MTA WIRING DIAGRAM

AUTOLOADER WITH DM PICKER OPTION

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SERVICE INTERLOCK OVERRIDE INDICATORS

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EMERGENCY STOP SWITCH
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MECHANICAL SAFETY INTERLOCK
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SERVICE INTERLOCK OVERRIDE INDICATORS

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UNLOAD TABLE

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PROCESSOR INTERFACE BOARD

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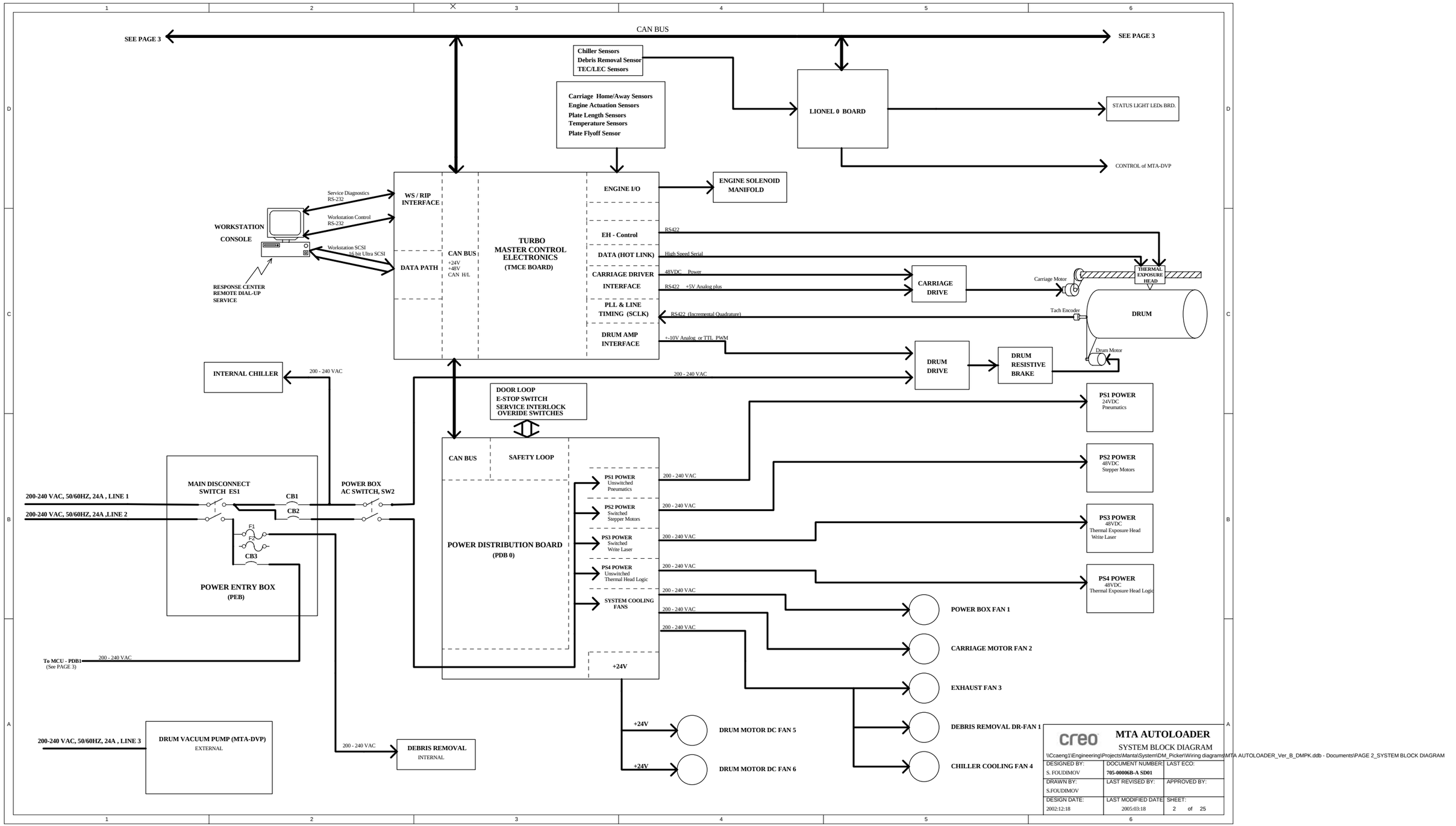
DELICATE MEDIA PICKER OPTION

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MTA AUTOLOADER
SYSTEM WIRING DIAGRAM

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MTA AUTOLOADER

SYSTEM BLOCK DIAGRAM

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SEE PAGE 2

CAN BUS

GENINE 0 BOARD

FETCHER PNEUMATICS & SENSORS

Z-STAGE H/A SENSORS

FETCHER MOTOR DRIVE

Z-STAGE MOTOR

FETCHER MOTOR

GENINE 3 BOARD

MCU PNEUMATICS & SENSORS

SSR PNEUMATICS & SENSORS

CAN BUS & TERMINATOR

LIONEL 1 BOARD

MCU USER INTERFACE BOARD

SSR USER INTERFACE BOARD

SSR & MCU SENSORS

MCU JOG BUTTON PANEL

MCU SAFETY INTERFACE BOARD

MCU MOTOR DRIVE

MCU AC MOTOR

CAN BUS

SEE PAGE 2

CAN BUS & TERMINATOR

GENINE 2 BOARD

UNLOAD TABLE PNEUMATICS & SENSORS

UNLOAD TABLE MOTOR

GENINE 1 BOARD

LOAD TABLE & S. EJECTOR PNEUMATICS & SENSORS

SIDE EJECTOR MOTOR DRIVE

S. EJECTOR MOTOR

LOAD TABLE MOTOR

DOOR LOOP

E-STOP SWITCHES

MCU & SSR SERVICE INTERLOCK OVERIDE SWITCH

CAN BUS

SAFETY LOOP

MCU
POWER DISTRIBUTION BOARD
(PDB 1)

PS1 POWER
Unswitched
Pneumatics

200 - 240 VAC

PS1 POWER
24VDC
Pneumatics

PS2 POWER
Switched
SSR Motor

200 - 240 VAC

PS2 POWER
24VDC
SSR MOTOR

SSR MOTOR

AC SAFE SPARE
Switched
MCU MOTOR

200 - 240 VAC

PUMP
Switched
Plenum Blower

200 - 240 VAC

PLENUM MOTOR

From PEB
(See PAGE 2)

200 - 240 VAC

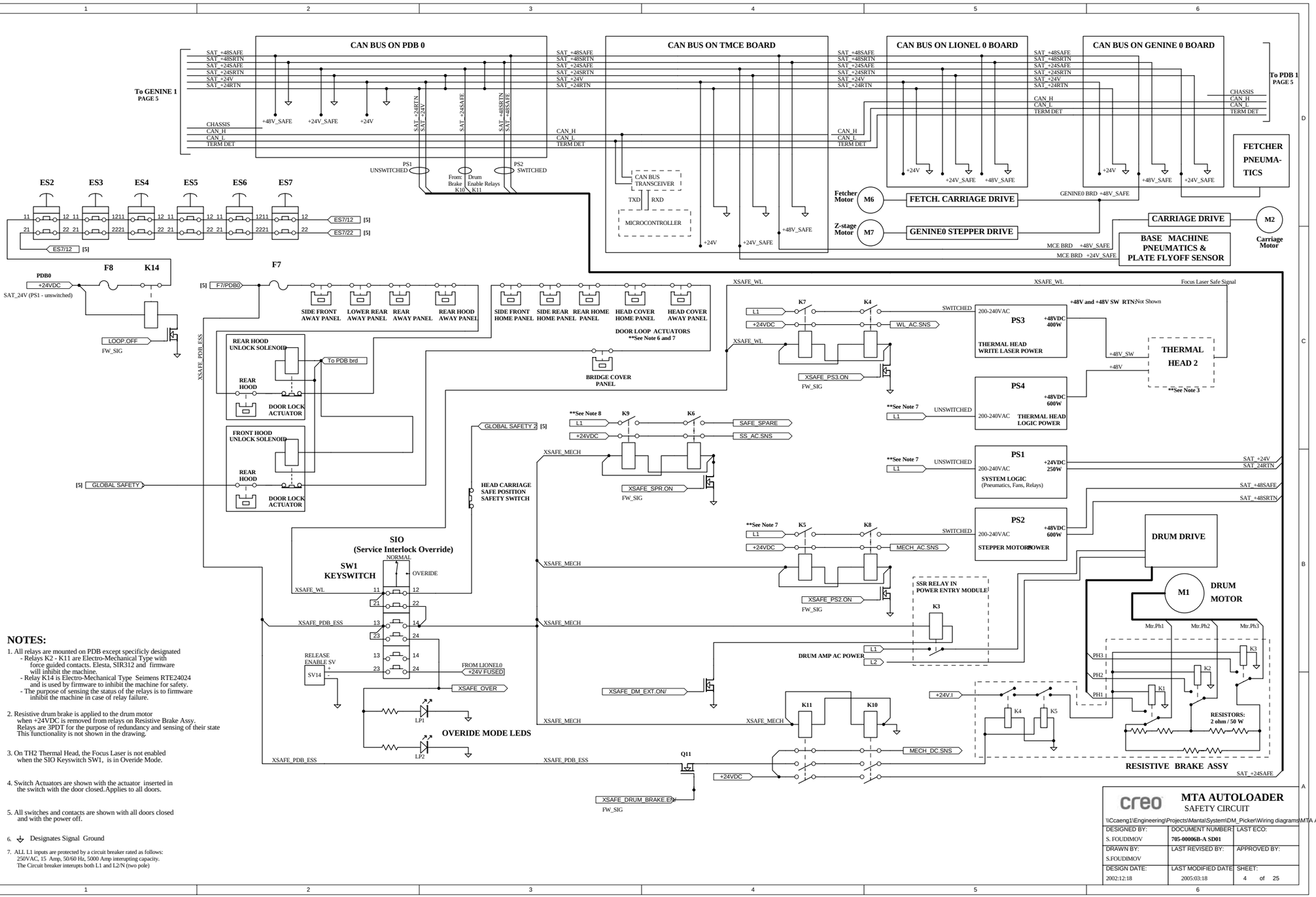
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MTA AUTOLOADER

SYSTEM BLOCK DIAGRAM
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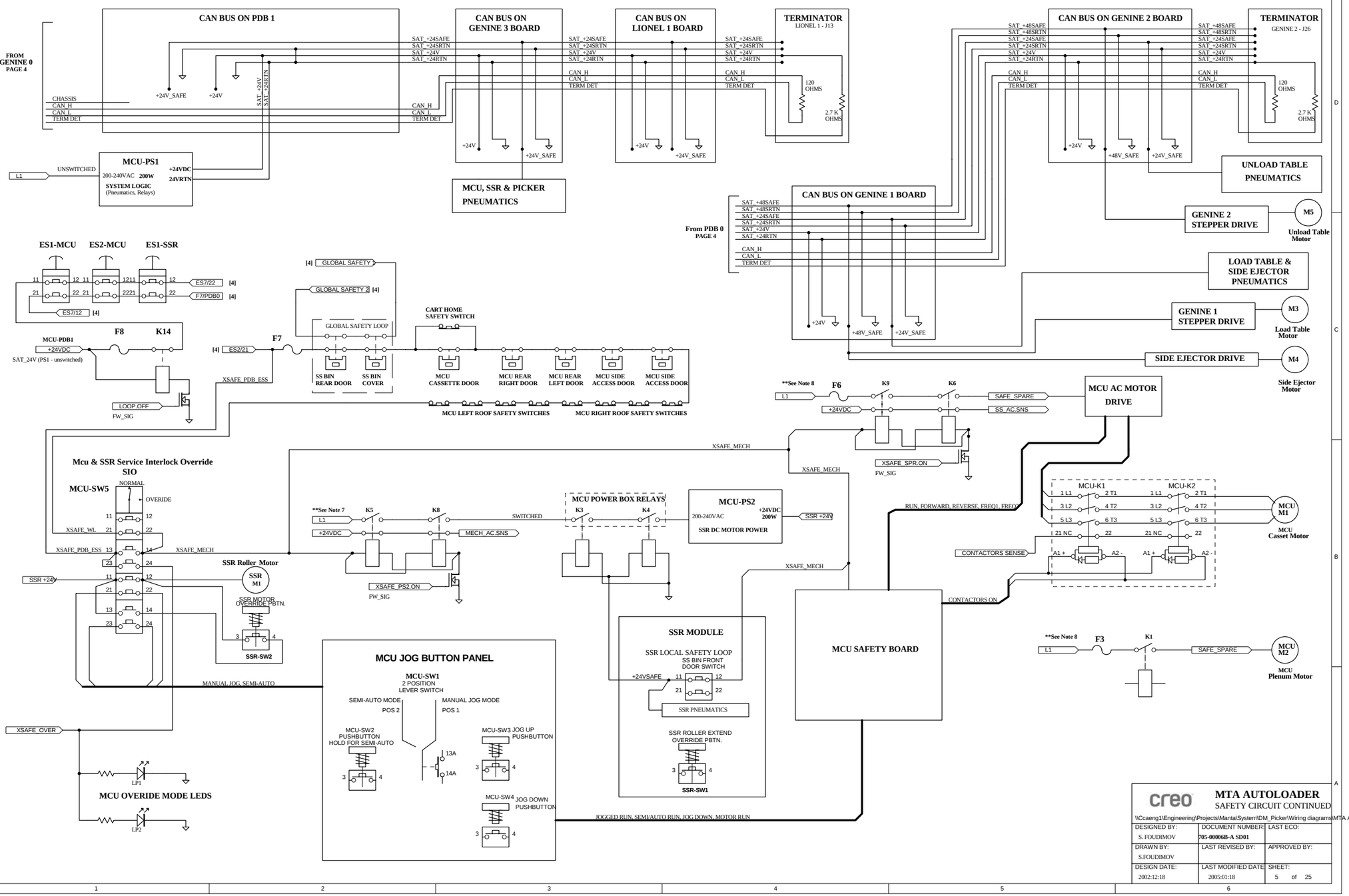
1. All relays are mounted on PDB except specificly designated
   - Relays K2 - K11 are Electro-Mechanical Type with force guided contacts. Elesta, SIR312 and firmware will inhibit the machine.
   - Relay K14 is Electro-Mechanical Type Seimens RTE24024 and is used by firmware to inhibit the machine for safety.
   - The purpose of sensing the status of the relays is to firmware inhibit the machine in case of relay failure.
2. Resistive drum brake is applied to the drum motor when +24VDC is removed from relays on Resistive Brake Assy. Relays are 3PDT for the purpose of redundancy and sensing of their state This functionality is not shown in the drawing.
3. On TH2 Thermal Head, the Focus Laser is not enabled when the SIO Keyswitch SW1, is in Overide Mode.
4. Switch Actuators are shown with the actuator inserted in the switch with the door closed.Applies to all doors.
5. All switches and contacts are shown with all doors closed and with the power off.
6. ⏚ Designates Signal Ground
7. ALL L1 inputs are protected by a circuit breaker rated as follows: 250VAC, 15 Amp, 50/60 Hz, 5000 Amp interupting capacity. The Circuit breaker interupts both L1 and L2/N (two pole)

