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# COX

Research and Technology, Inc.

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DUPLEX  
BOOSTER PUMP  
CONTROL PANEL  
60HP, 480V, 3 PHASE

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

CP-1356

VOLTAGE	277/480V	(480V, 277/480V, 240V, 120/240V, 208V, 120/208V)
PHASE/HZ	3/60	
NO. MOTORS	2	
HP	60	
FLA	-	
TYPE OF PUMP	-	(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	N/A	(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: PipeTech, Inc.

TAG : \_\_\_\_\_

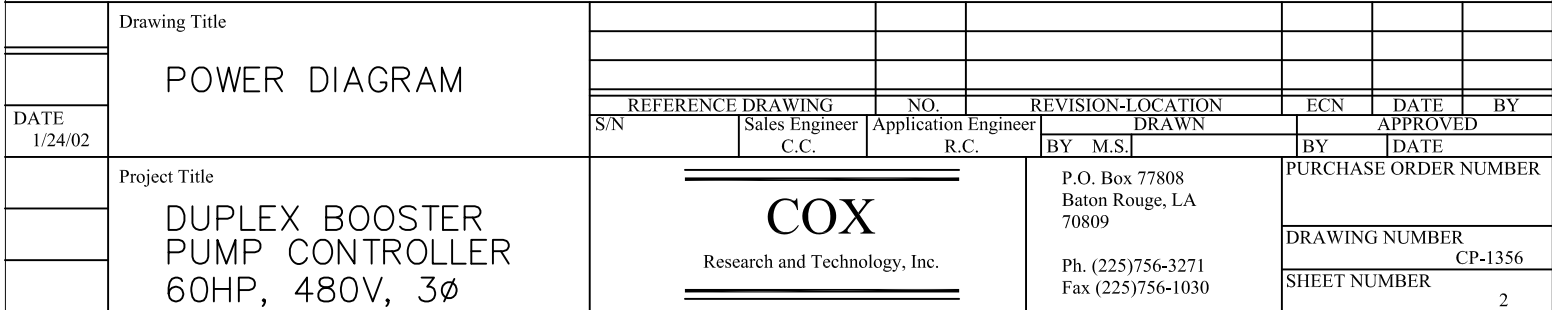
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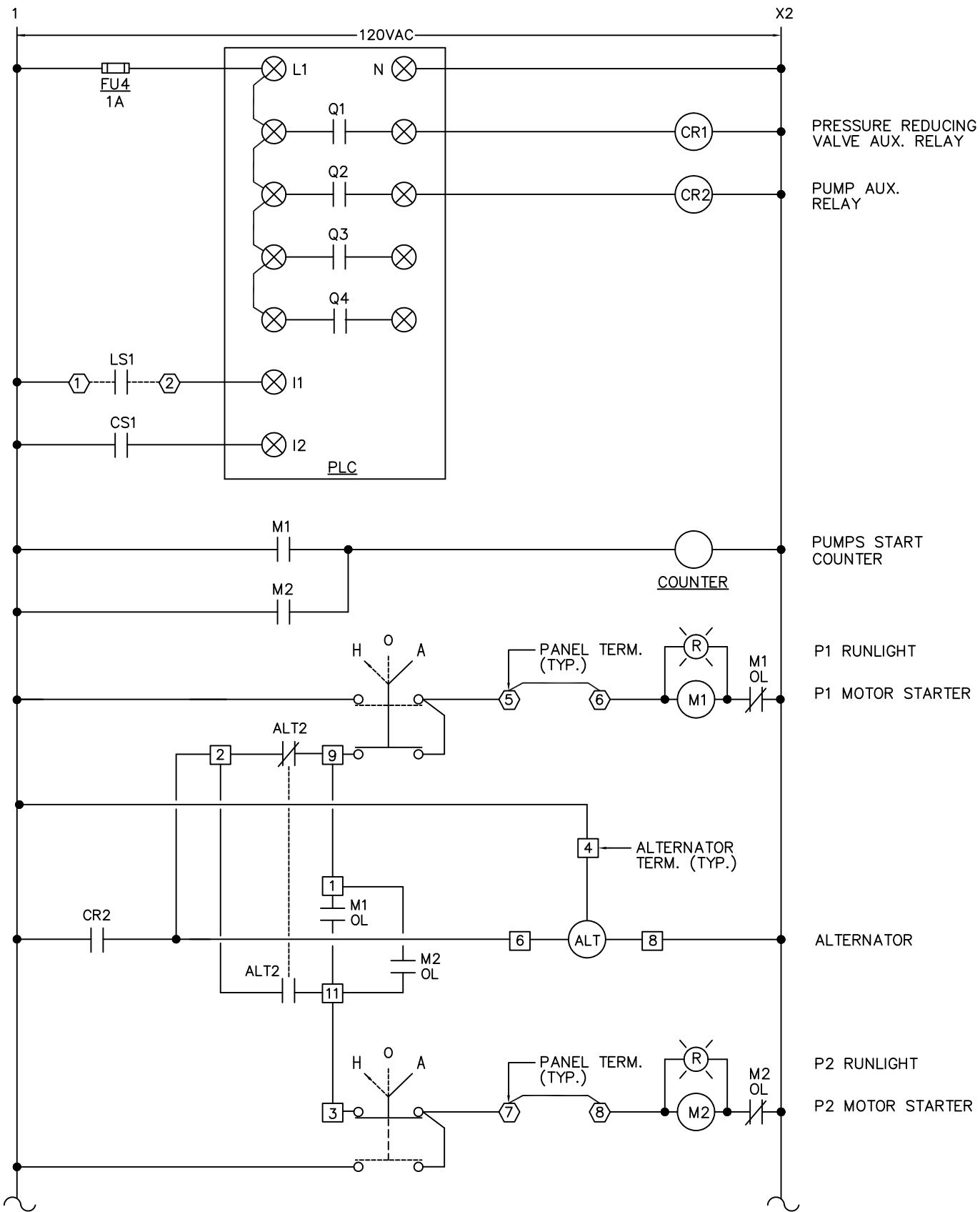
SHIP TO: \_\_\_\_\_

