The TSL Tally and
UMD Configuring Program

CTD-1Si Parallel Tally Unit
– this section is intended to be read in conjunction with the Introduction

Television Systems Limited.

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Please Read This First

Installation instructions

- Check that the voltage input setting on the rear of the equipment matches the local voltage.

- Support the rear/sides of deep equipment.

- Ensure that sufficient cooling is available for units which are vented and/or use cooling fans. 1RU above and below the equipment is ideal.

- Ensure that communication cables have the ground carried through to the connecting equipment.

- Be prepared to check/change the RS422/RS485 connections as the Tx and Rx cable pairs may be different on third party equipment to that specified in the TSL manual.

- Please use the current Winsoft version that is provided with the Manual

- TSL has frequently been contacted for a "no comms" fault and it has been found that the cabling is at fault. Check the pin-outs as shown in the manual.

- Please read the manual before contacting TSL in case of difficulty.

SAFETY

Installation.

Unless otherwise stated TSL equipment may be installed at any angle or position within an operating temperature range of 5° ~ 30° C .

The RJ45 connectors are for use only with TSL UMD equipment.

All TSL equipment conforms to the EC Low Voltage Directive:

EC Low Voltage Directive (73/23/EEC)(OJ L76 26.3.73)(LVD). Amendment: (93/68/EEC) (OJ L220 30.8.93).

Earthing/Grounding

In all cases, the frame of the equipment must be earthed on installation. Connection to an earthed strip running the length of the frame is ideal.

The earth pin on the IEC mains inlet connector is connected to the metal frame of the equipment, to 0 volts on the internal DC PSU and to signal ground, unless otherwise stated. All metal panels are bonded together. Rack mounted equipment must be earthed (grounded).

Mounting

Careful consideration of the of equipment location and mounting in racks must be made. In particular, consideration must be given to the stability of free-standing racks by mounting heavy equipment low in the rack. The rear of the unit should be supported in the rack.

Power

For pluggable equipment, the socket outlet shall be installed near the equipment and shall be easily accessible.

Consideration must be given to the supply circuit loading and switch on/fault surges that will affect overcurrent protection trips and switches etc.

Check that the fuse rating is correct for the local power (mains) supply. Replacement fuses must be of the same rating and type for continued protection against fire risk.

The equipment rating is shown on the rear panel.

No power supply cord is provided with this equipment.

Do not switch on until all connections are made.

Ventilation

Due consideration for cooling requirements must be given when mounting the equipment. Ideally 1RU of rack space should be left above and below the unit.

If the equipment is installed in a closed unit, consideration must be given to providing forced air cooling in order that the maximum recommended temperature is not exceeded.

WARRANTY, MAINTENANCE AND REPAIR

All TSL equipment is guaranteed for one year from the date of delivery to the customer's premises. If the equipment is to be stored for a significant period, please contact TSL concerning a possible extended warranty period.

Failure during warranty

If any TSL product should fail or become faulty within the warranty period, first please check the PSU fuses.

All maintenance work must be carried out by trained and competent personnel.

If equipment has to be returned to TSL for repair or re-alignment, please observe the following overleaf:

Technical support information

E-Mail address: support@televisionsystems.ltd.uk
Telephone Support Number for the UK and Europe: +44 (0) 1628 670000
Telephone Support Number for the USA only: 1 877 591 2108

TSL Returns Procedure

Please telephone +44 (0)1628 676200 (Fax: +44 (0)1682 676299) and ask for Sales who will provide a Returns Number. This will enable us to track the unit effectively and will provide some information prior to the unit arriving.

For each item, this unique Returns Number must be included with the Fault Report sent with the unit.

A contact name and telephone number are also required with the Fault Report sent with the unit.

Fault report details required.

- Company:
- Name:
- Address:
- Contact Name:
- Telephone No:
- Returns Number:
- Symptoms of the fault (to include switch setting positions, input signals etc):

Packing

Please ensure that the unit is well packed as all mechanical damage is chargeable. TSL recommends that you insure your equipment for transit damage.

