MTA WIRING DIAGRAM
SERIES 4 AUTOLOADER OPTIONS (CL, MCU, DM PICKER & PUNCH & PRODUCTIVITY II)

MTA AUTOLOADER CONFIGURATIONS
PAGE 2_MTA AUTOLOADER CONFIGURATIONS

SERIES3 AUTOLOADER CONFIGURATIONS

MTA SYSTEM BLOCK DIAGRAM
PAGE 3_SYSTEM BLOCK DIAGRAM

SYSTEM BLOCK DIAGRAM, PAGE 1

MTA SYSTEM BLOCK DIAGRAM CONTINUED
PAGE 4_SYSTEM BLOCK DIAGRAM CONTINUED

SYSTEM BLOCK DIAGRAM, PAGE 2

MTA SAFETY CIRCUIT
PAGE 5_SAFETY CIRCUIT

SAFETY DOOR LOOP
EMERGENCY STOP SWITCH
WRITE LASER SAFETY INTERLOCK
MECHANICAL SAFETY INTERLOCK
DRUM AMP SAFETY INTERLOCK
DRUM BRAKE SAFETY INTERLOCK
SERVICE INTERLOCK OVERRIDE SWITCH
SERVICE INTERLOCK OVERRIDE INDICATORS

MTA SAFETY CIRCUIT CONTINUED
PAGE 6_SAFETY CIRCUIT CONTINUED

SAFETY DOOR LOOP
EMERGENCY STOP SWITCH
WRITE LASER SAFETY INTERLOCK
MECHANICAL SAFETY INTERLOCK
DRUM AMP SAFETY INTERLOCK
DRUM BRAKE SAFETY INTERLOCK
SERVICE INTERLOCK OVERRIDE SWITCH
SERVICE INTERLOCK OVERRIDE INDICATORS

MTA POWER ENTRY WIRING
PAGE 7_POWER ENTRY WIRING

MAIN POWER SWITCH
SERVICE INTERLOCK OVERRIDE SWITCH
SERVICE INTERLOCK OVERRIDE INDICATORS
CIRCUIT BRAKERS

MTA POWER DISTRIBUTION BOARD WIRING
PAGE 8_POWER DISTRIBUTION BOARD WIRING

CANBUS
POWER BOX AC POWER SW2
SAFETY DOOR LOOP
EMERGENCY STOP SWITCH
MECHANICAL SAFETY INTERLOCK
DRUM RESISTIVE BRAKE CONTROL
SERVICE INTERLOCK OVERRIDE SWITCH
SERVICE INTERLOCK OVERRIDE INDICATORS
POWER SUPPLIES PS1, PS2, PS3
AC FANS
TEC MAGNETS CONTROL

MTA GMCE0
PAGE 9_GMCE0

CANBUS
CARRIAGE MOTROR DRIVE
PNEUMATIC SOLENOID DRIVE OUTPUTS
DRUM AMP CONTROL
ANLOG SENSORS
PLATE FLYOFF SENSOR
WORKSTATION CONNECTIONS
ENCODER
DEBRIS REMOVAL SENSOR
PLATE REGISTRATION ELECTRONICS

MTA GMCE0 DIGITAL SENSORS WIRING
PAGE 10_GMCE0 DIGITAL SENSORS WIRING

CANBUS
CARRIAGE HOME AND AWAY SENSORS
ROLLER & LEC UP/DOWN SENSORS
HOME & AWAY BALANCE SENSORS
BACKBONE MECHANISM SENSORS
P-DOOR SENSORS
TEC DETECT SENSORS
TEC COILS
LOAD RAMP PLATE SENSOR 2
DRUM RESISTIVE BRAKE RELAYS SENSE
EDGE DETECT CAMERA

MTA DRUM AMPLIFIER & MOTOR WIRING
PAGE 11_DRUM AMPLIFIER & MOTOR WIRING

DRUM DRIVER
DRUM MOTOR
DRUM RESISTIVE BRAKE

MTA LIONEL0 BOARD WIRING
PAGE 12_LIONEL0 BOARD WIRING

CANBUS
INTERNAL DEBRIS REMOVAL SENSORS
REGISTRATION LIGHTS
STATUS LIGHTS
CUSTOMER RELAY INTERFACE
DRUM VACUUM PUMP CONTROL

MTA DRUM RESISTIVE BRAKE ASSY
PAGE 13_DRUM RESISTIVE BRAKE ASSY

DRUM RESISTIVE BRAKE WIRING

MTA HEAD COOLER & DEBRIS REMOVAL
PAGE 14_ HEAD COOLER & DEBRIS REMOVAL

INTERNAL DEBRIS REMOVAL WIRING
INTERNAL TH2 CHILLER WIRING
INTERNAL TH2.7 HEAT EXCHANGER WIRING
EXTERNAL TH3 CHILLER WIRING

MTA GENINE 0_FETCHER
PAGE 15_GENINE 0_FETCHER

FETCHER CONTROL
PLATE PROCESSOR INTERFACE CONTROL
Z-STAGE

MTA GENINE 0_CL OPTION
PAGE 16_GENINE 0_CL OPTION

CAN BUS TERMINATOR
PLATE PROCESSOR INTERFACE CONTROL
Z-STAGE

MTA GENINE 1_LOAD TABLE & SIDE EJECTOR
PAGE 17_GENINE 1_LOAD TABLE & SIDE EJECTOR

LOAD TABLE
SIDE EJECTOR

MTA GENINE 2_ UNLOAD TABLE
PAGE 18_GENINE 2_ UNLOAD TABLE

UNLOAD TABLE

MTA MCU PDB1 WIRING
PAGE 19_MCU PDB1 WIRING

CANBUS
POWER SUPPLIES
MCU SAFETY LOOP

MTA MCU GENINE 3 WIRING
PAGE 20_MCU GENINE 3 WIRING

MCU & SSR SENSORS
MCU MANIFOLDS

MTA MCU SAFETY INTERFACE BOARD
PAGE 21_MCU SAFETY INTERFACE BOARD

MCU SAFETY BOARD
MCU MOTOR DRIVE

MTA SSR WIRING
PAGE 22_ SSR WIRING

SSR MODULE

MTA MCU LIONEL 1 WIRING
PAGE 23_MCU LIONEL 1 WIRING

MCU USER INTERFACE
SSR USER INTERFACE
EMERGENCY STOP SWITCHES

MTA PROCESSOR INTERFACE BOARD
PAGE 24_PROCESSOR INTERFACE BOARD

PROCESSOR INTERFACE BOARD

MTA LIONEL 2 DELICATE MEDIA PICKER
PAGE 25_LIONEL 2 DELICATE MEDIA PICKER

DELICATE MEDIA PICKER OTION, PAGE1

MTA LIONEL 3 DELICATE MEDIA PICKER
PAGE 26_LIONEL 3 DELICATE MEDIA PICKER

DELICATE MEDIA PICKER OPTIN, PAGE2

MTA MANTA DRUM VACUUM PUMP
PAGE 27_MANTA DRUM VACUUM PUMP

EXTERNAL DRUM VACUUM PUMP

MTA GENINE4_PUNCH CONTROL
PAGE 28_GENINE 4_PUNCH CONTROL

GENINE4 IO

DAPHNE 0_PUNCH
PAGE29_DAPHNE 0_PUNCH

PUNCH MOTOR CONTROL
PLATE REGISTRATION
PRESSURE REGULATORS
EXTRUSION TEMPERATURE SENSORS

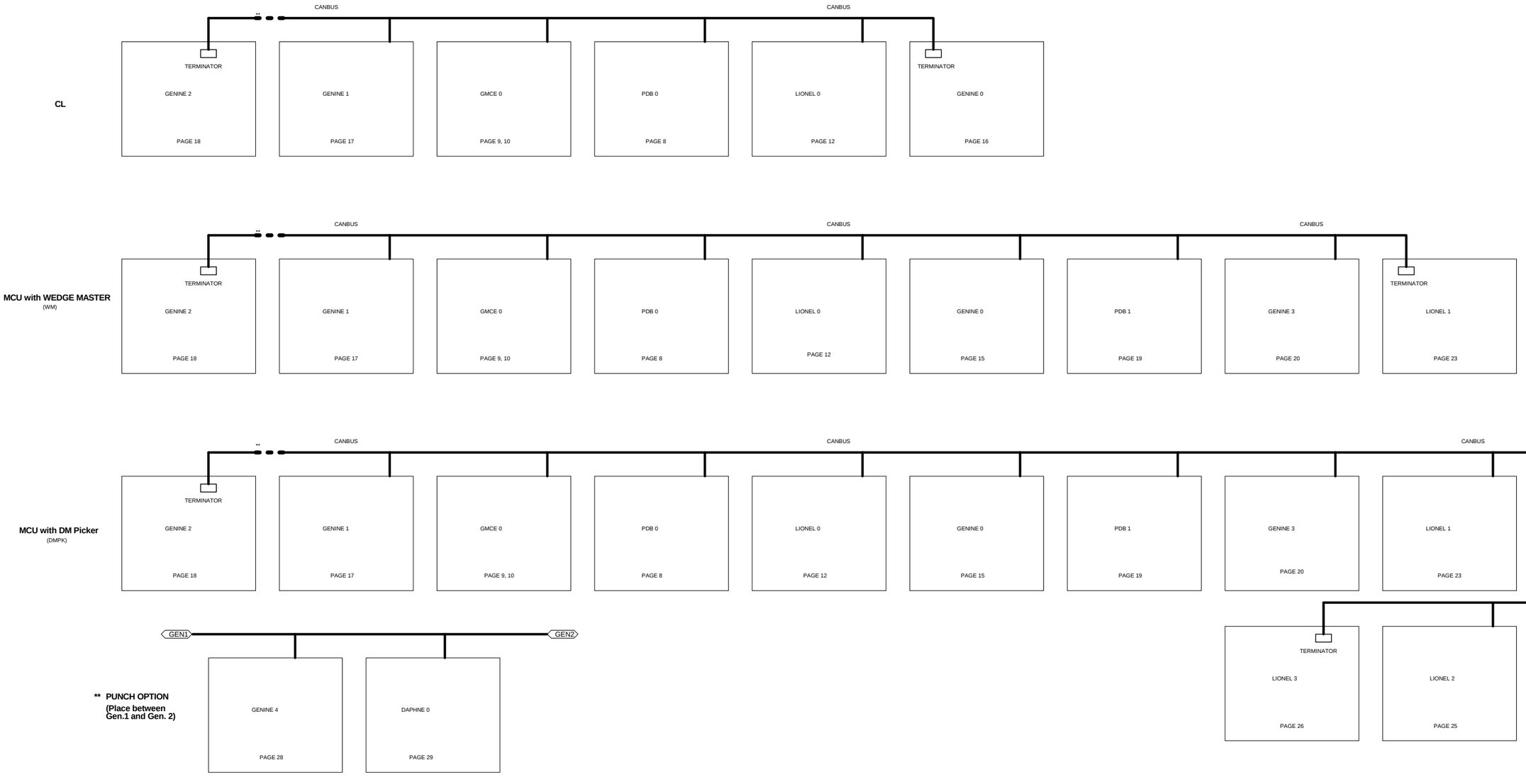
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MTA AUTOLOADER
SERIES 4
SYSTEM WIRING DIAGRAM

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MTA SERIES IV AUTOLOADER SATELLITE BOARD CONFIGURATIONS



MTA AUTOLOADER

AUTOLOADER CONFIGURATIONS

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SEE PAGE 4

CAN BUS

SEE PAGE 4

Chiller Sensors
Debris Removal Sensor
TEC/LEC Sensors

Carriage Home/Away Sensors
Engine Actuation Sensors
Plate Length Sensors
Temperature Sensors
Plate Flyoff Sensor

LIONEL 0 BOARD

STATUS LIGHT LEDs BRD.

CONTROL of MTA-DVP

WORKSTATION
CONSOLE

ETHERNET CAT5e

RESPONSE CENTER
REMOTE DIAL-UP
SERVICE

CAN BUS
+24V
+48V
CAN H/L

GIGABIT
MASTER CONTROL
ELECTRONICS
(GMCE0 BOARD)

ENGINE I/O

ENGINE SOLENOID
MANIFOLD

EH - Control

DATA (HOT LINK)

CARRIAGE DRIVER
INTERFACE

PLL & LINE
TIMING (SCLK)

DRUM AMP
INTERFACE

FOR TH3 OPTION:
TH3
EXPOSURE
HEAD

FIBEROPTICS DUPLEX CABLE

RS422

High Speed Serial

48VDC Power

RS422 +5V Analog plus

CARRIAGE
DRIVE

TH2
EXPOSURE
HEAD

Carriage Motor

RS422 (Incremental Quadrature)

Tach Encoder

DRUM

+-10V Analog or TTL PWM

DRUM
DRIVE

DRUM
RESISTIVE
BRAKE

Drum Motor

TH3 OPTION ONLY

EXTERNAL CHILLER (TH3)

200 - 240 VAC

INTERNAL CHILLER (TH2.7)

200 - 240 VAC

200 - 240 VAC

DOOR LOOP
E-STOP SWITCH
SERVICE INTERLOCK
OVERIDE SWITCHES

PS1 POWER
24VDC
Pneumatics

PS2 POWER
48VDC
Stepper Motors

CAN BUS

SAFETY LOOP

POWER DISTRIBUTION BOARD
(PDB 0)

PS1 POWER
Unswitched
Pneumatics

PS2 POWER
Switched
Stepper Motors

PS3 POWER
Switched
Write Laser

PS4 POWER
Unswitched
Thermal Head Logic

SYSTEM COOLING
FANS

+24V

200 - 240 VAC

200 - 240 VAC

200 - 240 VAC

200 - 240 VAC

200 - 240 VAC

200 - 240 VAC

FOR TH3 OPTION ONLY

TH3 POWER MODULE
360VDC

Thermal Exposure Head TH3
Power Supply
Replaces PS3 and PS4
Connected to PDB-PS3

PS3 POWER
48VDC
Thermal Exposure Head
Write Laser

PS4 POWER
48VDC
Thermal Exposure Head Logic

MAIN DISCONNECT
SWITCH ES1

POWER BOX
AC SWITCH, SW2

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

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

CB1

CB2

F1

F2

CB3

POWER ENTRY BOX
(PEB)

POWER BOX FAN 1

CARRIAGE MOTOR FAN 2

EXHAUST FAN 3

DEBRIS REMOVAL DR-FAN 1

CHILLER COOLING FAN 4

HOME REAR DOOR FAN 7

AWAY REAR DOOR FAN 8

To MCU - PDB1
(See PAGE 4)

200 - 240 VAC

200-240 VAC, 50/60HZ, 24A , LINE 3

DRUM VACUUM PUMP (MTA-DVP)
EXTERNAL

200 - 240 VAC

INTERNAL
DEBRIS REMOVAL

+24V

DRUM MOTOR DC FAN 5

+24V

DRUM MOTOR DC FAN 6

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MTA AUTOLOADER

SYSTEM BLOCK DIAGRAM

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SEE PAGE 3

CAN BUS

CAN BUS & TERMINATOR
FOR CL OPTION ONLY
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
FOR MCU with WEDGEMASTER
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

CAN BUS & TERMINATOR
GENINE 2 BOARD

UNLOAD TABLE PNEUMATICS & SENSORS

UNLOAD TABLE MOTOR

GENINE 4 BOARD

PUNCH PNEUMATICS & SENSORS

SIDE PIN REGISTRATION MOTOR

DAPHNE 0 BOARD

REG PIN, PRESSURE REGULATORS & SENSORS

PUNCH MOTOR #1

PUNCH MOTOR #16

PUNCH OPTION

GENINE 1 BOARD

LOAD TABLE & S. EJECTOR PNEUMATICS & SENSORS

SIDE EJECTOR MOTOR DRIVE

S. EJECTOR MOTOR

LOAD TABLE MOTOR

SEE PAGE 3

BOARDS LIONEL 2 & 3 ARE USED FOR DM PICKER OPTION ONLY

LIONEL 2 BOARD

DM PICKER PNEUMATICS & SENSORS

DM ROLLER MOTOR

CAN BUS & TERMINATOR
FOR DM PICKER OPTION
LIONEL 3 BOARD

DM PICKER PNEUMATICS & SENSORS

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 3)

200 - 240 VAC

NOTES:

THE FOLLOWING BOARDS ARE NOT USED FOR CL OPTION:

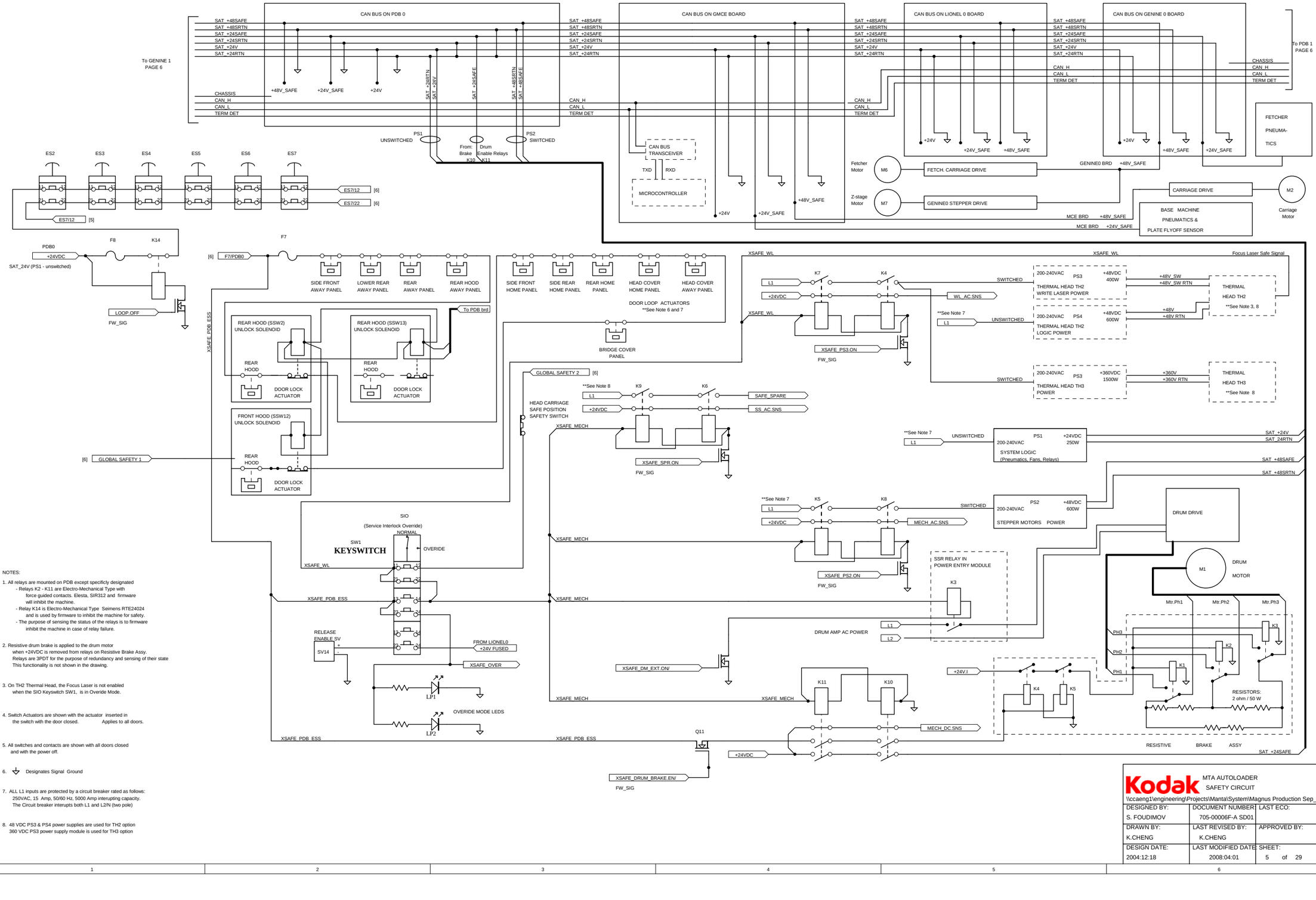
PDB 1, GENINE 3, LIONEL 1, LIONEL 2 and LIONEL 3.

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MTA AUTOLOADER
SYSTEM BLOCK DIAGRAM

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NOTES:

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)
8. 48 VDC PS3 & PS4 power supplies are used for TH2 option 360 VDC PS3 power supply module is used for TH3 option

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MTA AUTOLOADER
SAFETY CIRCUIT

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CAN BUS ON PDB 1

CAN BUS ON GENINE 3 BOARD

CAN BUS ON LIONEL 1 BOARD

CAN BUS ON LIONEL 2 BOARD

CAN BUS ON LIONEL 3 BOARD

TERMINATOR LIONEL 3 - J13

CAN BUS ON DAPHNE 0 BOARD

CAN BUS ON GENINE 2 BOARD

TERMINATOR GENINE 2 - J26

FROM GENINE 0 PAGE 5

SAT_+24SAFE
SAT_+24SRTN
SAT_+24V
SAT_+24RTN
CAN_H
CAN_L
TERM DET

CHASSIS
+24V_SAFE
+24V

120 OHMS
2.7 K OHMS

DAPHNE 0, DC MOTOR DRIVES 1 to 16, LED REG. PUNCH PRES. REGUL.

P.M1
P.M2
P.M16

SAT_+48SAFE
SAT_+48SRTN

+48V_SAFE

UNLOAD TABLE PNEUMATICS

GENINE 2 STEPPER DRIVE

M5
Unload Table Motor

MCU-PS1
250W
UNSW.
L1
200-240VAC
+24VDC
24VRTN
SYSTEM LOGIC
(Pneumatics, Relays)

MCU, SSR & PICKER PNEUMATICS

MCU, SSR-USER IF PNEUMATICS

DM PICKER PNEUMATICS

From PDB 0 PAGE 5

CAN BUS ON GENINE 1 BOARD

+48V_SAFE

CAN BUS ON GENINE 4 BOARD

+48V

PUNCH PNEUMATICS

GENINE 4 STEPPER DRIVE

PUNCH SIDE PIN REG. MOTOR.

M6

LOAD TABLE & SIDE EJECTOR PNEUMATICS

GENINE 1 STEPPER DRIVE

M3
Load Table Motor

SIDE EJECTOR DRIVE

M4
Side Ejector Motor

ES1-MCU
ES2-MCU
ES1-SSR

ES7/22 [5]
F7/PDB0 [5]
ES7/12 [4]

[5] GLOBAL SAFETY 1
GLOBAL SAFETY 2 [5]

GLOBAL SAFETY LOOP

CART HOME SAFETY SWITCH

MCU-PDB1
+24VDC
SAT_24V (PS1 - unswitched)

F8
K14
F7

[5] ES2/21

XSAFE_PDB_ESS

LOOP.OFF
FW_SIG

SS BIN REAR DOOR
SS BIN COVER
MCU CASSETTE DOOR
MCU REAR RIGHT DOOR
MCU REAR LEFT DOOR
MCU SIDE ACCESS DOOR
MCU SIDE ACCESS DOOR

MCU LEFT ROOF SAFETY SWITCHES
MCU RIGHT ROOF SAFETY SWITCHES

**See Note 8
L1
F6
K9
K6
+24VDC
SAFE_SPARE
SS_AC.SNS

MCU AC MOTOR DRIVE

XSAFE_MECH

XSAFE_SPR.ON
FW_SIG

Mcu & SSR Service Interlock Override
SIO
NORMAL
OVERIDE
MCU-SW5

XSAFE_WL
XSAFE_PDB_ESS
XSAFE_MECH

**See Note 7
L1
K5
K8
+24VDC
MECH_AC.SNS
SWITCHED

XSAFE_PS2.ON
FW_SIG

MCU POWER BOX RELAYS
K3
K4

MCU-PS2
200-240VAC
+24VDC
200W
SSR DC MOTOR POWER
SSR +24V

RUN_FORWARD_REVERSE_FREQ1_FREQ2

MCU-K1
MCU-K2
1 L1
2 T1
3 L2
4 T2
5 L3
6 T3
21 NC
22
A1
A2

MCU M1
MCU Casset Motor

CONTACTORS SENSE

SSR Roller Motor
SSR M1
SSR +24V
SSR MOTOR OVERRIDE PBTN.
SSR-SW2

XSAFE_MECH

CONTACTORS ON

MCU SAFETY BOARD

**See Note 8
L1
F3
K1
SAFE_SPARE

MCU M2
MCU Plenum Motor

MANUAL_JOG_SEMI-AUTO

MCU JOG BUTTON PANEL

MCU-SW1
2 POSITION
LEVER SWITCH
SEMI-AUTO MODE
POS 2
MANUAL JOG MODE
POS 1

MCU-SW2
PUSHBUTTON
HOLD FOR SEMI-AUTO

MCU-SW3
JOG UP
PUSHBUTTON

13A
14A

MCU-SW4
JOG DOWN
PUSHBUTTON

JOGGED RUN, SEMI/AUTO RUN, JOG DOWN, MOTOR RUN

SSR MODULE

SSR LOCAL SAFETY LOOP
SS BIN FRONT DOOR SWITCH
+24VSAFE

SSR PNEUMATICS

SSR ROLLER EXTEND
OVERRIDE PBTN.
SSR-SW1

XSAFE_OVER

LP1
MCU OVERIDE MODE LEDS
LP2

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MTA AUTOLOADER
SAFETY CIRCUIT CONTINUED
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POWER ENTRY BOX (PEB) 11-1064A

GND G/Y 12 10-9089A — M5 BOLT ENGINE
GND G/Y 12 10-9089A — M5 BOLT CHASSIS
M5 BOLT CHASSIS
M5 STUD PEB

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

LF1 FILT30A
P P'
E
N N'
162-00011

BLU 12
BRN12
10-9090A
10-5217A

ES1
EMRGENCY STOP & MAIN SWITCH
25A
15-3525

10-9090A
10-5218A

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

LF2 FILT30A
P P'
E
N N'
162-00011
BRN12
BLU12

SIO
KEYSWITCH (2 POS)
15-3334
SW1
NORMAL
(Shown in normal position)
OVERIDE

15-3067
DUAL NC Contact Block
15-3238
DUAL NO Contact Block
15-3238
DUAL NO Contact Block
(For MCU option only)

OVERRIDE MODE LEDS
LP1 LP2
10-3721A 10-3721A

XSAFE WL
XSAFE ESS
MCU OVER
MCU SAFE
XSAFE OVER
XSAFE MECH
YEL 22
BLK 22
RED 22
WHT 22
GRN 22
BLU 22
ORG 22
BRN 22 DOOR LOOP
+24V
RTN

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

RED 22
BLK 22
To RELEASE SV ADAPTOR
RELEASE ADPT 1 [9]
To PDB J34, J35, J41
OVERRIDE SW & LED [8]

SELV

CB1
CIRBKR 15A
15-3085
TB1
10-5221A
BRN 12 12 11 BRN 14
BLU 12 22 12 BLU 14

10-5222A
BRN 14
WHT 14
1 2
BLK 14

BLK-22
RED-22
To K2
[7] K2 CONTROL
15-3249
RELAY,25A,SOLID STATE
K1

10-9073A
J1
1 2 3 4
RED 22
BLK 22
WHT 22
GRN 22
RED 22
BLK 22
MATE 1X4
10-9068B
To PDB0 J37
HEAD COOLER & BLOWER ON/OFF [8]

SELV
10-9084A
AC POWER to CHILLER
HEAD COOLER AC POWER [14]
L1
L2/N
GND
G/Y 14
M5 STUD PEB

220-00042A
J3
1 2
RED 22
BLK 22
MATE 1X2
220-00044A
To PDB0 J44
DRUM DRIVE AC ON/OFF [8]

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

220-00049A
BRN14
BRN 14
BLU 14
10-9075B
To SW2-1,3 in POWER BOX
DDRIVE AC POWER - SW2 [8]
L1
L2/N
GND
G/Y 14
M5 STUD PEB

CB2
CIRBKR 15A
BRN 12 12 11 BRN 14
BLU 12 22 21 BLU 14
15-3085

220-00833A
10-9073A
K2 CONTROL [7]
BLK 22
RED 22
RELAY,25A,SOLID STATE
K2 15-3249
SELV

182-00016
F1, F2: 12A, 600V, BUSSMANN, Type LP-CC
(F1 & F2 replaced the former CB3)
F1
F2
BRN 12 BRN 14 220-00834A 1 2 BLK 14
BLU 12 WHT 14
F1, F2 FUSEHOLDER, 182-00015

10-5220A

CB3 (former CB4)
CIRBKR 15A
BRN 12 12 11 BRN 14
BLU 12 22 21 BLU 14
15-3085

10-9077B
To SW2-5,7 in POWER BOX
PDB AC POWER - SW2 [8]
L1
L2/N
GND
G/Y 14
M5 STUD PEB

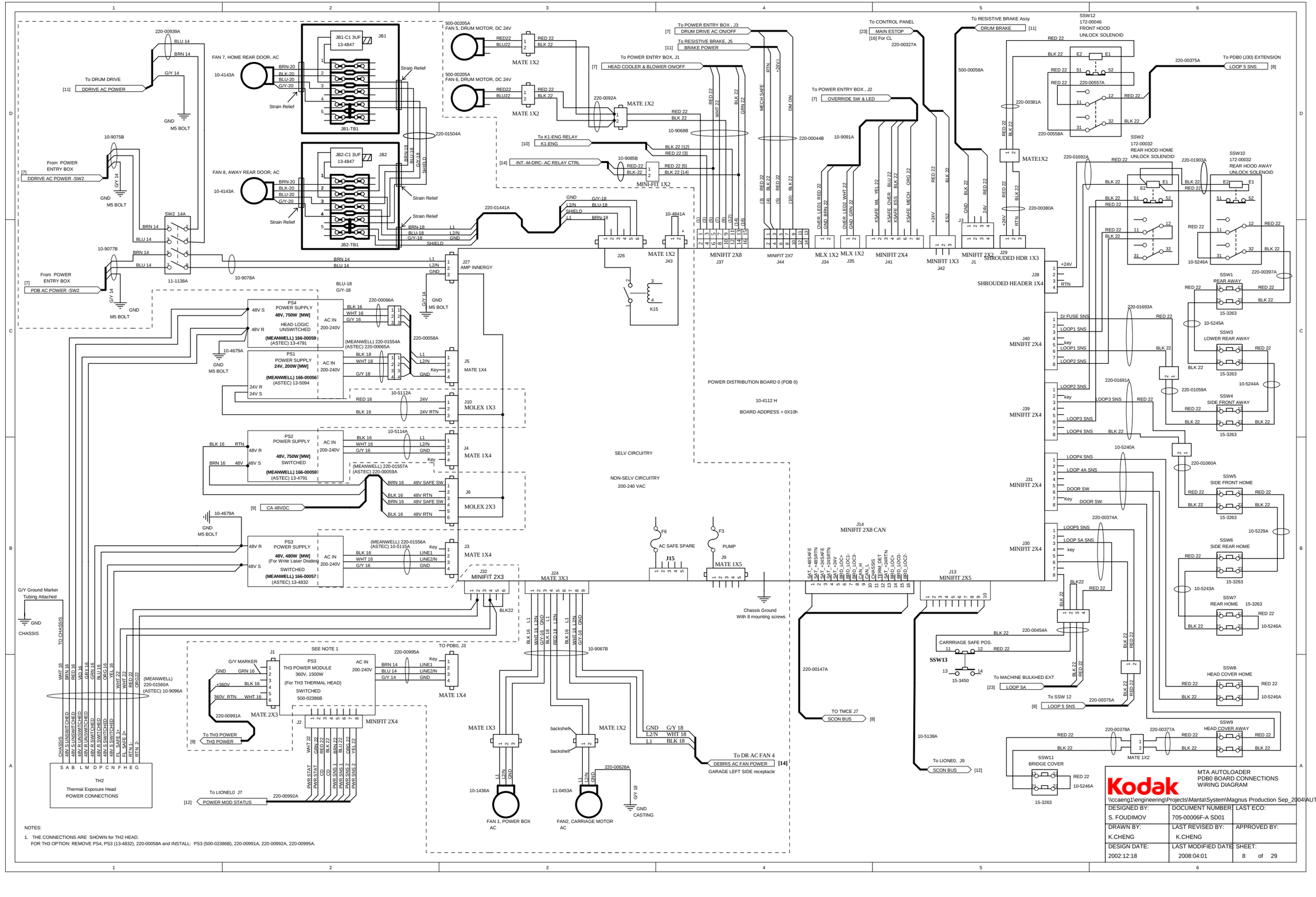
10-9086B
AC POWER to DEBRIS REMOVAL MOTOR
DEBRIS BLOWER AC POWER [14]
L1
L2/N
GND
G/Y 14
M5 STUD PEB

220-00352A
AC POWER to MCU (see NOTE1)
MCU AC POWER [19]
L1
L2/N
GND
G/Y 14
M5 STUD PEB

NOTES:
1. CB3, 10-5220A, 220-00352A ARE NOT USED IN CL OPTION.