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MTA AUTOLOADER
SAFETY CIRCUIT

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MTA AUTOLOADER
SAFETY CIRCUIT CONTINUED

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POWER ENTRY BOX (PEB) 11-1064A

200-240 VAC, 50/60HZ, 24A , LINE 1

AC Input 1 Plug — L1 BRN 12, L2/N BLU 12, GND G/Y 12

10-9088A (or 220-00437A)

LF1 FILT30A — P, E, N, P', N' — **13-5176**

GND G/Y 12 — **10-9089A** — M5 BOLT ENGINE

GND G/Y 12 — **10-9089A** — M5 BOLT CHASSIS

M5 BOLT CHASSIS

M5 STUD PEB

GND G/Y 12 — **10-9092A** — M5 STUD PEB

GND G/Y 12 — M5 STUD PEB

BRN12 — **10-9090A** — **10-5217A**

BLU 12

ES1 EMRGENCY STOP & MAIN SWITCH 25A — **15-3525**

CB1 CIRBKR 15A — BRN 12 / BLU 12 — BRN 14 / BLU 14 — **15-3085**

TB1 — **10-5221A** — **10-5222A**

BRN 14 — WHT 14 — BLK 14

K1 — **15-3249** RELAY,25A,SOLID STATE

BLK-22 — RED-22 — To K2 **[6]** K2 CONTROL

RED 22 / BLK 22 — **10-9073A** — J1 — MATE 1X4

WHT 22 / GRN 22 / RED 22 / BLK 22 — **10-9068A** — To PDB J37 — HEAD COOLER & BLOWER ON/OFF **[7]**

SELV

10-9084A — L1, L2/N, GND — G/Y 14 — M5 STUD PEB

AC POWER to CHILLER — HEAD COOLER AC POWER **[13]**

220-00042A — **J3** — MATE 1X2 — **220-00044A** — To PDB J44 — DRUM DRIVE AC ON/OFF **[7]**

RED 22 / BLK 22

SELV

BLK 22 — RED 22 — K3 — **15-3249** RELAY,25A,SOLID STATE

220-00049A — BRN14 — BRN 14 — BLU 14

10-9075A — L1, L2/N, GND — G/Y 14 — M5 STUD PEB

To SW2-1,3 in POWER BOX — DDRIVE AC POWER - SW2 **[7]**

200-240 VAC, 50/60HZ, 24A , LINE 2

AC Input 2 Plug — L1 BRN 12, L2/N BLU 12, GND G/Y 12

10-9088A (or 220-00437A)

LF2 FILT30A — P, E, N, P', N' — **13-5176**

GND G/Y 12 — 10-9092A — GND G/Y 12 — M5 STUD — M5 STUD PEB

BRN12 — BLU12 — 10-9090A

10-5218A

CB2 CIRBKR 15A — BRN 12 / BLU 12 — BRN 14 / BLU 14 — 15-3085

10-9077A — L1, L2/N, GND — G/Y 14 — M5 STUD PEB

To SW2-5,7 in POWER BOX — PDB AC POWER - SW2 **[7]**

220-00833A

F1, F2: 10A, 600V, BUSSMANN, Type LP-CC for 60 Hz
F1, F2: 12A, 600V, BUSSMANN, Type LP-CC for 50 Hz
(F1 & F2 replaced the former CB3)
182-00018 for 60 Hz
182-00016 for 50 Hz

F1, F2 FUSEHOLDER, 182-00015

220-00834A — BRN 14 — BLK 14 — WHT 14

K2 — RELAY,25A,SOLID STATE — 15-3249 — SELV

BLK 22 — RED 22 — 10-9073A — K2 CONTROL **[6]**

10-9086B — L1, L2/N, GND — G/Y 14 — M5 STUD PEB

AC POWER to DEBRIS REMOVAL MOTOR — M3 DEBRIS BLOWER AC POWER **[13]**

10-5220A

CB3 (former CB4) CIRBKR 15A — BRN 12 / BLU 12 — BRN 14 / BLU 14 — 15-3085

220-00352A — L1, L2/N, GND — G/Y 14 — M5 STUD PEB

AC POWER to MCU — MCU AC POWER **[17]**

SW1 NORMAL — (Shown in normal position) OVERIDE

SIO KEYSWITCH (2 POS) 15-3334

OVERRIDE MODE LEDS — LP1, LP2 — **10-3721A**

15-3067 DUAL NC Contact Block

15-3238 DUAL NO Contact Block

15-3238 DUAL NO Contact Block (For MCU option only)

+24V RED 22 — RTN BLK 22 — +24V RED 22 — RTN BLK 22

XSAFE_WL — XSAFE_ESS — YEL 22 — BLK 22 — MCU_OVER — RED 22 — MCU_SAFE — WHT 22 — XSAFE_OVER — GRN 22 — XSAFE_MECH — BLU 22 — ORG 22 — BRN 22 DOOR LOOP

+24V WHT 22 — RTN GRN 22

MINIFIT 2X6 — **10-9083A** — J2 — **10-9091B**

RED 22 / BLK 22 — To RELEASE SV ADAPTOR — RELEASE ADPT 1 **[8]**

SELV

To PDB J34, J35, J41 — OVERRIDE SW & LED **[7]**

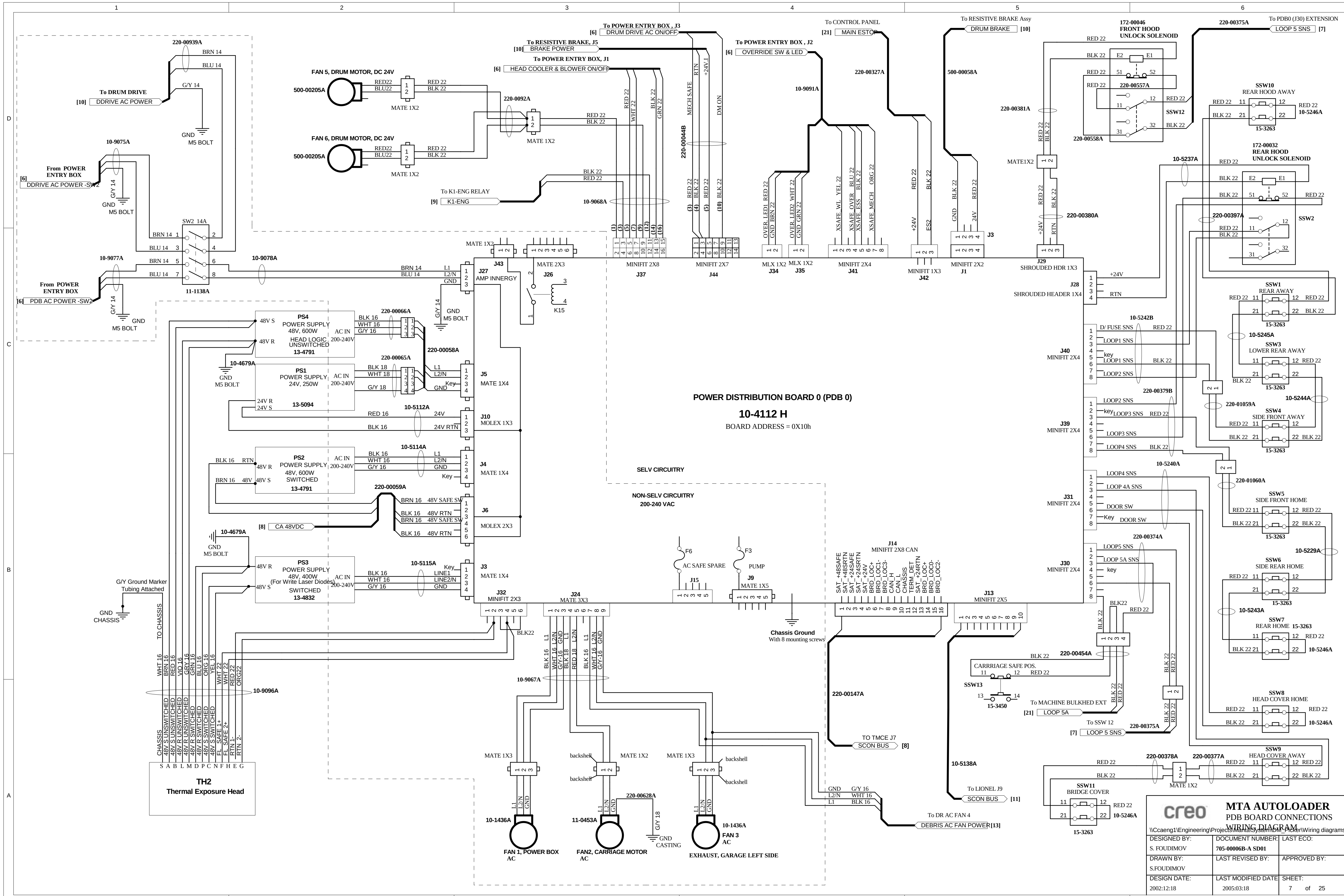
RED 22, BRN 22, WHT 22, GRN 22, BLU 22, BLK 22, BLU 22, ORG 22

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MTA AUTOLOADER
POWER ENTRY BOX
WIRING DIAGRAM

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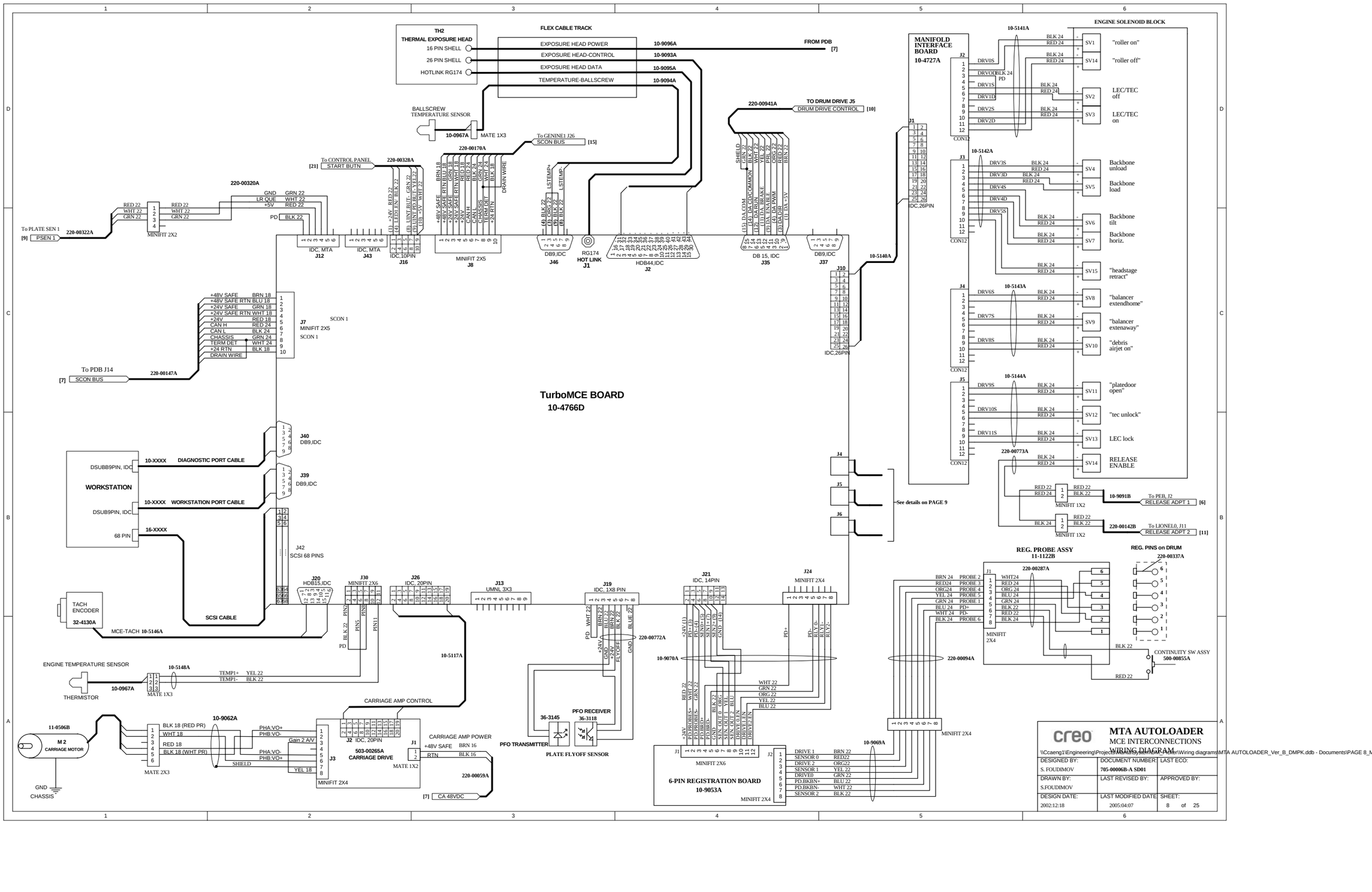
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MTA AUTOLOADER
PDB BOARD CONNECTIONS
WIRING DIAGRAM

