

Atari Jaguar Alpine Modification

Remote Debugger Halt / Reset Modification

by Glenn Bruner

This document is for Jaguar owners who are lucky enough to own a Alpine board. This document will describe how to perform the necessary modifications to a Alpine board to use the remote halt and reset commands available in the PC and Linux versions of WDB and RDBJAG.

Note: as with any hardware modification care should be taken to avoid irreparably damaging your Alpine board. Make sure you use the proper tools for the job. If you are uncomfortable using a soldering iron, find an experienced person to perform this modification for you. **YOU ASSUME FULL RESPONSIBILITY FOR YOUR ALPINE BOARD WHEN PERFORMING THIS MODIFICATION. I WILL NOT BE HELD LIABLE FOR ANY DAMAGE CAUSED TO YOUR BOARD.** I have taken great care to ensure this document is fully accurate. But I am human and can, from time to time, make a unintentional mistake. Now on with the instructions...

What this modification will do for you is to allow use of the RESET and HALT commands in the Windows DeBugger (WDB) and RDBJAG. These commands are handy to regain control of a Jaguar that has crashed due to faulty code or to stop a program to allow single stepping through code. If you have your Jaguar sitting out of reach of your computer, this saves a lot of getting up and done and cycling power.

Pictured in Figure 1 and 2 are images of the front and back of a Alpine board that has modification already installed. I've used colored dots to represent the locations where wire ends are soldered to. This will help in clearly understanding where to make the wire connections at. This whole modification will require four pieces of wire and one circuit trace cut.

For this modification you will need:

- solder & fine tip soldering iron
- wire wrap wire, available at Radio Shack
- razor blade (for trace cut)
- isorpyl alcohol (to clean up solder flux residue)
- needle nose and wire cutters
- hot glue gun (to tack down wire after modification is done)

