
COX

Research and Technology, Inc.

DUPLEX PUMP
CONTROL PANEL
DORAN
PUMP ROOM SUMP PUMPS

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

CP-2173

| | | |
|----------------|-------------|--|
| VOLTAGE | 120V | (480V, 277/480V, 240V, 120/240V, 208V, 120/208V) |
| PHASE/HZ | 1/60 | |
| NO. MOTORS | 2 | |
| HP | 1/2 | |
| FLA | 9.8 | |
| TYPE OF PUMP | Submersible | (Self-Priming, Submersible) |
| MANUFACTURER | ABS | |
| CATALOG NUMBER | EF05W-2A | |

| | | |
|----------------------------------|-----------------|--|
| CONTROL VOLTAGE | 120V | (120V, Other) |
| ENCLOSURE | NEMA 4X | (NEMA 1, NEMA 3R, NEMA 4, NEMA 4X) |
| ENCLOSURE MATERIAL | Stainless Steel | (Painted Steel, Stainless Steel, Fiberglass) |
| CONTROL SENSOR | Floats | (Floats, Bubbler, Other) |
| CAPACITORS | No | (Yes, No) |
| CAPACITOR WIRING FIGURE | N/A | |
| THERM. & SEAL FAIL WIRING FIGURE | | |

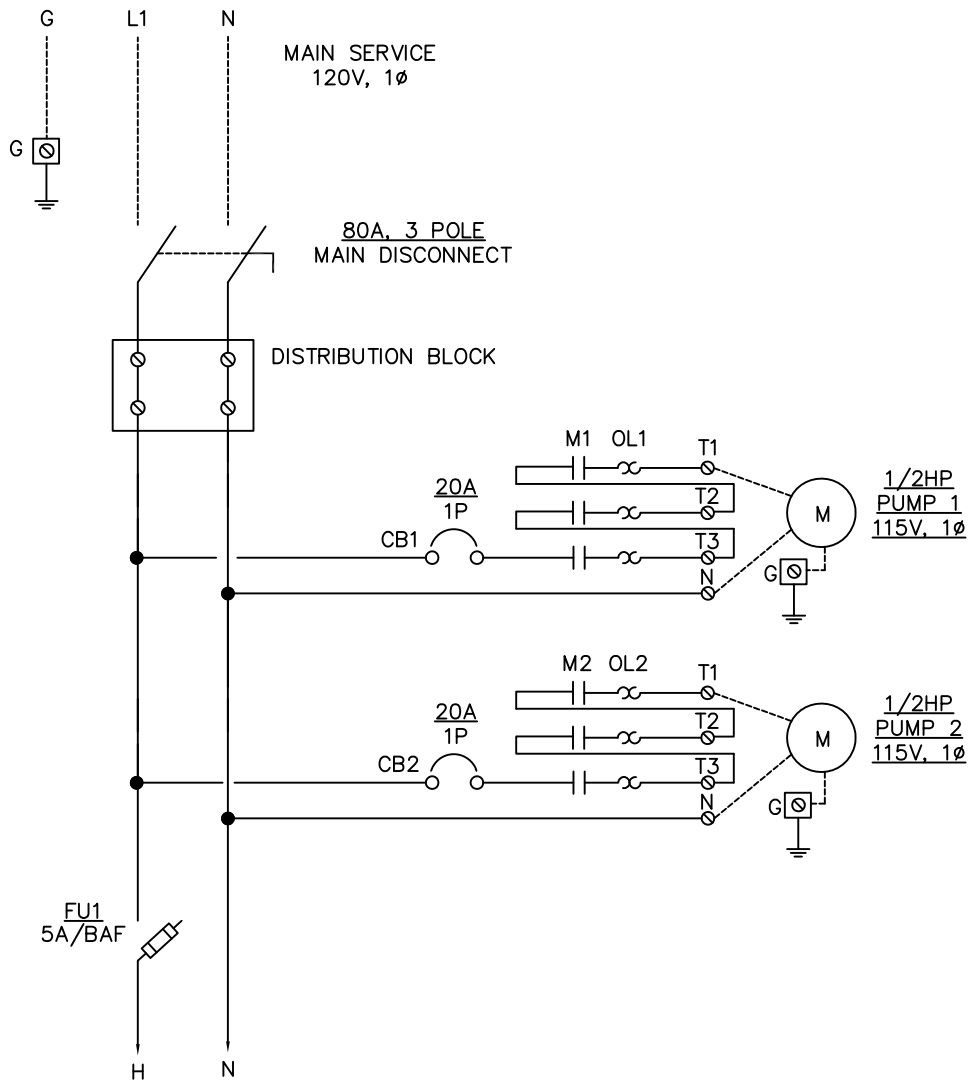
OPTIONS:

| | | |
|----------------------------------|---|----------------------------|
| SEAL FAIL LIGHTS | | (Submersible Only) |
| SEAL FAIL RELAYS | | (Submersible Only) |
| SEAL FAIL PUMP SHUTDOWN | | (Submersible Only) |
| HT PUMP SHUTDOWN | X | (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 | | |

