

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

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:

- Screwdriver with a thin blade
 - Phillips screwdriver
 - Ratchet wrench with 9/16" 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.
 3. If the unit is equipped with a modem, unplug the modem power supply from the duplex outlet and disconnect the phone cable from the modem. Disconnect the modem cable (or modem if directly connected) from the chassis and set aside.
 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 while removing the connector!**
 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 lose. 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 Weidmueller 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 tipped, 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. Unplug the printer cable and lift it from the cable clips on the chassis. It is suggested that the cable be taped to the door to prevent damage if the door is closed.
8. Disconnect the 3 cables from the display board on the door starting with the top connector. Grasp the top and bottom of the connectors when removing. Free the cables from the clips to permit removal of the chassis from the cabinet.
9. Disconnect the ground lead between the load plate and the chassis and the ground lead from the building ground to the chassis.
10. Remove the 10 Phillips-head screws from the chassis cover plate. See attached diagram for location of screws.
11. Six (6) ¼ 20 nuts secure the chassis to the frame. Remove the 2 bottom nuts on each side first and then the top ones. The entire chassis can now be removed from the cabinet.
12. If the chassis is being returned for repair, skip the reinstallation instructions at this time.

Procedure for Reinstallation of the BVS Chassis

1. Guide the chassis onto the bolt studs and reinstall the washers and tighten the 6 ¼-20 nuts.
2. If adjustments or measurements are to be made that require access to the internal components of the chassis, the chassis cover should be at least partially reinstalled with several of the top mounting screws at this time for safety.
3. Reinstall the cables that run from the left side of the chassis to the display board into the clips. Note: The red trace on the ribbon cable should be on the bottom as the cable leaves the chassis. Sufficient slack should be left between the clips to permit the door to swing open. The cable is normally folded under diagonally after it lands on the door so the red trace is on the right side as the cable runs up to the display board. Reconnect the cables on display board starting with the top connector. **CAUTION: BE CAREFUL THAT THE PINS ARE PROPERLY ALIGNED TO PREVENT DAMAGE TO THE UNIT!** If required, remove the cover plate on the display board to ensure proper alignment of connectors on the plug.
4. If there are ground leads connected to the chassis and cabinet or building ground, reconnect the leads at this time.
5. **CAUTION: The plugs to be reconnected in this step carry battery voltage! Verify that no bare wire is 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 right-hand side of the chassis, carefully reinstall the orange Weidmueller plugs from 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.
6. 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.
7. Plug the AC step-down transformer into bottom plug of the duplex outlet on the right-side of the cabinet and 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 transformer and wait 5 seconds and then plug back in. The beep should now be heard.

8. 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.
9. 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.
10. Within several minutes the display should show the normal battery voltage.
11. Reinstall the black load lead connector(s) in the sockets located at the top left-hand side of the cabinet.
12. **NOTE: If a new chassis is being installed or a new motherboard was installed in the old chassis, a current clamp calibrated with the motherboard must be installed!**
13. Allow the chassis to warm-up for several hours before making any measurements or adjustments!
14. Following any adjustments to internal components, the chassis cover should be reinstalled.
15. Route the printer cable in the cable clips on the chassis leaving sufficient slack to allow the door to close. Plug the printer into the appropriate socket.

Packing For Shipment

1. If the chassis is to be packaged with Styrofoam peanuts, BTECH requests the assembly be bagged. It is important that the unit be properly packed to prevent damage to the unit!
2. Prior to shipment to BTECH, obtain an RMA number from the factory and return the assembly to:

BTECH Inc.
10 Astro Pl,
Rockaway, NJ 07866
(973) 983-1120