

xr25_diag: hardware interface

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1 Introduction

This document briefly documents the hardware required to interface the ECU diagnostics port. For other instructions, see `README.md` in the parent directory.

2 Hardware

The hardware is based on a FTDI FT232RL RS232 \leftrightarrow USB converter; off-the-shelf hardware can be used here, e.g. the Arduino Serial-to-USB mini. Hardware drivers are most likely bundled as part of your GNU/Linux distribution. Thus, the device should appear as `/dev/ttyUSB0` or similar. In addition to the FT232RL, the circuit in figure 1 is required to adapt the ECU voltage levels to the FT232RL inputs. The RXD input is to be connected to the FT232RL RXD pin. This schematic is provided for reference; other circuits can be found on the Internet.

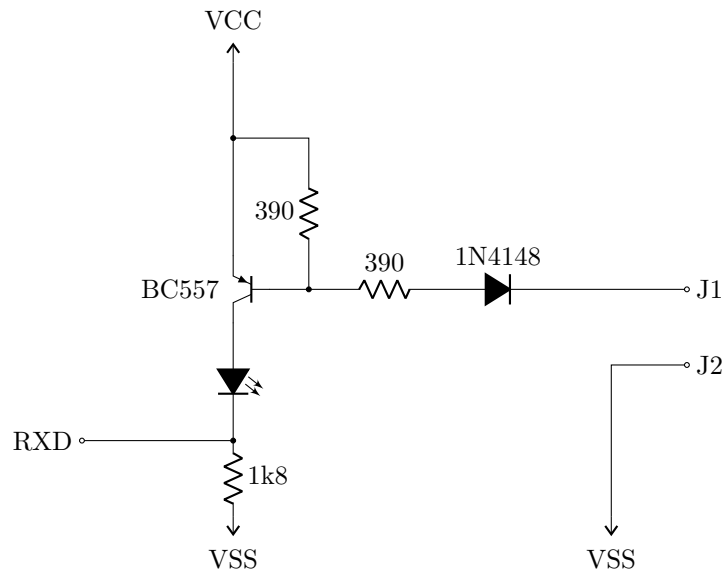


Figure 1: XR25 receiver schematic

The J1 and J2 pins should be connected, respectively to pins 2 and 9 on the Renault 12-pin diagnostics port, as shown in figure 2.

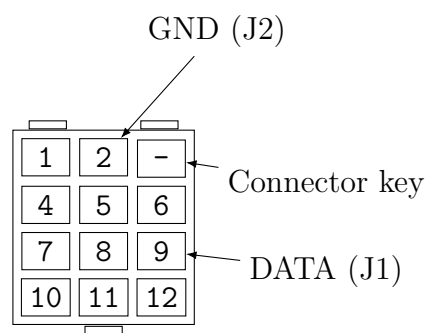


Figure 2: Renault 12-pin diagnostic connector (front view)