MTA WIRING DIAGRAM
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- EXTRUSION TEMPERATURE SENSORS

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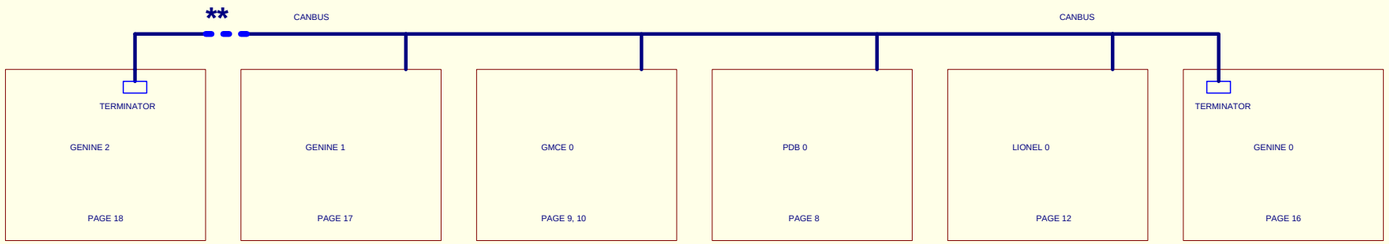
MTA AUTOLOADER
SERIES 4
SYSTEM WIRING DIAGRAM

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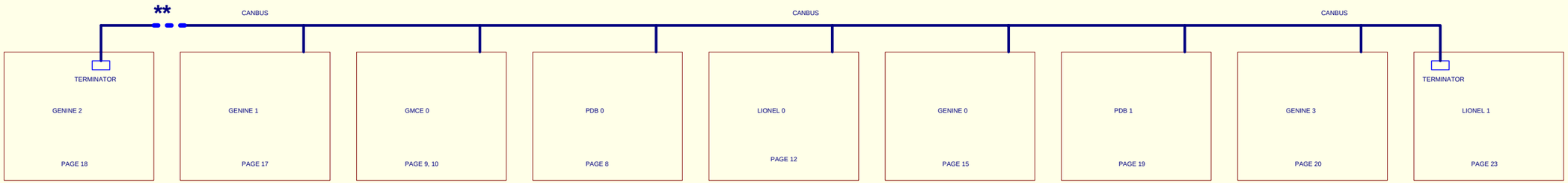
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MTA SERIES 3 AUTOLOADER SATELLITE BOARD CONFIGURATIONS

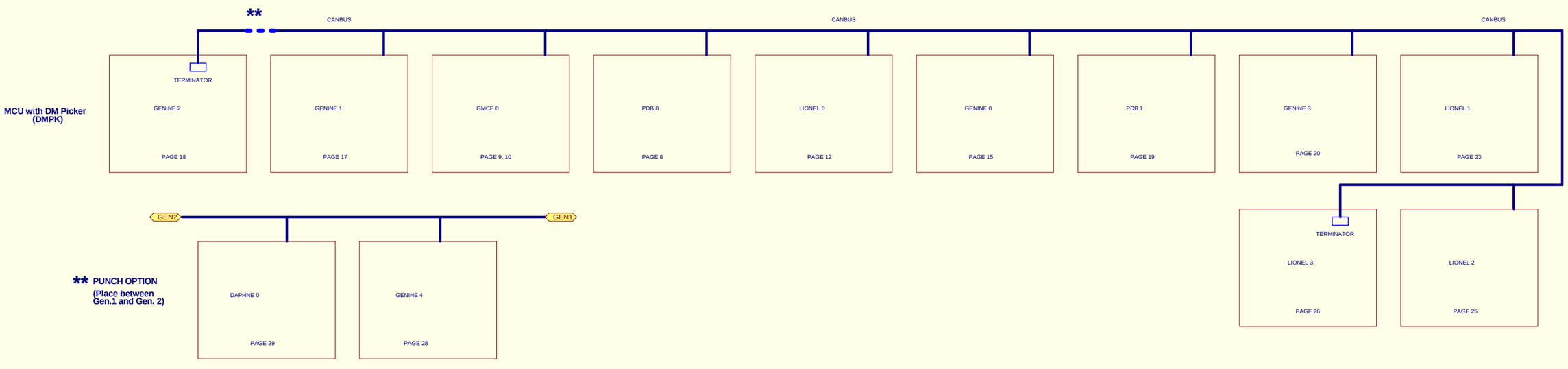
CL



MCU with WEDGE MASTER (WM)



MCU with DM Picker (DMPK)



**** PUNCH OPTION**
(Place between Gen.1 and Gen. 2)

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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

GIGABIT MASTER CONTROL ELECTRONICS (GMCE0 BOARD)

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

ENGINE I/O

EH - Control

DATA (HOT LINK)

CARRIAGE DRIVER INTERFACE

PLL & LINE TIMING (SCLK)

DRUM AMP INTERFACE

ENGINE SOLENOID MANIFOLD

FOR TH3 OPTION:

FIBEROPTICS DUPLEX CABLE

TH3 EXPOSURE HEAD

RS422

High Speed Serial

48VDC Power

RS422 +5V Analog plus

RS422 (Incremental Quadrature)

+-10V Analog or TTL PWM

CARRIAGE DRIVE

Carriage Motor

TH2 EXPOSURE HEAD

Tach Encoder

DRUM

Drum Motor

DRUM DRIVE

DRUM RESISTIVE BRAKE

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

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

PS1 POWER
24VDC
Pneumatics

PS2 POWER
48VDC
Stepper Motors

PS3 POWER
48VDC
Thermal Exposure Head
Write Laser

PS4 POWER
48VDC
Thermal Exposure Head Logic

FOR TH3 OPTION ONLY

TH3 POWER MODULE
360VDC

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

200 - 240 VAC

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

MAIN DISCONNECT

SWITCH ES1

CB1

CB2

CB3

F1

F2

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

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

POWER BOX

AC SWITCH, SW2

POWER ENTRY BOX (PEB)

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

GENINE 1 BOARD

LOAD TABLE & S. EJECTOR PNEUMATICS & SENSORS

SIDE EJECTOR MOTOR DRIVE

S. EJECTOR MOTOR

LOAD TABLE MOTOR

SEE PAGE 3

PUNCH OPTION

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

CAN BUS & TERMINATOR
FOR DM PICKER OPTION

LIONEL 2 BOARD

DM PICKER PNEUMATICS & SENSORS

LIONEL 3 BOARD

DM PICKER PNEUMATICS & SENSORS

DM ROLLER 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 3)

200 - 240 VAC

NOTES:

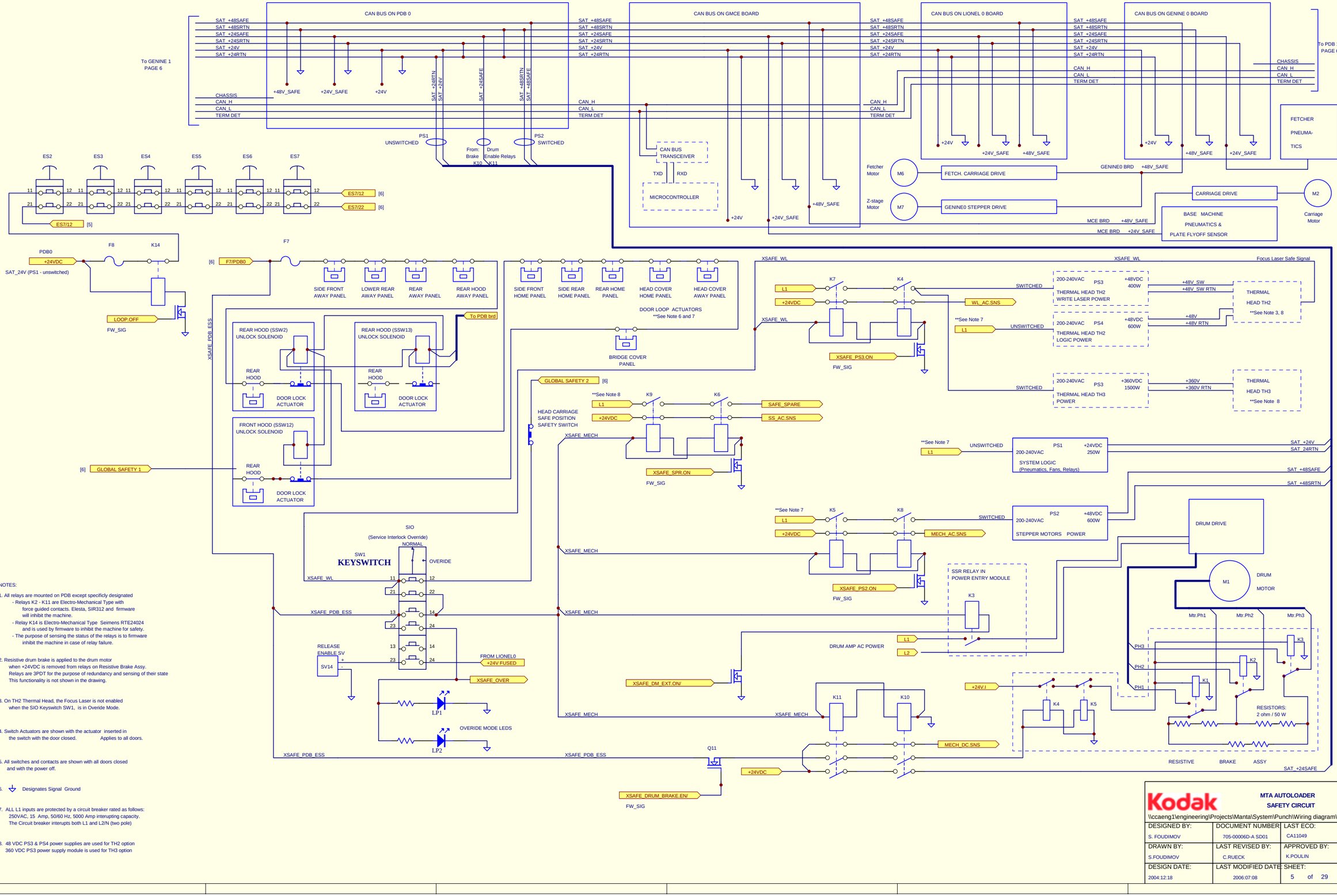
THE FOLLOWING BOARDS ARE NOT USED FOR CL OPTION:
PDB 1, GENINE 3, LIONEL 1, LIONEL 2 and LIONEL 3.

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MTA AUTOLOADER
SYSTEM BLOCK DIAGRAM
(CONTINUED)

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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

Kodak	MTA AUTOLOADER SAFETY CIRCUIT	
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CAN BUS ON PDB 1

FROM GENINE 0 PAGE 5

CHASSIS
CAN_H
CAN_L
TERM DET

+24V_SAFE
+24V

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

CAN BUS ON GENINE 3 BOARD

MCU, SSR & PICKER PNEUMATICS

CAN BUS ON LIONEL 1 BOARD

MCU, SSR-USER IF PNEUMATICS

CAN BUS ON LIONEL 2 BOARD

DM PICKER PNEUMATICS

CAN BUS ON LIONEL 3 BOARD

TERMINATOR LIONEL 3 - J13

120 OHMS

2.7 K OHMS

CAN BUS ON DAPHNE 0 BOARD

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

P.M1
P.M2
P.M16

CAN BUS ON GENINE 2 BOARD

+48V_SAFE

TERMINATOR GENINE 2 - J26

UNLOAD TABLE PNEUMATICS

GENINE 2 STEPPER DRIVE

M5
Unload Table Motor

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

UNSW.
L1

From PDB 0 PAGE 5

CAN BUS ON GENINE 1 BOARD

CAN BUS ON GENINE 4 BOARD

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
F8
K14
SAT_24V (PS1 - unswitched)

[5] ES2/21
F7
XSAFE_PDB_ESS

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

LOOP.OFF
FW_SIG

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

MCU AC MOTOR DRIVE

XSAFE_MECH

Mcu & SSR Service Interlock Override SIO

MCU-SW5
NORMAL
OVERIDE
XSAFE_WL
XSAFE_PDB_ESS
XSAFE_MECH
SSR +24V
SSR Roller Motor
SSR M1
SSR MOTOR OVERRIDE PBTN.
SSR-SW2

**See Note 7
L1
+24VDC
K5
K8
MECH_AC.SNS
XSAFE_PS2.ON
FW_SIG

SWITCHED

MCU POWER BOX RELAYS
K3
K4

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

XSAFE_MECH

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
CONTACTORS ON

MCU SAFETY BOARD

SSR MODULE
SSR LOCAL SAFETY LOOP
SS BIN FRONT DOOR SWITCH
+24VSAFE
SSR PNEUMATICS
SSR ROLLER EXTEND
OVERRIDE PBTN.
SSR-SW1

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
MCU-SW4
JOG DOWN
PUSHBUTTON
13A
14A

MANUAL_JOG_SEMI-AUTO

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

XSAFE_OVER
LP1
MCU OVERIDE MODE LEDS
LP2

**See Note 8
L1
F3
K1
SAFE_SPARE
MCU M2
MCU Plenum Motor

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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
GND G/Y 12 10-9089A — M5 STUD PEB

200-240 VAC, 50/60HZ, 24A , LINE 1
1 L1 BRN 12
2 L2/N BLU 12
3 GND G/Y 12
AC Input 1 Plug

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

CB1 CIRBKR 15A
BRN 12 12 11 BRN 14
BLU 12 22 12 BLU 14
15-3085
TB1
10-5221A
10-5222A BRN 14
WHT 14

ES1 EMRGENCY STOP & MAIN SWITCH 25A
1 2
3 4
5 6
7 8
15-3525

10-9090A
10-5218A

200-240 VAC, 50/60HZ, 24A , LINE 2
1 L1 BRN 12
2 L2/N BLU 12
3 GND G/Y 12
AC Input 2 Plug

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

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

220-00833A

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

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

11 12
21 22
13 14
23 24
13 14
23 24

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
RED 22 BLK 22 RED 22 BLK 22
+24V RTN +24V RTN
10-3721A 10-3721A
1 2 1 2

