

Service Bulletin

Machinery Affected: Cyber® A/T Saw

Document: SB184

Title: Adding a Start/Enable Button to the Carriage-

End Enclosure or Touch Screen Enclosure

Applies To: All Cyber A/T Saws Shipped Before

12 March 2008

Distribution: All Customers



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| Date Created | 28 March 2008 | | | |
|---------------|----------------------------------|--|--|--|
| Created By | R. Widder | | | |
| Reviewed By | R. Tucker | | | |
| Approved By | G. McNeelege | | | |
| Manuf. Eng. | G. Balke | | | |
| | | | | |
| Revision | Α | | | |
| Revision Date | 1 July 2008 | | | |
| Revised By | R. Widder | | | |
| | | | | |
| Applicability | 60000-530-xxxV | | | |
| Effectivity | Machines shipped before 12 March | | | |
| | 2008 | | | |



Purpose and Scope

If an operator pushes an E-stop while the saw blades are in a collision position, the saw will immediately attempt to correct the blade position when the E-stop is reset.

Installing a Start/Enable button will prevent the saw from automatically moving. Before the saw will move, the operator must reset the E-stop and press the Start/Enable button.

Overview

The parts included in this kit are shown in Table 1. Please ensure all parts are present before starting this procedure.

Table 1: Parts in SB184KIT

| Qty. | Part Description | Part # |
|------|---|--------|
| 1 | Surge suppressor | 509249 |
| 1 | Pushbutton, illuminated, yellow | 513494 |
| 1 | Light, incandescent | 513652 |
| 1 | Contact block, NO | 513649 |
| 8 | Terminal blocks | 518223 |
| 1 | Nameplate holder | 513676 |
| 1 | Nameplate insert | 513149 |
| 1 | Terminal jumper bar, 10 poles | 518143 |
| 1 | Control relay, 3 NO/1NC | 514197 |
| 1 | Wire, 16 AWG, red, 30 ft | 508006 |
| 1 | Wire, 16 AWG, white, 12 ft | 508006 |
| 1 | Marker card kit | 518831 |
| 1 | Wire label | 694060 |
| 1 | Safety label for stationary-end enclosure | 691539 |
| 1 | Safety label for the Start/Enable button | 691540 |

Before beginning the procedure, gather the supplies listed in Table 2.

Table 2: Customer-Supplied Items

| Qty. | Item Desrciption |
|------|--------------------------------|
| 1 | Standard screwdrive set |
| 1 | Phillips screwdriver set |
| 1 | Wire strippers |
| 1 | Wire cutters |
| 1 | Thin-tipped permanent marker |
| 1 | Drill with metal cutting bits |
| 1 | 7/8-in diameter knockout punch |

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Table 2: Customer-Supplied Items (Continued)

| Qty. | Item Desrciption | | | | |
|------|------------------|--|--|--|--|
| 1 | File | | | | |
| 1 | Tape measure | | | | |
| 1 | Grease pencil | | | | |

Table 3 lists the drawings included at the end of this Service Bulletin.

Table 3: Drawings Included

| Drawing Number | Description |
|-----------------------|---|
| 90502-502 | Cyber A/T carriage electrical panel, 230V |
| 90504 | Cyber A/T enclosure with swingarm |
| 90507 | Cyber A/T electrical schematic, 230V |

If you have any questions, call MiTek Machinery Division Customer Service at 800-523-3380.

Procedure



Electrical Lockout/Tagout Procedures

| WARNING |
|--|
| ELECTROCUTION HAZARD! |
| Verify that all power to the machine has been turned off and follow approved lockout/tagout safety procedures before performing any maintenance. |
| All electrical work must performed by a qualified electrician. |
| If it is absolutely necessary to troubleshoot an energized machine, follow NFPA 70E for proper procedures and personal protective equipment. |

Before opening the main electrical enclosure, or attempting to repair or replace an electrical transmission line to the machine, lockout/tagout the machine properly. Follow your company's approved lockout/tagout procedures which should include, but are not limited to the steps here.

- 1. Engage an E-stop on the machine.
- 2. Turn the machine's disconnect switch to the "off" position. This is usually required to open the main electrical enclosure's door. On the *Cyber A/T* Saw, the main disconnect switch is located on the machine's stationary-end enclosure.

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- 3. Shut the power to the machine off at the machine's power source which is usually an electrical service entry panel on the facility wall. One example of a locked-out power source panel is shown in Figure 1.
- 4. Attach a lock and tag that meets OSHA requirements for lockout/tagout to the electrical service entry panel.
- 5. Open the door to the enclosure in which you need access, and using a multimeter, verify that the power is off.

Figure 1: Lockout/Tagout on the Power Source Panel



Pneumatic System Lockout/Tagout Procedure

| | WARNING |
|---|--|
| | MOVING PARTS CAN CRUSH AND CUT. |
| | Always verify that power to the machine has been turned off and follow approved lockout/tagout procedures. |
| • | Turn off the air switch before performing any maintenance on the equipment. |



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Installing the Start/Enable Button

The Start/Enable button can be installed on either the carriage-end electrical enclosure or the touch screen enclosure. Instructions for both locations are included.

Installing the Start/Enable Button on the Carriage-End Electrical Enclosure

- 1. Mark the location of the cutout for the new button on the left side of the carriage-end electrical enclosure. See Drawing 90502 and Figure 2.
- Cover all electrical components near the marked location with a clean cloth to protect them from metal shavings and debris.
- 3. From the inside of the enclosure, drilling toward the outside, drill and use a knockout punch to create a 7/8-in diameter hole.

Add Button in This Area

- 4. Remove any burrs using the file. Make sure the edge are smooth.
- 5. Insert the Start/Enable pushbutton into the hole from the inside of the enclosure, with the button facing outward.
- 6. Put the nameplate insert into the nameplate holder. Attach the nameplate holder for the Start/Enable pushbutton to the button.
- 7. Secure the button and nameplate in place by screwing the retaining ring onto the button.
- 8. Screw the light bulb into the NO contact block, and snap the contact block onto the back of the pushbutton.

Installing the Start/Enable Button on the Touch Screen Enclosure

- 1. Mark the location of the cutout for the new button on the front of the touch screen enclosure. See Drawing 90504.
- 2. Cover all electrical components near the marked location with a clean cloth to protect them from metal shavings and debris.
- 3. From the outside of the enclosure, drilling toward the inside, drill and use a knockout punch to create a 7/8-in diameter hole.

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- 4. Remove any burrs using the file. Make sure the edge are smooth.
- 5. Insert the Start Enable pushbutton into the hole from the inside of the enclosure, with the button facing outward.
- 6. Put the nameplate insert into the nameplate holder. Attach the nameplate holder for the Start/Enable pushbutton to the button.
- 7. Secure the button and nameplate in place by screwing the retaining ring onto the button.
- 8. Screw the light bulb into the NO contact block, and snap the contact block onto the back of the pushbutton.

Wiring the Stop/Enable Button

Adding Terminal Blocks and Relay CR-3

Add terminal blocks to the din rail in the carriage-end electrical enclosure. Complete this procedure regardless of where the button is located.

- 1. Snap the new terminal blocks into the din rail at the appropriate locations. The terminal blocks should be added in sequential order. The blocks should be labeled 9SA (2), 9SB, 9SC, and 1TA.
- 2. Using the marker card kit and a permanent marker, label the new terminal blocks according to Drawing 90502-502.
- 3. Cut two (2) jumpers off the jumper bar and insert them into the 9SA terminal blocks.

Add relay CR-3 to the din rail in the carriage-end electrical enclosure.

- 1. Snap the new relay into the din rail at the appropriate location. Refer to Drawing 90502-502.
- 2. Using a permanent marker, label the new relay CR-3.

Wiring Relay CR-3

Complete this procedure regardless of where the button is located. Refer to Drawing 90507 throughout this process.

In the carriage-end electrical enclosure:

1. Mount the surge suppressor on top of relay CR-3 between A1 and A2.

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2. Wire 9S and 9SA.



The wire on terminal 13 of CR-2 should be wire 2T. If the wire on terminal 13 of CR-2 is not wire 2T but is wire 8S, switch the connection of wire 8S with wire 2T,

If you move wire 8S, you must also move wire 9S to terminal 44 of CR-2. Wires 8S and 9S must be across from each other.

- a) Locate wire 9S that runs from CR-2 terminal 44 to the 9S terminal block.
 - 1) Remove the end of the wire from CR-2 terminal 44.
 - 2) Attach the wire to CR-3 terminal 13. The wire should now run from 9S to CR-3 terminal 13.
- b) Add a new red wire from CR-2 terminal 44 to terminal 9SA. Label the wire 9SA.
- c) Add a new red wire from 9SA to CR-3 terminal 14. Label the wire 9SA.

3. Wire 1T and 1TA.

- a) Locate wire 1T that runs from CR-2 terminal 14 to the 1T terminal block.
 - 1) Remove the end of the wire that runs from CR-2 terminal 14.
 - 2) Attach the wire to CR-3 terminal 33. The wire should now run from 1T to CR-3 terminal 33.
- b) Add a new red wire from CR-2 terminal 14 to 1TA. Label the wire 1TA.
- c) Add a new red wire from 1TA to CR-3 terminal 33. Label the wire 1TA.
- 4. Add a new red wire from the 9SA terminal block to CR-3 terminal 43. Label the wire 9SA.
- 5. Add a new red wire from CR-3 terminal 44 to 9SB. Label the wire 9SB.
- 6. Add a new red wire from CR-3 terminal 44 to CR-3 A1. Label the wire 9SB.
- 7. Add a new red wire from CR-3 terminal 43 to CR-3 terminal 21. Label the wire 9SA.
- 8. Add a red wire from CR-3 terminal 22 to the 9SC terminal. Label the wire 9SC.
- 9. Add a white wire from CR-3 terminal A2 to X2.

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Connecting Wiring to a Button Installed on the Carriage-End Enclosure

- 1. Add and connect a new red wire labeled 9SA between terminal 9SA and button terminal 3.
- 2. Add and connect a new red wire labeled 9SB between terminal 9SB and button terminal 4.
- 3. Add and connect a new red wire labeled 9SC between terminal 9SC and button terminal X1 on the light.
- 4. Add a new white wire from terminal X2 to the light terminal X2.

Connecting Wiring to a Button Installed on the Touch Screen Enclosure

If you have chosen to install the Start/Enable Button on the touch screen enclosure, you must run the wires through the swingarm into the carriage-end electrical enclosure.

- 1. Snap the contact block into the din rail at the appropriate location.
- 2. Run wires 9SA, 9SB, and 9SC from the touch screen enclosure through the swingarm into the carriage-end electrical enclosure.
- 3. Connect the red wire labeled 9SA to terminal 9SA in the carriage-end enclosure to terminal 3 of the switch.
- 4. Connect the red wire labeled 9SB to terminal 9SB in the carriage-end enclosure to terminal 4 of the switch.
- 5. Connect the red wire labeled 9SC to terminal 9SC in the carriage-end enclosure and light X1 in the touch screen enclosure.
- 6. In the touch screen enclosure, add a new white wire from terminal X2 to the light terminal X2.

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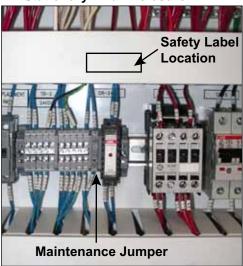
Adding Safety Labels

After installing the Start/Enable Button, add a safety label (PN 691539) above the maintenance jumper in the stationary-end electrical enclosure. Place the label as indicated in Figure 3.

Add the other safety label (PN 691540) to the right of the Start/Enable pushbutton.

