

## RR-8.5: MOTOR DRIVER BOARD (pg 1 of 3)



### Removal

1. Remove Enclosure Assembly (RR-1.3).
2. Tilt back Card Cage (RR-8.0).
3. Disconnect 15 Motor Driver Board cables.
4. Remove Motor Driver Board.



### Replacement

1. Install Motor Driver Board:
  - a. Place board into Card Guide and position over circuit board standoffs.
  - b. Press into place.

#### CAUTION !

Do not plug P13 into J11, or P11 into J13. Ensure P4 is connected to J4 on Motor Driver Board. (Connector P4 will also fit board connector J7, which is not used.)

2. Connect 15 Motor Driver Board cables.

|      |                                    |
|------|------------------------------------|
| PL-8 | Block diagram:<br>Motor Driver Bd. |
|------|------------------------------------|

|                     |                    |                   |       |
|---------------------|--------------------|-------------------|-------|
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### Replacement (cont)

3. Reposition and secure Card Cage.
4. Install Enclosure Assembly.
5. Observe Buffer Temp Voltage:
  - a. From READY menu, press:
    - MONITOR
    - HND\_CTRL
    - TEMP
  - b. Verify that voltage readings are not 0.0V or 5.0V.

### Replacement, step 5 (cont)

- c. ■ NEXT (to scroll through all temperatures)
- d. If any voltage is either 0.0V (shorted), or 5.0V (open), inspect the appropriate cable:

|                               |     |
|-------------------------------|-----|
| Buffer cable at Motor Driver  | J12 |
| Air cable at Motor Driver     | J11 |
| Remote cable at Motor Driver  | J16 |
| Optics cable at Motor Driver  | J14 |
| Reagent cable at Motor Driver | J13 |

|   |   |   |   |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   |  |   |   |   |   |   |   |   |   |  |  |   |   |   |   |   |   |  |  |  |  |
|---|---|---|---|---|---|---|--|---|---|---|---|---|---|---|---|---|---|---|--|---|---|---|---|---|---|---|---|--|--|---|---|---|---|---|---|--|--|--|--|
| D | I | L | U | E | N | T |  | T | E | M | P |   |   |   | 3 | 5 | . | 0 |  | C |   | 2 | . | 9 | 4 | 3 | V |  |  | O | N |   |   |   |   |  |  |  |  |
|   | N | E | X | T |   |   |  | H | E | A | T | _ | O | F | F |   |   |   |  | H | E | A | T | _ | O | N |   |  |  |   |   | E | X | I | T |  |  |  |  |

RR8-5a.ds4

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### Verification

Perform these procedures:

- Dispense Check (VP-13)
- MEIA Temperature Check (VP-28)
- Boom Check (VP-7)

