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# COX

Research and Technology, Inc.

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DUPLEX BLOWER  
CONTROL PANEL  
GULF STATES ENGINEERING  
(2 REQUIRED)

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

CP-1531  
QT=2

VOLTAGE	277/480V	(480V, 277/480V, 240V, 120/240V, 208V, 120/208V)
PHASE/HZ	3/60	
NO. MOTORS	2, 1	
HP	5, 2	
FLA	7.6, 3.4	
TYPE OF PUMP	Blower, Rotor	(Self-Priming, Submersible)
MANUFACTURER		
CATALOG NUMBER		
CONTROL VOLTAGE	120V	(120V, Other)
ENCLOSURE	NEMA 3R	(NEMA 1, NEMA 3R, NEMA 4, NEMA 4X)
ENCLOSURE MATERIAL	Painted Steel	(Painted Steel, Stainless Steel, Fiberglass)
CONTROL SENSOR		(Floats, Bubbler, Other)
CAPACITORS		(Yes, No)
CAPACITOR WIRING FIGURE		
THERM. & SEAL FAIL WIRING FIGURE		

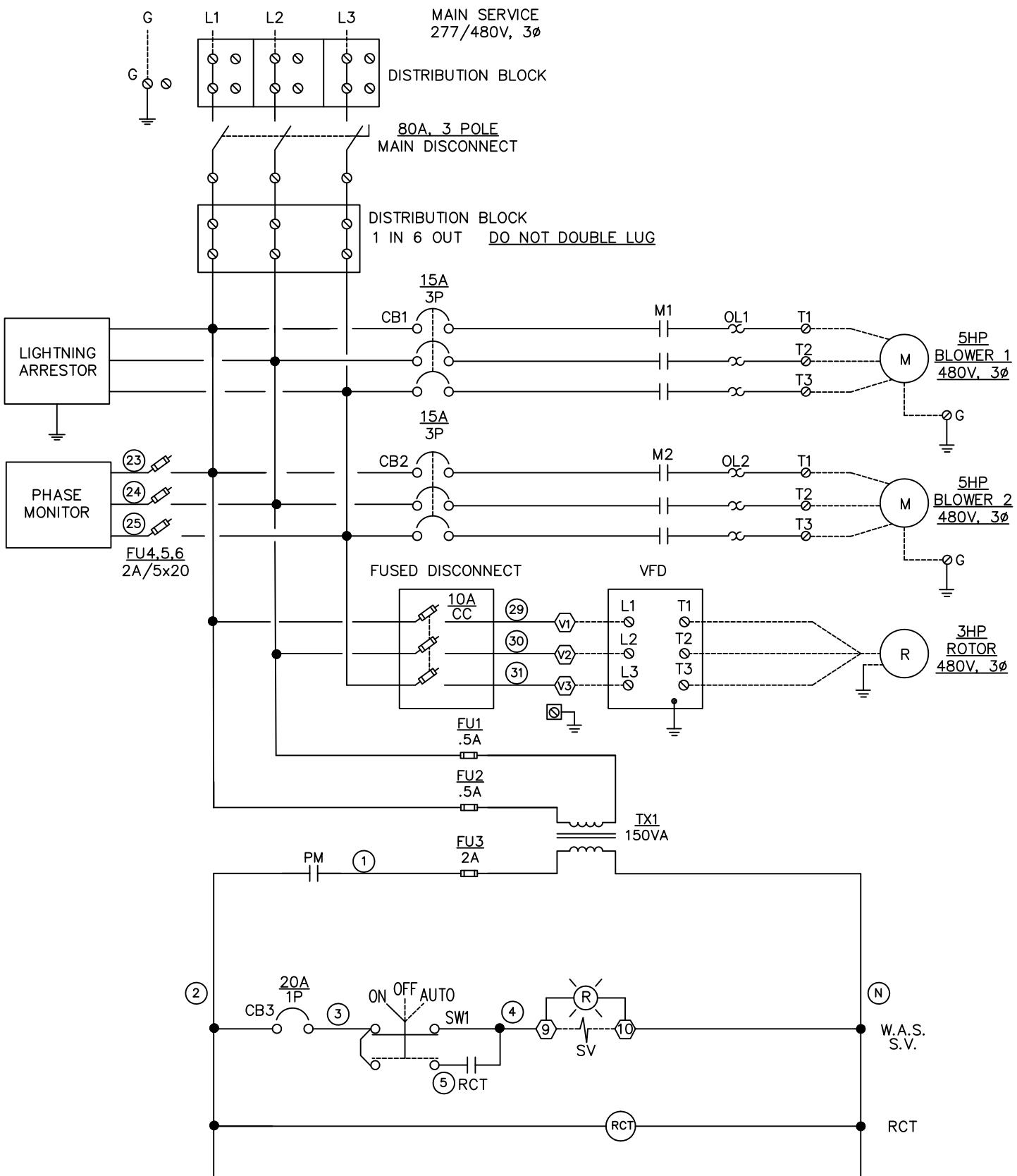
OPTIONS:

