
COX

Research and Technology, Inc.

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

VOLTAGE	120/208V	(480V, 277/480V, 240V, 120/240V, 208V, 120/208V)
PHASE/HZ	1/60	
NO. MOTORS	2,1	
HP	1/2, 3/4	
FLA	5.6/5.5	
TYPE OF PUMP	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	X Remote, Explosion Proof	
ALARM LIGHT		
LIGHT PANEL MTD		
LIGHT REMOTE MTD		
LIGHT FLASHER		
LIGHTNING ARRESTER	X	
ELAPSED TIME METER		
PHASE MONITOR		
NEMA RATED STARTERS		
GROUND FAULT RECPT.		
GREEN RUN LIGHTS VS. RED		
POLE, BOX, SEAL		
INTRINSICALLY SAFE RELAYS	X	
HIGH TEMP. LOCKOUT, MANUAL RESET		
ECONOMY VERSION		

SOLD TO: Delta Process - Denham Springs, LA
TAG : MARATHON

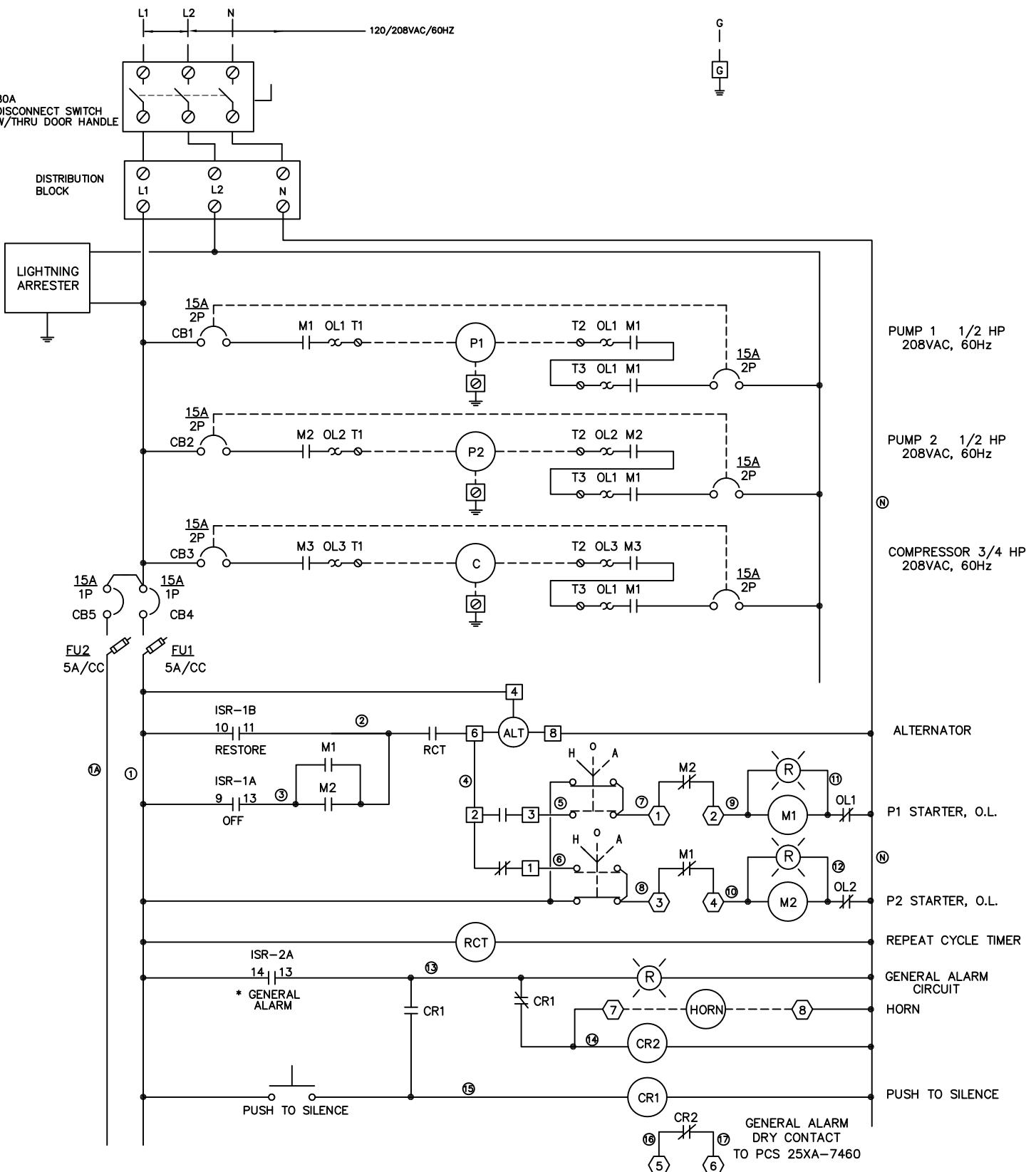
SHIP TO: Delta Process - Denham Springs, LA

Drawing Title	PANEL DESCRIPTION	REFERENCE DRAWING		NO. R.C.	REVISION-LOCATION		ECN	DATE BY
		S/N	Sales Engineer C.C.		DRAWN BY C. RACHAL	APPROVED BY DATE		
DATE 7/23/03	Project Title MARATHON CONTROL PANEL							