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	Drawing Title							
	PANEL DESCRIPTION							
DATE 1/24/02			REFERENCE DRAWING S/N	NO. Sales Engineer C.C.	REVISION-LOCATION Application Engineer R.C.	DRAWN BY M.S.	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  Ph. (225)756-3271 Fax (225)756-1030		PURCHASE ORDER NUMBER  DRAWING NUMBER CP-1356 SHEET NUMBER 1
	DUPLEX BOOSTER PUMP CONTROLLER 60HP, 480V, 3Ø							





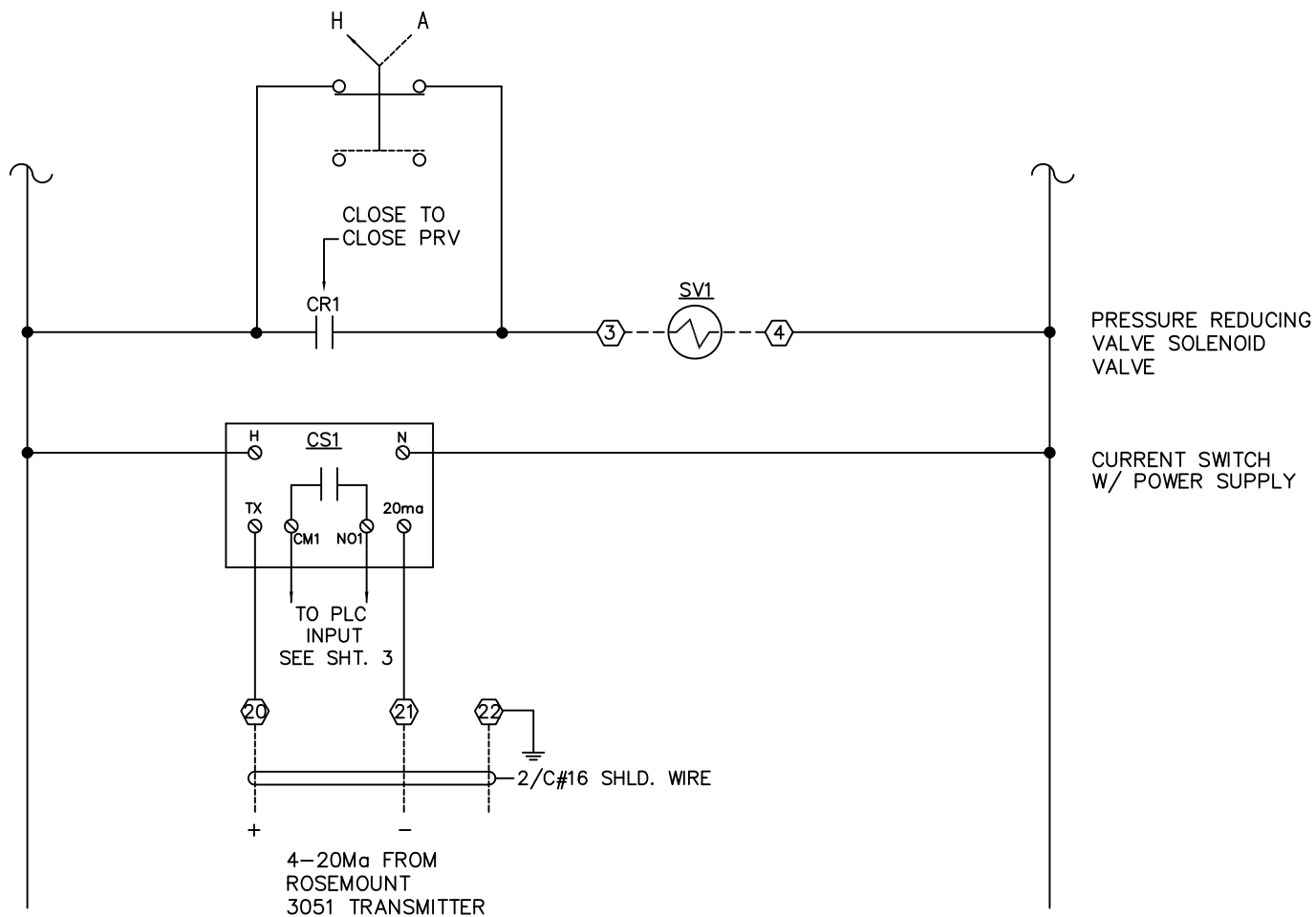
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	CONTROL DIAGRAM								