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MTA AUTOLOADER

MCE INTERCONNECTIONS

WIRING DIAGRAM

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DETAILS OF J4, J5, J6 WIRING FROM PAGE 6

TurboMCE BOARD
10-4766D

J4 DB37M, IDC — **10-5129A**

J5 DB25,IDC — **220-00983A**

J6 DB37F, IDC — **220-00306A**

MINIFIT 2X4

36-3125

RLR_DOWN Away Side
- LED+ — RED 22 — TO DSEN1 LED+ (3)
- LED- — BLK 22 — TO DSEN1 LED- 22)
- COLLECTOR — WHT 22 — TO DSEN1 C (4)
- EMITTER — GRN 22 — TO DSEN1 E (23)

RLR_UP Away Side
- LED+ — RED 22 — ORG 24 — TO DSEN2 LED+ (5)
- LED- — BLK 22 — BRN 24 — TO DSEN2 LED- (24)
- COLLECTOR — WHT 22 — BLU 24 — TO DSEN2 C (6)
- EMITTER — GRN 22 — YEL 24 — TO DSEN2 E (25)

LEC_DOWN Away Side
- LED+ — RED 22 — RED 24 — TO DSEN3 LED+ (7)
- LED- — BLK 22 — BLK 24 — TO DSEN3 LED- (26)
- COLLECTOR — WHT 22 — WHT 24 — TO DSEN3 C (8)
- EMITTER — GRN 22 — GRN 24 — TO DSEN3 E (27)

LEC_UP Away Side
- LED+ — RED 22 — ORG 24 — TO DSEN4 LED+ (9)
- LED- — BLK 22 — BRN 24 — TO DSEN4 LED- (28)
- COLLECTOR — WHT 22 — BLU 24 — TO DSEN4 C (10)
- EMITTER — GRN 22 — YEL 24 — TO DSEN4 E (29)

10-4982A

(11) TO DSEN5 LED+ — RED 22
(30) TO DSEN5 LED- — BLK 22
(12) TO DSEN5 C — WHT 22
(31) TO DSEN5 E — GRN 22

36-3125 CAR_AWAY

(13) TO DSEN6 LED+ — BLU 24
(32) TO DSEN6 LED- — BLU/BLK 24
(14) TO DSEN6 C — BLU/WHT 24
(33) TO DSEN6 E — BLU/RED 24

10-4733A — **36-3125** BAL_DETECT Away Side

(15) TO DSEN 7 LED+ — GRN 24
(34) TO DSEN7 LED- — GRN/BLK 24
(16) TO DSEN7 C — GRN/WHT 24
(35) TO DSEN7 E — BLK/WHT 24

10-4982A — **36-3125** BAL_EXTEND Away Side

(17) TO DSEN8 LED+ — ORG 24
(36) TO DSEN8 LED- — ORG/BLK 24
(18) TO DSEN8 C — BLK/RED 24
(37) TO DSEN8 E — ORG/RED 24

10-4982A — **36-3125** BAL_RETRACT Away Side

10-5065A RSW1 RSW2 RSW3 RSW4 RSW5 RSW6 RSW7 RSW8 RSW9 RSW10

10-9060A

(1) TO DSEN 0 LED+ — RED 22
(20) TO DSEN0 LED- — BLK 22
(2) TO DSEN0 C — WHT 22
(21) TO DSEN0 E — GRN 22

WHT 22
RED 22
BLK 22

(1) TO DSEN 18 LED+ — RED 24
(14) TO DSEN 18 LED- — RED/BLK 24
(2) TO DSEN 18 C — RED/WHT 24
(15) TO DSEN 18 E — RED/GRN 24

10-4733A — **36-3125** BM_FORWARD Away Side

(3) TO DSEN 19 LED+ — GRN 24
(16) TO DSEN 19 LED- — GRN/BLK 24
(4) TO DSEN 19 C — GRN/WHT 24
(17) TO DSEN 19 E — BLK/WHT 24

10-4733A — **36-3125** BM_CENTER BACK Away Side

(5) TO DSEN 20 LED+ — WHT 24
(18) TO DSEN 20 LED- — WHT/BLK 24
(6) TO DSEN 20 C — WHT/RED 24
(19) TO DSEN 20 E — BLK 24

10-4733A — **36-3125** BM_CENTER FORWARD Away Side

(7) TO DSEN21 LED+ — BLU 24
(20) TO DSEN21 LED- — BLU/BLK 24
(8) TO DSEN21 C — BLU/WHT 24
(21) TO DSEN21 E — BLU/RED 24

10-4733A — **36-3125** BM_ BACK Away Side

500-00271A START BUTTON 3

RED 22 — WHT 22
BLK 22 — BLK 22
WHT 22 — RED 22
GRN 22 — RED 22

Text Text

500-00271A START BUTTON 2

BLK 22 — WHT 22
BLK 22 — BLK 22
WHT 22 — RED 22
GRN 22 — RED 22

Text Text

(9) TO DSEN13 LED+ — RED 22
(28) TO DSEN13 LED- — BLK 22
(10) TO DSEN13 C — WHT 22
(29) TO DSEN13 E — GRN 22

220-00537A — **220-00538A** — **220-00539A** — **220-00540A**

RED 22 — WHT 22 — RED 22 — RED 22
BLK 22 — WHT 22 — BLK 22 — BLK 22
WHT 22 — RED 22 — WHT 22 — WHT 22
GRN 22 — ORG 22 — GRN 22 — GRN 22

K1-ENG 15-3248

To PDB0- J37 [7] K1-ENG — **10-9068A**

RED 22 — BLK 22

220-00446A

(11) TO DSEN14 LED+ — RED 22
(30) TO DSEN14 LED- — BLK 22
(12) TO DSEN14 C — WHT 22
(31) TO DSEN14 E — GRN 22

10-4982A — **36-3125** CAR_HOME

10-4982A — **36-3125** CAR_HOME CLEANING

36-3210

LOAD RAMP PLATE SENSOR 1 — RED 22, WHT 22, GRN 22 — **220-00322A** — To TMCE J12 ADAPTOR PSEN 1 [8]

LOAD RAMP PLATE SENSOR 2 — RED 22, WHT 22, GRN 22

LOAD RAMP PLATE SENSOR 3 — RED 22, WHT 22, GRN 22

220-00323A

RED 22 — TO DSEN16 LED+ (15)
WHT 22 — TO DSEN16 C (16)
GRN 22 — TO DSEN16 E (35)
ORG 22 — TO DSEN17 LED+ (17)
BLUE 22 — TO DSEN17 C (18)
YEL 22 — TO DSEN17 E (37)

RED 22 — TO DSEN9 LED+ (1)
BLK 22 — TO DSEN9 LED- (20)
WHT 22 — TO DSEN9 C (2)
GRN 22 — TO DSEN9 E (21)

To RESISTIVE BRAKES ASSY [8] BRAKE RELAYS SENSE

(13) TO DSEN15 LED+ — ORG 24
(32) TO DSEN15 LED- — ORG/BLK 24
(14) TO DSEN15 C — BLK/RED 24
(33) TO DSEN15 E — ORG/RED 24

10-4733A — **36-3125** BAL_DETECT Home Side

(3) TO DSEN10 LED+ — BLU 24
(22) TO DSEN10 LED- — BLU/BLK 24
(4) TO DSEN10 C — BLU/WHT 24
(23) TO DSEN10 E — BLU/RED 24

10-4982A — **36-3125** BAL_EXTEND Home Side

(5) TO DSEN 11 LED+ — GRN 24
(24) TO DSEN11 LED- — GRN/BLK 24
(6) TO DSEN11 C — GRN/WHT 24
(25) TO DSEN11 E — BLK/WHT 24

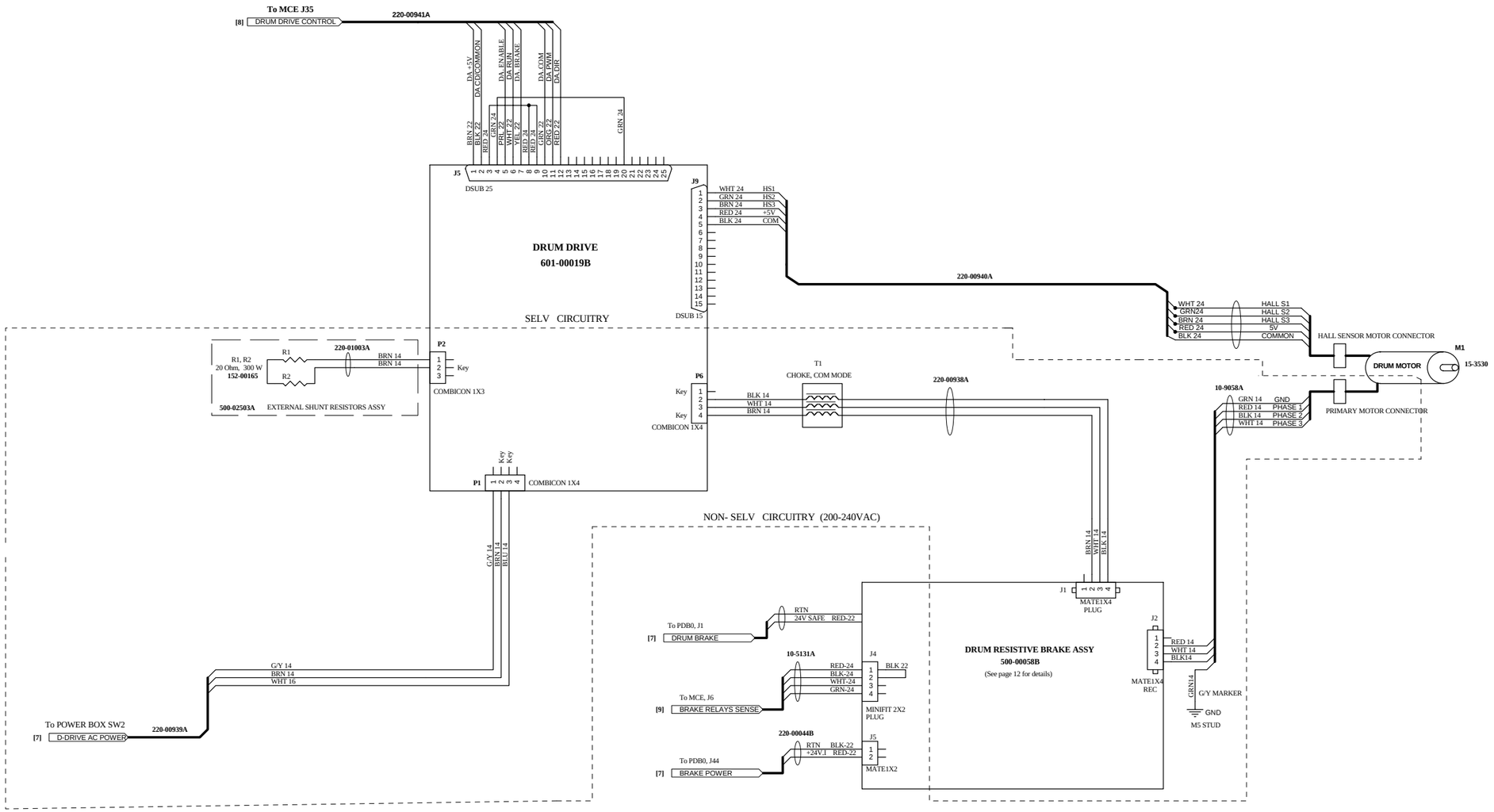
10-4982A — **36-3125** BAL_RETRACT Home Side

creo

MTA AUTOLOADER
MCE DIGITAL SENSORS
WIRING DIAGRAM

\\Ccaeng1\Engineering\Projects\MTA\System\Cad\Wiring diagrams\MTA AUTOLOADER_Ver_B_DMPK.ddb - Documents\PAGE 9_MCE DIGITAL SENSORS WIRING

