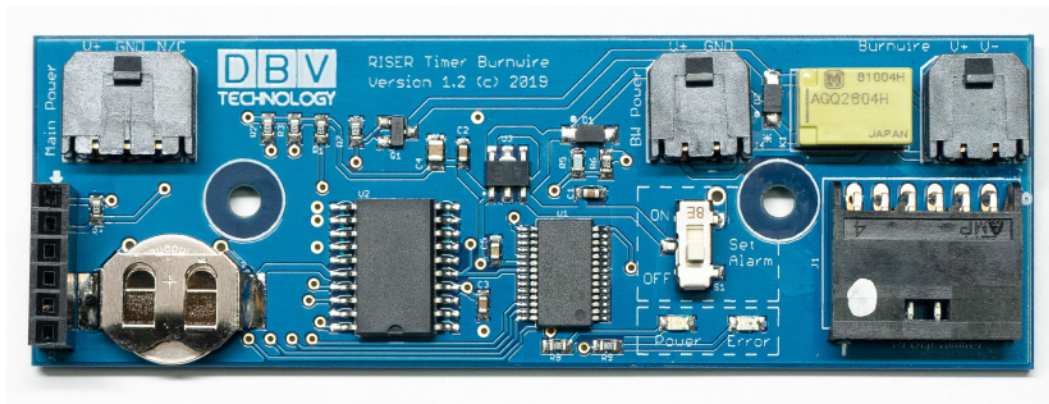
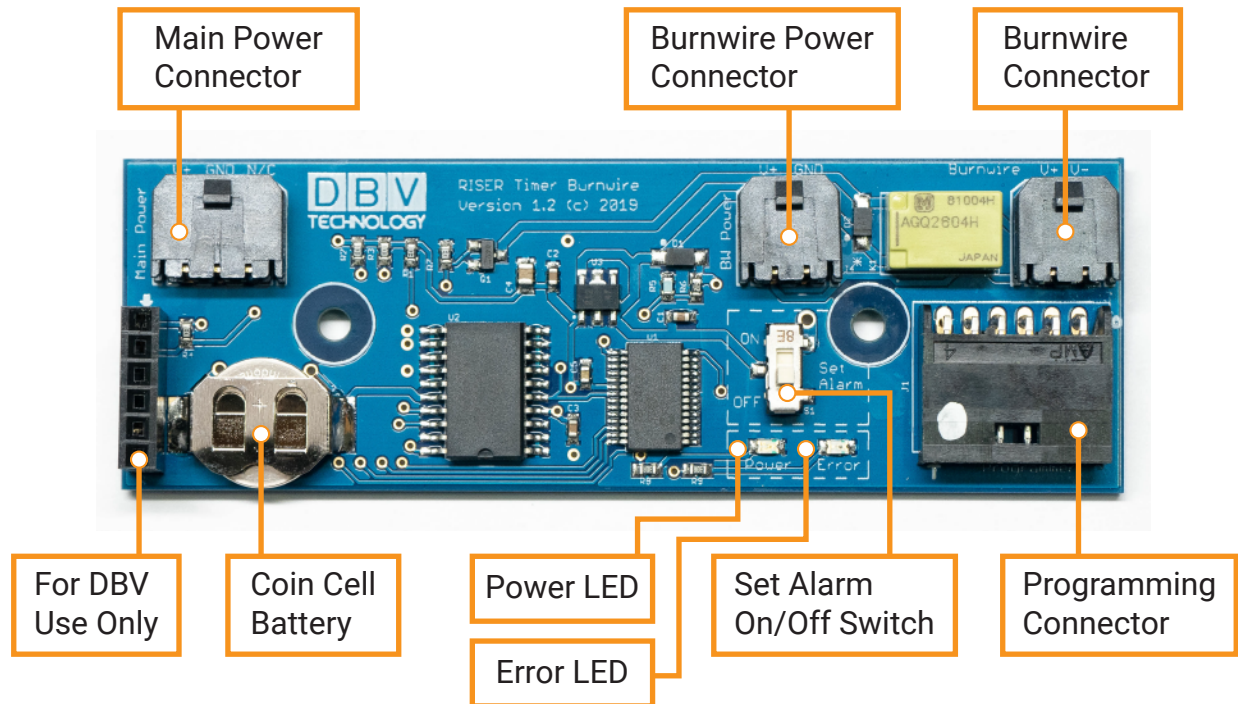