The original packaging, when available, should always be used when returning equipment..

If returned equipment is received in a damaged condition, the damage should be reported both to TSL and the carrier immediately.

YEAR 2000 CONFORMITY REQUIREMENTS

This product conforms to the following rules:

Rule 1   No value for the current date will cause any interruption in operation.

Rule 2   Date based functionality will behave consistently for dates prior to, during and after the Year 2000.

Rule 3   In all interfaces and data storage, the century in any date is specified either explicitly or by unambiguous algorithms or by inferencing rules.

Rule 4   The Year 2000 is recognised as a leap year.

TSL

EC DECLARATION OF CONFORMITY

Application of Council Directives Nos:
EC Low Voltage Directive (73/23/EEC)(OJ L76 26.3.73)(LVD).
Amendment: (93/68/EEC) (OJ L220 30.8.93).
Conformity Standards Declared:
EN 60950

EMC Directive: 89/336/EEC, Amended 92/31/EEC.
Conformity Standards Declared:
EN 50081-1, EN 50082-1

Manufacturer's Name: Television Systems Ltd
Manufacturer's Address: Vanwall Road
                                   Maidenhead SL6 4UB
                                   England
                                   United Kingdom

Type of Equipment: UMD Cue Tally Distributor

Model No: UMD CTD-1Si

Part Number: TSLP- UMD CTD-1Si

Date CE Mark Affixed: 99

I, the undersigned, declare that the equipment specified above conforms to the quoted Directives and Standards.

Place: Maidenhead, England   Signature:

Date: Print: J F PINNIGER

                                    Position: PRODUCT MANAGER

CTD-1Si

> # WARNING
>
> ## Disconnect power before removing the covers
>
> ## There are no user adjustable parts inside the unit

1.0   Description

This is a 19" 1ru unit which accepts 32 parallel tallies and other serial tally data from TallyMan.

The units use sets of relay contacts for each tally input – 64 isolated relay outputs in the CTD-1Si.

The CTD-1Si is powered by an auto-ranging (96 - 250 Volts) switch-mode power supply unit rated at 150 Watts.

The connectors on the unit are the Serial 2 D9F for the set-up and TallyMan connection and D37F for the four mapped tally outputs.

2.0   Connections

Do not switch on until all connections are made.

2.1   <u>Inputs</u>

Serial 1 D9F connector has no function when used in the TallyMan system. In non TallyMan systems this is used for direct serial Mixer connection. Product function is determined by the .bin file that is loaded.

Serial 2 D9F connector is used to configure the tally mapping in conjunction with a TM1/TM2 TallyMan Controller.

The **D37F Input** connector accepts +5v to 0V (ground) signals. The 0V state is the tally on condition.

2.2   <u>Outputs</u>

The relay contact closures are capable of switching a maximum current of 0.25A.

CTD-1Si

64 tallies (isolated relays) are available across the four output D37 connectors. This means that 16 relay o/ps are available on each D27 connector.

2.3   Cable Details

To upload a new Bin file into the unit the following cable will be required. Units to be used with a TallyMan system should come pre-configured for the BIN file requirement.

D9 PLUG	D9 SOCKET
Pin Number - CTD-1Si Serial 2	Pin Number - Computer Port
2	2
4	5 (Gnd)
8	3

Cables required for connection to the TallyMan Controllers.

CTD-1Si RS-422		TM1/ TM2 RS-422
D9 Plug – Serial 2		D9 Plug
7		3
2		8
4	SCN	4
3		7
8		2
6	SCN	6

2.4   Serial 2 Connector Details

| SERIAL 1 & 2 AND RS 422/485 CONNECTORS D9 SOCKETS			
1	0v	6	0v
2	TX-	7	TX+
3	RX+	8	RX-
4	0v	9	0v
5	-		

3.0 Basic Configuration

This unit may be loaded/updated with the BIN files via the TSL Winsoft program. Use Serial 2.

