



Software Update:

GRATE SHAKE INTERVAL BUGFIX

ALL Power Labs Technical Bulletin: #TB-795-00014

Release Date: August 2016

Subject:

Software Upgrade to v1.3.4

Models: PP20 serial numbers PP1000 and greater

Symptom: Grate Shake interval changes when SD card is installed.

Cause: A software bug was found in v1.2.x - 1.3.3 of PCU firmware which causes the grate-shaking interval to increase to much longer than the designed and configured values. This only occurs when the SD card is installed and the effect increases with the number of log files present on the SD card.

Action: Updating firmware to v1.3.4 or greater will resolve the bug.

If updating the software is not immediately possible, running the PP without the SD card installed (always make sure the automation is powered off when removing or installing the card) will keep the grate-shaking interval correct.

Note: Downloading and then deleting the files from the SD card will reduce the effects of the bug, but it will not resolve it.

Firmware Upload:

To prepare to update the firmware you will need:

- Computer (running Windows)
- USB cable, A-B (Power Pallet's PCU has a B-type socket USB connector located on the Operation Panel Door (see image at right).
- An A-B USB cable was provided with your original user kit, which can be reordered from APL (APL part #115-00009 A), or which you may be familiar with as a standard printer cable.
- FTDI USB Serial Driver installed on computer (Driver software is required to communicate with the PCU via USB link. Drivers are available at <http://www.ftdichip.com/FTDrivers.htm>)
- Downloaded "KS_PowerPallet-v1.3.4-release.hex" file containing firmware code. This file will be provided at no charge by APL support, please email a request to support@allpowerlabs.com.
- Installed XLoader Software available at <http://russemotto.com/xloader/>



The latest *Operation Manual* and *Technician's Handbook* for your mode lare available online at www.allpowerlabs.com/support

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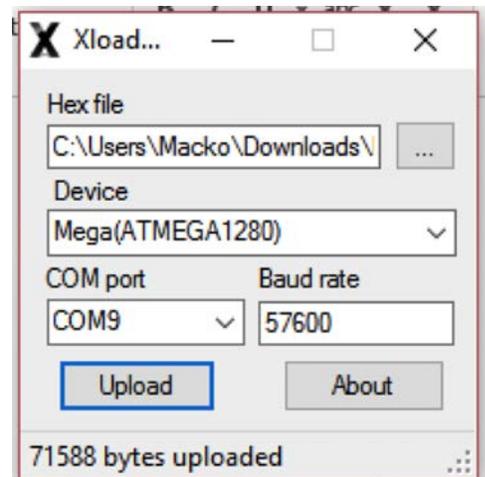
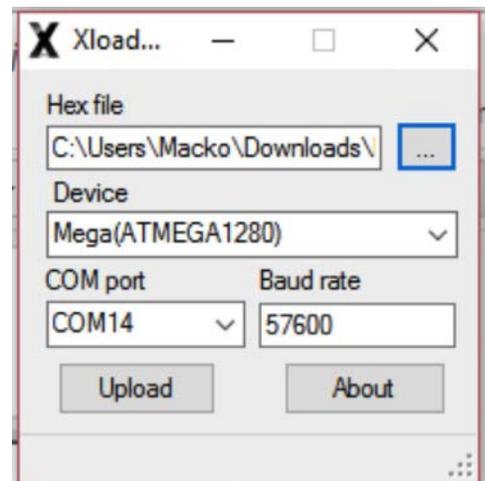
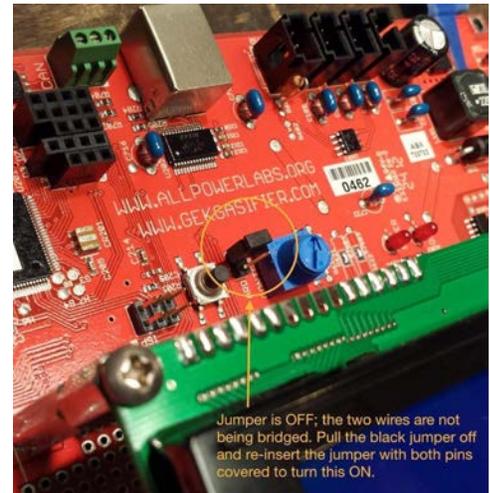
Upload Procedure:

Once all the proper drivers and software are uploaded and installed, proceed to upload the firmware onto your PCU:

1. Remove the PCU reset jumper from its one pin, as shown on the right, and reinstall it so that it connects the both pins (ARD). This puts the PCU into programming mode.

Warning: Engine must not be running and it is best to have the unit powered off when moving jumper.

2. Connect your computer to the programming port on the front operation panel door using A-B USB cable as described on the previous page.
3. Start the Xloader program on your computer and click in the blue box to navigate to the folder where you saved the KS hex file.
4. Turn on the Power Pallet using the power switch on the front control door.
5. Select the correct board type using the dropdown menu: "Mega (ATMEGA1280)"
6. Select the correct serial port using the dropdown menu. The exact name of the port will vary, but it will not appear in this menu before the Power Pallet is powered on. It may be the default port in the menu or you may need to select from one of the others below.
7. Press the "Upload" button. Wait for the upload to complete, which may take more than one minute. If it shows a "port not found error", try selecting a different port from the COM port dropdown, and re-try uploading. You can also check the COM port assignment in the "Device Manager" on your computer. If you still have trouble, contact APL support.
8. Power off the Power Pallet and return the programming jumper so it is mounted to only one pin.
9. Successful upload can be verified by the correct version number (v1.3.4) being shown on start up and on various other menu pages of the PCU display.



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