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

+24V RED 22
RTN BLK 22
+24V WHT 22
RTN GRN 22

10-9083A
MINIFIT 2X6
J2 1 2 3 4 5 6 7 8 9 10 11 12
10-9091B

RED 22
BLK 22
To RELEASE SV ADAPTOR
RELEASE ADPT 1 [9]

RED22 BRN22 WHT22 GRN22 BLK22 BLU22 ORG22
To PDB J34, J35, J41
OVERRIDE SW & LED [8]

SELV

BLK-22 RED-22
To K2
[7] K2 CONTROL
15-3249 RELAY,25A,SOLID STATE
K1 4 3
1 2 BLK 14

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

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

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

SELV
BLK 22 RED 22
15-3249 RELAY,25A,SOLID STATE
K3 4 3
1 2 BRN 14
220-00049A
BRN14
BLU 14
10-9075B
L1
L2/N
GND
G/Y 14
M5 STUD PEB
To SW2-1,3 in POWER BOX
DDRIVE AC POWER - SW2 [8]

10-9073A
K2 CONTROL [7]
BLK 22
RED 22
4 3
K2 15-3249 RELAY,25A,SOLID STATE SELV

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

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

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

NOTES:

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

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MTA AUTOLOADER
POWER ENTRY BOX
WIRING DIAGRAM

\\ccaeng1\engineering\Projects\Manta\System\Punch\Wiring_Diagram\705-00006D-A\705-00006D-A_SD01

DESIGNED BY:	DOCUMENT NUMBER	LAST ECO:
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S.FOUDIMOV	C.RUECK	K.POULIN
DESIGN DATE:	LAST MODIFIED DATE:	SHEET:
2002:12:18	2006:07:08	7 of 29

POWER DISTRIBUTION BOARD 0 (PDB 0)

10-4112 H

BOARD ADDRESS = 0X10h

FAN 7, HOME REAR DOOR, AC

FAN 8, AWAY REAR DOOR, AC

SELV CIRCUITRY

NON-SELV CIRCUITRY
200-240 VAC

NOTES:

1. THE CONNECTIONS ARE SHOWN for TH2 HEAD.
   FOR TH3 OPTION: REMOVE PS4, PS3 (13-4832), 220-00058A and INSTALL: PS3 (500-02386C), 220-00991A, 220-00992A, 220-00995A.

MTA AUTOLOADER
PDB0 BOARD CONNECTIONS
WIRING DIAGRAM

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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]
MANIFOLD
INTERFACE
BOARD
10-4727A
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
SV4
Backbone
unload
SV5
Backbone
load
SV6
Backbone
tilt
SV7
Backbone
horiz.
SV15
"headstage
retract"
SV17
"aircurtain"
10-5143A
J4
DRV6S
DRV7S
DRV8S
SV8
"balancer
extendhome"
SV9
"balancer
extenaway"
SV10
"debris
airjet on"
10-5144A
J5
DRV9S
DRV10S
DRV11S
SV11
"platedoor
open"
SV12
"tec unlock"
SV13
LEC lock
220-00773A
SV16
RELEASE
ENABLE
RED 22
BLK 22
10-9091B
To PEB, J2
RELEASE ADPT 1
[7]
MINIFIT 1X2
220-00142B
To LIONEL0, J11
RELEASE ADPT 2
[12]
J1
IDC,26PIN
10-5140A
J10
IDC,26PIN
J4
J5
J6
See details on PAGE 9
To CONTROL PANEL
[23] START BUTN
[16] For CL
220-00328A
220-00170B
To GENINE1 J26
SCON BUS
[17]
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
IDC,10PIN
J16
SCON2
MINIFIT 2X8 CAN
J8
DB9,IDC
J46
RG174
HOT LINK
J1
HDB44,IDC
J2
DB 15, IDC
J35
SHIELD
GRN 22
BLK 22
WHT 22
PRPL 22
ORG 22
RED 22
BRN 22
DA COM
DA CDICOMMON
DA RUN
DA BRAKE
DA PWM
DA DIR
DA +5V
GND
+24V
LSTEMP+
LSTEMP-
SAT -48SAFE
SAT +48SRTN
SAT +24SAFE
SAT +24SRTN
SAT +24V
BRD_LOC1-
BRD_LOC3-
BRD_H
CAN_L
CHASSIS
TERM_DET
SAT -24RTN
BRD_LOC4-
BRD_LOC2-
DRAIN WIRE
GMCE0 BOARD
503-08443D
TMCE0 BOARD
10-4766D (DOES NOT SUPPORT TH3)
WORKSTATION
ETHERNET CAT5e 216-00170
J42
TACH
ENCODER
32-4130A
MCE-TACH 10-5146A
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
PIN1
PD
BLK 22
220-01495A (UPGRADE)
TEMP1+
TEMP1-
YEL 22
BLK 22
ENGINE TEMPERATURE SENSOR
THERMISTOR
10-0967A
MATE 1X3
10-5148B
10-5117A
CARRIAGE AMP CONTROL
J7
MINIFIT 2X5
SCON 1
MINIFIT 2X2
+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
To PDB J14
[8] SCON BUS
220-00147A
11-0506B
M 2
CARRIAGE MOTOR
GND
CHASSIS
BLK 18 (RED PR)
WHT 18
RED 18
BLK 18 (WHT PR)
MATE 2X3
10-9062A
PHA:VO+
PHB:VO-
PHA:VO-
PHB:VO+
SHIELD
Gain 2 A/V
YEL 18
J2
IDC, 20PIN
503-00265A
CARRIAGE DRIVE
MATE 1X2
MINIFIT 2X4
J3
J1
CARRIAGE AMP POWER
+48V SAFE
BRN 16
RTN
BLK 16
220-00059A
[8]
CA 48VDC
PFO TRANSMITTER
36-3145
PFO RECEIVER
36-3118
PLATE FLYOFF SENSOR
220-00772A
10-9070A
+24V (1)
PD+ (3)
PD- (4)
SENS+ (5)
SENS1- (7)
SHLD (8)
GND (14)
PD+
PD-
RLY1-
RLY2-
RLY1 O-
RLY2 O-
WHT 22
GRN 22
ORG 22
YEL 22
BLU 22
PD_PROBES+
PD_PROBES-
PD_BRD+
PD_BRD-
SEN_OUT 0
SEN_OUT 1
SEN_OUT 2
DRIVE 0 EN
DRIVE1 EN
DRIVE2 EN
6-PIN REGISTRATION BOARD
10-9053A
MINIFIT 2X6
J1
J2
DRIVE 1
SENSOR 0
DRIVE 2
SENSOR 1
DRIVE0
PD.BKBN+
PD.BKBN-
SENSOR 2
BRN 22
RED22
ORG22
YEL 22
GRN 22
BLU 22
WHT 22
BLK 22
10-9069A
MINIFIT 2X4
REG. PROBE ASSY
11-1122B
220-00287A
220-00094A
MINIFIT
2X4
BRN 24
RED24
ORG24
YEL 24
GRN 24
BLU 24
WHT 24
BLK 24
PROBE 2
PROBE 3
PROBE 4
PROBE 5
PROBE 1
PD+
PD-
PROBE 6
WHT24
RED 24
ORG 24
BLU 24
GRN 24
REG. PINS on DRUM
220-00337A
CONTINUITY SW ASSY
500-00855A
RED 22
BLK 22
MTA AUTOLOADER
GMCE0 INTERCONNECTIONS
WIRING DIAGRAM
\\ccaeng1\engineering\Projects\Manta\System\Punch\Wiring diagram\705-00006D-A\705-00006D-A_SD01.
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SHEET: 9 of 29

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
BLK 24
WHT 24
GRN 24
ORG 24
BRN 24
BLU 24
YEL 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
RSW1 RSW2 RSW3 RSW4 RSW5 RSW6 RSW7 RSW8 RSW9 RSW10
10-9060A
10-5129A
220-01508A
ORG-26 LED BRD DIN+
WHT-26 LED BRD DIN -
J4 DB37M, IDC
HD-DB26F
PIN 5
PIN14
J14
GMCE0 BOARD
503-08443D
DETAILS OF J4, J5, J6 WIRING FROM PAGE 9
J18
CON12
RED-26 LED BRD +5V RED-26
WHT 26 LED BRD PD WHT 26
YEL-26 LED BRD +12V YEL-26
WHT 26 LED BRD GND WHT 26
BLK-26 LED BRD EN N+ BLK-26
WHT 26 LED BRD EN N- WHT 26
GRN-26 LED BRD CS N+ GRN-26
WHT 26 LED BRD CS N- WHT 26
BLU-26 LED BRD SRCK+ BLU-26
WHT 26 LED BRD SRCK- WHT 26
BRN-26 LED BRD DOUT+ BRN-26
WHT 26 LED BRD DOUT- WHT 26
CAM_IN_1
10-9095A
220-00983A
J5
DB25,IDC
J6 DB37F, IDC
220-00306A
220-01508A
10-9095A
503-00327A
LED DRIVER BOARD 1
J1 J2 J3 J4 J5 J6
CON12
MNFT1X2 MNFT1X2 MINIFIT2X2
10-9095A
220-01511A
BLK-26 +5V BLK-26
BLK-26 +12V BLK-26
BLK-26 EN_N+ BLK-26
BLK-26 CS_N+ BLK-26
BLK-26 SRCK+ BLK-26
BLK-26 DIN+ BLK-26
N/C KEY
BLK-26 GND BLK-26
BLK-26 EN_N- BLK-26
BLK-26 CS_N- BLK-26
BLK-26 SRCK- BLK-26
BLK-26 DIN- BLK-26
503-00327A
LED DRIVER BOARD 2
J1 J2
MINIFIT1X2 MINIFIT1X2
220-01510A
YEL-26 VIDEO_IN YEL26
BLK-26 GND_CAM BLK-26
RED-26 +12V_CAM RED-26
220-01509A
220-01509A
220-01509A
220-01509A
LED CATHODE
LED ANODE
BLK-22 LED CATHODE
RED-22 LED ANODE
LED2(TOP)
LED1(BOT)
BRD1
BRD2
N/C
CAMERA
CON4
EDGE DETECT CAMERA
500-03551A
EDGE DETECT CAMERA ASSEMBLY
FOR TH2 - USE 500-03561A
FOR TH3 - USE 500-03555A
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
500-00271A
START BUTTON 3
START BUTTON 2
Text
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
CAR_HOME
CAR_HOME CLEANING
To PDB0- J37
[8] K1-ENG
10-9068B
220-00446A
(11) TO DSEN14 LED+
(30) TO DSEN14 LED-
(12) TO DSEN14 C
(31) TO DSEN14 E
LOAD RAMP
PLATE SENSOR 1
LOAD RAMP
PLATE SENSOR 2
LOAD RAMP
PLATE SENSOR 3
36-3210
220-00322A
To GMCE0, J12 ADAPTOR
PSEN 1 [9]
220-00323A
MINIFIT 2X4
(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
To RESISTIVE BRAKES ASSY
[11] BRAKE RELAYS SENSE
(1) TO DSEN9 LED+
(20) TO DSEN9 LED-
(2) TO DSEN9 C
(21) TO DSEN9 E

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MTA AUTOLOADER
GMCE0 DIGITAL SENSORS
EDGE DETECT CAMERA
WIRING DIAGRAM

\\ccaeng1\engineering\Projects\Manta\System\Punch\Wiring_Diagram\705-00006D-A\705-00006D-A_SD01

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To GMCE0, J35

[9] DRUM DRIVE CONTROL

220-00941A

DA -15V
DA COMMON
DA ENABLE
DA RUN
DA BRAKE
DA COM
DA PWM
DA DIR

BRN 22
BLK 22
RED 24
GRN 24
PRL 22
WHT 22
YEL 22
RED 24
RED 24
GRN 22
ORG 22
RED 22
GRN 24

J5 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25

DSUB 25

DRUM DRIVE
601-00019C

J9

1	WHT 24	HS1
2	GRN 24	HS2
3	BRN 24	HS3
4	RED 24	+5V
5	BLK 24	COM
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		

DSUB 15

220-00940A

WHT 24		HALL S1
GRN24		HALL S2
BRN 24		HALL S3
RED 24		5V
BLK 24		COMMON

HALL SENSOR MOTOR CONNECTOR

M1
DRUM MOTOR
15-3530

PRIMARY MOTOR CONNECTOR

10-9058A

GRN 14		GND
RED 14		PHASE 1
BLK 14		PHASE 2
WHT 14		PHASE 3

SELV CIRCUITRY

220-01003A

R1, R2
20 Ohm, 300 W
152-00165

R1
R2

BRN 14
BRN 14

P2
1
2
3
Key

COMBICON 1X3

EXTERNAL SHUNT RESISTORS ASSY
500-02503A

T1
CHOKE, COM MODE

P6
Key 1
2
3
Key 4

COMBICON 1X4

BLK 14
WHT 14
BRN 14

220-00938A

P1 Key Key 1 2 3 4 COMBICON 1X4

GY 14
BRN 14
BLU 14

G/Y 14
BRN 14
WHT 16

To POWER BOX SW2

[8] D-DRIVE AC POWER

220-00939A

NON- SELV CIRCUITRY (200-240VAC)

BRN 14
WHT 14
BLK 14

J1 1 2 3 4
MATE1X4
PLUG

attached to 500-00058B

To PDB0, J1

[8] DRUM BRAKE

RTN
24V SAFE RED-22

10-5131A

To GMCE0, J6

[10] BRAKE RELAYS SENSE

RED-24
BLK-24
WHT-24
GRN-24

J4
1 BLK 22
2
3
4
MINIFIT 2X2
PLUG

220-00044B

To PDB0, J44

[8] BRAKE POWER

RTN BLK-22
+24V.I RED-22

J5
1
2
MATE1X2

DRUM RESISTIVE BRAKE ASSY
500-00058B

(See page 13 for details)