### 3.1 Winsoft Program for updating the BIN files only

3.2 Installing the program

The program is available from our web site (www.televisionsystems.com) and is designed to run on an IBM compatible PC. About 2.5Mb of hard disk space is required.

If necessary, down load the zip file and extract to a new directory. Run the program using the .exe file.
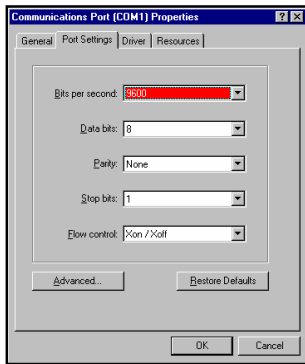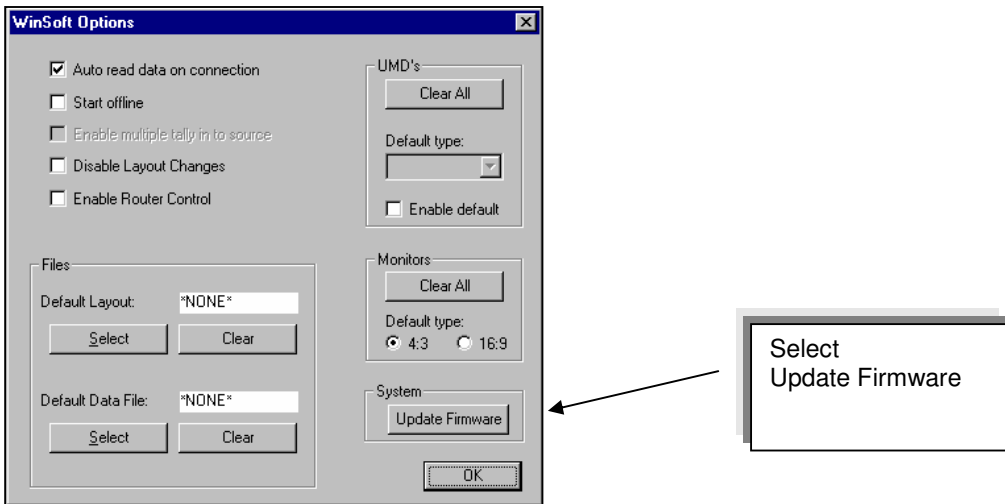

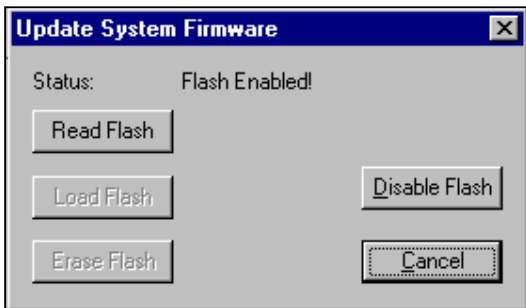Computer Comms Port Settings for communicating with the CTD-1S
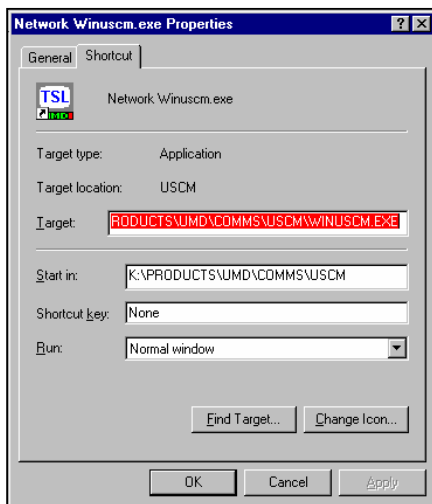
3.3   Updating the Firmware

If a unit is to be used that has not been set for TallyMan use, do the following.

