+TallyPlus+

Single Digit Tally Number Display

Installation and Operation Manual

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1. General Safety Summary

Please read and observe the following safety precautions to avoid personal injury and prevent damage to this product or any products connected to it. To avoid potential hazards, use this product only as specified.

Servicing should only be undertaken by skilled and qualified personnel.

For mains powered units: Use only the power cord specified for this product and certified for the country of use. This product is grounded through the grounding conductor of the power cord. To avoid electric shock, the grounding conductor MUST be connected to earth ground. Before making any other connections to the product, ensure that the product is properly grounded. Use only the fuse type and rating specified for this product.

For all units: Avoid exposed circuitry. Do not touch exposed connections and components when power is present. To avoid fire or shock hazard, observe all ratings and marking on the product. Use only the specified types of connectors with the product. Do not operate the product with covers or panels removed. Do not operate with suspected failures. If you suspect there is damage to the product, have it inspected by qualified service personnel. Provide proper ventilation. Operate the product only when it has been installed according to the manual's installation instructions as these are designed to provide adequate ventilation around the product. Do not operate the unit with the ventilation holes covered. Do not store or operate the product where it may be exposed to damage by coming into contact with other objects. Do not operate in wet or damp conditions. Do not operate in an explosive atmosphere. Keep product surfaces clean and dry.

2. Introduction to +TallyPlus+

Autoscript has introduced this unique piece of equipment for use in TV studios wherever there is a need to display both the Camera Number and Tally Indication, by means of the display colour changing from Green to Red when an external Tally or Cue stimulus is applied. The unit is lightweight and fixes directly to the front of Autoscript prompting monitors, using the fixings already incorporated into the front edge of the monitor. The unit has a 2.25" tall seven segment number which provides a bright and clear display easily read in the typical studio environment.

3. Specification

3.1 Display:

Format: 7 segment display of 0,1,2,3,4,5,6,7,8 or 9
Size : 2.25”

3.2 Power Input:

Voltage: 12V DC +/- 0.1V
Current: 0.22A max

3.3 Opto Sensor Input:

Resistance range: Light Dependent resistor, 20kΩ at 10 Lux, 5kΩ at 100 lux OR (grounding) contact closure < 1kΩ impedance

3.4 Tally Signal Input:

Voltage: Senses a positive logic signal applied to the input and switches display RED
POSITIVE VOLTAGE (>2.5V, <12.5V) = RED,
VOLTAGE <1.0V or CONTACT OPEN = GREEN

3.5 Physical:

Dimensions: 60 mm W x 82 mm H x 31 mm D
(excluding controls/connectors and Wingplate)
Weight: 0.15kg
Temperature range: Operating: 5 to 40 degrees C
Storage: -20 to 60 degrees C

3.6 EMC Compatibility

This product is designed to meet the relevant requirements of the following standards:

Standard	Title	Limits
EN55022:1998 (+A1/A2)	Information technology equipment – Radio Disturbance characteristics. Limits and methods of measurement	Class A Emissions
EN55024:1998 (+A1/A2)	Information technology equipment – Immunity characteristics. Limits and methods of measurement	
EN61000-6-2:2001	Electromagnetic compatibility (EMC) Part 6-2: Generic standards – Immunity for industrial environments	
CFR 47 : 2004	Code of Federal Regulations: Pt 15 Subpart B – Radio Frequency Devices – Unintentional Radiators	Class A

4. Installation

4.1 General

Preparation for installing +TallyPlus+ includes the following points:

- Removal of all packaging
- Checking of components for damage
- Comparison of components received with those on the delivery note
- Connection to the signal source and power supply
- Building into your system, bearing in mind technical and spatial aspects

4.2 Removing the Packaging and Checking Individual Parts

After unpacking all the delivered components, they should be checked for completeness and visually inspected for possible transit damage. If any deficiencies are found then please contact the supplier given on the delivery note. Have the delivery note number, serial number and a description of the deficiency to hand.

The original packaging should be kept for future re-use.

4.3 Installation – Points to note

When installing the +TallyPlus+ the following points should be noted:

- The maximum operating ambient temperature of +40° must not be exceeded.
- There must be unimpeded free flow of air around the unit.
- Use only the power supply unit supplied with the unit, connected to a suitable mains power outlet with protective earth.
- EMC and safety: The +TallyPlus+ has been designed for building into a unit or system. The constructor or operator of the system is responsible for maintaining electromagnetic compatibility and safety according to the relevant local regulations.

4.4 Mounting

The equipment should be unpacked carefully and inspected for transit damage. It should be installed into a well-ventilated situation on the front of an Autoscript monitor using the M3 thumb fixing screws incorporated into the unit. These screws mate with the threaded bosses either side of the cue light on the front edge of an Autoscript monitor.