J2
1 RED 14
2 WHT 14
3 BLK14
4
MATE1X4
REC

GRN14
G/Y MARKER
GND
M5 STUD

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MTA AUTOLOADER
DRUM DRIVER & MOTOR
WIRING DIAGRAM

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SCON1

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

J9 — SCON2 — 2X5 MINIFIT JR

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

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

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

220-00993A — MINIFIT 2X2

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

J7 — DIG_IN2 — IDC,20PIN

220-00992A

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

USED FOR TH3 OPTION ONLY

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

220-00411A — MATE1X4

RED 22	RED-22	DSEN9. LED+
BLK 22	WHT-22	DSEN9.C
BLK 22	GRN-22	DSEN9.E
	BLK-22	DSEN9. LED-

10-9085B

To DEBRIS REMOVAL BLKHD — [14] DEBRIS REMOVAL SENSORS

DR_LID+	WHT-22	DSEN10.C
DR_LID-	GRN-22	DSEN10.E
	RED-22	TO DSEN11 LED+
	WHT-22	TO DSEN11 C
	GRN-22	TO DSEN11 E
	BLK-22	TO DSEN11 LED-
	ORG-22	TO DSEN12 LED+
	BLU-22	TO DSEN12 C
	YEL-22	TO DSEN12 E
	BRN-22	TO DSEN12 LED-
	RED-22	TO DSEN13 LED+
	WHT-22	TO DSEN13 C
	GRN-22	TO DSEN13 E
	BLK-22	TO DSEN13 LED-
	ORG-22	TO DSEN14 LED+
	BLU-22	TO DSEN14 C
	YEL-22	TO DSEN14 E
	BRN-22	TO DSEN14 LED-
	RED 22	TO DSEN15 LED+
	ORG-22	TO DSEN15 C
	WHT-22 (ORG PAIR)	TO DSEN15 E
	WHT- 22 (RED PAIR)	TO DSEN15 LED -

J8 — DIG_IN3 — HDR 2X15

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 — 220-00145A

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 — 220-00146A

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

RED-22	
BLK-22	
WHT-22	
GRN-22	
ORG-22	
BRN-22	
BLU-22	
YEL-22	

10-9085B

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

RED 22	
WHT- 22 (RED PAIR)	
ORG-22	
WHT-22 (ORG PAIR)	

MINIFIT 2X4 — PWM_OUT2 — J1

1	RED 22 +24V
2	ORG 22 +24V
3	BRN 22 PWM4
4	PD_PWM1+
5	WHT 22 PWM3
6	ORG 22 PWM5
7	BLU 22 PWM1-
8	BLK 22 PD_PWM1-

J16 — AN_2 — 1X6 MTA

J17 — AN_1 — 1X6 MTA

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

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-	

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

BLK 22	ACT 0		
RED 22	+24 V		
		BLK-22	
		RED-22	
GRN-22	ACT 4	GRN-22	
WHT-22	+24 V	WHT-22	
BRN-22	ACT 5	BRN-22	
ORG-22	+24 V	ORG-22	
BLU-22	ACT 6	BLU-22	
	ACT 7	YEL-22	
YEL-22			

220-00141B — MINIFIT 2X4

220-00363B

ACT 0 (Plate Funnel) — +24 V — SV17 — "plate funnel on"

MAIN ENGINE MANIFOLD [9]

(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	
(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

BLK 22		
RED 22		
WHT 22		
GRN 22		
ORG 22		
BLU-22		

MINIFIT 2X3

220-00413A

RED 22	+24V	
BLK 22	GRN LEDs	
WHT 22	BLUE LEDs	
GRN 22	YEL LEDs	
ORG-22	PD+	
BLU-22	PD-	

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

Kodak

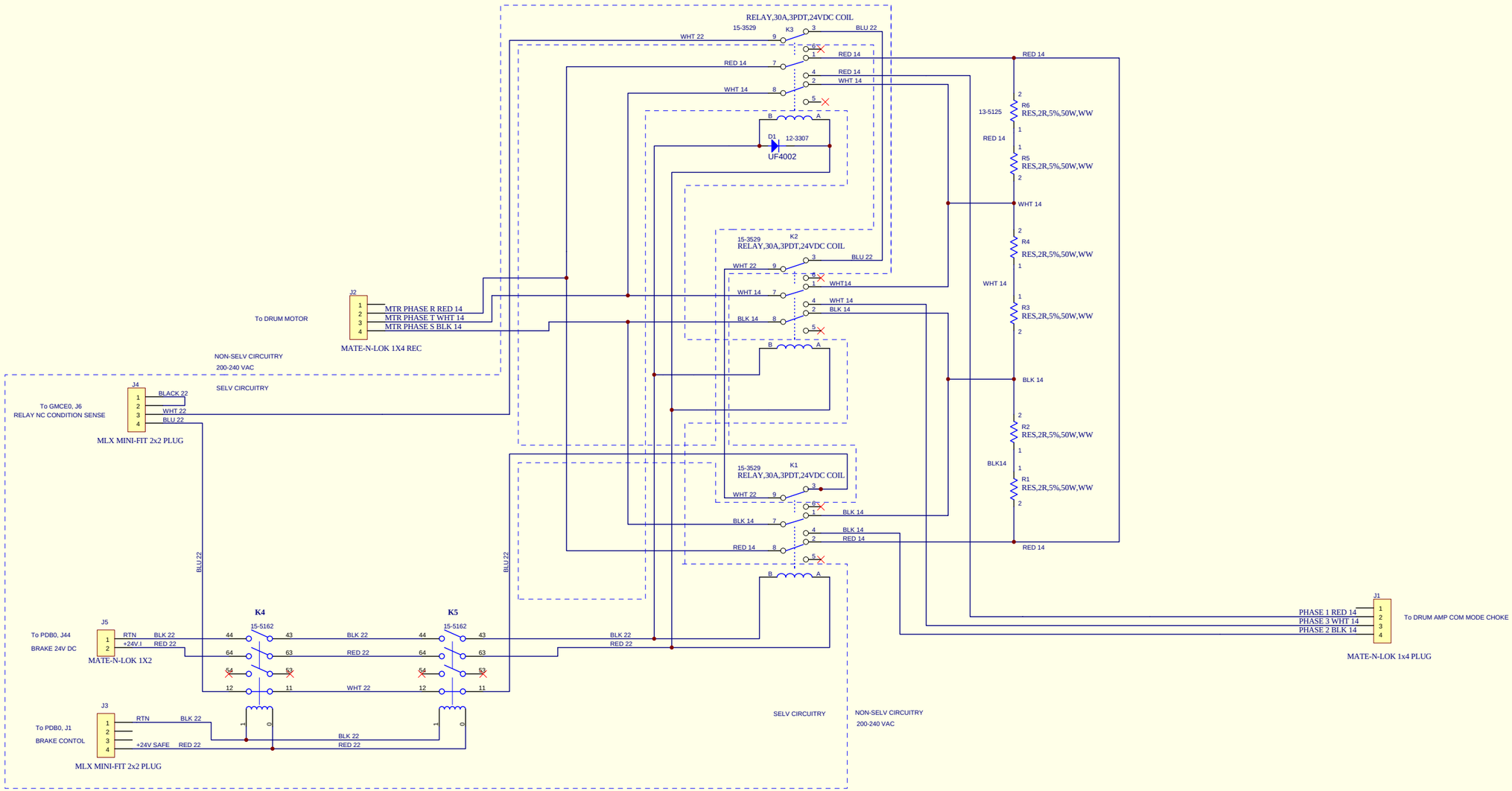
MTA AUTOLOADER
LIONEL0 BOARD
WIRING DIAGRAM

\\ccaeng1\engineering\Projects\Manta\System\Punch\Wiring_Diagram\705-00006D-A\705-00006D-A_SD01

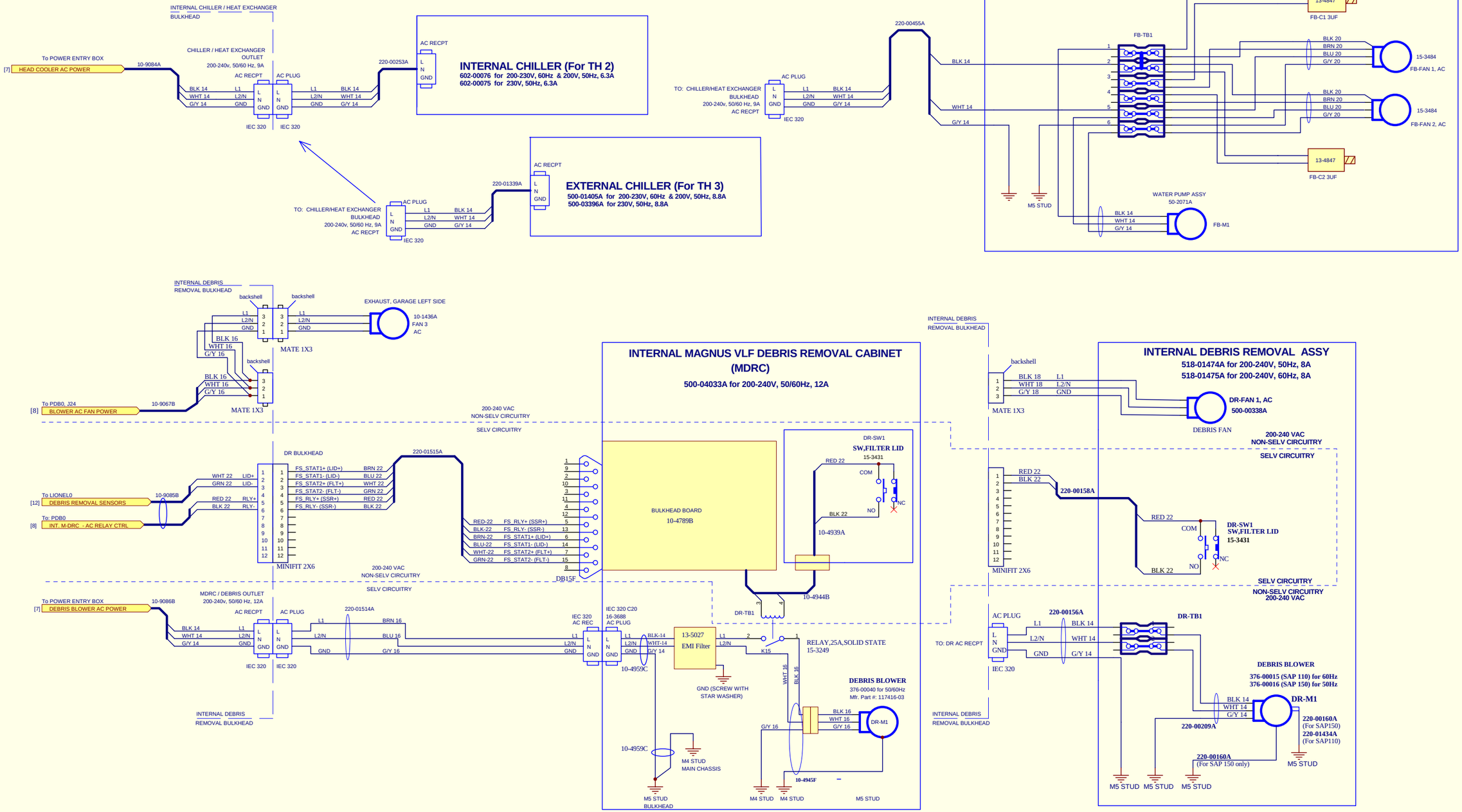
DESIGNED BY:	DOCUMENT NUMBER	LAST ECO:
S.FOUDIMOV / C.RUECK	705-00006D-A SD01	CA11049
DRAWN BY:	LAST REVISED BY:	APPROVED BY:
S.FOUDIMOV / C.RUECK	C.RUECK	K.POULIN
DESIGN DATE:	LAST MODIFIED DATE:	SHEET:
2004:12:18	2006:07:08	12 of 29

DRUM RESISTIVE BRAKE ASSEMBLY 500-00058B

(See page 11 for details)



Kodak	MTA AUTOLOADER DRUM RESISTIVE BRAKE WIRING DIAGRAM	
\\ccaeng1\engineering\Projects\Manta\System\Punch\Wiring diagram\705-00006D-A\705-00006D-A_SD01.d		
DESIGNED BY: S. FOUDIMOV	DOCUMENT NUMBER: 705-00006D-A SD01	LAST ECO: CA11049
DRAWN BY: S.FOUDIMOV	LAST REVISED BY: C.RUECK	APPROVED BY: K.POULIN
DESIGN DATE: 2004:12:18	LAST MODIFIED DATE: 2006:07:08	SHEET: 13 of 29



Kodak	MTA AUTOLOADER HEAD COOLER & DEBRIS WIRING DIAGRAM	
\\ccaeng1\engineering\Projects\Manta\System\Punch\Wiring_Diagram\705-00006D-A\705-00006D-A_SD01		
DESIGNED BY: S. FOUDIMOV / C.RUECK	DOCUMENT NUMBER: 705-00006D-A-SD01	LAST ECO: CA11049
DRAWN BY: S.FOUDIMOV / CRUECK	LAST REVISED BY: C.RUECK	APPROVED BY: K.POULIN
DESIGN DATE: 2004:12:18	LAST MODIFIED DATE: 2006:07:08	SHEET: 14 of 29

GENINE BOARD 0

10-4227D

BOARD ADDRESS = 0X30h

NOT USED FOR TH3 OPTION

HEAD STAGE_HOME — 36-3125 — 10-4982A — 220-00191A
LED+ RED 22 — RED 24 — TO HOME.1 LED+ (1)
LED- BLK 22 — BLK 24 — TO HOME.1 LED- (4)
COLLECTOR WHT 22 — WHT 24 — TO HOME.1 C (2)
EMITTER GRN 22 — GRN 24 — TO HOME1 E (3)

HEAD STAGE_AWAY — 36-3125 — 10-4982A — 220-00191A
LED+ RED 22 — ORG 24 — TO AWAY.1 LED+ (5)
LED- BLK 22 — BLU 24 — TO AWAY.1 LED- (8)
COLLECTOR WHT 22 — YEL 24 — TO AWAY.1 C (6)
EMITTER GRN 22 — BRN 24 — TO AWAY.1 E (7)

