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# COX

Research and Technology, Inc.

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DUPLEX PUMP  
CONTROL PANEL  
WITH BLOWER  
MARATHON

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

CP-1634

VOLTAGE	<u>120/208V</u>	(480V, 277/480V, 240V, 120/240V, 208V, 120/208V)
PHASE/HZ	<u>1/60</u>	
NO. MOTORS	<u>2,1</u>	
HP	<u>1/2, 3/4</u>	
FLA	<u>5.6/5.5</u>	
TYPE OF PUMP	<u>Pump, 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:

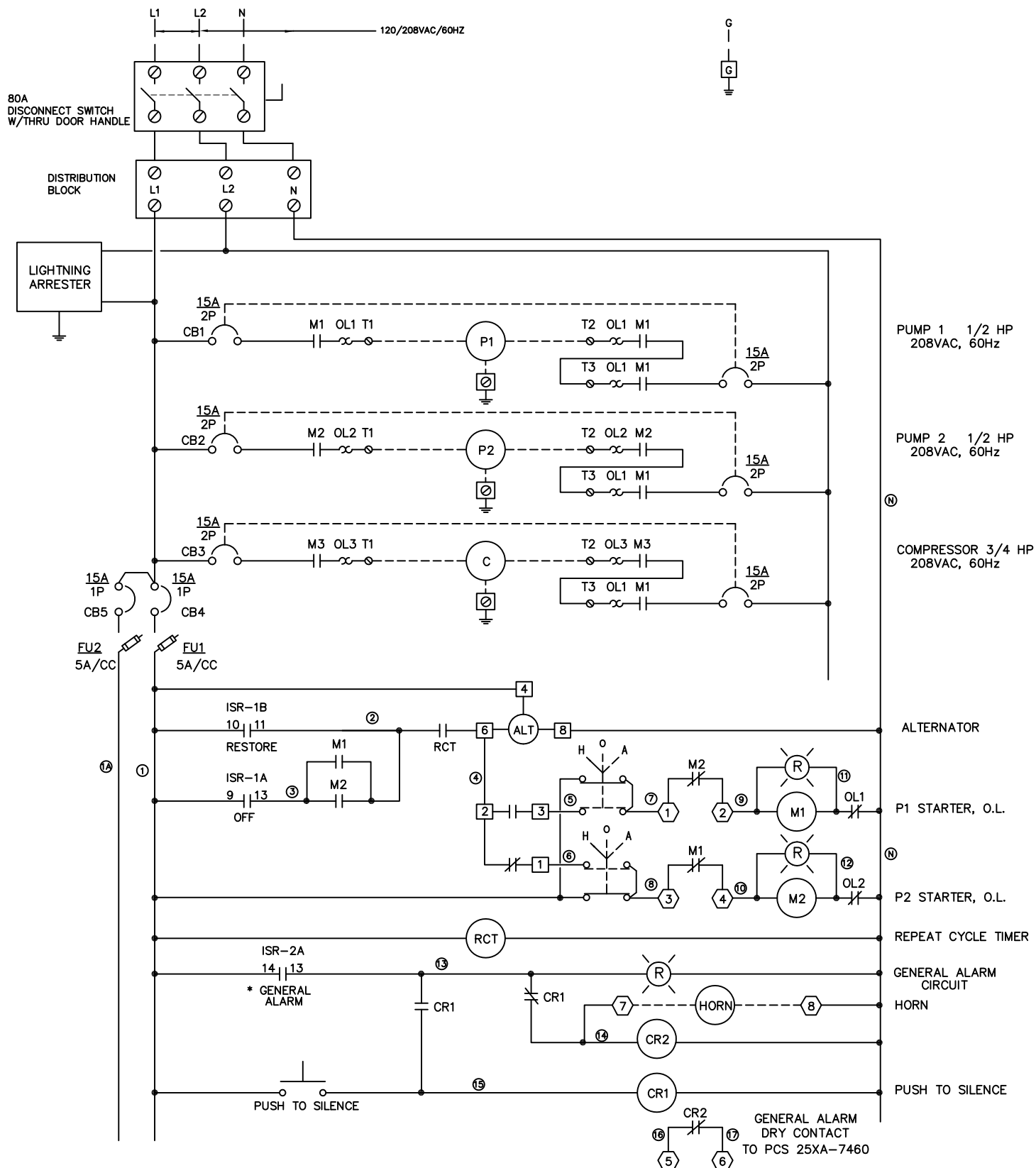
SEAL FAIL LIGHTS	<u></u>	(Submersible Only)
SEAL FAIL RELAYS	<u></u>	(Submersible Only)
SEAL FAIL PUMP SHUTDOWN	<u></u>	(Submersible Only)
HT PUMP SHUTDOWN	<u></u>	(Self-Primer, Submersible)
ALARM HORN	<u>X Remote, Explosion Proof</u>	
ALARM LIGHT	<u></u>	
LIGHT PANEL MTD	<u></u>	
LIGHT REMOTE MTD	<u></u>	
LIGHT FLASHER	<u></u>	
LIGHTNING ARRESTER	<u>X</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>X</u>	
HIGH TEMP. LOCKOUT, MANUAL RESET	<u></u>	
ECONOMY VERSION	<u></u>	

