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INSTALLATION MANUAL

UDL-Modem

V.21, V.22 and V.22bis Modem

CE

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Contents

The *UDL-Modem* conforms to European Union (EU) Low Voltage Directive (LVD) 73/23/EEC (amended by 93/68/EEC) and Electro-Magnetic Compatibility (EMC) Directive 89/336/EEC (amended by 92/31/EEC and 93/68/EEC).

The CE mark indicates that this product complies with the European requirements for safety, health, environment and customer protection.

1. Regulatory Requirements

The *UDL-Modem* unit must be installed by an electrically competent person. Before attempting to install the *UDL-Modem* unit, the installer must be aware of the regulatory requirements detailed in this section.

Application

The *UDL-Modem* is suitable for connection to the following types of telephone line:

- Direct exchange lines (PSTN).
- PABX exchanges (with or without secondary proceed indication).

Approval

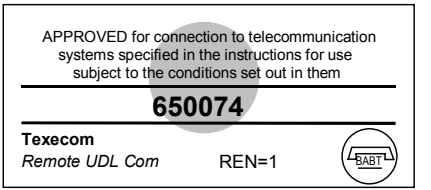
The *UDL-Modem* is classified as a Stand Alone Modem Apparatus and has been approved for connection to analogue PSTN in the UK for the following usage:

- Host Independent Modem (Answer Only Operation)
- Serial Connection
- Hard-wired connection to the network

Any other usage will invalidate any approval given to the apparatus, and as a result the apparatus ceases to comply with the standards against which the approval was granted. The standards against which the approval was granted are as follows:

- TBR 21
- EN 41003
- EN 60950

The apparatus is marked in accordance with the Telecommunications Apparatus Marking and Labelling order 1985 (SI 1995 / 717).



REN Rating

As a guide to the number of apparatus that can be simultaneously connected to an exclusive line, the sum of the REN values must not exceed 4. A BT telephone is assumed to have a REN = 1 unless otherwise marked.

The *UDL-Modem* has REN = 1.

2. Overview

General

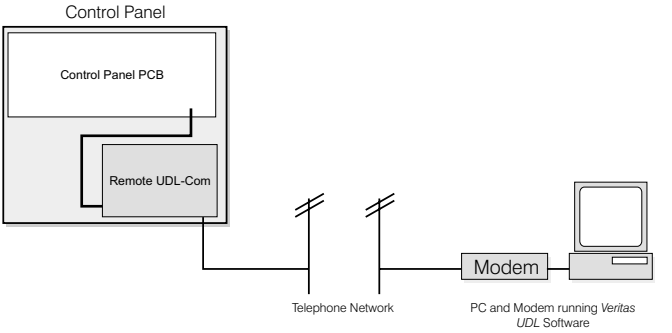
The *UDL-Modem* consists of a single PCB enclosed in a small plastic case. It is compatible with the following Control Panels:

- *Veritas R8 Plus*
- *Veritas Excel*
- *Veritas Digitas XL*

The unit is connected to the Control Panel via a 4-wire harness (supplied) and can be mounted inside the Control Panel. Connections are provided to connect the *UDL-Modem* to the Public Switched Telephone Network (PSTN).

In order to use the *UDL-Modem* you will require a PC with Windows 95, 98 or NT and an analogue modem that supports V.21, V.22 or V.22bis operation.

To obtain your FREE copy of the *FastCom Programmer Software* and *Veritas upload/download (Veritas UDL)* software please complete and return the Software Registration form enclosed with the UDL-Modem.



The *UDL-Modem* can accept serially connected telephone apparatus. When the *UDL-Modem* is online it will temporarily disconnect all serially connected telephone apparatus (e.g. phones, answer-phone, etc.) so that they do not interfere with data transmission. This means that the *UDL-Modem* does not have to be connected to a dedicated telephone line.

Operation

In its normal mode of operation the *UDL-Modem* will monitor the telephone line for an incoming ringing signal. The LED flashes once every second when the unit is in this mode. Once the ringing signal is detected the following sequence of events occur.