END OF SERVICE BULLETIN

Figure 3: Safety Label Location on the Stationary-End Enclosure



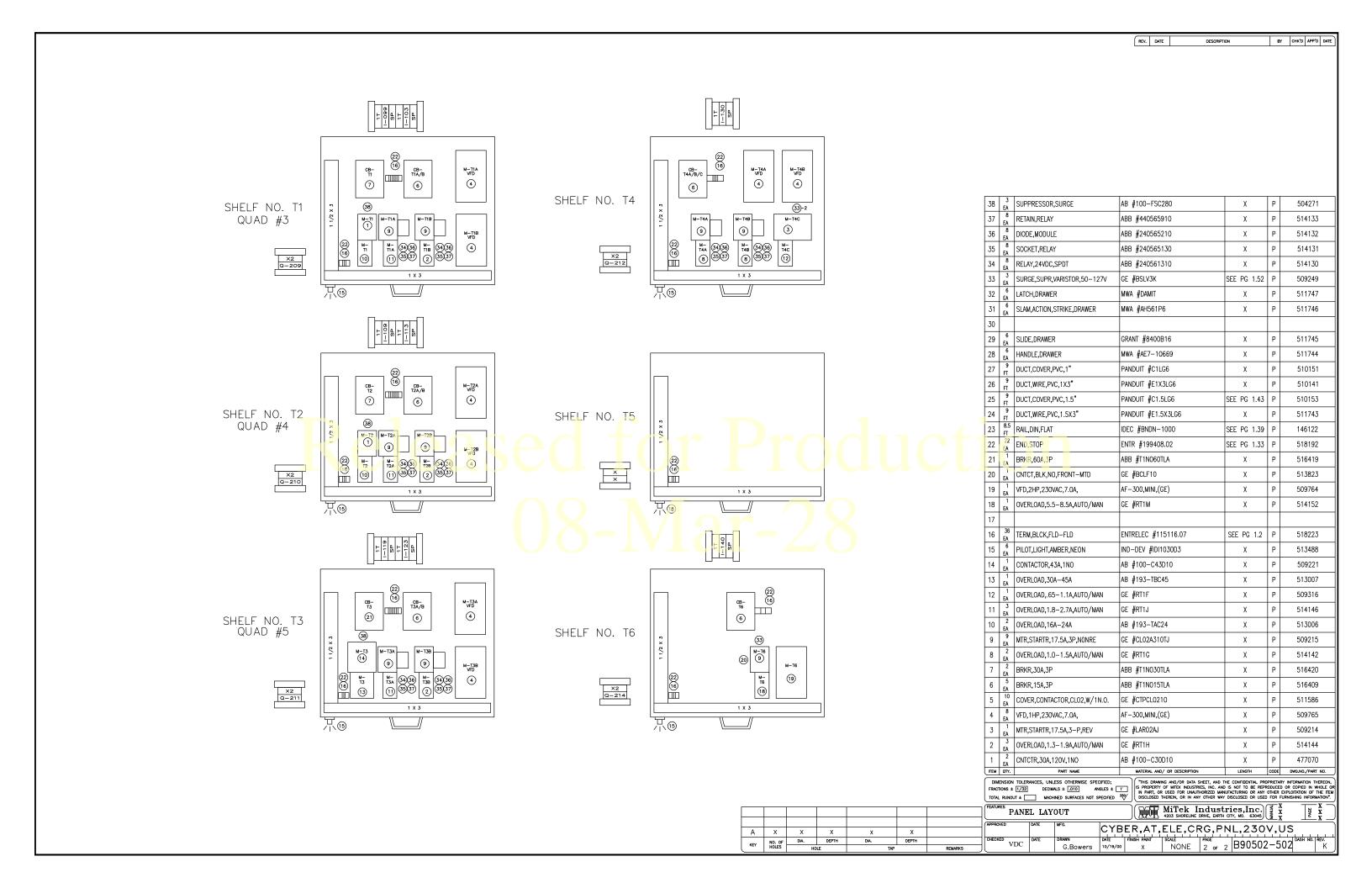
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REV. DATE BY CHK'D APP'D DATE J 8/17/07 DML SEE ECO 6508
ADDED CONTROL RELAY AND TERMINAL BLOCKS NOTE: K 3/6/08 DK TORQUE 6MM TERMINAL BLOCKS TO 3.5 - 5.3 LB. IN. TORQUE 8MM TERMINAL BLOCKS TO 7.1 - 8.9 LB. IN. TORQUE 35MM TERMINAL BLOCKS TO 21.8 - 26.1 LB. IN. 44 9 DUCT, WIRE, PVC, 4X4" PANDUIT #E4X4LG6 511740 Χ 43 DUCT, COVER, PVC, 1.5" PANDUIT #C1.5LG6 510153 SEE PG 2.25 9 DUCT, WIRE, PVC, 1.5X4" PANDUIT #E1.5X4LG6 Χ 511739 (34) 118-111 128-111 1 41 J DUCT, COVER, PVC, 2" PANDUIT #C2LG6 Χ 510152 #3 SAW BLADE CENTERLINE DUCT,WIRE,PVC,2X4" Χ PANDUIT #E2X4LG6 510148 39 1.5 RAIL, DIN, FLAT IDEC #BNDN-1000 SEE PG 2.23 146122 BLADE 3 CENTERLINE BRAKE 38 RAIL, DIN, RAISED AB #1492-DR6 504388 #3 SAW BLADE ANGULATION 37 TERM,JUMPER,BAR,10-POLE ENTR #168.973.07 518143 BLADE 3 ANGLULATION BRAKE SD #PK-15-GTA 504382 GROUNDING, BAR Χ END,SEC,FLD-FLD ENTR #118368.16 Χ 518234 TB-5 37 9T 9T 1-137 1-138 1T 0"— 3/4"— END,SEC,FLD-FLD ENTR #115118.11 Χ 518184 #4 SAW BLADE CENTERLINE 4243 1-1/2 X 4 END.STOP ENTR #199408.02 SEE PG 2.22 518192 BLADE 4 CENTERLINE BRAKE GND TERM CR-2 32 I-150 I-153 I-157 TB-6 4 1/4"-#4 SAW BLADE ANGULATION 37 31 | _E! 516597 ABB #S202U-K10 Χ (5) (2) (5) (BRKR,10AMP,2P 23 25 **31 6** BLADE 4 ANGLULATION BRAKE 30 POWER SUPPLY 40(41) 2 X 4 29 18 33 2438 28 LINE, CONDITIONER, 120VA SOLA #63-23-112-4 Χ 509109 #5 SAW BLADE CENTERLINE 11" – TB-1 FAN, THERMOSTAT DAYTON #2E340A Χ 504493 BLADE 5 CENTERLINI BRAKE GROUND BUS 26 TB-6
(37) 66
(35) 66
(46) 72
(35) 72
(31) 6/7
(31) 6/7
(31) 6/7
(31) 6/7 25 -15 3/4" CB-1 100A TERM,BLCK,GND-WR ENTRELEC #165111.14 Χ 518244 NOIE: TORQUE 100A BREAKER 45LBIN (2) 17" -4 X 5 24 RELAY, CNTRL, 120V, 3NO/1NC GE #RL4RA031TJ Χ 514197 BLADE 5 ANGLULATION SOLA FILTER 23 ENTRELEC #115215.12 518233 TERM, BLK, JUMPER Χ 21 PLC,OUTPUT,ANALOG GE #HE693DAC410 Χ 504430 28 21 1/2" INFEED CONVEYOR 21 | EA BRKR, MOLDED, CASE, 100A CH #EHD3100KL Χ 516417 HOLD DOWN CONVEYOR HORIZONTAL ADJUSTMENT —23 1/2**"** 20 25 1/2" 1-1/2 X 4 HORIZONTAL HOLD DOWN 19 | SA ENTRELEC #179657.15 518205 DIST.BLCK.BRU250 Χ 8 10 10 10 10 10 11 12 12 HOLD DOWN CONVEYOR RAISE -LOWER 27 1/2"-IDEC #PS5R-SD24 Χ 504524 PWR,SPPLY,24VDC,1.7A 32" DISTRIBUTION POWER 3L/PDLY 120V 120V AC INPUT 120V AC INPUT 120V 120V 120V 120V AC INPUT 120V AC INPUT 120V AC INPUT 120V AC OUTPUT AC OUTPUT AC OUTPUT AC INPUT AC OUTPUT AC OUTPUT AC OUTPUT AC INPUT AC OUTPUT AC OUTPUT AC INPUT AC INPU T'FORMR,1-KVA,PRI 230,SEC 115 CH #CE1000K5EFS 509168 Χ 27 BLOCK CARRIAGE RELAY,CNTRL,RB121A,24V-AC/DC ENTRELEC #010004.21 Χ 514192 19 TB-4 PLC,BASE,10-SLOT,EXPANSION GE #IC693CHS392 Χ 504510 34 1/2"-|-177 +24V -24V |-178 +24V -24V |-179 +24V |-24V |-180 |-181 +24V |-24V |-181 +24V |-24V |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 |-182 | HOLD DOWN CONV LIFT/LOWER HOME POSITION 4849 50 1-1/2 X 4 PLC,OUTPUT,RELAY,16POINT GE #IC693MDL940 Χ 504406 36 1/2"-PLC,OUTPUT,120V,16POINT GE #IC693MDL340 Χ 504405 47) PLC,INPUT,16PT,DC GE #IC693MDL646 Χ 504424 SPARE PLC,INPUT,AC,16P0INT GE #IC693MDL240 504403 Χ XFMR PLC,OUTPUT,ANALOG GE #IC693ALG391 Χ 504428 43 1/2"-1-1/2 X 4 504407 PLC,PWR,SPLY,120VAC GE #IC693PWR321 Χ SPARE TERMINAL.BLOCK.3-POL PHOENIX #DLKB2-5PE 518246 Χ 17) 46"-TB-5 GROUND BUS 36 **-** 5" -GE #5SX2110-7 BRKR,277V,10A,1P Χ 516370 (2)(38) SIDE PANEL 48" ENTRELEC #115378.05 TERM,FUS-HLDR 518207 Χ TERM,BLCK,8AWG,50A,600V ENTRELEC #115118.11 Χ 518208 SURGE, SUPR, VARISTOR, 50-127V GE #BSLV3K SEE PG 2.33 509249 ENTRELEC #165113.16 51 BUSSMAN #AGC-2.5 516540 3 TERM,BLCK,GND,G/Y Χ 518209 FUSE, 2.5A Χ CARRIAGE END CONTROL PANEL TERM,BLCK,FLD-FLD ENTRELEC #115116.07 SEE PG 2.16 518223 50 STLCITY #58C7 COVER,BOX 519205 Χ SUBPANEL LAYOUT 49 LEVITON #5320 ENCLOSURE, CARR, CYBERSAW MWA #015060 Χ D79883 Χ 511592 RECEPTACLE ITEM QTY. LENGTH DWG.NO./PART NO. 48 STEELCITY #583715 519101 BOX,2X4 Χ "THIS DRAWING AND/OR DATA SHEET, AND THE CONFIDENTIAL PROPRIETARY INFORMATION THEREON, 5 PROPERTY OF MITEX INDUSTRIES, INC. AND IS NOT TO BE REPRODUCED OR COPIED IN WHOLE OF ANY OF THE PROPERTY OF MITEX INDUSTRIES, INC. AND IS NOT TO BE REPRODUCED OR COPIED IN WHOLE OF ANY OTHER EXPLORATION OF THE DIMENSION TOLERANCES, UNLESS OTHERWISE SPECIFIED FRACTIONS ± 1/32 DECIMALS ± .010 ANGLES ± 1' 48 TOTAL RUNOUT ± MACHINED SURFACES NOT SPECIFIED 250/ 47 GE #IC693CBL300 504433 CABLE, EXPANSION, RACK Х FEATURES MiTek Industries,Inc.
4203 SHORELINE DRIVE, EARTH CITY, MO. 63045 X 46 DUCT,WIRE,PVC,4X5" PANDUIT #E4X5LG6 511742 CYBER, AT, ELE, CRG, PNL, 230V, US 45 | 12 DUCT,COVER,PVC,4" PANDUIT #C4LG6 χ 511741 NONE 1 of 2 B90502-502 VDC G.Bowers 10/19/00 ITEM QTY.

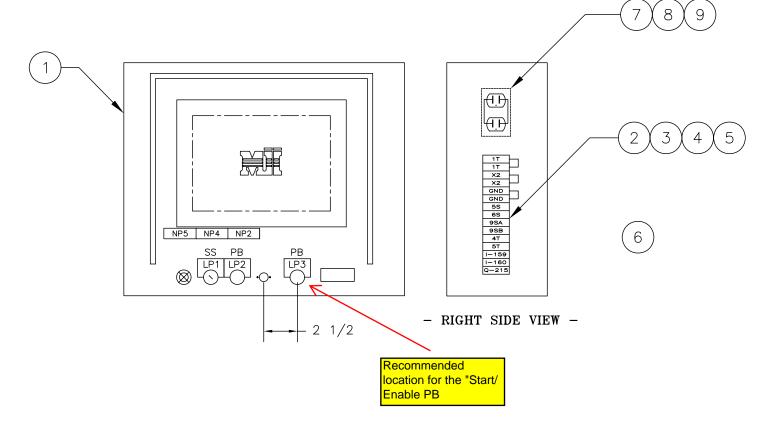
MATERIAL AND/ OR DESCRIPTION

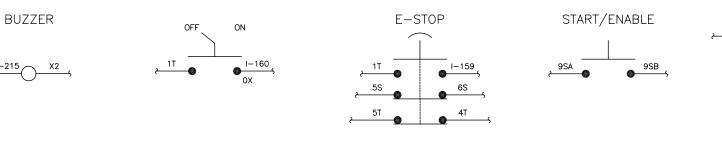
LENGTH

CODE DWG.NO./PART NO.









| | NAME PLATE SCHEDULE | | | | |
|-------|----------------------|--|--|--|--|
| NAME | DESCRIPTION | | | | |
| PLATE | DESCRIF HON | | | | |
| NP1 | MAINTENANCE LIGHTING | | | | |
| NP2 | EMERGENCY STOP | | | | |
| NP3 | CARRIAGE IN MOVEMENT | | | | |
| NP4 | CALIBRATION | | | | |
| NP5 | BOARD COUNT | | | | |
| LP1 | OFF - ON | | | | |
| LP2 | EMERGENCY STOP | | | | |
| LP3 | START/ENABLE | | | | |

NAMEPLATES - BLACK WITH WHITE CORE

| E-STOP | START/ENABLE | 1T X2 |
|-----------------------|--------------|-------|
| 1T I-159 6S | 9SA 9SB | |
| <u>5T</u> <u>4T</u> → | | = |