Kodak
MTA AUTOLOADER
POWER ENTRY BOX
WIRING DIAGRAM
\\ccaeng1\engineering\Projects\Matrix System Magnus Production Sep_2004\AUTOLOADER\Series IV\705-00006F-A_SD01.ddb

DESIGNED BY:	DOCUMENT NUMBER:	LAST ECO:
S. FOUDIMOV	705-00006F-A SD01	
DRAWN BY:	LAST REVISED BY:	APPROVED BY:
K.CHENG	K.CHENG	
DESIGN DATE:	LAST MODIFIED DATE:	SHEET:
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220-00939A
BLU 14
BRN 14
G/Y 14
To DRUM DRIVE
[11] DDRIVE AC POWER
GND
M5 BOLT
FAN 7, HOME REAR DOOR, AC
10-4143A
BRN-20
BLK-20
BLU-20
G/Y-20
Strain Relief
JB1-C1 3UF
13-4847
JB1
JB1-TB1
220-01504A
FAN 8, AWAY REAR DOOR, AC
JB2-C1 3UF
13-4847
JB2
JB2-TB1
BRN-18
BLU-18
G/Y-18
SHIELD
10-9075B
From POWER ENTRY BOX
[7] DDRIVE AC POWER -SW2
SW2 14A
10-9077B
From POWER ENTRY BOX
[7] PDB AC POWER -SW2
11-1138A
10-9078A
220-01441A
GND
G/Y-18
L2/N
BLU-18
SHIELD
L1
BRN-18
500-00205A
FAN 5, DRUM MOTOR, DC 24V
500-00205A
FAN 6, DRUM MOTOR, DC 24V
RED22
BLU22
RED 22
BLK 22
MATE 1X2
220-0092A
To POWER ENTRY BOX , J3
[7] DRUM DRIVE AC ON/OFF
[11] BRAKE POWER
To POWER ENTRY BOX, J1
[7] HEAD COOLER & BLOWER ON/OFF
To K1-ENG RELAY
[10] K1-ENG
[14] INT.-M-DRC- AC RELAY CTRL
10-9085B
RED-22
BLK-22
RED 22 [5]
BLK 22 [14]
10-9068B
BLK 22 [12]
RED 22 [3]
MINI-FIT 1X2
10-4841A
J26
J43
MATE 1X2
K15
MECH SAFE
RTN
+24V
DM ON
220-00044B
To POWER ENTRY BOX , J2
[7] OVERRIDE SW & LED
10-9091A
To CONTROL PANEL
[23] MAIN ESTOP
[16] For CL
220-00327A
To RESISTIVE BRAKE Assy
DRUM BRAKE [11]
500-00058A
220-00381A
MATE1X2
220-00380A
SSW12
172-00046
FRONT HOOD
UNLOCK SOLENOID
220-00557A
220-00558A
220-00375A
To PDB0 (J30) EXTENSION
LOOP 5 SNS [8]
SSW2
172-00032
REAR HOOD HOME
UNLOCK SOLENOID
220-01692A
SSW10
172-00032
REAR HOOD AWAY
UNLOCK SOLENOID
220-01903A
10-5246A
220-00397A
SSW1
REAR AWAY
15-3263
10-5245A
SSW3
LOWER REAR AWAY
10-5244A
SSW4
SIDE FRONT AWAY
220-01059A
220-01060A
SSW5
SIDE FRONT HOME
10-5229A
SSW6
SIDE REAR HOME
10-5243A
SSW7
REAR HOME
SSW8
HEAD COVER HOME
SSW9
HEAD COVER AWAY
SSW11
BRIDGE COVER
220-00378A
220-00377A
MATE 1X2
10-5246A
J27
AMP INNERGY
J28
SHROUDED HEADER 1X4
SHROUDED HDR 1X3
J29
MINIFIT 2X2
J1
MINIFIT 1X3
J42
MINIFIT 2X4
J41
MINIFIT 2X4
J40
MINIFIT 2X4
J39
MINIFIT 2X4
J31
MINIFIT 2X4
J30
MLX 1X2
J35
MLX 1X2
J34
MINIFIT 2X7
J44
MINIFIT 2X8
J37
J13
MINIFIT 2X5
J14
MINIFIT 2X8 CAN
J15
F6
AC SAFE SPARE
F3
PUMP
J9
MATE 1X5
J32
MINIFIT 2X3
J24
MATE 3X3
J3
MATE 1X4
J4
MATE 1X4
J5
MATE 1X4
J6
MOLEX 2X3
J10
MOLEX 1X3
J2
MINIFIT 2X4
J12
MINIFIT 2X4
PS4
POWER SUPPLY
48V, 750W [MW]
HEAD LOGIC
UNSWITCHED
(MEANWELL) 166-00059
(ASTEC) 13-4791
PS1
POWER SUPPLY
24V, 200W [MW]
(MEANWELL) 166-00056
(ASTEC) 13-5094
PS2
POWER SUPPLY
48V, 750W [MW]
SWITCHED
(MEANWELL) 166-00059
(ASTEC) 13-4791
PS3
POWER SUPPLY
48V, 480W [MW]
(For Write Laser Diodes)
SWITCHED
(MEANWELL) 166-00057
(ASTEC) 13-4832
AC IN
200-240V
(MEANWELL) 220-01554A
(ASTEC) 220-00065A
(MEANWELL) 220-01557A
(ASTEC) 220-00059A
(MEANWELL) 220-01556A
(ASTEC) 10-5115A
(MEANWELL)
220-01560A
(ASTEC) 10-9096A
220-00066A
220-00058A
220-00995A
10-4679A
10-4679A
10-4679A
10-5112A
10-5114A
10-5114A
220-00991A
220-00992A
10-9067B
220-00628A
10-5138A
220-00454A
CARRRIAGE SAFE POS.
SSW13
15-3450
To MACHINE BULKHED EXT
[23] LOOP 5A
To SSW 12
[8] LOOP 5 SNS
220-00375A
220-00374A
220-01693A
220-01691A
10-5240A
10-5138A
To LIONE0, J9
SCON BUS [12]
220-00147A
TO TMCE J7
SCON BUS [8]
To LIONEL0 J7
[12] POWER MOD STATUS
To TH3 POWER
[9] TH3 POWER
TO PDB0, J3
SEE NOTE 1
G/Y MARKER
TH3 POWER MODULE
360V, 1500W
(For TH3 THERMAL HEAD)
SWITCHED
500-02386B
MATE 2X3
MATE 1X4
MINIFIT 2X4
J2
TH2
Thermal Exposure Head
POWER CONNECTIONS
S A B L M D P C N F H E G
CA 48VDC
[9]
To DR AC FAN 4
DEBRIS AC FAN POWER [14]
GARAGE LEFT SIDE receptacle
MATE 1X3
MATE 1X2
backshell
10-1436A
11-0453A
FAN 1, POWER BOX AC
FAN2, CARRIAGE MOTOR AC
220-00628A
GND CASTING
POWER DISTRIBUTION BOARD 0 (PDB 0)
10-4112 H
BOARD ADDRESS = 0X10h
SELV CIRCUITRY
NON-SELV CIRCUITRY
200-240 VAC
Chassis Ground
With 8 mounting screws
G/Y Ground Marker
Tubing Attached
GND
CHASSIS
TO CHASSIS
NOTES:
1. THE CONNECTIONS ARE SHOWN for TH2 HEAD.
FOR TH3 OPTION: REMOVE PS4, PS3 (13-4832), 220-00058A and INSTALL: PS3 (500-02386B), 220-00991A, 220-00992A, 220-00995A.
Kodak
MTA AUTOLOADER
PDB0 BOARD CONNECTIONS
WIRING DIAGRAM
\\ccaeng1\engineering\Projects\Manta\System\Magnus Production Sep_2004\AUTOLOADER\Series IV\705-00006F-A_SD01.ddb
DESIGNED BY: S. FOUDIMOV
DOCUMENT NUMBER: 705-00006F-A SD01
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SHEET: 8 of 29

TH3
THERMAL EXPOSURE HEAD
FLEX CABLE TRACK
EXPOSURE HEAD POWER
220-00991A
To PS3 -J1
TH3 POWER
[8]
EXPOSURE HEAD DATA and CONTROL
216-00117
To GMCE0- U126
TEMPERATURE-BALLSCREW
10-9094A
To GMCE0 - J46
BALLSCREW
TEMPERATURE SENSOR
10-0967A
MATE 1X3
CONNECTIONS FOR TH3 OPTION

TH2
THERMAL EXPOSURE HEAD
16 PIN SHELL
26 PIN SHELL
HOTLINK RG174
FLEX CABLE TRACK
EXPOSURE HEAD POWER
10-9096A
FROM PDB
[7]
EXPOSURE HEAD-CONTROL
10-9093A
EXPOSURE HEAD DATA
10-9095A
TEMPERATURE-BALLSCREW
10-9094A
BALLSCREW
TEMPERATURE SENSOR
10-0967A
MATE 1X3

220-00941A
TO DRUM DRIVE J5
DRUM DRIVE CONTROL
[11]
SHIELD
GRN 22
BLK 22
WHT 22
PBL 22
PBR 22
ORG 22
RED 22
BRN 22
(15) DA.COM
(14) DA.COMMON
(12) DA.RUN
(0) DA.BRAKE
(4) DA.PWM
(0) DA.DIR
(1) DA +5V

MANIFOLD
INTERFACE
BOARD
10-4727A
J1
IDC,26PIN
10-5140B
J10
IDC,26PIN

ENGINE SOLENOID BLOCK
10-5141A
J2
DRV0S
DRVOD
DRV1S
DRV1D
DRV2S
DRV2D
BLK 24
RED 24
PD
CON12
SV1 "roller on"
SV14 "roller off"
SV2 LEC/TEC off
SV3 LEC/TEC on

10-5142A
J3
DRV3S
DRV3D
DRV4S
DRV4D
DRV5S
CON12
SV4 Backbone unload
SV5 Backbone load
SV6 Backbone tilt
SV7 Backbone horiz.
SV15 "headstage retract"
SV17 "aircurtain"

10-5143A
J4
DRV6S
DRV7S
DRV8S
CON12
SV8 "balancer extendhome"
SV9 "balancer extenaway"
SV10 "debris airjet on"

10-5144A
J5
DRV9S
DRV10S
DRV11S
CON12
SV11 "platedoor open"
SV12 "tec unlock"
SV13 LEC lock
SV16 RELEASE ENABLE

220-00773A
220-02173A
MINIFIT 1X2
10-9091B
To PEB, J2
RELEASE ADPT 1
[7]
220-00142B
To LIONEL0, J11
RELEASE ADPT 2
[12]

J4
J5
J6
See details on PAGE 9

To CONTROL PANEL
[23] START BUTN
[16] For CL
220-00328A
220-00320A
GND
LR QUE
+5V
PD
GRN 22
WHT 22
RED 22
BLK 22
To PLATE SEN 1
[10] PSEN 1
220-00322A
IDC, MTA
J12
(0) +24V
(4) LED1 ENT
(0) UINT BUT-
(0) UINT PD BUT-
(1) +5V
IDC,10PIN
J16

220-00170B
To GENINE1 J26
SCON BUS
[17]
SAT +48VSAFE
SAT +48VSRTN
SAT +24SAFE
SAT +24SRTN
SAT +24V
LBRD_LOC1+
LBRD_LOC1-
LBRD_LOC3-
CAN_H
CAN_L
CHASSIS
TERM DET
SAT +24RTN
LBRD_LOC+
LBRD_LOC0-
LBRD_LOC2-
DRAIN WIRE
SCON2
MINIFIT 2X8 CAN
J8

LSTEMP+
LSTEMP-
(4) BLK 22
(3) ORG 22
(0) BLK 22
(0) BLK 22
DB9,IDC
J46
RG174
HOT LINK
J1
HDB44,IDC
J2
DB 15, IDC
J35

ETHERNET CAT5e 216-00170
WORKSTATION
J42

J20
HDB15,IDC
J30
MINIFIT 2X6
J26
IDC, 20PIN
J13
UMNL 3X3
J19
IDC, 1X8 PIN
J21
IDC, 14PIN
J24
MINIFIT 2X4
PIN2
PIN5
PIN8
PIN11
BLK 22
PD
MCE-TACH 10-5146A
TACH
ENCODER
32-4130A
220-01495A (UPGRADE)
TEMP1+
TEMP1-
YEL 22
BLK 22
ENGINE TEMPERATURE SENSOR
THERMISTOR
10-0967A
MATE 1X3
10-5148B
10-5117A
CARRIAGE AMP CONTROL
WHT 22
BLU 22
BLK 22
FLYOFF
+24V
GND
220-00772A
220-01955A
PD+
PD-
RLY1-
RLY2-
PFO RECEIVER
36-3118
PFO TRANSMITTER
36-3145
PLATE FLYOFF SENSOR
220-00094A
REG. PROBE ASSY
11-1122B
220-00287A
J1
MINIFIT
2X4
PROBE 2
PROBE 3
PROBE 4
PROBE 5
PROBE 1
PD+
PROBE 6
PROBE 6
REG. PINS on DRUM
220-00337A
RED 22
BLK 22
CONTINUITY SW ASSY
500-00855A

184-00150
M 2
CARRIAGE MOTOR
GND
CHASSIS
MATE 2X3
10-9062A
SHIELD
Gain 2 A/V
J3
MINIFIT 2X4
503-00265A
CARRIAGE DRIVE
J2
IDC, 20PIN
J1
MATE 1X2
CARRIAGE AMP POWER
+48V SAFE
RTN
BRN 16
BLK 16
220-00059A
[8]
CA 48VDC

MINIFIT 2X2
To PDB J14
[8]
SCON BUS
220-00147A
+48V SAFE
+48V SAFE RTN
+24V SAFE
+24V SAFE RTN
+24V
CAN H
CAN L
CHASSIS
TERM DET
+24 RTN
DRAIN WIRE
BRN 18
BLU 18
GRN 18
WHT 18
RED 18
RED 24
BLK 24
GRN 24
WHT 24
BLK 18
J7
MINIFIT 2X5
SCON 1

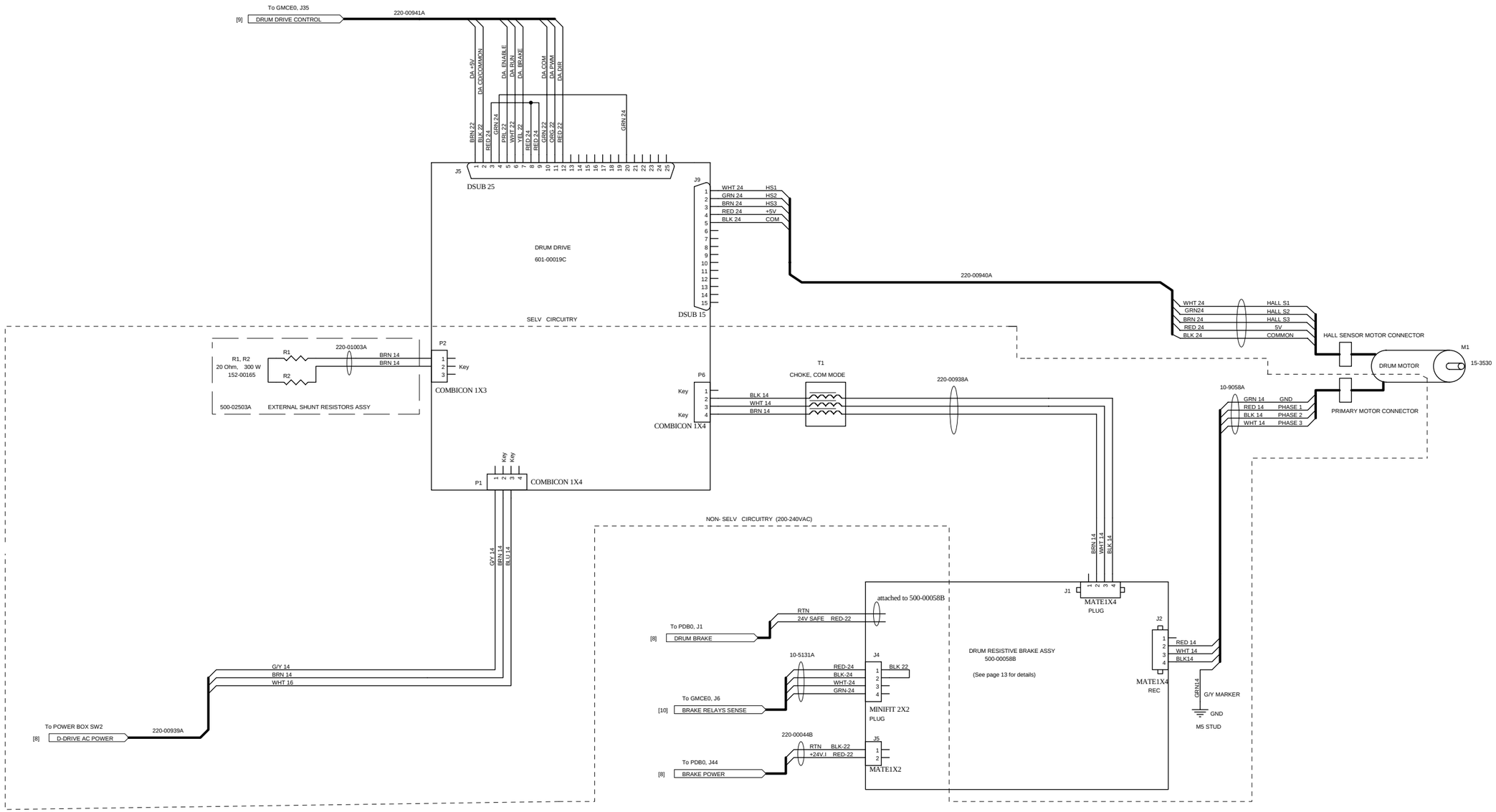
GMCE0 BOARD
503-08443D
TMCE0 BOARD
10-4766D
(DOES NOT SUPPORT TH3)

J1
MINIFIT 2X9
J2
MINIFIT 2X8
12-PIN EREG2. BRD 1
503-00389A
220-01954A
DRIVE 1
SENSOR 0
DRIVE 2
SENSOR 1
DRIVE0
PD.BKBN+
PD.BKBN-
SENSOR 2
SENSOR 3
BRN 22
RED22
ORG22
YEL 22
GRN 22
BLU 22
WHT 22
BLK 22
GRN 22
MINIFIT 2X4

Kodak
MTA AUTOLOADER
GMCE0 INTERCONNECTIONS
WIRING DIAGRAM
\\ccaeng1\engineering\Projects\Manta\System\Magnus Production Sep_2004\AUTOLOADER\Series IV\705-00006F-A_SD01.ddb