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	X	
ELAPSED TIME METER		
PHASE MONITOR	X	
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: Gulf States Engineering  
TAG : Blower Control Panel

SHIP TO:  
   
 

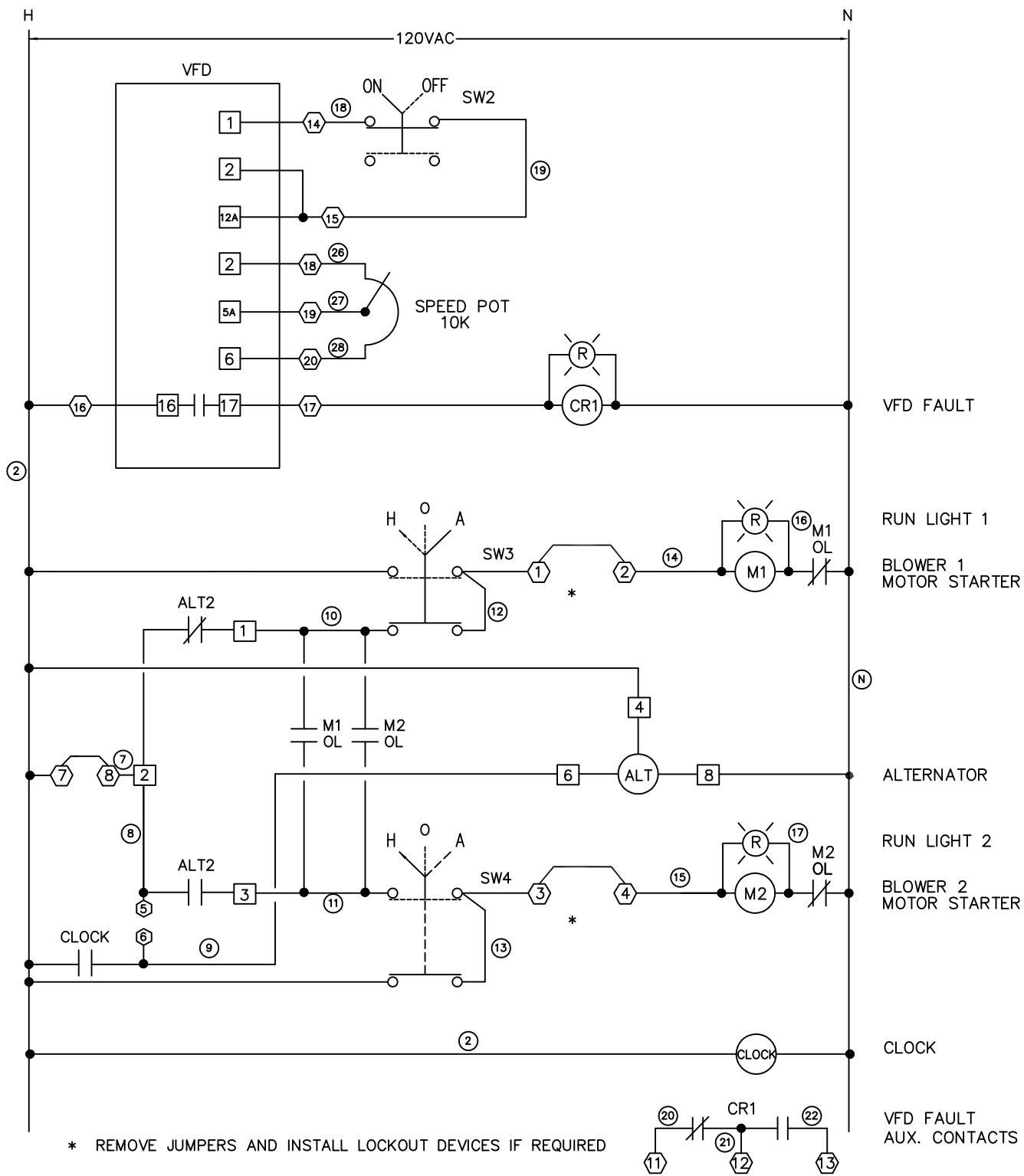
	Drawing Title  PANEL DESCRIPTION								
		REFERENCE DRAWING S/N	NO. C.C.	REVISION-LOCATION DRAWN BY CTR	ECN	DATE APPROVED BY DATE			
DATE 2/19/03	Project Title  DUPLEX BLOWER CONTROL PANEL			P.O. Box 77808 Baton Rouge, LA 70809			PURCHASE ORDER NUMBER		
				Ph. (225)756-3271 Fax (225)756-1030			DRAWING NUMBER CP-1531		
							SHEET NUMBER 1		