- WIRING QUICK VIEW -

| 19 | 20 | 1 EA | SAFETY WARNING LABEL | | Х | Р | 691540 |
|--|------|---------|-----------------------------|------------------------------|--------|------|------------------|
| 17 | 19 | 1 EA | NAMEPLATE, HOLDER | GE #P9ARTBS | Х | Р | 513676 |
| 16 | 18 | 1 EA | NAMEPLATE, "START/ENABLE" | GE #P9ARTBSEN | Х | Р | 513149 |
| 15 | 17 | 1 EA | CNTCT,BLK,1NO | GE #P9B10VN | Х | Р | 513649 |
| 14 | 16 | 1 EA | LIGHT, AC | GE #P9PTNVJ | Х | Р | 513652 |
| 14 | 15 | 1 EA | PB, ILLUMINATED, FLUSH, YEL | GE #P9CPLGGD | Х | Ъ | 513494 |
| 12 | 14 | - | CNTCT,BLK,1NO/1NC | GE #P9B11VN | Х | Р | 513651 |
| 11 | 13 | 1 EA | OPER,SS,2-POS,KEY | GE #P9CSCDOK95 | Х | Р | 513660 |
| 10 | 12 | 1 EA | NAMEPLATE,E-STOP,RD,YEL | GE #080XTGRN2 | Х | Р | 513829 |
| 9 | 11 | 1 EA | OPER,PB,MSHRM-HD,RED | GE #P9CET4RN1 | Х | Р | 513656 |
| 8 1 RECEPTACLE LEVITON #5320 X P 511592 7 1 BOX,2X4 STELLCITY #583715 X P 519101 6 1 UPS,500VA,w/RS-232 PORT PULSAR #ELSP500 X P 509111 5 1 RAIL,DIN,FLAT ENTRELEC #BNDN-1000 X P 146122 4 1 TERM,JUMPER,BAR,10-POLE ENTRELEC #168.973.07 X P 518143 3 2 EA END,STOP ENTRELEC #199408.02 X P 518192 2 15 TERM,BLK,FLD-FLD ENTRELEC #115116.07 X P 518223 1 SWINGARM ENCLOSURE ASSY SEE DWG X M 60184-501 | 10 | 1 EA | SONALERT | GE #P9XBM | Х | Р | 513655 |
| 7 | 9 | 1 EA | COVER,BOX | STEELCITY #58C7 | Х | Р | 519205 |
| 6 EA UPS,500VA,w/RS-232 PORT PULSAR #ELSP500 X P 509111 5 FT RAIL,DIN,FLAT ENTRELEC #BNDN-1000 X P 146122 4 EA TERM,JUMPER,BAR,10-POLE ENTRELEC #168.973.07 X P 518143 3 EA END,STOP ENTRELEC #199408.02 X P 518192 2 EN TERM,BLK,FLD-FLD ENTRELEC #115116.07 X P 518223 | 8 | 1 EA | RECEPTACLE | LEVITON #5320 | Х | Р | 511592 |
| 5 1 FT RAIL,DIN,FLAT ENTRELEC #BNDN-1000 X P 146122 4 1 TERM,JUMPER,BAR,10-POLE ENTRELEC #168.973.07 X P 518143 3 2 END,STOP ENTRELEC #199408.02 X P 518192 2 15 TERM,BLK,FLD-FLD ENTRELEC #115116.07 X P 518223 1 1 SWINGARM ENCLOSIJEE ASSY SEE DWG X M 60184-501 | 7 | 1 EA | BOX,2X4 | STELLCITY #583715 | Х | Р | 519101 |
| 4 | 6 | 1 EA | UPS,500VA,w/RS-232 PORT | PULSAR #ELSP500 | Х | Р | 509111 |
| 3 2 END,STOP ENTRELEC #199408.02 X P 518192 2 15 TERM,BLK,FLD—FLD ENTRELEC #115116.07 X P 518223 1 1 SWINGARM FNCLOSURE ASSY SEE DWG X M 60184—501 | 5 | 1 FT | RAIL,DIN,FLAT | ENTRELEC #BNDN-1000 | Х | Р | 146122 |
| 2 EA TERM,BLK,FLD-FLD ENTRELEC #115116.07 X P 518223 | 4 | 1 EA | TERM,JUMPER,BAR,10-POLE | ENTRELEC #168.973.07 | Х | Р | 518143 |
| 2 EA LEKM, BLK, FLD - FLD ENTRELEC #115116.07 X P 518223 | 3 | 2 EA | END,STOP | ENTRELEC #199408.02 | Х | Р | 518192 |
| 1 1 SWINGARM ENCLOSURE ASSY SEE DWG X M 60184-501 | 2 | | TERM,BLK,FLD-FLD | ENTRELEC #115116.07 | Х | Р | 518223 |
| EA Omition Minipal to Education | 1 | 1 EA | SWINGARM,ENCLOSURE,ASSY | SEE DWG | Х | М | 60184-501 |
| ITEM CITY. PART NAME MATERIAL AND/ OR DESCRIPTION LENGTH CODE DWG.NO./PART NO | ITEM | QTY. | PART NAME | MATERIAL AND/ OR DESCRIPTION | LENGTH | CODE | DWG.NO./PART NO. |

DIMENSION TOLERANCES, UNLESS OTHERWISE SPECIFIED;
FRACTIONS ± 1/32 DECIMALS ± 1010 ANGLES ± 1*

TOTAL RUNOUT ± MACHINED SURFACES NOT SPECIFIED 25/

TOTAL RUNOUT ± MACHINED SURFACES NOT SPECIFIED 25/

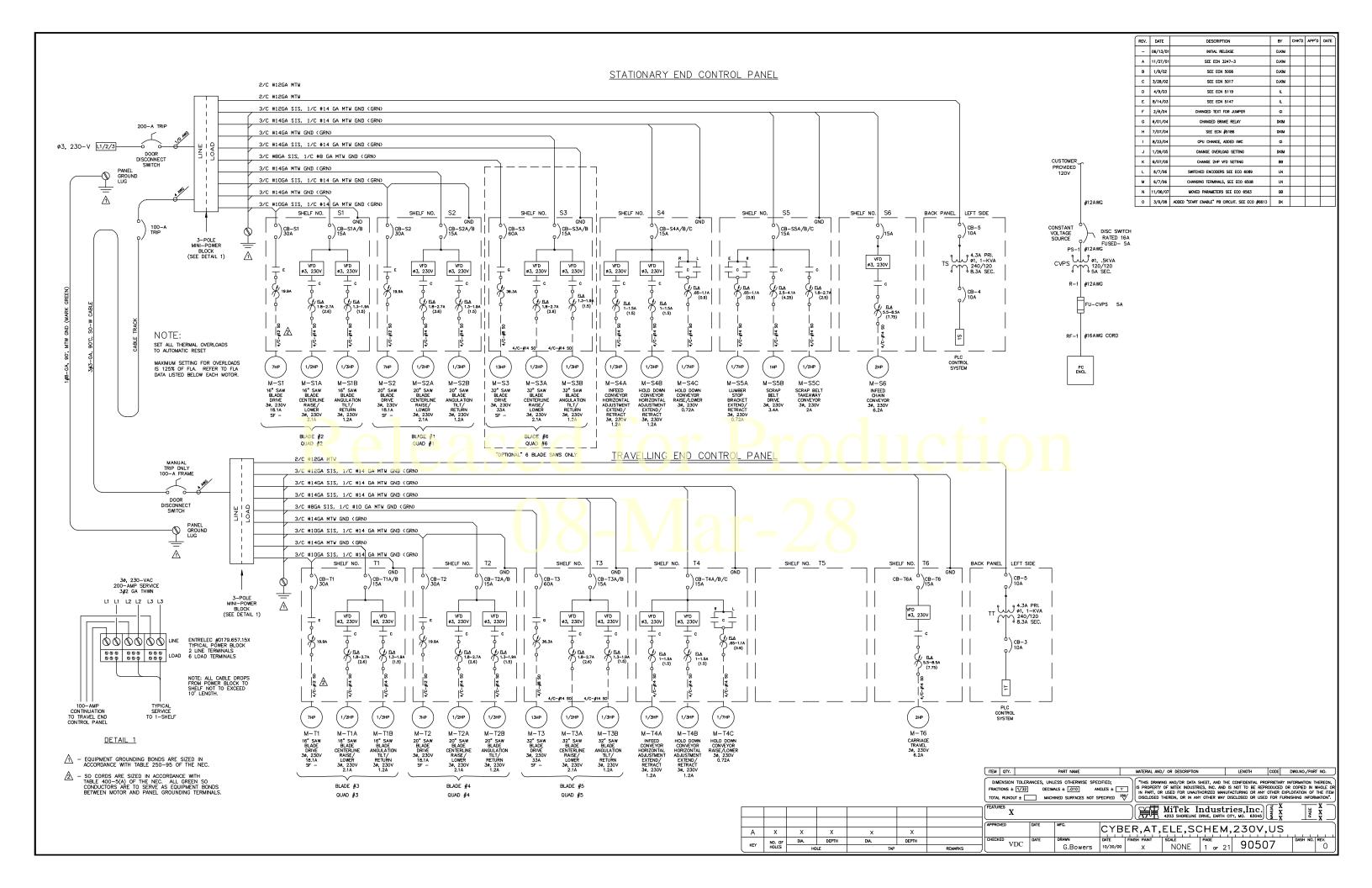
TOTAL RUNOUT ± MACHINED SURFACES NOT SPECIFIED 25/

