

4 Wire LL with PSTN Backup

Using TD36 485s



Introduction

The leased line to PSTN backup mode is very simple and effective on the TD36 485 but has the physical limitation of only working on 2 wire leased lines as the other 2 wires are linked to the PSTN backup.

This application note describes a working installation that has a pair of TD36 485 modems for 4 wire leased lines and another pair of TD36 485 modems for the PSTN backup. The application also required that the RS232 PLC's used at each could talk down either of the modem links depending on which one was active so MDW45s are used at each site to connect the modems.

Principle Of Operation

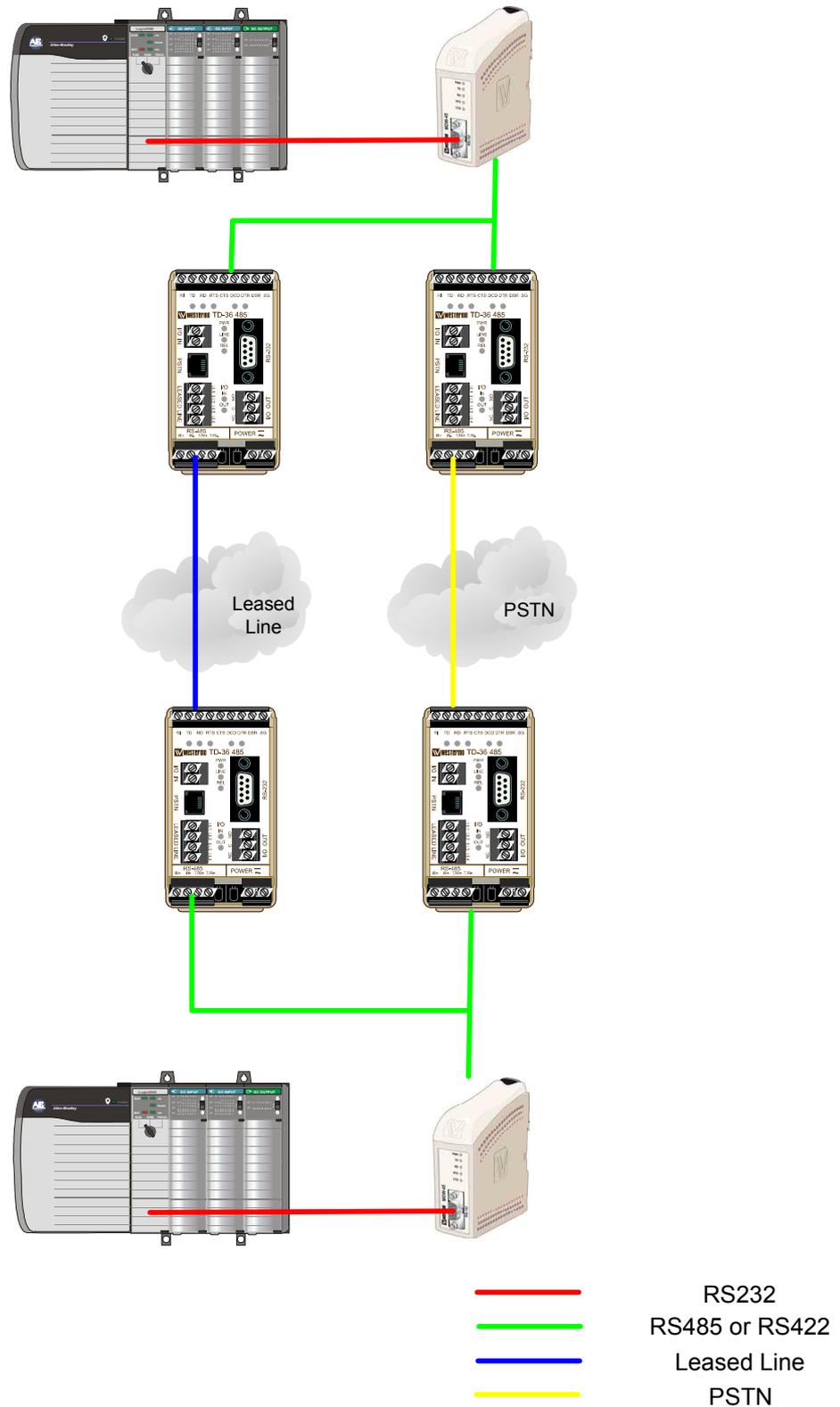
One of the sites was designated as the Master and the leased line modem at this site was configured so that the relay output on the modem followed the state of DCD on the modem. The 24VDC power for the PSTN modem was wired through the leased line modems NC or normally closed output so that when the leased line was down then the PSTN modem powered up but when the leased line modem trained up and connected then the PSTN modems power was disconnected as the normally closed output opened. If the leased line modem loses its settings or becomes faulty then the normally closed output would pass power to the PSTN backup modem.