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RLR_DOWN Away Side
RLR_UP Away Side
LEC_DOWN Away Side
LEC_UP Away Side
36-3125
10-4982A
LED+
LED-
COLLECTOR
EMITTER
RED 22
BLK 22
WHT 22
GRN 22
RED 24
BRN 24
BLU 24
YEL 24
ORG 24
TO DSEN1 LED+ (3)
TO DSEN1 LED- (22)
TO DSEN1 C (4)
TO DSEN1 E (23)
TO DSEN2 LED+ (5)
TO DSEN2 LED- (24)
TO DSEN2 C (6)
TO DSEN2 E (25)
TO DSEN3 LED+ (7)
TO DSEN3 LED- (26)
TO DSEN3 C (8)
TO DSEN3 E (27)
TO DSEN4 LED+ (9)
TO DSEN4 LED- (28)
TO DSEN4 C (10)
TO DSEN4 E (29)
(11) TO DSEN5 LED+
(30) TO DSEN5 LED-
(12) TO DSEN5 C
(31) TO DSEN5 E
CAR_AWAY
(13) TO DSEN6 LED+
(32) TO DSEN6 LED-
(14) TO DSEN6 C
(33) TO DSEN6 E
BAL_DETECT Away Side
(15) TO DSEN 7 LED+
(34) TO DSEN7 LED-
(16) TO DSEN7 C
(35) TO DSEN7 E
BAL_EXTEND Away Side
(17) TO DSEN8 LED+
(36) TO DSEN8 LED-
(18) TO DSEN8 C
(37) TO DSEN8 E
BAL_RETRACT Away Side
10-5005A
(1) TO DSEN 0 LED+
(20) TO DSEN0 LED-
(2) TO DSEN0 C
(21) TO DSEN0 E
10-9060A
RSW1 RSW2 RSW3 RSW4 RSW5 RSW6 RSW7 RSW8 RSW9 RSW10
10-5129A
J4 DB37M, IDC
HD-DB26F
PIN 5
PIN14
J14
ORG-26 LED BRD DIN+
WHT-26 LED BRD DIN -
220-01508A
10-9095A
DETAILS OF J4, J5, J6 WIRING FROM PAGE 9
GMCE0 BOARD
503-08443D
J18
CON12
LED BRD +5V
LED BRD PD
LED BRD +12V
LED BRD GND
LED BRD EN N+
LED BRD EN N-
LED BRD CS N+
LED BRD CS N-
LED BRD SRCK+
LED BRD SRCK-
LED BRD DOUT+
LED BRD DOUT-
CAM_IN_1
220-00983A
J5
DB25,IDC
J6 DB37F, IDC
220-00306A
220-00983A
(1) TO DSEN 18 LED+
(14) TO DSEN 18 LED-
(2) TO DSEN 18 C
(15) TO DSEN 18 E
BM_FORWARD Away Side
(3) TO DSEN 19 LED+
(16) TO DSEN 19 LED-
(4) TO DSEN 19 C
(17) TO DSEN 19 E
BM_CENTER BACK Away Side
(5) TO DSEN 20 LED+
(18) TO DSEN 20 LED-
(6) TO DSEN 20 C
(19) TO DSEN 20 E
BM_CENTER FORWARD Away Side
(7) TO DSEN21 LED+
(20) TO DSEN21 LED-
(8) TO DSEN21 C
(21) TO DSEN21 E
BM_ BACK Away Side
220-01508A
BLK-26
LED BRD +5V
LED BRD PD
LED BRD +12V
LED BRD GND
LED BRD EN N+
LED BRD EN N-
LED BRD CS N+
LED BRD CS N-
LED BRD SRCK+
LED BRD SRCK-
LED BRD DOUT+
LED BRD DOUT-
CON12
J1
503-00327A
LED DRIVER BOARD 1
CON12
J2
ORG-26 LED BRD DIN+
WHT-26 LED BRD DIN-
10-9095A
J4
J5 MNFT1X2
J6 MNFT1X2
J3 MINIFIT2X2
N/C
220-02229A
YEL-26 VIDEO_IN
BLK-26 GND_CAM
RED-26 +12V_CAM
YEL26
BLK-26
RED-26
220-02228A
220-02228A
BLK-22 LED CATHODE
RED-22 LED ANODE
LED2(TOP)
BRD1
BLK-22 LED CATHODE
RED-22 LED ANODE
LED1(BOT)
LED 1(BOT)
BRD1
CAMERA
CON4
N/C
EDGE DETECT CAMERA
600-00080
EDGE DETECT CAMERA ASSEMBLY
500-05190A
500-00271A
START BUTTON 3
START BUTTON 2
Text
J4 DB37M, IDC
LOAD RAMP PLATE SENSOR 1
LOAD RAMP PLATE SENSOR 2
LOAD RAMP PLATE SENSOR 3
36-3210
RED 22
WHT 22
GRN 22
220-00322A
To GMCE0, J12 ADAPTOR
PSEN 1
[9]
220-00323A
TO DSEN16 LED+ (15)
TO DSEN16 C (16)
TO DSEN16 E (35)
TO DSEN17 LED+ (17)
TO DSEN17 C (18)
TO DSEN17 E (37)
MINIFIT 2X4
TO DSEN9 LED+ (1)
TO DSEN9 LED- (20)
TO DSEN9 C (2)
TO DSEN9 E (21)
To RESISTIVE BRAKES ASSY
[11] BRAKE RELAYS SENSE
220-00537A
220-00538A
220-00539A
220-00540A
(9) TO DSEN13 LED+
(28) TO DSEN13 LED-
(10) TO DSEN13 C
(29) TO DSEN13 E
K1-ENG
15-3248
To PDB0- J37
[8] K1-ENG
10-9068B
CAR_HOME
CAR_HOME CLEANING
220-00446A
(11) TO DSEN14 LED+
(30) TO DSEN14 LED-
(12) TO DSEN14 C
(31) TO DSEN14 E
(13) TO DSEN15 LED+
(32) TO DSEN15 LED-
(14) TO DSEN15 C
(33) TO DSEN15 E
BAL_DETECT Home Side
(3) TO DSEN10 LED+
(22) TO DSEN10 LED-
(4) TO DSEN10 C
(23) TO DSEN10 E
BAL_EXTEND Home Side
(5) TO DSEN 11 LED+
(24) TO DSEN11 LED-
(6) TO DSEN11 C
(25) TO DSEN11 E
BAL_RETRACT Home Side
500-00271A
START BUTTON 3
START BUTTON 2
Text
Kodak
MTA AUTOLOADER
GMCE0 DIGITAL SENSORS
EDGE DETECT CAMERA
WIRING DIAGRAM
\\ccaeng1\engineering\Projects\Manta\System\Magnus Production Sep_2004\AUTOLOADER\Series IV\705-00006F-A_SD01.ddb
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Kodak	MTA AUTOLOADER DRUM DRIVER & MOTOR WIRING DIAGRAM	
\\ccaeng1\engineering\Projects\Manta\System\Magnus Production Sep_2004\AUTOLOADER\Series IV\705-00006F-A_SD01.ddb -		
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SCON1

LIONEL BOARD 0

10-4801B

Board Address = 0x40h

J9 — SCON2 — 2X5 MINIFIT JR

+48V SAFE	BRN 18	1
+48V SAFE RTN	BLU 18	2
+24V SAFE	GRN 18	3
+24V SAFE RTN	WHT 18	4
+24V	RED 18	5
CAN H	RED 24	6
CAN L	BLK 24	7
CHASSIS	GRN 24	8
TERM DET	WHT 24	9
+24 RTN	BLK 18	10
DRAIN WIRE		

To PDB0, J13 — [8] SCON BUS — 10-5138A

J13 — SCON 1 — MINIFIT 2X8 CAN

1	SAT +48SAFE
2	SAT +48SRTN
3	SAT +24SAFE
4	SAT +24SRTN
5	SAT +24V
6	BRD_LOC+
7	BRD_LOC1-
8	BRD_LOC3-
9	CAN H
10	CAN L
11	CHASSIS
12	TERM DET
13	SAT +24RTN
14	BRD_LOC+
15	BRD_LOC0-
16	BRD_LOC2-

220-00169A — To GENINE 0 J24 — SCON BUS [15]

J5 — PWM_OUT1 — MINIFIT 2X3 REC

J2 — SOL_DRV1 — SAMTEC, 2X8

1	BLK 22	ACT 0		
2	RED 22	+24 V		
3				
4				
5				
6				
7			BLK-22	RED-22
8			RED-22	WHT-22
9	GRN-22	ACT 4	GRN-22	BLK 22
10	WHT-22	+24 V	WHT-22	RED 22
11	BRN-22	ACT 5	BRN-22	WHT 22
12	ORG-22	+24 V	ORG-22	GRN 22
13	BLU-22	ACT 6	BLU-22	
14		ACT 7	YEL-22	
15	YEL-22			
16				

220-00141B — MINIFIT 2X4

220-00363B — ACT 0 (Plate Funnel) — +24 V

MAIN ENGINE MANIFOLD [9]

SV17 — "plate funnel on"

FUTURE OPTION

220-00142B — To RELEASE SV ADAPTOR — RELEASE ADPT 2 [9]

(1) +24V RED-22

(12) RTN BLK-22

J11 — IDC, 14PIN

(5)	EREG.SEN0+	RED-22	1	
(6)	EREG.SEN0-	BLK-22	2	
(7)	EREG.SEN1+	ORG-22	3	
(8)	EREG.SEN1-	GRN-22	4	ORG 22
(9)	EREG.SEN2+	WHT-22	5	BLU-22
(10)	EREG.SEN2-	BRN-22	6	

MINIFIT 2X3

220-00413A — MINIFIT 2X3

1	RED 22	+24V	1
2	BLK 22	GRN LEDs	2
3	WHT 22	BLUE LEDs	3
4	GRN 22	YEL LEDs	4
5	ORG-22	PD+	5
6	BLU-22	PD-	6

J1 — STATUS LIGHT LEDS BRD — 10-9063A — 1ROW IDC

J8 — DIG_IN3 — HDR 2X15

MINIFIT 2X4 PWM_OUT2

1	+24V			
2	+24V			
3	PWM4			
4	PD-PWM1+			
5	PWM2			
6	PWM3			
7	PWM5			
8	PD PWM1-			
	RED 22			
	ORG 22			
	BRN 22			
	WHT 22			
	GRN 22			
	BLU 22			
	BLK 22			

J16 AN_2 — 1X6 MTA

J17 AN_1 — 1X6 MTA

220-00566A — DRUM VACUUM — PSEB BOARD 10-4581A — MTA 1X6

1	RED 22	+24VDC	
2	WHT 22	4-20mA Out	
3			
4	GRN 22	GND	
5	BLU 22	PD+	
6	BRN 22	PD-	

518-00552A — To DRUM VACUUM PUMP — DRUM VAC. PUMP CONTROL [27]

TH3 PRESSURE SWITCH — 172-00064 — PS2 — NO — C

220-00993A — MINIFIT 2X2

BLK 22	RED 22	TO DSEN4 LED+	(1)
	BLK 22	TO DSEN4 LED-	(4)
RED 22	WHT 22	TO DSEN4 C	(2)
BLK 22	GRN 22	TO DSEN4 E	(3)

J7 — DIG_IN2 — IDC,20PIN

RED 22	TO DSEN5 LED+	(5)	
BLK 22	TO DSEN5 LED-	(8)	
WHT 22	TO DSEN5 C	(6)	
GRN 22	TO DSEN5 E	(7)	
BRN 22	TO DSEN6 C	(10)	
BLU 22	TO DSEN6 E	(11)	
ORG 22	TO DSEN7 C	(14)	
YEL 22	TO DSEN7 E	(15)	

220-00992A

To TH3 POWER MODULE J2 — [8] POWER MOD STATUS

USED FOR TH3 OPTION ONLY

CHILLER PRESSURE SWITCH — 172-00045 — PS1 — NO — C

220-00411B — MATE1X4

10-9085B

RED-22	DSEN9. LED+		1
WHT-22	DSEN9.C		2
GRN-22	DSEN9.E		3
BLK-22	DSEN9. LED-		4
DR_LID+	WHT-22	DSEN10.C	5
DR_LID-	GRN-22	DSEN10.E	6
RED-22	TO DSEN11 LED+		7
WHT-22	TO DSEN11 C		8
GRN-22	TO DSEN11 E		9
BLK-22	TO DSEN11 LED-		10
ORG-22	TO DSEN12 LED+		11
BLU-22	TO DSEN12 C		12
YEL-22	TO DSEN12 E		13
BRN-22	TO DSEN12 LED-		14
RED-22	TO DSEN13 LED+		15
WHT-22	TO DSEN13 C		16
GRN-22	TO DSEN13 E		17
BLK-22	TO DSEN13 LED-		18
ORG-22	TO DSEN14 LED+		19
BLU-22	TO DSEN14 C		20
YEL-22	TO DSEN14 E		21
BRN-22	TO DSEN14 LED-		22
RED 22	TO DSEN15 LED+		23
ORG-22	TO DSEN15 C		24
WHT-22 (ORG PAIR)	TO DSEN15 E		25
WHT- 22 (RED PAIR)	TO DSEN15 LED -		26

To DEBRIS REMOVAL BLKHD — [14] DEBRIS REMOVAL SENSORS

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

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

TEC_UNLOCK — 36-3125 — 10-4982A

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

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

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

LEC_UNLOCK — 36-3125 — 10-4982A

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

MINIFIT 2X4

PLATE FUNNEL DOWN — 36-3125 — 10-4982A

LED+	RED 22	RED 22	
LED-	BLK 22	WHT- 22 (RED PAIR)	
COLLECTOR	WHT 22	ORG-22	
EMITTER	GRN 22	WHT-22 (ORG PAIR)	

FUTURE OPTION

10-9085B

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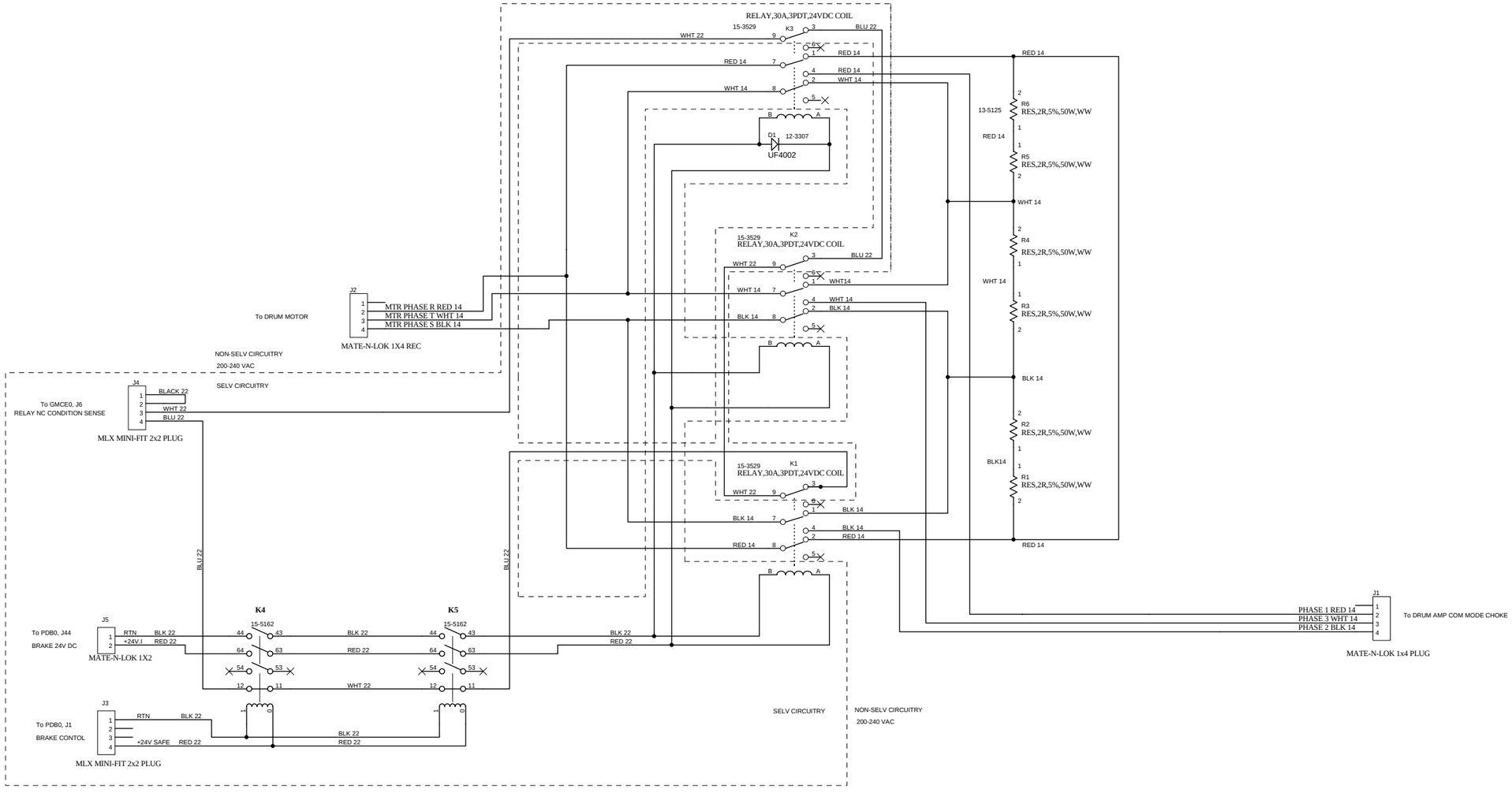
MTA AUTOLOADER
LIONEL0 BOARD
WIRING DIAGRAM