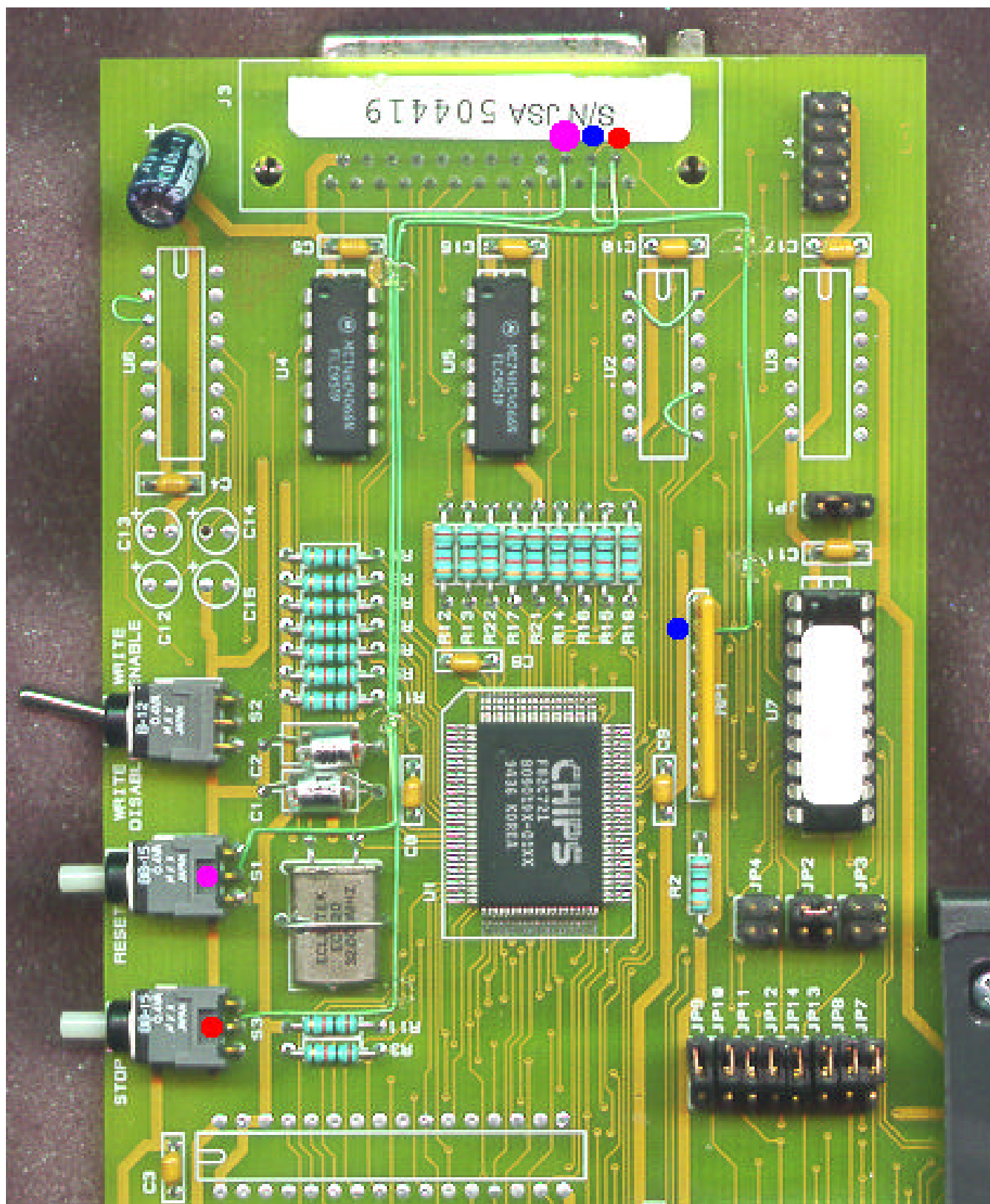


Figure 1. Alpine Front Side

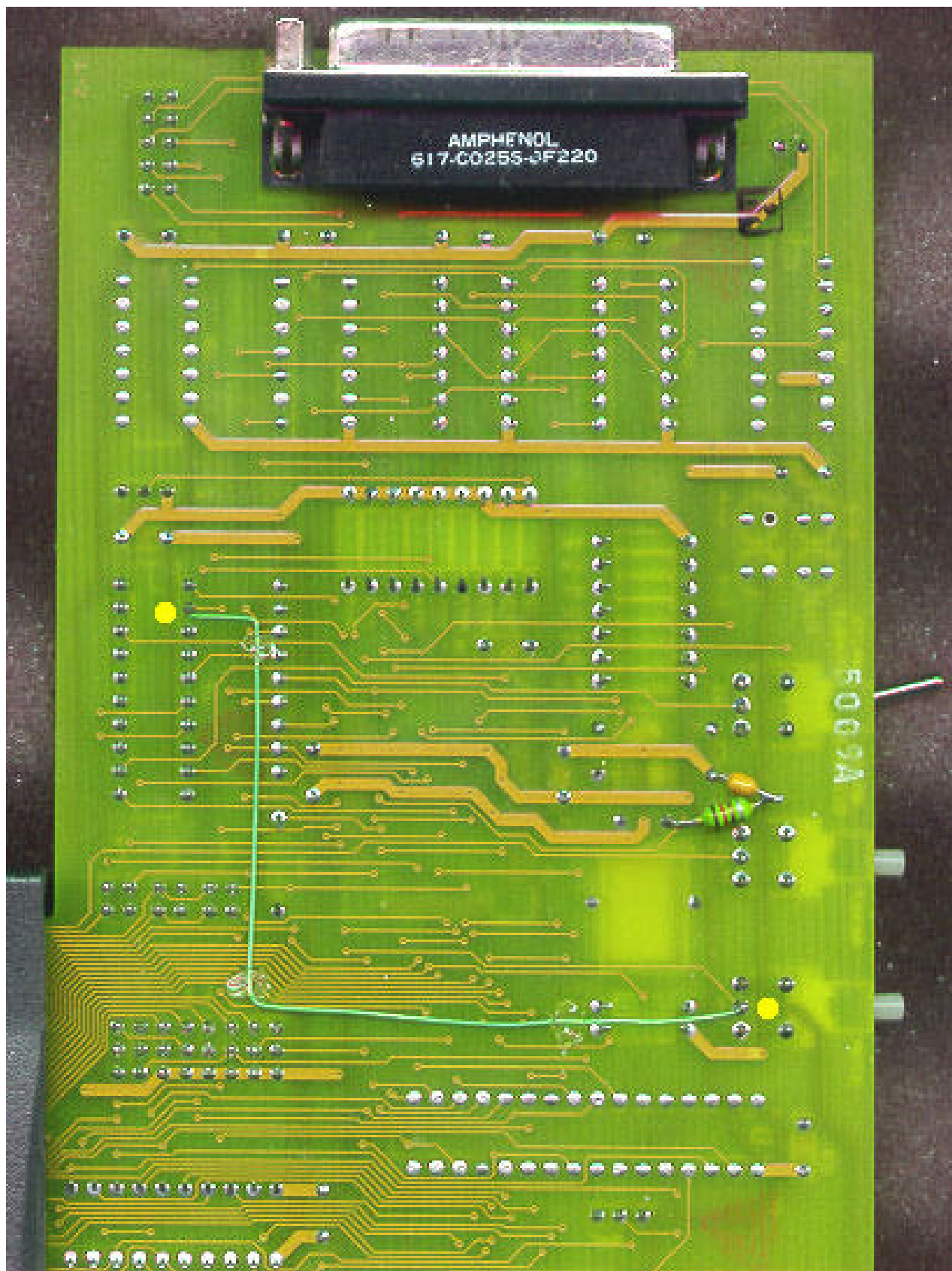


Figure 2. Alpine back side

Modification steps:

1. Using a razor blade or Xacto knife, cut the trace coming from Pin 14 of connector J3 (parallel port connector) going to chip U1. The best place to perform this cut is right at pin 14 on the component side of the board. See Figure 3 for a visual description of where this is.