If the leased line modem loses connection and the PSTN modem is powered up then the PSTN modem needs something to trigger the modem to dial. As RS422 was used to connect the modems and MDW45 then DTR dial could not be used. As the PLC's used were polling watchdog messages then TX Hotcall could be used to trigger a dial up connection on receipt of data by the PSTN modem.

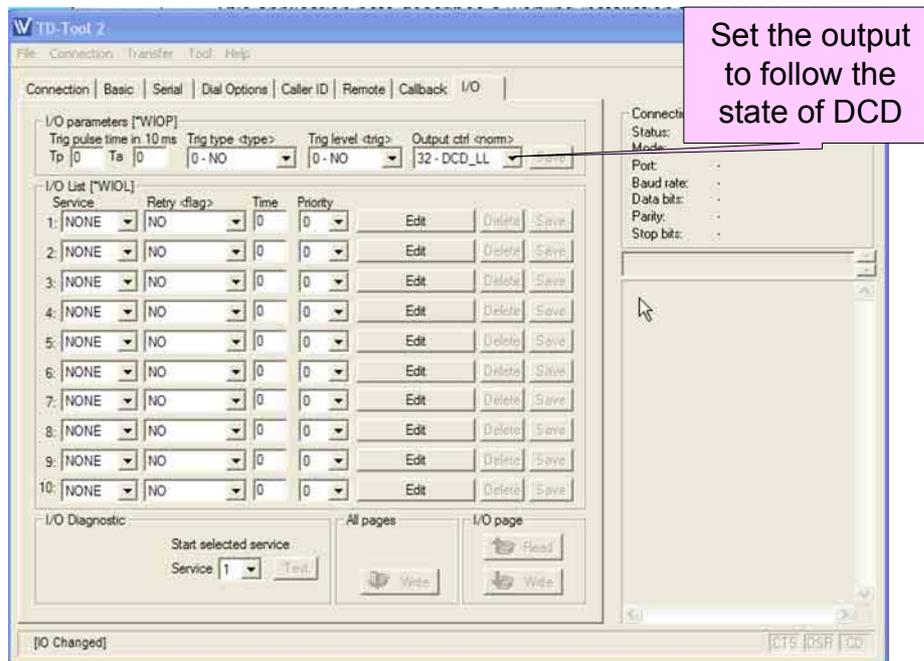
The remote 'slave' modems do not require any special wiring or settings.

TD36 485 Modem firmware version 4502 was used.

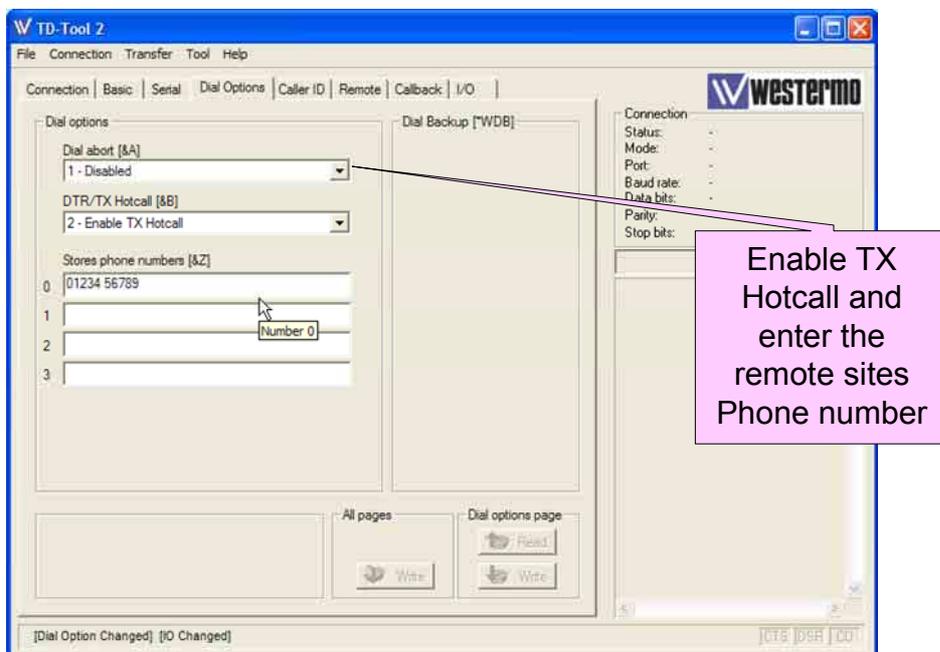
Overview



Leased Line Master TDDTool IO Configuration



PSTN Master TDDTool TX Hotcall Configuration



All other settings are normal for Leased Line or PSTN modes and can also be set on the DIP Switches



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