220-00543A

FETCHER PRESSURE
PRESSURE SENSE
BOARD
10-4887A
MTA 1X6

220-00225A
RED 22
WHT 22
GRN 22
BLU 22
BRN 22
ORG 22
VIO 22
YEL 22
GRY 22
BLK 22
MINIFIT 2X5

220-00227A (Add 220-00432A for L-R config.)
RED 24
WHT 24
GRN 24
BLU 24
WHT-BLK 24
ORG 24
RED-WHT 24
BLU-BLK 24
ORG-BLK 24
BLK 24
MINIFIT 2X5

220-00226A
RED 22 +24VDC
WHT 22 4-20mA Out
NC
GRN 22 GND
BLU 22 PD+
BRN 22 PD-
J3 MTA 1X6 ANALOG0

ORG 22 +24VDC
VIO 22 4-20mA Out
NC
YEL 22 GND
GRY 22 PD+
BLK 22 PD-
J1 MTA 1X6 ANALOG1

SS VACUUM
PSEB
BOARD
10-4581A
MTA 1X6

J20 2X6 HDR HA-1
PD+ BLK 22
PD-

UNUSED — J11 UMNL 2X3 TEMP
UNUSED — J13 DB9F RS232 PORT

220-00325A — To BULKHEAD MOD#2 — SCON BUS [23]
RED24 BLU24 WHT24 GRN24 DRN RED 22
MINIFIT 2X4

220-00435A
RED 24 BLK 24 GRN 24 WHT 24 DRN_WIRE RED 22
SAT_+48SAFE SAT_+48SRTN SAT_+24SAFE SAT_+24SRTN SAT_+24V BRD_LOC1+ BRD_LOC1- BRD_LOC3- CAN_H CAN_L CHASSIS TERM_DET SAT_+24RTN BRD_LOC+ BRD_LOC0- BRD_LOC2-
J26 MINIFIT 2X8 CAN SCON1

220-00169A — To LIONEL0 J13 — SCON BUS [12]
SAT_+48SAFE SAT_+48SRTN SAT_+24SAFE SAT_+24SRTN SAT_+24V CAN_H CAN_L CHASSIS TERM_DET SAT_+24RTN
J24 MINIFIT 2X5 CAN SCON2

NOT USED FOR TH3 OPTION

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

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

220-00544A

500-01641A
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
UNML 2X4

PHA- WHT 22
PHB- RED 22
PD+ GRN 22
PHA+ VIO 22
PHB+ BLU 22
GRN 22
GRN 22
PD
MINIFIT 2X3

220-00192A
J14 2X6 HDR HA-0
PD+ BLK 22 (10)
PD- (12)

FETCHER_HOME — 36-3125 — 10-4982A — 220-00191A
LED+ RED 22 — RED 24 — TO HOME.0 LED+ (1)
LED- BLK 22 — BLK 24 — TO HOME.0 LED- (4)
COLLECTOR WHT 22 — WHT 24 — TO HOME.0 C (2)
EMITTER GRN 22 — GRN 24 — TO HOME0. E (3)

FETCHER_AWAY — 36-3125 — 10-4982A — 220-00191A
LED+ RED 22 — RED 24 — TO AWAY.0 LED+ (5)
LED- BLK 22 — BLK 24 — TO AWAY.0 LED- (8)
COLLECTOR WHT 22 — WHT 24 — TO AWAY.0 C (6)
EMITTER GRN 22 — GRN 24 — TO AWAY.0 E (7)

220-00230A
J17 2X10 HDR STPR-CNTL

(Add 220-00431A for L-R config.)
(1) ACT8+ RED 22 — RED 24 ACT8+
(2) ACT9+ WHT 22 — WHT 24 ACT9+
(3) ACT10+ GRN 22 — GRN 24 ACT10+
(4) ACT11+ BLU 22 — BLU 24 ACT11+
(5) ACT12+ PRP — WHT-BLK 24 ACT12+
(6) ACT13+ ORG 22 — ORG 24 ACT13+
(7) ACT14+ VIO 22 — RED-WHT 24 ACT14+
(8) ACT15+ YEL 22 — BLU-BLK 24 ACT15+
(9) ACT16+ GRY 22 — ORG-BLK 24 ACT16+
(25) +24V SAFE BLK 22 — BLK 24 +24V SAFE
(26) +24V SAFE BRN 22 — GRN-BLK 24 +24V SAFE
MINIFIT 2X6

220-00236A

FETCHER MOTOR
11-0851B
M 6
GND
CHASSIS
BLK 18 (RED PR)
WHT 18
RED 18
BLK 18 (WHT PR)
MATE 2X3

220-00191A
PHA:VO+
PHB:VO+
PHA:VO-
PHB:VO-
SHIELD
Gain 2 A/V
YEL 18

CARRIAGE DRIVE
503-00265A
J3 MINIFIT 2X4
J2 IDC, 20PIN
J1 +48V SAFE RTN — 220-00190A — BRN 16 BLK 16 BLK 22 PD — J27 MINIFIT 2X3 STPR-PWR

220-00231A
J4 2X10 HDR DIGITAL-IN2

(Add 220-00430A for L-R config.)
RED 24 — RED 22 TO DSEN4 LED+ (1)
WHT 24 — WHT 22 TO DSEN4 LED- (4)
GRN 24 — VIO 22 TO DSEN4 C (2)
BLU 24 — GRN 22 TO DSEN4 E (3)
WHT-BLK 24 — ORG 22 TO DSEN5 LED+ (5)
ORG 24 — BRN 22 TO DSEN5 C (6)
RED-WHT 24 — BLU 22 TO DSEN5 E (7)
BLU-BLK 24 — GRY 22 TO DSEN6.C (10)
ORG-BLK 24 — YEL 22 TO DSEN6.E (11)
MINIFIT 2X5

220-00229A

J2 2X15 HDR DIGITAL-IN3
J10 2X7 HDR DIGITAL-IN 1
J5 2X17 HDR DIGITAL-IN4
J18 2X8 HDR SOL-DRV0

220-00232A
220-00517A

To EXTERNAL DEVICE INTERFACE BRD. J6
EXTERNAL DEVICE OUTPUT INTERFACE [24]

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

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

WEDGE MASTER UP — 36-3125 — 10-4982A — 220-00228A
LED+ RED 22 — RED 24
LED- BLK 22 — WHT 24
COLLECTOR WHT 22 — GRN 24
EMITTER GRN 22 — BLU 24
VIO 22 — WHT-BLK 24
GRN 22 — ORG 24
ORG 22 — RED-WHT 24
BRN 22 — BLU-BLK 24
BLU 22 — ORG-BLK 24
GRY 22
YEL 22
MINIFIT 2X5

PLATE-ON-FETCHER
36-3210

PVAC VACUUM
172-00021

FETCHER SAFE HOME — 36-3125 — 10-4982A
LED+ RED 22 — RED 24 — TO DSEN9 LED+ (1)
LED- BLK 22 — BLK 24 — TO DSEN9 LED- (4)
COLLECTOR WHT 22 — WHT 24 — TO DSEN9 C (2)
EMITTER GRN 22 — GRN 24 — TO DSEN9 E (3)

FETCHER SAFE AWAY — 36-3125 — 10-4982A
LED+ RED 22 — RED 24 — TO DSEN10 LED+ (5)
LED- BLK 22 — BLK 24 — TO DSEN10 LED- (8)
COLLECTOR WHT 22 — WHT 24 — TO DSEN10 C (6)
EMITTER GRN 22 — GRN 24 — TO DSEN10 E (7)

SOL-DRV1
J21
220-00201A
2X13 HDR

MANIFOLD INTERFACE BOARD
10-4727A

J1
IDC,26PIN

220-00193A
J2 CON12
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

220-00194A
J3 CON12
ACT14+ BLK-22
+24V RED-22
ACT15+ BLK-22
+24V RED-22
ACT16+ BLK-22
+24V RED-22

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"

Kodak

MTA AUTOLOADER
GENINE 0 FETCHER
WIRING DIAGRAM

\\ccaeng1\engineering\Projects\Manta\System\Punch\Wiring_Diagram\705-00006D-A\705-00006D-A_SD01

DESIGNED BY:	DOCUMENT NUMBER	LAST ECO:
S. FOUDIMOV	705-00006D-A SD01	CA11049
DRAWN BY:	LAST REVISED BY:	APPROVED BY:
S.FOUDIMOV	C.RUECK	K.POULIN
DESIGN DATE:	LAST MODIFIED DATE:	SHEET:
2004:12:18	2006:07:08	15 of 29

NOT USED FOR TH3 OPTION

HEAD STAGE_HOME — 36-3125 — 10-4982A
LED+ RED 22 — RED 24 — TO HOME.1 LED+ (1)
LED- BLK 22 — BLK 24 — TO HOME.1 LED- (4)
COLLECTOR WHT 22 — WHT 24 — TO HOME.1 C (2)
EMITTER GRN 22 — GRN 24 — TO HOME1. E (3)

HEAD STAGE_AWAY — 36-3125 — 10-4982A
LED+ RED 22 — ORG 24 — TO AWAY.1 LED+ (5)
LED- BLK 22 — BLU 24 — TO AWAY.1 LED- (8)
COLLECTOR WHT 22 — YEL 24 — TO AWAY.1 C (6)
EMITTER GRN 22 — BRN 24 — TO AWAY.1 E (7)

220-00543A

J3 MTA 1X6 ANALOG0
J1 MTA 1X6 ANALOG1
J20 2X6 HDR HA-1 — PD+ PD- BLK 22
J14 2X6 HDR HA-0
J17 2X10 HDR STPR-CNTL
J27 MINIFIT 2X3 STPR-PWR

J11 UMNL 2X3 TEMP — UNUSED
J13 DB9F RS232 PORT — UNUSED

J26 MINIFIT 2X8 CAN SCON1
SAT +48SAFE
SAT -48SRTN
SAT +24SAFE
SAT -24SRTN
SAT -24V
BRD_LOC1+
BRD_LOC1-
BRD_LOC3-
CAN_H
CHASSIS
TERM_DET
SAT +24V
CAN_L
BRD_LOC+
BRD_LOC0-
BRD_LOC2-

220-00325B
MINIFIT 2X4
RED24 BLK24 WHT24 GRN24 YEL24 SHIELD RED 22
220-00435A
RED 24 BLK 24 GRN 24 WHT 24 YEL24 SHIELD RED 22

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
CHASSIS
TERM_DET
SAT +24RTN

220-00325B
CL PLUG 220-00477A — MACHINE BULKHEAD MODULE # 2
120R,5%,.25W,CAR
CAN H — RED 24 — CAN H
CAN L — BLK 24 — CAN L
TERM DET — WHT 24 — TERM_DET
GRN 24 — CHASSIS DRAIN WIRE
+24V — RED 22 — +24V
2.7K 5%,.25W,CAR
GRN 22 — RED 22 — RED 22
BLK 22 — RED 22 — BLK 22
MATE1X2
220-00325B
GRN 22 — BLK 22 — RED 22
BLK 22 — RED 22 — BLK 22
RED 22
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

WHT 22 — PHA+ YEL
VIO 22 — PHA- BLK
RED 22 — PHB- RED
BLU 22 — PHB+ GRY
MINIFIT 2X2
500-01662A — M 7 — 184-00038
HEAD STAGE MOTOR

220-00544A
500-01641A
R1, R2 152-00097 RES,100R,1%,25W,WW
PHA- WHT 22 — WHT 22
PHB- RED 22 — RED 22
VIO 22 — VIO 22
PD+ GRN 22 — BLU 22
PHA+ VIO 22 — GRN 22
PHB+ BLU 22 — GRN 22
PD- GRN 22 — PD
UNML 2X4
J25 UMNL 2X4 STPR-DRIVE
MINIFIT 2X3

J10 2X7 HDR DIGITAL-IN 1
220-00515A
To EXTERNAL DEVICE INTERFACE BRD. J4 — SINGLE PROCESSOR INTERFACE [24]

J5 2X17 HDR DIGITAL-IN4
220-00516A
To EXTERNAL DEVICE INTERFACE BRD. J5 — DUAL PROCESSOR INTERFACE [24]

J18 2X8 HDR SOL-DRV0
220-00517A
To EXTERNAL DEVICE INTERFACE BRD. J6 — EXTERNAL DEVICE OUTPUT INTERFACE [24]

GENINE BOARD 0
10-4227D
BOARD ADDRESS = 0X30h

EMERGENCY STOP SW FRONT AWAY — ES2 15-3474
CONTROL PANEL SHOULDER AWAY PANEL
220-00402A
220-00326B
MINIFIT 2X4
220-00327A — To PDB0 (J42) — MAIN ESTOP [8]
MINIFIT 1X2
EMERGENCY STOP SW REAR UPPER AWAY — ES3 15-3474
220-01338A
220-00399A
220-00325B — BULKHEAD MOD#2 — BULK MOD#2 [16]
EMERGENCY STOP SW REAR UPPER HOME — ES4 15-3474
220-00398C
SHOULDER HOME PANEL
EMERGENCY STOP SW FRONT HOME — ES5 15-3474
220-00330B
EMERGENCY STOP SW REAR LOWER HOME — ES6 15-3474
220-01337B
220-00331B
EMERGENCY STOP SW REAR LOWER AWAY — ES7 15-3474
To MODULE #2 — ES 7 [16]
220-00325B
500-00261A START BUTTON 1 — LP1
220-00401A
MINIFIT 2X3
220-00328A — To GMCE0, J16 — START BUTN [9]

Kodak	MTA AUTOLOADER GENINE0 CL OPTION WIRING DIAGRAM \\ccaeng1\engineering\Projects\Manta\System\Punch\Wiring diagram\705-00006D-A\705-00006D-A_SD01.d	
DESIGNED BY: S. FOUDIMOV	DOCUMENT NUMBER: 705-00006D-A SD01	LAST ECO: CA11049
DRAWN BY: S.FOUDIMOV	LAST REVISED BY: C.RUECK	APPROVED BY: K.POULIN
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GENINE BOARD 1

10-4227D

BOARD ADDRESS = 0X31h

MTA AUTOLOADER
LOAD TABLE & SIDE EJECTOR
WIRING DIAGRAM

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DESIGNED BY:	DOCUMENT NUMBER:	LAST ECO:
S. FOUDIMOV	705-00006D-A SD01	CA11049
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S.FOUDIMOV	C.RUECK	K.POULIN
DESIGN DATE:	**LAST MODIFIED DATE:**	**SHEET:**
2004:12:18	2006:07:08	17 of 29

