

ICT Universal Power Schematic

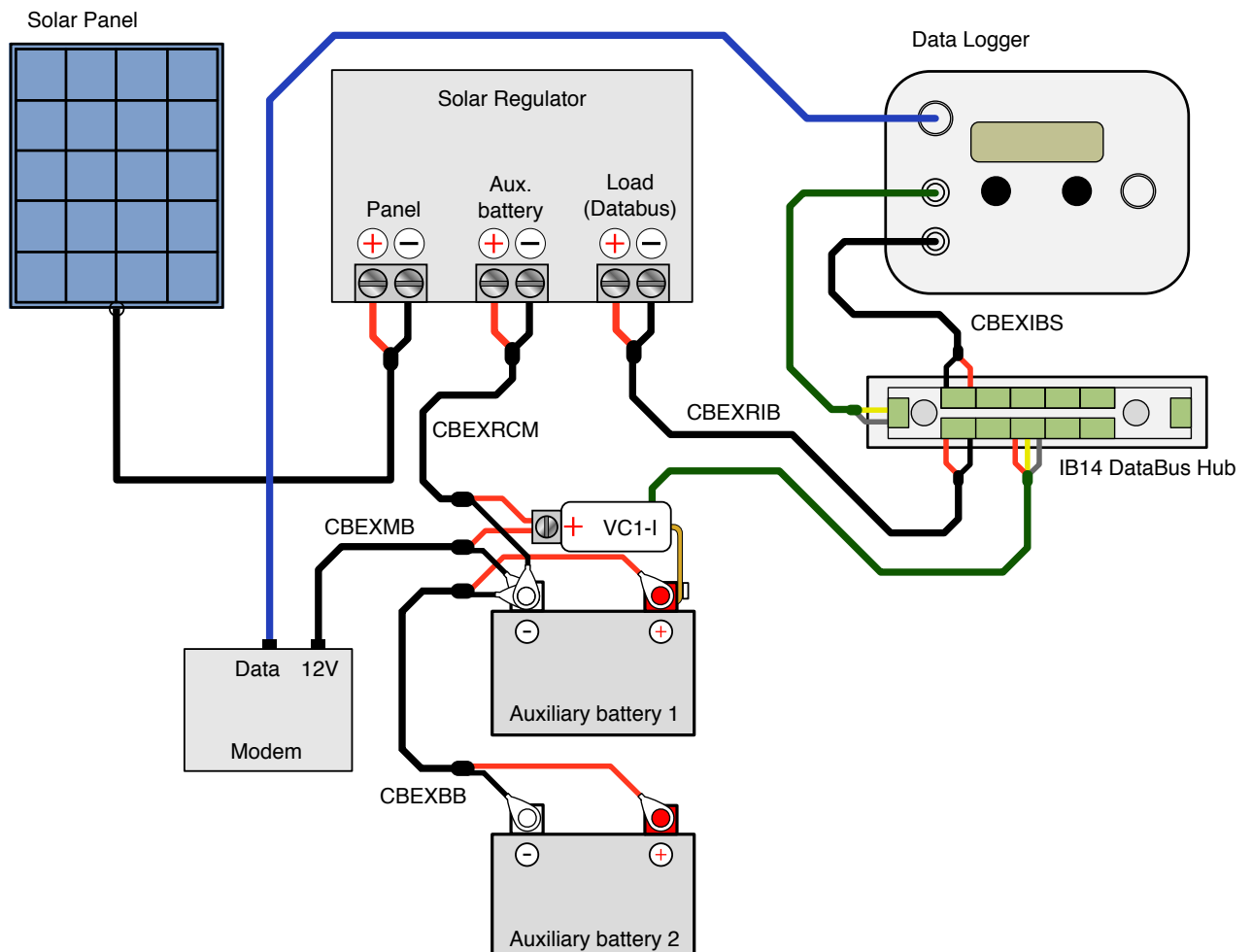


The VC1-I Battery Condition monitor is bolted directly to the positive terminal of the auxiliary battery. The screw terminal on the end of the VC1-I is then used to supply power to the rest of the system via the solar regulator. The solar regulator keeps the auxiliary battery system charged by passing charge current through the VC1-I.

The red wire on the cable that connects between the datalogger to the databus normally supplies 6V to the databus to power low current sensors. On systems that utilise an auxiliary 12V battery system, this red wire is removed so that if there is any fault on the databus that might discharge the auxiliary battery, then the logger battery will not be discharged as well.

On systems that utilise a modem for remote dial-up communication, the modem power is supplied directly from the auxiliary battery system rather than from the databus. The reason for this is that the solar regulator has a low voltage cut-off of its load output. If the auxiliary battery voltage drops below a certain threshold, the solar regulator will automatically disconnect the databus power. If the modem was powered from the databus, then remote dialup and diagnosis would not be possible.

In systems with an auxiliary 12V battery, the datalogger internal battery is charged from the databus power. The charging port of the datalogger has a protected input so that any faults on the databus will not cause the logger battery to discharge.



Warning: Customers should note that batteries pose a significant safety risk. A short circuit across the terminals or any cables connected to the terminals can result in melting or burning components or cables. Because the cables that connect the auxiliary batteries to the solar regulator need to be passed through the tube that joins the logger housing to the battery compartment, customers must follow a strict order of cable connection and disconnection.

When connecting the auxiliary battery to a system, the CBEXRBT cable must be passed through the compartment joining tube first and then connected to the solar regulator BEFORE the cable is finally connected to the auxiliary battery (or VC1-I if installed).

Similarly, when disconnecting the auxiliary battery for any reason, the CBEXRBT cable must be disconnected from the battery (or VC1-I if installed) before anything else.

If there are two auxiliary batteries being connected in parallel via the CBEXBB cable, then similar precautions as described above should also be observed. Connect the positives of both batteries first before connecting the two negative terminals. When the first negative terminal is connected, ensure that the negative terminal at the other end of the cable cannot come into contact with the positive terminal.

Once the auxiliary battery system has been connected to the solar regulator, then the solar panel and load outputs of the solar regulator can be connected. The solar panel is connected via the installed cable and the databus is connected via the CBEXRIB cable.

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