The “wingplate” on which these thumbscrews are fitted may be detached by removing two countersunk screws on the back of the +TallyPlus+ unit. A friction hinge is available from Autoscript which can be fitted to either the top or bottom edge of the back panel of the +TallyPlus+ using the screws removed from the “wingplate”. This hinge can then be used to mount the +TallyPlus+ to the top of an Autoscript camera hood, and the viewing angle can be adjusted easily by tilting the unit backwards or forwards. If the hinge is too stiff or too loose, the torque can be adjusted using an Allen Key to turn the locking mechanism in the centre of the hinge pivot.

4.5 Connections & Controls

4.5.1 DC Power Input

Use an AC-DC converter or a 12V dc power source capable of supplying 0.3A minimum.

Connector type: 2.1mm DC Jack
Mating connector: 2.1mm DC socket

Pin	Signal
CENTRE	+12V DC
OUTER	GROUND

Alternatively use the 12V DC power outlet on the Autoscript Prompter Monitor, and use a 3.5mm Jack to Jack lead to connect to the 3.5mm DC in socket.

Connector type: 3.5mm mono jack socket
Mating connector: 3.5mm mono jack plug

Pin	Signal
TIP	+12V DC
SLEEVE	GROUND

4.5.2 Opto Sensor

Type: Light Dependent resistor, 20k Ω at 10 Lux, 5K Ω at 100 lux **OR** (grounding) contact closure
HIGH ILLUMINATION/CONTACT CLOSURE = RED,
LOW ILLUMINATION/CONTACT OPEN = GREEN
Connector type: 3.5mm mono jack socket
Mating connector: 3.5mm mono jack plug

Pin	Signal
TIP	HOT
SLEEVE	GROUND

4.5.3 Tally Signal Input

Type: Senses a positive logic signal applied to the input and switches display RED
POSITIVE VOLTAGE (>2.5V, <12.5V) = RED,
VOLTAGE <1.0V or CONTACT OPEN = GREEN

Connector type: 3.5mm mono jack socket
Mating connector: 3.5mm mono jack plug

Pin	Signal
TIP	HOT
SLEEVE	GROUND

4.5.4 Sensor Trim Rotary Control

Opto Sensor trim control – adjust for clean switching of internal or external opto sensor.

4.5.5 Tally Number Rotary Control

Cue number select switch – rotate until the desired number 0 – 9 is shown on the display.

5. Operation

5.1 Tally Operation

To use the internal Tally Opto sensor only 12V DC power needs to be connected, the required camera number in the range 0 to 9 set with the rotary Tally Number control, and the Opto sensitivity adjusted for reliable triggering on the external optical stimulus.

The trigger for the colour change may come either from the internal optical sensor (this is active unless a plug is inserted into either the OPTO SENSOR or TALLY INPUT sockets) or from an external opto sensor (available as an accessory from Autoscript). The internal sensor is designed to be triggered by the Tally (Cue) Light on the front of an Autoscript prompter monitor. The external sensor is typically attached by Velcro® to the camera tally light and allows the +TallyPLus+ to mimic the operation of the camera tally.

The "Sensor Trim" adjusts the threshold at which the +TallyPlus+ switches colour, depending on the amount of light falling on the Opto Sensor. Turning the control clockwise lowers the threshold at which the unit switches from green to red, effectively increasing the sensitivity of the Opto Sensor. The "Sensor Trim" control operates on both the internal Optical Sensor and the external OPTO SENSOR input (which overrides the internal one).