DATE	1/24/02	REFERENCE DRAWING	NO.	REVISION-LOCATION	ECN	DATE	BY	APPROVED	
		S/N	Sales Engineer C.C.	Application Engineer R.C.	BY	M.S.	BY	DATE	
	Project Title							PURCHASE ORDER NUMBER	
	DUPLEX BOOSTER PUMP CONTROLLER 60HP, 480V, 3Ø							DRAWING NUMBER CP-1356	
								SHEET NUMBER	3

**COX**

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P.O. Box 77808  
Baton Rouge, LA  
70809

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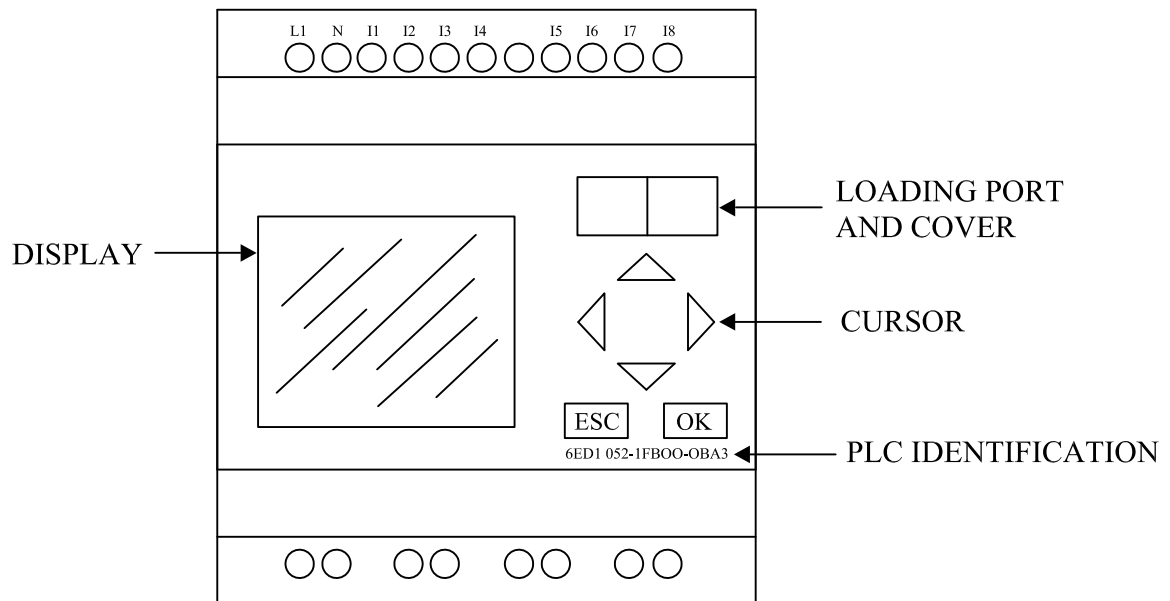