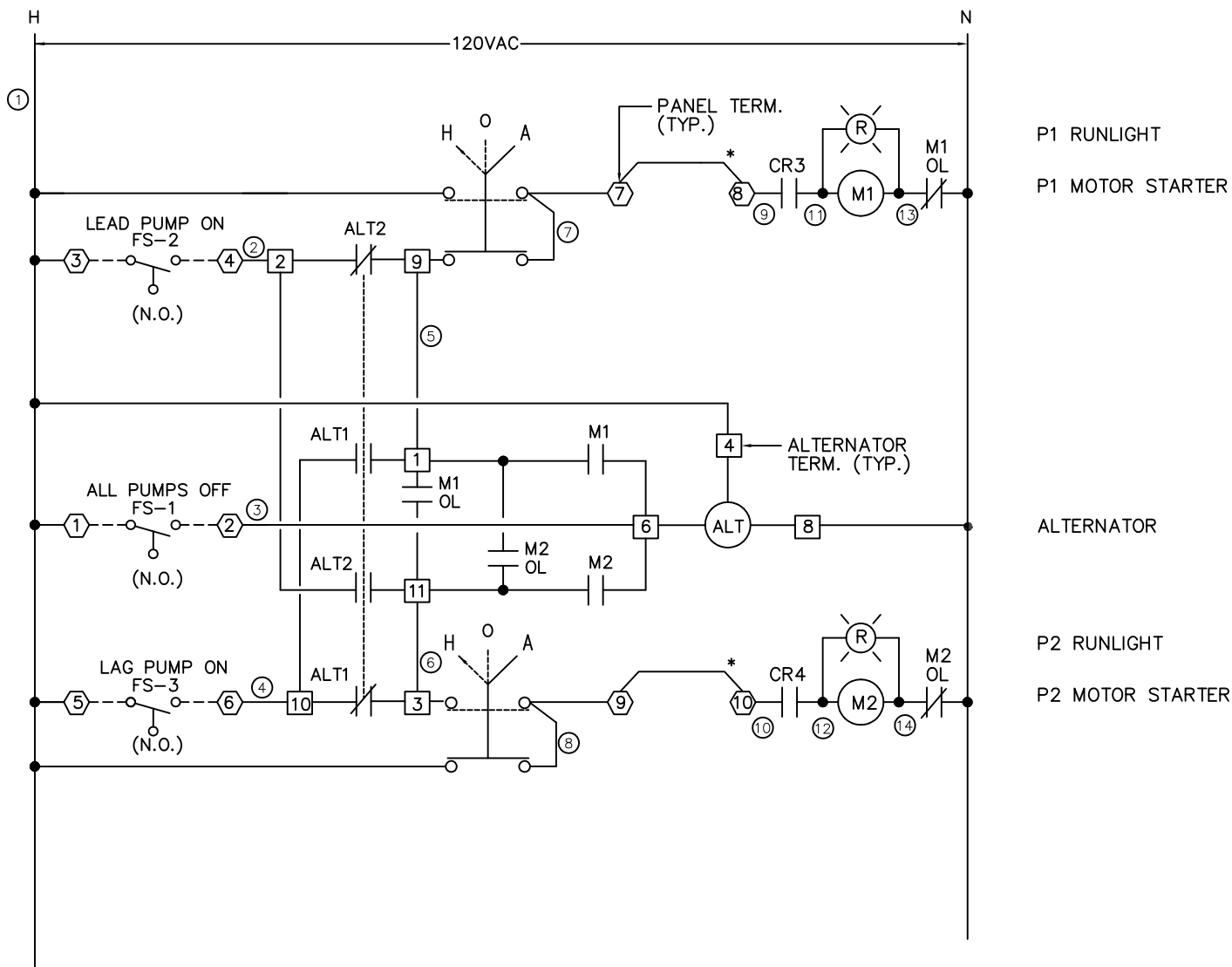
SOLD TO: CF ENGINEERED EQUIPMENT - DALLAS, TX
TAG : DORAN
PUMP ROOM SUMP PUMPS

SHIP TO: CF ENGINEERED EQUIPMENT - DALLAS, TX

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|------------------|------------------------------|---|-------------------------------|---|--|-----|---|
| | Drawing Title | | | | | | |
| | PANEL DESCRIPTION | | | | | | |
| | | | | | | | |
| DATE 10/07/05 | | REFERENCE DRAWING S/N | NO. Sales Engineer C.C. | REVISION-LOCATION Application Engineer R.C. | DRAWN BY C. RACHAL | ECN | DATE |
| | Project Title | <div>COX</div> <div>Research and Technology, Inc.</div> | | | P.O. Box 77808 Baton Rouge, LA 70809 Ph. (225)756-3271 Fax (225)755-1030 | | PURCHASE ORDER NUMBER DRAWING NUMBER CP-2173 SHEET NUMBER 1 |
| | DUPLEX PUMP CONTROL PANEL | | | | | | |