- The *UDL-Modem* will pick up the telephone line, and establish a connection with the remote modem. If a connection is established the LED will flash at a faster rate.
- Once the connection is established the remote user may upload data from the control panel or download data from a PC.
- Once the remote user has finished, the remote modem will go offline forcing the *UDL-Modem* to hang up and return to its normal mode.

3. Installation

Connection Status

Connection terminals on the *UDL-Modem* are described as either "Safety Extra-Low Voltage" circuits (SELV) or "Telecommunications Network Voltage" circuits (TNV).

The PCB layout and table below shows the two types of circuits.

- It is important that the installer ensures that TNV connections are only connected to the PSTN, and SELV circuits are only connected to other circuits designated as SELV circuits.
- Interconnection circuits should be such that the equipment continues to comply with the requirements of 4.2 of EN 41003 for TNV circuits and 2.3 of EN 60950 for SELV circuits, after making connections between circuits.

UDL-Modem PCB Layout

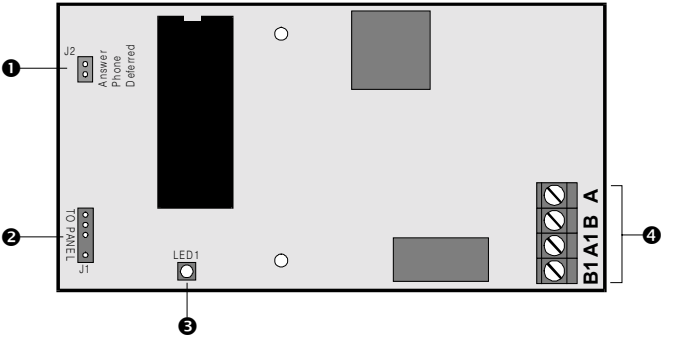


Figure 1. UDL-Modem PCB Layout

No	PCB Reference	Safety Status	Description
❶	J2 – Answer Phone Deferred Pins	**SELV**	**Jumper Removed**: Answer-Phone Deferred Disabled – The *UDL-Modem* will answer any incoming calls after approximately three rings and attempt to connect with the remote modem. **Jumper Fitted**: Answer Phone Deferred Enabled – In order for the *UDL-Modem Module* to establish a connection, the remote PC will dial in and then hang-up the call after a pre-programmed delay. The remote PC will dial in again and the *UDL-Modem Module* will now answer the call and attempt to establish a connection with the remote modem.
❷	J1 – To Panel	**SELV**	4-pin connector to control panel. Use harness supplied with unit.
❸	LED 1	-	Status LED, flashes every second whilst *UDL-Modem* is idle. Flashes fast when the *UDL-Modem* is online
❹	A B A1 B1	**TNV**	Telephone line connections.

Mounting the UDL-Modem

➢ **To install the *UDL-Modem* Proceed as follows:**

1) Isolate **ALL** power from the control panel (battery and mains). Do not attempt to continue if the mains or battery supply is still present.
2) Remove the two cover screws from the *UDL-Modem* and unclip the two halves of the case.
3) Plug one end of the 4-wire harness onto J1 and the other end onto the control panel connector (PL1 – PC-LINK). Ensuring that the harness enters through the cable entry knockout "A" (see Figure 2) in the base.
4) Ensure that the Answer Phone Deferred link "J2" is set for the appropriate setting, see Figure 1.
5) Secure the *UDL-Modem* to the control panel base using the self-adhesive pads.

6) Refer to "Telephone Line Connections".

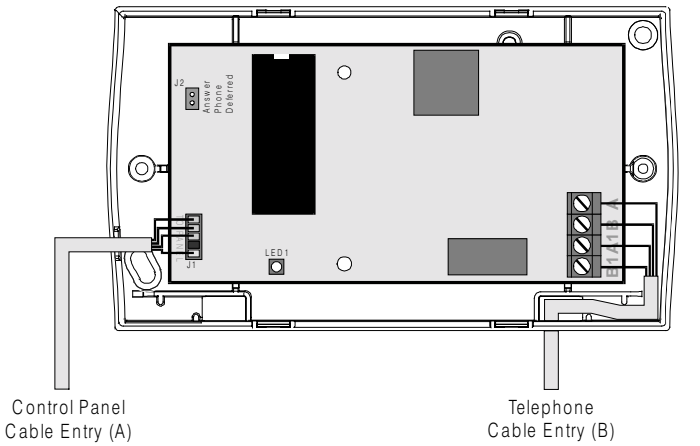


Figure 2. Cable Routing

Connecting the UDL-Modem to the Telephone Line

➢ **To connect the telephone line, proceed as follows:**

1) Connection to the telephone network must be made via an NTE5 master socket (Line Box).