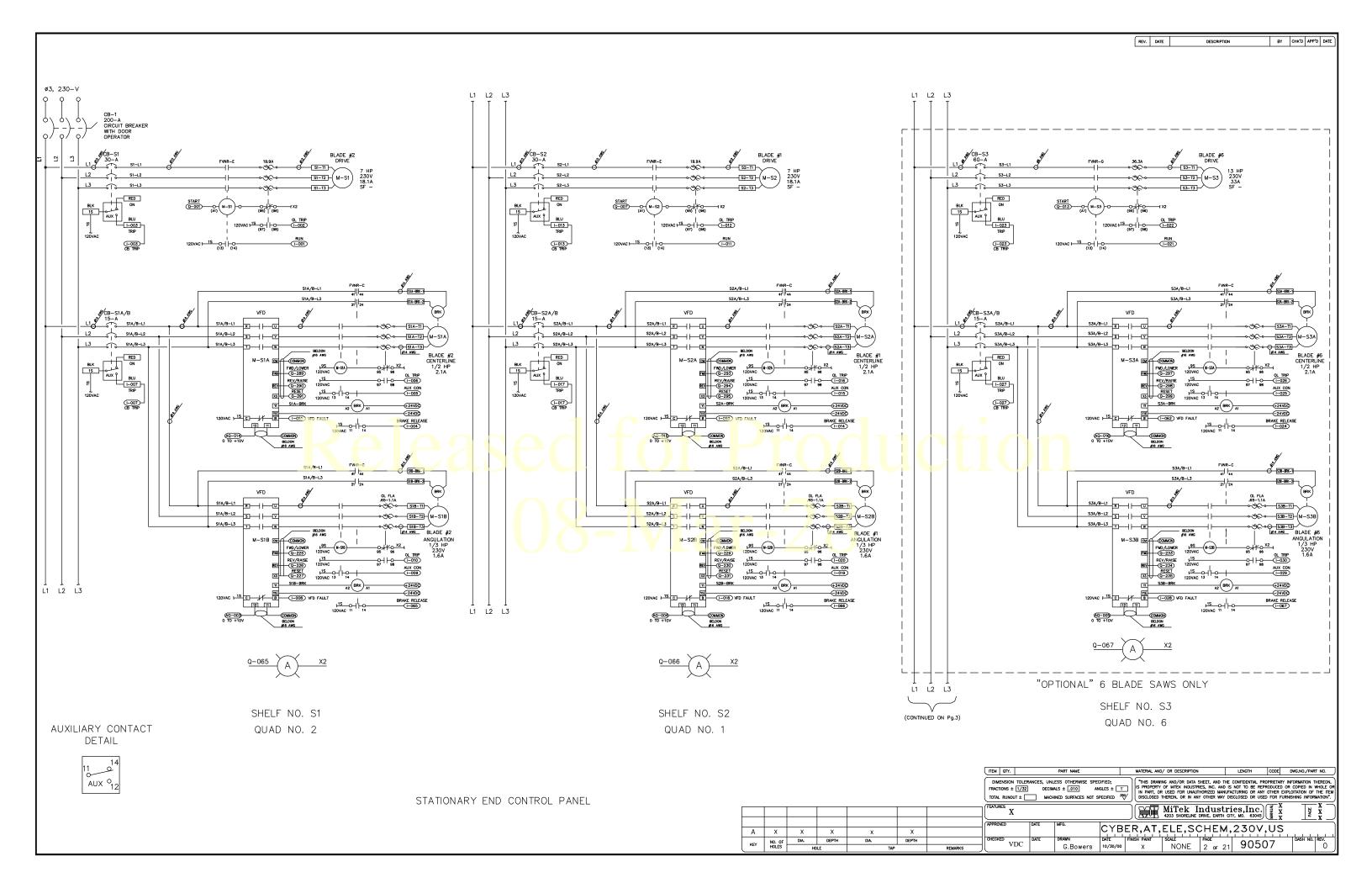
MACHINED SURFACES NOT SPECIFIED 25/

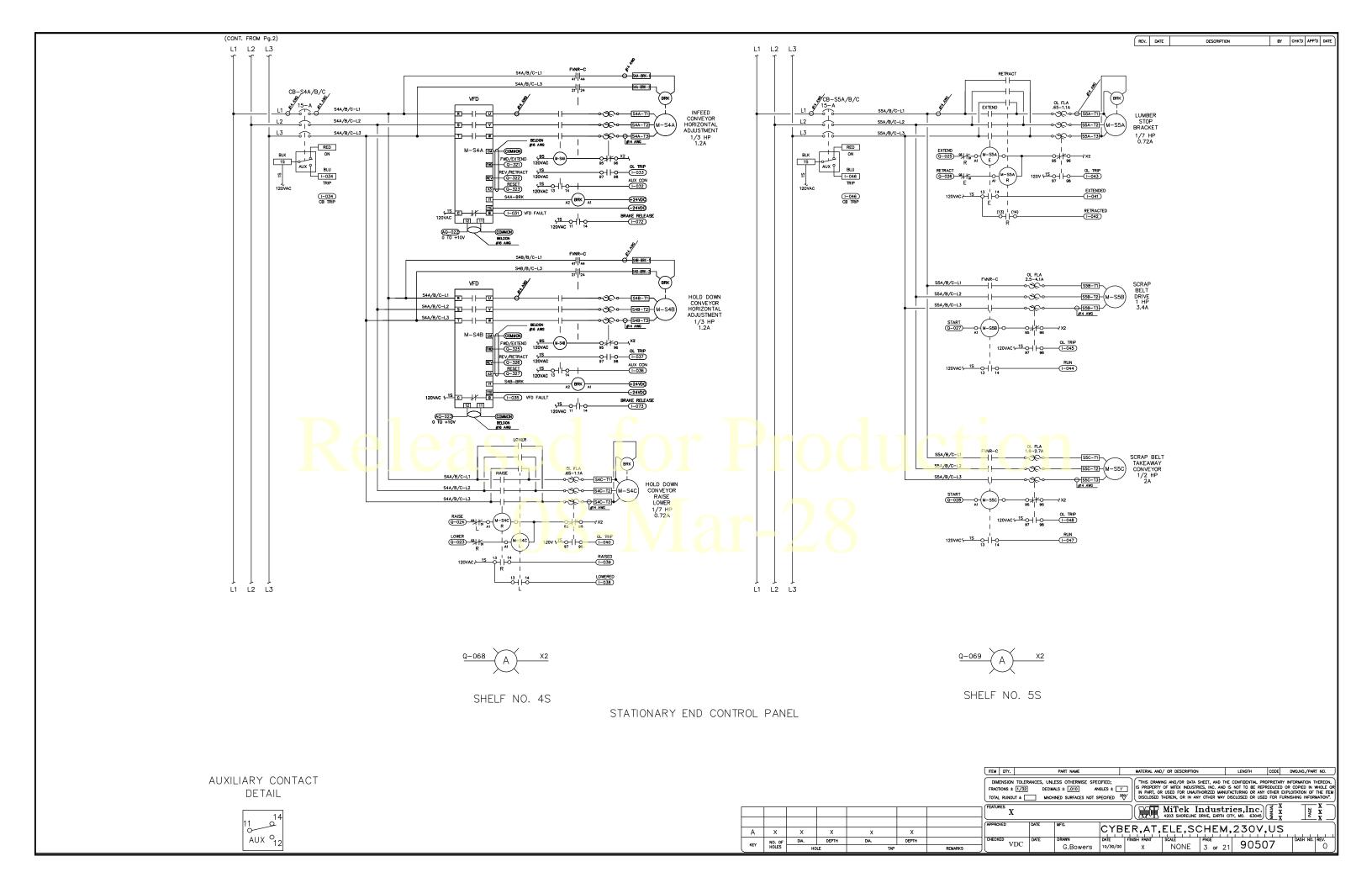
THIS DEWRING AND/OR DATA SHEET, AND THE COMPIDENTIAL PROPRIETMEN INFORMATION THEREON, IN PROPRIETMENT INFORMATION THEREON, IN PROPRIETMENT INFORMATION THEREON, IN THIS INDICATE AND THE WAY DISCLOSED OR USED FOR FURNISHING INFORMATION.*

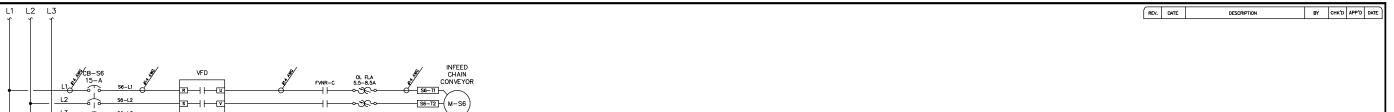
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| | | | | | | | APPR |
| Α | х | Х | × | × | X | | ~``` |
| | NO. OF | DIA. | DEPTH | DIA. | DEPTH | | CHEC |
| KEY HOLES | | нс | HOLE | TAP | • | REMARKS | Ц |

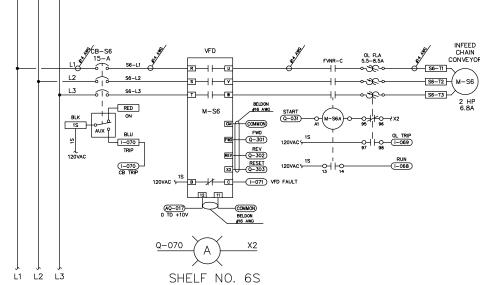
| | C | | | | | | | | | | |
|-------------------------|----------|--|------|---------|------------------|----------------|---------|-----------------------------|----------|------|---------------|
| FEATURES T-MONITOR ASSY | | | | | | | MiTek I | ndustri DRIVE, EARTH CIT | ies,Inc. | PAGE | -x x -x |
| ł | APPROVED | | DATE | MFG. | СҮВ | ER,AT, | TM,EN | CL,AŞ | SY,W/SWI | ŅĢĀ | RM |
|] | CHECKED | | DATE | DRAWN X | DATE 11/28/01 | FINISH PAINT X | NONE | PAGE 1 OF 1 | B90504 | 501 | REV. |













STATIONARY END CONTROL PANEL

AUXILIARY CONTACT DETAIL

POWER TO TRAVELLING END CONTROL PANEL (SEE U.S.A. SAW-12)

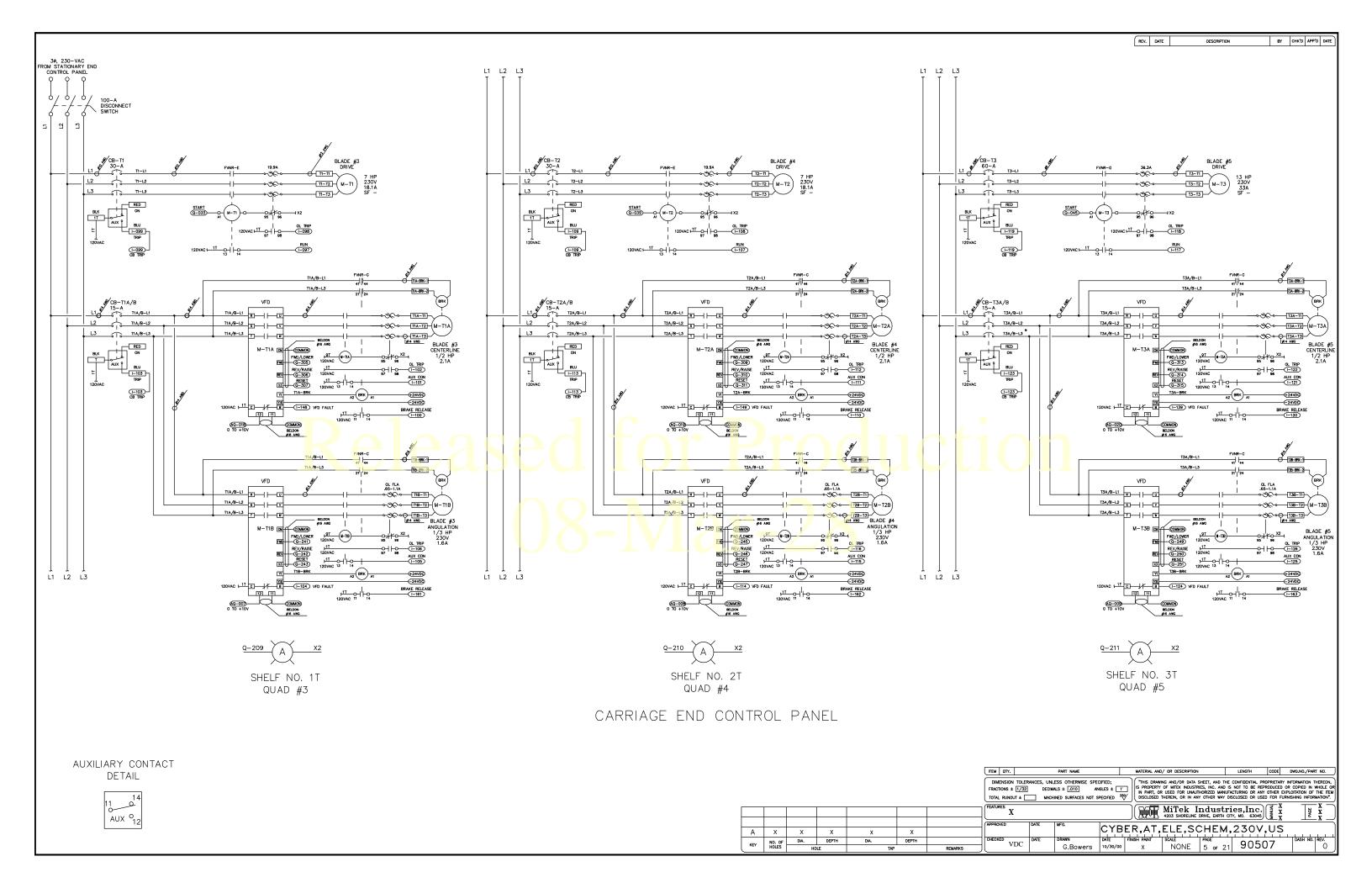


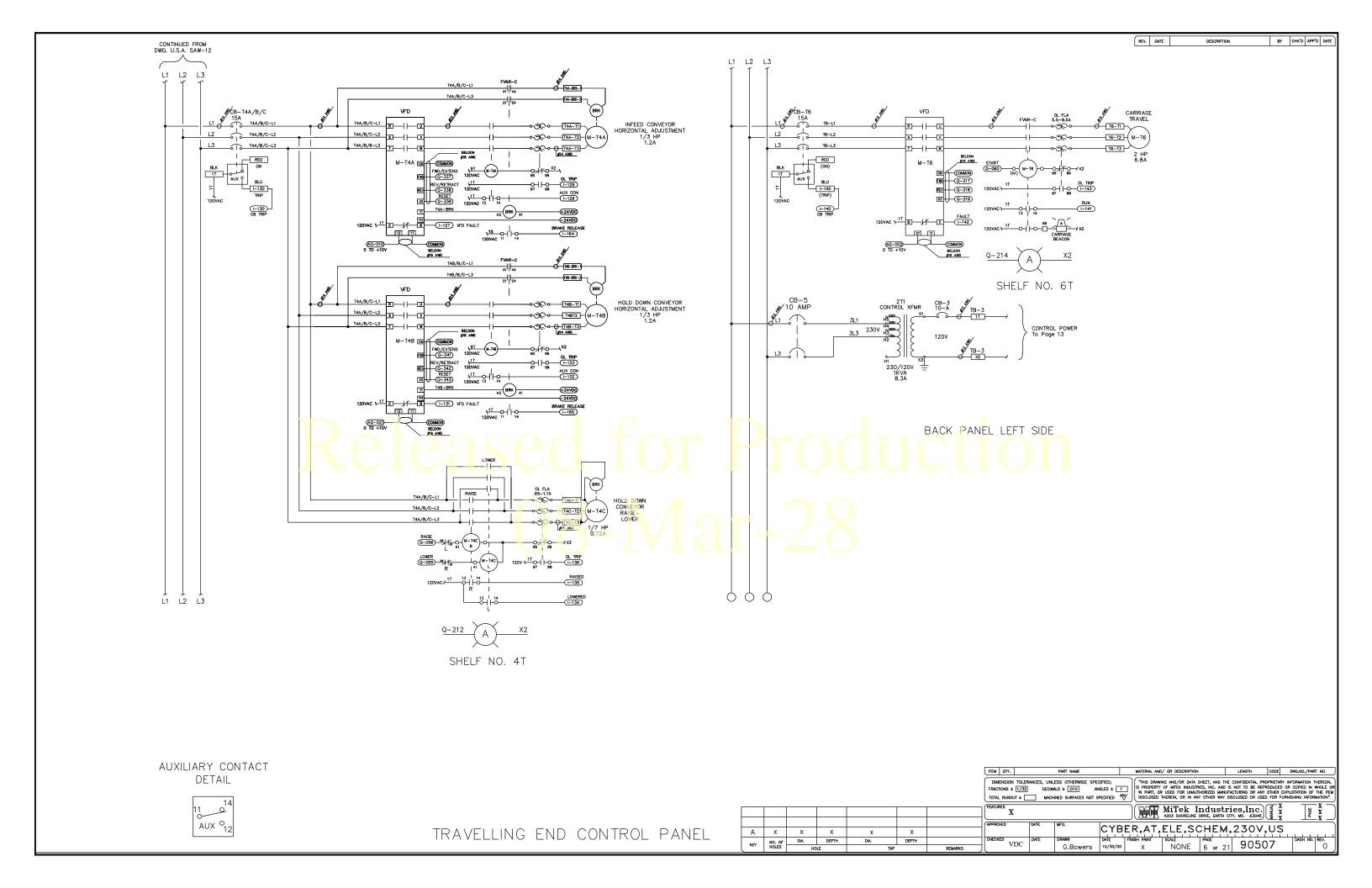
| (FEATURES X) (MITCH Industries 4203 SHORELINE DRIVE, EARTH CHTY, M | s.Inc.)(3 🕏 📗 🗘) |
|--|-------------------|
| AZUS SHURELINE DRIVE, EARTH CITY, M | MO. 63045 |
| APPROVED DATE MFG. | |
| A X X X X X CYBER,AT,ELE,SCHEM,2 | |
| NO, OF DIA. DEPTH DIA. DEPTH CHECKED VID.C DATE DRAWN DATE FINISH PAINT SCALE PAGE | DASH NO. REV. |
| KEY HOLES HOLE TAP REMARKS VDC G.Bowers 10/30/00 X NONE 4 of 21 | 90507 |