	Drawing Title									
	POWER DIAGRAM									
DATE 2/19/03	Project Title DUPLEX BLOWER CONTROL PANEL	REFERENCE DRAWING		NO.	REVISION-LOCATION		ECN	DATE	BY	
		S/N	Sales Engineer C.C.	Application Engineer R.C.	DRAWN BY CTR	APPROVED BY DATE				
								PURCHASE ORDER NUMBER		
								DRAWING NUMBER		
								CP-1531		
								SHEET NUMBER		
								2		

**COX**  
Research and Technology, Inc.

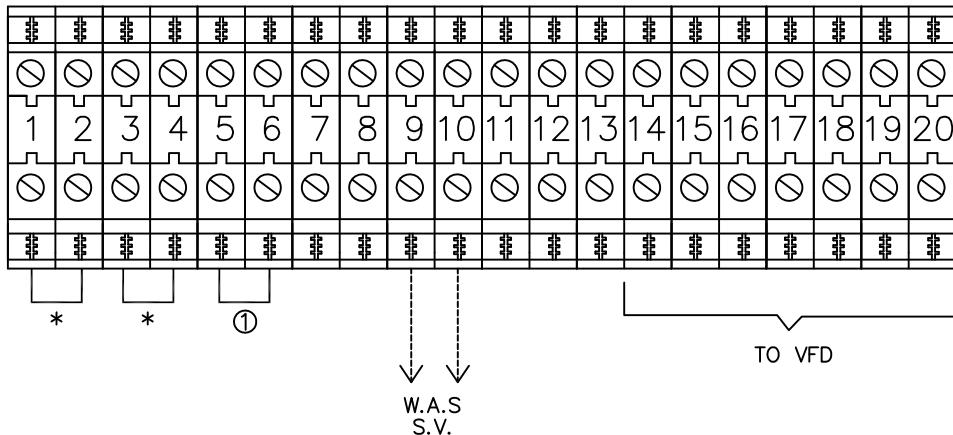
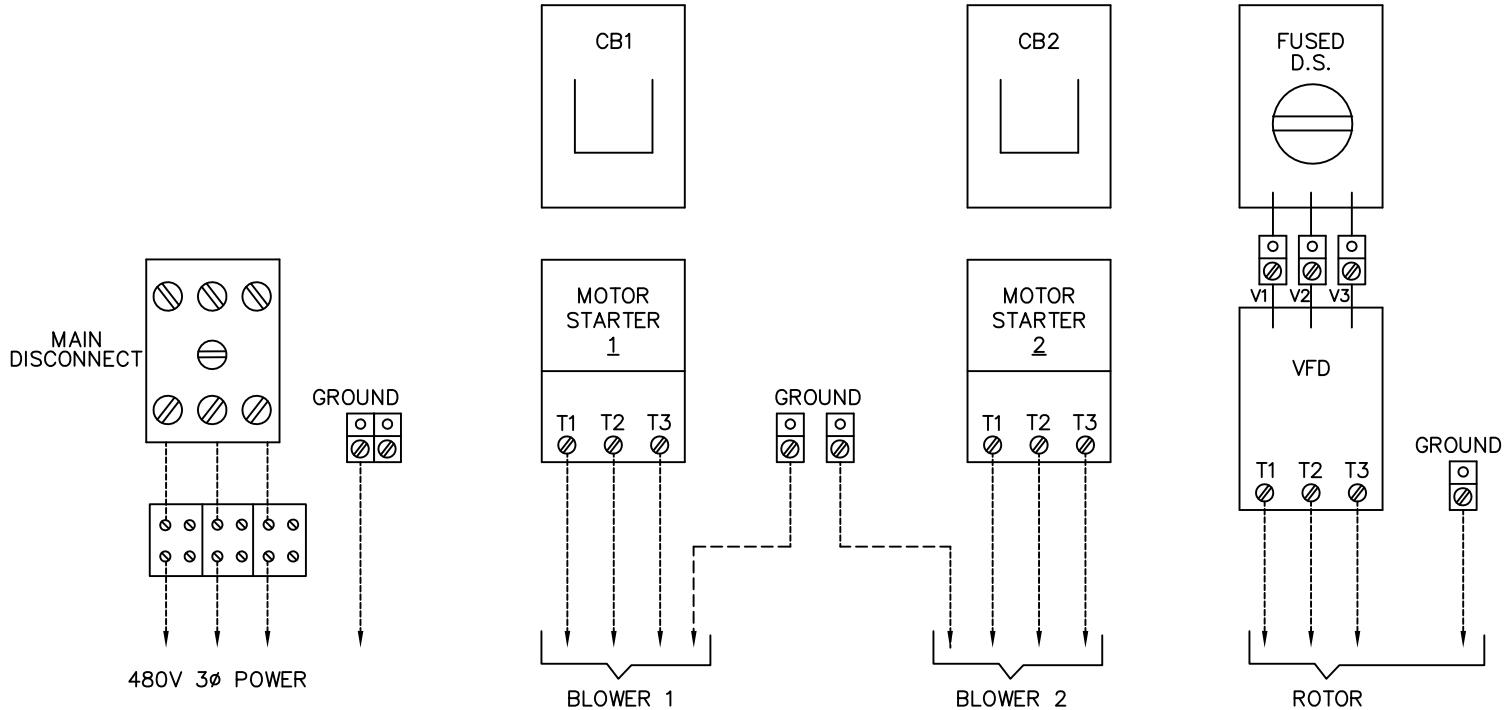
P.O. Box 77808  
Baton Rouge, LA  
70809  
Ph. (225)756-3271  
Fax (225)756-1030



	Drawing Title <b>CONTROL DIAGRAM</b>				
		REFERENCE DRAWING S/N	NO. Sales Engineer C.C.	REVISION-LOCATION Application Engineer R.C.	ECN DRAWN BY CTR
DATE 10/11/02					DATE APPROVED BY DATE
	Project Title <b>DUPLEX BLOWER CONTROL PANEL</b>		<b>COX</b> Research and Technology, Inc.	P.O. Box 77808 Baton Rouge, LA 70809 Ph. (225)756-3271 Fax (225)756-1030	PURCHASE ORDER NUMBER  DRAWING NUMBER CP-1531 SHEET NUMBER 3

ALL VFD SETTINGS ARE DEFAULT EXCEPT THE FOLLOWING:

PARAMETER 9 - DECEL - 2 SEC  
 PARAMETER 17 - MOTOR OL - 60%  
 PARAMETER 29 - MANUAL - 0-10VDC  
 PARAMETER 30 - CONTROL - REMOTE