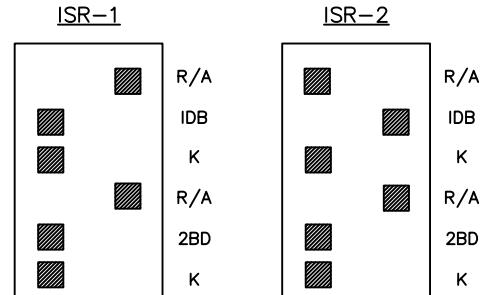
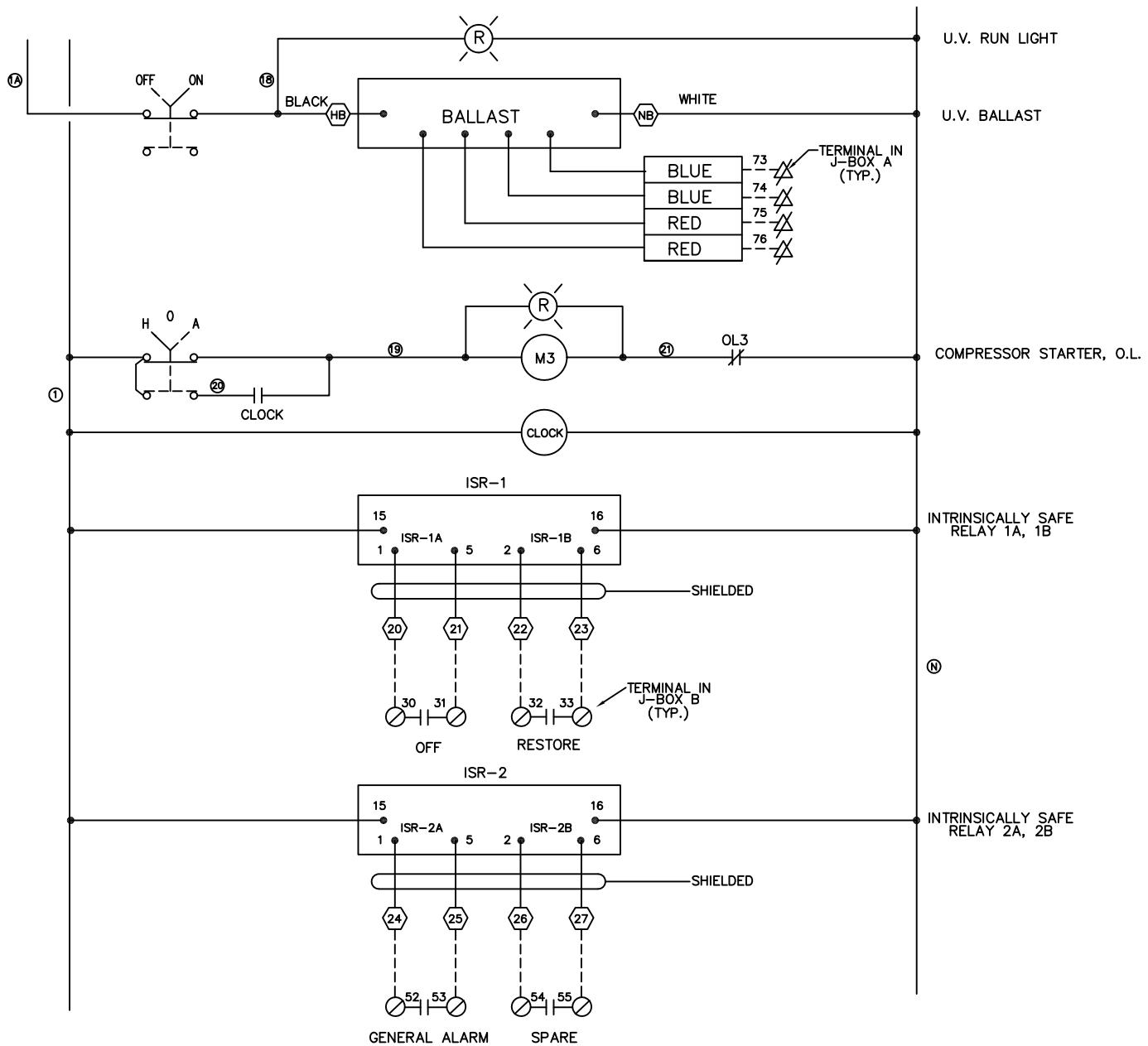
COX
Research and Technology, Inc.

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 1



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



ISR
DIP SWITCH
SETTINGS

	Drawing Title					
	CONTROL DIAGRAM					
	REFERENCE DRAWING	NO.	REVISION-LOCATION	ECN	DATE	BY
DATE 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					DRAWING NUMBER	CP-1634
					SHEET NUMBER	3

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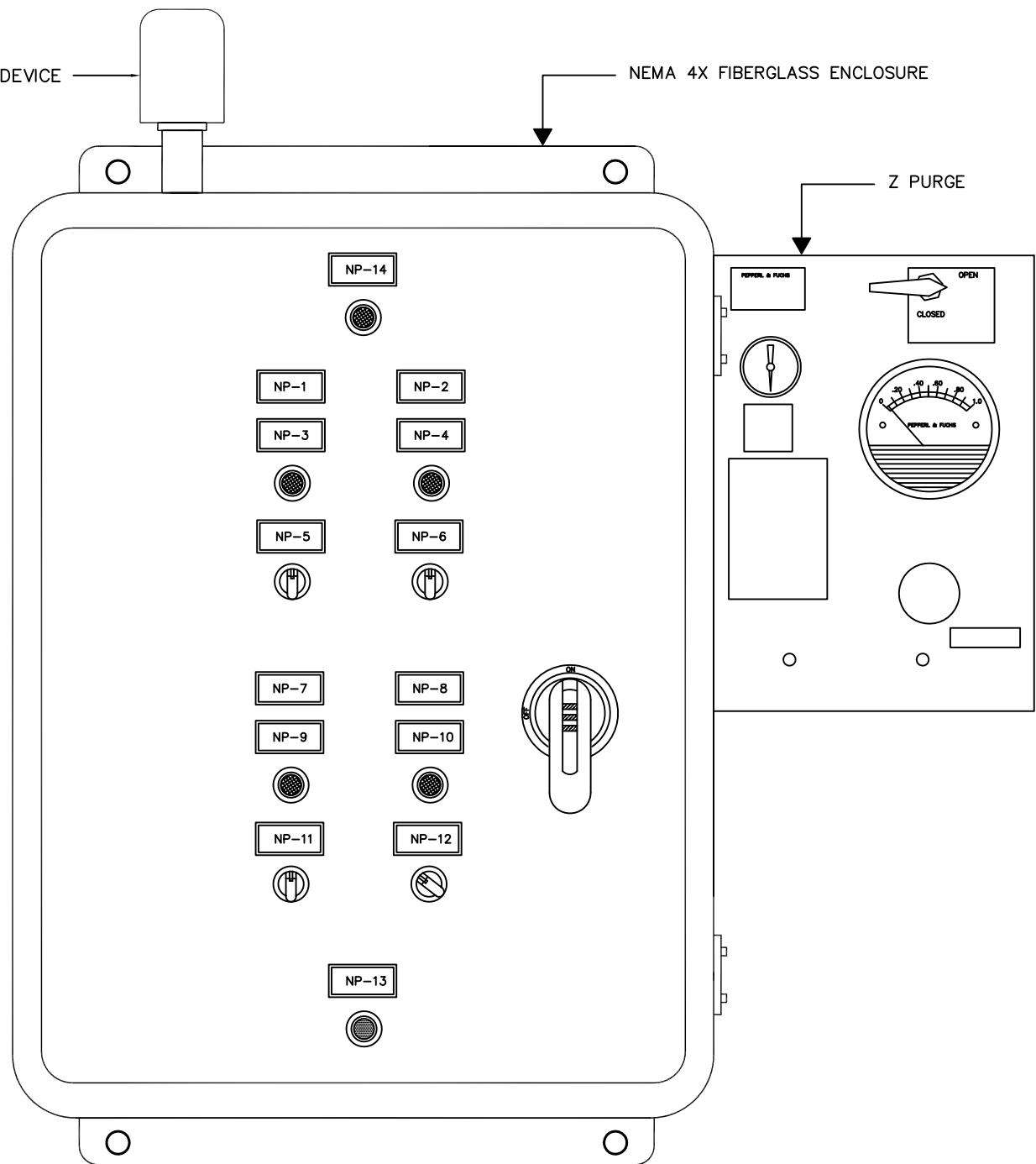
P.O. Box 77808
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70809