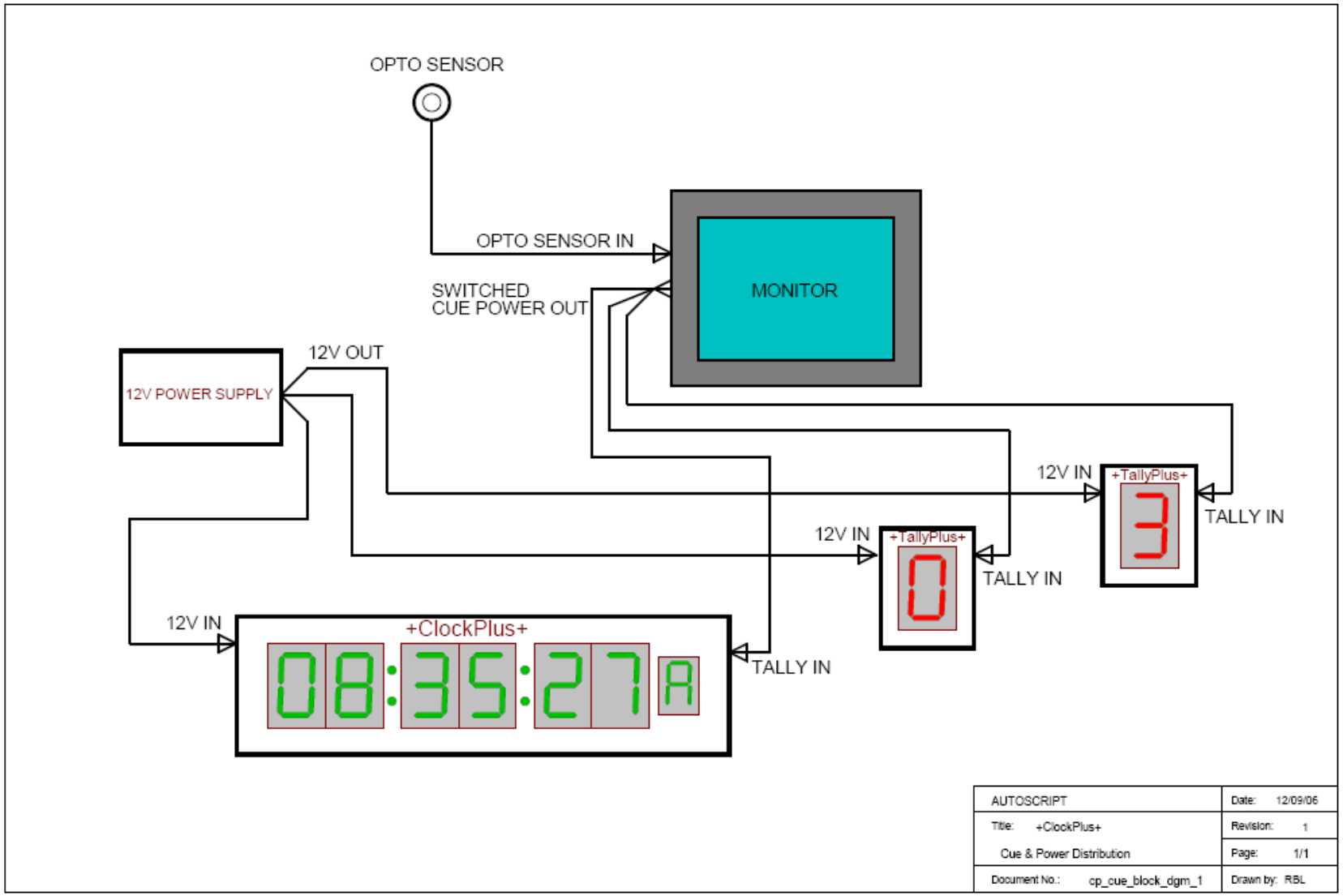
If the Tally feature whereby the display changes colour from green to red on application of an external Tally stimulus (optical or electrical) is not required, the colour may be set to green by turning the SENSOR TRIM control fully anti-clockwise. If a permanent red display is required, insert a shorting 3.5mm mono jack plug into the OPTO SENSOR socket (a shorting plug is made by connecting the tip and sleeve wiring contacts together inside the body of the plug).