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

36-3205 — BAUMER SLIP SHEET UNDER PLATE SENSOR FZAM18N6460/S14 — 220- 00255A — BRN 22, BLU 22, BLK 22 — MINIFIT 2X2

220-00248A — BLK 22, RED 22, GRN 22, WHT 22, GRY 22 — To GMCE0, J8

15-3359 — K1

To GMCE0, J8 [9] SCON BUS — 220-00170B — SAT_+48SAFE, SAT_+48SRTN, SAT_+24SAFE, SAT_+24SRTN, SAT_+24V, BRD_LOC1+, BRD_LOC1-, BRD_LOC3-, CAN_H, CAN_L, CHASSIS, TERM_DET, SAT_+24RTN, RED22 — J26 MINIFIT 2X8 CAN SCON1

TO: GEN2 (J24) [18] SCON BUS — 220-00171B — SAT_+48SAFE, SAT_+48SRTN, SAT_+24SAFE, SAT_+24SRTN, SAT_+24V, CAN_H, CAN_L, CHASSIS, TERM_DET, SAT_+24RTN — J24 MINIFIT 2X5 CAN

WITHOUT PUNCH OPTION — J24 MINIFIT 2X5 CAN

WITH PUNCH OPTION — To: 220-00171B — SAT_+48SAFE, SAT_+48SRTN, SAT_+24SAFE, SAT_+24SRTN, SAT_+24V, CAN_H, CAN_L, CHASSIS, TERM_DET, SAT_+24RTN — MINIFIT 2X5 CAN

220-01372A — To: GEN1 (J24) — SAT_+48SAFE, SAT_+48SRTN, SAT_+24SAFE, SAT_+24SRTN, SAT_+24V, CAN_H, CAN_L, CHASSIS, TERM_DET, SAT_+24RTN — MINIFIT 2X5 CAN

To: DAPHNE0 (J32) SCON BUS [29] — 220-0137OA — To: GEN4 (J26) SCON BUS [28]

PUNCH OPTION

J10 — 2X7 HDR — DIG_IN 1 — (1) +24V, (6) ES 0, (8) ES 0, (13) GND

220-00195A — J20 2X6 HDR HA-1 — PD+ BLK 22 (10), PD- (11)

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)

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)

220-00196A — J14 2X6 HDR HA-0 — PD+ BLK 22 (10), PD- (12)

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)

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 2X10 HDR — STPR-CNTL

J27 — STEPPER POWER — MINIFIT 2X3

SIDE EJECTOR MOTOR 11-0851B — M 4 — 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 — J3 503-00265A CARRIAGE DRIVE — MATE 1X2 — J1 +48V SAFE, RTN — MINIFIT 2X4

220-00188A — BRN 16, BLK 16, PD, BLK22

GND — CHASSIS

J5 2X17 HDR DIGITAL-IN4 — 220-00249B

J2 2X15 HDR DIGITAL-IN3 — 220-00250A

J4 2X10 HDR DIGITAL-IN2 — 220-00251B

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)

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)

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)

ACCESS PANEL CLOSED SW — 15-3355 — 220-00426A — (ADD 220-00436A FOR L-R CONFIG.) — RED 22, BLK 22 — MINIFIT 1X2 — RED 22 TO DSEN21.C (22), BLK 22 TO DSEN21.E (23)

PLATE STOP UP — 36-3125 — 10-4982A — LED+, LED-, COLLECTOR, EMITTER — RED 22, BLK 22, WHT 22, GRN 22 — 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

PLATE STOP DOWN — 36-3125 — 10-4982A — LED+, LED-, COLLECTOR, EMITTER — RED 22, BLK 22, WHT 22, GRN 22 — ORG 22, BRN 22, BLU 22, YEL 22

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)

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

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

220-00184A — Shield — PHA+ BLK, PHA- GRN, PHB- BLU, PHB+ RED — MINIFIT 2X2

500-00717A — M 3 — LOAD CARRIAGE MOTOR

J21 — SOL-DRV1 — 2X13 HDR

220-00185A — J1 IDC,26PIN

MANIFOLD INTERFACE BOARD 10-4727A

J2 — 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 — CON12

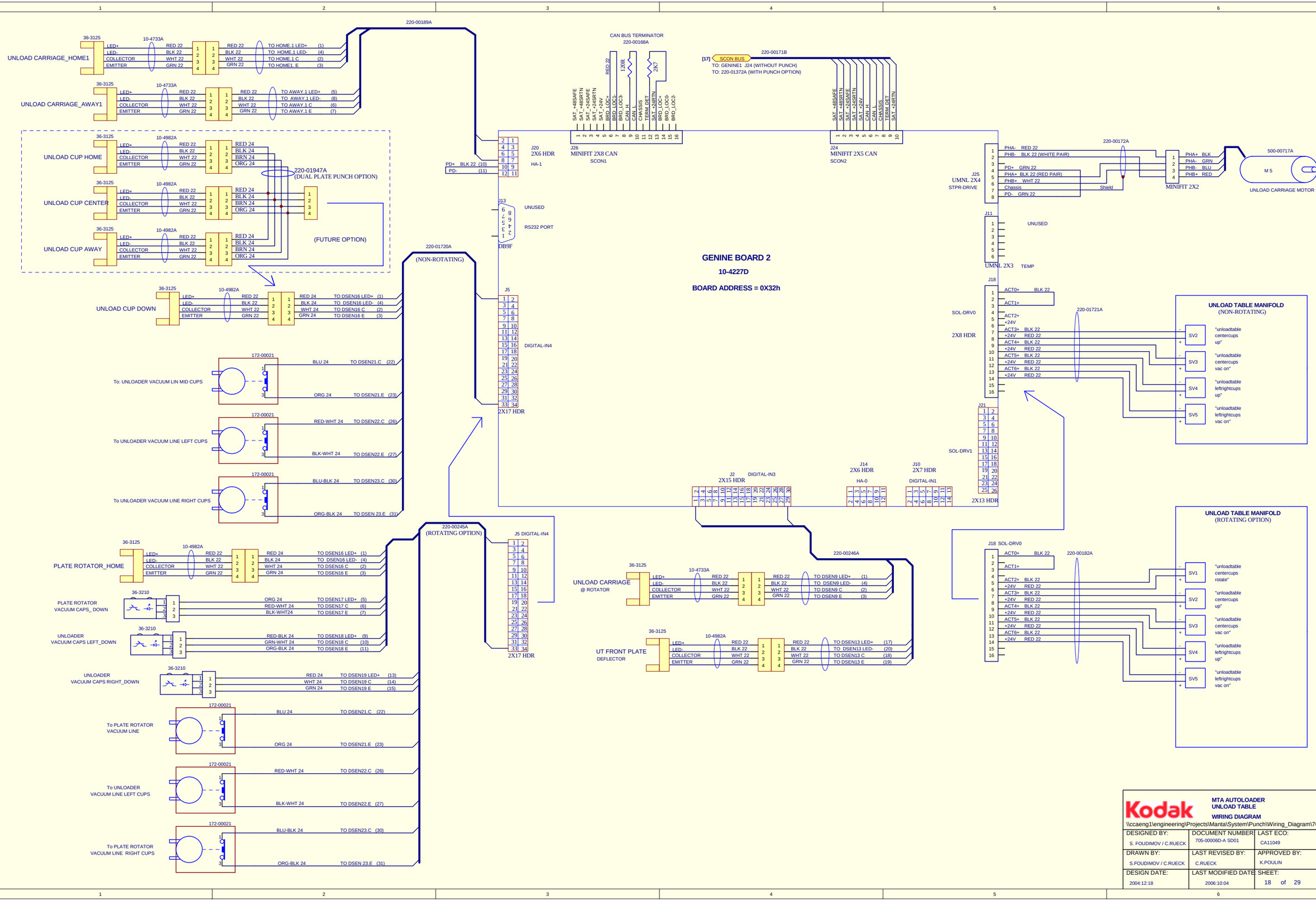
J3 — 220-00198A — ACT14+ BLK-22, +24V RED-22, ACT15+ RED-22, +24V RED-22, ACT16+ BLK-22, +24V RED-22, ACT17+ BLK-22, +24V RED-22, ACT18+ BLK-22, +24V RED-22, ACT19+ BLK-22, +24V RED-22 — CON12

J4 — 220-00483B — ACT20+ BLK-22, +24V RED-22, ACT22+ BLK-22, +24V RED-22, ACT24+ BLK-22, +24V RED-22 — CON12

J5 — CON12

LOAD TABLE SOLENOID BLOCK

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



Kodak	MTA AUTOLOADER UNLOAD TABLE WIRING DIAGRAM	
\\ccaeng1\engineering\Projects\Manta\System\Punch\Wiring_Diagram\705-00006D-A\705-00006D-A_SD01		
DESIGNED BY: S. FOUDIMOV / C.RUECK	DOCUMENT NUMBER: 705-00006D-A SD01	LAST ECO: CA11049
DRAWN BY: S.FOUDIMOV / C.RUECK	LAST REVISED BY: C.RUECK	APPROVED BY: K.POULIN
DESIGN DATE: 2004:12:18	LAST MODIFIED DATE: 2006:10:04	SHEET: 18 of 29

POWER DISTRIBUTION BOARD 1 (PDB 1)

10-4112 H

BOARD ADDRESS = 0X11h

SELV CIRCURY

NON-SELV CIRCURY
200-240 VAC

LEFT or RIGHT SIDE BULKHEAD

MCU / APL OUTLET
200-240 V, 50/60Hz, 15A

AC RECPT — AC PLUG — IEC 320 — IEC 320

220-00365A — MCU-F1, F2: 12A, 600V, BUSSMANN, Type LP-CC — MCU-F1 182-00016 — MCU-F2 — F1, F2 FUSEHOLDER, 182-00015

BRN 14 L1 — BLU 14 L2/N — G/Y 14 GND

To POWER ENTRY CB4 [7] MCU AC POWER — 220-00352B

220-00265A — BRN 14 — BLU 14 — G/Y 14 — GND — M5 BOLT CHASSIS

MATE 1X2 — J43 — MATE 2X3 — J26 — K15

J27 AMP INNERGY

PS1 POWER SUPPLY 24V, 200W [MW] MEANWELL 166-00056 ASTEC 13-5094 — AC IN 200-240V — MEANWELL 220-01558A ASTEC 220-00267A

BLK 18 L1 — WHT 18 L2/N — G/Y 18 GND — Key

J5 MATE 1X4

220-00271A — RED 16 24V — BLK 16 24V RTN — J10 MOLEX 1X3

PS2 POWER SUPPLY 24V, 200W [MW] SWITCHED MEANWELL 166-00056 ASTEC 13-5094 — AC IN 200-240V — MEANWELL 220-01559A ASTEC 220-00268A

220-00423A — RED 16 — BLK 16 — G/Y 16

BLK 18 — WHT 18 L2/N — G/Y 18 GND — Key

J4 MATE 1X4

MATE1X2 — 220-00269A

220-00458A — RED 22 — BLK 22

MCU-K3 — MCU-K4 — 15-3359 — BLK18 — BLU 18 — BRN 18

K3, K4 - LOCAL SSR SAFETY LOOP

To SSR BULKHEAD PS2 AC POWER ON [20]

F6 AC SAFE SPARE — F3 PUMP

J15 MATE 1X5 — J9 MATE 1X5

13-5077 — C1 6UF

220-00273A — MCU-TB1

220-00272B

MCU MOTOR DRIVE 601--00052 — X1.A — X1.B

220-00281A — backshell backshell — MCU-M2 PLENUM BLOWER ASSY 500-00946B — MATE1X4

220-00278B — G/Y 16 — 220-00392A — CHASSIS GND

CONTACTOR,DIL EM-01-G — MCU-K1 — CONTACTOR,DIL EM-01-G — MCU-K2

220-00283B — MCU-M1 MTR AC 3PHASE — 184-00104 — 12-3073 1N4005 — BRAKE: 24VDC, 30W, 1.3A

RED-22 BLK-22 — 220-01799A — MCU BRAKE [21] — To MCU BRAKE RELAY

220-00279B — CONTACTORS ON [21] — TO MCU SAFETY INTERFACE BOARD (J5)

220-00280A — LIONEL1 MCU CONTACTORS SENSE [23]

J14 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-

J13 MINIFIT 2X5 — J41 MINIFIT 2X4

220-00274A — RED 22 — CAN H RED 24 — CAN L BLK 24 — CHASSIS GRN 24 — TERM_DET WHT 24

220-00452A — To MCU BULKHEAD SCON BUS [23]

To GENINE 3 J26 SCON BUS [20]

XSAFE WL YEL 22 — XSAFE_OVER BLU 22 — XSAFE_ESS BLK 22 — XSAFE_MECH ORG 22 — GND GRN 22 — OVER_LED2 WHT 22 — GND BRN 22 — OVER_LED1 RED 22

220-00415A — To MCU JOG BUTTON PANEL MCU OVERRIDE SW & LED [19]

RED 22 — WHT 22 — BLK 22

MATE 1X2 — 220-00389A

MCU LEFT ROOF SAFETY SWITCHES — LR-SW4 — LR-SW3 — LR-SW2 — LR-SW1 — 15-3355 — 220-00388A

MCU RIGHT ROOF SAFETY SWITCHES — RR-SW4 — RR-SW3 — RR-SW2 — RR-SW1 — 15-3355 — 220-00388A

220-00314B — 220-00441B — MINIFIT 2X2

RED 22 — BLK 22

MCU SERVICE OVERRIDE PANEL 500-01150A

SIO **KEYSWITCH (2 POS)**

15-3334 MCU-SW5 NORMAL (Shown in normal position) — OVERIDE

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

15-3067 DUAL NC Contact Block — 15-3238 DUAL NO Contact Block

SSR-SW2 SSR MOTOR OVERRIDE PBTN. — 15-3446 — 15-3447 — 15-3448

220-00422A — MATE 1X3 — BLK 16

220-00420A — MINIFIT 2X4 — YEL 22 — BLU 22 — ORG 22

220-00421A — BLK 24 — RED 24 — WHT 24 — GRN 24 — To MCU JOG BUTTON PANEL MANUAL JOG BUTN [21] — To MCU JOG BUTTON PANEL SEMI-AUTO BTN [21]