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Fax (225)756-1030

PRESSURE RELIEF DEVICE

NEMA 4X FIBERGLASS ENCLOSURE

Z PURGE



VIEW OF FRONT OF PANEL

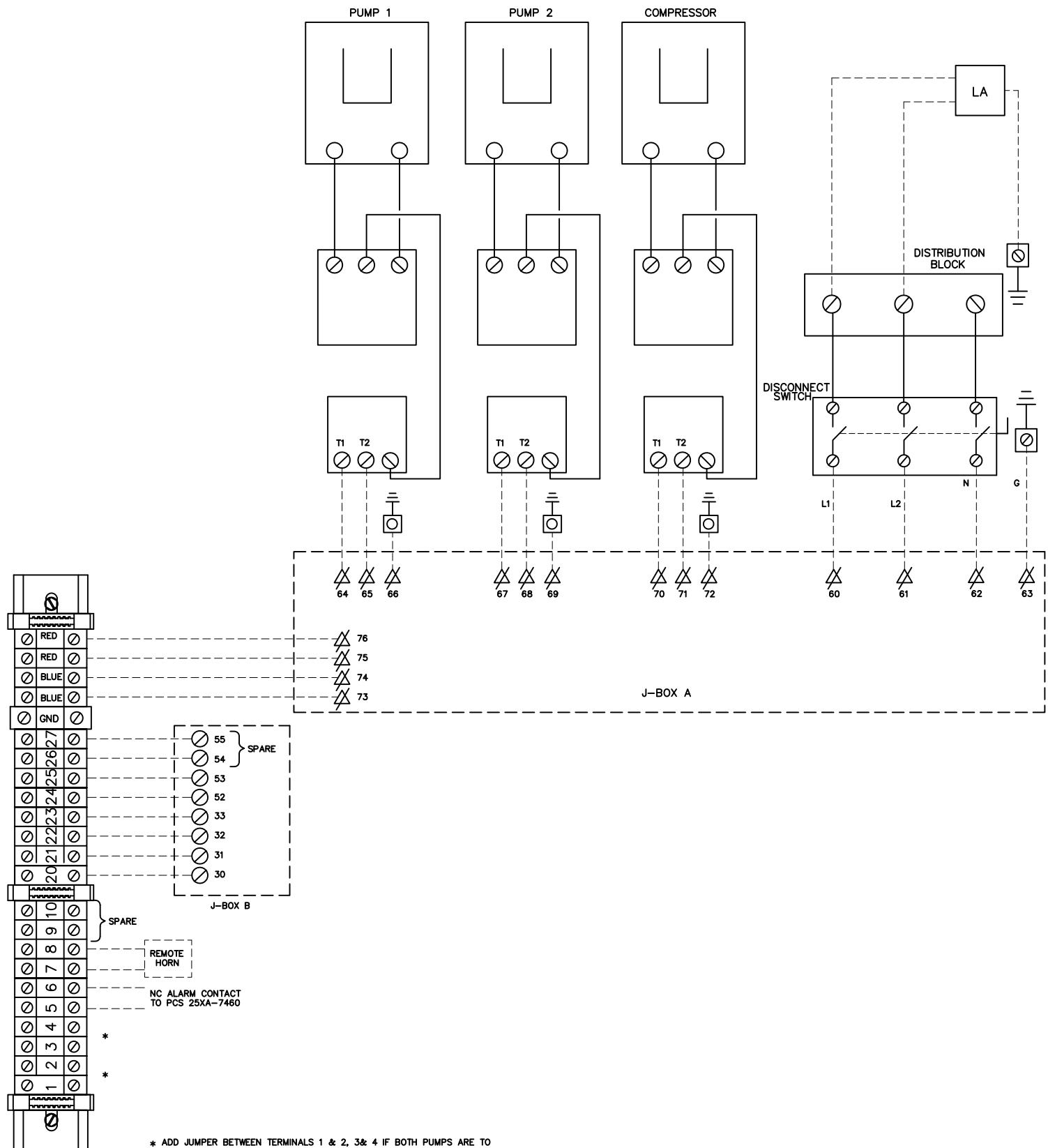
NOTE:

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

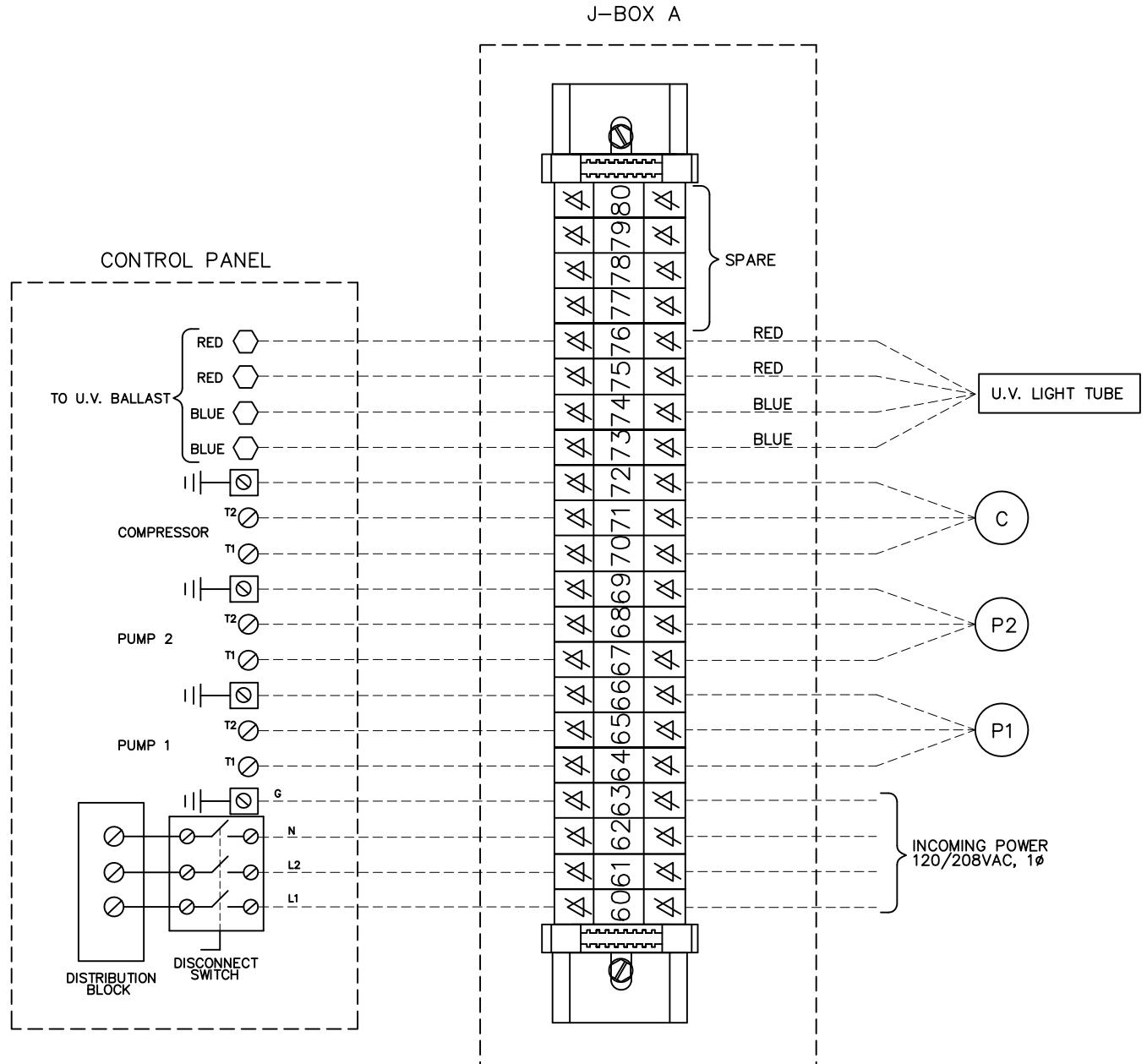
NAMEPLATE SCHEDULE

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					
		REFERENCE DRAWING	NO.	REVISION-LOCATION	ECN	DATE BY
DATE 6/30/03	S/N	Sales Engineer	Application Engineer	DRAWN BY C. RACHAL	APPROVED BY	DATE
	C.C.	R.C.				
	Project Title	<hr/> <hr/> <hr/> COX <hr/> <hr/>			PURCHASE ORDER NUMBER	
	MARATHON CONTROL PANEL	Research and Technology, Inc.			DRAWING NUMBER	CP-1634
					SHEET NUMBER	4

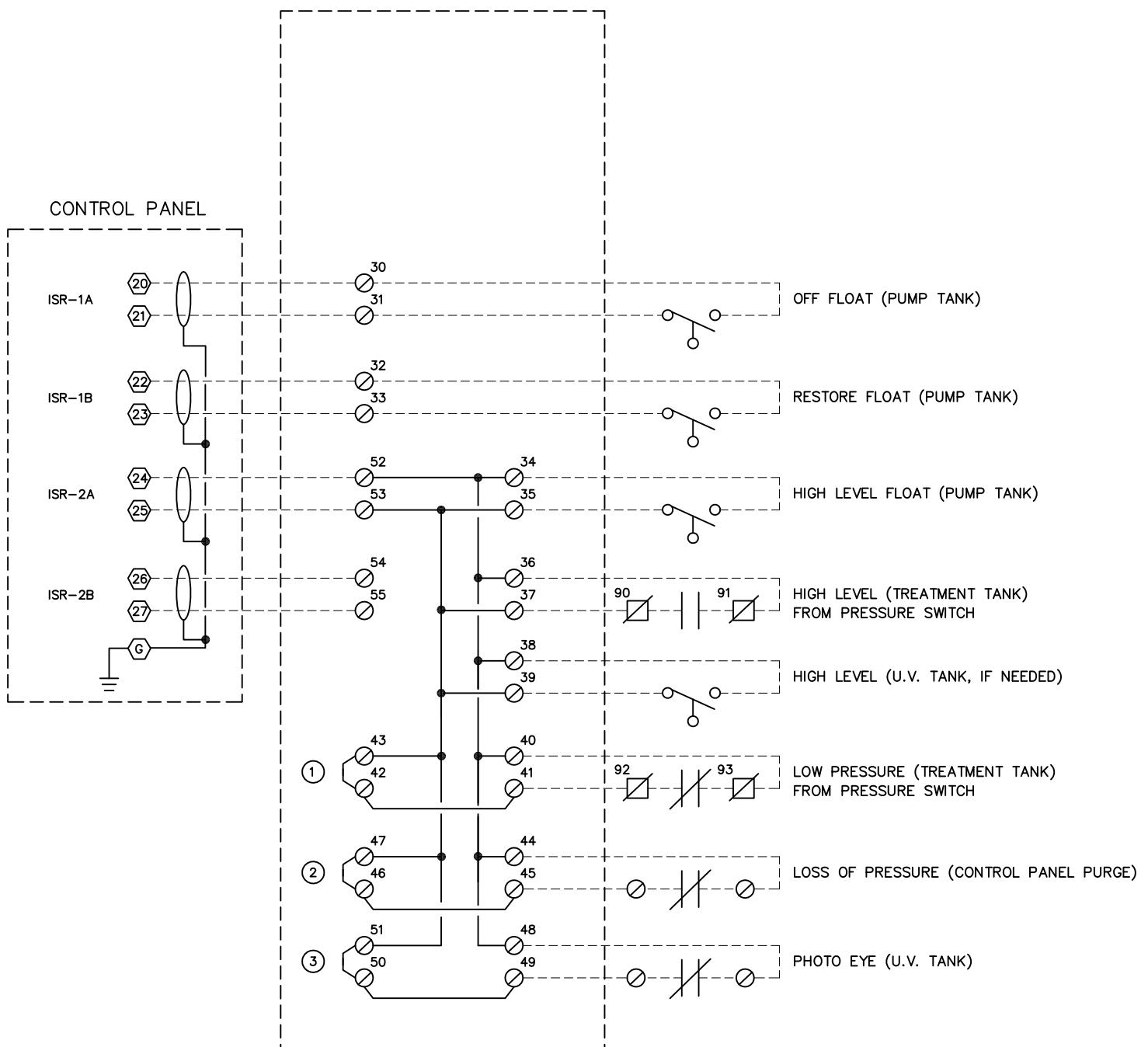


	Drawing Title EXTERNAL CONNECTIONS						
DATE 7/23/03		REFERENCE DRAWING		NO.	REVISION-LOCATION		ECN
		S/N	Sales Engineer C.C.	Application Engineer R.C.	DRAWN BY C. RACHAL	APPROVED BY	DATE
	Project Title MARATHON CONTROL PANEL	<hr/> COX <hr/> Research and Technology, Inc. <hr/>			P.O. Box 77808 Baton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