LS1 - ALTITUDE VALVE LIMIT SWITCH  
CLOSE TO SHUTDOWN PUMPS AT VALVE  
FULL CLOSED

CS1 - CURRENT SWITCH IN PANEL  
OPEN TO STOP PUMPS AT LOW SUCTION  
PRESSURE

	Drawing Title								
	CONTROL DIAGRAM								
DATE	1/24/02	REFERENCE DRAWING	NO.	REVISION-LOCATION	ECN	DATE	BY	APPROVED	
		S/N	Sales Engineer C.C.	Application Engineer R.C.	BY	M.S.	BY	DATE	
	Project Title	COX			P.O. Box 77808 Baton Rouge, LA 70809			PURCHASE ORDER NUMBER	
	DUPLEX BOOSTER PUMP CONTROLLER	Research and Technology, Inc.			Ph. (225)756-3271 Fax (225)756-1030			DRAWING NUMBER CP-1356	
	60HP, 480V, 3Ø							SHEET NUMBER 4	

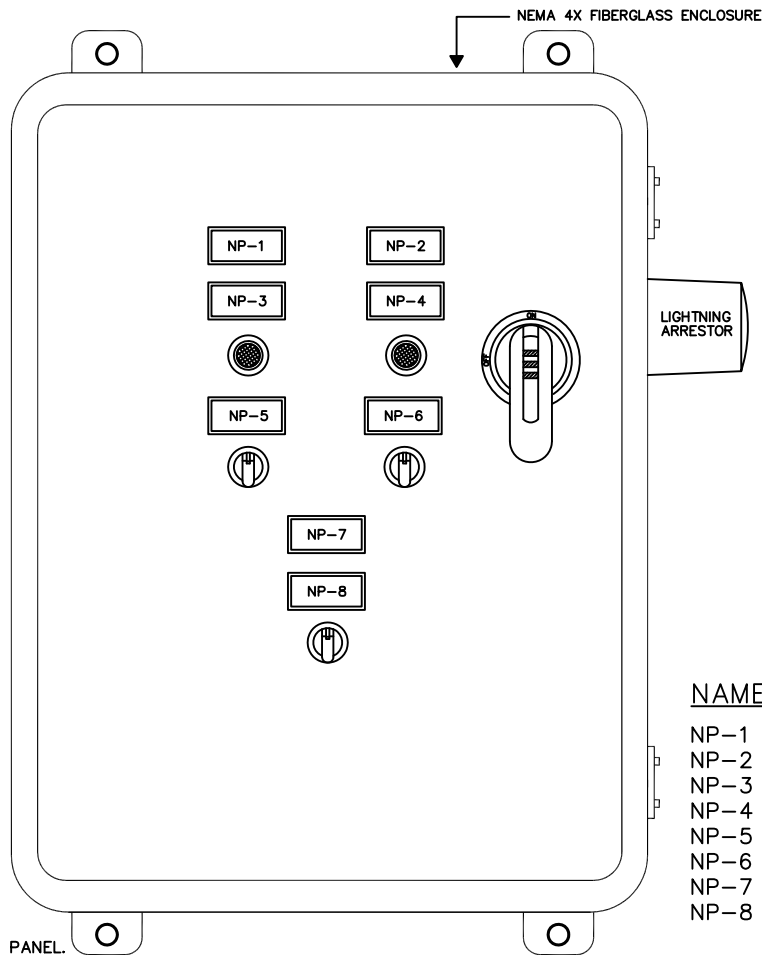
## PLC COMPONENT IDENTIFICATION



FRONT VIEW OF PLC

PROGRAMMING WILL BE DONE TO MEET  
THE REQUIREMENTS OF PIPETECH, INC.