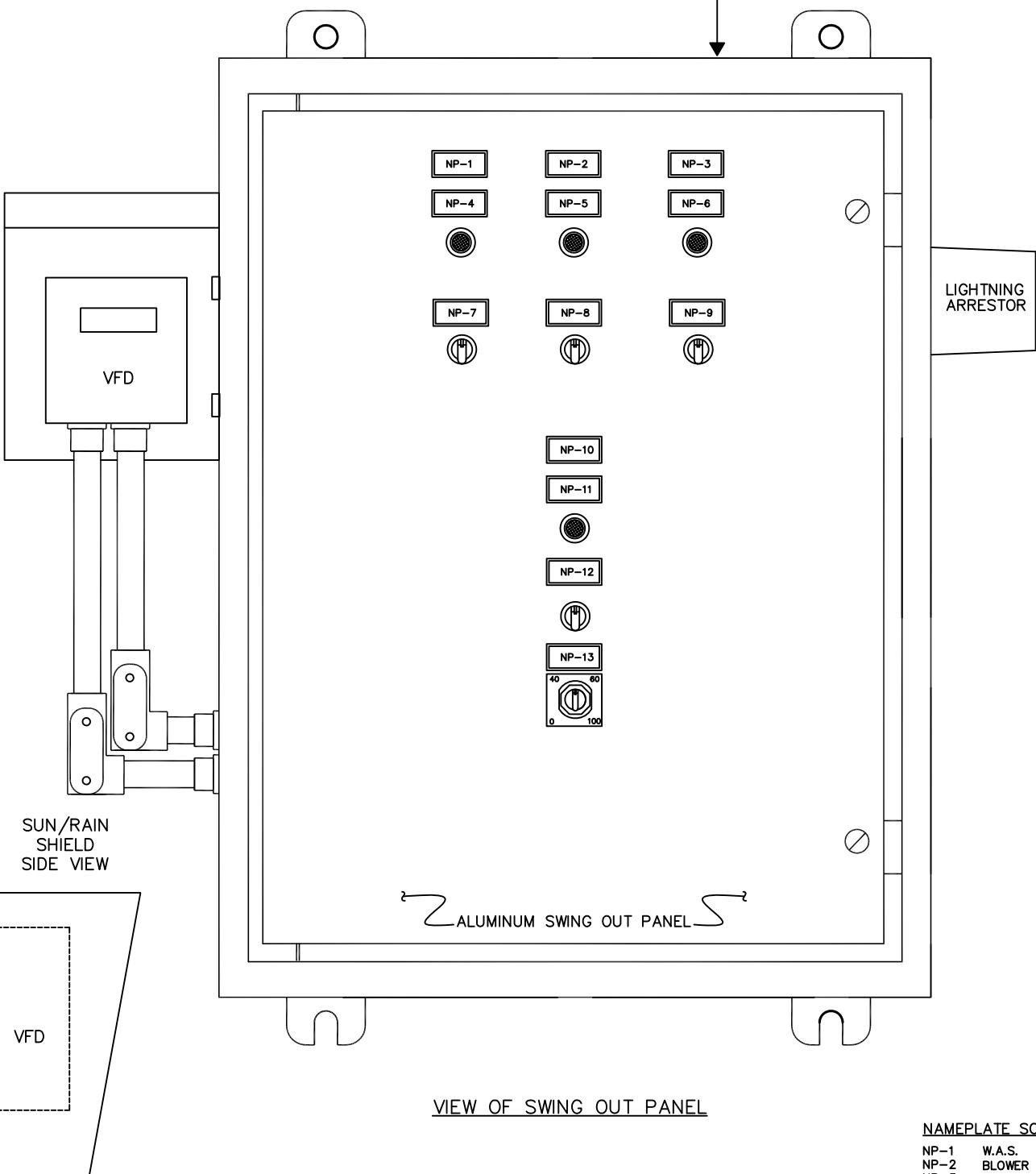


① PANEL IS DESIGNED TO RUN AERATORS WITH A MINIMUM OF 15 MINUTES OF OFF TIME BETWEEN ALTERNATION. PINS PUSHED OUT ON CLOCK INDICATE RUN TIME. PINS PUSHED IN INDICATE OFF TIME. EACH PIN IS EQUAL TO 15 MINUTES.