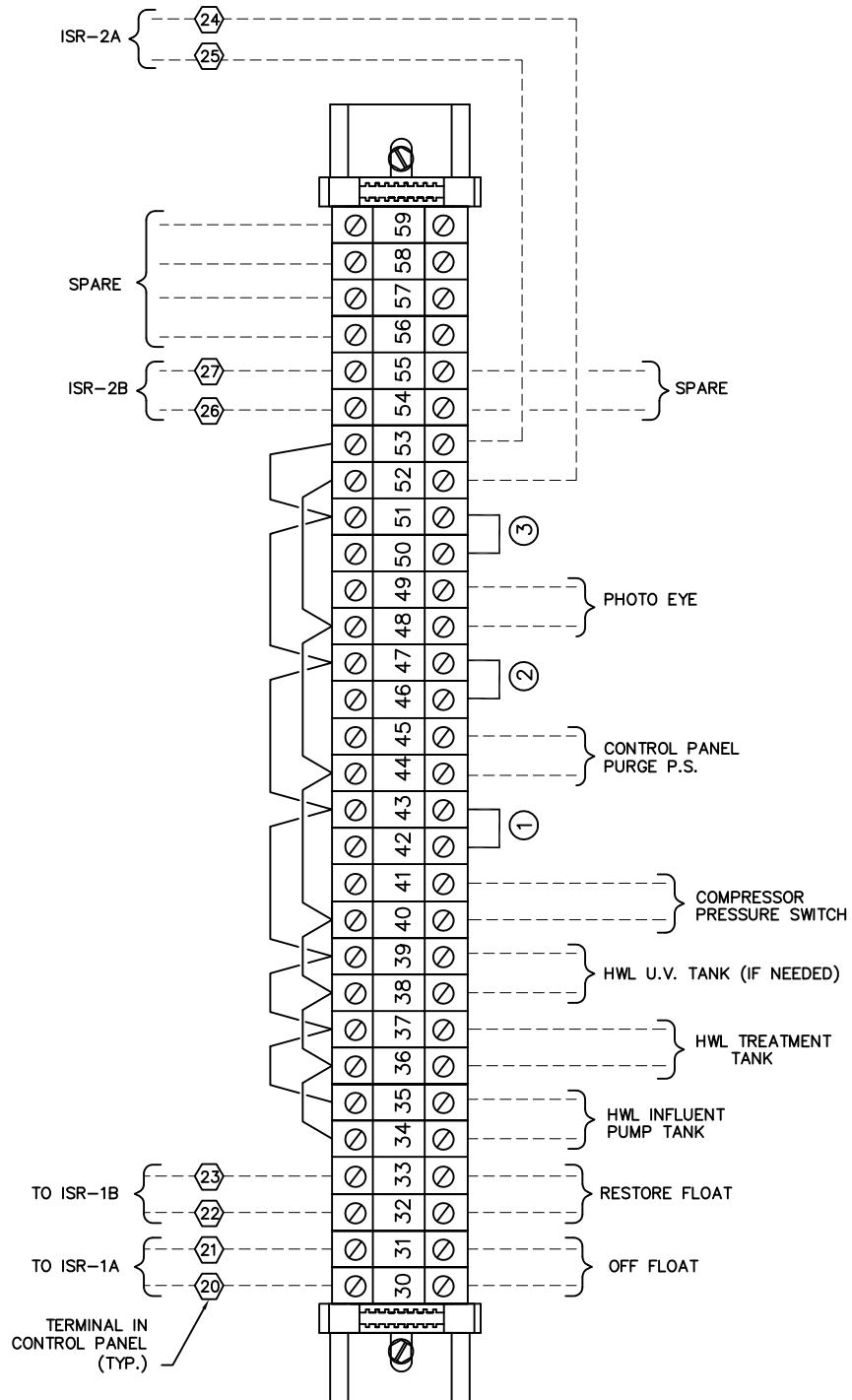
	Drawing Title					
	J-BOX A WIRING					
DATE 7/23/03	REFERENCE DRAWING S/N	NO. C.C.	REVISION-LOCATION DRAWN BY C. RACHAL	ECN	DATE APPROVED BY DATE	BY
Project Title MARATHON CONTROL PANEL	COX Research and Technology, Inc.	P.O. Box 77808 Baton Rouge, LA 70809 Ph. (225)756-3271 Fax (225)756-1030	PURCHASE ORDER NUMBER DRAWING NUMBER CP-1634 SHEET NUMBER 6			

