



## VDS HOW-TO SERIES: IMPLEMENTING TELEMETRY

### Introduction

In this How-To article, we explain the steps required to get an external MODEM working with a VDS3000/4000 data logger or volume correcting logger.

### Requirements

- A VDS3000/4000 with the latest firmware installed. To download the latest firmware, please visit [vds.vipac.com.au](https://vds.vipac.com.au).
- A VDS3002 RS-232 interface unit.
- A computer with Gas Explorer installed, and either the VDS serial link cable or a VDS3001 ZigBee radio dongle.
- A MODEM with a serial (RS-232) interface.
- External power (mains, solar, wind, etc) to the VDS logger. If the VDS is installed in the hazardous area, then the power must be isolated using an approved barrier. Please note: it is possible to configure the VDS3000/4000 in push telemetry mode, meaning that the logger periodically initiates the connection (rather than listens actively for incoming connections) and can therefore be run purely on battery power. Please contact Vipac for further instructions on how to do this.

### Steps

1. Connect the external power to the VDS logger. Refer to the manual for steps and all safety precautions. The latest manual can be found at [vds.vipac.com.au](https://vds.vipac.com.au).
2. Connect the VDS3002 to the MODEM and connect the power to both. The VDS3002 is preconfigured and ready to go out of the box. Refer to the MODEM manual for steps to configure it.
  - a. If you are intending to use circuit switched data (traditional “phone-call” telemetry, using a phone number) then enable auto-answer.
  - b. If you are intending to use packet switched data (TCP or Internet telemetry, using a hostname or IP address) then record which hostname/IP and TCP port it is configured to receive socket connections on.
3. Connect to the VDS logger using Gas Explorer. If the logger is configured in the hazardous area, then for your safety you must use a VDS3001 ZigBee connection.
4. Under the General Configuration tab, check the “Enable radio server” checkbox. This will cause the VDS logger to enable radio telemetry, when powered externally, for both the Modbus and Gas Explorer protocols.
5. Reboot the VDS logger.

Configuration is complete at this point. You should be able to connect to the VDS over telemetry, using either Gas Explorer or your SCADA Modbus master interface.

- a. If you have enabled circuit switched data, connect using the “Modem” tab in Gas Explorer and enter the MODEM’s phone number in the “dial-in number” field.
- b. If you have enabled packet switched data, connect using the “Network” tab in Gas Explorer and enter the MODEM’s IP address or hostname, and the TCP port on which it is listening.

### Troubleshooting

For all troubleshooting, contact VDS support using one of the contact methods found at [vds.vipac.com.au](https://vds.vipac.com.au)