Find **Setup > Options** from the Winsoft program**.**

Select
Update Firmware

Selecting Update Firmware will show the following message.
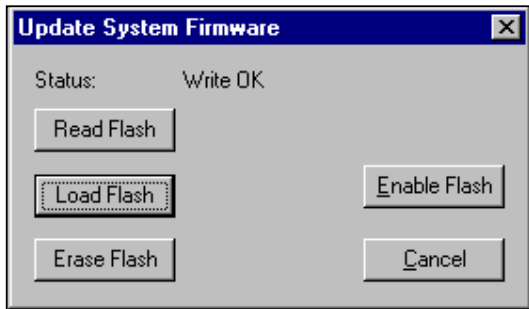

It is advisable to read the current flash memory first. The file will be called **EXPROG.BIN**.

Then **Disable Flash** and then **Erase** (the) **Flash** memory.

When the flash memory is disabled, only the 32 parallel inputs are capable of being mapped.

Only when the Flash memory is disabled and erased will be possible to load the new software.

Update System Firmware

Status: Write OK

[Read Flash]

[Load Flash]   [Enable Flash]

[Erase Flash]   [Cancel]

The new software is provided in a file called, *******.BIN**. It may now be written to the CTD-1S.

Finally, the Flash memory is enabled – **Enable Flash**.

Once this has been done with a tallyman type .bin file it will not be possible to connect via the Winsoft program again unless the following procedure is used.

- First, power down the CTD-1S.
- Then go into Winsoft, select **Offline** in the **Comms** menu. Select the **Comms**. menu again.
- Then, hold Ctrl on the keyboard while selecting the **Go Online** option.
- Then, power up the CTD-1S. It will connect, and disable the flash.

This must now be erased before trying to write a program to it.

Therefore:

- Go to **Setup** > **Options**
- **Erase** the Flash Memory
- Come out of Winsoft and then reconnect **On line.**
- Reload the Flash memory with the new .bin file. Click on **Enable**.

The chip may have been corrupted by trying to upload a new .bin file without disabling and erasing the flash memory first.
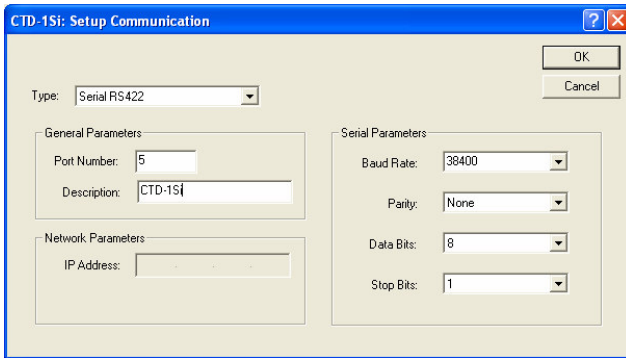
4.0   TallyMan Use

