



## Removal

*NOTE: If the analyzer problem is not related to NOVRAM (i.e., NMI, FAC\_SET, Checksum, Database initialization), the NOVRAM of the old CPU Board should be used in the new CPU Board. Refer to [RR-7.9](#) for NOVRAM replacement details.*

1. Remove Enclosure Assembly ([RR-1.3](#)).
2. Remove Card Cage top cover:
  - a. Disconnect Ribbon and Ground cables.
  - b. Release 3 Card Cage locking clips.
  - c. Remove Card Cage Cover.

3. Remove defective board:
  - a. Remove CPU Board. (See NOVRAM note at the beginning of this RR.)
    - (1) Remove board from Card Cage slot 1.
    - (2) Disconnect RS-232 cables (J2 & J3).
    - (3) Disconnect Printer cable (J1).
    - (4) Disconnect Bar Code cable (P1).
  - b. Remove Digital I/O Board from Card Cage slot 3.

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### Replacement

1. Install appropriate board:
  - a. Install CPU Board. (See [NOVRAM note](#) at beginning of this RR.)
    - (1) Insert CPU Board into Card Cage slot 1.
    - (2) Connect RS-232 cables (J2 & J3).
    - (3) Connect Printer cable (J1).
    - (4) Connect Bar Code cable (P1).
  - b. Install Digital I/O Board into Card Cage slot 3.

2. Install Card Cage Cover:
  - a. Place cover over Card Cage.
  - b. Secure cover with 3 locking clips.
  - c. Connect Ribbon and Ground cables.
3. Install Enclosure Assembly.

### Verification

Specific verification procedures to be performed are based upon whether existing NOVRAM or new NOVRAM is installed. Both groups of Verification Procedures are listed on the [next page](#).

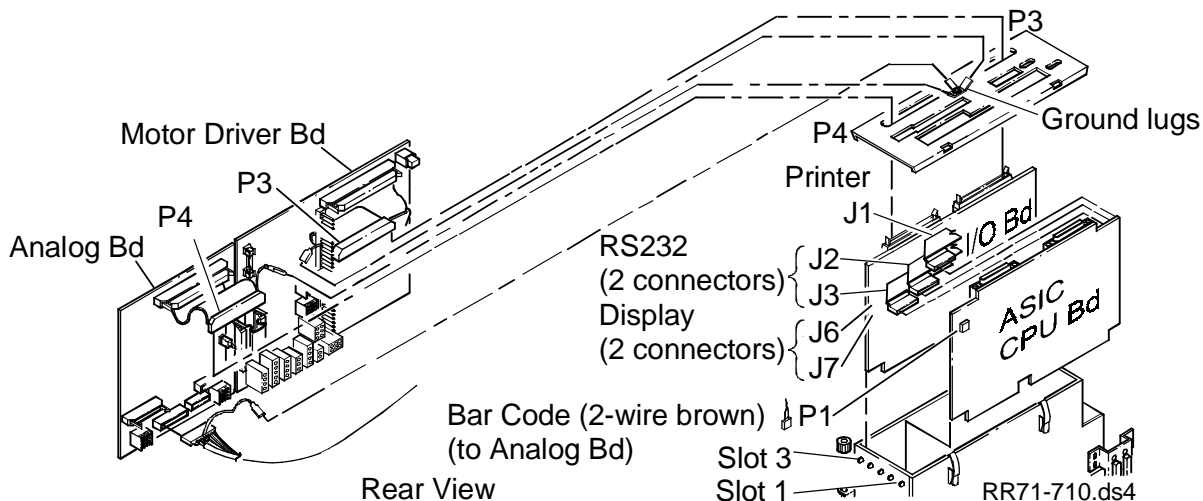
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### New NOVRAM (CPU Bd with new NOVRAM):

1. Perform [IP-45](#).
2. Perform these service tests:
  - Printer Test ([VP-41](#))
  - Keyboard Test ([VP-42](#))
  - Display Test ([VP-43](#))
  - RS-232 Comm Port Test ([VP-44](#))
3. Perform these procedures:
  - MEIA Carousel Cal ([VP-30](#))
  - Matrix Detection ([VP-32](#))
  - Boom Cal ([VP-8](#))
  - Dispense Check ([VP-13](#))
  - MEIA Temperature Cal ([VP-29](#))
  - MEIA Initialization Photo Cal ([VP-27](#))
  - Bar Code Check ([VP-4](#))

### Old NOVRAM (CPU Bd with existing NOVRAM):

1. Perform [Total Call](#).
2. If Digital I/O Board was replaced:
  - a. Enter date and time.
    - SYSTEM
    - DATE
    - Enter correct date (MM/DD/YYYY).
    - TIME
    - Enter correct time (HH:MM:SS).
    - EXIT
  - b. Perform Dispense Check ([VP-13](#)).
  - c. Perform MEIA Temperature Check ([VP-28](#)).



### 4 Removal & Replacement Procedures LCx<sup>®</sup> Analyzer Service Manual (Text P/N 47278-102)

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