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

\* REMOVE JUMPERS AND INSTALL LOCKOUT DEVICES IF REQUIRED

	Drawing Title					
	EXTERNAL CONNECTIONS					
DATE 2/19/03	REFERENCE DRAWING S/N	NO. Sales Engineer C.C.	REVISION-LOCATION Application Engineer R.C.	ECN DRAWN BY CTR	DATE APPROVED BY DATE	
	Project Title <b>DUPLEX BLOWER CONTROL PANEL</b>		<b>COX</b> Research and Technology, Inc.	P.O. Box 77808 Baton Rouge, LA 70809 Ph. (225)756-3271 Fax (225)756-1030	PURCHASE ORDER NUMBER  DRAWING NUMBER CP-1531 SHEET NUMBER 4	



FACE PANEL NORTH FOR  
MOST PROTECTION

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	W.A.S.
NP-2	BLOWER 1
NP-3	BLOWER 2
NP-4	ON
NP-5	RUN
NP-6	RUN
NP-7	ON-OFF-AUTO
NP-8	H-O-A
NP-9	H-O-A
NP-10	VFD
NP-11	ALARM
NP-12	OFF-ON
NP-13	SPEED/SLOW-FAST

Drawing Title	ENCLOSURE			REFERENCE DRAWING NO.	REVISION-LOCATION	ECN	DATE	BY
DATE 2/19/03				S/N	Sales Engineer	Application Engineer	DRAWN	APPROVED
					C.C.	R.C.	BY CTR	BY DATE
Project Title	COX			P.O. Box 77808 Baton Rouge, LA 70809			PURCHASE ORDER NUMBER	
DUPLEX BLOWER CONTROL PANEL	Research and Technology, Inc.			Ph. (225)756-3271 Fax (225)756-1030			DRAWING NUMBER CP-1531	
							SHEET NUMBER 5	

# BILL OF MATERIAL

ITEM	QTY	MANUFACTURER	PART NO.	DESCRIPTION
1	1	EBE	302410REPL	ENCLOSURE
1a	1	EBE	A3024P	BACKPLATE
1b	1	EBE	A3024SP	DEAD FRONT
2	1	ABB	OT63E3	DISCONNECT SWITCH
3	2	ABB	A16-30-10-84	STARTER
4	2	ABB	TA25DU8.5	O.L. (6.0-8.5A)
5	2	ABB	S1N015TL	CB1,2
6	1	SQUARE D	QOU120	CB3
7	1	SQUARE D	9070TF150D1	TRANSFORMER
8	1	ACI	XF 304BY	FUSED DISCONNECT
9	1	ACI	G995N	DISCONNECT HANDLE
10	1	ACI	JR22P2M11B	SW2
11	4	ACI	JR22FR	PILOT LIGHT RED
12	1	AC TECH	MC1000-M1430E	VFD
13	1	MARATHON	1323580-3	DIST. BLOCK
14	1	CH	CHSA03	LIGHTNING ARRESTER
15	1	SSAC	PLMU11	PHASE MONITOR
16	1	OMRON	G2R2SAC120	CR1
17	1	TIMEMARK	261DT120	ALT.
18	1	GRASSLIN	STUZH-L	24 HOUR TIMER
19	3	ACI	JR22P3M20B	HOA SW 1,3,4
20	1	OMRON	H3CRF8300	RCT
21	1	SQUARE D	9080LBA3652021	DISTRIBUTION BLOCK
22	1	SQUARE D	9080LB53	COVER
23	1	SQUARE D	9001SK2108	10K POT

	Drawing Title									
	BILL OF MATERIALS									
			REFERENCE DRAWING		NO.	REVISION-LOCATION		ECN	DATE	BY
DATE 2/19/03			S/N	Sales Engineer	Application Engineer	DRAWN		APPROVED		
				C.C.	R.C.	BY CTR	BY	DATE		
	Project Title		COX			PURCHASE ORDER NUMBER  DRAWING NUMBER CP-1531  SHEET NUMBER 6				
	DUPLEX BLOWER CONTROL PANEL		Research and Technology, Inc.							