SOLD TO: Delta Process - Denham Springs, LA

TAG : MARATHON

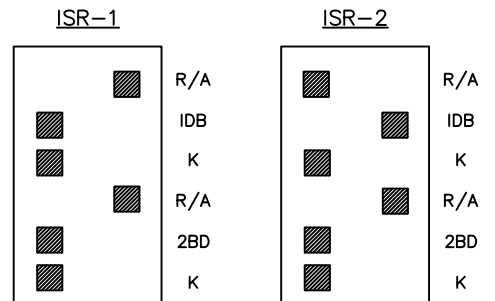
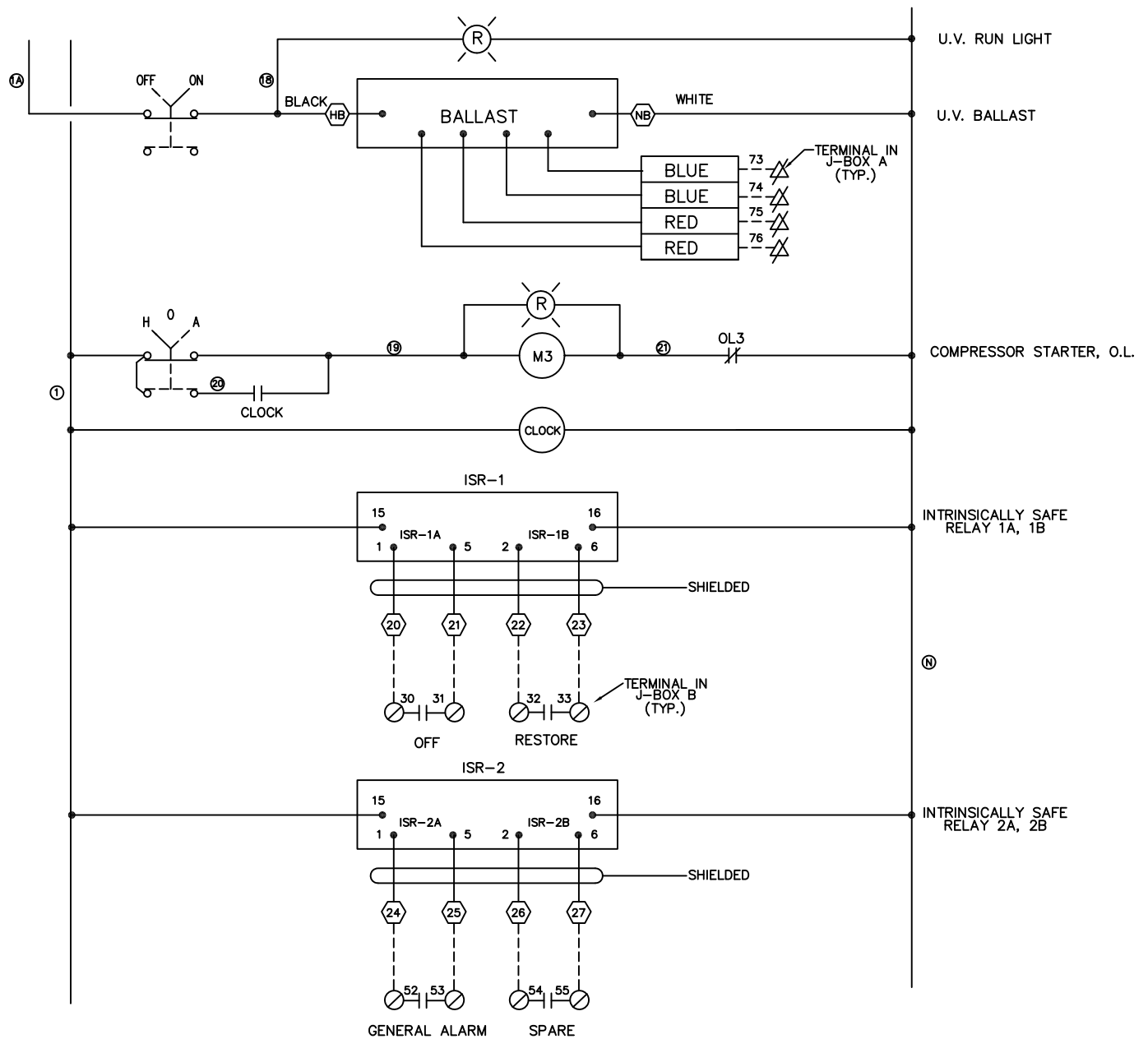
SHIP TO: Delta Process - Denham Springs, LA

	Drawing Title						
	PANEL DESCRIPTION						
DATE		REFERENCE DRAWING	NO.	REVISION-LOCATION	ECN	DATE	BY
7/23/03		S/N	Sales Engineer C.C.	Application Engineer R.C.	DRAWN BY C. RACHAL		APPROVED BY
	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
	MARATHON CONTROL PANEL				Ph. (225)756-3271 Fax (225)756-1030		DRAWING NUMBER CP-1634
							SHEET NUMBER 1



\* GENERAL ALARM: HWL INFLUENT, HWL TREATMENT, HWL U.V., LOSS OF PRESSURE - TREATMENT, LOSS OF PRESSURE - ENCLOSURE, U.V. OUT

Drawing Title	CONTROL DIAGRAM				
DATE	7/23/03	REFERENCE DRAWING	NO.	REVISION-LOCATION	ECN
Project Title	MARATHON CONTROL PANEL	S/N	Sales Engineer C.C.	Application Engineer R.C.	DATE
		COX		P.O. Box 77808 Baton Rouge, LA 70809	PURCHASE ORDER NUMBER
		Research and Technology, Inc.		Ph. (225)756-3271 Fax (225)756-1030	DRAWING NUMBER CP-1634
					SHEET NUMBER 2



ISR  
DIP SWITCH  
SETTINGS

	Drawing Title								
	CONTROL DIAGRAM								
DATE	7/23/03	REFERENCE DRAWING	NO.	REVISION-LOCATION	ECN	DATE	BY		
		S/N	Sales Engineer C.C.	Application Engineer R.C.	DRAWN BY C. RACHAL	APPROVED			
	Project Title					PURCHASE ORDER NUMBER			
	MARATHON CONTROL PANEL					DRAWING NUMBER CP-1634			
						SHEET NUMBER			

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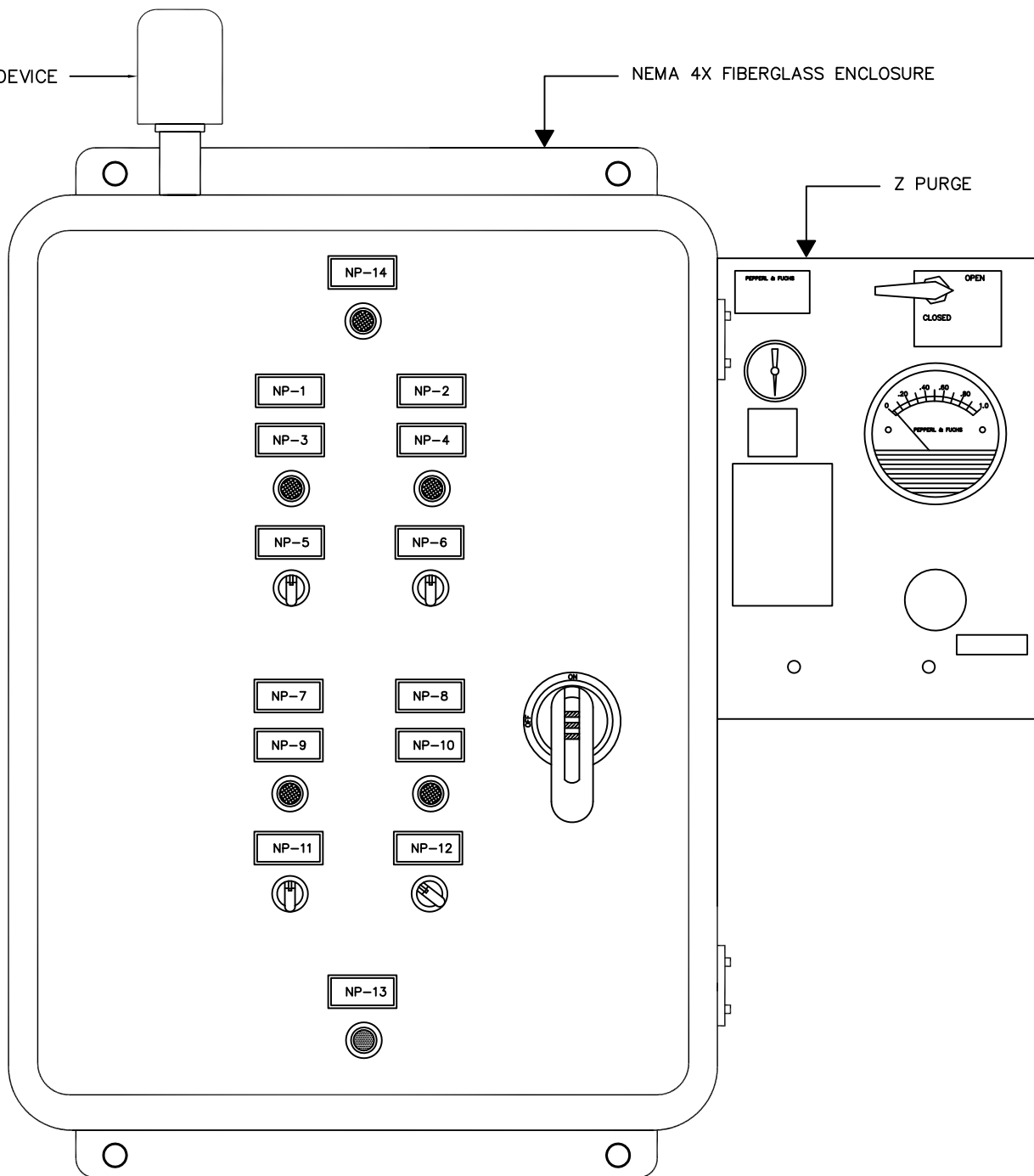
P.O. Box 77808  
Baton Rouge, LA  
70809

