

Technical Support Bulletin: S3-FRLP-01

Field Removal of BVS-S3 Load Plate

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This procedure outlines the steps required to remove the BVS-S3 Load Plate.

Note: Before performing this procedure, read this entire document. If you have any questions, contact BTECH Technical Support. We are here to assist you!

ELECTROCUTION HAZARD!

This procedure involves working with high voltage. The voltage sensing leads and load current leads carry full battery voltage. Battery Voltage can be as high as 600Vdc depending on the battery system! If you are not trained to work with high voltage equipment, do not attempt to use this procedure!

Tools Required:

1/8" flat screwdriver

#1 Phillips screwdriver

7/16" hex wrench or Ratchet wrench with 7/16" socket and 8" extension

Tape

1. Turn **OFF** the **NICAD** battery switch and move the **RUN/STANDBY** switch to the **STANDBY** position. These switches are located on the top of the right-hand side of the chassis.
2. Unplug the AC step-down transformer from the duplex outlet on the right-side of the cabinet and unplug the cord from the chassis and set aside. If the BVS has a switching power supply mounted to the load plate, disconnect the input AC power. Remove the screw holding the screw terminal cover and disconnect the AC input wires from the terminal strip. Unplug the cord from the chassis. Do not remove the power supply from the load plate.
3. If the unit is equipped with a modem, unplug the modem power supply (if present) from the duplex outlet. Disconnect the modem cable (if present) from the chassis connector and set aside. If equipped with a phone or short haul modem directly plugged into the chassis connector, disconnect phone or communications line from the chassis.
4. Pull the black load lead connector(s) from the sockets located at the top left-hand side of the cabinet. **NOTE: The button on the connector must be depressed to release the latch!**
5. **CAUTION: The plugs to be disconnected in this step carry battery voltage! Verify that no bare wires are exposed where the wires are inserted into the plugs and the wires are not loose. If bare wire is visible, avoid contact with the exposed wire(s)!** Starting at the left-hand side of the chassis, carefully remove the orange 16 and 17 pin plugs from the sockets on the top of the chassis. **NOTE: Pry up the front left corner of the plug with a thin blade screwdriver to release the connector. Once the front of the plug is raised, the wires can be used to pull the plug from the socket.**
6. Disconnect the remainder of the plugs from the top of the chassis.
7. Disconnect ground lead between the load plate and the chassis if present.

8. To assist in removal of the load plate it helps to tape or tie the various leads to the top of the cabinet. Be careful not to nick the wires.
9. The load plate is located in the top half of the enclosure and runs the full width of the enclosure. Six ¼ 20 nuts secure the 12" x 23" aluminum load plate to the frame. Remove the 4 bottom nuts first and then the top ones. The entire plate can now be removed from the cabinet. To clear the duplex outlet, the left side should be pulled from the cabinet first.
10. If a replacement load plate is available it can be installed.
11. If a replacement load plate is not available, to maintain the voltage measuring and alarming capability of the unit, the voltage sensing leads may now be reinstalled. If the unit is to remain out of service, return any components removed in steps 2 to 9 to the cabinet so they will not be misplaced and skip to "Packing For Shipment".
12. Starting at the left-hand side of the chassis, carefully reinstall the orange 16 and 17 pin plugs into the sockets on the top of the chassis. **CAUTION: Each of the plugs is labeled. Insert the plugs in the appropriate socket!** Press the front and rear edges of the plugs until they snap firmly into position.
13. Reconnect the remainder of the plugs into the appropriate sockets at the top of the chassis. Firmly press on the plugs until they snap into position.
14. If the unit is equipped with a modem, plug the modem power supply into the duplex outlet and reconnect the phone cable to the modem. Reinstall the modem cable (or modem if directly connected) to the chassis. Verify that the modem is turned on so it will be correctly initialized when the microprocessor in the BVS boots up in the next step.
15. Plug the AC step-down transformer into bottom plug of the duplex outlet on the right side of the cabinet. If a switching power supply is mounted on the load plate, remove the screw holding the screw terminal cover and connect the AC input wires to the terminal strip. Re-install the screw terminal cover and restore the input AC power.
16. Plug the cord into the appropriate socket on the top of the chassis. A beep should be heard indicating that the processor has rebooted. If not, unplug the input power connector and immediately plug back in. The beep should now be heard.
17. Turn **ON** the **NICAD** battery switch and move the **RUN/STANDBY** switch to the **RUN** position. These switches are located on the top of the right-hand side of the chassis. Within a minute the display should show the normal battery voltage.

Packing For Shipment

1. If the load plate is to be packaged with Styrofoam peanuts, Please bag the assembly.
2. Prior to shipment to BTECH, obtain an RMA number from the factory and return the assembly to:
BTECH Inc. 10 Astro Place, Rockaway, NJ USA 07866 Tel: 973-983-1120.