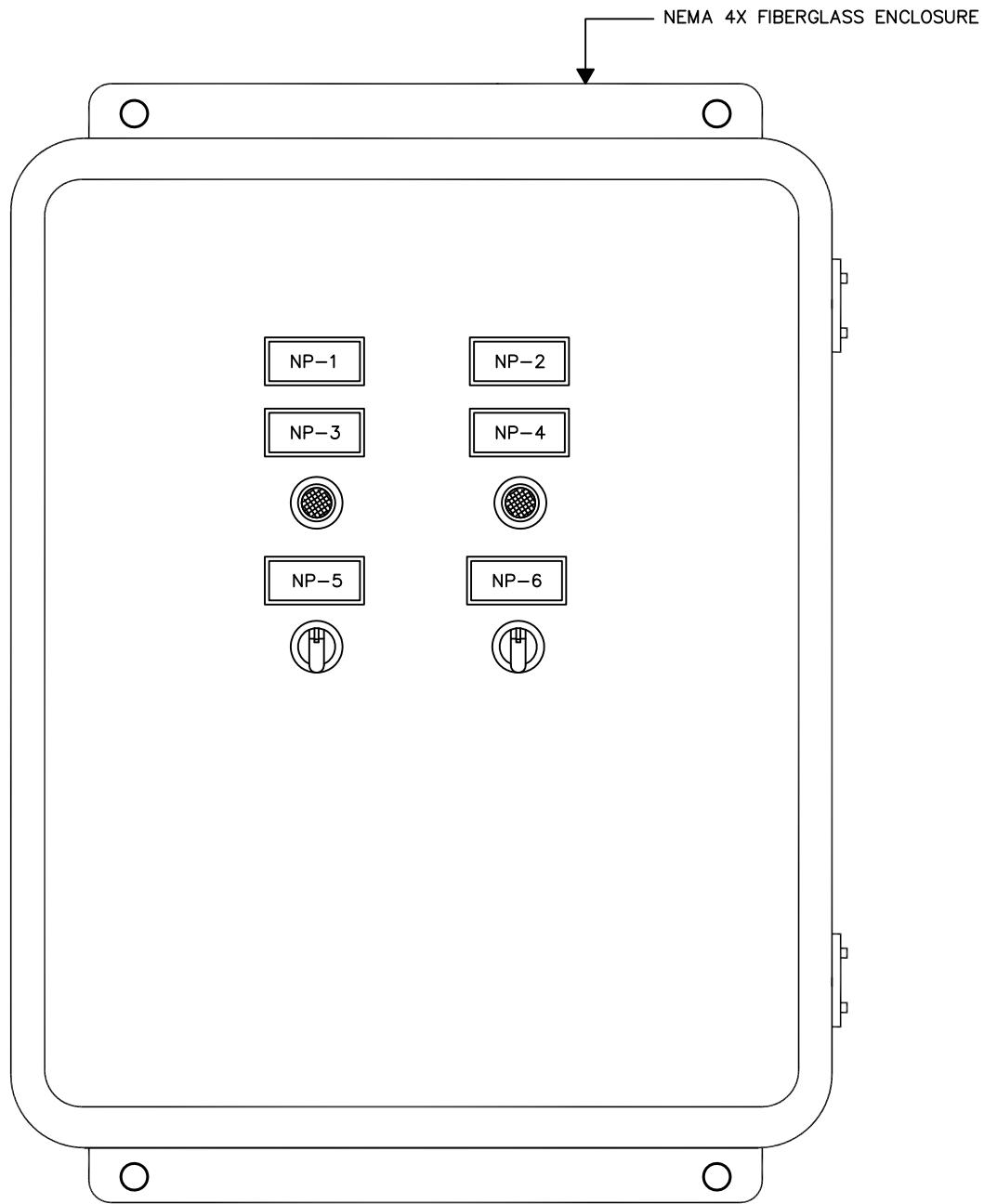
	Drawing Title  CONTROL DIAGRAM				
		REFERENCE DRAWING S/N	NO. Sales Engineer C.C.	REVISION-LOCATION DRAWN BY C. RACHAL	ECN APPROVED DATE BY DATE
DATE 5/16/06		Application Engineer R.C.			
	Project Title  DUPLEX BLOWER CONTROL PANEL		COX Research and Technology, Inc.	P.O. Box 77808 Baton Rouge, LA 70809 Ph. (225)756-3271 Fax (225)755-1030	PURCHASE ORDER NUMBER  DRAWING NUMBER CP-2386 SHEET NUMBER 3



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



VIEW OF FRONT OF ENCLOSURE

## NAMEPLATE SCHEDULE

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

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

	Drawing Title  ENCLOSURE							
DATE 5/16/06		REFERENCE DRAWING		NO.	REVISION-LOCATION		ECN	DATE
	S/N	Sales Engineer C.C.	Application Engineer R.C.	DRAWN BY C. RACHAL		APPROVED BY		DATE
	Project Title		<hr/> <hr/> <b>COX</b> <hr/> <hr/> Research and Technology, Inc.		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 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						
	<b>BILL OF MATERIALS</b>						
DATE 5/16/06	REFERENCE DRAWING		NO.	REVISION-LOCATION		ECN	DATE BY
	S/N	Sales Engineer	Application Engineer	DRAWN		APPROVED	
			C.C.	R.C.	BY C. RACHAL	BY	DATE
	Project Title		COX			PURCHASE ORDER NUMBER	
	DUPLEX BLOWER CONTROL PANEL		Research and Technology, Inc.			DRAWING NUMBER CP-2386	
						SHEET NUMBER 6	