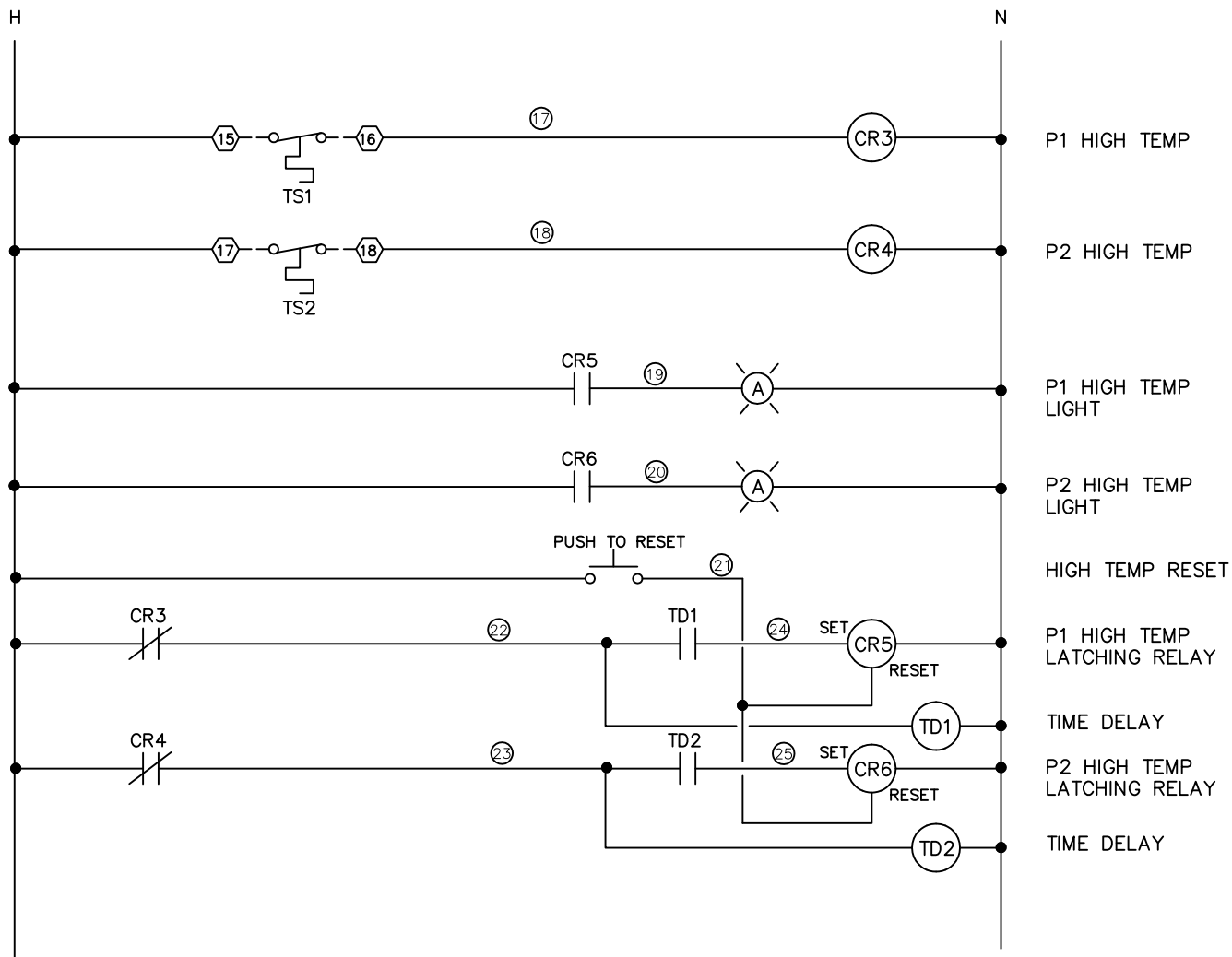


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|----------|------------------------------|---|------------------------|------------------------------|--|---------------------------|----|--|
| | Drawing Title | | | | | | | |
| | POWER DIAGRAM | | | | | | | |
| DATE | | REFERENCE DRAWING | NO. | REVISION-LOCATION | ECN | DATE | BY | |
| 10/07/05 | | S/N | Sales Engineer C.C. | Application Engineer R.C. | BY C. RACHAL | APPROVED | | |
| | Project Title | | | | P.O. Box 77808 Baton Rouge, LA 70809 | PURCHASE ORDER NUMBER | | |
| | DUPLEX PUMP CONTROL PANEL | <div>COX</div> <div>Research and Technology, Inc.</div> | | | Ph. (225)756-3271 Fax (225)755-1030 | DRAWING NUMBER CP-2173 | | |
| | | | | | | SHEET NUMBER 2 | | |