In TallyMan **Add Component**. The CTD-1Si is entered as a System Controller.
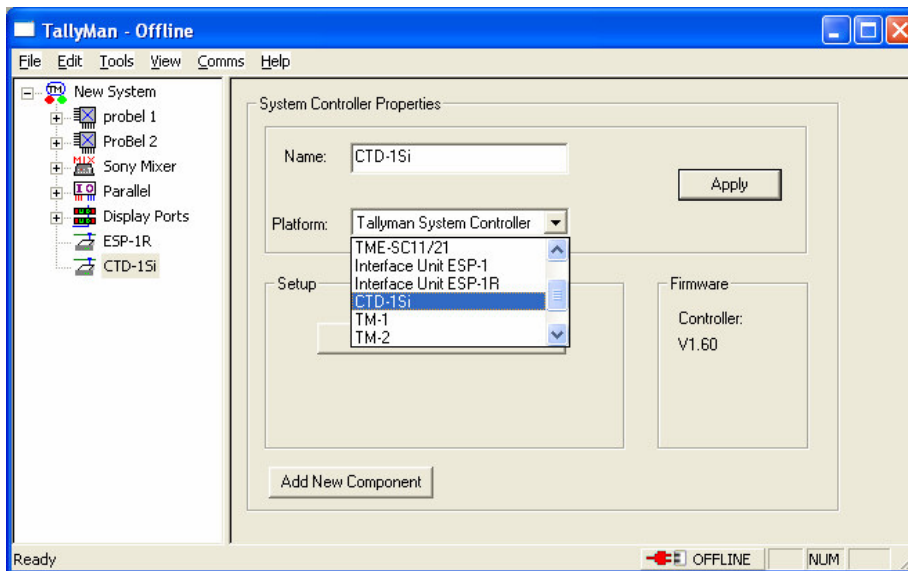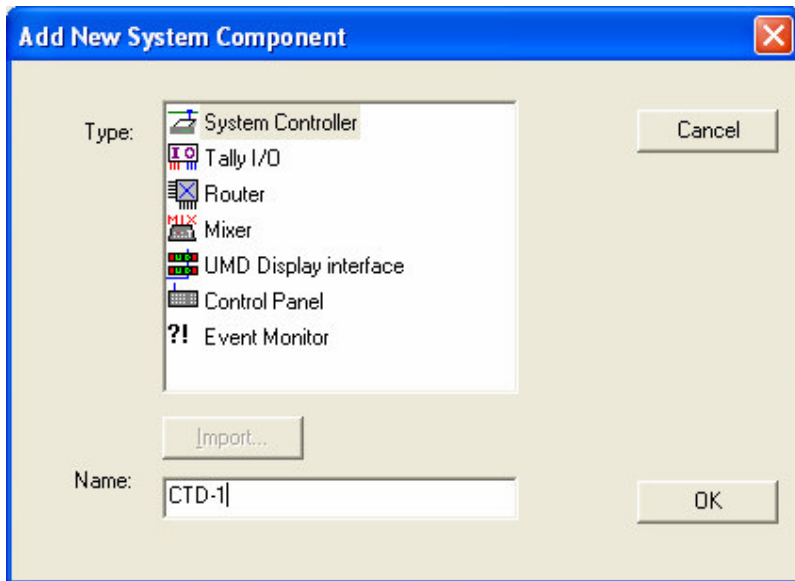
Select **CTD-1Si** as the platform. Press **Apply.**

Set Communications

The unit will now be seen in the list and the **Tally In** and **Tally Out** may be edited in the usual way. Please see the Tallies Section for further information.
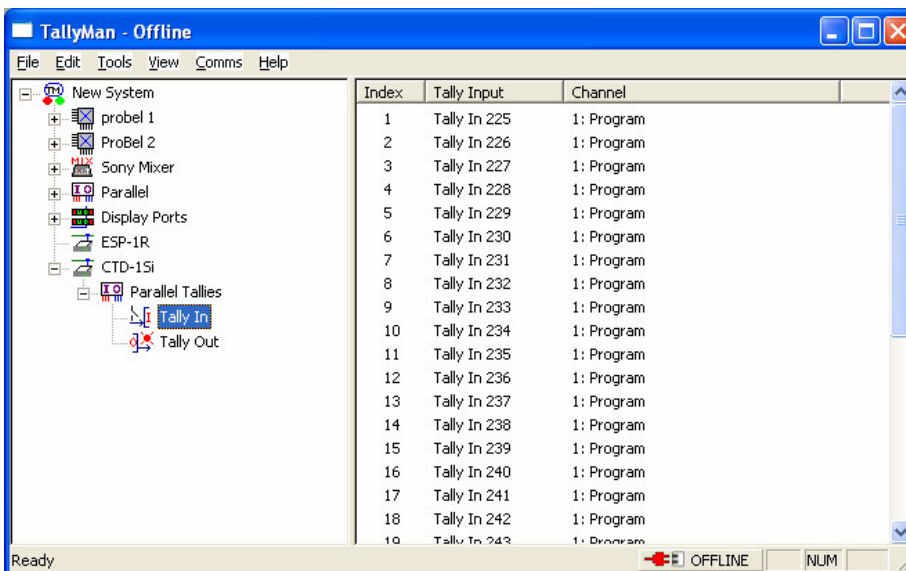
Note that in this example the system tally numbers start at 225 for this module. This is only because other tally modules have been entered first. The Name may freely be changed.