Ph. (225)756-3271  
Fax (225)756-1030

PRESSURE RELIEF DEVICE

NEMA 4X FIBERGLASS ENCLOSURE

Z PURGE



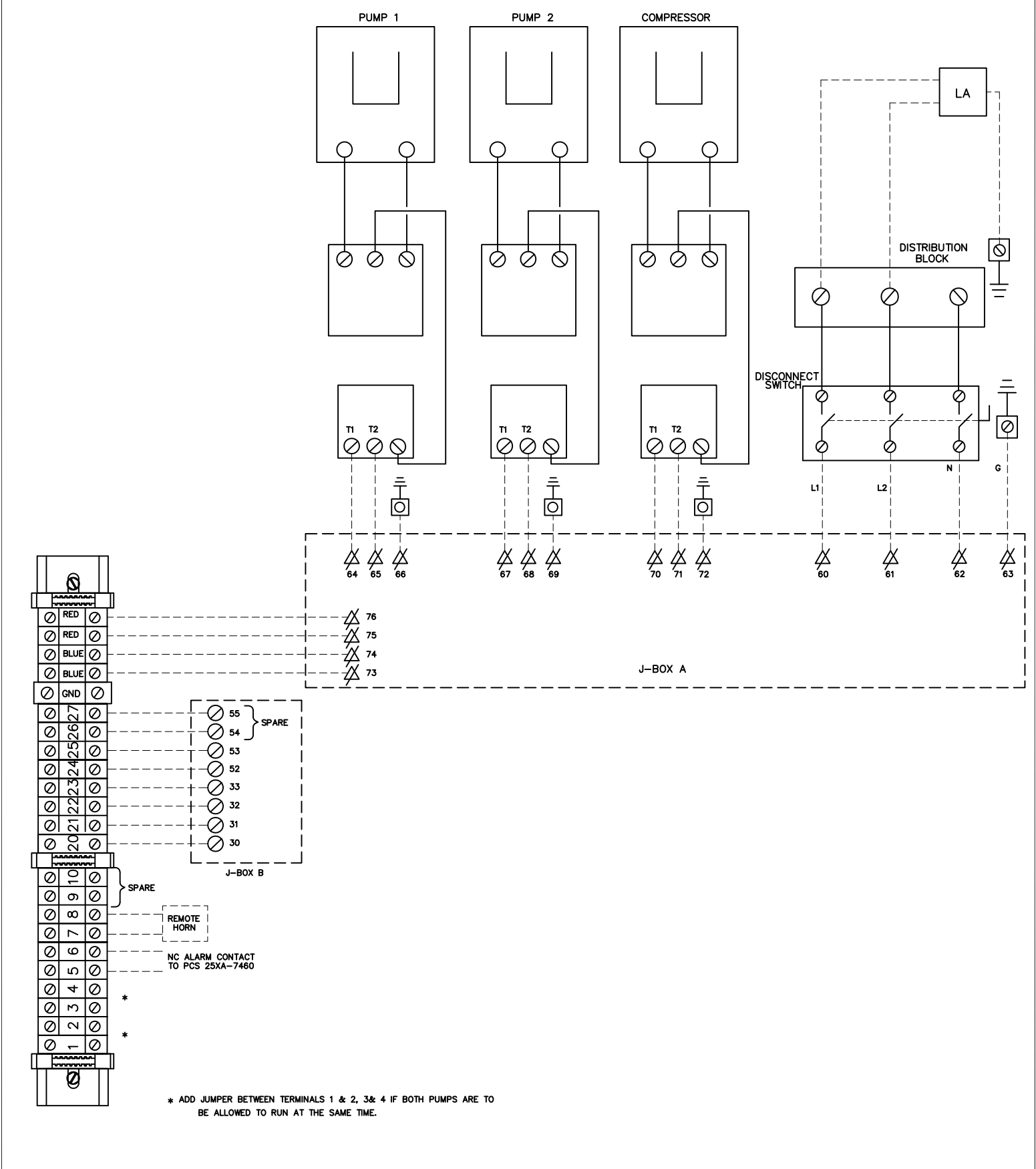
VIEW OF FRONT OF PANEL

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

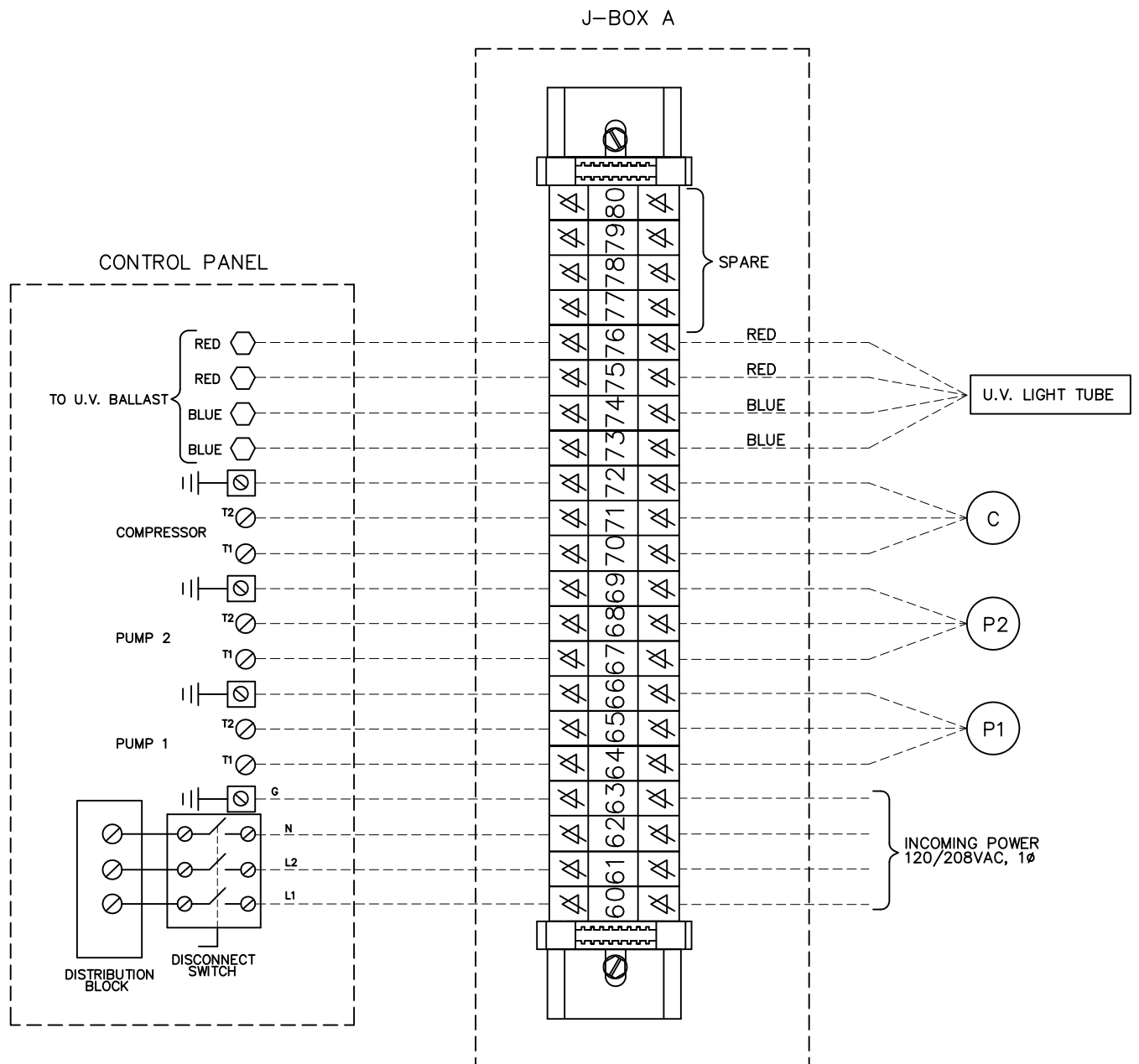
**NAMEPLATE SCHEDULE**

NP-1	PUMP 1
NP-2	PUMP 2
NP-3	RUN
NP-4	RUN
NP-5	HOA
NP-6	HOA
NP-7	BLOWER
NP-8	U.V. LIGHT
NP-9	RUN
NP-10	RUN
NP-11	HOA
NP-12	OFF-ON
NP-13	HORN SILENCE
NP-14	ALARM

	Drawing Title  ENCLOSURE							
DATE 6/30/03			REFERENCE DRAWING S/N		NO. Sales Engineer C.C.	REVISION-LOCATION Application Engineer R.C.		DRAWN BY C. RACHAL
	Project Title  MARATHON CONTROL PANEL		COX  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-1634  SHEET NUMBER 4	



	Drawing Title							
	EXTERNAL CONNECTIONS							