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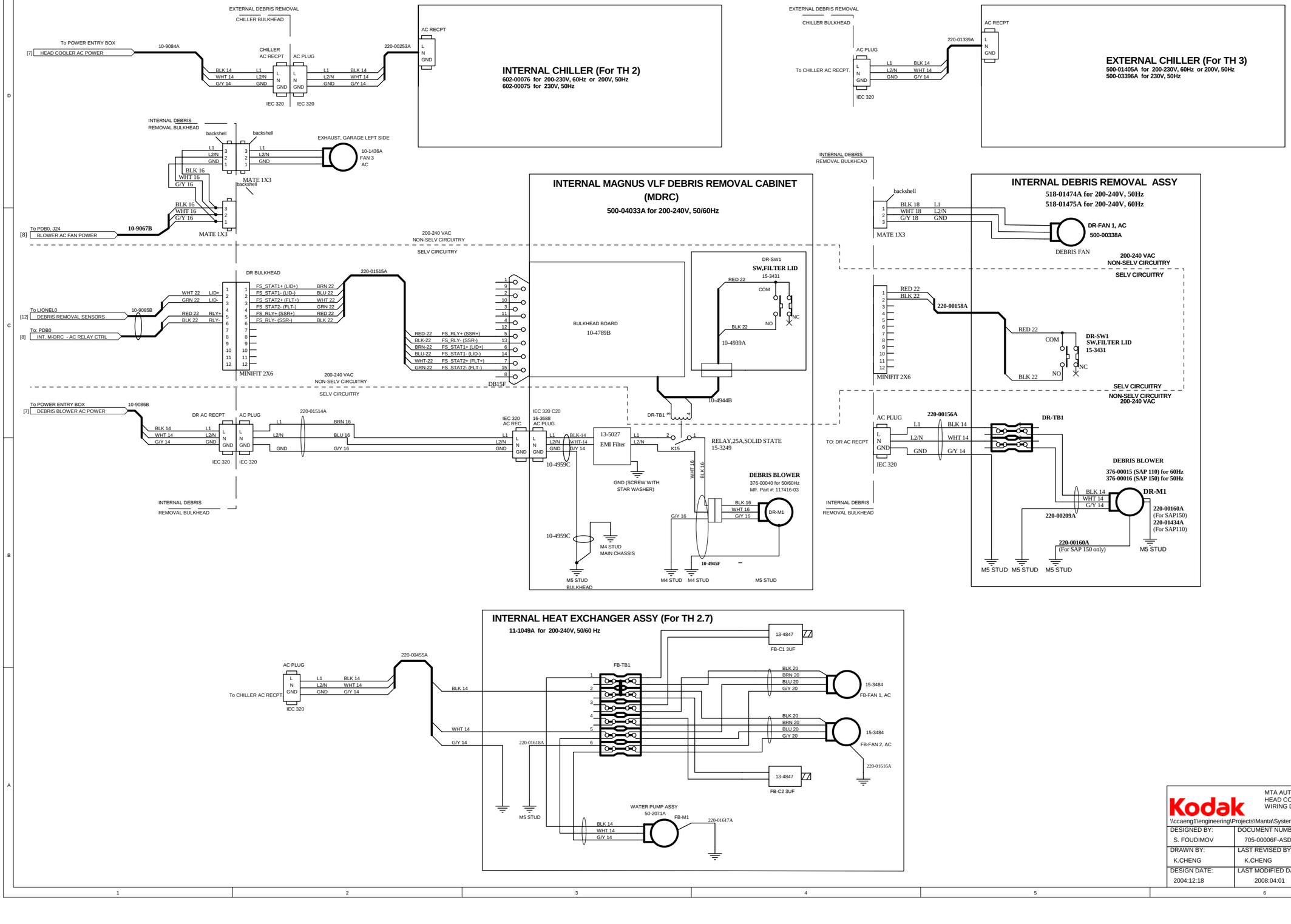
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K.CHENG	K.CHENG	
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DRUM RESISTIVE BRAKE ASSEMBLY 500-00058B

(See page 11 for details)



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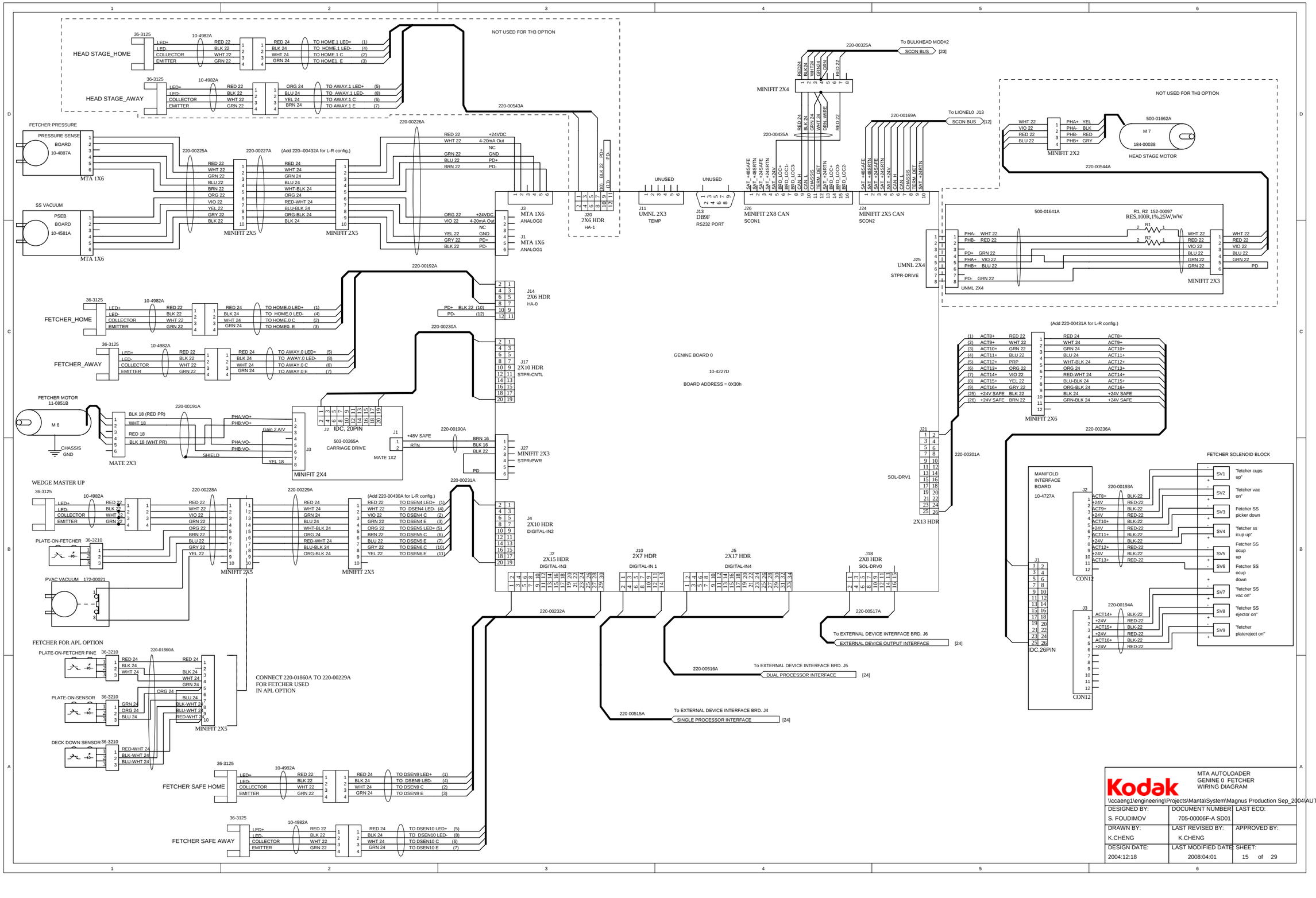


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MTA AUTOLOADER
HEAD COOLER & DEBRIS
WIRING DIAGRAM

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MTA AUTOLOADER
GENINE 0 FETCHER
WIRING DIAGRAM

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HEAD STAGE_HOME

36-3125 — 10-4982A

LED+	RED 22	1	1	RED 24	TO HOME.1 LED+ (1)
LED-	BLK 22	2	2	BLK 24	TO HOME.1 LED- (4)
COLLECTOR	WHT 22	3	3	WHT 24	TO HOME.1 C (2)
EMITTER	GRN 22	4	4	GRN 24	TO HOME1. E (3)

HEAD STAGE_AWAY

36-3125 — 10-4982A

LED+	RED 22	1	1	ORG 24	TO AWAY.1 LED+ (5)
LED-	BLK 22	2	2	BLU 24	TO AWAY.1 LED- (8)
COLLECTOR	WHT 22	3	3	YEL 24	TO AWAY.1 C (6)
EMITTER	GRN 22	4	4	BRN 24	TO AWAY.1 E (7)

NOT USED FOR TH3 OPTION

220-00543A

J3 MTA 1X6 ANALOG0

J1 MTA 1X6 ANALOG1

J14 2X6 HDR HA-0

J17 2X10 HDR STPR-CNTL

J27 MINIFIT 2X3 STPR-PWR

J20 2X6 HDR HA-1 — PD+, PD-, BLK 22, VIO, (11)

J11 UMNL 2X3 TEMP — UNUSED

J13 DB9F RS232 PORT — UNUSED

GENINE BOARD 0

10-4227D

BOARD ADDRESS = 0X30h

220-00325B

MINIFIT 2X4 — RED24, BLK24, WHT24, GRN24, DRN, RED 22

220-00435A — RED 24, BLK 24, GRN 24, WHT 24, DRN_WIRE, RED 22

J26 MINIFIT 2X8 CAN SCON1 — 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_LOC5-, BRD_LOC2-

220-00169A — To LIONEL0 J13 SCON BUS [12]

J24 MINIFIT 2X5 CAN SCON2 — SAT_+48SAFE, SAT_+48SRTN, SAT_+24SAFE, SAT_+24SRTN, SAT_-24V, CAN_H, CAN_L, CHASSIS, TERM_DET, SAT_-24RTN

220-00325B

CL PLUG — MACHINE BULKHEAD MODULE # 2

120R,5%,.25W,CAR — CAN H, CAN L, TERM DET

2.7K 5%,.25W,CAR — +24V

220-00477A

CAN H	1	1	RED 24 CAN H
CAN L	2	2	BLK 24 CAN L
TERM DET	3	3	WHT 24 TERM_DET
	4	4	GRN 24 CHASSIS
+24V	5	5	RED 22 DRAIN WIRE +24V
GRN 22	6	6	RED 22
	7	7	BLK 22
	8	8	
GRN 22	9	9	BLK 22
	10	10	RED 22
	11	11	BLK 22
	12	12	RED 22

MATE1X2 — RED 22, BLK 22

220-00325B

220-00454A — To PDB0, J30 EXT. LOOP 5A [8]

To ESTOP CIRCUITRY ADAPTOR — BULK MOD#2 [16]

To ES 7 — ES 7 [16]

NOT USED FOR TH3 OPTION

500-01662A — M 7 — 184-00038 — HEAD STAGE MOTOR

MINIFIT 2X2 — WHT 22, VIO 22, RED 22, BLU 22 — PHA+ YEL, PHA- BLK, PHB- RED, PHB+ GRY

220-00544A

500-01641A — MINIFIT 2X3

R1, R2 152-00097 RES,100R,1%,25W,WW

J25 UMNL 2X4 STPR-DRIVE — PHA- WHT 22, PHB- RED 22, PD+ GRN 22, PHA+ VIO 22, PHB+ BLU 22, PD- GRN 22

WHT 22, RED 22, VIO 22, BLU 22, GRN 22, PD

J10 2X7 HDR DIGITAL-IN 1

J5 2X17 HDR DIGITAL-IN4

J18 2X8 HDR SOL-DRV0

220-00515A — To EXTERNAL DEVICE INTERFACE BRD. J4 — SINGLE PROCESSOR INTERFACE [24]

220-00516A — To EXTERNAL DEVICE INTERFACE BRD. J5 — DUAL PROCESSOR INTERFACE [24]

220-00517A — To EXTERNAL DEVICE INTERFACE BRD. J6 — EXTERNAL DEVICE OUTPUT INTERFACE [24]

EMERGENCY STOP SW FRONT AWAY — ES2 15-3474

CONTROL PANEL SHOULDER AWAY PANEL

220-00402A — RED 22, RED 22, BLK 22, WHT 22, GRN 22

220-00326B — MINIFIT 2X4

220-00327A — To PDB0 (J42) MAIN ESTOP [8]

MINIFIT 1X2 — RED 22, BLK 22

EMERGENCY STOP SW REAR UPPER AWAY — ES3 15-3474

220-01338A — MINIFIT 1X2 — BLK 22, RED 22

220-00399A

EMERGENCY STOP SW REAR UPPER HOME — ES4 15-3474

220-00398C

MINIFIT 1X2 — BLK 22, RED 22

SHOULDER HOME PANEL

EMERGENCY STOP SW FRONT HOME — ES5 15-3474

220-00330B — BLK 22, RED 22, WHT 22, GRN 22

MINIFIT 1X2 — RED 22, BLK 22

EMERGENCY STOP SW REAR LOWER HOME — ES6 15-3474

220-01337B — BLK 22, RED 22

220-00331B

EMERGENCY STOP SW REAR LOWER AWAY — ES7 15-3474

BLK 22, RED 22

To MODULE #2 — ES 7 [16]

220-00325B

220-00325B — BULKHEAD MOD#2 — BULK MOD#2 [16]

500-00261A START BUTTON 1 — LP1

WHT 22, GRN 22, WHT 22, RED 22, BLK 22 — MINIFIT 2X3

220-00401A — YEL 22, BRN 22, GRN 22, WHT 22, RED 22, BLK 22 — MINIFIT 2X3

220-00328A — To GMCE0, J16 START BUTN [9]

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MTA AUTOLOADER
GENINE0 CL OPTION
WIRING DIAGRAM

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

220- 00255A

36-3205

BAUMER SLIP SHEET UNDER PLATE SENSOR FZAM18N6460/S14

BRN 22
BLU 22
BLK 22

MINIFIT 2X2

RED 22
GRY 22

15-3359

K1

GRN 22
WHT 22

220-00248A

BLK 22
RED 22

(1) +24V
(2) ES 0
(3) ES 0
(13) GND

J10
2X7 HDR
DIG_IN 1

To GMCE0, J8
[9] SCON BUS

220-00170B

SAT +48SAFE
SAT +48SRTN
SAT +24SAFE
SAT +24SRTN
SAT +24V
CAN_H
CAN_L
CHASSIS
TERM_DET
SAT -24RTN
BRD_LOC+
BRD_LOC1-
BRD_LOC3-
BRD_LOC-
BRD_LOC2-
RED22

J3
MTA 1X6
ANALOG0

J26
MINIFIT 2X8 CAN
SCON1

220-00171B

To GENINE2 J24
SCON BUS [18]

J24
MINIFIT 2X5 CAN
SCON2

J25
UMNL 2X4
STPR-DRIVE

PHA+ RED 22
PHB- BLK 22 (WHITE PAIR)
PD+ GRN 22
PHA- BLK 22(RED PAIR)
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+
LED-
COLLECTOR
EMITTER

RED 22
BLK 22
WHT 22
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

LOAD CARRIAGE_AWAY

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

J20
2X6 HDR
HA-1

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

SIDE EJECTOR_HOME

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

220-00196A

SIDE EJECTOR_AWAY

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

J14
2X6 HDR
HA-0

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

220-00187A

J17
2X10 HDR
STPR-CNTL

J2
IDC, 20PIN
503-00265A
CARRIAGE DRIVE

GENINE BOARD 1
10-4227D
BOARD ADDRESS = 0X31h

MANIFOLD INTERFACE BOARD
10-4727A

J21
SOL-DRV1

220-00185A

J1
IDC,26PIN

2X13 HDR

LOAD TABLE SOLENOID BLOCK

J2
CON12

220-00197A

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

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"
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

J3
CON12

220-00198A

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

J4
CON12

220-00483B

ACT20+ BLK-22
+24V RED-22
ACT22+ BLK-22
+24V RED-22
ACT24+ BLK-22
+24V RED-22

SV13 "loadtable platestop up"
SV14 "loadtable pullout lock"
SV15 "ejector pusher up/n"

J5
CON12

220-02171A

ACT26+ BLK-22
+24V RED-22

SV16 "Plateangler"

SIDE EJECTOR MOTOR 11-0851B

M 4

CHASSIS GND

220-00186A

BLK 18 (RED PR)
WHT 18
RED 18
BLK 18 (WHT PR)
YEL 18

PHA:VO+
PHB:VO-
PHA:VO-
PHB:VO+
SHIELD

MATE 2X3

Gain 2 A/V

J3
MINIFIT 2X4

J1
MATE 1X2

+48V SAFE BRN 16
RTN BLK 16

220-00188A

PD
BLK22

J27
STEPPER POWER

2X17 HDR
DIGITAL-IN4
MINIFIT 2X3

J5

220-00249C

2X15 HDR
DIGITAL-IN3

J2

220-00250A

2X10 HDR
DIGITAL-IN2

J4

220-00251B

LOAD TABLE CLOSED 1
(LOCATED CLOSER TO DRUM)

36-3210

RED 22
WHT 22
GRN 22

TO DSEN16 LED+ (1)
TO DSEN16 C (2)
TO DSEN16 E (3)

LOAD TABLE CLOSED 2
(LOCATED FARTHER FROM DRUM)

TO DSEN17 LED+ (5)
TO DSEN17 C (6)
TO DSEN17 E (7)

FAST RIGHT EJECT AWAY SENSOR 3

220-02280A

TO DSEN18 LED+ (9)
TO DSEN18 C (10)
TO DSEN22 LED+ (20)
TO DSEN22 C (21)
TO DSEN23 LED+ (22)
TO DSEN23 C (23)
TO DSEN18 E (11)
TO DSEN22 E (24)
TO DSEN23 E (34)

FAST RIGHT EJECT AWAY SENSOR 4

FAST RIGHT EJECT AWAY SENSOR 5

MINIFIT 2X6

UNLOAD TABLE_TILT

TO DSEN19 LED+ (13)
TO DSEN19 C (14)
TO DSEN19 E (15)

UNLOAD TABLE_HORIZONTAL

TO DSEN20 LED+ (17)
TO DSEN20 C (18)
TO DSEN20 E (19)

LOADER VAC CUPS CENTER

172-00021

TO DSEN9.C (2)
TO DSEN9.E (3)

LOADER VAC CUPS LEFT

TO DSEN10.C (6)
TO DSEN10.E (7)

LOADER VAC CUPS RIGHT

TO DSEN11.C (10)
TO DSEN 11.E (11)

SIDE BRIDGE IN POSITION

TO DSEN 4 LED+ (1)
TO DSEN 4 C (2)
TO DSEN 4 E (3)

PLATE ON PROCESSOR

P?