220-00415A — To PDB1 J34, J35, J41 MCU OVERRIDE SW & LED [19]

220-00459A — To MCU SSR BULHEAD MOD#2 SSR DC MOTOR POWER [22]

220-00420A

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

RED 22 — BLK 22 — RED 16 — BLK 16

220-00382B — D/ FUSE SNS — LOOP1 SNS — LOOP2 SNS — LOOP3 SNS — LOOP4 SNS — LOOP4A SNS — LOOP5 SNS — LOOP5A SNS

J40 MINIFIT 2X4 — J39 MINIFIT 2X4 — J31 MINIFIT 2X4 — J30 MINIFIT 2X4

220-00313B — 220-00391B — 220-00390B

J34 MLX 1X2 — J35 MLX 1X2 — J41 MINIFIT 2X4

220-00452A — To JOG PANEL ES1-MCU (11) PDB1 ESTOP [21] — To MCU BULKHEAD MOD#2 (9) MCU ESTOP [23]

J42 MINIFIT 1X3

220-00452A — To MCU BULKHEAD MOD#2 [23] GLOBAL SAFETY

SW12 & SW13 - GLOBAL SAFETY LOOP

MCU-SW12 SS BIN REAR DOOR — MCU-SW13 SS BIN COVER — 172-00082 — 220-00416B

MCU-SW8 MCU REAR RIGHT DOOR — 220-00383B

MCU-SW9 MCU REAR LEFT DOOR — 10-5246B

MCU-SW10 MCU SIDE ACCESS DOOR — 220-00414B

MCU-SW11 MCU SIDE ACCESS DOOR — RED 22 10-5246B

MCU-SW6 — 220-00441C — CASSETTE DOOR CLOSED — 220-00296C — To GENINE3 J5 [20] CASSETTE DOOR DETECT

MCU-SW7 — 15-3457 — CART HOME — 220-00438B — To GENINE3 J10 EXT. [20] CART HOME DETECT

SHUTTER ON CHARIOT MCU-SW14 — 220-00441B — 220-00296B — To GENINE3 J5 [20] SHUTTER SW DETECT

220-00438B — To MCU MANIFOLD EXT. CART &DOOR SV [20] — RED 22 WHT 22 BLK 22 GRN 22 — 220-00282B

MINIFIT 2X8 — J37

Kodak	MTA AUTOLOADER MCU PDB1 BOARD	
	WIRING DIAGRAM	
	\\ccaeng1\engineering\Projects\Manta\System\Punch\Wiring_Diagram\705-00006D-A\705-00006D-A_SD01	
DESIGNED BY: S. FOUDIMOV	DOCUMENT NUMBER: 705-00006D-A SD01	LAST ECO: CA11049
DRAWN BY: S.FOUDIMOV	LAST REVISED BY: C.RUECK	APPROVED BY: K.POULIN
DESIGN DATE: 2004:12:18	LAST MODIFIED DATE: 2006:07:08	SHEET: 19 of 29

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-

MCU-K5
220-00354A
220-00357A
13-5062
BAUMER SLIP SHEET SENSOR OZDM 16P1901
15-3359
BRN 22 WHT 22 BLU 22
RED 22 WHT 22 GRN 22
WHT 22 SIG
GRN 22 GND
PD
BLK 22
BLK 22 ACT5+
RED 22 +24V
To GENINE3 J18 [20] SS SENSOR POWER
220-00290A

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)
IDC, 14PIN

CART PARK
15-3457 SW6
220-00438B
RED 22
BLK 22
MINIFIT 2X4
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)

To CART HOME SW5 [19] CART HOME DETECT
RED 22
BLK 22

J5
DIGITAL-IN4
2X17 HDR
220-00296B

J2 DIGITAL-IN3
2X15 HDR

J3
MTA 1X6
ANALOG0
J20
2X6 HDR
HA-1
J1
MTA 1X6
ANALOG1

To PDB1 J14 [19] SCON BUS
220-00274A
SAT +48SAFE
SAT +48SRTN
SAT +24SAFE
SAT +24SRTN
SAT +24V
BRD_LOC1-
BRD_LOC3
CAN_H
CAN_L
CHASSIS
TERM_DET
SAT +24RTN
BRD_LOC2+
BRD_LOC0-
RED 22
RED22
J25
UMNL 2X4
STPR-DRIVE
J26
MINIFIT 2X8 CAN
SCON1

220-00289A
To LIONEL1 J9 [23] SCON BUS
SAT +48SAFE
SAT +48SRTN
SAT +24SAFE
SAT +24SRTN
SAT +24V
CAN_L
CHASSIS
TERM_DET
SAT +24RTN
J24
MINIFIT 2X5 CAN
SCON2

To GENINE3, J18
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
2X8 HDR
For DMPK OPTION ONLY
To DM PICKER MANIFOLD SOL_DRV GEN 3 [25]
To RELAY K5 SS SENSOR POWER [20]

J18
SOL-DRV0
2X8 HDR
220-00290A
220-00456A
MINIFIT 2X5
WM PICKER MANIFOLD
SV1 "picker down"
SV2 "picker slider in"
SV3 "picker pcups on"
SV4 "picker pcups on"
To RELAY K5 SS SENSOR POWER [20]

[19] CART & DOOR SV
220-00282A
220-00419A
MINIFIT 2X2
MCU MANIFOLD
SV1 "cassette door open"
SV7 "cassette cartpin up"
SV8 "platefloat 2 on"
SV2 Cassette lock
SV3 Cassette eject
SV4 "separator on"
SV5 "platefloat 1 on"
SV6 "picker mirror retract"

J21
SOL-DRV1
2X13 HDR
220-00291A
MANIFOLD INTERFACE BOARD
10-4727A
J2
CON12
220-01300A
ACT8+ BLK 24
+24V RED 24
ACT9+ BLK 24
+24V RED 24
ACT10+ BLK 24
+24V RED 24
ACT11+ BLK 24
+24V RED 24
ACT12+ BLK 24
+24V RED 24
ACT13+ BLK 24
+24V RED 24
J1
IDC,26PIN
J3
CON12
220-00293A
ACT14+ +24V
ACT15+ +24V
ACT16+ BLK 24 +24V
ACT17+ BLK 24 +24V
ACT18+ BLK 24 +24V
ACT19+ BLK 24 +24V
MINIFIT 2X3
220-00285A
To SSR BULKHED SSR MANIFOLD [22]
J4
CON12
220-00294B
ACT20+ BLK 22 +24V
ACT21+(F/W MCU BRK CTRL) BLK 24 +24V RED 24
ACT22+ WHT 22 +24V
ACT24+ GRN 22 +24V RED-22
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
RED 22 TO DSEN16 LED+ (1)
BLK 22 TO DSEN16 LED- (4)
WHT 22 TO DSEN16 C (2)
GRN 22 TO DSEN16 E (3)
RED 22 TO DSEN17 C (6)
BLK 22 TO DSEN17 E (7)
[19] CASSETTE DOOR DETECT

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 TO DSEN15 C (26)
GRN 22 TO DSEN15 E (27)
RED 22
WHT 22
MINIFIT 1X2

2X10 HDR
DIGITAL-IN2
J4
220-00298A

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)

220-00837A
MINIFIT 2X2
220-01272A
MINIFIT 2X2
BRN 22
PINK 22
BLUE 22
BLK 22
NC
PLATE WIDTH SENSOR 10-4652A
36-3200

Kodak
MTA AUTOLOADER
MCU GENINE 3
WIRING DIAGRAM
\\ccaeng1\engineering\Projects\Manta\System\Punch\Wiring_Diagram\705-00006D-A\705-00006D-A_SD01

DESIGNED BY:	DOCUMENT NUMBER	LAST ECO:
S. FOUDIMOV	705-00006D-A SD01	CA11049
DRAWN BY:	LAST REVISED BY:	APPROVED BY:
S.FOUDIMOV	C.RUECK	K.POULIN
DESIGN DATE:	LAST MODIFIED DATE:	SHEET:
2004:12:18	2006:07:08	20 of 29

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
JOG UP
PUSHBUTTON

MCU-SW4
PUSHBUTTON
JOG DOWN

GND (SW)

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.

UPPER & LOWER LIMIT SWITCHES
15-3457
UPPER LIM SWITCH
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

MCU SAFETY INTERFACE BOARD
10-4697C

SELV CIRCUITRY
NON-SELV CIRCUITRY

601-00052
MCU MOTOR DRIVE
J2
2X6 MINIFIT
220-00311B
INVERTER CONTROL
N/O CONTACT1
N/O CONTACT2
FREQ 1 (FAST)
FREQ 2 (SLOW)
+24V DC
REVERSE
FORWARD
DC COMMON
CONT REL (RUN)
X2 A
24 N/O CONTACT
26 SW COMMON
10 FREQ 1 (FAST)
11 FREQ2 (SLOW)
22 DC COMMON
20 24VDC
15 REVERSE
14 FORWARD
16 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

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
2X5 MINIFITJR

24V OK
DS1
LED,GRN
R3 2K2

DIRECTION SIGNAL
PULLED LOW = DOWN

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

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

[19] MANUAL JOG BUTN
To MCU OVERRIDE SW.

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

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.
Remove jumper for CR4.0 and above.

220-01799A
MAN BRK OFF
GND
BRN-22
BLK-22

ACT21+(F/W MCU BRK CTRL)
BLK-22
FW BRK OFF
174-00035
BRAKE RELAY
Input: 3.5 - 30 VDC
Output: 3 Amps DC
MCU BRAKE RELAY
+24V SAFE (MNFLD)
RED-22
220-00294B
BRAKE OFF WHEN CURRENT FLOWS

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

J5
2X3 M'nL
CONTACTOR COIL+
GND

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

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

[19] MCU BRAKE
To MCU BRAKE TERM BLOCK ON MCU MOTOR
220-01799A

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

[19] CONTACTORS ON
To MCU CONTACTOR COILS
220-00279B

MCU-T1
THERMOSTAT 60 C
170-00024
RESET MANUALLY
AT TEMP BELOW 42 C
(PROVIDES MCU-M1 THERMAL PROTECTION)

AUTO/JOG SIGNAL SELECTOR 1
DIR DOWN REQ
SPEED SLOW REQ
K5 RTE24024
D5 UF4002

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

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

EMERGENCY STOP SWITCH
ES1-MCU 15-3474
ES2-MCU 15-3474
ES3-SSR 15-3474
220-00317A
220-00417A
220-00418A
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)

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MTA AUTOLOADER
MCU SAFETY INTERFACE BOARD
WIRING DIAGRAM
\\ccaeng1\engineering\Projects\Manta\System\Punch\Wiring diagram\705-00006D-A\705-00006D-A_SD01.d

DESIGNED BY:	DOCUMENT NUMBER	LAST ECO:
S. FOUDIMOV / C.RUECK	705-00006D-A SD01	CA11049
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S.FOUDIMOV / D.LOWE	C.RUECK	K.POULIN
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SSR 500-00307A

SSR UMBILICAL CABLE 220-00453A

To MCU LIONEL1 J11
[23] SSR SENSORS 3

220-00458A

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

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

To MCU LIONEL1 J8
[23] SSR SENSORS 2

MINIFIT 2X7

GND	RED/WHT & BLK STRIPES 24	MODULE #1 220-00461A
EREG.PD+	BLU/BLK STRIPE 24	
EREG.PD-	GRN 24	
EREG.SEN0+	RED/BLK STRIPE 24	
EREG.SEN1+	BLU 24	
EREG.SEN2+	WHT/BLK STRIPE 24	
EREG.SEN3+	BLU/RED STRIPE 24	
+24VSAFE(SW)	BLK/WHT STRIPE 24	
+24V	WHT/RED STRIPE 24	
EREG.SEN3-	BLU/WHT STRIPE 24	
DSEN 10.C	GRN/WHT & BLK STRIPES 24	
SPARE	ORG/RED STRIPE 24	

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	

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

ACT16+	GRN/BLK STRIPE 24	MODULE #2 220-00462A
SENS12.LED-	WHT/RED & BLK STRIPES 24	
SENS11.LED+	GRN/WHT STRIPE 24	
SENS11.C	ORG 24	
SENS11.E	BLK 24	
SENS11.LED-	BLK/RED STRIPE 24	
+24VSAFE	ORG/BLK STRIPE 24	
ACT17+	RED 24	
ACT18+	RED/WHT STRIPE 24	
ACT19+	WHT 24	
PS2 +24V	RED 16	
PS2 +24VRTN	BLK 16	

PS2 +24V
PS2 +24VRTN

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

COMPACTOR RETRACT SENSOR
CONTACTS CLOSE WHEN COMPACTOR RETRACTS
15-3355

COMPACTOR EXTEND SENSOR
CONTACTS CLOSE WHEN COMPACTOR EXTENDS
15-3355

RED 22

MODULE #1 220-00461A
1 RED 22
2 RED 22
3 +5V
4 GRN 22
5 BLK 22
6
7 WHT 22
8 +24VSAFE (SWITCHED)
9
10 GND GRN 22
11
12 N/C

MODULE #2 220-00462A
1 BLK 22
2 RED 22
3 +5V
4 GRN 22
5 BLK 22
6 RED 22
7 +24VSAFE
8 BLK 22
9 BLK 22
10
11 +24V
12 RTN

ROLLER OPEN SENSOR
36-3210

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

GRN 22

SSR LOCAL SAFETY LOOP
SS BIN FRONT DOOR SWITCH
+24VSAFE RED 22
11 12 BLK 22
21 22 WHT 22
15-3263

ASSY BIN FULL SENSOR 10-4652A
RED 22
GRN 22
BLK 22
NC
36-3200

RED 22
1 RED 2 YEL 3 BLK 4 WHT
16-3666
YEL TUBE
WHT TUBE

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

RED 22
16-4248
SSR compactor off

BLK 22

SSR roller close
RED 22
BLK 22
16-4248

SSR roller open
RED 22
BLK 22
16-4248

SSR compactor on
RED 22
BLK 22
16-4248

MOTOR ON SENSE SSR-K3
RED 22
BLK 22
15-3359

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

RED 16
BLK 16

SSR-M1
SSR MOTOR
10-4756A

BLK 16
RED 16

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MTA AUTOLOADER
SLIP SHEET REMOVAL MODULE
WIRING DIAGRAM

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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

FOR PUNCH OPTION UPGRADE:
Remove ES3 and ES4 from rear upper frame and install on punch assembly electronics tray. See page 28 for details.