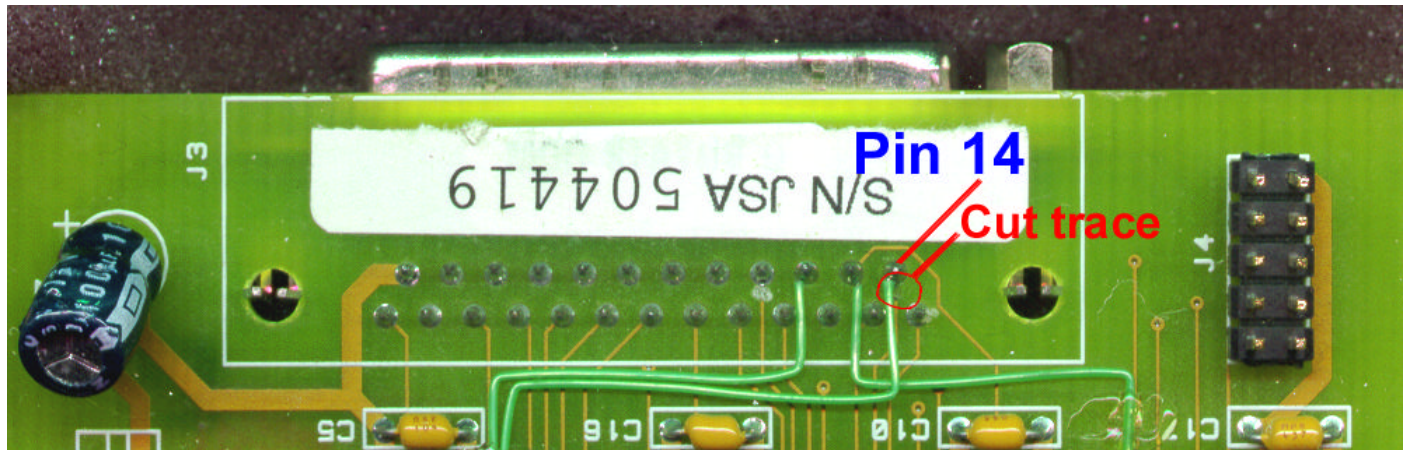


Figure 3. Pin 14 trace cut location

2. Using the wire wrap insulated wire, make the following connections (refer to Figure 1 and 2 for visual description of wire solder locations).

- Connector J3 Pin 14 to Switch S3 (Stop) middle terminal (red dot to red dot ; Fig. 4)
- Connector J3 Pin 16 to Switch S1 (Reset) middle terminal (purple dot to purple dot ; Fig. 4)
- Connector J3 Pin 15 to Resistor Pack 1 (RP1) Pin 2 (blue dot to blue dot ; see Fig. 5)
- U7 Pin 2 to Switch S3 (Stop) middle terminal (yellow dot to yellow dot ; make this connection on the back side, solder side, of the board ; see Fig. 2)

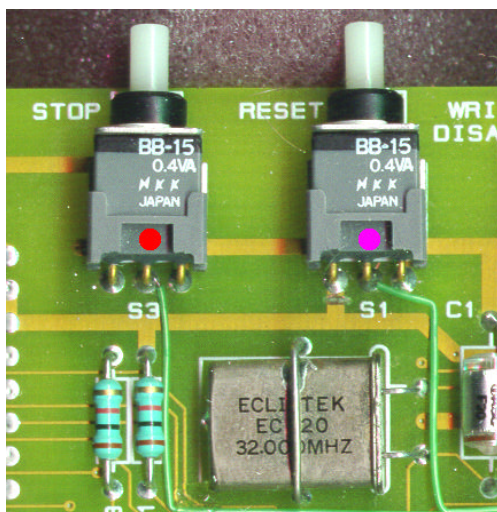


Figure 4. Switch connections

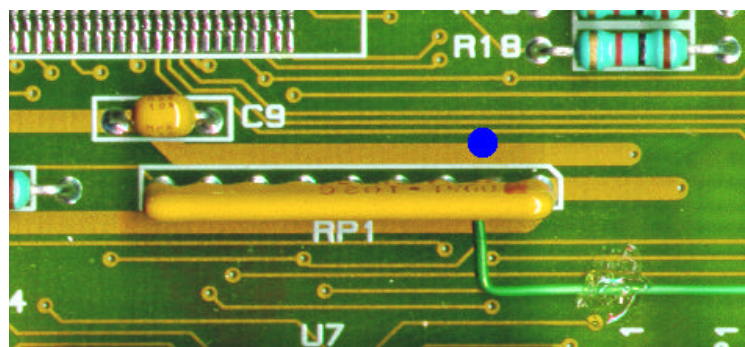


Figure 5. Resistor pack connection

That's it. I hope you enjoy this modification and find it useful. I would like to thank Carl Forhan of Songbird Productions for making this document a possibility. It was his kindness in loaning me a Alpine that had this modification for study. If I get enough requests, I'll document the MIDI add-on board modifications. Cheers!