220-00364A

TO DSEN 5 LED+ (5)
TO DSEN 5 C (6)
TO DSEN 5 E (7)

MINIFIT 2X2

ACCESS PANEL CLOSED SW

15-3355

220-00426A

(ADD 220-00436A FOR L-R CONFIG.)

TO DSEN21.C (22)
TO DSEN21.E (23)

MINIFIT 1X2

PLATE STOP UP

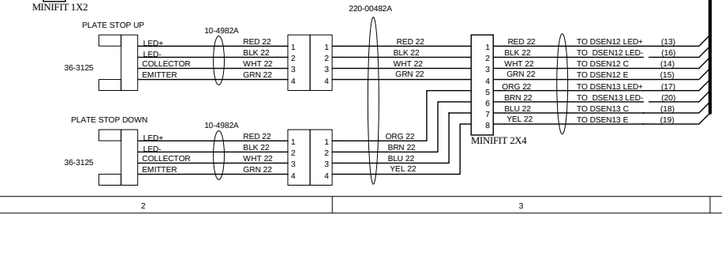
10-4982A

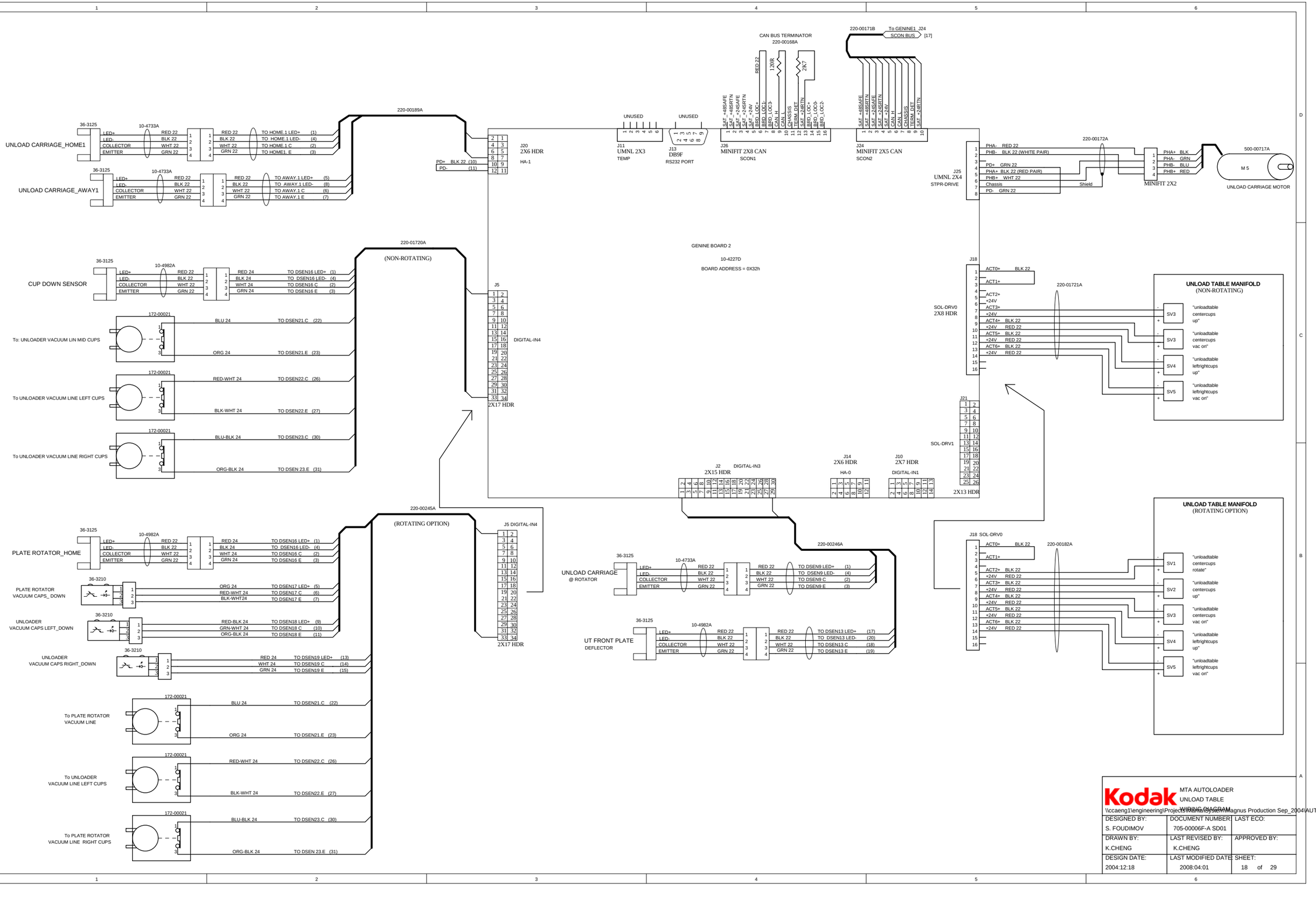
220-00482A

TO DSEN12 LED+ (13)
TO DSEN12 C (14)
TO DSEN12 E (15)
TO DSEN13 LED+ (17)
TO DSEN13 C (18)
TO DSEN13 E (19)

PLATE STOP DOWN

MINIFIT 2X4





Kodak	MTA AUTOLOADER UNLOAD TABLE WIRING DIAGRAM		
\\ccaeng1\engineering\Projects\Matra\System\Magnus Production Sep_2004\AUTOLOADER\Series IV\705-00006F-A_SD01.ddb			
DESIGNED BY: S. FOUDIMOV	DOCUMENT NUMBER: 705-00006F-A SD01	LAST ECO:	
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MTA AUTOLOADER MCU PDB1 BOARD WIRING DIAGRAM	
\\ccaeng1\engineering\Projects\Manta\System\Magnus Production Sep_2004\AUTOLOADER\Series IV\705-00006F-A_SD01.ddb -	
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LAST ECO:	APPROVED BY:
SHEET: 19 of 29	

PICKER PRESSURE
PRESSURE SENSE BOARD 10-4887A
220-00288A
RED 22 +24VDC
WHT 22 4-20mA Out
GRN 22 GND
BLU 22 PD+
BRN 22 PD-
MTA 1X6
J3 MTA 1X6 ANALOG0
J1 MTA 1X6 ANALOG1
J20 2X6 HDR HA-1
J25 UMNL 2X4 STPR-DRIVE
J26 MINIFIT 2X8 CAN SCON1
J24 MINIFIT 2X5 CAN SCON2
To PDB1 J14 [19] SCON BUS
220-00274A
220-00289A
To LIONEL1 J9 SCON BUS [23]
To GENINE3, J18
220-00290A
For DMPK OPTION ONLY
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 [25]
To RELAY K5 SS SENSOR POWER [20]
2X8 HDR
MCU-K5
13-5062
BAUMER SLIP SHEET SENSOR OZDM 16P1901
220-00357A
BRN 22
WHT 22
BLU 22
220-00354A
RED 22
WHT 22
GRN 22
15-3359
WHT 22 SIG
GRN 22 GND
PD
BLK 22
To GENINE3 J18 [20] SS SENSOR POWER
220-00290A
BLK 22 ACT5+
RED 22 +24V
To PLATE W. SENSOR ADAPTOR [20] +24V
220-00837A
RED 22 +24V
WHT 22 +24V
MINIFIT 1X2
220-00295B
RED 22 (1)
WHT 22 (2)
PD (3)
BLK 22 (4)
J10
IDC, 14PIN
CART PARK
172-00054 SW6
220-00438B
RED 22
BLK 22
RED 22 EREG.SEN0+ (5)
ORG 22 EREG.SEN0- (6)
YEL 22 EREG.SEN1+ (7)
GRN 22 EREG.SEN1- (8)
WHT 22 EREG.SEN2+ (9)
BLU 22 EREG.SEN2- (10)
BRN 22 EREG.SEN3+ (11)
BLK 22 EREG.SEN3- (12)
MINIFIT 2X4
J5
DIGITAL-IN4
2X17 HDR
To CART HOME SW5 [19] CART HOME DETECT
RED 22
BLK 22
220-00296B
J2 DIGITAL-IN3 2X15 HDR
2X10 HDR DIGITAL-IN2 J4
GENINE BOARD 3
10-4227D
BOARD ADDRESS = 0X33h
SOL-DRV0
SOL-DRV1
2X8 HDR
2X13 HDR
J18
J21
220-00290A
220-00456A
220-00291A
WM PICKER MANIFOLD
SV1 "picker down"
SV2 "picker slider in"
SV3 "picker pcups on"
SV4 "picker pcups on"
MINIFIT 2X5
To RELAY K5 SS SENSOR POWER [20]
[19] CART & DOOR SV
220-00282A
BLK 22
RED 22
GRN 22
WHT 22
220-00419A
MINIFIT 2X2
MCU MANIFOLD
SV1 "cassette door open"
SV7 "cassette cartpin up"
SV8 "plateffloat 2 on"
SV2 Cassette lock
SV3 Cassette eject
SV4 "separator on"
SV5 "plateffloat 1 on"
SV6 "picker mirror retract"
MANIFOLD INTERFACE BOARD 10-4727A
220-01300A
CON12
J1
J2
J3
J4
DC,26PIN
220-00293A
220-00285A
To SSR BULKHED SSR MANIFOLD [22]
MINIFIT 2X3
220-00294B
To MCU SAFETY INTERFACE BOARD J3 MCU SAFETY CONTROL [21]
TO: MCU MOTOR / BRAKE RELAY MCU MOTOR RELAY [21]
36-3125
10-4982A
CASSETTE DOOR OPENED
LED+ RED 22
LED- BLK 22
COLLECTOR WHT 22
EMITTER GRN 22
TO DSEN16 LED+ (1)
TO DSEN16 LED- (4)
TO DSEN16 C (2)
TO DSEN16 E (3)
[19] CASSETTE DOOR DETECT
RED 22 TO DSEN17 C (6)
BLK 22 TO DSEN17 E (7)
36-3210
CASSETTE LOCK
RED 22 TO DSEN18 LED+ (9)
WHT 22 TO DSEN18 C (10)
GRN 22 TO DSEN18 E (11)
CASSETTE EJECT
RED 22 TO DSEN19 LED+ (13)
WHT 22 TO DSEN19 C (14)
GRN 22 TO DSEN19 E (15)
CASSETTE LOCKED ON CHARRIOT 1
RED 22 TO DSEN20 LED+ (17)
WHT 22 TO DSEN20 C (18)
GRN 22 TO DSEN20 E (19)
CASSETTE LOCKED ON CHARRIOT 2
RED 22 TO DSEN21 LED+ (21)
WHT 22 TO DSEN21 C (22)
GRN 22 TO DSEN21 E (23)
LOCK EJECT CYLINDER IN
RED 22 TO DSEN22 LED+ (25)
WHT 22 TO DSEN22 C (26)
GRN 22 TO DSEN22 E (27)
To SHATTER SWITCH - SW 14 [19] SHATTER SW DETECT
RED 22 TO DSEN23 C (30)
BLK 22 TO DSEN23 E (31)
220-00297B
CASS POS 1
RED 22 TO DSEN9 LED+ (1)
WHT 22 TO DSEN9 C (2)
GRN 22 TO DSEN9 E (3)
CASS POS 2
RED 22 TO DSEN10 LED+ (5)
WHT 22 TO DSEN10 C (6)
GRN 22 TO DSEN10 E (7)
CASS POS 3
RED 22 TO DSEN11 LED+ (9)
WHT 22 TO DSEN11 C (10)
GRN 22 TO DSEN11 E (11)
CASS POS 4
RED 22 TO DSEN12 LED+ (13)
WHT 22 TO DSEN12 C (14)
GRN 22 TO DSEN12 E (15)
CASS LOAD/UNLOAD POS
RED 22 TO DSEN13 LED+ (17)
WHT 22 TO DSEN13 C (18)
GRN 22 TO DSEN13 E (19)
CASS LOCK/EJECT POS
RED 22 TO DSEN14 LED+ (21)
WHT 22 TO DSEN14 C (22)
GRN 22 TO DSEN14 E (23)
To GENINE 3, J10 [20] +24V
BLK 22 BLK 22 TO DSEN15 C (26)
GRN 22 GRN 22 TO DSEN15 E (27)
MINIFIT 1X2
RED 22
WHT 22
P-CUP ARM UP
RED 22 TO DSEN 4 LED+ (1)
WHT 22 TO DSEN 4 C (2)
GRN 22 TO DSEN 4 E (3)
P-CUP SLIDER RETRACT
RED 22 TO DSEN 5 LED+ (5)
WHT 22 TO DSEN 5 C (6)
GRN 22 TO DSEN 5 E (7)
P-CUPS MOTION DOWN 10-9048A
36-3209
LED+ GRY 24
COLLECTOR WHT 24
EMITTER GRN 24
RED 22 TO DSEN6 LED+ (9)
WHT 22 TO DSEN6 C (10)
GRN 22 TO DSEN6 E (11)
SS MIRROR EXTENDED 10-4982A
36-3125
LED+ RED 22
LED- BLK 22
COLLECTOR WHT 22
EMITTER GRN 22
RED 22 TO DSEN 7 LED+ (13)
BLK 22 TO DSEN7 LED- (16)
WHT 22 TO DSEN 7 C (14)
GRN 22 TO DSEN 7 E (15)
CASS PICK POS
RED 22 TO DSEN8 LED+ (17)
WHT 22 TO DSEN8 C (18)
GRN 22 TO DSEN8 E (19)
220-00298A
220-00837A
220-01272A
PLATE WIDTH SENSOR 10-4652A
36-3200
BRN 22
PINK 22
BLUE 22
BLK 22
NC
MINIFIT 2X2

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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

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 HOLD MCU-SW4
PRESSING BOTH WILL RESULT IN THE FORKS MOVING DOWN.

SEMI-AUTOMATIC MODE:

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

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

15-344B

15-3238

WHT 24

BLK 24

GRN 24

MCU-SW3 JOG UP PUSHBUTTON

MCU-SW4 PUSHBUTTON JOG DOWN

GND

GND (SW)

220-00421A

220-00421A

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

[19] MANUAL JOG BUTN To MCU OVERRIDE SW.

220-01799A

MAN BRK OFF BRN-22 GND BLK-22

FW BRK OFF BRN-22

174-00035 BRAKE RELAY Input: 3.5 - 30 VDC Output: 3 Amps DC

MCU BRAKE RELAY

ACT21+(E/W MCU BRK CTRL) BLK-22

+24V SAFE (MNFLD) RED-22

RED-22

220-00294B

BRAKE OFF WHEN CURRENT FLOWS

[20] MCU MOTOR RELAY To MCU MNFLD IF BRD (J4)

[19] MCU BRAKE To MCU BRAKE TERM BLOCK ON MCU MOTOR

220-01799A

220-00280A

[23] MCU SAFETY SENSING To MCU LIONEL1 (J8)

220-00279B

[19] CONTACTORS ON To MCU CONTACTOR COILS

Install jumper 220-01923A on Brake Relay when using any Software lower than CR4.0.
Fuse F6 will blow on PDB if jumper is not installed.

