

LTG38 Connections and Cables

The Polycorder program GPS38 requires usage of a cable connecting the Polycorder and GPS data logger. The instrument split cable can be obtained from Geonics, while the extension that can be used in the EM38 or EM31 connection can be obtained from Geomar. The cable can be also easily built by the user following the below description. In addition to cable configuration, the connection between the EM38, Polycorder, and GPS data logger is described.

Cable Configuration

Normally, the logger is connected to an EM38 by a Geonics instrument cable. While using GPS38 the single serial port of the Polycorder must be connected simultaneously to the instrument and to the GPS data logger. Therefore, the 25 pin connector connected to the Polycorder must contain two cables, one leading to the instrument and another cable connecting the employed GPS data logger. The configuration of this cable is given in Figure 2.

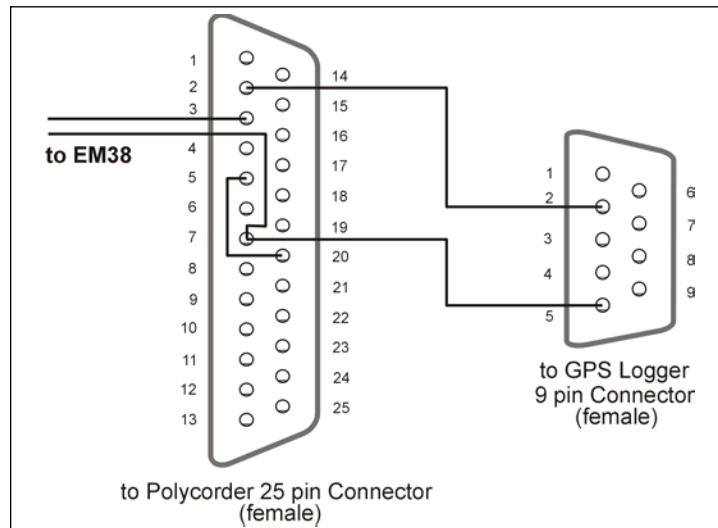


Figure 1: Wiring of the split cable for the EM38

It is important that in the 25 pin connector, pins 5 and 20 are connected and pin 2 must not be connected to the instrument.

Connection of the System

Two possible connections are presented in Figures 2 and 3.

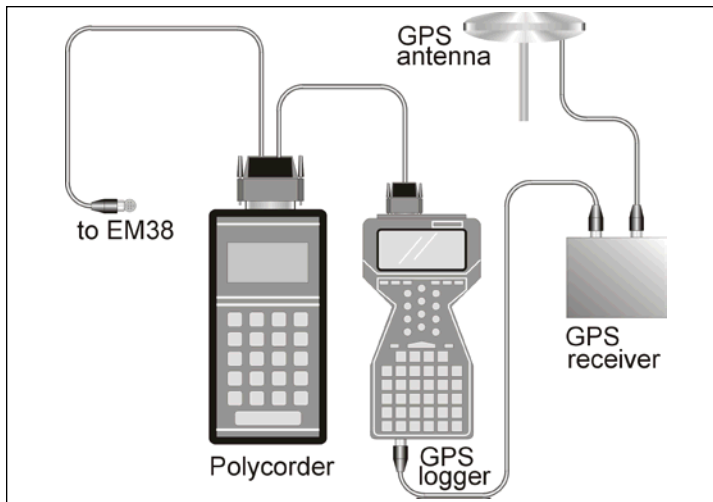


Figure 2: The EM38, Polycorder, and GPS data logger (TDC2) connection diagram

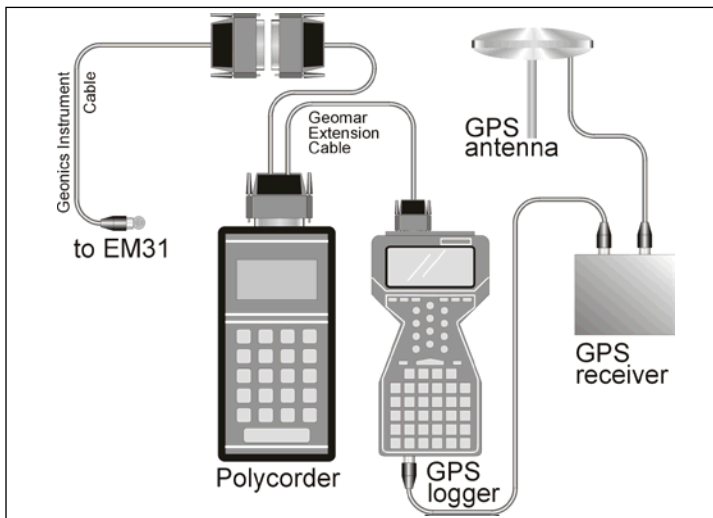


Figure 3: The EM38, Polycorder, and GPS data logger (TDC2) connection diagram with the Geomar extension cable

This type of system connection can be used when the EM38 is used in a system where the instrument is mounted on a trailer and towed by a vehicle. In the Trimble data loggers TDC2 or TDC1 the left top port (9 pin connector) is to be connected to the Polycorder, and the top connector is to be used in the Trimble TSC1 field computer (it may require interface to the 9 pin RS232 connector).