DESIGNED BY:	DOCUMENT NUMBER:	LAST ECO:
S. FOUDIMOV	**705-00006B-A SD01**	
DRAWN BY:	LAST REVISED BY:	APPROVED BY:
S.FOUDIMOV		
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MTA AUTOLOADER
DRUM DRIVER & MOTOR
WIRING DIAGRAM

\\Ccaeng1\Engineering\Projects\MTA\DSJ Common Folder\Wiring diagrams\MTA AUTOLOADER_Ver_B_DMPK.ddb - Documents\PAGE 10_DRUM AMPLIFIER & MOTOR WIRI

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S.FOUDIMOV		
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2002:12:18	2005:04:15	10 of 25

NOTE: INSTALL POLYSWITCH F2, F5, F6 ON THE LIONEL BOARD

LIONEL BOARD 0
10-4801B
Board Address = 0x40h

SCON1

J9 — SCON2 — 2X5 MINIFIT JR

+48V SAFE	BRN 18
+48V SAFE RTN	BLU 18
+24V SAFE	GRN 18
+24V SAFE RTN	WHT 18
+24V	RED 18
CAN H	RED 24
CAN L	BLK 24
CHASSIS	GRN 24
TERM DET	WHT 24
+24 RTN	BLK 18
DRAIN WIRE	

To PDB J13 **[7]** SCON BUS — **10-5138A**

J7 — DIG_IN2 — IDC_20PIN

J21 — 2X3 MINI-MATE

CHILLER PRESSURE SWITCH **172-00045** (NO, C) — PS

220-00411B: RED 22, BLK 22, BLK 22 — MATE1X4

10-9085A

RED-22	TO DSEN9. LED+	(1)
WHT-22	TO DSEN9.C	(2)
GRN-22	TO DSEN9.E	(3)
BLK-22	TO DSEN9. LED-	(4)
RED-22	DSEN10.C	(6)
BLK-22	DSEN10.E	(7)

To DEBRIS REMOVAL **[13]** DEBRIS REMOVAL SENSORS

RED-22	TO DSEN11 LED+	(9)
WHT-22	TO DSEN11 C	(10)
GRN-22	TO DSEN11 E	(11)
BLK-22	TO DSEN11 LED-	(12)
ORG-22	TO DSEN12 LED+	(13)
BLU-22	TO DSEN12 C	(14)
YEL-22	TO DSEN12 E	(15)
BRN-22	TO DSEN12 LED-	(16)
RED-22	TO DSEN13 LED+	(17)
WHT-22	TO DSEN13 C	(18)
GRN-22	TO DSEN13 E	(19)
BLK-22	TO DSEN13 LED-	(20)
ORG-22	TO DSEN14 LED+	(21)
BLU-22	TO DSEN14 C	(22)
YEL-22	TO DSEN14 E	(23)
BRN-22	TO DSEN14 LED-	(24)

J8 — DIG_IN3 — HDR 2X15

MINIFIT 2X4 PWM_OUT2 J1 — PWM4, PWM15, PWM2, PWM3, PWM5, PWM13, PWM1

J16 AN_2 1X6 MTA — J17 AN_1 1X6 MTA

+24V, +24V, RED 22, ORG 22, BRN 22, WHT 22, GRN 22, BLU 22, BLK 22

518-00552A — To DRUM VACUUM PUMP — DRUM VAC. PUMP CONTROL **[23]**

J13 — SCON 1 — MINIFIT 2X8 CAN

SAT +48SAFE	
SAT +48SRTN	
SAT +24SAFE	
SAT +24SRTN	
SAT +24V	
BRD_LOC+	
BRD_LOC1-	
BRD_LOC3-	
CAN_H	
CAN_L	
CHASSIS	
TERM_DET	
SAT +24RTN	
BRD_LOC+	
BRD_LOC0-	
BRD_LOC2-	

220-00169A — To GENINE 0 J24 — SCON BUS **[14]**

J5 — PWM_OUT1 — MINIFIT 2X3 REC

J2 — SOL_DRV1 — SAMTEC, 2X8

BLK 22		
PD		
ACT 3	BLK-22	
+24 V	RED-22	
ACT 4	GRN-22	
+24 V	WHT-22	
ACT 5	BRN-22	
+24 V	ORG-22	
ACT 6	BLU-22	
ACT 7	YEL-22	

220-00141A — MINIFIT 2X4

BLK 22	
RED 22	
WHT 22	
GRN 22	

220-00142B — To RELEASE SV ADAPTOR — RELEASE ADPT 2 **[8]**

(1) +24V RED-22
(12) RTN BLK-22

J11 — IDC, 14PIN

(5)	EREG.SEN0+	RED-22
(6)	EREG.SEN0-	BLK-22
(7)	EREG.SEN1+	ORG-22
(8)	EREG.SEN1-	GRN-22
(9)	EREG.SEN2+	WHT-22
(10)	EREG.SEN2-	BRN-22

MINIFIT 2X3 — ORG 22, BLU-22

220-00363A

220-00566A: RED 22 +24VDC, WHT 22 4-20mA Out, GRN 22 GND, BLU 22 PD+, BRN 22 PD- — PSEB BOARD **10-4581A** — DRUM VACUUM — MTA 1X6

220-00413A: RED 22 +24V, BLK 22 GRN LEDs, WHT 22 BLUE LEDs, GRN 22 YEL LEDs, ORG-22 PD+, BLU-22 PD- — MINIFIT 2X3

J1 — **STATUS LIGHT LEDS BRD** **10-9063A** **(Will be replaced with 503-09063B)** — 1ROW IDC

36-3125 / **10-4982A** / **220-00145A** — TEC_LOCK

LED+	RED 22	RED 24	TO DSEN11 LED+	(9)	RED-22
LED-	BLK 22	BLK 24	TO DSEN11 LED-	(12)	BLK-22
COLLECTOR	WHT 22	WHT 24	TO DSEN11 C	(10)	WHT-22
EMITTER	GRN 22	GRN 24	TO DSEN11 E	(11)	GRN-22

36-3125 / **10-4982A** / **220-00145A** — TEC_UNLOCK

LED+	RED 22	ORG 24	TO DSEN12 LED+	(13)	ORG-22
LED-	BLK 22	BRN 24	TO DSEN12 LED-	(16)	BRN-22
COLLECTOR	WHT 22	BLU 24	TO DSEN12 C	(14)	BLU-22
EMITTER	GRN 22	YEL 24	TO DSEN12 E	(15)	YEL-22

MINIFIT 2X4

36-3125 / **10-4982A** / **220-00146A** — LEC_LOCK

LED+	RED 22	RED 24	TO DSEN13 LED+	(17)	RED-22
LED-	BLK 22	BLK 24	TO DSEN13 LED-	(20)	BLK-22
COLLECTOR	WHT 22	WHT 24	TO DSEN13 C	(18)	WHT-22
EMITTER	GRN 22	GRN 24	TO DSEN13 E	(19)	GRN-22

36-3125 / **10-4982A** — LEC_UNLOCK

LED+	RED 22	ORG 24	TO DSEN14 LED+	(21)	ORG-22
LED-	BLK 22	BRN 24	TO DSEN14 LED-	(24)	BRN-22
COLLECTOR	WHT 22	BLU 24	TO DSEN14 C	(22)	BLU-22
EMITTER	GRN 22	YEL 24	TO DSEN14 E	(23)	YEL-22

MINIFIT 2X4

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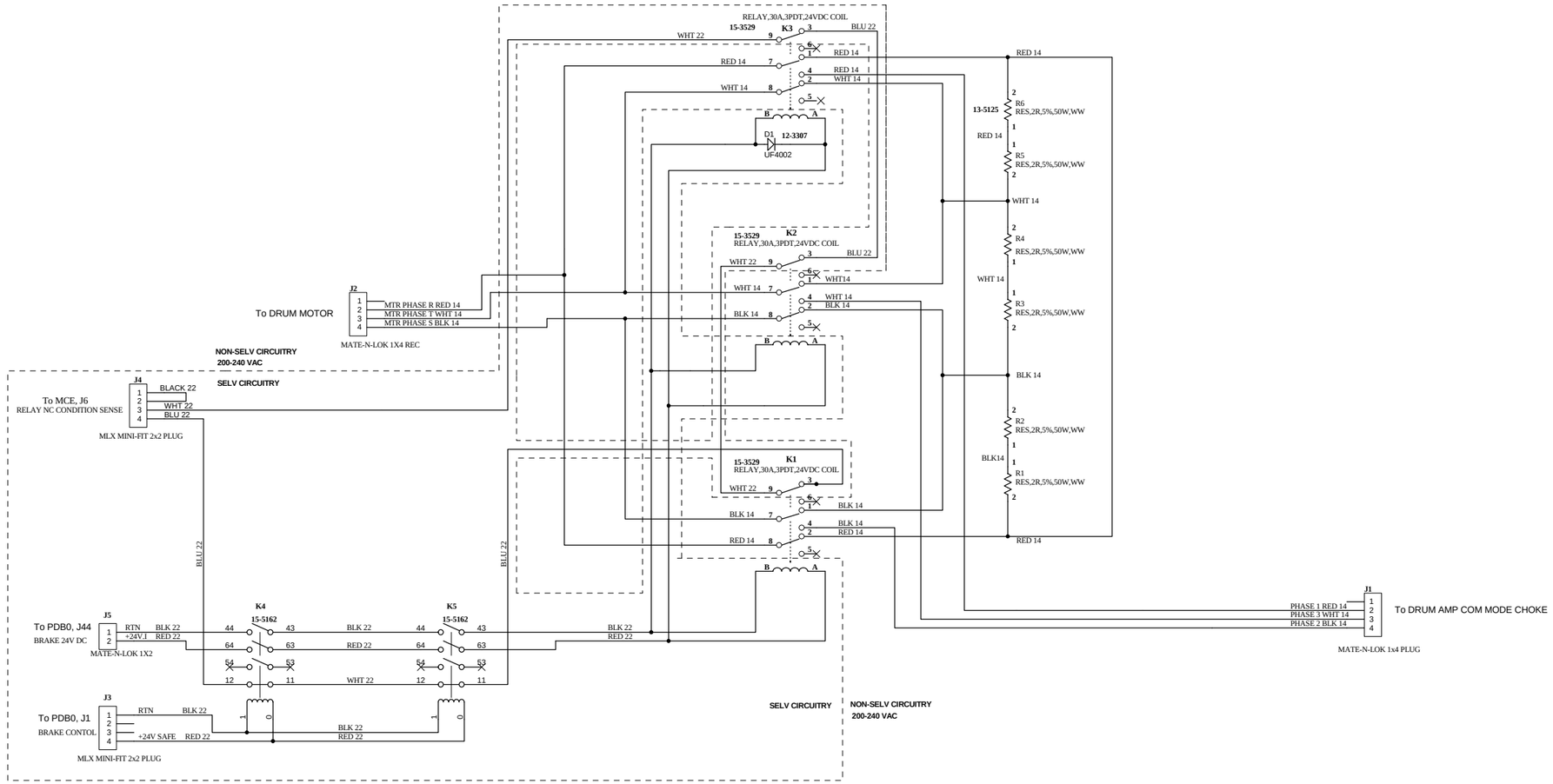
MTA AUTOLOADER
LIONEL BOARD
WIRING DIAGRAM

\\Ccaeng1\Engineering\Projects\MTA\SYSTEM\SA - Folder\Wiring diagrams\MTA AUTOLOADER_Ver_B_DMPK.ddb - Documents\PAGE 11_LIONEL BOARD WIRING

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DRUM RESISTIVE BRAKE ASSEMBLY 500-00058B

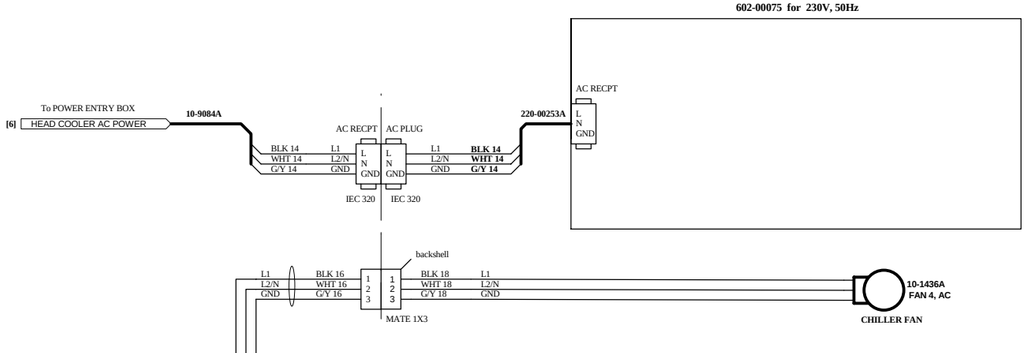
(See page 10 for details)



creo	**MTA AUTOLOADER** DRUM RESISTIVE BRAKE WIRING DIAGRAM		
\\Ccaeng1\Engineering\Projects\MTA\System\MTA Autoloader\Wiring diagrams\MTA AUTOLOADER_Ver_B_DMPK.ddb - Documents\PAGE 12_DRUM RESISTIVE BRAKE ASSY			
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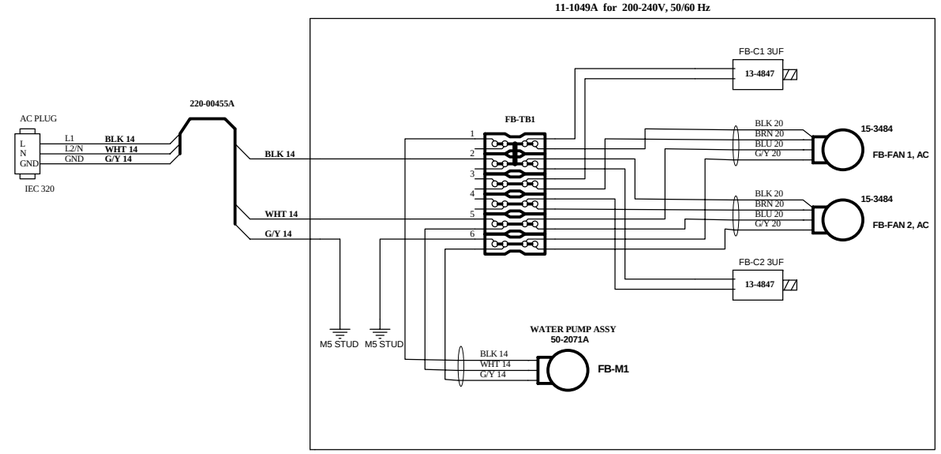
INTERNAL CHILLER