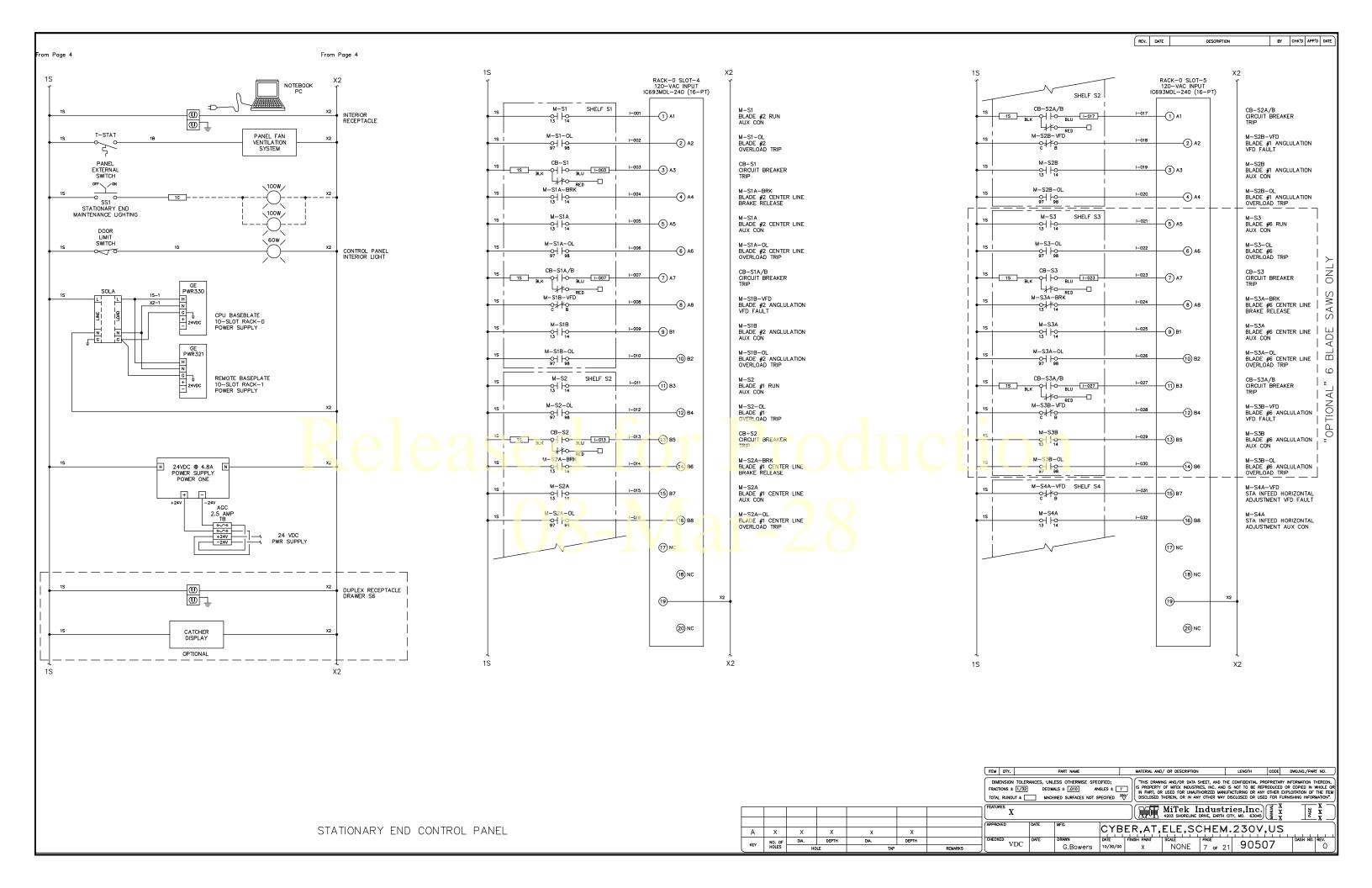
PART NAME

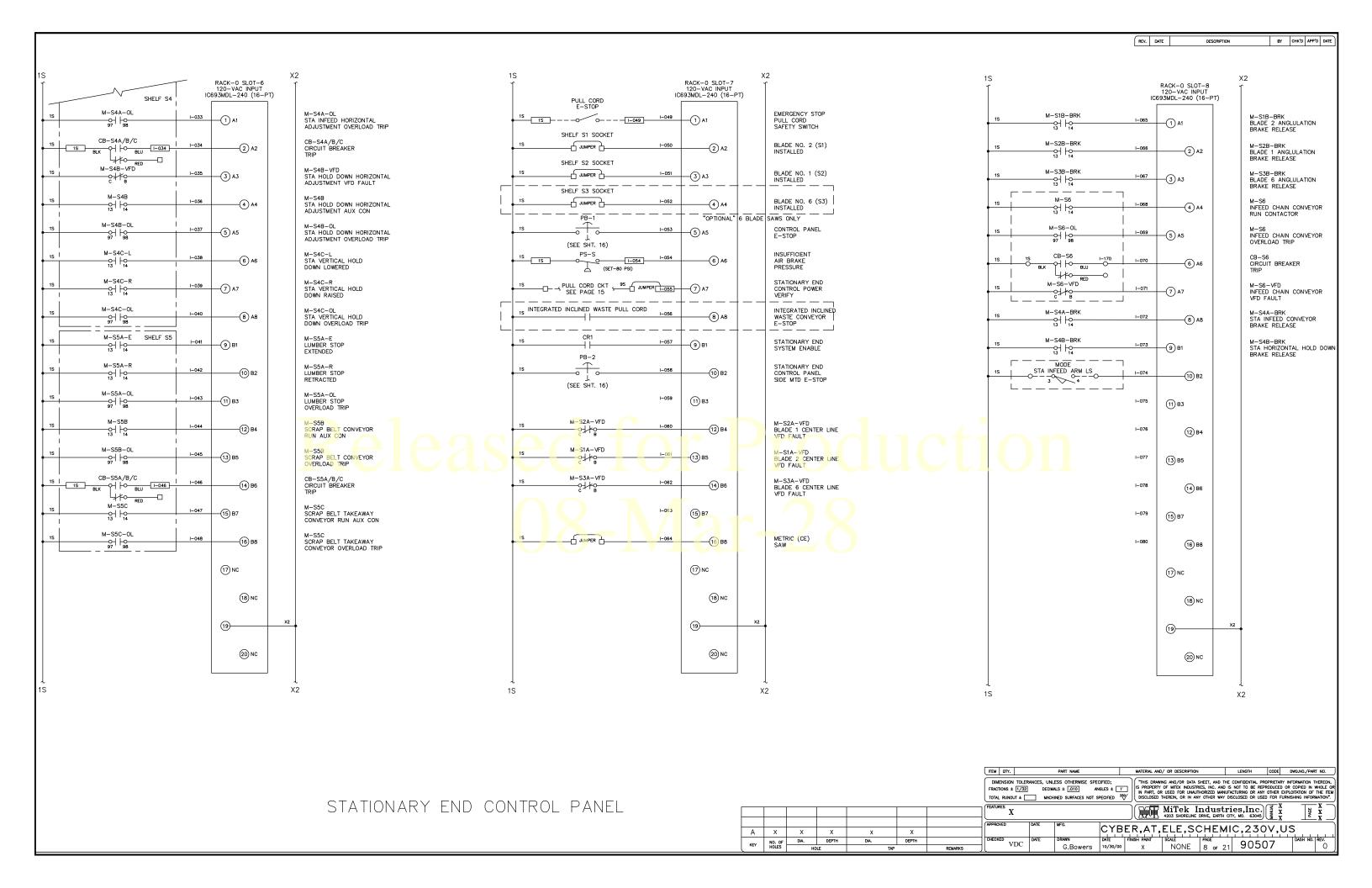
MATERIAL AND/ OR DESCRIPTION LENGTH CODE DWG.NO./PART NO.