DATE 7/23/03		REFERENCE DRAWING S/N	NO. Sales Engineer C.C.	REVISION-LOCATION Application Engineer R.C.	DRAWN BY C. RACHAL	ECN	DATE	BY
	Project Title				P.O. Box 77808 Baton Rouge, LA 70809	PURCHASE ORDER NUMBER		
	MARATHON CONTROL PANEL	<div>COX</div> Research and Technology, Inc.			Ph. (225)756-3271 Fax (225)756-1030	DRAWING NUMBER CP-1634		
						SHEET NUMBER		
								5



	Drawing Title								
	J-BOX A WIRING								
DATE		REFERENCE DRAWING	NO.	REVISION-LOCATION	ECN	DATE	BY		
7/23/03		S/N	Sales Engineer C.C.	Application Engineer R.C.	BY C. RACHAL		APPROVED		
	Project Title							PURCHASE ORDER NUMBER	
	MARATHON CONTROL PANEL							DRAWING NUMBER CP-1634	
								SHEET NUMBER	6

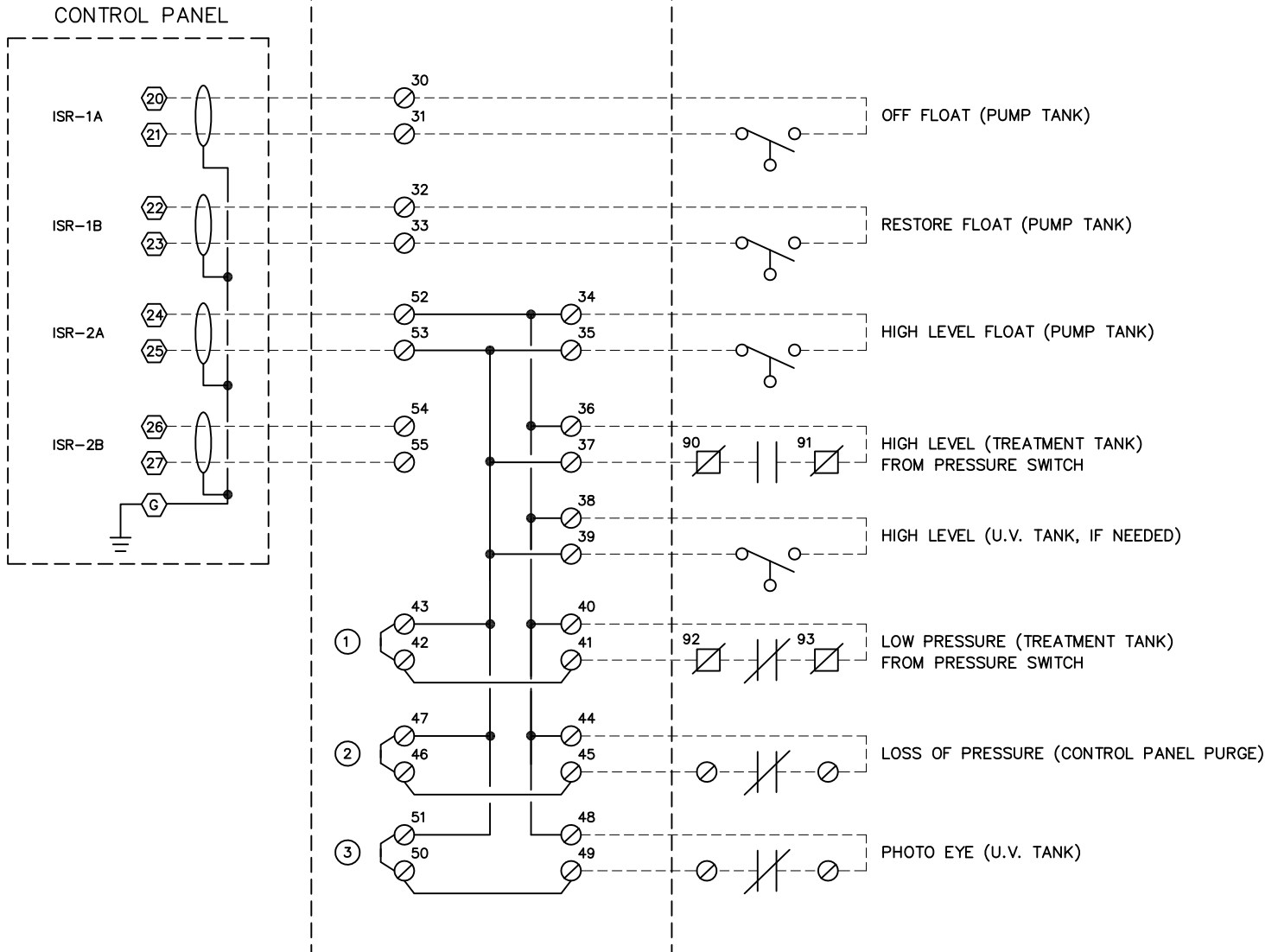
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# J-BOX B