602-00076 for 200-230V, 60Hz or 200V, 50Hz
602-00075 for 230V, 50Hz



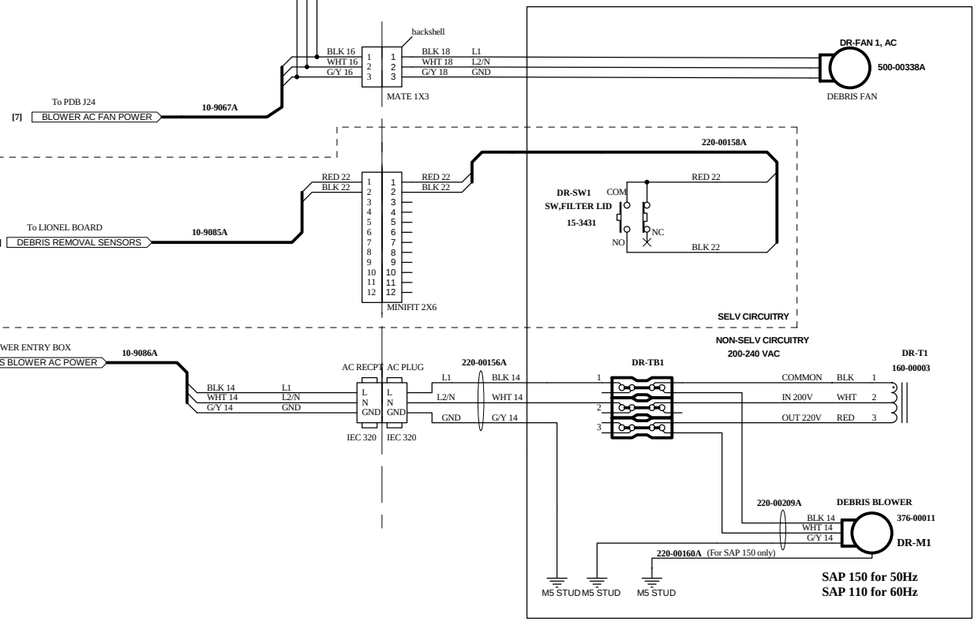
INTERNAL HEAT EXCHANGER (FAN BOX) ASSY

11-1049A for 200-240V, 50/60 Hz



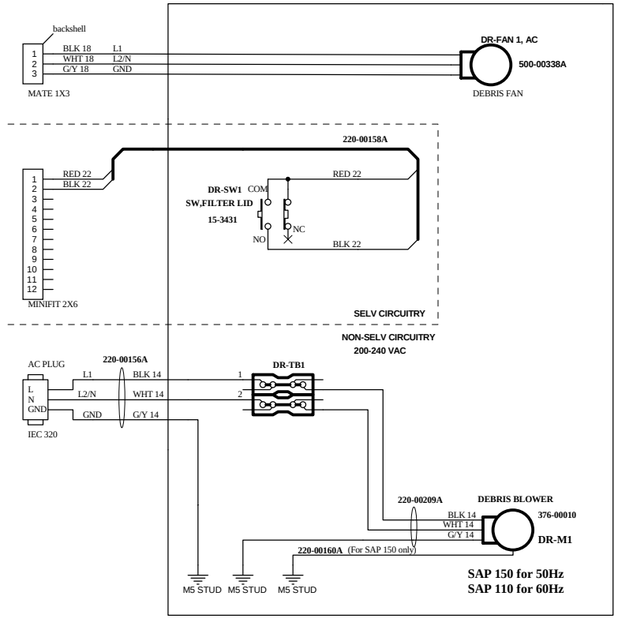
INTERNAL DEBRIS REMOVAL ASSY

200-208V INPUT POWER ONLY
518-00171A for 50Hz
518-00172A for 60Hz



INTERNAL DEBRIS REMOVAL ASSY

220-240V INPUT POWER ONLY
518-00639A for 50Hz
518-00640A for 60Hz



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MTA AUTOLOADER
HEAD COOLER & DEBRIS
WIRING DIAGRAM

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GENINE BOARD 0

10-4227D

BOARD ADDRESS = 0X30h

HEAD STAGE_HOME — 36-3125 — 10-4982A — J1 — J3 MTA 1X6 ANALOG0
HEAD STAGE_AWAY — 36-3125 — 10-4982A — J1 — J3 MTA 1X6 ANALOG1
FETCHER PRESSURE — PRESSURE SENSE BOARD 10-4887A — 220-00225A — 220-00227A (Add 220–00432A for L-R config.) — 220-00226A — MINIFIT 2X5 — MINIFIT 2X5
SS VACUUM — PSEB BOARD 10-4581A — MTA 1X6
220-00543A — J20 2X6 HDR HA-1
UNUSED — J11 UMNL 2X3 TEMP
UNUSED — J13 DB9F RS232 PORT
220-00435A — MINIFIT 2X4 — 220-00325A — To BULKHEAD MOD#2 SCON BUS [21]
J26 MINIFIT 2X8 CAN SCON1
220-00169A — To LIONEL0 J13 SCON BUS [11] — J24 MINIFIT 2X5 CAN SCON2
J25 UMNL 2X4 STPR-DRIVE — UNML 2X4
500-01641A — R1, R2 152-00097 RES,100R,1%,25W,WW — MINIFIT 2X3
WHT 22 VIO 22 RED 22 BLU 22 — MINIFIT 2X2 — 500-01662A M 7 184-00038 HEAD STAGE MOTOR
220-00544A

FETCHER_HOME — 36-3125 — 10-4982A — 220-00192A — J14 2X6 HDR HA-0
FETCHER_AWAY — 36-3125 — 10-4982A — 220-00230A — J17 2X10 HDR STPR-CNTL
FETCHER MOTOR 11-0851B — M 6 — GND CHASSIS — MATE 2X3
220-00191A — J2 IDC, 20PIN — 503-00265A CARRIAGE DRIVE — J3 MINIFIT 2X4
J1 +48V SAFE RTN — MATE 1X2 — 220-00190A — J27 MINIFIT 2X3 STPR-PWR
220-00231A — J4 2X10 HDR DIGITAL-IN2
(Add 220-00430A for L-R config.) — MINIFIT 2X5
220-00229A — 220-00232A — J2 2X15 HDR DIGITAL-IN3
J10 2X7 HDR DIGITAL-IN 1 — J5 2X17 HDR DIGITAL-IN4 — J18 2X8 HDR SOL-DRV0
220-00517A — To EXTERNAL DEVICE INTERFACE BRD. J6 EXTERNAL DEVICE OUTPUT INTERFACE [22]
220-00516A — To EXTERNAL DEVICE INTERFACE BRD. J5 DUAL PROCESSOR INTERFACE [22]
220-00515A — To EXTERNAL DEVICE INTERFACE BRD. J4 SINGLE PROCESSOR INTERFACE [22]

WEDGE MASTER UP — 36-3125 — 10-4982A — 220-00228A
PLATE-ON-FETCHER — 36-3210
PVAC VACUUM — 172-00021
FETCHER SAFE HOME — 36-3125 — 10-4982A
FETCHER SAFE AWAY — 36-3125 — 10-4982A

(Add 220-00431A for L-R config.) — MINIFIT 2X6 — 220-00236A — 220-00201A — J21 2X13 HDR — SOL-DRV1

MANIFOLD INTERFACE BOARD 10-4727A — J1 IDC,26PIN — J2 CON12 — J3 CON12 — 220-00193A — 220-00194A

FETCHER SOLENOID BLOCK
SV1 "fetcher cups up"
SV2 "fetcher vac on"
SV3 Fetcher SS picker down
SV4 "fetcher ss icup up"
SV5 Fetcher SS ocup up
SV6 Fetcher SS ocup down
SV7 "fetcher SS vac on"
SV8 "fetcher SS ejector on"
SV9 "fetcher platereject on"

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MTA AUTOLOADER
FETCHER
WIRING DIAGRAM

\\Ccaeng1\Engineering\Projects\Manta\System\DM_Picker\Wiring diagrams\MTA AUTOLOADER_Ver_B_DMPK.ddb - Documents\PAGE 14_GENINE 0_FETCHER

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GENINE BOARD 1

10-4227D

BOARD ADDRESS = 0X31h

(ADD 220-00425A FOR L-R CONFIG.)

220- 00255A

36-3205 BAUMER SLIP SHEET UNDER PLATE SENSOR FZAM18N6460/S14

BRN 22, BLU 22 — MINIFIT 2X2

15-3359 K1

RED 22, GRY 22, GRN 22, WHT 22

220-00248A

BLK 22, RED 22

(1) +24V, (2) ES 0, (6) ES 0, (13) GND

J10 2X7 HDR DIG_IN 1

To TMCE J8 [8] SCON BUS

220-00170A

SAT- +485HFE, SAT+ +485HFE, SAT- +485HTN, SAT+ +485HTN, SAT- +24V, SAT+ +24V, SAT- +245RTN, SAT+ +245RTN, BRD_LOC1-, BRD_LOC1+, BRD_LOC3-, BRD_LOC3+, CAN_H, CAN_L, CHASSIS, TERM_RET, +24V_RETN, BRD_LOC+, BRD_LOC0-, BRD_LOC2-, RED22

J3 MTA 1X6 ANALOG0

J26 MINIFIT 2X8 CAN SCON1

220-00171B

SAT- +485HFE, SAT+ +485HFE, SAT- +485HTN, SAT+ +485HTN, SAT- +24V, SAT+ +24V, SAT- +245RTN, SAT+ +245RTN, CAN_H, CAN_L, CHASSIS, TERM_RET, SAT- +24RTN, SAT+ +24RTN

To GENINE2 J24 [16] SCON BUS

J24 MINIFIT 2X5 CAN SCON2

J25 UMNL 2X4 STPR-DRIVE

PHA- BLK 22, PHB- BLK 22, PD+ GRN 22, PHA+ RED 22, PHB+ WHT 22, Chassis, PD- GRN 22, Shield

220-00184A

PHA+ BLK, PHA- GRN, PHB- BLU, PHB+ RED — MINIFIT 2X2

500-00717A M 3 LOAD CARRIAGE MOTOR

LOAD CARRIAGE_HOME — 36-3125 — 10-4982A

LED+ RED 22, LED- BLK 22, COLLECTOR WHT 22, EMITTER GRN 22 — RED 24, BLK 24, WHT 24, GRN 24

TO HOME.1 LED+ (1), TO HOME.1 LED- (4), TO HOME.1 C (2), TO HOME1. E (3)

220-00195A — J20 2X6 HDR HA-1

PD+ BLK 22 (10), PD- (11)

LOAD CARRIAGE_AWAY — 36-3125 — 10-4982A

TO AWAY.1 LED+ (5), TO AWAY.1 LED- (8), TO AWAY.1 C (6), TO AWAY.1 E (7)

SIDE EJECTOR_HOME — 36-3125 — 10-4982A

TO HOME.0 LED+ (1), TO HOME.0 LED- (4), TO HOME.0 C (2), TO HOME0. E (3)

220-00196A — J14 2X6 HDR HA-0

PD+ BLK 22 (10), PD- (12)

SIDE EJECTOR_AWAY — 36-3125 — 10-4982A

TO AWAY.0 LED+ (5), TO AWAY.0 LED- (8), TO AWAY.0 C (6), TO AWAY.0 E (7)