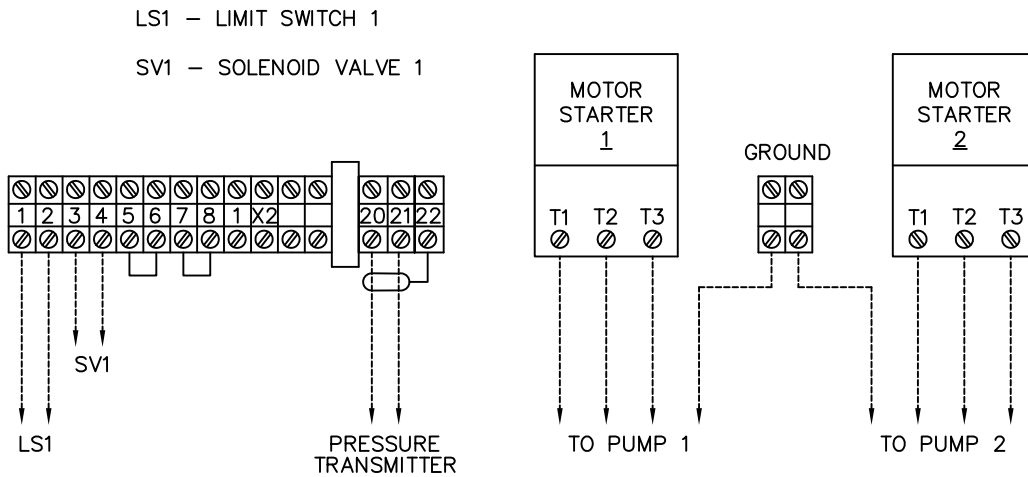
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	PLC DIAGRAM						
DATE 1/24/02		REFERENCE DRAWING S/N	NO. Sales Engineer C.C.	REVISION-LOCATION Application Engineer R.C.	ECN	DATE	BY
	Project Title	DRAWN BY M.S.			APPROVED BY DATE		
	DUPLEX BOOSTER PUMP CONTROLLER 60HP, 480V, 3Ø	PURCHASE ORDER NUMBER					
		DRAWING NUMBER CP-1356					
		SHEET NUMBER 5					