- ① REMOVE JUMPER WHEN SERVICING BLOWER TO BYPASS ALARM CIRCUIT.
- ② REMOVE JUMPER WHEN SERVICING CONTROL PANEL TO BYPASS ALARM CIRCUIT.
- ③ REMOVE JUMPER TO BYPASS U.V. LIGHT ALARM CIRCUIT.

	Drawing Title    J—BOX B SCHEMATIC							
DATE		REFERENCE DRAWING	NO.	REVISION-LOCATION		ECN	DATE	BY
7/23/03		S/N	Sales Engineer C.C.	Application Engineer R.C.	DRAWN BY C. RACHAL	APPROVED BY DATE		
	Project Title				PURCHASE ORDER NUMBER			
	MARATHON CONTROL PANEL	COX  Research and Technology, Inc.			P.O. Box 77808 Baton Rouge, LA 70809		DRAWING NUMBER CP-1634	
					Ph. (225)756-3271 Fax (225)756-1030		SHEET NUMBER 7	

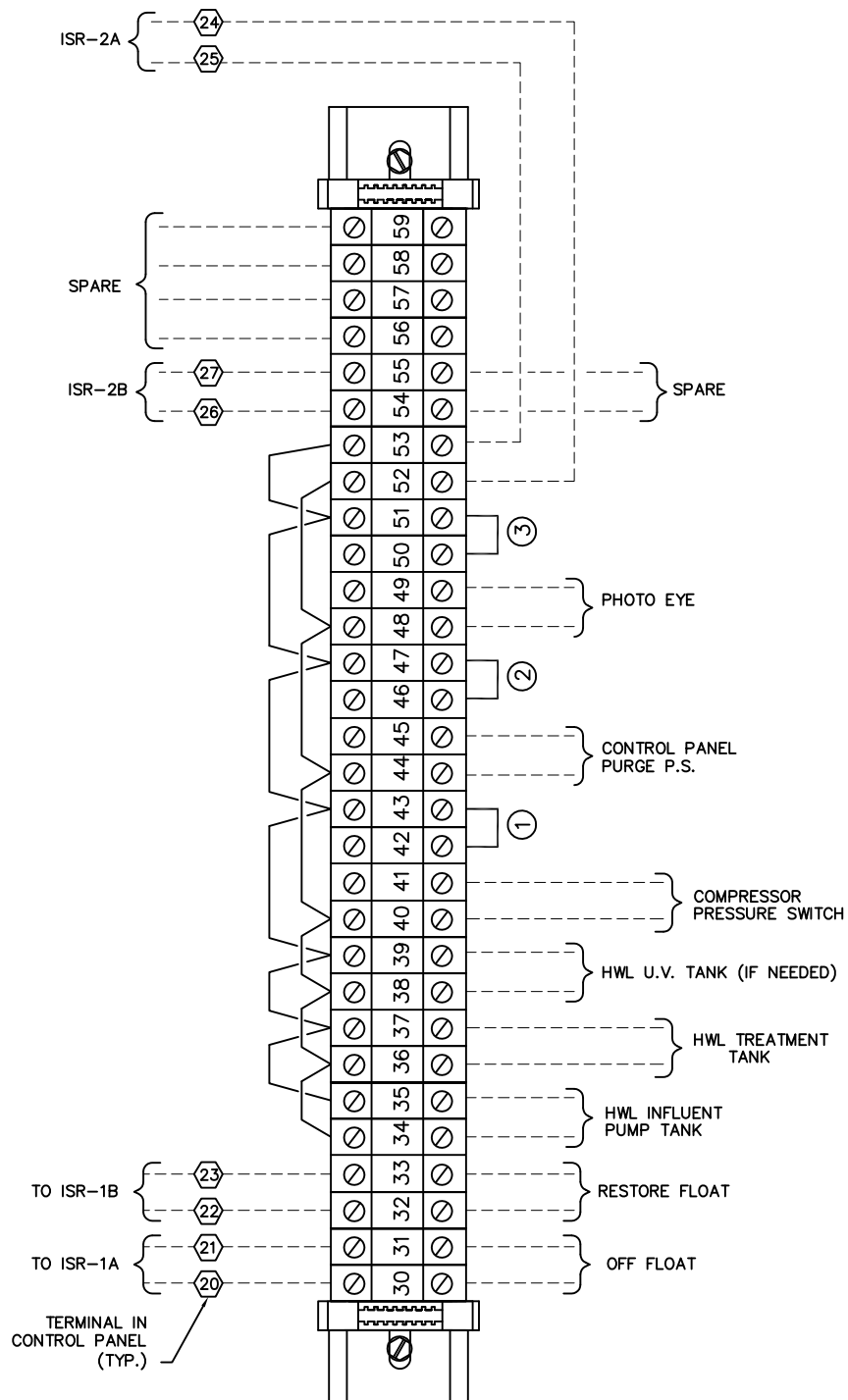
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Ph. (225)756-3271  
Fax (225)756-1030





- ① REMOVE JUMPER WHEN SERVICING BLOWER TO BYPASS ALARM CIRCUIT.
- ② REMOVE JUMPER WHEN SERVICING CONTROL PANEL TO BYPASS ALARM CIRCUIT.
- ③ REMOVE JUMPER TO BYPASS U.V. LIGHT ALARM CIRCUIT.