220-00187A — J17 STPR-CNTL 2X10 HDR

SIDE EJECTOR MOTOR 11-0851B — M 4 — GND CHASSIS

BLK 18 (RED PR), WHT 18, RED 18, BLK 18 (WHT PR) — MATE 2X3

220-00186A — PHA:VO+, PHB:VO-, PHA:VO-, PHB:VO+, SHIELD, Gain 2 A/V, YEL 18

J2 IDC, 20PIN — 503-00265A CARRIAGE DRIVE — J3 MINIFIT 2X4

J1 MATE 1X2 — +48V SAFE, RTN — 220-00188A BRN 16, BLK 16

J27 STEPPER POWER — PD, BLK22

J5 2X17 HDR DIGITAL-IN4 — 220-00249B

J2 2X15 HDR DIGITAL-IN3 — 220-00250A

J4 2X10 HDR DIGITAL-IN2 — 220-00251B

J21 — SOL-DRV1 — 2X13 HDR — 220-00185A — J1 IDC,26PIN

MANIFOLD INTERFACE BOARD 10-4727A

J2 CON12 — 220-00197A

ACT8+ BLK-22, +24V RED-22, ACT9+, ACT10+, ACT11+, ACT12+, ACT13+

SV1 Loadtable centercups up/n; SV2 Loadtable centercups dn/n; SV3 Loadtable leftrightcups up/n; SV4 Loadtable leftrightcups dn/n; SV5 "loadtable centercups vac on"; SV6 "loadtable leftcups vac on"

J3 CON12 — 220-00198A

ACT14+ BLK-22, +24V RED-22, ACT15+, ACT16+, ACT17+, ACT18+, ACT19+

SV7 "loadtable rightcups vac on"; SV8 "ejector pusher1 down"; SV9 Unloadtable tilt/stop; SV10 "loadtable centering unlock"; SV11 "loadtable wiffle lock"; SV12 Unloadtable untilt/stop

J4 CON12 — 220-00483A

ACT20+ BLK-22, +24V RED-22, ACT22+

SV13 "loadtable platestop up"; SV14 "loadtable pullout lock"

J5 CON12

LOAD TABLE SOLENOID BLOCK

LOAD TABLE CLOSED 1 (LOCATED CLOSER TO DRUM) — 36-3210

RED 22 TO DSEN16 LED+ (1), WHT 22 TO DSEN16 C (2), GRN 22 TO DSEN16 E (3)

LOAD TABLE CLOSED 2 (LOCATED FARTHER FROM DRUM) — 36-3210

RED 22 TO DSEN17 LED+ (5), WHT 22 TO DSEN17 C (6), GRN 22 TO DSEN17 E (7)

LOADER VAC CUPS CENTER — 172-00021

RED 22 TO DSEN9.C (2), BLK 22 TO DSEN9.E (3)

LOADER VAC CUPS LEFT — 172-00021

ORG 22 TO DSEN10.C (6), BRN 22 TO DSEN10.E (7)

LOADER VAC CUPS RIGHT — 172-00021

YEL 22 TO DSEN11.C (10), WHT 22 TO DSEN 11.E (11)

SIDE BRIDGE IN POSITION — 36-3210

RED 22 TO DSEN 4 LED+ (1), WHT 22 TO DSEN 4 C (2), GRN 22 TO DSEN 4 E (3)

UNLOAD TABLE_TILT — 36-3210

RED 22 TO DSEN19 LED+ (13), WHT 22 TO DSEN19 C (14), GRN 22 TO DSEN19 E (15)

UNLOAD TABLE_HORIZONTAL — 36-3210

RED 22 TO DSEN20 LED+ (17), WHT 22 TO DSEN20 C (18), GRN 22 TO DSEN20 E (19)

PLATE ON PROCESSOR — 36-3210 — 220-00364A — P?

RED 22 TO DSEN 5 LED+ (5), WHT 22 TO DSEN 5 C (6), GRN 22 TO DSEN 5 E (7) — MINIFIT 2X2

ACCESS PANEL CLOSED SW 15-3355 — 220-00426A (ADD 220-00436A FOR L-R CONFIG.)

RED 22 TO DSEN21.C (22), BLK 22 TO DSEN21.E (23) — MINIFIT 1X2

PLATE STOP UP — 36-3125 — 10-4982A

PLATE STOP DOWN — 36-3125 — 10-4982A

220-00482A

RED 22 TO DSEN12 LED+ (13), BLK 22 TO DSEN12 LED- (16), WHT 22 TO DSEN12 C (14), GRN 22 TO DSEN12 E (15), ORG 22 TO DSEN13 LED+ (17), BRN 22 TO DSEN13 LED- (20), BLU 22 TO DSEN13 C (18), YEL 22 TO DSEN13 E (19) — MINIFIT 2X4

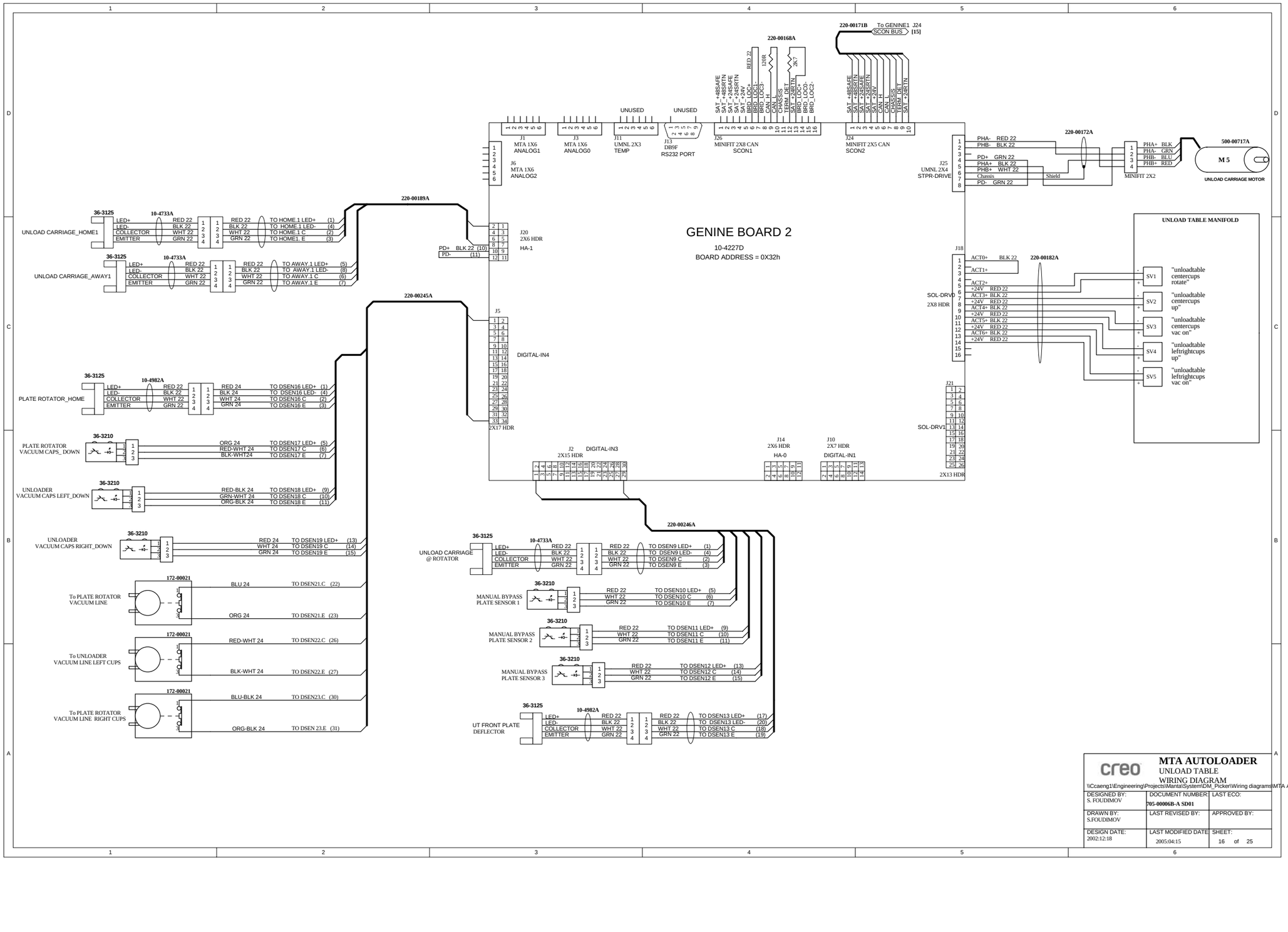
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MTA AUTOLOADER

LOAD TABLE & SIDE EJECTOR WIRING DIAGRAM

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DRAWN BY: S.FOUDIMOV	LAST REVISED BY:	APPROVED BY:
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MTA AUTOLOADER

UNLOAD TABLE
WIRING DIAGRAM

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DRAWN BY: S.FOUDIMOV	LAST REVISED BY:	APPROVED BY:
DESIGN DATE: 2002:12:18	LAST MODIFIED DATE: 2005:04:15	SHEET: 16 of 25

POWER DISTRIBUTION BOARD 1 (PDB 1)

10-4112 H

BOARD ADDRESS = 0X11h

SELV CIRCURY

NON-SELV CIRCURY
200-240 VAC

SW12 & SW13 - GLOBAL SAFETY LOOP

K3, K4 - LOCAL SSR SAFETY LOOP

MCU SERVICE OVERRIDE PANEL
500-01150A

MCU-M2
PLENUM BLOWER ASSY
500-00946B

MCU-M1
MTR AC 3PHASE
184-00016

MCU MOTOR DRIVE INVERTER 15-3422

CONTACTOR,DIL EM-01-G
15-3445
MCU-K1

CONTACTOR,DIL EM-01-G
15-3445
MCU-K2

MCU LEFT ROOF SAFETY SWITCHES

MCU RIGHT ROOF SAFETY SWITCHES

CASSETTE DOOR CLOSED

CART HOME

SHATTER ON CHARIOT
MCU-SW14

MTA AUTOLOADER

MCU PDB1 BOARD

WIRING DIAGRAM

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GENINE BOARD 3

10-4227D

BOARD ADDRESS = 0X33h

PICKER PRESSURE PRESSURE SENSE BOARD 10-4887A — 220-00288A — MTA 1X6 — RED 22 +24VDC, WHT 22 4-20mA Out, GRN 22 GND, BLU 22 PD+, BRN 22 PD-

220-0XXXXA — To PLENUM BAFFLE MOTOR H/A SEN — BAF. MOT. H/A [25]

To PDB1 J14 — [17] SCON BUS — 220-XXXXA — 220-00289A — To LIONEL1 J9 — SCON BUS [21]

To PLNM BAFFLE MOTOR RES [25] PLNM BAF MOT — 220-0XXXXA

13-5062 BAUMER SLIP SHEET SENSOR OZDM 16P1901 — 220-00357A — 220-00354A — MCU-K5 — 15-3359

To GENINE3 J18 [18] SS SENSOR POWER — 220-00290A

To PLATE W. SENSOR ADAPTOR [18] +24V — 220-00837A — MINIFIT 1X2 — 220-00295B

CART PARK 15-3457 SW6 — 220-00438B — MINIFIT 2X4

To CART HOME SW5 [17] CART HOME DETEC

J1 MTA 1X6 ANALOG1 — WHT 22 SIG, GRN 22 GND, BLK 22 PD

J3 MTA 1X6 ANALOG0 — J20 2X6 HDR HA-1 — BLK 22 PD+, PD-

J25 UMNL 2X4 STPR-DRIVE

J26 MINIFIT 2X8 CAN SCON1 — SAT -48SAFE, SAT -48SRTN, SAT -24SAFE, SAT -24SRTN, BRD_LOC1-, BRD_LOC1+, BRD_LOC3-, CAN -H, CAN +H, CHASSIS, TERM_RET, SAT -24RTN, BRD_LOC+, BRD_LOC0-, BRD_LOC2-, RED22

J24 MINIFIT 2X5 CAN SCON2 — SAT -48SAFE, SAT -48SRTN, SAT -24SAFE, SAT -24SRTN, SAT +24V, CAN -H, CAN +H, CHASSIS, TERM_RET, SAT -24RTN

J18 SOL-DRV0 2X8 HDR — 220-00290A — ACT0+ BLK 22, +24V RED 22, ACT1+ BRN 22, +24V ORG 22, ACT2+ BLU 22, +24V VIO 22, ACT3+ GRN 22, +24V YEL 24, ACT4+ GRY 24, +24V WHT 24, ACT5+ BLK 22, +24V RED 22

To DM PICKER MANIFOLD SOL_DRV GEN 3 [24]

To RELAY K5 SS SENSOR POWER [18]

[17] CART & DOOR SV — 220-00282A — 220-00419A — MINIFIT 2X2

J21 SOL-DRV1 2X13 HDR — 220-00291A

MANIFOLD INTERFACE BOARD 10-4727A — J2 — 220-00292A — CON12

MCU MANIFOLD
- SV1 "cassette door open"
- SV7 "cassette cartpin up"
- SV2 Cassette casslock
- SV3 Cassette casseject
- SV4 "plenum separator on"
- SV5 "plenum float high"
- SV6 "plenum ssmirror out"

J1 — DC,26PIN

J3 — 220-00293A — MINIFIT 2X3 — 220-00285A — To SSR BULKHED — SSR MANIFOLD [20]

J4 — 220-00294A — To MCU SAFETY INTERFACE BOARD J3 — MCU SAFETY CONTROL [20]

J5

J10 — IDC, 14PIN

J5 — DIGITAL-IN4 — 2X17 HDR

J2 DIGITAL-IN3 2X15 HDR

J4 DIGITAL-IN2 2X10 HDR

220-00296B

220-00297B

220-00298A

CASSETTE DOOR OPENED — 10-4982A — 36-3125 — LED+, LED-, COLLECTOR, EMITTER — RED 22, BLK 22, WHT 22, GRN 22 — TO DSEN16 LED+ (1), TO DSEN16 LED- (4), TO DSEN16 C (2), TO DSEN16 E (3)