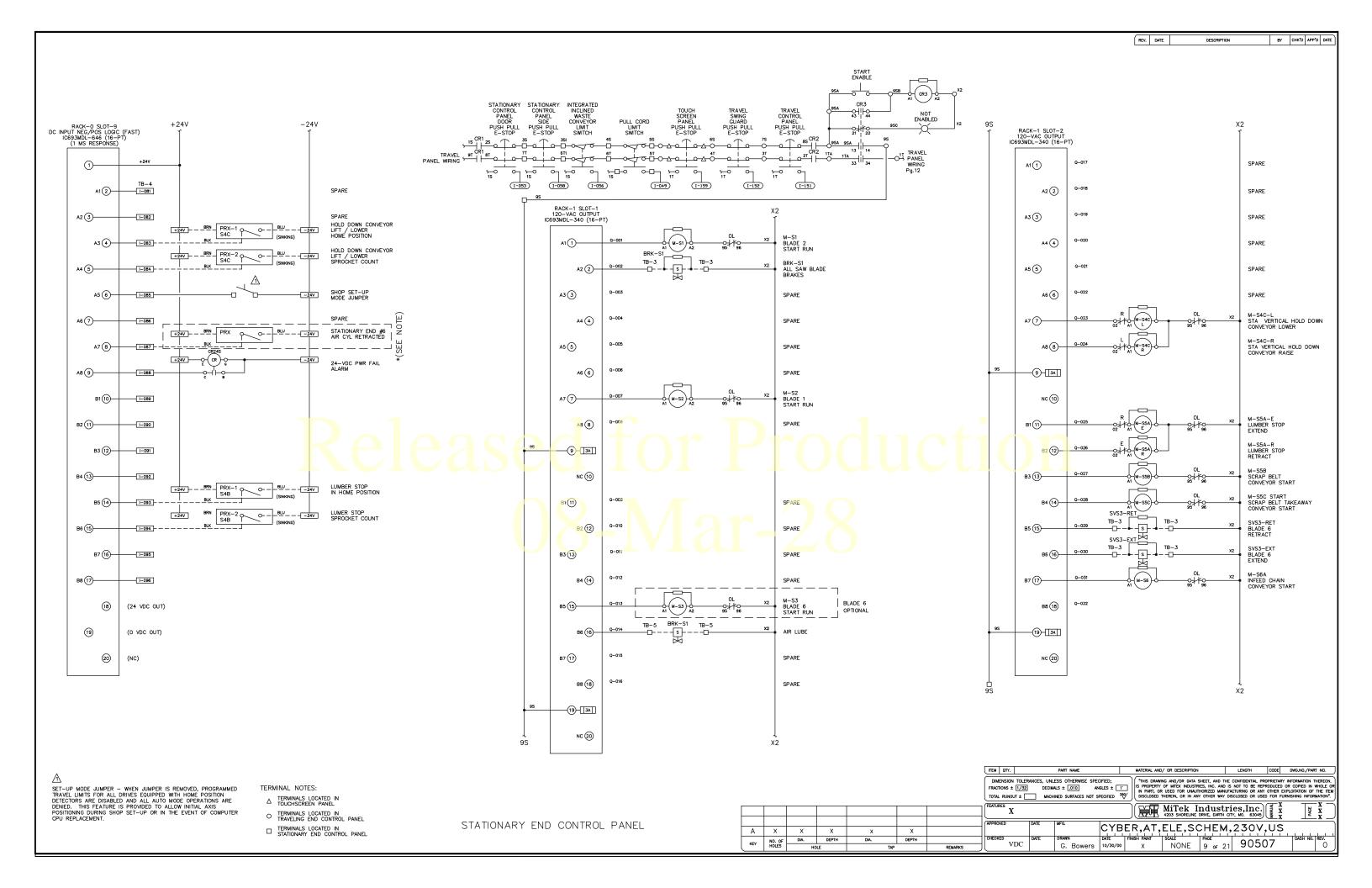
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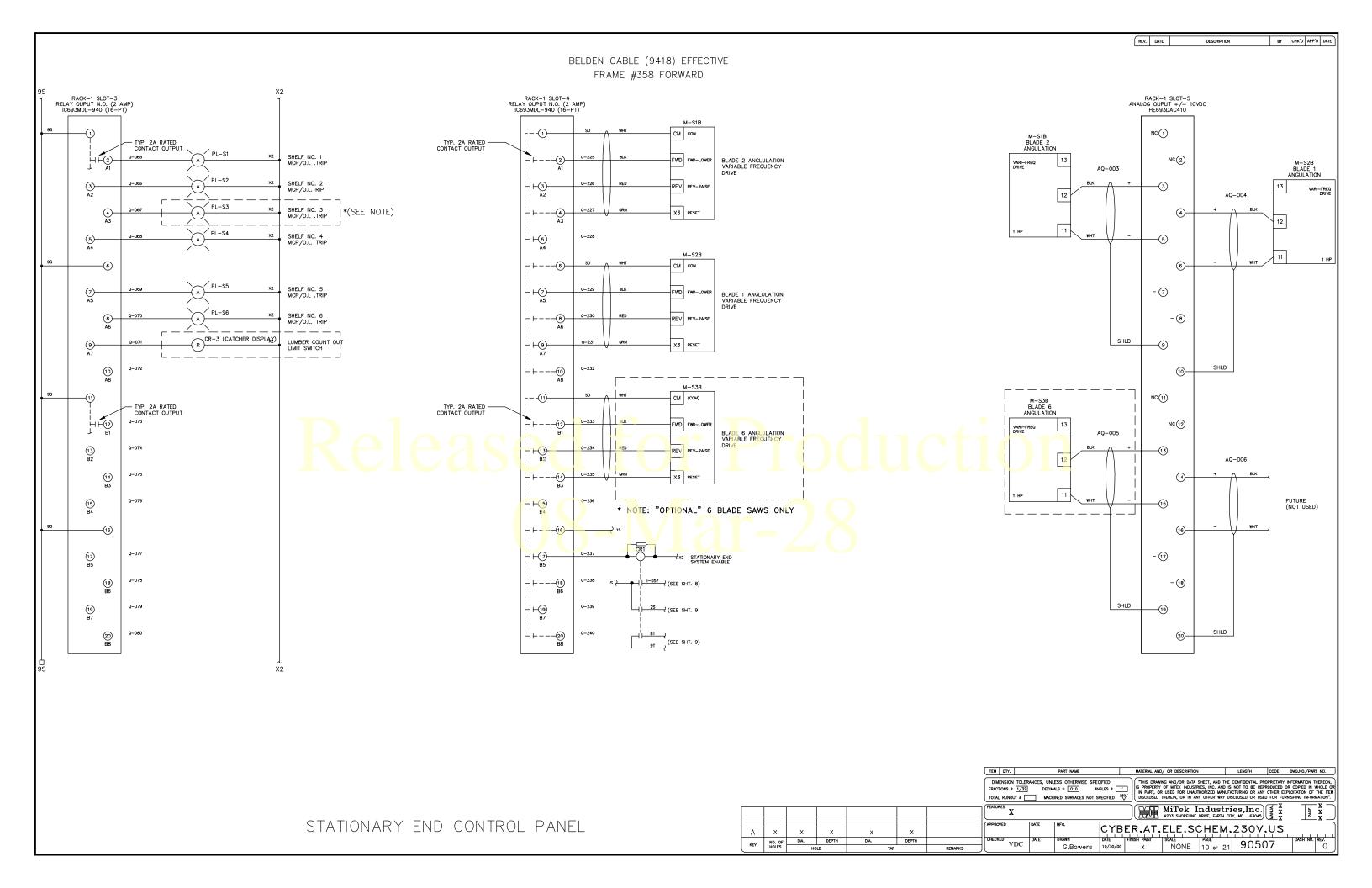


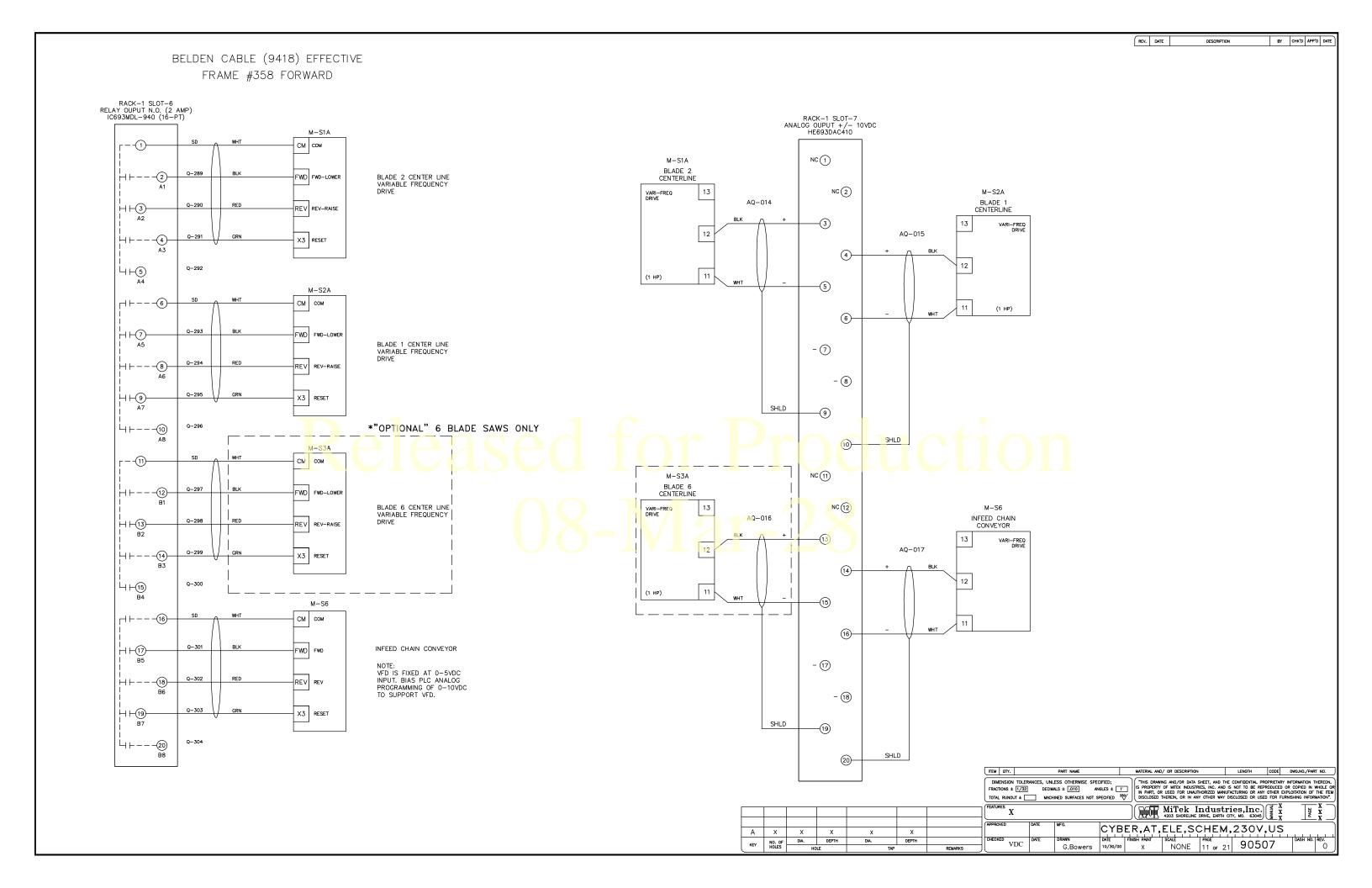






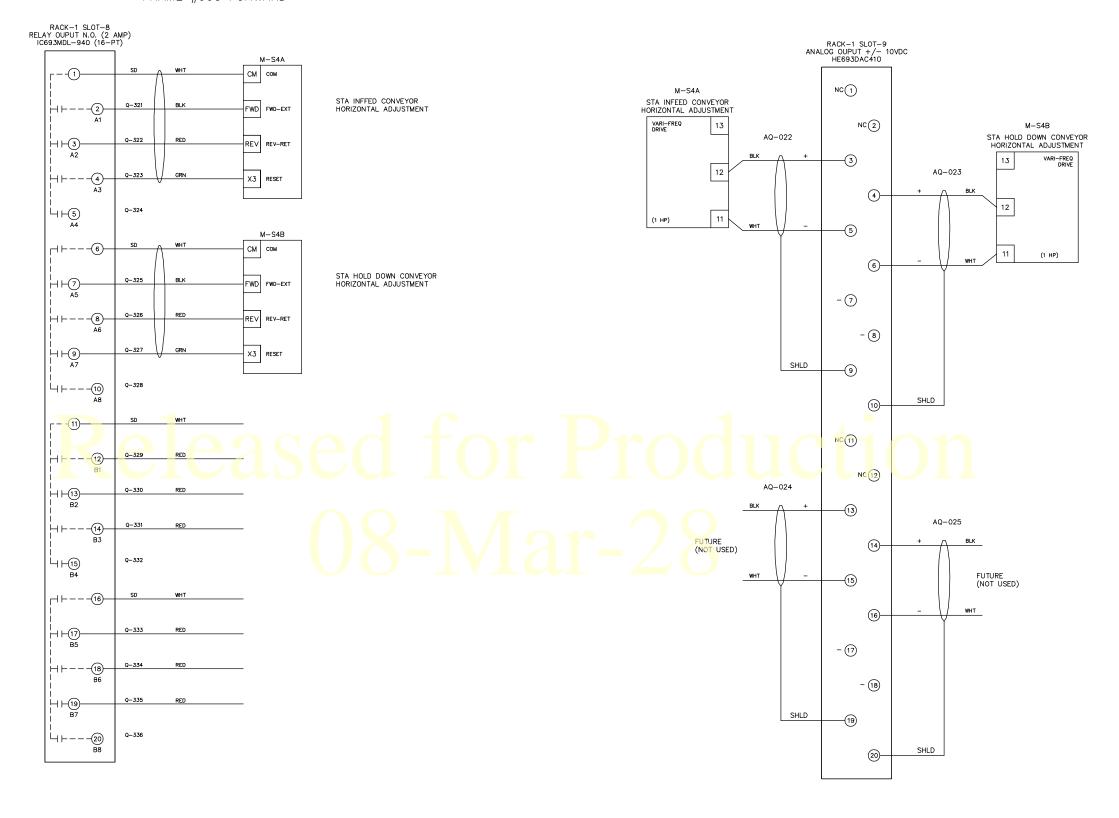






MATERIAL AND/ OR DESCRIPTION LENGTH CODE DWG.NO./PART NO.