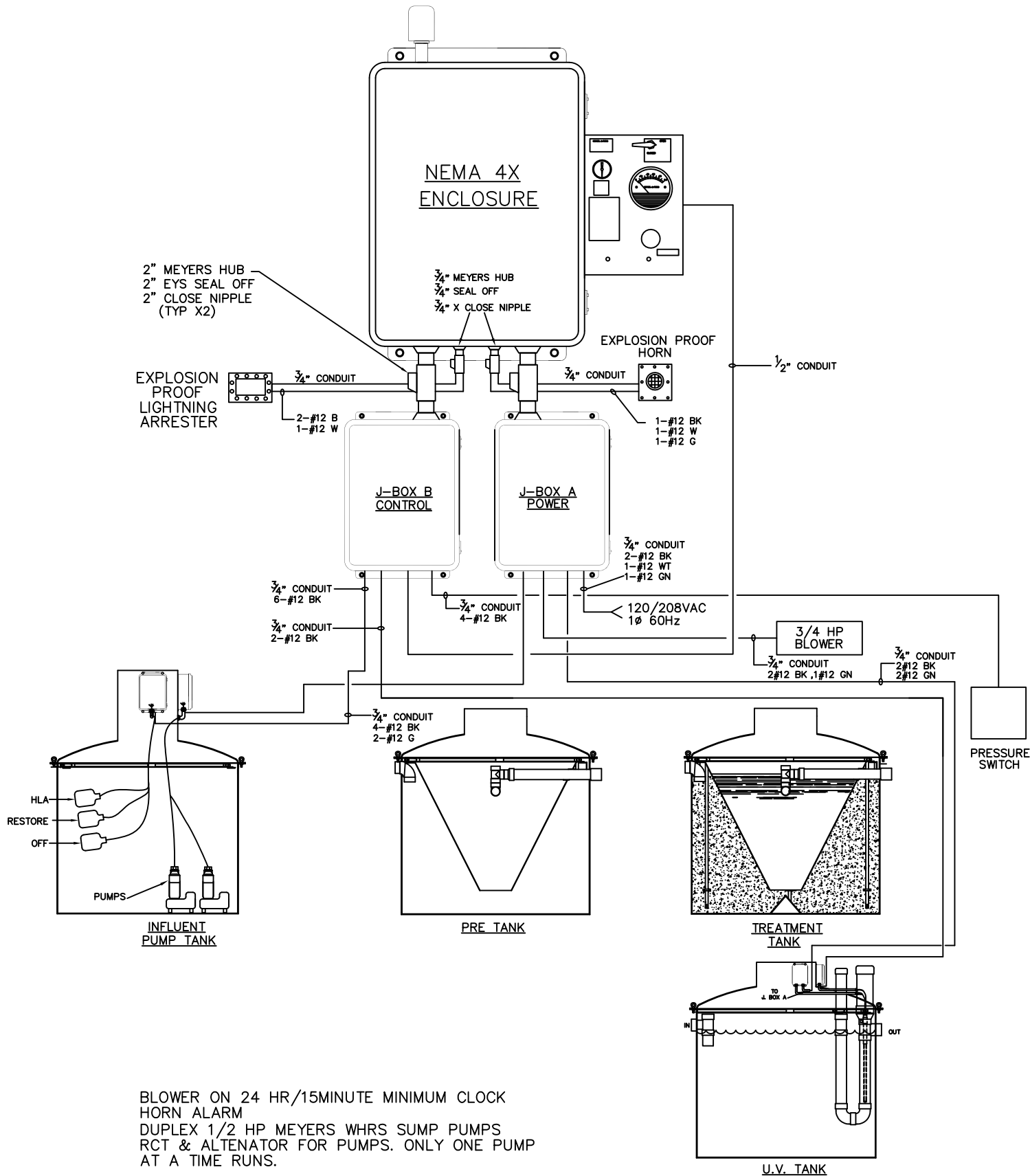
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	J-BOX B WIRING								
DATE		REFERENCE DRAWING	NO.	REVISION-LOCATION	ECN	DATE	BY	APPROVED	
7/23/03		S/N	Sales Engineer C.C.	Application Engineer R.C.	BY C. RACHAL				
	Project Title							PURCHASE ORDER NUMBER	
	MARATHON CONTROL PANEL							DRAWING NUMBER CP-1634	
								SHEET NUMBER	8

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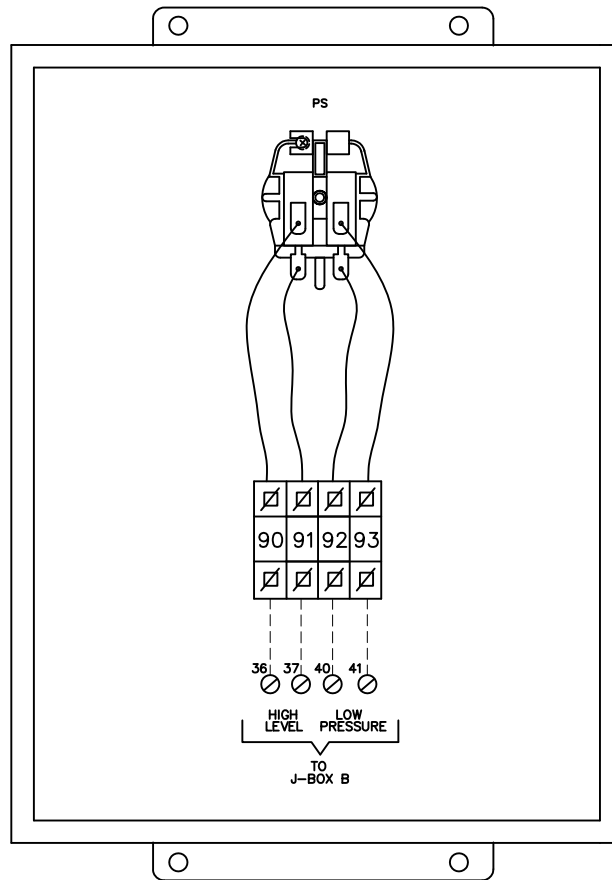
	Drawing Title								
	SITE LAYOUT								
DATE	7/23/03	REFERENCE DRAWING	NO.	REVISION-LOCATION	ECN	DATE	BY	APPROVED	
		S/N	Sales Engineer C.C.	Application Engineer R.C.	BY C. RACHAL				
	Project Title							PURCHASE ORDER NUMBER	
	MARATHON CONTROL PANEL							DRAWING NUMBER CP-1634	
								SHEET NUMBER	9

**COX**

Research and Technology, Inc.