[17] CASSETTE DOOR DETECT — TO DSEN17 C (6), TO DSEN17 E (7)

CASSETTE LOCK — 36-3210 — TO DSEN18 LED+ (9), TO DSEN18 C (10), TO DSEN18 E (11)

CASSETTE EJECT — 36-3210 — TO DSEN19 LED+ (13), TO DSEN19 C (14), TO DSEN19 E (15)

CASSETTE LOCKED ON CHARRIOT 1 — 36-3210 — TO DSEN20 LED+ (17), TO DSEN20 C (18), TO DSEN20 E (19)

CASSETTE LOCKED ON CHARRIOT 2 — 36-3210 — TO DSEN21 LED+ (21), TO DSEN21.C (22), TO DSEN21.E (23)

LOCK EJECT CYLINDER IN — 36-3210 — TO DSEN22 LED+ (25), TO DSEN22 C (26), TO DSEN22 E (27)

To SHATTER SWITCH - SW 14 [17] SHATTER SW DETECT — TO DSEN23 C (30), TO DSEN23 E (31)

CASS POS 1 — 36-3210 — TO DSEN9 LED+ (1), TO DSEN9 C (2), TO DSEN9 E (3)

CASS POS 2 — 36-3210 — TO DSEN10 LED+ (5), TO DSEN10 C (6), TO DSEN10 E (7)

CASS POS 3 — 36-3210 — TO DSEN11 LED+ (9), TO DSEN11 C (10), TO DSEN11 E (11)

CASS POS 4 — 36-3210 — TO DSEN12 LED+ (13), TO DSEN12 C (14), TO DSEN12 E (15)

CASS LOAD/UNLOAD POS — 36-3210 — TO DSEN13 LED+ (17), TO DSEN13 C (18), TO DSEN13 E (19)

CASS LOCK/EJECT POS — 36-3210 — TO DSEN14 LED+ (21), TO DSEN14 C (22), TO DSEN14 E (23)

To GENINE 3, J10 [18] +24V — BLK 22, GRN 22 — TO DSEN15 C (26), TO DSEN15 E (27) — MINIFIT 1X2

P-CUP ARM UP — 36-3210 — TO DSEN 4 LED+ (1), TO DSEN 4 C (2), TO DSEN 4 E (3)

P-CUP SLIDER RETRACT — 36-3210 — TO DSEN 5 LED+ (5), TO DSEN 5 C (6), TO DSEN 5 E (7)

P-CUPS MOTION DOWN 10-9048A — 36-3209 — LED+, COLLECTOR, EMITTER — GRY 24, WHT 24, GRN 24 — TO DSEN6 LED+ (9), TO DSEN6 C (10), TO DSEN6 E (11)

SS MIRROR EXTENDED 10-4982A — 36-3125 — LED+, LED-, COLLECTOR, EMITTER — RED 22, BLK 22, WHT 22, GRN 22 — TO DSEN 7 LED+ (13), TO DSEN7 LED- (16), TO DSEN 7 C (14), TO DSEN 7 E (15)

CASS PICK POS — 36-3210 — TO DSEN8 LED+ (17), TO DSEN8 C (18), TO DSEN8 E (19)

220-00837A — RED 22, GRN 22, BLK 22, WHT 22 — MINIFIT 2X2

220-01272A (FOR R-L OPTION) — BRN 22, PINK 22, BLUE 22, BLK 22, NC — MINIFIT 2X2

PLATE WIDTH SENSOR 10-4652A — 36-3200

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MTA AUTOLOADER

MCU GENINE 3

WIRING DIAGRAM

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MCU SERVICE OVERRIDE PANEL
500-01150A

MCU-SW1
2 POSITION
LEVER SWITCH
15-3536

LEFT - SEMI-AUTO MODE
POS 2

RIGHT - MANUAL JOG MODE
POS 1

15-3238

MCU-SW2
PUSHBUTTON
HOLD FOR SEMI-AUTO
15-3446
15-3447
15-3448

MCU-SW3
PUSHBUTTON
JOG UP

MCU-SW4
PUSHBUTTON
JOG DOWN

220-00421A

To MCU OVERRIDE SW.
[17] SEMI-AUTO BTN

To MCU OVERRIDE SW.
[17] MANUAL JOG BUTN

MODES OF OPERATION:

JOG MODE:

PUT OVERRIDE SWITCH IN OVERRIDE POSITION.
PUT LEVER SWITCH IN POS. 1
TO MOVE FORKS UP - PRESS AND HOLD PUSHBUTTON MCU-SW3
TO MOVE FORKS DOWN - PRESS AND

SEMI-AUTOMATIC MODE:

PUT OVERRIDE SWITCH IN OVERRIDE POSITION.
PUT LEVER SWITCH IN POS. 2
PRESS AND HOLD MCU-SW2 WHILE REGULAR AUTOMATIC OPERATION

UPPER & LOWER LIMIT SWITCHES

15-3457
UPPER LIM SWITCH
220-00315A
SW2
SW3
LOWER LIM SWITCH
15-3457

J1
2X2 MINIFITJR

220-00421A
J4
RED 24 — +24VSAFE
WHT 24 — JOG MODE
GRN 24 — ACT20+(MOTOR RUN)
YEL 24 — SEMI/AUTO RUN
ORG 24 — JOGGED RUN
BLK 24 — JOG DOWN
SERV PNL SW OVR
GND

MCU SAFETY INTERFACE BOARD
10-4697C

SELV CIRCUITRY

NON-SELV CIRCUITRY

J2
N/O CONTACT1
N/O CONTACT2
FREQ 1 (FAST)
FREQ 2 (SLOW)
+15V DC
REVERSE
FORWARD
DC COMMON
CONT REL (RUN)
2X6 MINIFIT

220-00311A
INVERTER CONTROL

15-3422
MCU MOTOR DRIVE
KEBCO INVERTER

RED 22	1	N/O CONTACT
	2	
WHT 22	3	SW COMMON
GRN 22	4	FREQ 1 (FAST)
BLK 22	5	FREQ2 (SLOW)
BRN 22	6	DC COMMON
	7	
	8	
	9	
YEL 22	10	
BLU 22	11	15VDC
ORG 22	12	REVERSE
GREY 22	13	FORWARD
	14	CONT REL (RUN)

DIRECTION
UP
DOWN
K2 RTE24024
D4 UF4002

RUN
K1 RTE24024
D1 UF4002

DIR DOWN ISOLATION
K3 RTE24024
D2 UF4002

SPEED SLOW
K4 RTE24024
D3 UF4002

MOTOR RUN
SENS ISOLATION
R1 1K
U1A ILQ30

220-00294A
J3
RED 22 — 24V SAFE
BLK 22 — ACT20+(MOTOR RUN)
WHT 22 — ACT22+(DIR DOWN)
GRN 22 — ACT24+(FREQ SLOW)
SENS 13.E (MOTOR RUN)
SENS 13.C (MOTOR RUN)
SENS14.C(SFTY LOOP)
SENS14.E(SFTY LOOP)
GND
2X5 MINIFITJR

TO MCU MANIFOLD INT. BRD (J4)
[18] MCU SAFETY CONTROL

24V OK
DS1
LED,GRN
R3 2K2

GRN 22
WHT 22
BLK 22
MINIFIT 2X2

To MCU LIONEL1 (J8)
[21] MCU SAFETY SENSING
220-00280A

SAFETY LOOP OK
DS2 LED,YEL
D8 UF4002
R4 2K2

J5
RED 22 — CONTACTOR COIL+
BLK 22 — GND
2X3 M'nL

To MCU CONTACTOR COILS
[17] CONTACTORS ON
220-00279A

DIRECTION SIGNAL
PULLED LOW = DOWN

RUN SIGNAL
CONTROLLED BY F/W
AND K6, K7. ACTIVE LOW

AUTO/JOG SIGNAL SELECTOR 1
DIR DOWN REQ
SPEED SLOW REQ

J8 RED 22 — 24V SAFE — 1X2 M'nL
J9 — 1X2 M'nL
J6 — 1X2 M'nL
J7 — 1X2 M'nL
J10 — CONTACTOR COIL+ — 1X2 M'nL

D5 K5 RTE24024 UF4002

AUTO/JOG SIGNAL SELECTOR2
K6 RTE24024
D6 UF4002

RUN SIGNAL CONTACTOR
RUN REQ
D7 K7 RTE24024 UF4002

U2A ILQ30
R2 1K8

K5, K6 ENERGIZED WHEN LEVER SWITCH SET TO JOG MODE

RELAY ENERGIZED WHEN MCU SAFETY LOOP IS OK

EMERGENCY STOP SWITCH
ES1-MCU **15-3474**
ES2-MCU **15-3474**
ES3-SSR **15-3474**
220-00317A
220-00417A
220-00418A
RED 22
BLK 22