RISER Burnwire Programming Guide

RISER Timer Burnwire Version 1.2 © 2019



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Overview:

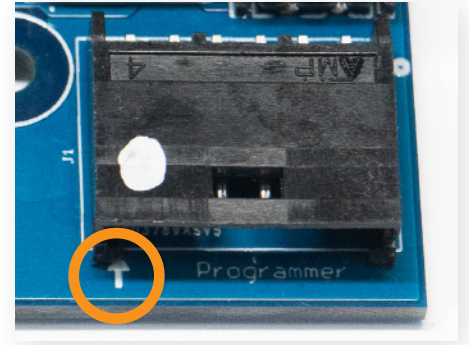
- Timer activated burnwire recovery system
- On board switch for activation of deployment mode
- Continuous power for 5+ years (using recommended supply)
- Programmed with the DBV "RISER-Timer" app
- Board Power: 3 Alkaline D cell batteries in series (4.5V nominal)
- Burnwire Power: 2 9V batteries in series (18V nominal)

Needed for Operation

- RISER Timer Burnwire Version 1.2 © 2019
- A DBV supplied android tablet with the "RISER-Timer" app installed
- DBV's RISER programming cable and supplied OTG cable

Programming Guide:

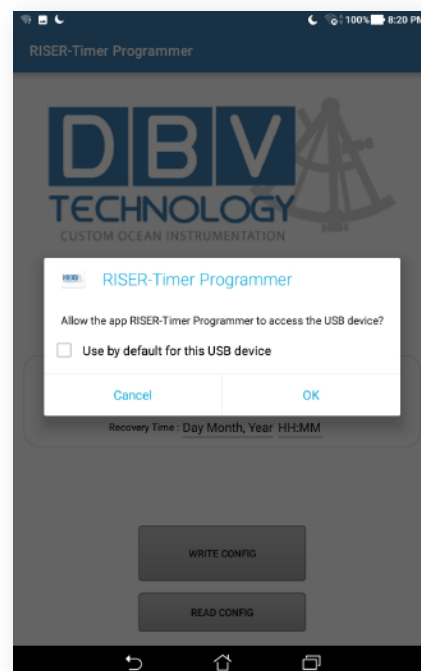
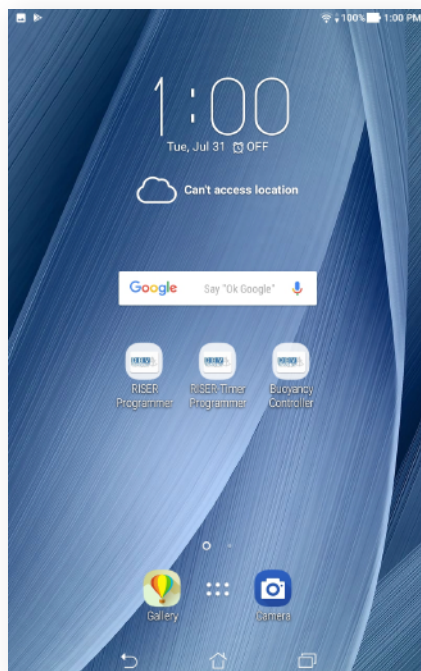
- 1 Prior to connecting the programming cable, ensure the “Set Alarm” switch on the PCB is in the “OFF” position.
- 2 With the programming cable disconnected from the tablet, insert the programming cable so that the silver dots on the connector and header are aligned. Doing this without the tablet attached ensures the electronics will not be damaged if the connector were to be incorrectly inserted.
- 3 Plug the USB connector end of the programming cable into the tablet. Notice that the “Power” LED cycles on and off three times indicating that the system is booting up.
- 4 Once the LED stays off, the system is ready to receive commands from the tablet.