Kodak	MTA AUTOLOADER MCU LIONEL 1	
	WIRING DIAGRAM	
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SIGNALS FROM
PLATE PROCESSOR

BUSY +
BUSY RTN
READY +
READY RTN
FAULT +
FAULT RTN

TB

YEL 22 BUSY + (3)
WHT 22 BUSY RTN (16)
BRN 22 READY + (5)
GRN 22 READY RTN (18)
ORG 22 FAULT + (10)
BLU 22 FAULT RTN (23)
SPARE
SPARE

PLATE PROCESSOR INTERFACE CAB. ASSY

220-01246A

NOTE: SIGNAL LEVEL FROM PLATE PROCESSOR
SHOULD BE IN THE RANGE OF 5V TO 48DC, 10mA MAX

J1 — PLATE PROCESSOR 1 — DB25F

J2 — PLATE PROCESSOR 2 — DB25F

J3 — ISOLATED POWER INPUT — MINIFIT 2X2

EXTERNAL DEVICE INTERFACE BRD.

10-4961A

SINGLE PROCESSOR INTERFACE — J4 — 2X7 HDR

(1) +24V
(2) +24V
(3) EREG.PD+
(4) EREG.PD-
(5) EREG.SEN0+
(6) EREG.SEN0-
(7) EREG.SEN1+
(8) EREG.SEN1-
(9) EREG.SEN2+
(10) EREG.SEN2-
(11) EREG.SEN3+
(12) EREG.SEN3-
(13) GND
(14) GND

220-00515A — To GENINE 0 J10 — SINGLE PROCESSOR INTERFACE [15] — [16] For CL

DUAL PROCESSOR INTERFACE — J5 — 2X15 HDR

(1) BLK 22 SEN16.LED+
(2) ORG/RED 22 SEN16.C
(3) BLK/WHT 22 SEN16.E
(4) ORG/BLK 22 SEN16.LED-
(5) BLK/RED 22 SEN17.LED+
(6) ORG 22 SEN17.C
(7) RED 22 SEN17.E
(8) RED/WHT 22 SEN17.LED-
(9) BLU/BLK 22 SEN18.LED+
(10) RED/BLK 22 SEN18.C
(11) BLU/WHT 22 SEN18.E
(12) BLU/RED 22 SEN18.LED-
(13) BLU 22 SEN19.LED+
(14) GRN/WHT 22 SEN19.C
(15) WHT/RED 22 SEN19.E
(16) GRN 22 SEN19.LED-
(17) WHT/BLK 22 SEN20.LED+
(18) GRN/BLK 22 SEN20.C
(19) WHT 22 SEN20.E
(20) RED 22 SEN20.LED-
(21) WHT 22 SEN21.LED+
(22) GRN 22 SEN21.C
(23) BLK 22 SEN21.E
(24) YEL 22 SEN21.LED-
(25) BLU 22 SEN22.LED+
(26) ORG 22 SEN22.C
(27) BRN 22 SEN22.E
(28) PINK 22 SEN22.LED-
(29) PURPLE 22 GND
(30) GRY 22 GND

220-00516A — To GENINE 0 J5 — DUAL PROCESSOR INTERFACE [15] — [16] For CL

OUTPUT INTERFACE — J6 — 2X8 HDR

(1) ACT0+
(3) ACT1+
(5) ACT2+
(7) ACT3+
(9) ACT4+
(11) ACT5+
(13) ACT6+
(15) ACT7+

220-00517A — To GENINE 0 J18 — EXTERNAL DEVICE OUTPUT INTERFACE [15] — [16] For CL

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MTA AUTOLOADER
PROCESSOR INTERFACE BOARD
WIRING DIAGRAM

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2003:12:09	2006:07:08	24 of 29

LIONEL BOARD 2
10-4801B

Board Address = 0x42h

PICKER UP — 36-3125 — 10-4982A
LED+ RED 22 — RED 22 — TO DSEN4 LED+ (1)
LED- BLK 22 — BLK 22 — TO DSEN4 LED- (4)
COLLECTOR WHT 22 — WHT 22 — TO DSEN4 C (2)
EMITTER GRN 22 — GRN 22 — TO DSEN4 E (3)

SLIDER HOME — 36-3125 — 10-4982A
LED+ RED 22 — RED 24 — TO DSEN5 LED+ (5)
LED- BLK 22 — BLK 24 — TO DSEN5 LED- (8)
COLLECTOR WHT 22 — WHT 24 — TO DSEN5 C (6)
EMITTER GRN 22 — GRN 24 — TO DSEN5 E (7)

SLIDER PLATE PICK — 36-3125 — 10-4982A
LED+ RED 22 — ORG 24 — TO DSEN6 LED+ (9)
LED- BLK 22 — BRN 24 — TO DSEN6 LED- (12)
COLLECTOR WHT 22 — BLU 24 — TO DSEN6 C (10)
EMITTER GRN 22 — YEL 24 — TO DSEN6 E (11)

SLIDER SS PICK — 36-3125 — 10-4982A
LED+ RED 22 — RED 24 — TO DSEN7 LED+ (13)
LED- BLK 22 — BLK 24 — TO DSEN7 LED- (16)
COLLECTOR WHT 22 — WHT 24 — TO DSEN7 C (14)
EMITTER GRN 22 — GRN 24 — TO DSEN7 E (15)

SLIDER BIN — 36-3125 — 10-4982A
LED+ RED 22 — ORG 24 — TO DSEN8 LED+ (17)
LED- BLK 22 — BRN 24 — TO DSEN8 LED- (20)
COLLECTOR WHT 22 — BLU 24 — TO DSEN8 C (18)
EMITTER GRN 22 — YEL 24 — TO DSEN8 E (19)

ROLLER UP — 36-3125 — 10-4982A
LED+ RED 22 — RED 22 — TO DSEN9 LED+ (1)
LED- BLK 22 — WHT 22 (RED PAIR) — TO DSEN9 LED- (4)
COLLECTOR WHT 22 — ORG 22 — TO DSEN9 C (2)
EMITTER GRN 22 — WHT 22 (ORG PAIR) — TO DSEN9 E (3)

PICKER MOTION — 36-3209 — 10-9048A
LED+ GRY 24 — RED 22 — TO DSEN12 LED+ (13)
COLLECTOR WHT 24 — WHT 22 — TO DSEN12 C (14)
EMITTER GRN 24 — GRN 22 — TO DSEN12 E (15)

To LIONEL1 J13 — [23] SCON BUS — 220-01008A

+48V SAFE	BRN 18	J9 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		SCON2

2X5 MINIFIT JR

220-01004A — J7 — DIG_IN2 — IDC,20PIN

220-01005A — J8 — DIG_IN3 — HDR 2X15

J13 — SCON 1 — MINIFIT 2X8 CAN
SAT_+48SAFE
SAT_+48SRTN
SAT_+24SAFE
SAT_+24SRTN
SAT_+24V
BRD_LOC+ RED 22
BRD_LOC1-
BRD_LOC3-
CAN_H
CAN_L
CHASSIS
TERM_DET
SAT_+24RTN
BRD_LOC+
BRD_LOC0-
BRD_LOC2-

220-01009A — To LIONEL 3 J9 — SCON BUS [26]

J5 — PWM_OUT1 — MINIFIT 2X3 REC
To GENINE3 J18 — [20] SOL_DRV GEN3 — 220-00290A

J2 — SOL_DRV1 — SAMTEC, 2X8

ACT 0	BLK 24	
+24 V	RED 24	
ACT 1	BLK 24	
+24 V	RED 24	
ACT 2	BLK 24	
+24 V	RED 24	
ACT 3	BLK 24	
+24 V	RED 24	
ACT 4	BLK 24	
+24 V	RED 24	
ACT 5	BLK 24	
+24 V	RED 24	
ACT 6	BLK 24	
+24 V	RED 24	
ACT 7	BLK 24	
+24 V	RED 24	

220-01015A

220-00456A — MINIFIT 2X5

BLK 22	BLK 24	
RED 22	RED 24	
BRN 22	BLK 24	
ORG 22	RED 24	
BLU 22	BLK 24	
VIO 22	RED 24	
GRN 22	BLK 24	
YEL 24	RED 24	
GRY 24		
WHT 24		

DM PICKER MANIFOLD
(See continued on page 26)

SV1	"picker arm down"
SV2	picker slider extend
SV3	picker slider extend plate pick on plate pick off
SV4	"picker pcups on"
SV5	"picker pcups on"
SV6	picker roller down pick
SV7	picker roller down bin
SV8	picker slider bin on
SV9	"picker roller vac1 on"
SV10	picker slider ss pick off
SV11	picker slider ss pick on
SV12	"picker plate push"

BLK 22 — RED 22

J17 — AN_1 — 1X6 MTA — 220-01014A
RED 24 — +24VDC
WHT 24 — 4-20mA Out
GRN 24 — GND
BLU 24 — PD+
BRN 24 — PD-

PICKER ROLLER VACUUM — PSEB BOARD 10-4581A — MTA 1X6

DM-R1 152-00059 — 180R,5W
ROLLER MOTOR VOLTAGE REGULATOR
DM-D3 126-00017 — 1N4734A,5.6V
DM-TB1 16-3666

PWM_OUT1 J5 — MINIFIT 2X3 — 220-01016A
+24V RED 22
+24V WHT 22
PD PWM0+
PWM0- BLK 22
PWM1 GRN 22
PD PWM0- BLK 22

+5V GND — 220-01107A

ROLLER MOTOR SENSORS TEST CONNECTOR — MINIFIT 2X2 — 220-01107A
RED 22
WHT 22
GRN 22
BLK 22

ROLLER HOME — DM-D1 — LED 132-00009
ROLLER AWAY — DM-D2 — LED 132-00009

ROLLER MOTOR DIRECTION — DM-S1 172-00042
HOME — AWAY

ROLLER MOTOR MODE: UP - TEST DOWN - AUTO — DM-S2 172-00043
TEST — AUTO

ROLLER MOTOR DIRECTIONAL CONTROL
DM-K1 15-3248

220-01107A

DM ROLLER TEST ASSY 500-02888A

ROLLER HOME — 36-3209 — 220-01095A
LED+ GRY 24 — ORG 26
COLLECTOR WHT 24 — BRN 26
EMITTER GRN 24 — GRN 26
BLU 26

ROLLER AWAY — 36-3209
LED+ GRY 24
COLLECTOR WHT 24
EMITTER GRN 24

220-01019A — MINIFIT 2X2

ORG 26	RED 24	
BRN 26	WHT 24	
GRN 26	GRN 24	
BLU 26	BLU 24	
	BRN 24	
	YEL 24	

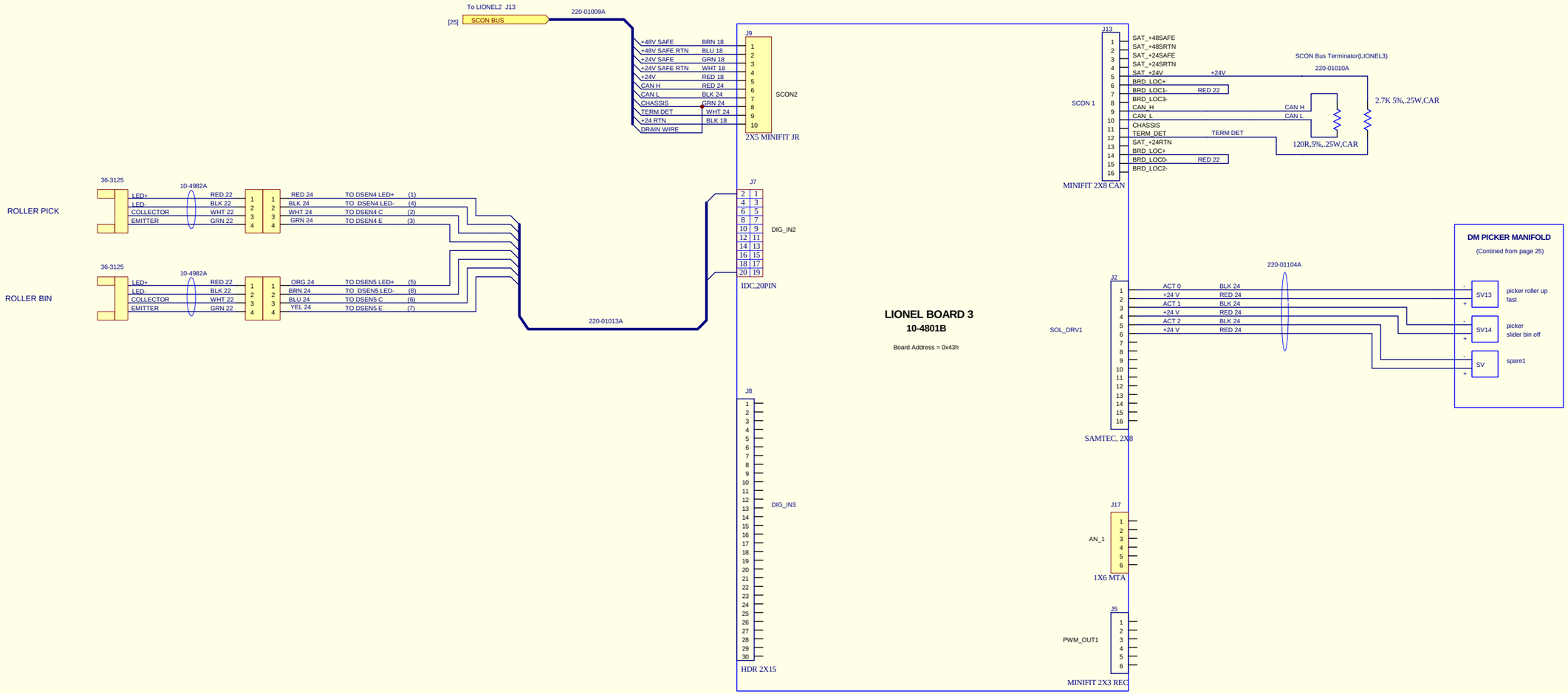
220-01012A — MINIFIT 2X2

RED 22	TO DSEN14 LED+	(21)
WHT 22	TO DSEN14 C	(22)
GRN 22	TO DSEN14 E	(23)
BLK 22	TO DSEN15 C	(26)