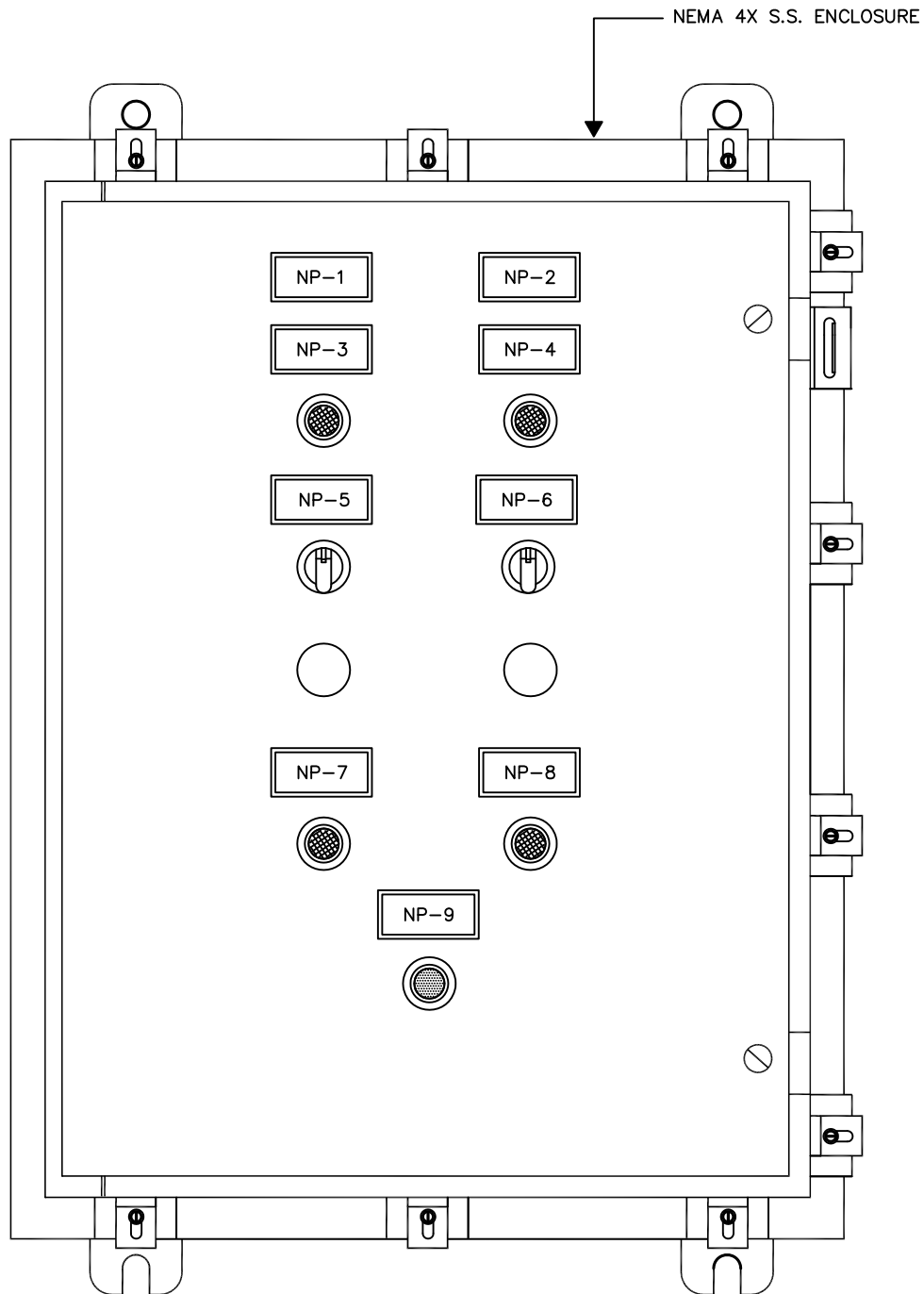


* REMOVE JUMPERS AND INSTALL LOCKOUT DEVICES IF REQUIRED

| | | | | | | | | |
|------------------|------------------------------|---|------------------------|------------------------------|--|----------------|---------------------------|------|
| | Drawing Title | | | | | | | |
| | | | | | | | | |
| | | CONTROL DIAGRAM | | | | | | |
| | | | | | | | | |
| DATE 10/07/05 | | REFERENCE DRAWING | NO. | REVISION-LOCATION | | ECN | DATE | BY |
| | | S/N | Sales Engineer C.C. | Application Engineer R.C. | DRAWN BY C. RACHAL | APPROVED BY | | DATE |
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| | | | | | | | SHEET NUMBER | |
| | | | | | | | 3 | |



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|----------|------------------------------|-------------------|------------------------|------------------------------|--|---------------------------|------|--|
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| | CONTROL DIAGRAM | | | | | | | |
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| | | | | | | SHEET NUMBER 4 | | |



VIEW OF SWING OUT PANEL

NAMEPLATE SCHEDULE

| | |
|------|---------------|
| NP-1 | PUMP 1 |
| NP-2 | PUMP 2 |
| NP-3 | RUN |
| NP-4 | RUN |
| NP-5 | H-O-A |
| NP-6 | H-O-A |
| NP-7 | HIGH TEMP |
| NP-8 | HIGH TEMP |
| NP-9 | PUSH TO RESET |

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 | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| DATE 10/07/05 | | REFERENCE DRAWING S/N | NO. Sales Engineer C.C. | REVISION-LOCATION Application Engineer R.C. | ECN BY C. RACHAL | DATE BY | BY | DATE |
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| | DUPLEX PUMP CONTROL PANEL | | | | | DRAWING NUMBER CP-2173 | | |