2) Using the cable type 1/0.5mm CW1308, strip back 5mm of the required cores and feed through cable entry “B”.

3) CW1308 cable is available from RS Components (Part No. 368-413). Alarm or any other type of cable must not be used.

4) Connect the cores to the terminal blocks marked “A”, “B”, “A1" and “B1”.

5) Remove the two screws from the BT master socket and remove the bottom section from the master socket.

6) Connect the cable from the *UDL-Modem* to the BT master socket terminals.

7) A special insertion tool will be required to connect the cable to the master socket, this is available from RS Components (Part No. 470-487).

8) Replace the bottom section of the master socket and re-secure the two screws.

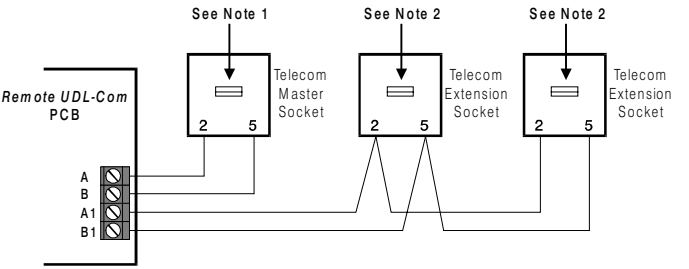


Figure 3. PSTN Connections

Note 1: All apparatus that require access to emergency services (999 & 112) must be connected to the master socket. Devices that do not require access to the emergency services such as faxes, modems and answer machines etc can be connected to the extension sockets (see Note 2 below).

Note 2: Devices that are connected to the extension sockets will be isolated from the telephone line whilst the *UDL-Modem* is active and therefore access to the line (including emergency services) during this period is inhibited.

Testing

➢ **Once all the installation steps have been completed, proceed as follows:**

1) Connect power to the control panel.

2) Observe that the LED on the UDL-Modem flashes once a second.

3) Ask the operator of the *Veritas UDL Software* to establish a connection and observe that the LED flashes at a faster rate when the connection is established.

4) Ask the operator of the *Veritas UDL Software* to perform an upload from the control panel.

5) Once the upload is completed ask the operator of the *Veritas UDL Software* to hang-up and observe that LED returns to its flashing mode.

6) Secure the cover of the *UDL-Modem* using the two screws supplied.

7) Finally replace and secure the cover on the control panel.

Clearing the NVM Security Password

The *Veritas UDL Software* has the option to send a password, which is stored in the *UDL-Modem's* NVM. Once the password is set any future communication attempts from the PC will only be accepted if the password in the PC matches the password stored in the *UDL-Modem.* The password for the *Veritas UDL Software* is configured in the modem setup screen, see the on line help for further details.

- **To clear the NVM password proceed as follows:**

1) Remove power from the *UDL-Modem* by unplugging the 4-wire harness.

2) Fit jumper link across J2 (Answer Phone Deferred).

3) Re-apply the power to the *UDL-Modem* by plugging the 4-wire harness back on.

4) Within 5 seconds remove jumper link J2, the LED will flash on and off three times to indicate that the NVM has been cleared.

5) Re-fit jumper link to J2 if Answer Phone Deferred is required.

4. Specifications

Supply	11.5V – 14V; 35mA dc (Standby); 100mA dc (Active) The installer must ensure that power drawn by the UDL-Modem plus any other auxiliary apparatus is within the rating of the control panel (host) power supply.
Supported Modes	V.21 (300 baud), V.22 (1200 baud), V.22bis (2400 baud)
Case Size	135(w) x 77(h) x 28(d) mm.
Weight	200g
Environment	0 – 40 °C
REN	1.0
BT Approval	650074

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Website http://www.texe.com

Technical Support (non-registered installers): 0891 617117

Calls charged at 50p per minute

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