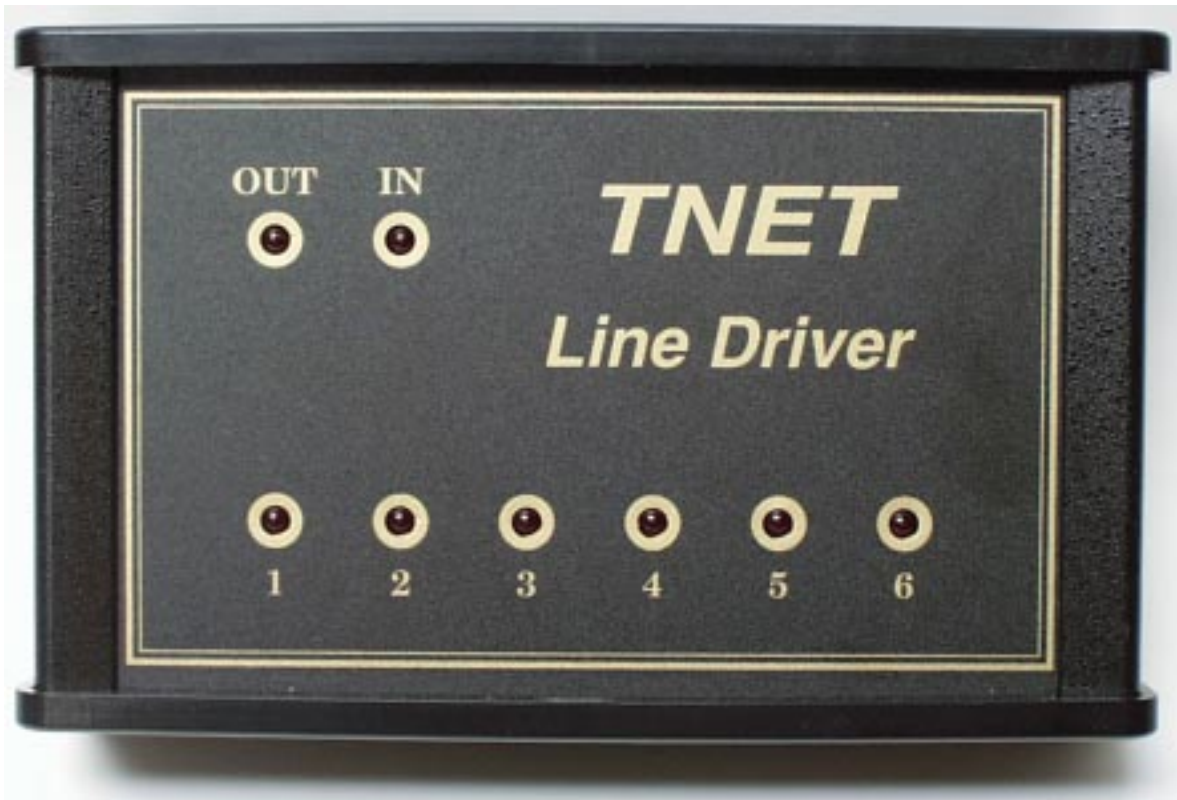


# TLD2 TNET LINE DRIVER



**THE TLD2 IS A USED TO CONNECT TERMINALS TO THE TNET SYSTEM.** The TNET (TransTerm Network) is a "Message System" where up to 250 data collection terminals send and receive messages from a single host computer. Each TLD2 provides additional ports to attach terminals to the TNET network. The TLD2 has one input port and seven output ports. Typically, the port labeled "IN" connects to the TNET Network Controller or another TLD2's "OUT" port, the ports labeled "1" through "6" connect to TNET terminals, and the port labeled "OUT" connects to another TLD2's "IN" port although all the output ports can connect to Terminals or other TLD2s.

**TNET TERMINALS** include a variety of Computerwise products. These devices must have the RS-422 TNET interface option. TNET terminals include the TT4B, TT5, TT5A & B, TT6, TT6A & B, TT9A & B, TK1 and TSD1. Barcode readers, (wands, lasers, CCDs, card readers) magnetic card readers, extra serial ports and several other options are available on most models. Other network devices include other TLD2s and TIM2Bs. The TIM2B is a remote RS-232 gateway into TNET. Modems, scales, printers and other types of RS-232 products can be connected to the TNET via a TIM2B.