J-BOX B



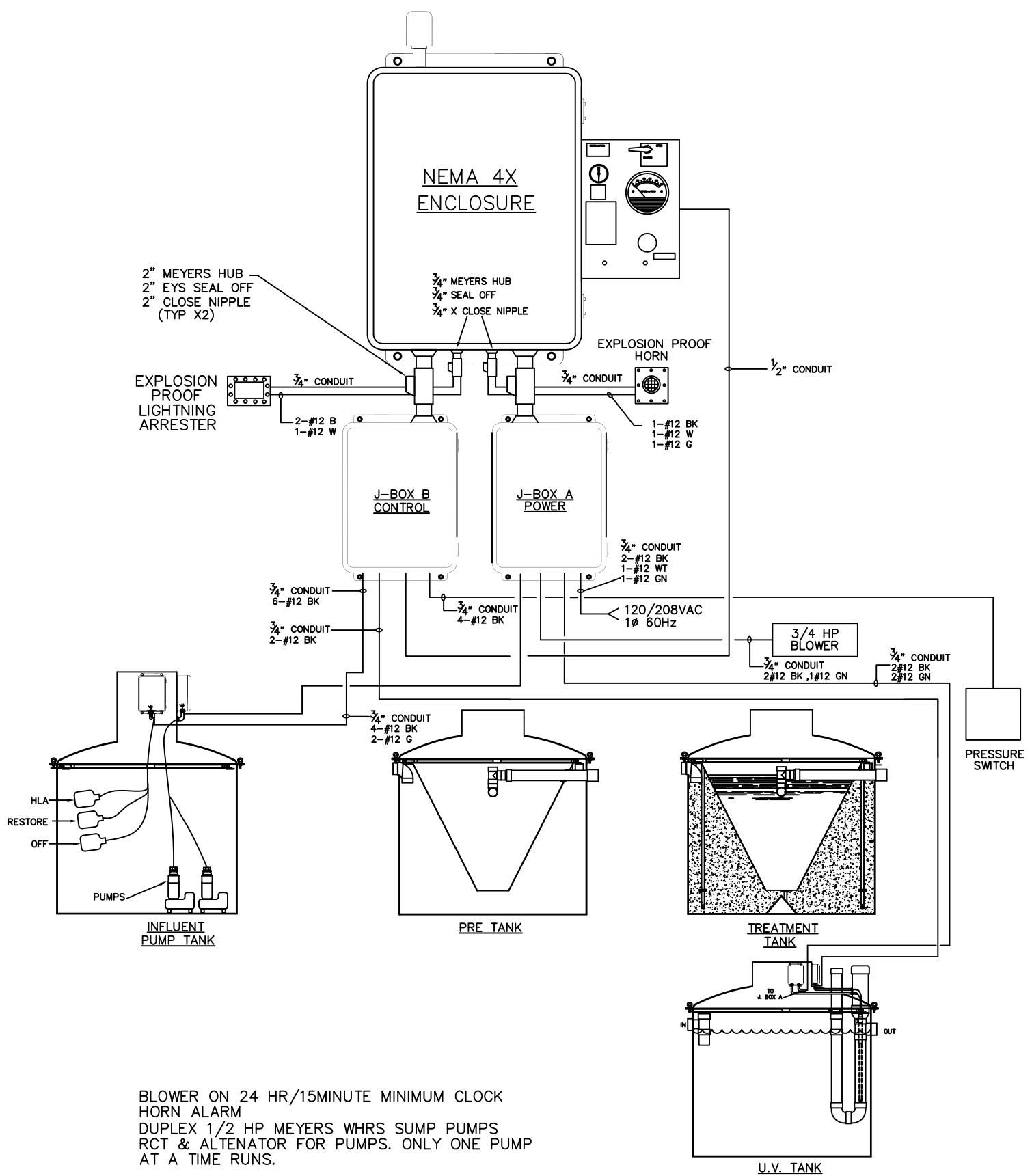
- ① REMOVE JUMPER WHEN SERVICING BLOWER TO BYPASS ALARM CIRCUIT.
- ② REMOVE JUMPER WHEN SERVICING CONTROL PANEL TO BYPASS ALARM CIRCUIT.
- ③ REMOVE JUMPER TO BYPASS U.V. LIGHT ALARM CIRCUIT.

	Drawing Title					
	J-BOX B SCHEMATIC					
DATE 7/23/03	REFERENCE DRAWING S/N	NO. Sales Engineer C.C.	REVISION-LOCATION Application Engineer R.C.	ECN	DATE	BY
			DRAWN BY C. RACHAL		APPROVED	
	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 7		

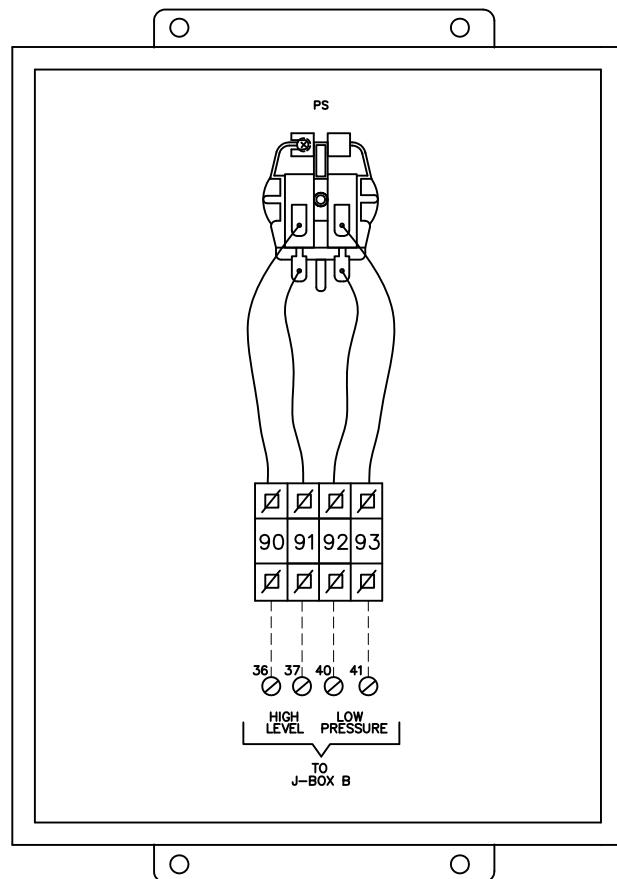


- ① REMOVE JUMPER WHEN SERVICING BLOWER TO BYPASS ALARM CIRCUIT.
- ② REMOVE JUMPER WHEN SERVICING CONTROL PANEL TO BYPASS ALARM CIRCUIT.
- ③ REMOVE JUMPER TO BYPASS U.V. LIGHT ALARM CIRCUIT.

	Drawing Title J-BOX B WIRING					
		REFERENCE DRAWING S/N	NO. Sales Engineer C.C.	REVISION-LOCATION DRAWN BY C. RACHAL	ECN	DATE APPROVED BY DATE
DATE 7/23/03		Application Engineer R.C.				
	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 8	

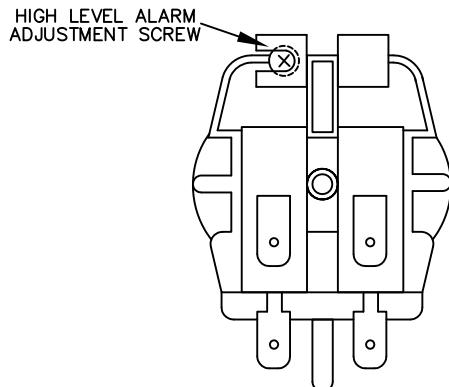


	Drawing Title SITE LAYOUT DATE 7/23/03						
		REFERENCE DRAWING S/N	NO. Sales Engineer C.C.	REVISION-LOCATION DRAWN Application Engineer R.C.	ECN	DATE	BY
				DRAWN BY C. RACHAL	APPROVED BY	DATE	
	Project Title MARATHON CONTROL PANEL	<hr/> <hr/> COX Research and Technology, Inc. <hr/> <hr/>	P.O. Box 77808 Baton Rouge, LA 70809	PURCHASE ORDER NUMBER			
			Ph. (225)756-3271 Fax (225)756-1030	DRAWING NUMBER CP-1634			
				SHEET NUMBER 9			



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.



