

## 9 Volt / 90 Volt A-B Battery Instructions

These instructions are for a battery using 60 AA cells for the B supply, and six D cells for the A supply. Ten 9-volt batteries in series may be substituted for the 60 AA cells.



The Zenith Z-985 AB battery and all compatible batteries, such as the Eveready 752 and RCA VS-047, work in all models of the Zenith Trans-Oceanic and clones such as the Hallicrafters TW-1000, TW-2000, and RCA Strato-World. The 7G605 Trans-Oceanic requires two flashlight batteries in addition to the Z-985 battery. The 8G005 series Trans-Oceanics require an additional 1.5-volt battery in series with the A (filament) supply. 600 series radios also have a separate 1.5v battery to power the dial light circuit.

Step 1. Install your connector in your battery box following the instructions that came with the connector. Disregard if your box came with connector installed.

Step 2. Connect the six 5x2 AA battery holders for the B power supply in series as shown in the wiring diagram.

Step 3. Connect the two 3x1 D battery holders for the A power supply in series as shown in the wiring diagram.

Step 4. Arrange the A and B cell holders in the battery box as shown in the diagrams and the photo above. Occasionally, it may be necessary to remove a bit of the corner of one of the D cell holders if it won't clear the male battery plug.

Step 5. Connect the A power supply to the A+ and A- leads of the male connector, observing correct polarity.

Step 6. Connect the B power supply to the B+ and B- leads of the male connector, observing correct polarity.

Step 7. Install batteries in the cell holders, making sure to install the batteries correctly. With fresh batteries, B voltage may measure as high as 96 volts, and A voltage, 9.6 volts. Use a voltmeter to verify correct voltages and polarity at the pins of the male battery plug before using your battery.

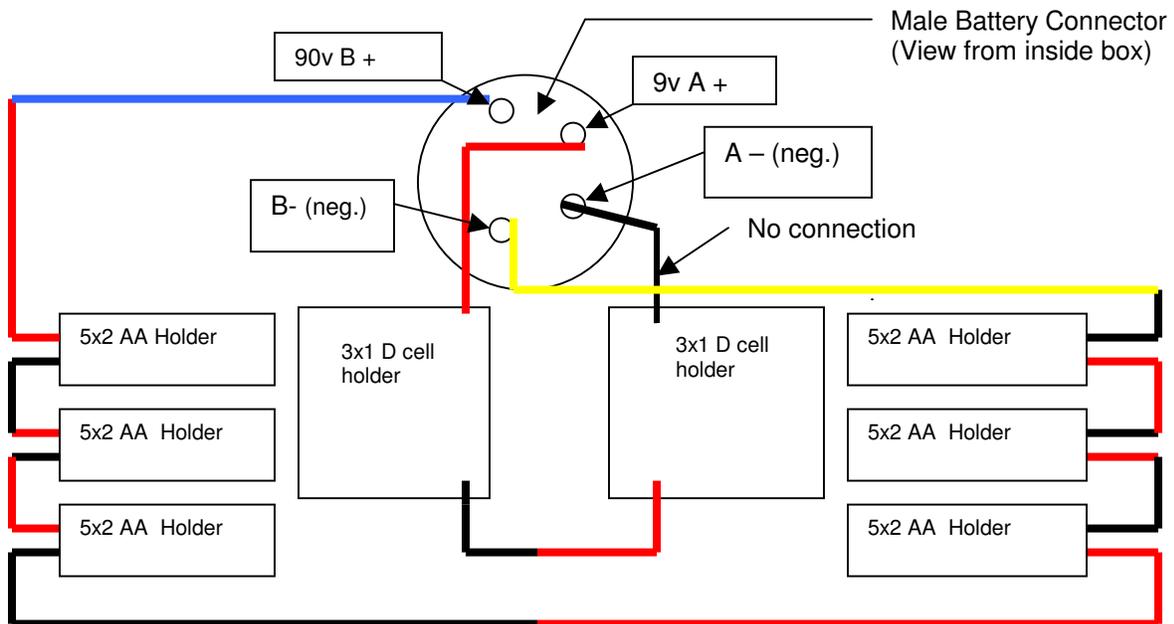
Step 8. Make sure your radio is off, and the AC power plug is correctly inserted in the battery switchover receptacle according to your radio model's instructions. While supporting the male battery side connector with one hand, align the pins and connect the female battery plug from your radio into the male battery connector with your other hand.

Step 9. Slide the battery box into the battery compartment of your radio. A piece of ribbon around the box makes it easier to remove from the battery compartment.

Step 10. Set your radio to the BC band and turn on the on/off/volume switch. Your radio should start playing within a few seconds.

If your radio does not work, please refer to the troubleshooting section of these instructions.

### **Battery Layout & Wiring Diagram (not to scale)**



## AB Battery and Connector Trouble Shooting Guide

Step 1. Make sure the AC plug is inserted into the battery changeover switch. For 7G605 and 8G005 series Trans-Oceanics, make sure you have also correctly installed the additional 1.5 volt batteries in series with the filament (A+) circuit. The 7G605 uses two D cells in parallel and the 8G005 radios use a Z-1 battery.

Step 2. Check voltages at battery side male connector

There should be 90 to 96 vdc between the B+ and B- pins  
There should be 9 to 9.6 vdc between the A+ and A- pins  
If voltages are correct, go to step 3

Step 3. If voltages are incorrect, check for the following:

Weak or dead batteries  
Incorrectly inserted batteries  
Incorrectly wired battery holders  
Bad joints or connections  
Defective connector (return for replacement or refund)

Step 4. If voltages at male connector are correct, check the radio side female connector

Pins not mating with female socket contacts  
Dirty or corroded contacts in the female socket  
Open connections in female socket connector

Step 4. Is your radio a 500 or 600 series Trans-Oceanic? These radios have a resistor embedded in the body of the female socket connector to augment B+ voltage and prevent accidental filament burnout when switching between AC and battery power. Check the value of the resistor between the A+ and B- pins in the female connector. The value should be 100 ohms. If the resistance is too high, it may decrease plate voltage below acceptable levels. Replace the resistor. This requires disassembly of the female socket connector.

You may also bypass the resistor by connecting the B- lead from the B power supply to the A- pin as shown below. If the radio now works properly, the problem is with the resistor or connection between the A+ and B- pins. There is no difference in the operation of the radio with the negative leads from the A and B power supplies both connected to the A- pin. To prevent accidental filament burnout, always turn radio off when connecting or disconnecting the battery or switching between AC and battery power.