220-01923A

YEL-16

MINIFIT 2X2

GRN 22 WHT 22 BLK 22

MCU NUT SWITCH (DETECTS MCU NUT FAILURE) 15-3355

RED 22 BLK 22

2X3 M'nL

MCU-T1 THERMOSTAT 60 C

170-00024

RESET MANUALLY AT TEMP BELOW 42 C (PROVIDES MCU-M1 THERMAL PROTECTION)

UPPER & LOWER LIMIT SWITCHES

15-3457 UPPER LIM SWITCH

SW2

SW3

LOWER LIM SWITCH 15-3457

220-00315A

RED 22 BLK 22 WHT 22 GRN 22

J1 2X2 MINIFITJR

220-00421A

J4

+24VSAFE
JOG MODE
ACT20+(MOTOR RUN)
SEMI/AUTO RUN
JOGGED RUN
JOG DOWN
SERV PNL SW OVR
GND

RED 24 WHT 24 GRN 24 YEL 24 ORG 24 BLK 24

MCU SAFETY INTERFACE BOARD

10-4697C

J3

24V SAFE
ACT20+(MOTOR RUN)
ACT22+(DIR DOWN)
ACT24+(FREQ SLOW)
SENS 13.E (MOTOR RUN)
SENS 13.C (MOTOR RUN)
SENS14.C(SFTY LOOP)
SENS14.E(SFTY LOOP)
GND

RED 22 BLK 22 WHT 22 GRN 22

2X5 MINIFITJR

24V OK DS1 LED,GRN R3 2K2

SAFETY LOOP OK

D8 UF4002 DS2 LED,YEL R4 2K2

J5 CONTACTOR COIL+ GND

J8 1X2 M'nL 24V SAFE

J9 1X2 M'nL

J6 1X2 M'nL

J7 1X2 M'nL

J10 1X2 M'nL CONTACTOR COIL+

220-00418A

SELV CIRCUITRY

NON-SELV CIRCUITRY

DIRECTION UP DOWN K2 RTE24024 D4 UF4002

K1 RTE24024 RUN D1 UF4002

K3 RTE24024 DIR DOWN ISOLATION D2 UF4002

K4 RTE24024 SPEED SLOW D3 UF4002

MOTOR RUN SENS ISOLATION R1 1K U1A ILQ30

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

K5 RTE24024 D5 UF4002

AUTO/JOG SIGNAL SELECTOR2

RUN SIGNAL CONTACTOR

RUN REQ

K6 RTE24024 D6 UF4002

K7 RTE24024 D7 UF4002

U2A ILQ30 R2 1K8

K5, K6 ENERGIZED WHEN LEVER SWITCH SET TO JOG MODE

RELAY ENERGIZED WHEN MCU SAFETY LOOP IS OK

601-00052 MCU MOTOR DRIVE

J2 220-00311B INVERTER CONTROL 2X6 MINIFIT

N/O CONTACT1	1	RED 22	X2 A 24 N/O CONTACT
N/O CONTACT2	2		
FREQ 1 (FAST)	3	WHT 22	26 SW COMMON
FREQ 2 (SLOW)	4	GRN 22	10 FREQ 1 (FAST)
+24V DC	5	BLK 22	11 FREQ2 (SLOW)
REVERSE	6	BRN 22	22 DC COMMON
FORWARD	7		
DC COMMON	8		
CONT REL (RUN)	9		
	10	YEL 22	20 24VDC
	11	BLU 22	15 REVERSE
	12	ORG 22	14 FORWARD
		GREY 22	16 CONT REL (RUN)

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MTA AUTOLOADER
MCU SAFETY INTERFACE BOARD
WIRING DIAGRAM

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EMERGENCY STOP SWITCH ES1-MCU 15-3474

ES2-MCU 15-3474

ES3-SSR 15-3474

220-00317A

220-00417A

220-00452A

[19] PDB1 ESTOP To PDB1 (J42)

[23] ESTOP1 FOM MCU To MCU BULKHEAD MOD#2 (11)

[23] ESTOP3 FROM SSR To MCU BULKHEAD (12)

[23] ES3-SSR To MCU BULKHEAD MOD#2 (10)

[20] MCU SAFETY CONTROL To MCU MNFLD IF BRD (J4)

SSR 500-00307A

COMPACTOR RETRACT SENSOR
CONTACTS CLOSE WHEN COMPACTOR RETRACTS
15-3355
COMPACTOR EXTEND SENSOR
CONTACTS CLOSE WHEN COMPACTOR EXTENDS
15-3355

SSR
UMBILICAL CABLE
220-00453A

MODULE #1
220-00461A

1	GND	RED/WHT & BLK STRIPES 24	RED 22
2	EREG.PD+	BLU/BLK STRIPE 24	RED 22
3	EREG.PD-	GRN 24	+5V
4	EREG.SEN0+	RED/BLK STRIPE 24	
5	EREG.SEN1+	BLU 24	BLK 22
6	EREG.SEN2+	WHT/BLK STRIPE 24	
7	EREG.SEN3+	BLU/RED STRIPE 24	WHT 22
8	+24VSAFE(SW)	BLK/WHT STRIPE 24	+24VSAFE (SWITCHED)
9	+24V	WHT/RED STRIPE 24	
10	EREG.SEN3-	BLU/WHT STRIPE 24	GND GRN 22
11	DSEN 10.C	GRN/WHT & BLK STRIPES 24	
12	SPARE	ORG/RED STRIPE 24	N/C

MINIFIT 2X7

To MCU LIONEL1 J11
[23] SSR SENSORS 3

220-00458A

EREG.PD+	RED 22	DSEN10.E
EREG.PD-	BLK 22	
EREG.SEN0+	WHT 22	
EREG.SEN1+	GRN 22	
EREG.SEN2+	YEL 22	
EREG.SEN3+	BLU 22	
+24V SAFE SWITCHED	RED 22	
+24V	ORG 22	
EREG.SEN3- (GND)	BRN 22	
		DSEN 10.C

To K3,K4 MCU PDB1
[19] PS2 AC POWER ON
RED 22
BLK 22

To MCU LIONEL1 J8
[23] SSR SENSORS 2

220-00459A

ACT16+	BLK 22	
SENS12.LED-	BLK 22	
SENS11.LED+	RED 22	
SENS11.C	BRN 22	
SENS11.E	BLU 22	
SENS11.LED-	WHT 22	
+24V SAFE	RED 22	
ACT17+	BRN 22	
ACT18+	BLU 22	
ACT19+	WHT 22	
	RED 16	
	BLK 16	
PS2 +24V		
PS2 +24VRTN		

To MCU LIONEL1 J8
[23] SSR SENSORS 1

To MCU MANIFOLD INT. BOARD
[20] SSR MANIFOLD

To MCU PS2
[19] SSR DC MOTOR POWER

MINIFIT 2X7

1	ACT16+	GRN/BLK STRIPE 24	
2	SENS12.LED-	WHT/RED & BLK STRIPES 24	
3	SENS11.LED+	GRN/WHT STRIPE 24	+5V
4	SENS11.C	ORG 24	GRN 22
5	SENS11.E	BLK 24	BLK 22
6	SENS11.LED-	BLK/RED STRIPE 24	RED 22
7	+24VSAFE	ORG/BLK STRIPE 24	+24VSAFE
8	ACT17+	RED 24	BLK 22
9	ACT18+	RED/WHT STRIPE 24	BLK 22
10	ACT19+	WHT 24	
11	PS2 +24V	RED 16	+24V
12	PS2 +24VRTN	BLK 16	RTN

MODULE #2
220-00462A

SSR-SW1
ROLLER CLOSE
OVERRIDE PBTN.
15-3447
15-3448

M5 BOLT
MCU CHASSIS
GND
G/Y 16
220-00523A
GND
M5 BOLT
SSBIN PANEL

SSR LOCAL SAFETY LOOP
SS BIN FRONT DOOR SWITCH
15-3263

+24VSAFE RED 22
BLK 22
WHT 22
GRN 22
RED 22

1 RED 2 YEL 3 BLK 4 WHT
16-3666
16-3BE1 YEL
16-3BE1 RED

10-5247A YEL 22
FAR END
NEAR END
15-3355
ROLLER CLOSED SWITCHES
CONTACTS 3 AND 4 ARE CLOSED WHEN ROLLER IS CLOSED
10-5247A RED 22

ASSY BIN FULL SENSOR 10-4652A
36-3200

SSR compactor off
16-4248

ROLLER OPEN SENSOR
36-3210

SSR roller close
16-4248

SSR roller open
16-4248

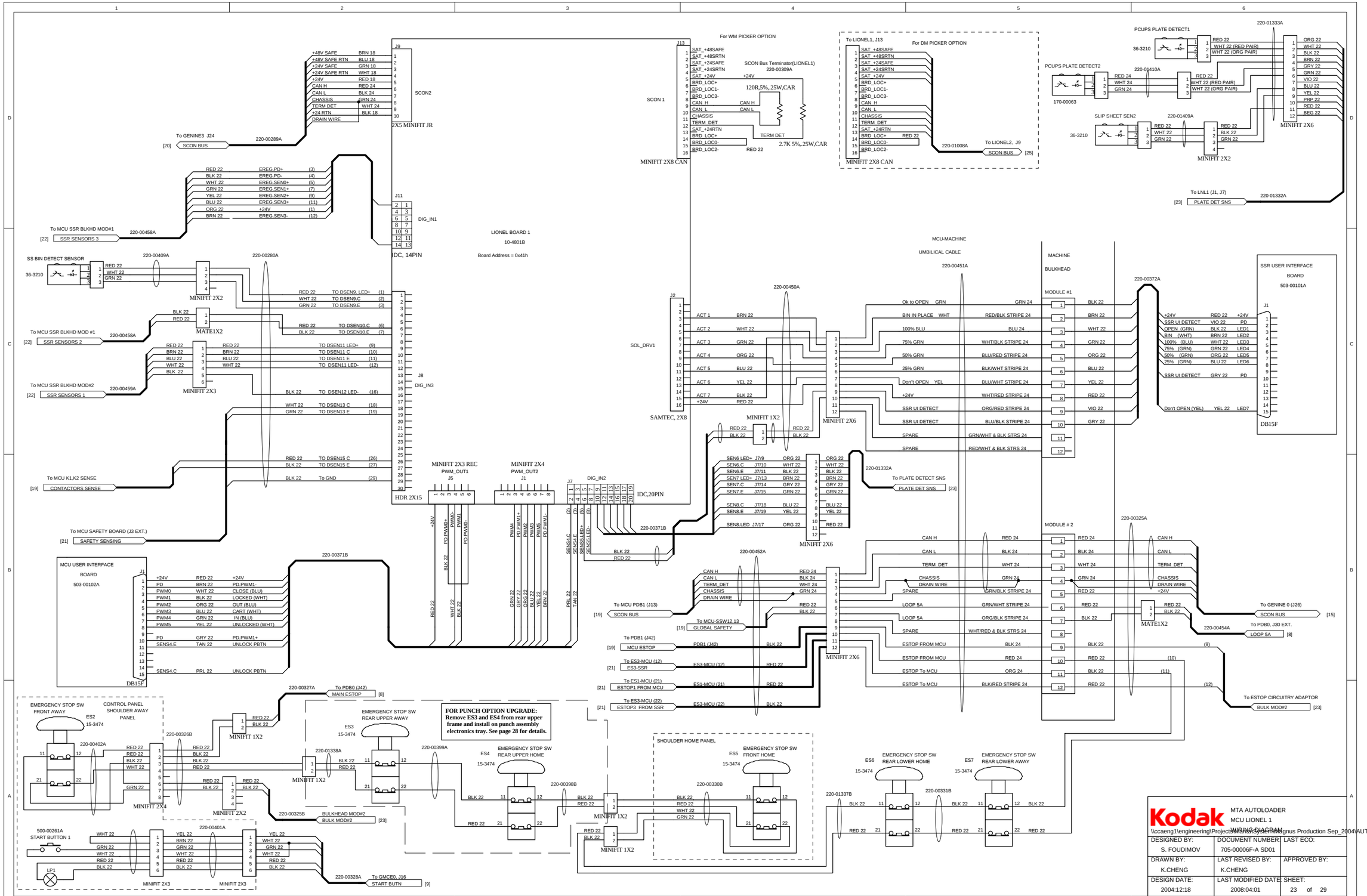
SSR compactor on
16-4248

MOTOR ON SENSE SSR-K3
15-3359

SSR-CB1
15-3472 4A
P&B W28-XQ1A4

SSR-M1
SSR MOTOR
10-4756A

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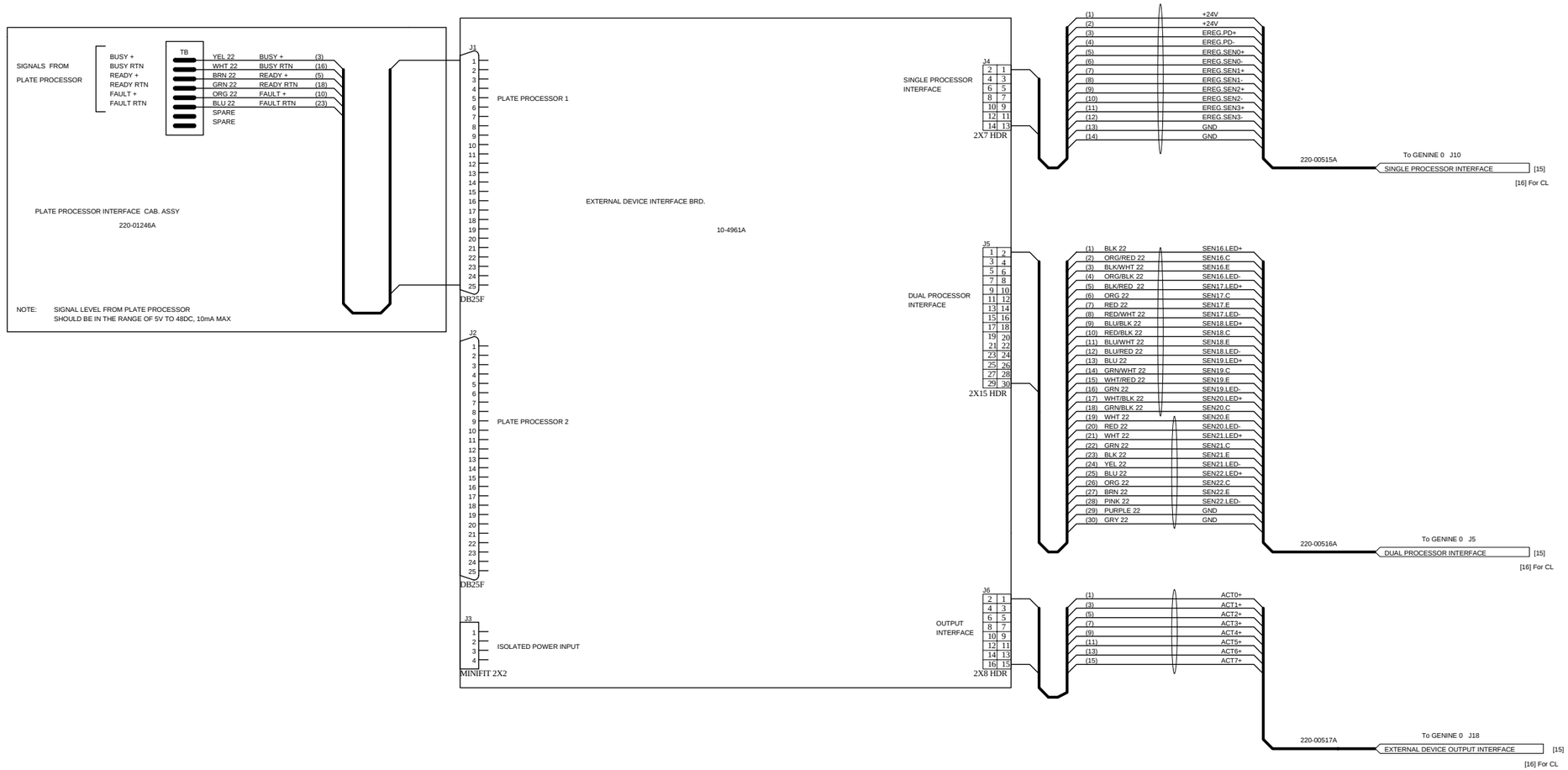


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MTA AUTOLOADER
MCU LIONEL 1
WIRING DIAGRAM

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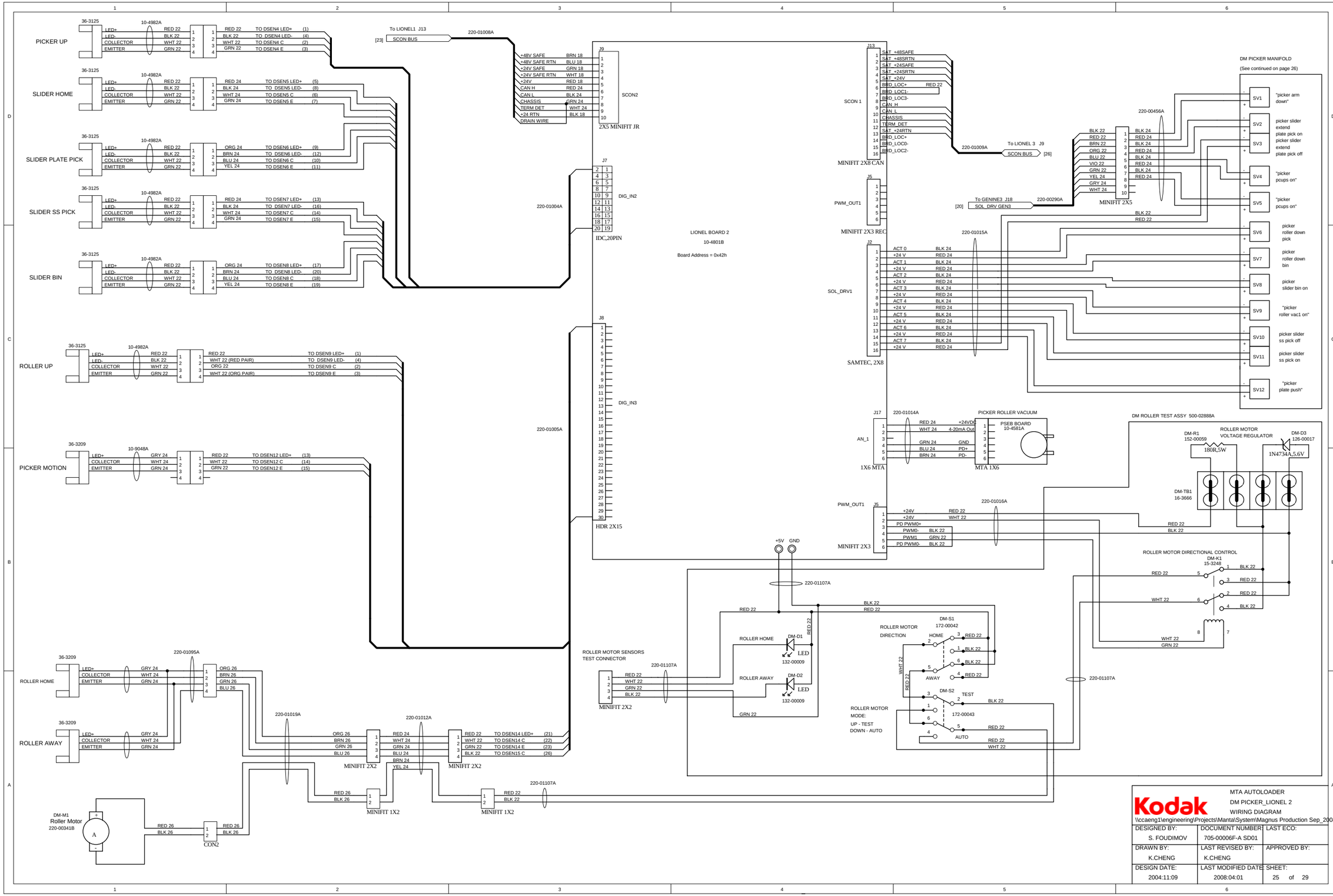