| | | | | | | SHEET NUMBER 5 | | |

BILL OF MATERIALS

| ITEM | QTY | MANUFACTURER | PART NO. | DESCRIPTION |
|------|-----|--------------|--------------|------------------------|
| 1 | 1 | C&I | I-201610ST4X | ENCLOSURE STAINLESS 4X |
| 1a | 1 | C&I | CI-2016P | BACKPLATE |
| 1b | 1 | C&I | CI-2016SP | DEAD FRONT |
| 2 | 1 | ABB | OT63E3 | MAIN DISCONNECT |
| 3 | 2 | ABB | A16-30-10-84 | MOTOR STARTER |
| 4 | 2 | ABB | TA25DU11 | O.L. RELAY (7.5-11A) |
| 5 | 2 | SQUARE D | QOU120 | CB1, CB2 |
| 6 | 1 | TIMEMARK | 261DT120 | ALTERNATING RELAY |
| 7 | 2 | ACI | JR22FR | RED PILOT LIGHT |
| 8 | 2 | ACI | JR22P3M20B | H-O-A SWITCH |
| 9 | 2 | ACI | JR22FY | AMBER PILOT LIGHT |
| 10 | 2 | MAGNECRAFT | W388AMLCPX-9 | CR5,6 (LATCHING RELAY) |
| 11 | 2 | IDEC | RU2SA110 | CR3,4 |
| 12 | 2 | OMRON | H3YN2AC120 | TIME DELAY 1,2 |
| 13 | 1 | ACI | JR22AN11B | PUSH BUTTON |
| 14 | 2 | MARATHON | 1321580 | DISTRIBUTION BLOCK |
| 15 | | | | |
| 16 | | | | |
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|------------------|---|---|-------------------------------|---|--|-----|--|
| | Drawing Title | | | | | | |
| | <h3 style="margin: 0;">BILL OF MATERIALS</h3> | | | | | | |
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| | Project Title | <div style="border-top: 3px double black; border-bottom: 3px double black; padding: 5px;"> <h2 style="margin: 0;">COX</h2> <p style="margin: 0;">Research and Technology, Inc.</p> </div> | | | P.O. Box 77808 Baton Rouge, LA 70809 Ph. (225)756-3271 Fax (225)755-1030 | | PURCHASE ORDER NUMBER DRAWING NUMBER CP-2173 SHEET NUMBER |
| | DUPLEX PUMP CONTROL PANEL | | | | | | 6 |