To PDB1 (J42)
[17] PDB1 ESTOP
220-00452A

To MCU BULKHEAD MOD#2 (10)
[21] ES3-SSR
220-00452A

To MCU BULKHEAD MOD#2 (11)
[21] ESTOP1 FOM MCU
220-00452A

To MCU BULKHEAD (12)
[21] ESTOP3 FROM SSR
220-00452A

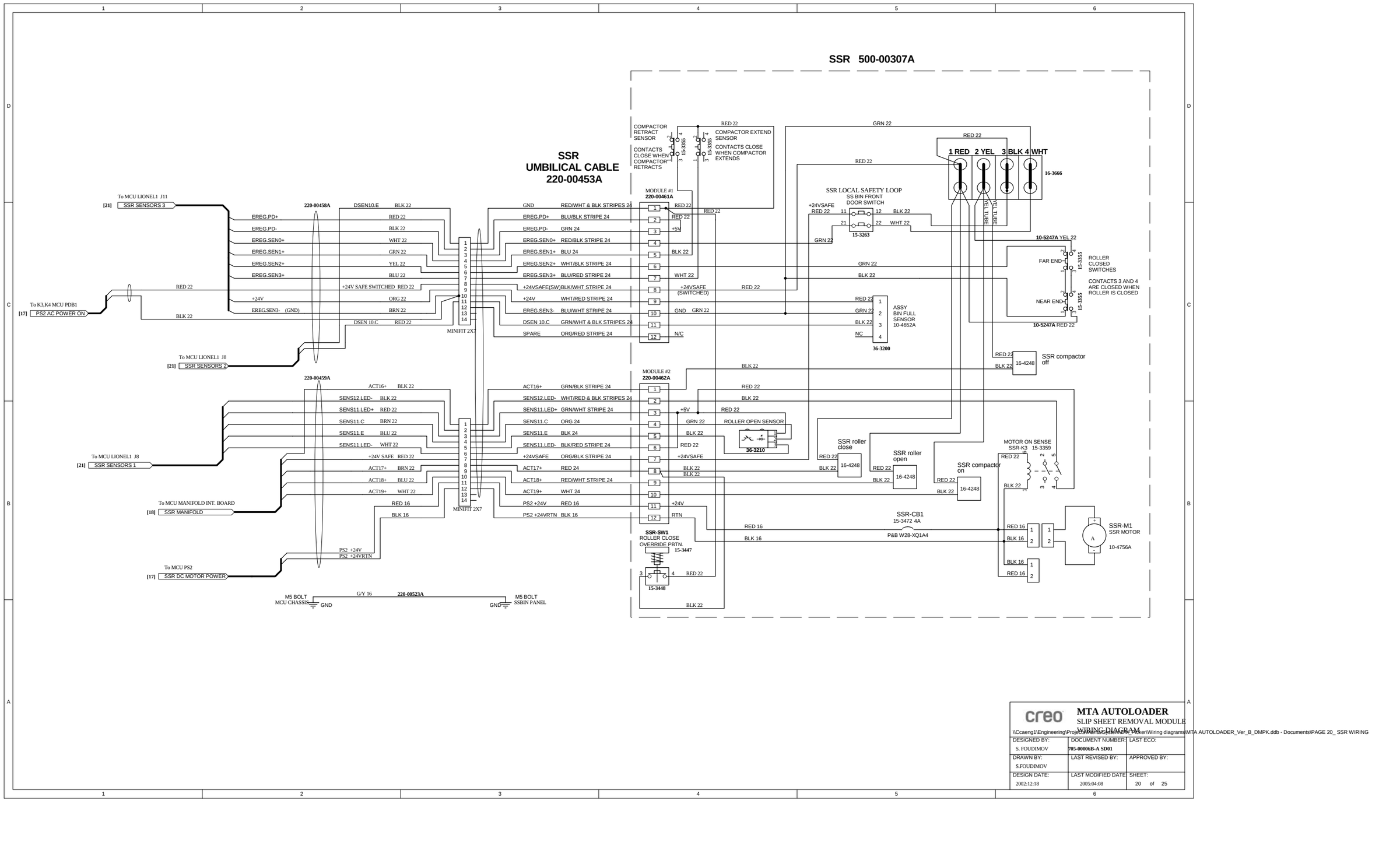
RED 22
BLK 22

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MTA AUTOLOADER
MCU SAFETY INTERFACE BOARD
WIRING DIAGRAM

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MTA AUTOLOADER
SLIP SHEET REMOVAL MODULE
WIRING DIAGRAM

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NOTE: INSTALL POLYSWITCH F2, F5, F6 ON THE LIONEL BOARD

CL PLUG 220-00477A

LIONEL BOARD 1
10-4801B
Board Address = 0x41h

MCU-MACHINE UMBILICAL CABLE 220-00451A

MACHINE BULKHEAD

SSR USER INTERFACE BOARD 503-00101A

MCU USER INTERFACE BOARD 503-00102A

SHOULDER HOME PANEL

CONTROL PANEL, SHOULDER AWAY PANEL

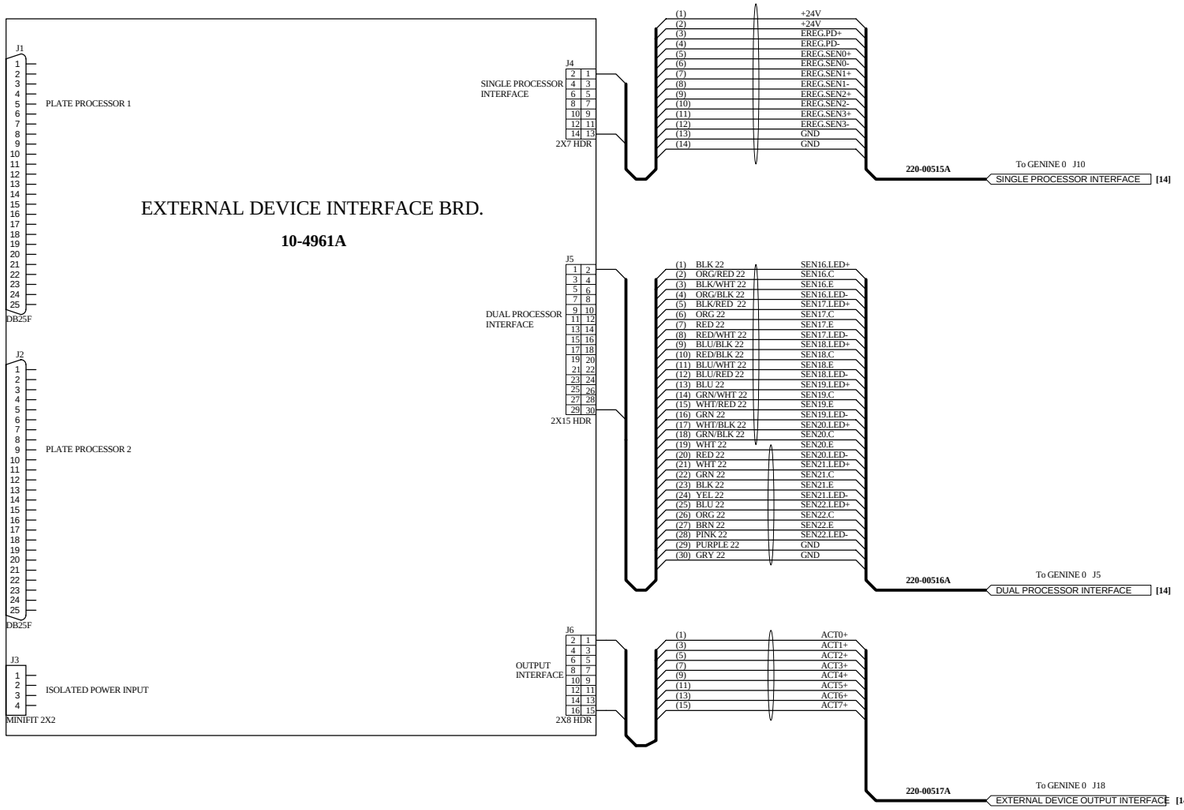
MODULE #1

MODULE # 2

MTA AUTOLOADER
MCU LIONEL 1
WIRING DIAGRAM

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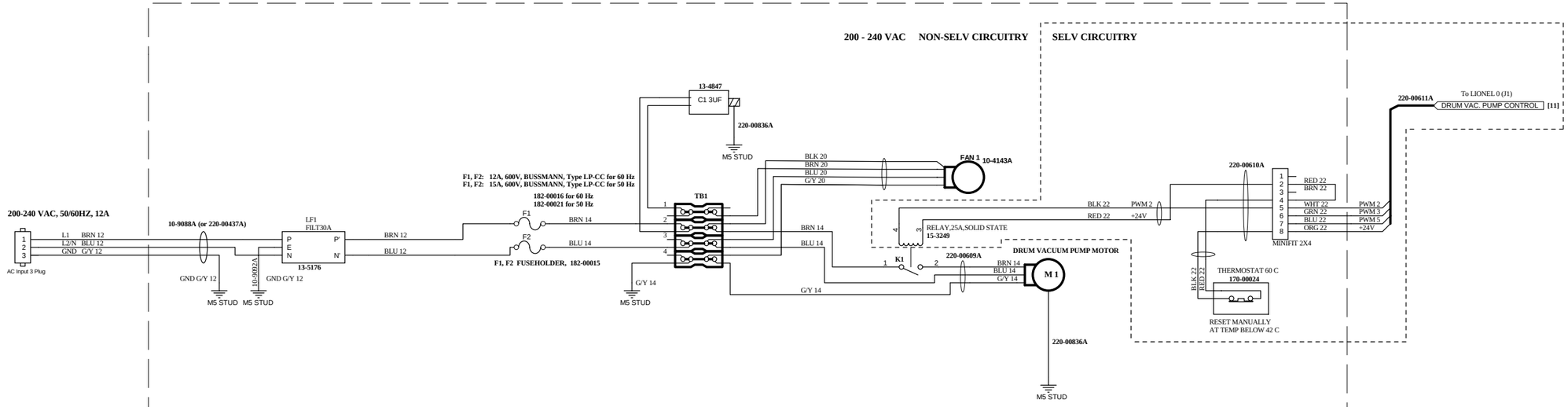


MTA AUTOLOADER
PROCESSOR INTERFACE BOARD
WIRING DIAGRAM

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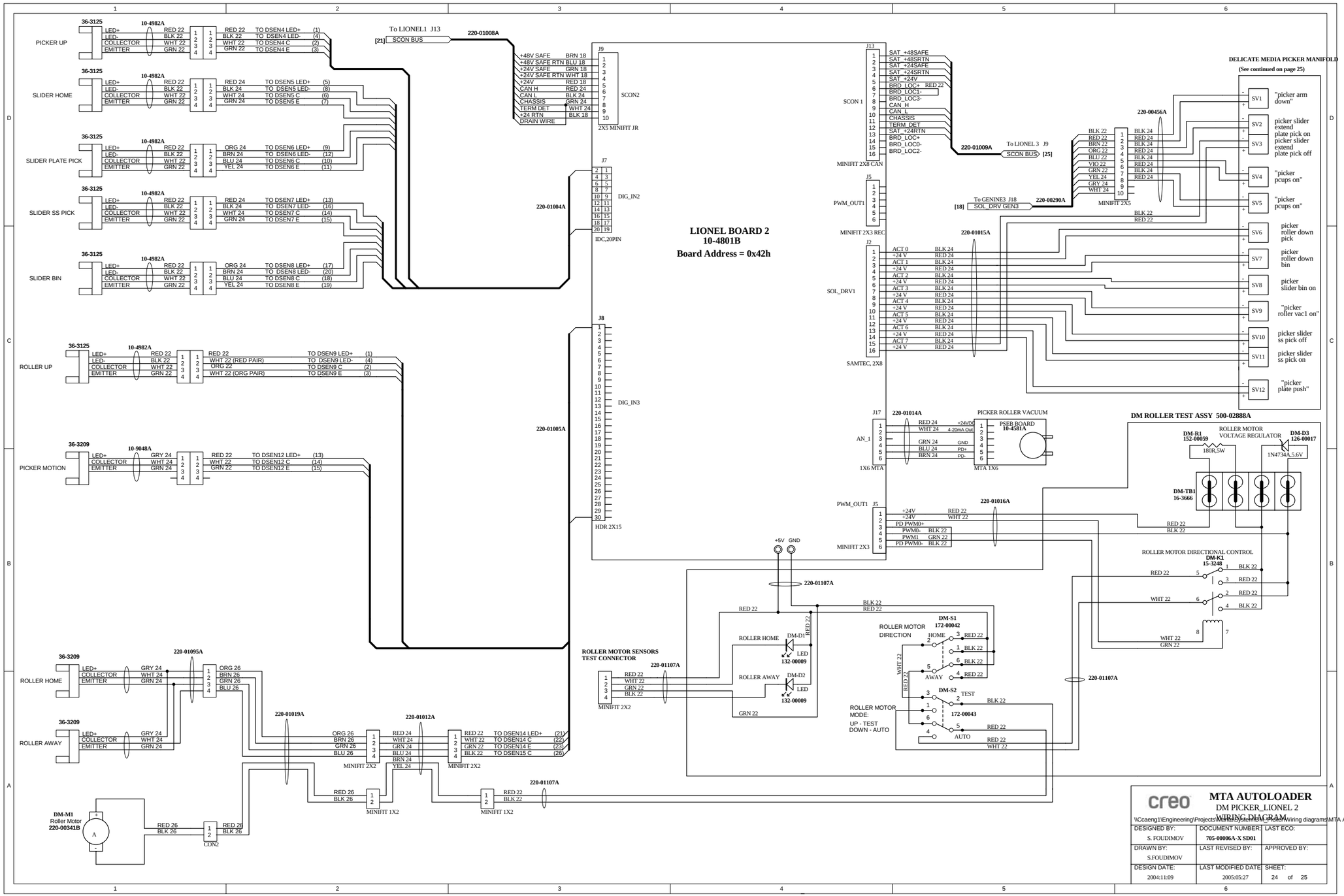
MTA DRUM VACUUM PUMP ASSY (MTA-DVP) 518-01555B



MTA AUTOLOADER
DRUM VACUUM PUMP
WIRING DIAGRAM

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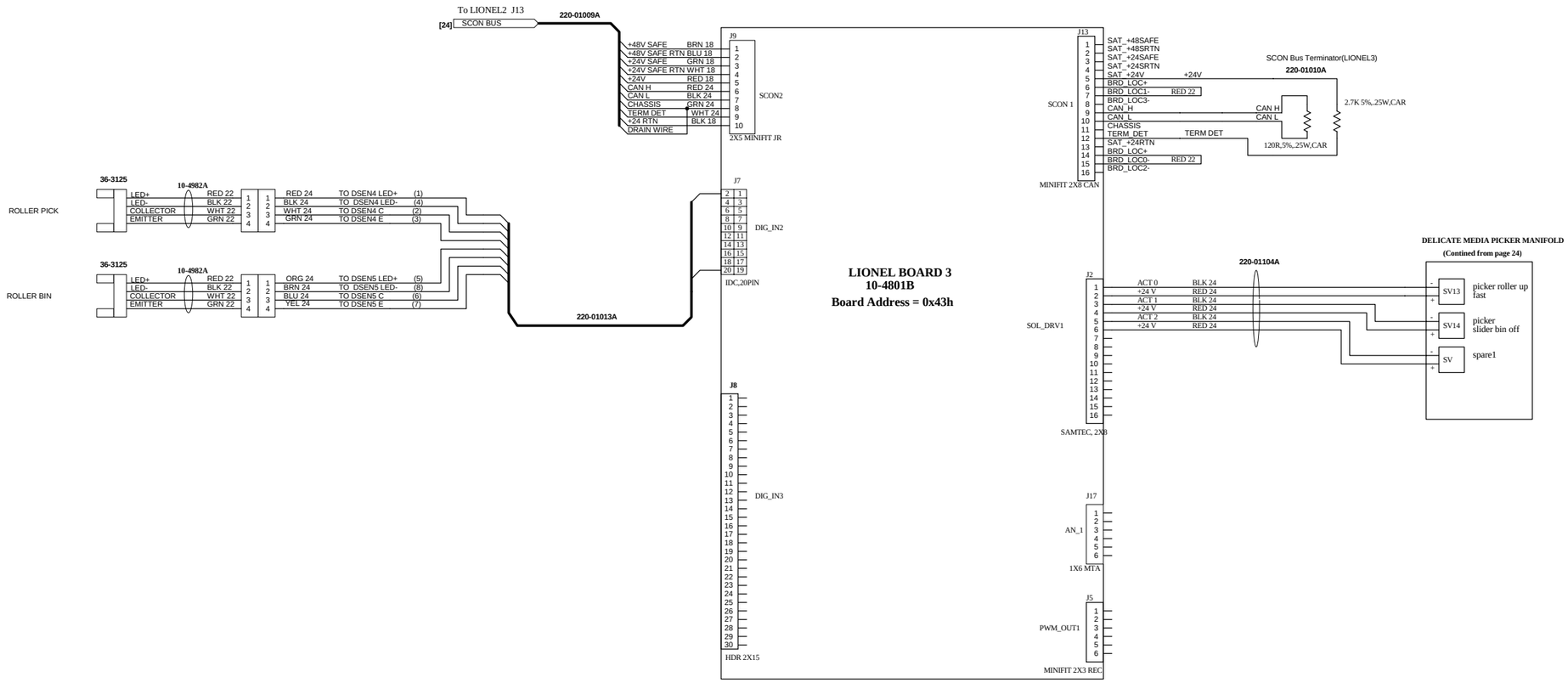
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MTA AUTOLOADER
DM PICKER_LIONEL 2
WIRING DIAGRAM

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	DM PICKER_LIONEL 3	
	WIRING DIAGRAM	
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