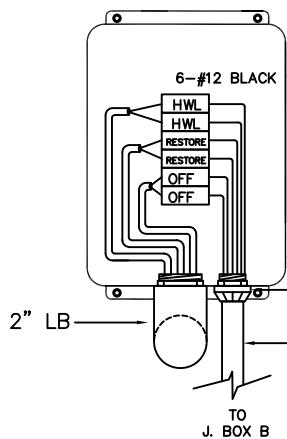
	Drawing Title					
	TREATMENT PLANT PRESSURE SWITCH					
DATE 7/23/03	REFERENCE DRAWING S/N	NO. Sales Engineer C.C.	REVISION-LOCATION Application Engineer R.C.	ECN DRAWN BY C. RACHAL	DATE APPROVED BY DATE	BY
	Project Title					
	MARATHON CONTROL PANEL	COX Research and Technology, Inc.	P.O. Box 77808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

BILL OF MATERIAL

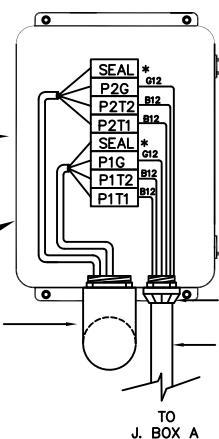
ITEM	QTY	MANUFACTURER	PART NO.	DESCRIPTION
1	1	ALLIED	AM24200RL	ENCLOSURE
1a	1	ALLIED	A2420P	BACKPLATE
1b	1	ALLIED	A2420SP	DEAD FRONT
2	1	ABB	OT63E3	MAIN DISC. SWITCH
3	1	MARATHON	1323580	DISTRIBUTION BLOCK
4	1	C-H	CHSA01	LIGHTNING ARRESTER
5	3	SQUARE D	QOU215	CB1,2,3
6	2	SQUARE D	QOU115	CB4,5
7	1	TIMEMARK	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							
	BILL OF MATERIALS							
			REFERENCE DRAWING	NO.	REVISION-LOCATION	ECN	DATE	BY
DATE 7/23/03			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-1634			
					SHEET NUMBER 11			