Once the module has been entered into the configuration the set up must be written to the system.

5.0   CTD-1Si Connection Details of the equipment

5.1   Parallel Tally Inputs

TALLY INPUT CONNECTOR D37 SOCKET			
Pin	Function	Pin	Function
1	TALLY 1	19	TALLY 19
2	TALLY 2	20	TALLY 20
3	TALLY 3	21	TALLY 21
4	TALLY 4	22	TALLY 22
5	TALLY 5	23	TALLY 23
6	TALLY 6	24	TALLY 24
7	TALLY 7	25	TALLY 25
8	TALLY 8	26	TALLY 26
9	TALLY 9	27	TALLY 27
10	TALLY 10	28	TALLY 28
11	TALLY 11	29	TALLY 29
12	TALLY 12	30	TALLY 30
13	TALLY 13	31	TALLY 31
14	TALLY 14	32	TALLY 32
15	TALLY 15	33	0v
16	TALLY 16	34	-
17	TALLY 17	35	-
18	TALLY 18	36	0v
		37	GND

5.2   Outputs

The current version has 4 sets of 16 isolated relay outputs, 16 on each D37 connector.

Note:

The actual tally numbers seen on the TallyMan lists will depend on what other tally objects have been added to the TallyMan TM1 / TM2 or system.

The relay contact closures are capable of switching a maximum current of 0.25A.

The D37 tally input connector is pin compatible with TSL's System Controllers TM1/TM2.

5.3 Parallel Tally Outputs

\ TALLY 1 OUTPUT CONNECTORS D37 SOCKET			
Pin	**Function**	**Pin**	**Function**
1	TALLY 1	19	TALLY 10
2	TALLY 1	20	TALLY 10
3	TALLY 2	21	TALLY 11
4	TALLY 2	22	TALLY 11
5	TALLY 3	23	TALLY 12
6	TALLY 3	24	TALLY 12
7	TALLY 4	25	TALLY 13
8	TALLY 4	26	TALLY 13
9	TALLY 5	27	TALLY 14
10	TALLY 5	28	TALLY 14
11	TALLY 6	29	TALLY 15
12	TALLY 6	30	TALLY 15
13	TALLY 7	31	TALLY 16
14	TALLY 7	32	TALLY 16
15	TALLY 8	33	0v
16	TALLY 8	34	+12V
17	TALLY 9	35	+12V
18	TALLY 9	36	0v
		37	GND

\ TALLY 2 OUTPUT CONNECTORS D37 SOCKET			
Pin	Function	Pin	Function
1	TALLY 17	19	TALLY 26
2	TALLY 17	20	TALLY 26
3	TALLY 18	21	TALLY 27
4	TALLY 18	22	TALLY 27
5	TALLY 19	23	TALLY 28
6	TALLY 19	24	TALLY 28
7	TALLY 20	25	TALLY 29
8	TALLY 20	26	TALLY 29
9	TALLY 21	27	TALLY 30
10	TALLY 21	28	TALLY 30
11	TALLY 22	29	TALLY 31
12	TALLY 22	30	TALLY 31
13	TALLY 23	31	TALLY 32
14	TALLY 23	32	TALLY 32
15	TALLY 24	33	0v
16	TALLY 24	34	+12V
17	TALLY 25	35	+12V
18	TALLY 25	36	0v
		37	GND

Tally connectors 3 and 4 continue in this pattern.

Notes:

The actual tally numbers seen on the TallyMan lists will depend on what other tally objects have been added to the TallyMan system.

If serial tallies are in the firmware, the parallel i/ps will be the highest numbers. Use the Tally Mimic to inspect the tally action.

The PSU is not user repairable. TSL will replace the PSU in the event of failure.