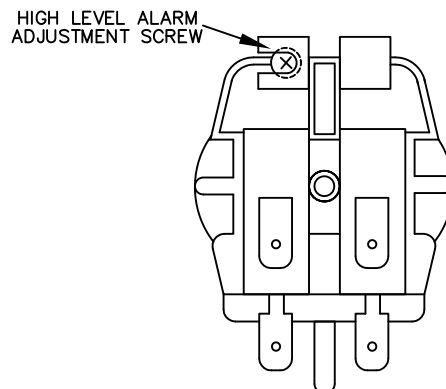
P.O. Box 77808  
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70809

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#### SETTING HIGH LEVEL PRESSURE SWITCH

BRING PLANT TO OPERATING WATER LEVEL WITH COMPRESSOR TURNED ON. USING PROPERLY SIZED SCREW DRIVER, TURN HIGH LEVEL ALARM ADJUSTMENT SCREW CLOCKWISE UNTIL ALARM OCCURS. THEN TURN THE SCREW COUNTER-CLOCKWISE UNTIL ALARM STOPS.



	Drawing Title							
	TREATMENT PLANT PRESSURE SWITCH							
DATE 7/23/03		REFERENCE DRAWING S/N	NO. Sales Engineer C.C.	REVISION-LOCATION Application Engineer R.C.	DRAWN BY C. RACHAL	ECN	DATE	BY
	Project Title	COX Research and Technology, Inc.			P.O. Box 77808 Baton Rouge, LA 70809  Ph. (225)756-3271 Fax (225)756-1030	PURCHASE ORDER NUMBER		
	MARATHON CONTROL PANEL					DRAWING NUMBER CP-1634		
						SHEET NUMBER 10		

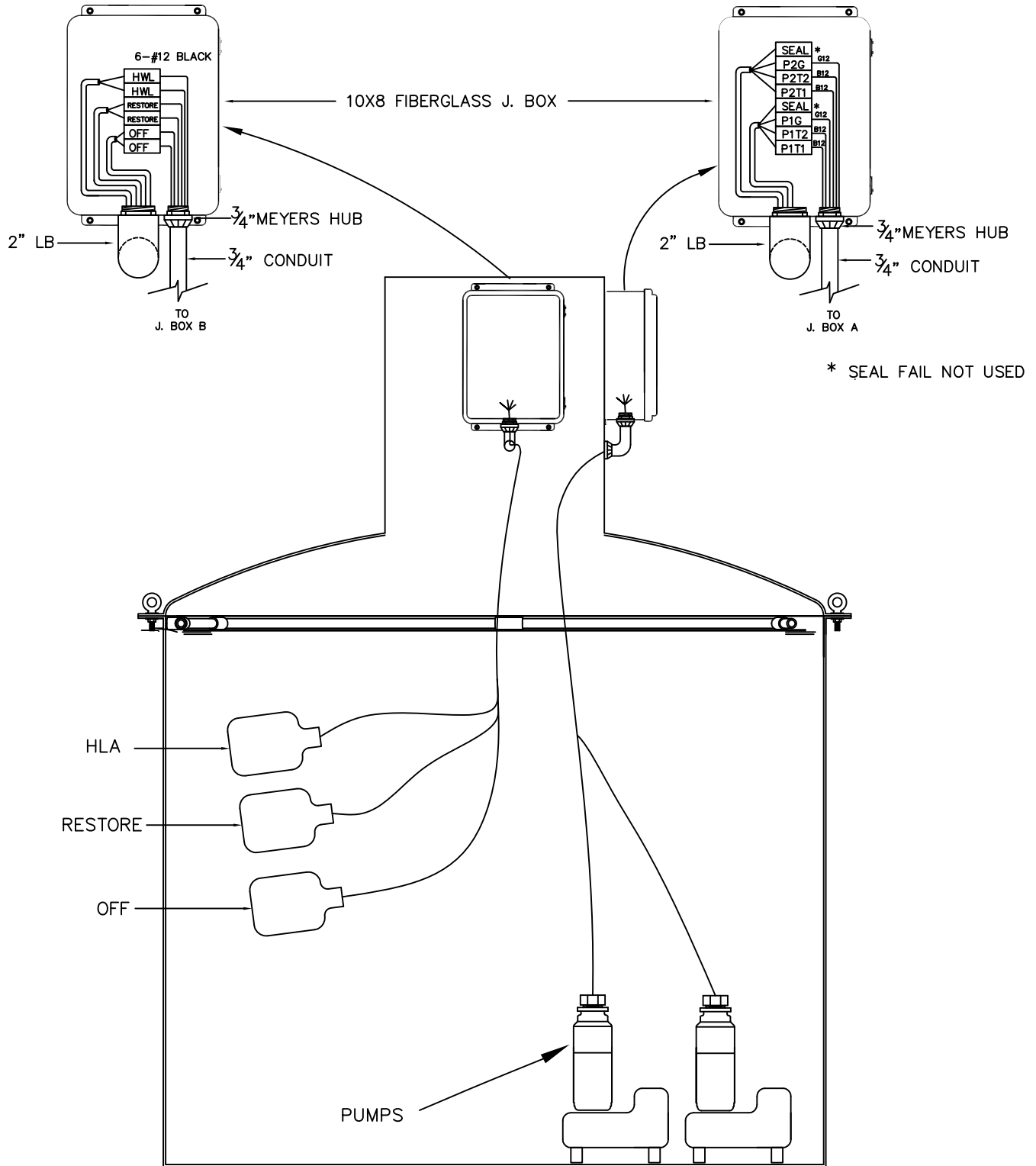
## BILL OF MATERIAL

ITEM	QTY	MANUFACTURER	PART NO.	DESCRIPTION
1	1	ALLIED	AM24200RL	ENCLOSURE
1a	1	ALLIED	A2420P	BACKPLATE
1b	1	ALLIED	A2420SP	DEAD FRONT
2	1	ABB	OT63E3	MAIN DISC. SWITCH
3	1	MARATHON	1323580	DISTRIBUTION BLOCK
4	1	C-H	CHSA01	LIGHTNING ARRESTER
5	3	SQUARE D	QOU215	CB1,2,3
6	2	SQUARE D	QOU115	CB4,5
7	1	TIMEMARK	261DT120	ALTERNATING RELAY
8	3	A-B	800H-JR2AP	HOA SWITCH
9	5	A-B	800H-QR10R	RED PILOT LIGHT
10	1	A-B	800H-HR2AP	OFF-ON SWITCH
11	1	A-B	800H-AR2AP	PUSH BUTTON
12	3	ABB	A16-30-10-84	M1,2,3
13	3	ABB	TA25DU6.5	OL1,2,3 (4.5-6.5A)
14	1	OMRON	H3CRF8300	RCT
15	1	OMRON	G2R2SAC120	CR1
16	1	ADVANCE	REL1S40RHTP	BALLAST
17	1	GRASSLIN	FM/1 QTUZH	CLOCK
18	2	TURCK	MK1322EXOR/115VAC	INTRINSICALLY SAFE RELAY 1,2
19	1	P&F	US-420100	Z PURGE
20	1	P&F	US-335211	PRESSURE RELIEF VENT Z-PURGE
21	1	EDWARDS	878EX-N5	HAZARDOUS LOCATION HORN
22	2	VYNCKIER	VJ1210HWPL	J-BOX A,B
23	1	VYNCKIER	VJ806HWPL	J-BOX
24	1	PRES-AIR-TROL	STOCK	PRESSURE SWITCH
25				
26				