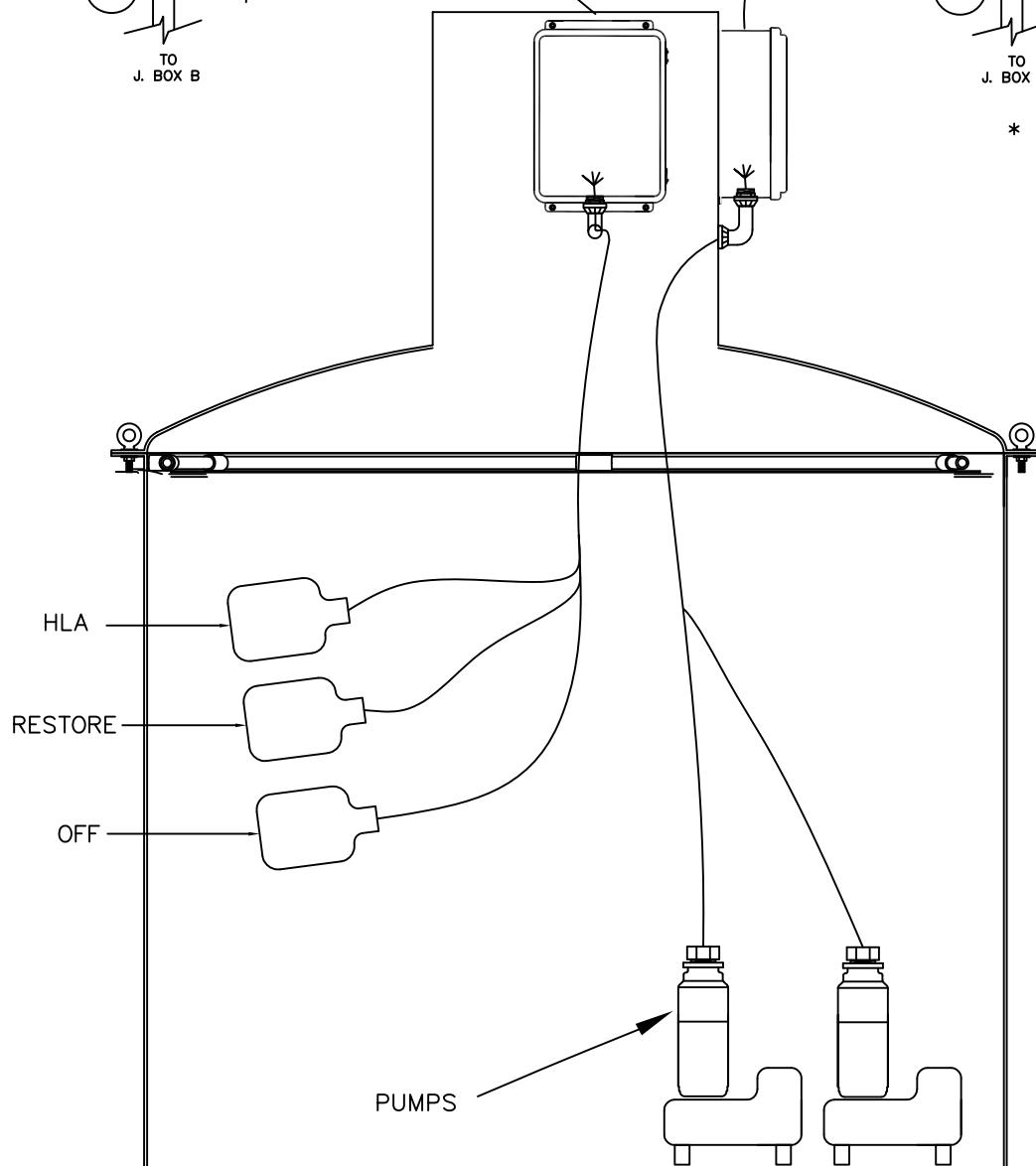
J. BOX FOR FLOAT SWITCHES



J. BOX FOR POWER WIRES

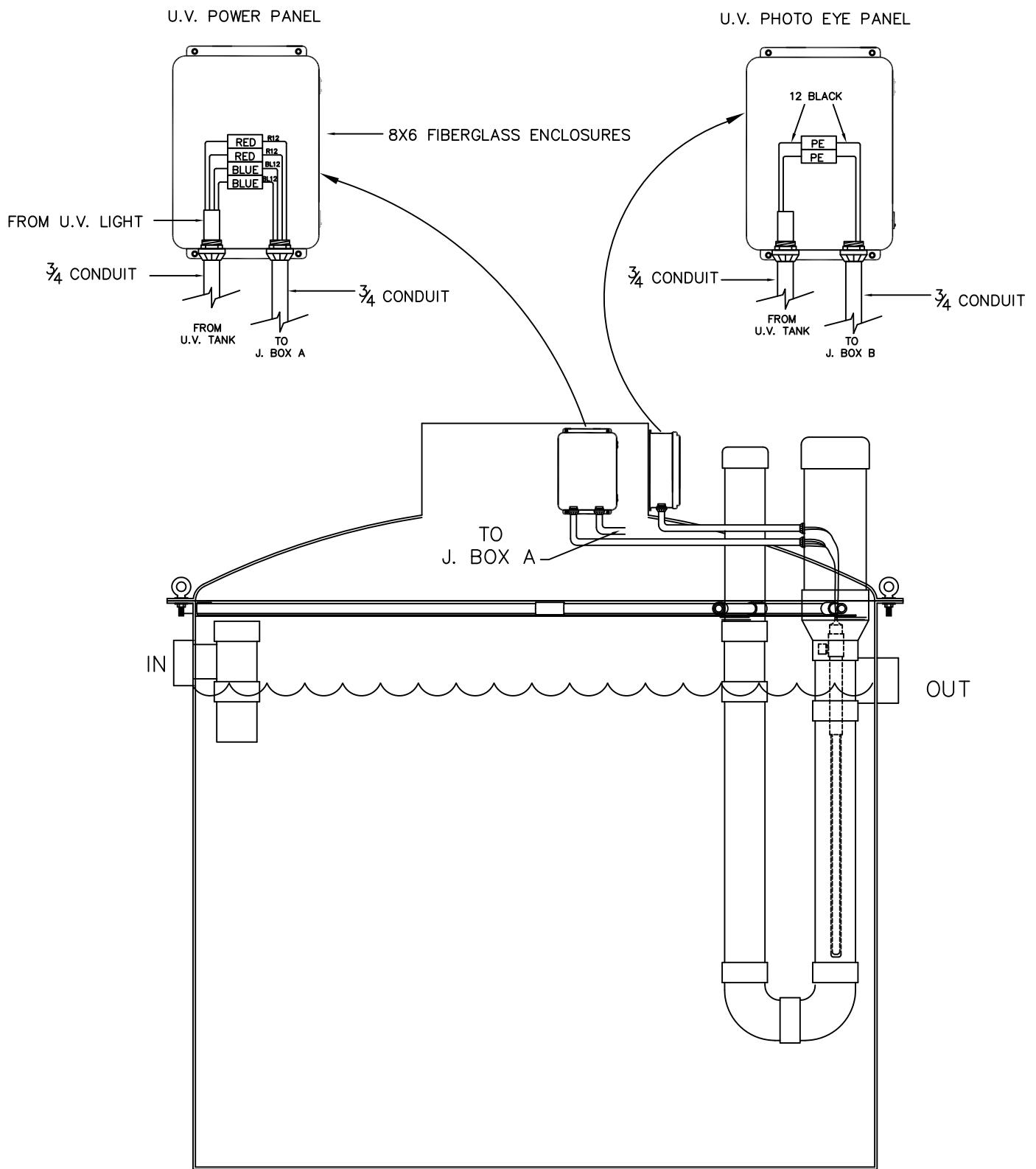


* SEAL FAIL NOT USED



INFLUENT PUMP TANK

	Drawing Title						
	INFLUENT PUMP TANK DETAIL						
DATE 7/23/03	REFERENCE DRAWING S/N	NO. C.C.	REVISION-LOCATION DRAWN BY C. RACHAL	ECN	DATE APPROVED BY DATE		
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 12				

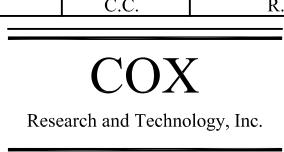


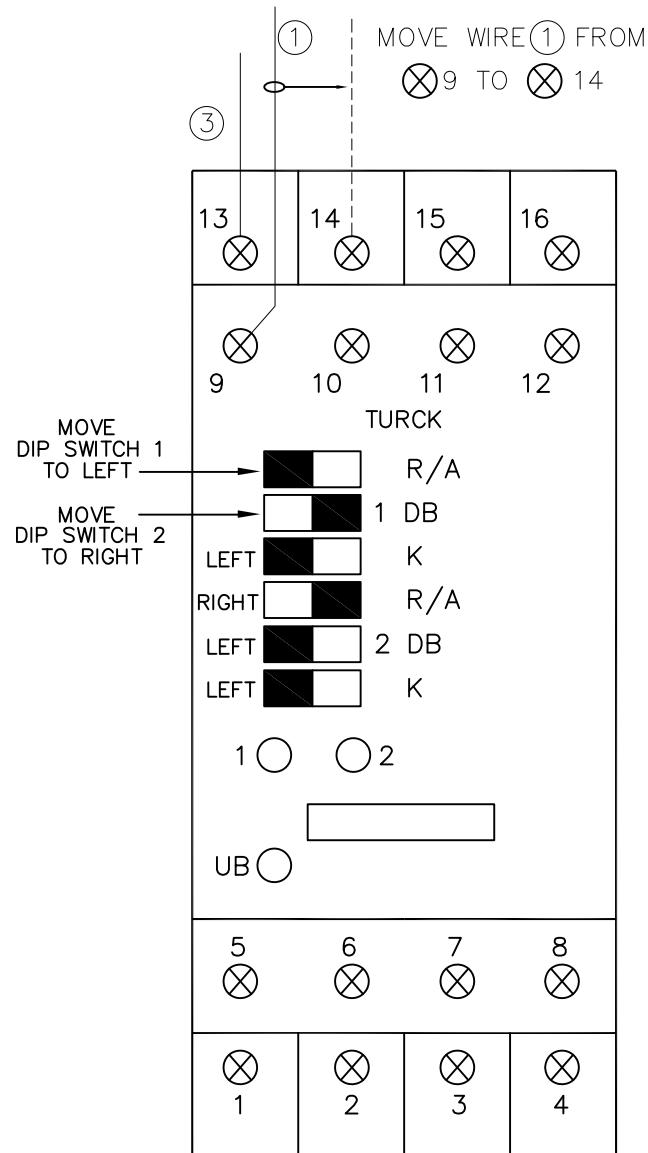
U.V. TANK

	Drawing Title					
	U.V. TANK DETAIL					
DATE 7/23/03	REFERENCE DRAWING S/N	NO. Sales Engineer C.C.	REVISION-LOCATION Application Engineer R.C.	ECN DRAWN BY C. RACHAL	DATE APPROVED BY DATE	BY
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 13			

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									
			REFERENCE DRAWING		NO.	REVISION-LOCATION		ECN	DATE	BY
			S/N	Sales Engineer	Application Engineer	DRAWN			APPROVED	
DATE 7/23/03				C.C.	R.C.	BY C. RACHAL	BY	DATE		
	Project Title		 COX <small>Research and Technology, Inc.</small>			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		14			



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