Error Mode:

If the “Error” LED is blinking at any time during programming, an error has occurred. To fix this, simply unplug and reconnect the programming cable from the tablet to power cycle the electronics. If the error persists, reference the “Troubleshooting Guide” later in this manual.

- 5 Open the “RISER-Timer” App which can be found on the home screen of the tablet.
- 6 Once the app is open, a message will appear asking for permission to use the programming cable. Press “OK”.



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You will now see the Programming app as shown below:



- A Tablet Time:** Current time according to the tablet's internal clock. For most accurate time, make sure the tablet is connected to the internet. (Default)
- B GPS Time:** Current time on the tablet based off of the internal GPS module. (Can be selected using the toggle switch between GPS Time and Tablet Time)
- C Current Time:** This is the current time according to the RISER Timer Burnwire electronics. This time is automatically updated to either "Tablet Time" or "GPS Time" every time the system is programmed to maintain accurate timekeeping.
- D Recovery Time:** This is the user selected time at which the recovery system activates the burnwire (activation only occurs in deployment mode).
- E Write Config:** This button is used to program the instrument to the user selected recovery time.
- F Read Config:** This button can be used to verify the current time and recovery time are set properly on the recovery device.

***IMPORTANT NOTE: All time is displayed in 24 hour format.
The time zone should also be taken into consideration when
programming the system so that recovery time can be
adjusted accordingly.***

- 8** Set the desired recovery time by pressing on the "Day Month, Year" and "HH:MM" entry fields. Once the Recovery Time is set, Pres the "WRITE CONFIG" button. The "WRITE CONFIG" button will turn green and display "WRITE SUCCESSFUL" to indicate that the system has been programmed successfully. If there are any issues programming the system, the button will turn orange and display "WRITE FAILED" or "NO RESPONSE." If either of these unsuccessful writes occur, simply try again, or disconnect the programming cable from the tablet and try again.

Three Possible Responses from pressing WRITE CONFIG:



- 9 (Optional) Press “READ CONFIG” to verify that the recovery time is set. Read config will update the Current Time and Recovery Time fields.
- 10 Once the system is programmed to the desired settings, remove the programmer from the tablet first, then remove the other end from the burnwire circuit board.
- 11 If the system is ready for deployment, flip the alarm switch to the “ON” position.

Deployment Instructions:

- 1 On the circuit board, locate the “Set Alarm” switch and flip to the “ON” position. This will provide power to the electronics so that the system will activate the burn wire when the recovery time is reached.
- 2 **(IMPORTANT)** Once the electronics are powered up the “Power” LED will brighten and dim three times before flashing on and off three more times indicating that the system has received power and is in the deployment mode. This step is crucial to determining if the system is operating properly. If the “Error” LED flashes red when the system is turned on **DO NOT DEPLOY**. This error indicates that the programmed alarm time is set for a time that has already passed, therefore a deployed instrument will not resurface at the desired time. If this error is ignored, the burnwire will automatically activate after one minute to avoid loss of equipment.
- 3 The system is now ready for deployment.

Troubleshooting Guide:

Error Mode (blinking “Error” LED):

If an error has occurred, it may be because the programmed recovery time has been set to a date that has already passed.

Turn the unit off (“Set Alarm” switch to “Off”), connect the programming cable as described in the programming guide and check the stored Date/Time.

If the current Date/Time is correct, check the programmed recovery time. This may not be set properly. Reprogramming the device will usually fix this error.

If Date/Time is incorrect or reads 0s, this usually indicates that the coin cell battery is dead. Replace the coin cell battery then reprogram the unit.