	Drawing Title							
	<b>BILL OF MATERIALS</b>							
DATE 7/23/03		REFERENCE DRAWING S/N	NO. Sales Engineer C.C.	REVISION-LOCATION Application Engineer R.C.	DRAWN BY C. RACHAL	ECN	DATE	BY
		<div style="border: 1px solid black; padding: 5px; margin: 0 auto; width: 150px;"> <b>COX</b>  <small>Research and Technology, Inc.</small> </div>			<small>P.O. Box 77808 Baton Rouge, LA 70809</small>  <small>Ph. (225)756-3271 Fax (225)756-1030</small>		<small>PURCHASE ORDER NUMBER</small>  <small>DRAWING NUMBER</small> CP-1634  <small>SHEET NUMBER</small> 11	
	Project Title							
	<b>DUPLEX BLOWER CONTROL PANEL</b>							

# J. BOX FOR FLOAT SWITCHES

# J. BOX FOR POWER WIRES



## INFLUENT PUMP TANK

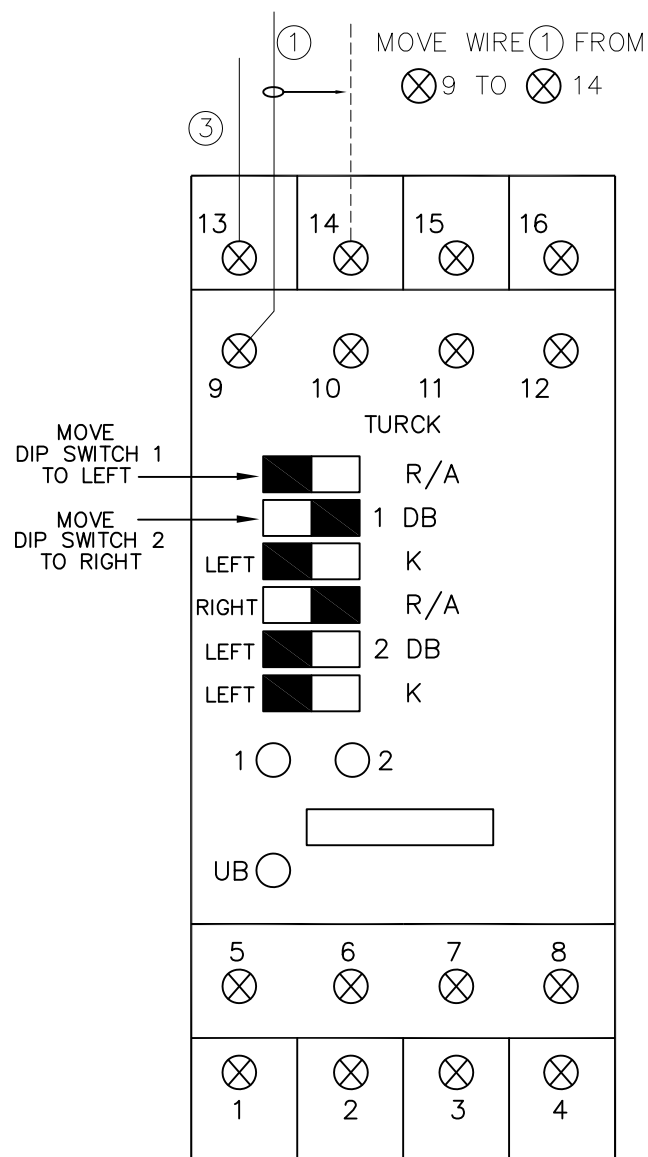
	Drawing Title								
	INFLUENT PUMP TANK DETAIL								
DATE		REFERENCE DRAWING	NO.	REVISION-LOCATION	ECN	DATE	BY		
7/23/03		S/N	Sales Engineer C.C.	Application Engineer R.C.	DRAWN BY C. RACHAL	APPROVED BY	DATE		
	Project Title	COX			P.O. Box 77808 Baton Rouge, LA 70809	PURCHASE ORDER NUMBER			
	MARATHON CONTROL PANEL	Research and Technology, Inc.			Ph. (225)756-3271 Fax (225)756-1030	DRAWING NUMBER CP-1634			
						SHEET NUMBER 12			



## CONDUIT & FITTINGS

ITEM	QTY	DESCRIPTION
1	2	1/2" MEYERS HUB AL.
2	24	3/4" MEYERS HUB AL.
3	10	2" MEYERS HUB AL.
4	3	3/4" EYS SEAL OFF AL.
5	3	2" EYS SEAL OFF AL.
6	1	PACKING FIBER 1LB
7	1	SEALING COMPOUND 5LB
8	4	1/2" LB ALUMINUM
9	4	2" LB AL.
10	30	3/4" LB AL.
11	6	3/4"X CLOSE NIPPLE AL.
12	4	2"X CLOSE NIPPLE AL.
13	25	3/4" COUPLING AL.
14	4	1/2" COUPLING AL.
15	4	2" COUPLING AL.
16	250'	3/4" RIGID AL. CONDUIT
17	20'	1/2" RIGID AL. CONDUIT
18	20'	2" RIGID AL. CONDUIT
19	10'	AL. UNISTRUT NO HOLES
20	20	SPRING NUT 1/4"
21	1000'	#12 BLACK
22	200'	#12 GREEN
23	100'	#12 WHITE
24	100'	#12 RED
25	100'	#12 BLUE

	Drawing Title						
	CONDUIT & FITTINGS						
DATE 7/23/03		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="border: 1px solid black; padding: 5px; margin: 0 auto; width: 150px;"> <b>COX</b>  <small>Research and Technology, Inc.</small> </div>			P.O. Box 77808 Baton Rouge, LA 70809  Ph. (225)756-3271 Fax (225)756-1030		PURCHASE ORDER NUMBER
	DUPLEX BLOWER CONTROL PANEL				DRAWING NUMBER CP-1634		
					SHEET NUMBER		



	Drawing Title							
	INTRINSICALLY SAFE RELAY							
DATE 7/23/04		REFERENCE DRAWING S/N	NO. Sales Engineer C.C.	REVISION-LOCATION Application Engineer R.C.	ECN	DATE	BY	
	Project Title	DRAWN BY C. RACHAL			APPROVED BY DATE			
	DUPLEX BLOWER CONTROL PANEL	<div>COX</div> <div>Research and Technology, Inc.</div>			PURCHASE ORDER NUMBER			
					DRAWING NUMBER CP-1634			
					SHEET NUMBER 15			
		P.O. Box 77808 Baton Rouge, LA 70809 Ph. (225)756-3271 Fax (225)756-1030						