Serial Commands

The TM-U295 and TM-U590 support the following serial commands.

Release of Ticket: (End of serial string/LF before ESC)

ASCII:	ESC	q	
Decimal:	27	113	

Sensor Disable: (Hold in buffer/Print when ticket is inserted)

ASCII:	ESC	c	40

Upside Down Print: (Start of serial string)

ASCII:	ESC	{	1
Decimal:	27	123	49

Height/Width Commands: For double high/double wide (start of serial command). Please note, other characters in last position result in different heights.

ASCII:	ESC	!	_
Decimal:	27	33	96

Power Supply Connections

The power supply connector is used to connect the printer to the external power source. Pin numbering for the power supply connector is shown in the figure and table below.

Power Supply Connector

Pin Number	Function
1	+24 VDC
2	GND
3	No connection

Check out our web site, *www.rlws.com*, for this manual and other service-related information on our products.

Technical training seminars are available through Rice Lake Weighing Systems. Course descriptions and dates can be viewed at ***www.rlws.com*** *or obtained by calling 715-234-9171 and asking for the training department.*

Communications Interface Information for

Epson® Ticket and Tape Printers

TM-295
TM-U200
TM-U590

RICE LAKE WEIGHING SYSTEMS
To be the best by every measure®

36852

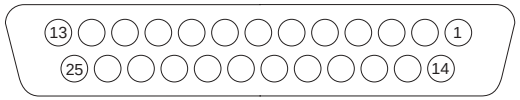
This document provides communications interface information not included in the manuals supplied with the TM-295 Ticket Printer, TM-U200 Tape Printer and TM-590 Ticket Printer. Please keep this information with the manual for your printer.

Communications Specifications

Data transmission:	Serial (RS-232C–compatible)
Synchronization:	Asynchronous
Handshaking:	DTR/DSR or XON/XOFF control
Signal level:	MARK (–3 to –15V, logical “1”) SPACE (+3 to +15V, logical “0”)
Baud rates:	TM-295: 1200, 2400, 4800, 9600 bps TM-U200: 4800 or 9600 bps TM-U590: 2400, 4800, 9600, 19200
Data length:	7 or 8 bits
Parity:	None, even, or odd
Stop bits:	1 or more
Serial connector:	D-SUB25 female connector or equivalent

Serial Port Connections

The following figure shows the pin numbering scheme for the serial port:



Serial Port Connector

Pin assignments for the serial port connector are as follows:

Pin Number	Signal	Function
1	FG	Frame ground
2	TxD	Transmit data
3	RxD	Receive data
6	DSR	Data set ready
7	SG	Signal ground
20	DTR	Data terminal ready

DSR/DTR Handshaking

The DSR/DTR handshaking uses pins 6 and 20 to signal availability of the printer and host computer to receive data:

DSR (pin 6) indicates whether the HOST COMPUTER is ready to receive data:
- SPACE (logical 0): Host computer is ready to receive data
- MARK (logical 1): Host computer is *not* ready to receive data

DTR (pin 20) indicates whether the PRINTER is ready to receive data:
- SPACE (logical 0): Printer is ready to receive data
- MARK (logical 1): Printer is *not* ready to receive data

DTR is set to MARK (logical 1) during power-up, self-test, and error states, or when the receive buffer is full.

NOTE: DSR/DTR handshaking cannot be used if pin 6 is used as a reset signal input.

XON/XOFF Handshaking

When XON/XOFF handshaking is selected, the printer transmits XON/XOFF characters as follows:

XON (<11>$_H$) is sent whenever the printer goes online or when the receive buffer is released from the buffer-full state.

XOFF (<13>$_H$) is sent whenever the printer goes offline, the receive buffer is full, or when an error state exists.

XON/XOFF handshaking ignores DSR input signals (pin 6). The DTR output (pin 20) is always held to SPACE (logical 0) except during power-up, self-test, and error states.

Sample Serial Connection

The following figure shows an example of connections made between a host computer (configured as the DTE) and a printer.