### NAMEPLATE SCHEDULE

NP-1	PUMP 1
NP-2	PUMP 2
NP-3	RUN
NP-4	RUN
NP-5	HOA
NP-6	HOA
NP-7	PRESSURE REDUCING VALVE
NP-8	MANUAL - AUTO

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



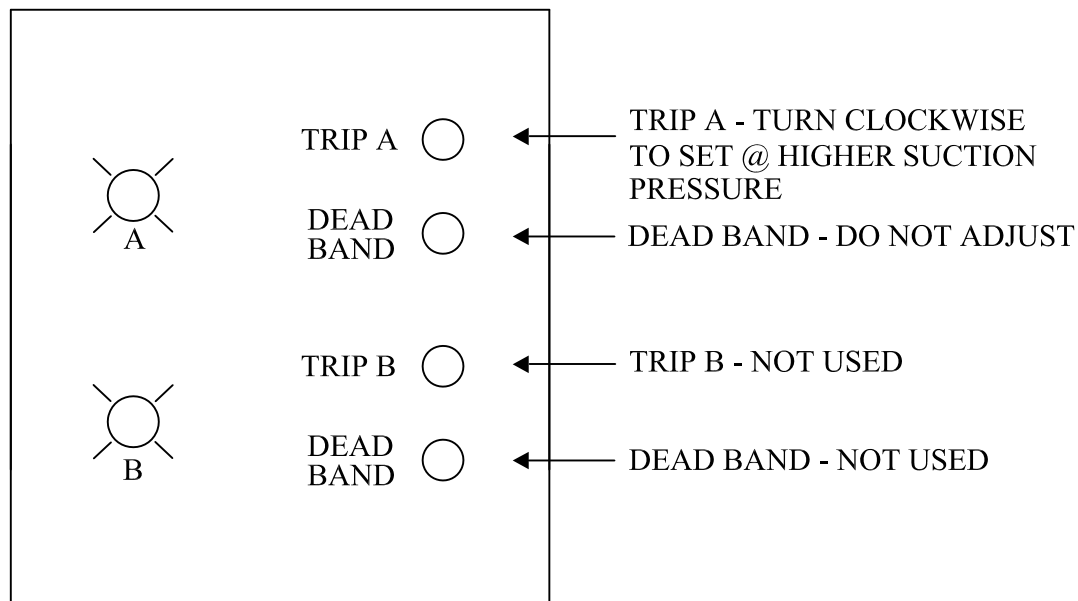
	Drawing Title								
	ENCLOSURE EXTERNAL CONNECTIONS								
DATE 1/24/02		REFERENCE DRAWING	NO.	REVISION-LOCATION			ECN	DATE	BY
	S/N	Sales Engineer C.C.	Application Engineer R.C.		DRAWN		APPROVED		
					BY	M.S.	BY	DATE	
	Project Title				P.O. Box 77808 Baton Rouge, LA 70809		PURCHASE ORDER NUMBER		
	DUPLEX BOOSTER PUMP CONTROLLER	COX  Research and Technology, Inc.			Ph. (225)756-3271 Fax (225)756-1030		DRAWING NUMBER		
	60HP, 480V, 3ø						CP-1356		
							SHEET NUMBER		
							6		

## BILL OF MATERIAL

ITEM	QTY	MANUFACTURER	PART NO.	DESCRIPTION
1	1	ALLIED	AM30240RL	ENCLOSURE-20"x16"x8"
1a	1	ALLIED	A3024P	BACKPLATE
2	1	ABB	OETL-NF200ASW	MAIN DISC. SWITCH
3	SET	ABB	OZXA-25/3P/175	LUGS
4	1	ABB	OXp8X240	THRU DOOR SHAFT
5	1	ABB	OHB80L8	THRU DOOR HANDLE
6	2	ABB	S1N100TL	CIRCUIT BREAKER
7	2	ABB	A75-30-11-84	MOTOR STARTER
8	2	ABB	CAL5-11	AUX. CONTACT
9	2	ABB	TA75DU80	MOTOR O.L.'S (60-80A)
10	1	SQUARE D	9070TF200D1	TRANSFORMER
11	1	LOGO	230RC	12 I/O PLC
12	1	REDINGTON	V2-4816-115AC	COUNTER
13	1	TIMEMARK	261DT120	ALTERNATOR
14	2	ACI	JR223M20B	HOA SWITCH
15	2	ACI	JR22FR	RED LIGHTS
16	2	OMRON	2SAC120	RELAY
17	1	MOORE	FCA/4-20ma/DL2L2/U(DIN)	CURRENT SWITCH
18	1	CH	CHSA03	LIGHTNING ARRESTOR
19				
20				
21				
22				
23				
24				
25				

	Drawing Title						
	<b>BILL OF MATERIALS</b>						
DATE 1/24/02		REFERENCE DRAWING S/N	NO. Sales Engineer C.C.	REVISION-LOCATION Application Engineer R.C.	ECN	DATE	BY
	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  DRAWING NUMBER CP-1356 SHEET NUMBER 7
	DUPLEX BOOSTER PUMP CONTROLLER 60HP, 480V, 3ø						





### CURRENT SWITCH

	Drawing Title						
	CURRENT SWITCH						
DATE		REFERENCE DRAWING	NO.	REVISION-LOCATION	ECN	DATE	BY
1/24/02		S/N	Sales Engineer C.C.	Application Engineer R.C.	DRAWN BY M.S.	APPROVED BY	DATE
	Project Title	<div style="text-align: center;"> <b>COX</b>  Research and Technology, Inc. </div>			P.O. Box 77808 Baton Rouge, LA 70809  Ph. (225)756-3271 Fax (225)756-1030		PURCHASE ORDER NUMBER  DRAWING NUMBER CP-1356 SHEET NUMBER 8
	DUPLEX BOOSTER PUMP CONTROLLER 60HP, 480V, 3Ø						