BELDEN CABLE (9418) EFFECTIVE FRAME #358 FORWARD



TOUCHSCREEN PANEL

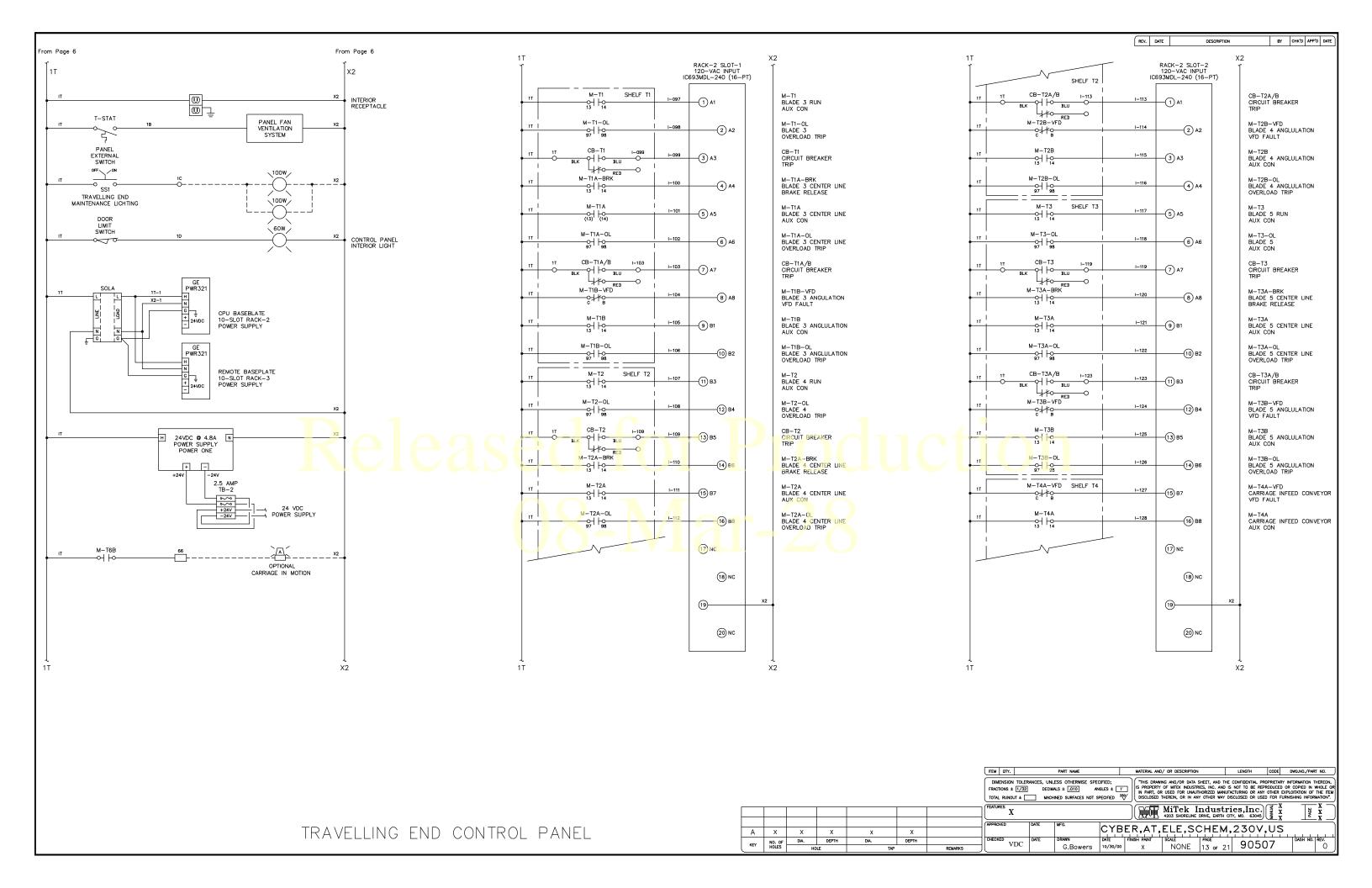
O TERMINALS LOCATED IN TRAVELING END CONTROL PANEL

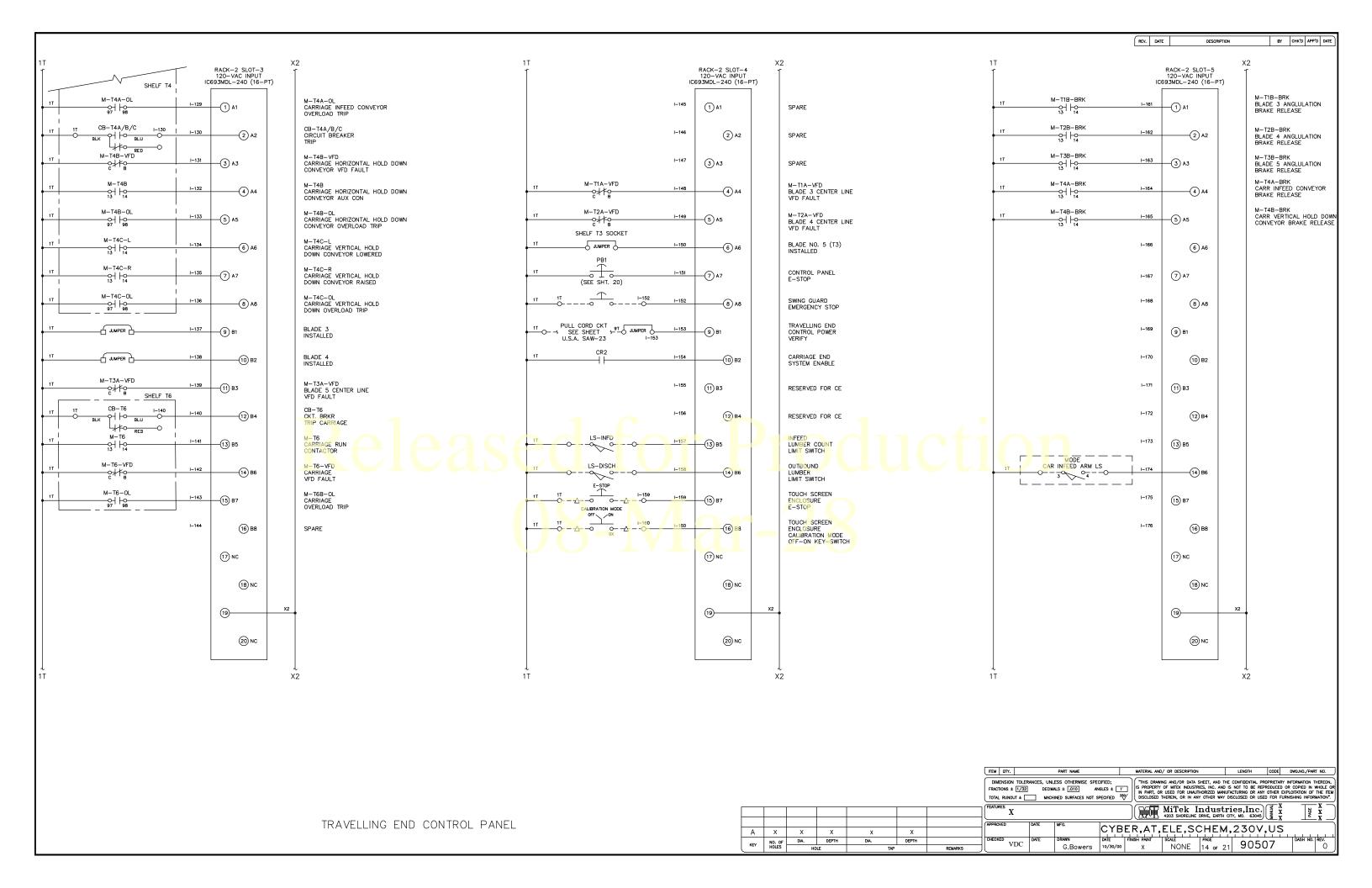
☐ TERMINALS LOCATED IN STATIONARY END CONTROL PANEL

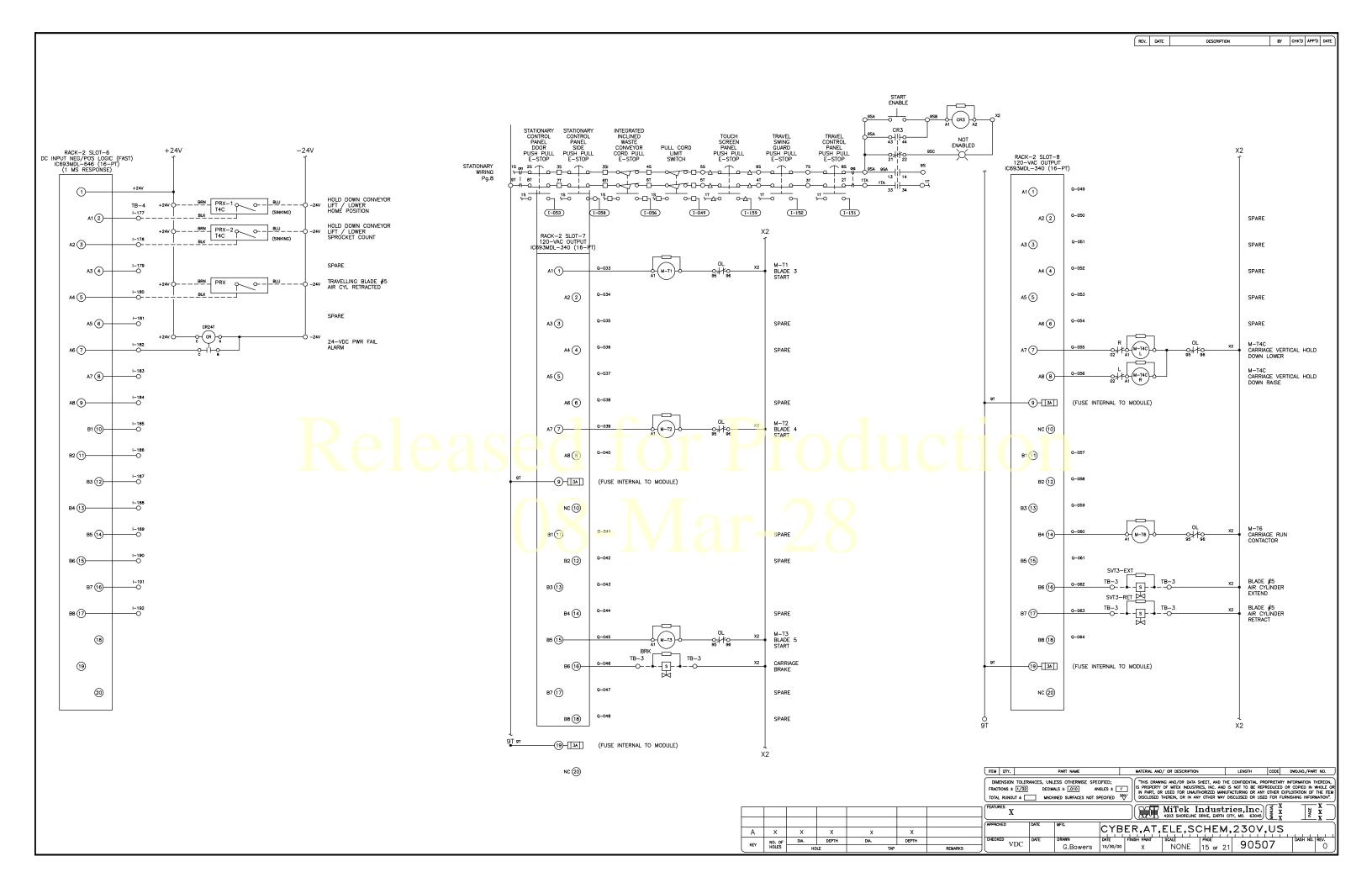
| | | | | | | | | | | | IS PROPERTY IN PART, OF | THIS DRAWING AND/OR DATA SHEET, AND THE CONFIDENTIAL PROPRIETARY INFORMATION THEREON, IS PROPERTY OF MITCH KNOUSTRIES, INC. AND IS NOT TO BE REPRODUCED OR COPIED IN WHOLE OR IN PART, OR USED FOR UNAUTHORIZED MANUFACURING OR ANY OTHER EXPLOITATION OF THE ITEM DISCLOSED THEREIN, OR IN ANY OTHER WAY DISCLOSED OR USED FOR FURNISHING INFORMATION." | | | | | |
|-----|-----------------|-------------|-------------|------|-------|---------|------------------------|------|----------|----------------------------|----------------------------|--|------------------|-------|---------------|--|--|
| | | | | | | | MITER Industries, Inc. | | | | | | | | | | |
| Α | X | Х | Х | Х | Х | | APPROVED | DATE | MFG. | CYBER,AT,ELE,SCHEM,230V,US | | | | | | | |
| KEY | NO. OF HOLES | DIA. HOI | DEPTH LE | DIA. | DEPTH | REMARKS | CHECKED VDC | DATE | G.Bowers | DATE 10/30/00 | FINISH PAINT X | NONE | PAGE 12 of 21 | 90507 | DASH NO. REV. | | |