RED 26 BLK 26 — MINIFIT 1X2
RED 22 BLK 22 — MINIFIT 1X2 — 220-01107A

DM-M1 Roller Motor 220-00341B — RED 26 BLK 26 — CON2

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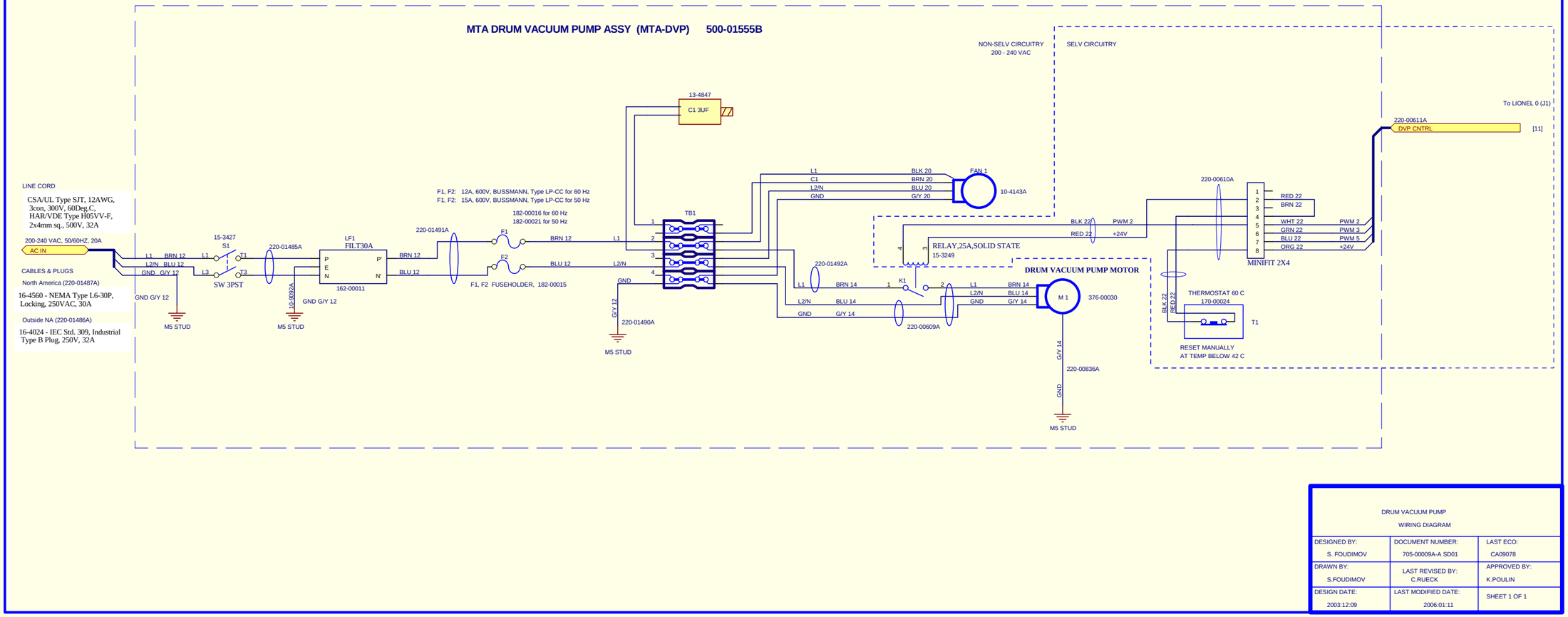
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MTA AUTOLOADER
DM PICKER_LIONEL 3
WIRING DIAGRAM

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



DRUM VACUUM PUMP WIRING DIAGRAM		
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MTAAUTOLOADER
DRUM VACUUM PUMP
WIRING DIAGRAM

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GENINE BOARD 4

10-4227D

BOARD ADDRESS = 0X34h

To GENINE1 J24 [17] SCON BUS — 220-01370A — RED22

220-01371A — To DAPHNE0 J31 SCON BUS [29]

J3 MTA 1X6 ANALOG0

J26 MINIFIT 2X8 CAN SCON1

J24 MINIFIT 2X5 CAN SCON2

J10 2X7 HDR DIG_IN 1

J20 2X6 HDR HA-1

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

220-01367A

36-3125 — 10-4982A — SIDE PIN MTR_HOME

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

36-3125 — 10-4982A — SIDE PIN MTR_AWAY

LED+	RED 22	RED 22	TO AWAY.1 LED+ (5)
LED-	BLK 22	WHT 22 (RED PAIR)	TO AWAY.1 LED- (8)
COLLECTOR	WHT 22	ORG 22	TO AWAY.1 C (6)
EMITTER	GRN 22	WHT 22 (ORG PAIR)	TO AWAY.1 E (7)

220-01368A

36-3125 — 10-4982A — PUNCH DEFLECTOR UP

LED+	RED 22	RED 22	TO DSEN9 LED+ (1)
LED-	BLK 22	BLK 22	TO DSEN9 LED- (4)
COLLECTOR	WHT 22	WHT 22	TO DSEN9 C (2)
EMITTER	GRN 22	GRN 22	TO DSEN9 E (3)

J2 — DIGITAL-IN3 — 2X15 HDR

220-01494A — PUNCH MECHANISM DOWN POSITION SWITCH

RED 22 / BLK 22 — MINIFIT 1X2 — BLK 22 — RED 22 — TO DSEN10 LED+ (5)
WHT 22 — TO DSEN10 C (6)
GRN 22 — TO DSEN10 E (7)

BLUE LED

PUNCH MECHANISM DOWN POSITION LED

PUNCH MECHANISM DOWN POSITION SWITCH — 172-00085 — BLK 22 / WHT 22 / GRN 22

PUNCH MECHANISM FORWARD POSITION SWITCH — 15-3355 — WHT 22 — TO DSEN11 C (10) — GRN 22 — TO DSEN11 E (11)

EXTRUSION TEMPERATURE — THERMISTOR 1 — **10-0967A** — MATE 1X3 — 220-01884A — RED 22 TEMP+ — BLK 22 TEMP- — J11 TEMP1 MATE2X3 — PD TEMP+ — PD TEMP- — GRN 22

220-01373A

J25 UMNL 2X4 STPR-DRIVE

PHA+	BRN 22
PHB-	WHT 22
PD+	GRN 22
PHA-	GRN 22
PHB+	YEL 22
Chassis	Shield
PD-	GRN 22

GRN 22 / GRN 22 / YEL 22 / GRN 22 / BRN 22 / WHT 22 — 15-3267 PUNCH-M0 — **SIDE PIN MOTOR**

220-01374A

J21 — SOL-DRV1 — 2X13 HDR

J1 — MANIFOLD INTERFACE BOARD 10-4727A — IDC,26PIN

2X10 HDR DIGITAL-IN2 — J4 — 220-01369A

36-3209 — 220-01398A — GRY 24 — SIDE PIN FINE HOME POSITION

LED+	GRY 24	RED 22	TO DSEN4 LED+ (1)
COLLECTOR	WHT 24	ORG 22	TO DSEN4 C (2)
EMITTER	GRN 24	WHT 22 (ORG PAIR)	TO DSEN4 E (3)
		WHT 22 (RED PAIR)	TO DSEN4 LED- (4)

RESERVED FOR THE PLATE SENSOR — RED 22 TO DSEN 5 LED+ (5) — ORG 22 TO DSEN 5 C (6) — WHT 22 (ORG PAIR) TO DSEN 5 E (7)

EMERGENCY STOP SW REAR UPPER AWAY — ES3 15-3474 — 220-01399A — To: ES2 EXT [23] — MINIFIT 1X2 — BLK 22 — RED 22 — 220-01400A

EMERGENCY STOP SW REAR PUNCH ELECTRONICS TRAY HOME — ES4 15-3474 — 220-01401A — [23] To: ES5 — MINIFIT 1X2

PUNCH MANIFOLD

SV1	"spare 3"	
SV2	"deflector dn"	
SV3	"press reg home on"	
SV4	"press reg home off"	
SV5	"press reg away on"	
SV6	"press reg away off"	
SV7	"suction cups up"	
SV8	"reg bar float on"	
SV9	"reg bar float off"	
SV10	"vac gen on"	
SV11	"debris collection on"	
SV12	"reg pinset 1 rotate"	
SV13	"reg pinset 2 rotate"	
SV14	"reg pinset 3 rotate"	
SV15	"reg pinset 4 rotate"	
SV16	"reg pinset 5 rotate"	
SV17	"var punch pos 1"	
SV18	"var punch pos 2"	

220-01375A — J2 — CON12

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

220-01376A — J3 — CON12

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

220-01377A — J4 — CON12

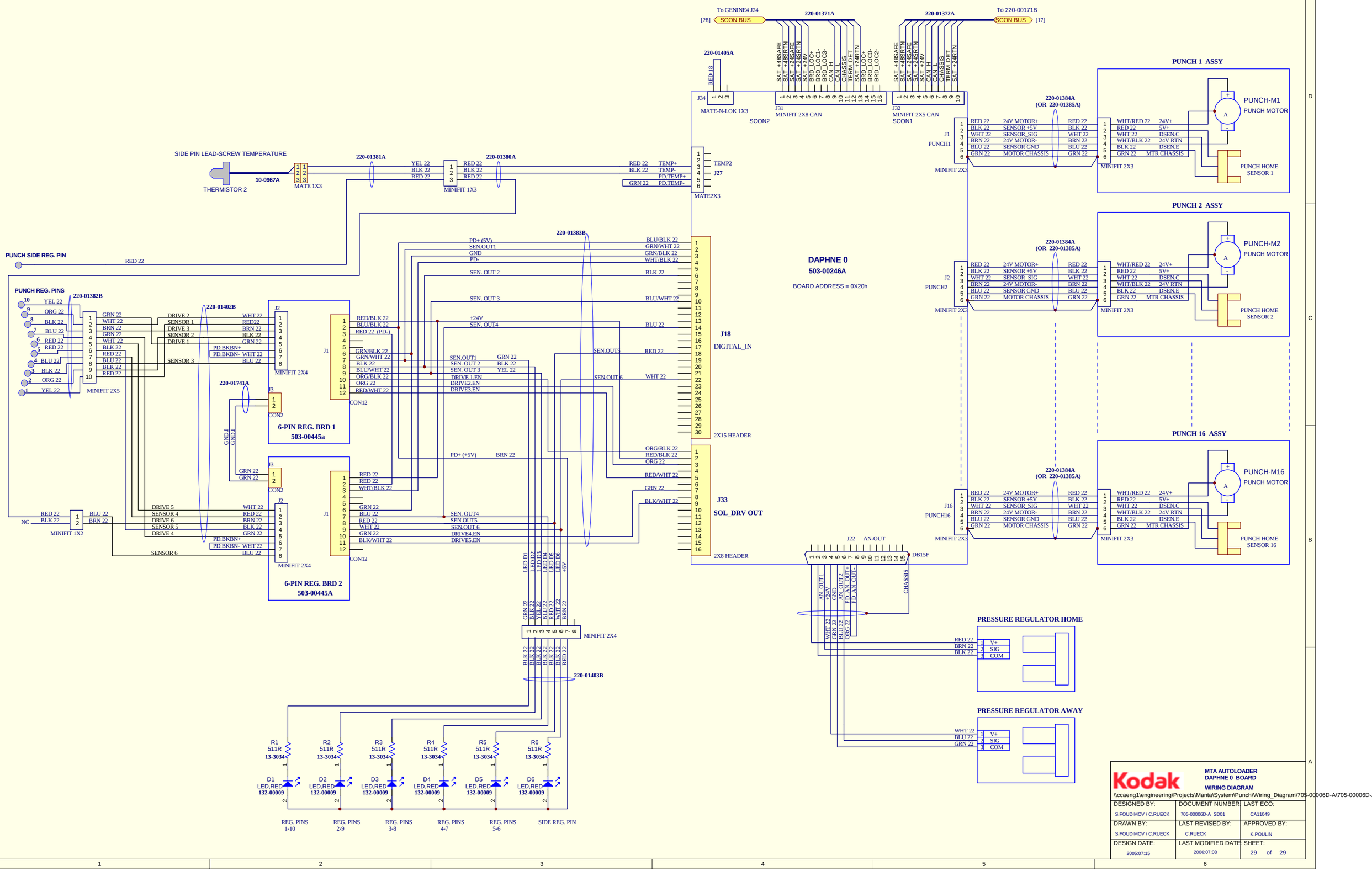
ACT20+	BLK 24	ACT23+	BLK 24
+24V	RED 24	+24V	BLK 24
ACT21+	BLK 24	ACT24+	RED 24
+24V	RED 24	+24V	BLK 24
ACT22+	BLK 24	ACT25+	RED 24
+24V	RED 24	+24V	BLK 24

Kodak

MTA AUTOLOADER
GENINE 4 BOARD
WIRING DIAGRAM

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DESIGNED BY:	DOCUMENT NUMBER	LAST ECO:
S.FOUDIMOV / C.RUECK	705-00006D-A SD01	CA11049
DRAWN BY:	LAST REVISED BY:	APPROVED BY:
S.FOUDIMOV / C.RUECK	C.RUECK	K.POULIN
DESIGN DATE:	LAST MODIFIED DATE:	SHEET:
2005:07:15	2006:07:08	28 of 29



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MTA AUTOLOADER
DAPHNE 0 BOARD
WIRING DIAGRAM

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