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MTA AUTOLOADER
PROCESSOR INTERFACE BOARD
WIRING DIAGRAM

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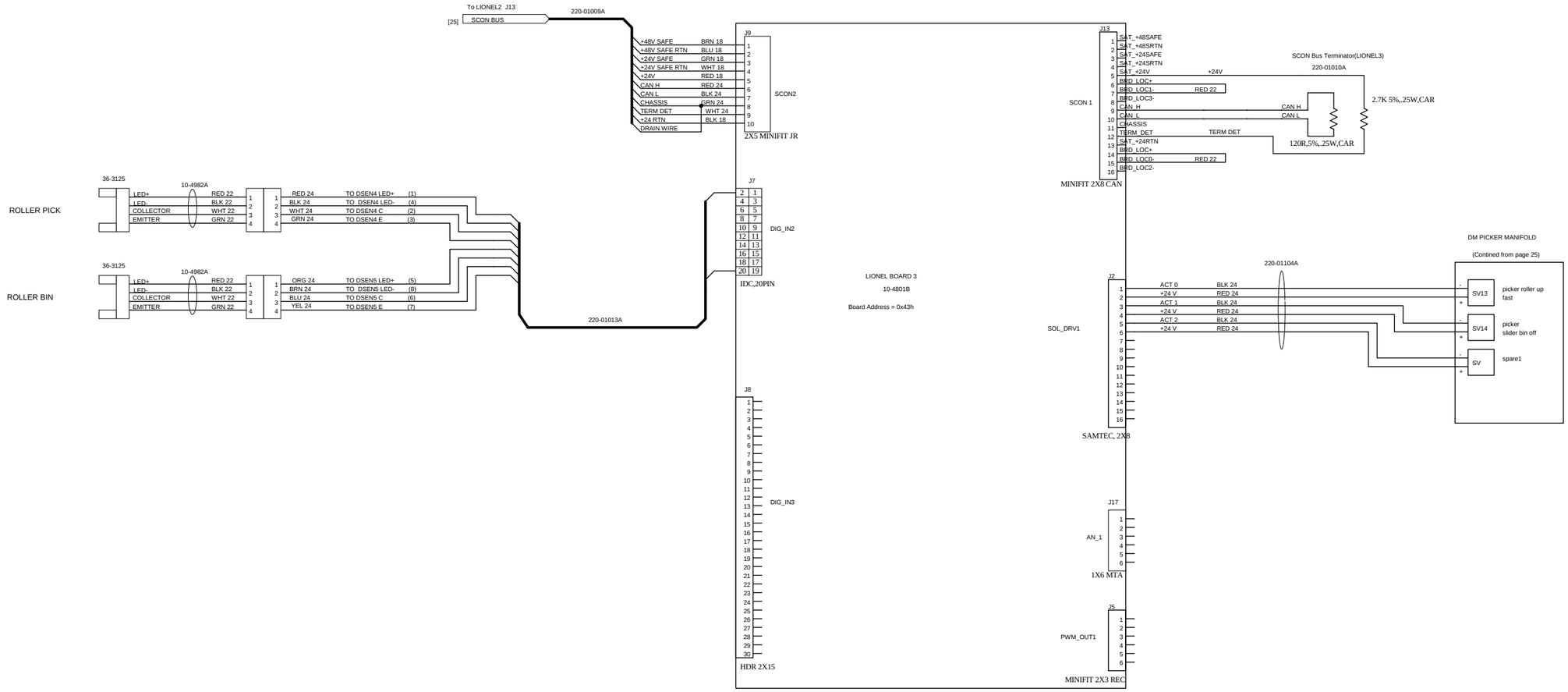
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MTA AUTOLOADER
DM PICKER_LIONEL 3
WIRING DIAGRAM

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DRAWN BY:	LAST REVISED BY:	APPROVED BY:
K.CHENG	K.CHENG	
DESIGN DATE:	LAST MODIFIED DATE:	SHEET:
2004:11:09	2008:04:01	26 of 29

MTA DRUM VACUUM PUMP ASSY (MTA-DVP) 500-01555B

200 - 240 VAC NON-SELV CIRCUITRY

SELV CIRCUITRY

LINE CORD

CSA/UL Type SJT, 12AWG, 3con, 300V, 60Deg.C, HAR/VDE Type H05VV-F, 2x4mm sq., 500V, 32A

200-240 VAC, 50/60HZ, 20A

AC IN

CABLES & PLUGS

North America (220-01487A)

16-4560 - NEMA Type L6-30P, Locking, 250VAC, 30A

Outside NA (220-01486A)

16-4024 - IEC Std. 309, Industrial Type B Plug, 250V, 32A

L1 BRN 12
L2/N BLU 12
GND G/Y 12

15-3427
S1
SW 3PST

220-01485A

GND G/Y 12

M5 STUD

10-0092A

M5 STUD

LF1
FILT30A
162-00011

220-01491A

F1, F2: 12A, 600V, BUSSMANN, Type LP-CC for 60 Hz
F1, F2: 15A, 600V, BUSSMANN, Type LP-CC for 50 Hz

182-00016 for 60 Hz
182-00021 for 50 Hz

F1
F2
F1, F2 FUSEHOLDER, 182-00015

220-01984A

13-4847
C1 3UF

TB1

220-01490A

M5 STUD

L1 BRN 20
C1 BRN 20
L2/N BLU 20
GND G/Y 20

FAN 1
10-4143A

220-01492A

RELAY,25A,SOLID STATE
15-3249

BLK 22 PWM 2
RED 22 +24V

DRUM VACUUM PUMP MOTOR

K1

L1 BRN 14
L2/N BLU 14
GND G/Y 14

M 1
376-00030

220-00609A

220-00836A

M5 STUD

220-00610A [FOR REGULAR BUILD]
220-01034A [FOR BLEEDING VALVE BUILD]

MINIFIT 2X4

1 RED 22
2 BRN 22
3
4 WHT 22 PWM 2
5 GRN 22 PWM 3
6 BLU 22 PWM 5
7 ORG 22 +24V
8

RED 22
BLK 22

THERMOSTAT 60 C
170-00024

T1

RESET MANUALLY
AT TEMP BELOW 42 C

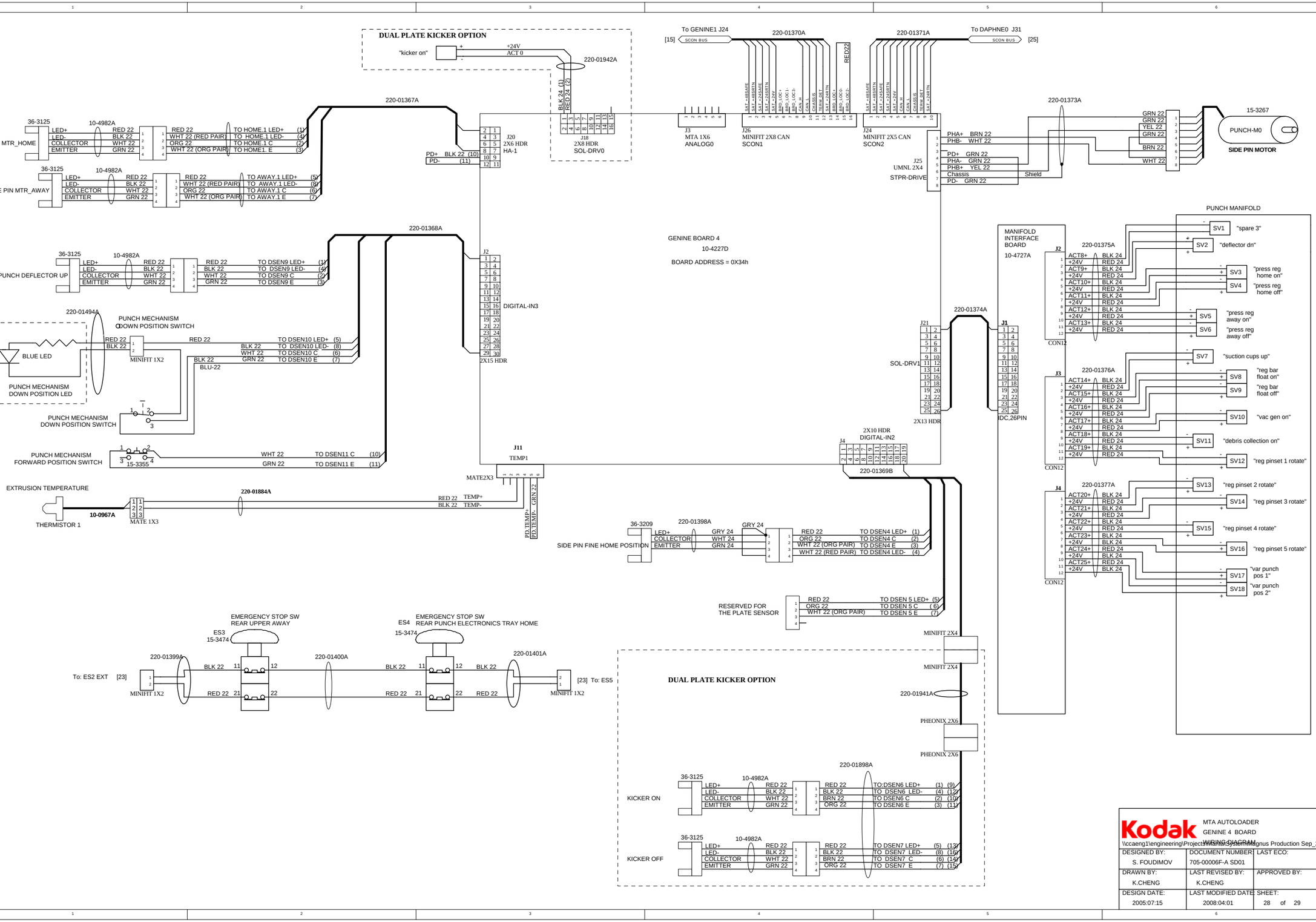
BLK 22
RED 22

BLEEDING VALVE
334-00078

To LIONEL 0 (J1)

220-00611A
DVP CNTRL
[11]

Kodak	MTA AUTOLOADER DRUM VACUUM PUMP WIRING DIAGRAM	
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MTA AUTOLOADER
GENINE 4 BOARD
WIRING DIAGRAM

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DAPHNE 0

503-00246A

BOARD ADDRESS = 0X20h

To GENINE4 J24 [24] SCON BUS — 220-01371A — SCON2

220-01405A RED_J8 — J34 MATE-N-LOK 1X3

J31 MINIFIT 2X8 CAN

220-01372A — To 220-00171B SCON BUS [16]

J32 MINIFIT 2X5 CAN SCON1

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

SIDE PIN LEAD-SCREW TEMPERATURE — THERMISTOR 2 — 10-0967A — MATE 1X3

220-01381A: YEL 22, BLK 22, RED 22 — 220-01380A: RED 22, BLK 22, RED 22 — MINIFIT 1X3

RED 22 TEMP+, BLK 22 TEMP-, PD.TEMP+, GRN 22 PD.TEMP- — TEMP2 J27 MATE2X3

PUNCH SIDE REG. PIN — RED 22

PUNCH REG. PINS — 220-01382B — YEL 22, ORG 22, BLK 22, BLU 22, RED 22, RED 22, BLK 22, BLU 22, BLK 22, ORG 22, YEL 22 — MINIFIT 2X5

220-01957A — DRIVE 2, DRIVE 3, DRIVE 4, DRIVE 5, DRIVE 6, DRIVE 1, SENSOR 1, SENSOR 2, SENSOR 3, SENSOR 4, SENSOR 5, SENSOR 6, PD.BKBN+, PD.BKBN-

J2 — WHT 22, RED22, BRN 22, BLK 22, GRN 22, WHT 22, BRN 22, GRN 22, BLU 22, RED 22, BLK 22, BLU 22, BLK 22, RED 22 — MINIFIT 2X8

12-PIN EREG2. BRD 1 503-00389A

RED 22 NC, BLK 22 — BLU 22, BRN 22 — MINIFIT 1X2

220-01956A

J1 — RED/BLK 22, BLU/BLK 22, RED 22 (PD-), RED 22, WHT/BLK 22, GRN/BLK 22, GRN 22, BLK/WHT 22, GRN/WHT 22, BLK 22, BLU/WHT 22, ORG/BLK 22, ORG 22, RED/WHT 22, BLU 22, WHT 22, RED 22 — MINIFIT 2X9

PD+ (5V), SEN.OUT1, GND, PD-, SEN. OUT 2, SEN. OUT 3, +24V, SEN. OUT4, SEN.OUT5, SEN.OUT6, DRIVE4.EN, DRIVE5.EN, SEN.OUT1, SEN. OUT 2, SEN. OUT 3, DRIVE 1.EN, DRIVE2.EN, DRIVE3.EN, SEN. OUT4, SEN.OUT5, SEN.OUT 6, PD+ (+5V)

J18 DIGITAL_IN — BLU/BLK 22, GRN/WHT 22, GRN/BLK 22, WHT/BLK 22, BLK 22, BLU/WHT 22, BLU 22, RED 22, WHT 22, GRN 22, BLK 22, BRN 22 — 2X15 HEADER

J33 SOL_DRV OUT — ORG/BLK 22, RED/BLK 22, ORG 22, RED/WHT 22, GRN 22, BLK/WHT 22 — 2X8 HEADER

J22 AN-OUT — DB15F — AN_OUT1, 24V, GND, AN_OUT2, PD_AN_OUT+, PD_AN_OUT-, CHASSIS — WHT 22, GRN 22, BLU 22, ORG 22

GRN 22, BLK 22, VEL 22, BLU 22, RED 22, WHT 22, BRN 22 — MINIFIT 2X4

BLK 22 ×8, RED 22 — 220-01403B

LED D1, LED D2, LED D3, LED D4, LED D5, LED D6, +5V

R1–R6 511R 13-3034

D1–D6 LED,RED 132-00009

REG. PINS 1-10, REG. PINS 2-9, REG. PINS 3-8, REG. PINS 4-7, REG. PINS 5-6, SIDE REG. PIN

PUNCH 1 ASSY

220-01384A (OR 220-01385A) — J1 PUNCH1 MINIFIT 2X3

RED 22 24V MOTOR+, BLK 22 SENSOR +5V, WHT 22 SENSOR_SIG, BRN 22 24V MOTOR-, BLU 22 SENSOR GND, GRN 22 MOTOR CHASSIS

WHT/RED 22 24V+, RED 22 5V+, WHT 22 DSEN.C, WHT/BLK 22 24V RTN, BLK 22 DSEN.E, GRN 22 MTR CHASSIS — MINIFIT 2X3

PUNCH-M1 PUNCH MOTOR — PUNCH HOME SENSOR 1

PUNCH 2 ASSY

220-01384A (OR 220-01385A) — J2 PUNCH2 MINIFIT 2X3

RED 22 24V MOTOR+, BLK 22 SENSOR +5V, WHT 22 SENSOR_SIG, BRN 22 24V MOTOR-, BLU 22 SENSOR GND, GRN 22 MOTOR CHASSIS

WHT/RED 22 24V+, RED 22 5V+, WHT 22 DSEN.C, WHT/BLK 22 24V RTN, BLK 22 DSEN.E, GRN 22 MTR CHASSIS — MINIFIT 2X3

PUNCH-M2 PUNCH MOTOR — PUNCH HOME SENSOR 2

PUNCH 16 ASSY

220-01384A (OR 220-01385A) — J16 PUNCH16 MINIFIT 2X3

RED 22 24V MOTOR+, BLK 22 SENSOR +5V, WHT 22 SENSOR_SIG, BRN 22 24V MOTOR-, BLU 22 SENSOR GND, GRN 22 MOTOR CHASSIS

WHT/RED 22 24V+, RED 22 5V+, WHT 22 DSEN.C, WHT/BLK 22 24V RTN, BLK 22 DSEN.E, GRN 22 MTR CHASSIS — MINIFIT 2X3

PUNCH-M16 PUNCH MOTOR — PUNCH HOME SENSOR 16

PRESSURE REGULATOR HOME

RED 22, BRN 22, BLK 22 — 1 V+, 2 SIG, 3 COM

PRESSURE REGULATOR AWAY

WHT 22, BLU 22, GRN 22 — 1 V+, 2 SIG, 3 COM

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MTA AUTOLOADER
DAPHNE 0 BOARD
WIRING DIAGRAM

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