**EACH TLD2 PORT IS ISOLATED AND PROTECTED** from noise and power disturbances. If a cable is damaged or a terminal receives a power surge only terminals "down stream" from the disturbance are effected.

**THE TLD2 BOOSTS THE SIGNAL STRENGTH.** The TLD2 acts as a line driver repeater by boosting the received communication signal to it's original signal strength. This allows a cable length of up to 2000 feet between TLD2s and other devices on the TNET Network (unless the cable also carries power).

**THE TLD2 CAN SUPPLY POWER TO ATTACHED TERMINALS** with some limitations. Powered terminals cannot be more than 100 feet from the TLD2, and different terminal options can effect a terminal's power consumption (ie attaching a handheld laser scanner). A device with it's own power adapter, can be up to 2000 feet from a TLD2.

**L.E.D. INDICATORS** on the IN, OUT and six device ports reflect incoming data activity at that port. The "IN" indicator will blink when the Network Controller is properly connected and the network is running. The "OUT" and "1" through "6" indicators blink when devices further down the trunk are connected and responding correctly.

**POWER ADAPTER JACKS** - The TLD2 has two power input jacks but is shipped with only one power adapter. Typically, the single adapter will provide power for the TLD2 and up to six (6) attached devices (depending on Terminal options). If more power is required, another adapter can be connected to the second power jack. Additional power may be required if a card reader, laser or CCD scanner, or some other high-powered device is attached to any of the terminals. In some cases, each Terminal may need a separate power adapter.

**NETWORK CONFIGURATION** - Up to 250 TNET terminals are connected outward from the TIM1B Network Controller using multiple TLD2s in a "star-node" topology. This topology has several advantages over other multi-dropped configurations. (See attached diagram)

**MODULAR PORTS** - All of the ports on the TLD2 are 8 pin modular jacks identical to the RJ-45 standard. The pin/signal lists for the modular jacks are listed below. Notice that the device ports and the "OUT" port are identical, but on the "IN" port, the transmit and receive pairs are reversed. This allows the use of straight through pin-to-pin modular cabling on the network.

**THE TNET INTERFACE** consists of seven RS-422 serial ports. The RS-422 interface allows cable lengths as great as 2000 feet between devices. These ports use RJ-45 modular connectors and connect directly to TNET terminals or TLD2s.

**TNET INTERFACE SIGNAL LIST (RS-422)**

RJ-45 Pin No.	IN Port Signal Signal Description	OUT & DEVICE Port Signal Description	Wire Color (silver satin)	TMA-1 cable adapter (on terminals)	
				RJ-45 pin No.	DB-25M pin No.
1	+12 VDC (Output)	+12 VDC (Output)	Blue	1	20
2	Ground	Ground	Orange	2	7
3	TD+ Transmit data +	RD+ Receive data +	Black	3	23
4	TD- Transmit data -	RD- Receive data -	Red	4	22
5	RD+ Receive data +	TD+ Transmit data +	Green	5	25
6	RD- Receive data -	TD- Transmit data -	Yellow	6	24
7	Ground	Ground	Brown	7	1
8	+12 VDC (Output)	+12 VDC (Output)	Grey	8	21
					3 strapped to 16

# Position 1 is on left-hand side of modular cable plug as you hold it pins up with tab facing away from you.

**SPECIFICATIONS**

o TNET Communication Port (inputs & outputs)

Serial asynchronous compatible EIA RS-422 interface (RJ45 connector)

o Construction

Light weight aluminum extrusions on left and right sides, aluminum top and bottom panels with front and back ABS end caps.

o Dimensions

Height: 1.75" (4.4 cm)  
Width: 6.9" (17.5 cm)  
Depth: 4.2" (10.67 cm)

o Operating Environment

Temperature - 0° to 50° C (32° to 120° F)  
Humidity - 5% to 95% Non-condensing

o Weights

Basic Unit - 1.00 lbs.  
Power Adapter - 1.150 lbs.

o Storage Environment

Temperature - -20° to 70° C (-4° to 160° F)  
Humidity - 0% to 100%

o Max Power Consumption

TLD2; 1.8 VA  
TLD2 & powered terminals 12 VA

o Standard Power adapter

Input: 95 - 125V rms single phase 2-wire 47-63 Hz  
Output: 12 VDC (unregulated) 1000ma

o Optional switchable Power Adapter

Input: 198 - 256V or 95V -125V rms 2-wire 47-63 Hz  
Output: 12 VAC (unregulated) 500ma - 140-200 Ma. min



