Heater Wiring Diagram

Transition Box
Terminal Block 1

Silicon Controlled Rectifier

Cable 6
- Pin 6
+ Pin 5
- Pin 3
+ Pin 4
Pin 2

Cable 6
- Pin 6
+ Pin 5
- Pin 3
+ Pin 4
Pin 2

Silicon Controlled Rectifier

H2 Heater

D2 Heater

L. Brown
F Orange
D Green
A White
B Purple
E Yellow
G Red
M Gray

650 Ohms ea.

Cable Top Left 1

Cable 6

SAMPIN 13
Black
SAMPIN 14
Brown

SAMPIN 15
Black
SAMPIN 16
Pink

Cable Top Left 1

h2 Variac
Black
Pin 65
Red
Red
Pin 64
Black
Pin 29
Red
B White
White
Pin 26
Red
B White
Pin 25
Black
Black

D2 Variac

Wiring Diagram

Counting Room
 Hall

Heater
The Motor Controller to Motor Driver connection is in current sinking mode.

Notes:
(R1, R2, R3) relays act as bits to determine one of seven target positions. These "next" target position and these relays are calculated/controlled by the PLC.

(001) H2
(011) Empty
(111) D2
(110) Solid1
(100) Solid2
(101) Solid3
(010) No Target

R4 relay is ON (i.e. CLOSED) when target is permitted to move. Activation of relay 4 is delayed by 1 sec after beam stop in order to give R13 enough time to flip.

The Motor Controller to Motor Driver connection is in current sinking mode.
Target Table Limit Switch Wiring Diagram

Target Motor Controller

Home

Hard-Hard+

GND

Cable 1

Transition Box
Termination Panel 2

Cable L1

9pin connector

Red/White           Yellow/White          Yellow
Red                  Orange               Yellow
Green                Green                Blue

68                70                  71
67                69                  72

Purple       Red
Brown       Blue
Black      White

NO NC Common

NO NC Common

NO NC Common
All relays are located on target rack.

Power Map

All Power connections are inside the hall
120VAC generated from one of the phases of 208 3ph

Signal Map

Cable 4
- Common: Black
- SDMCH1: +24V Red
- SDMCH2: +24V Orange
- SDMCH3: +24V White
- SDMCH4: +24V Green
- SDMCH5: +24V Brown
- SDMCH6: +24V Blue
- SDMCH7: +24V Yellow
- SDMCH8: +24V White
- SDMCH9: +24V Green
- SDMCH10: +24V Brown
- SDMCH11: +24V Blue
- SDMCH12: +24V Yellow

Cable 7
- 25: To R1
- 26: To R2
- 27: To R3
- 28: To R4
- 29: To R5
- 30: To R6
- 31: To R7
- 32: To R8
- 33: To R9
- 34: To R10

Transition Box Terminal Block 3

H2 Pumpcart Wiring Map
(4/1/2011)
### E907 Pumpcart Wiring Map

(4/1/2011)

<table>
<thead>
<tr>
<th>Cable 1</th>
<th>Terminal Block 3</th>
<th>Connector J1</th>
<th>Pumpcart Internal Wiring</th>
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<tbody>
<tr>
<td>SDMCH12</td>
<td>+24V</td>
<td>Pin 1</td>
<td>A Black</td>
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<tr>
<td>SDMCH13</td>
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<td>SDMCH14</td>
<td>+24V</td>
<td>Pin 3</td>
<td>C Black</td>
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<td>SDMCH15</td>
<td>+24V</td>
<td>Pin 4</td>
<td>D Orange</td>
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<td>E Black</td>
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<td>A Brown</td>
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**Notes:**

120VAC generated internally inside pumpcart by taking one of the phases of 208VAC 3ph power.

All relays are contained inside the pumpcart control box.
Compressor power is 208VAC 3ph. The electrical box for the power contains a contactor that is activated by a relay. The relay is controlled by the PLC.
Motor Driver
4-phase, 185VDC pulse train
Control Voltage: 5VDC

Silicon Controlled Rectifiers
Control Voltage: 24VDC, 4–20mA
Load Voltage: Variable (< 70VAC)

H2 Pumpcart control relays

120VAC generated in pumpcart