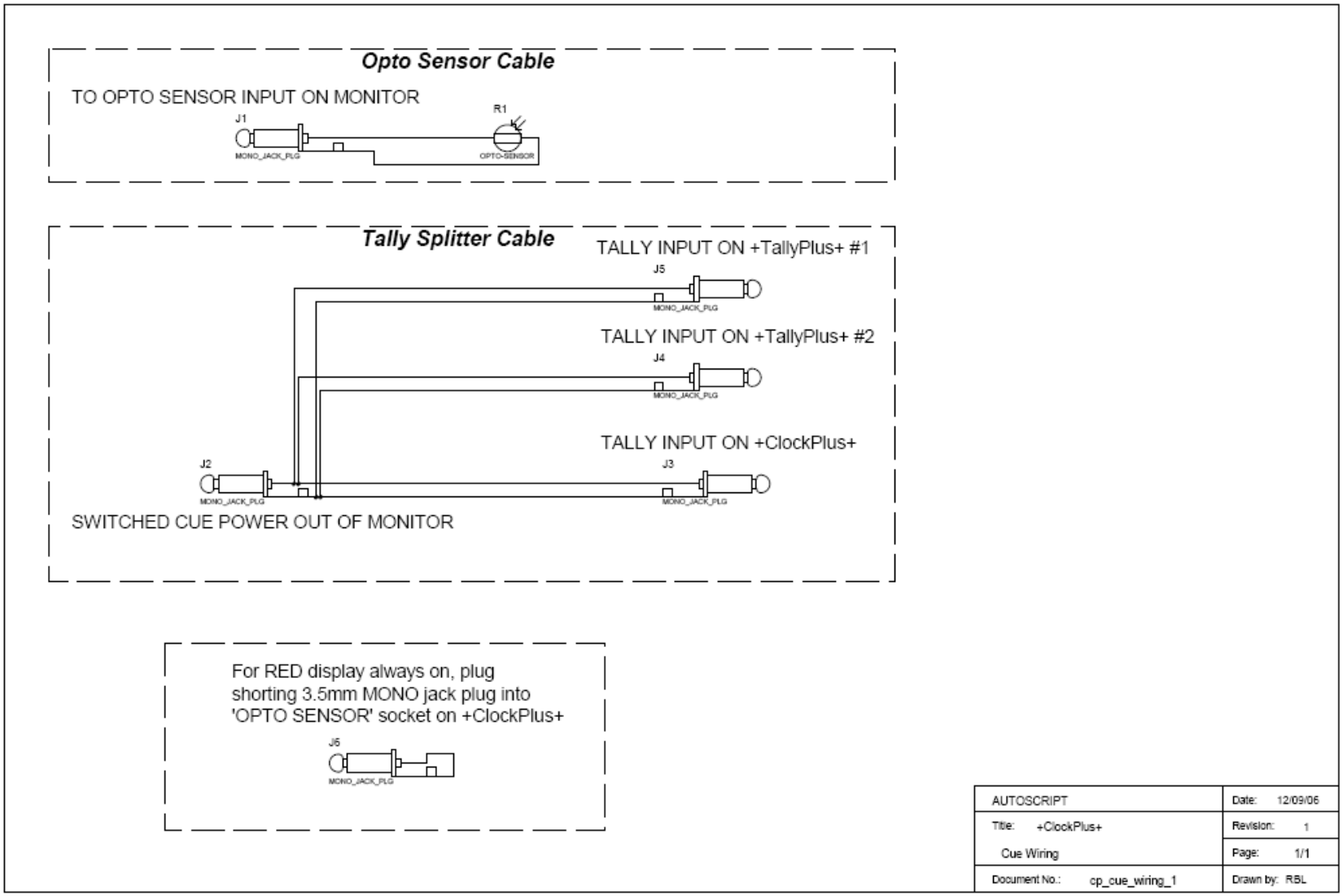
Other ways of triggering the colour change include connecting a shorting switch (grounding loop) to the OPTO SENSOR socket, or applying a positive logic voltage to the TALLY LOGIC input.

5.2 Operation with +ClockPlus+

The Autoscript +ClockPlus+ is a Timecode display that has the same Green/Red tally function as the +TallyPlus+. The situation frequently arises where as well as displaying the camera number on the front of an Autoscript prompter monitor it is useful to display Timecode. The diagram below shows how +TallyPlus+ displays may be integrated with the +ClockPlus+. Contact Autoscript for further details.

6. Diagrams


OPTO SENSOR
OPTO SENSOR IN
SWITCHED
CUE POWER OUT
MONITOR
12V POWER SUPPLY
12V OUT
12V IN
+TallyPlus+
3
TALLY IN
12V IN
+TallyPlus+
0
TALLY IN
12V IN
+ClockPlus+
08:35:27A
TALLY IN
AUTOSCRIPT
Date: 12/09/06
Title: +ClockPlus+
Revision: 1
Cue & Power Distribution
Page: 1/1
Document No.: cp_cue_block_dgm_1
Drawn by: RBL


Opto Sensor Cable
TO OPTO SENSOR INPUT ON MONITOR
J1
MONO_JACK_PLG
R1
OPTO-SENSOR
Tally Splitter Cable
TALLY INPUT ON +TallyPlus+ #1
J5
MONO_JACK_PLG
TALLY INPUT ON +TallyPlus+ #2
J4
MONO_JACK_PLG
TALLY INPUT ON +ClockPlus+
J2
MONO_JACK_PLG
J3
MONO_JACK_PLG
SWITCHED CUE POWER OUT OF MONITOR
For RED display always on, plug
shorting 3.5mm MONO jack plug into
'OPTO SENSOR' socket on +ClockPlus+
J6
MONO_JACK_PLG
AUTOSCRIPT
Date: 12/09/06
Title: +ClockPlus+
Cue Wiring
Revision: 1
Page: 1/1
Document No.: cp_cue_wiring_1
Drawn by: RBL

7. Contact Details

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