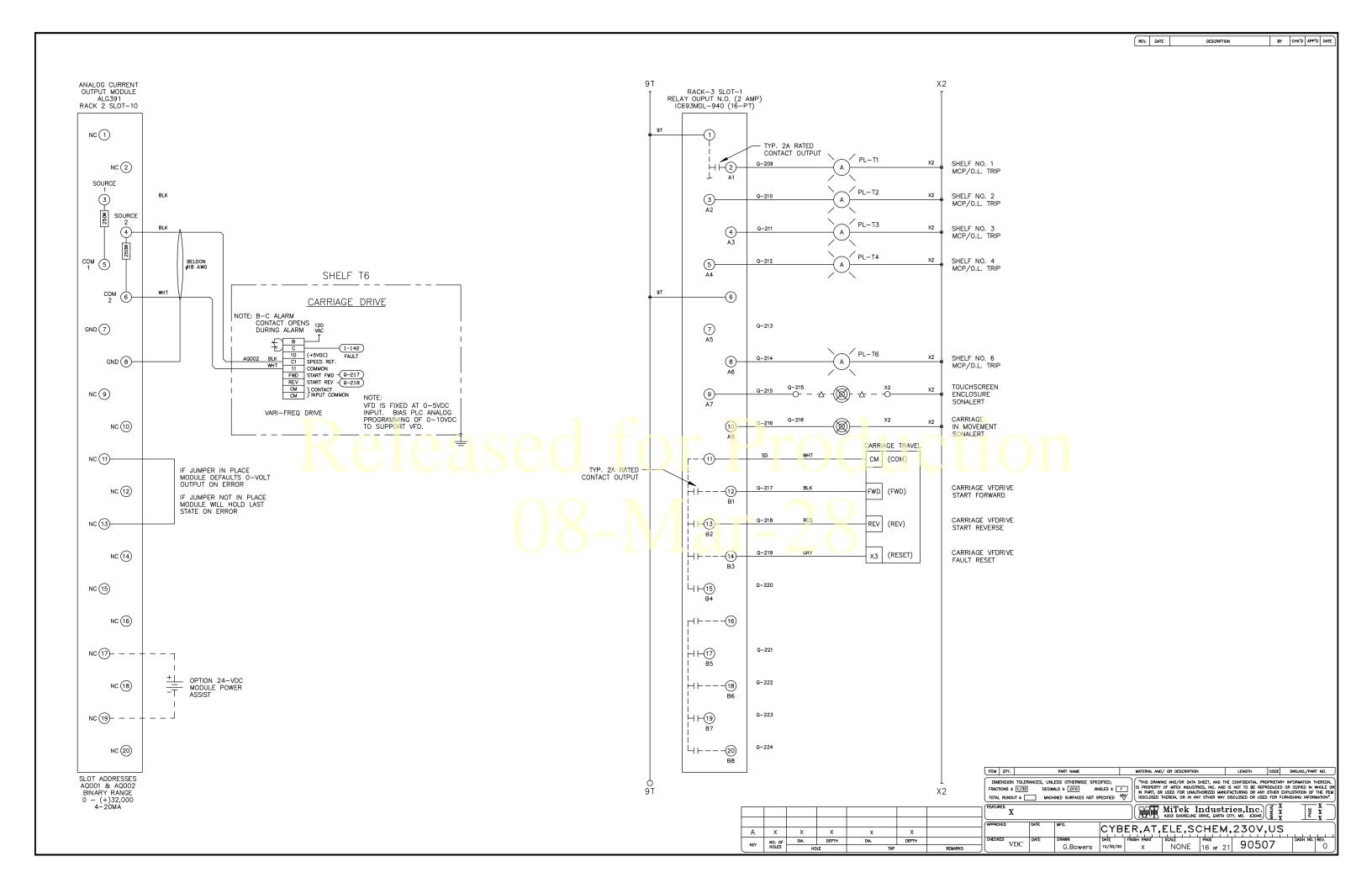
PART NAME

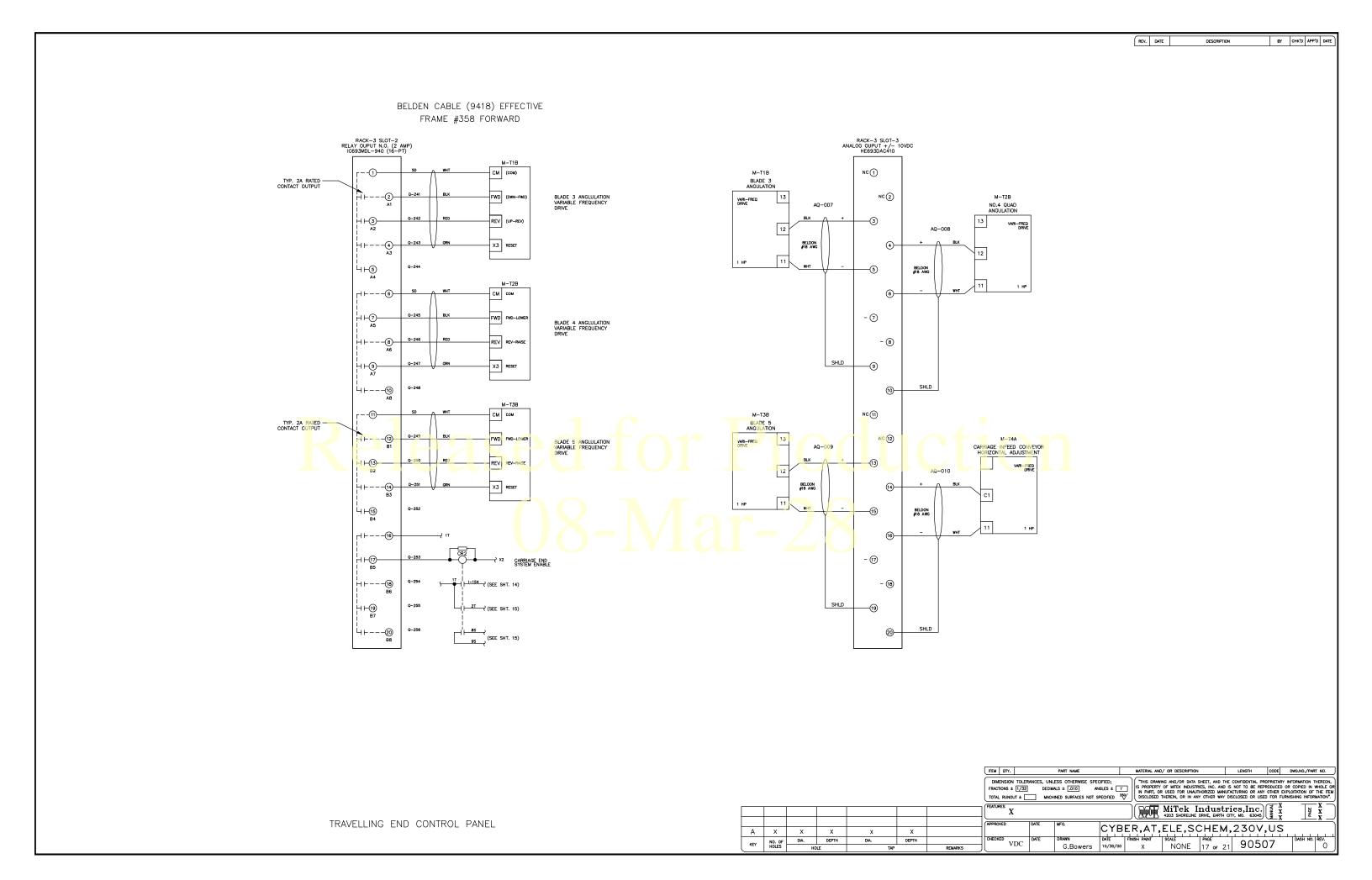
ITEM QTY.

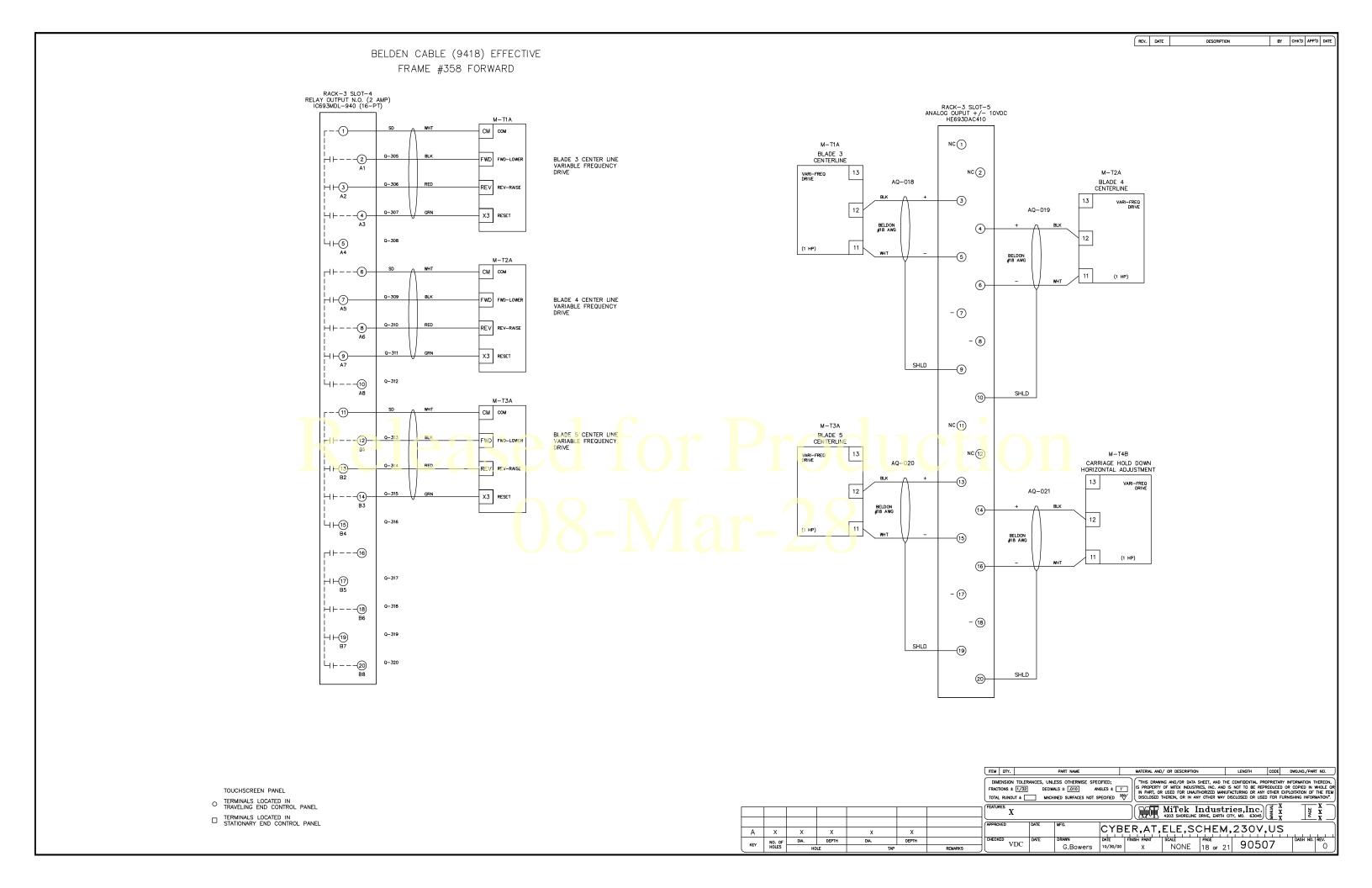










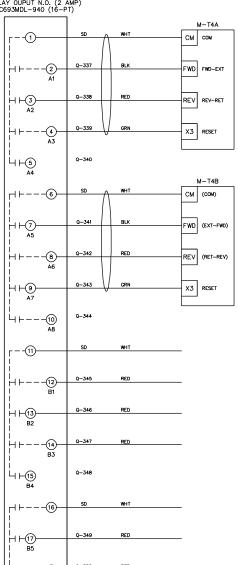


VFD SETTINGS

BELDEN CABLE (9418) EFFECTIVE FRAME #358 FORWARD

RACK-3 SLOT-6 RELAY OUPUT N.O. (2 AMP) IC693MDL-940 (16-PT)

⊣ ⊢----20



RRIAGE

CARRIAGE HOLD DOWN CONVEYOR HORIZONTAL ADJUSTMENT

VFD SETTINGS FOR THE MODEL #AF-300 MINI MUST BE FOUND ON DRAWING NUMBERS.

94001-CYBER AT ANGLE/CENTERLINE 94002-CYBER AT CARRIAGE 94003-CYBER AT INFEED

VFD SETTINGS FOR MODEL #6KE11 SERIES

| | Parameter | Description | Carriage | All Others | | |
|---|-----------|-------------------|----------|------------|---------|--|
| | FO1 | Frequency Command | 2 | 1 | 1 | |
| | F02 | Operation Method | 2 | 2 | 2 | |
| | F07 | Acceleration Time | 1.00 | 1.00 | 1.00 | |
| 4 | F08 | Deceleration Time | 0.60 | 0.50 | 0.50 | |
| | P03 | Rated Current | 7.75 | 7.75 | Default | |

CHANGING PARAMETER SETTINGS

- 1) Press the PRG key to start the program mode
- 2) Press the Up/Down arrow keys to select the parameter to change.
- 3) Press the FUNC key to display the data
- 4) Use Up/Down arrow keys to change the data.
- 5) Press the FUNC key to store the data
- 6) Repeat step 2 thru 5 for all parameters that are to be changed.
- 7) After all settings have been made, press the PRG key to exit the program mode.

VFD SWITCHES

SYNC SOURCE

| | | | | | | | ITEM QTY. | | PART NAME | | MATERIAL AND/ | OR DESCRIPTION | LENGTH | CODE | DWG.NO./PART NO. | | |
|--|-----------------|------|-------|------|-------|---------|------------|---------|-----------|--|---------------|----------------|------------------------------------|----------|------------------|--|--|
| DIMENSION TOLERANCES, UNILESS OTHERWISE SPECIFIED; FRACTIONS ± [7/32] DECIMALS ±010 ANGLES ±1 TOTAL RUNOUT ± MACHINED SURFACES NOT SPECIFIED 260/ DISCLOSED THEREN, OR IN ANY OTHER WAY DISCLOSED OR USED FOR FURNISH | | | | | | | | | | OR COPIED IN WHOLE OR EXPLOITATION OF THE ITEM | | | | | | | |
| | | | | | | | FEATURES X | | | | | MiTek Ind | lustries,Inc., EARTH CITY, MO. 630 | C. TWO X | X X | | |
| 4 | Х | Х | Х | Х | Х | | APPROVED | DATE | 1 | | 1 1 1 1 1 | LE,SCH | IEM,230 | V,UŞ | | | |
| EΥ | NO. OF HOLES | DIA. | DEPTH | DIA. | DEPTH | REMARKS | CHECKED | DATE | G.Bowers | DATE F | INISH PAINT S | NONE 19 | of 21 905 | 507 | DASH NO. REV. | | |
| | | HOLE | | HOLE | | IAP | | REMARKS | | | 0.50,7010 | | ^ | 110111 | OF ZI | | |

