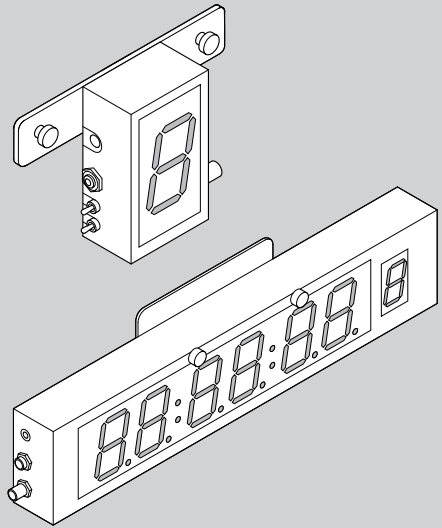
User Guide

autoscript
a clearer picture

Tally/ClockPlus On-Camera Prompter Accessories

TallyPlus
ClockPlus
On-Camera Prompter Accessories



Part Nos. TALLYPLUS
CLOCKPLUS

EN

www.autoscript.tv

Original Instructions: English

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We are making every effort to ensure that our manuals are updated on a regular basis to reflect changes to product specifications and features. Should this manual not contain information on the core functionality of your product, please let us know. You may be able to access the latest revision of this manual from our website.

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Contents

Safety

Important information on the safe installation and operation of this product. Read this information before operating the product. For your personal safety, read these instructions. Do not operate the product if you do not understand how to use it safely. Save these instructions for future reference.

Warning Symbols Used in these Instructions

Safety cautions are included in these instructions. These safety instructions must be followed to avoid possible personal injury and avoid possible damage to the product.

WARNING!
Where there is a risk of personal injury or injury to others, comments appear supported by the warning triangle symbol. Where there is a risk of damage to the product, associated equipment, process or surroundings, comments appear supported by the word ‘Caution’.

ELECTRIC SHOCK
Where there is a risk of electric shock, comments appear supported by the hazardous voltage warning triangle.

Intended Use

The ClockPlus and TallyPlus on-camera prompter accessories have been designed to provide additional timekeeping and tally functionality as part of a high quality teleprompting facility for television broadcasting.

The accessories are intended for use by television camera operators, installed on the prompter installation within a TV studio environment, or on outside broadcasts (OB) when protected from weather by a suitable waterproof cover.

Health and Safety

WARNING! Risk of personal injury or injury to others. All personnel must be fully trained and adhere to correct manual handling techniques and Healthy & Safety regulations. It is the responsibility of the local organisation to enforce safe working practices at all times.

Electrical Connection

WARNING! Risk of electric shock. Always check cables for signs of damage. Damaged cables can cause personal injury and/or damage the equipment.

CAUTION! This product must be connected to a power supply of the same voltage (V) and current (A) as indicated on the product. Refer to the technical specifications for the product.

CAUTION! Only use the power cable specified for this product and certified for the country of use.

CAUTION! Using alternative power sources will invalidate the system EMC liability.

Mounting and Installation

WARNING! Before attempting to install or adjust the prompter assembly, the tilt axis of the head support must be securely locked horizontally.

WARNING! Do not install this product onto a camera support or other equipment that is not designed to support the weight of the product and its payload.

WARNING! Always ensure that all power and auxiliary communications cables are routed so that they do not present any danger to personnel. Take care when routing cables in areas where robotic equipment is in use.

Water, Moisture and Dust

WARNING! Protect the product from water, moisture and dust. The presence of electricity near water can be dangerous.

WARNING! When using this product outside, protect from rain using a suitable waterproof cover.

Ventilation

WARNING! Slots and openings are intended for ventilation purposes to ensure reliable operation of the product, and protect it from overheating. Do not block or cover any slots and openings.

Operating Environment

CAUTION! The product should not be used outside the operating temperature limits. Refer to the product technical specifications for the operating limits for the product.

Cleaning

WARNING! Risk of electric shock. Always disconnect and isolate the product from the power supply before cleaning.

CAUTION! Do not use solvent or oil-based cleaners, abrasives or wire brushes.

Maintenance

WARNING! Servicing or repair of this product must only be performed by qualified and trained electrical engineers.

WARNING! The fitting of non-approved parts and accessories, or the carrying out of non-approved alterations or servicing can be dangerous and could affect the safety of the product. It may also invalidate the terms and conditions of the product warranty.

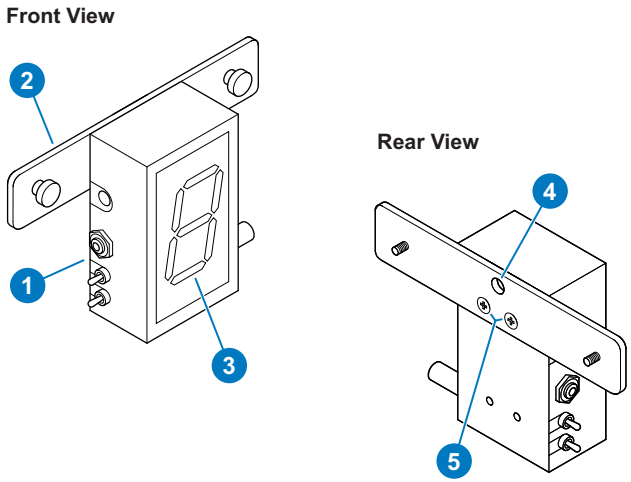
About this Manual

This manual describes the installation and operation of the on-camera prompter accessories as part of a full prompting system, using the range of compatible mounting equipment and connecting cables available for various configurations.

Components and Connections

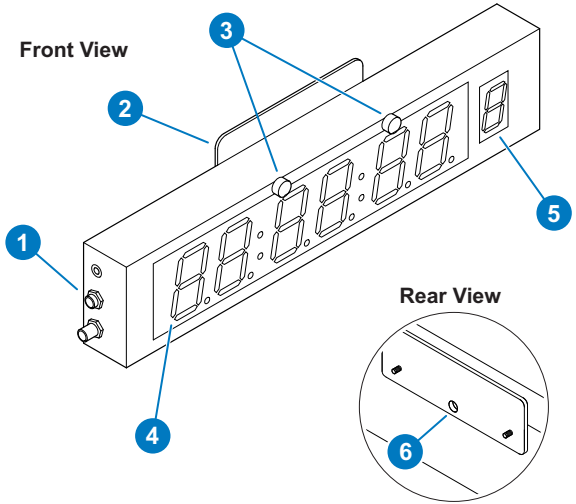
On-Camera Accessory Key Components

TallyPlus



1	Connection and control panels (left and right sides)
2	Wing plate with fixing thumbscrews
3	LED display digit
4	Built-in opto sensor
5	Fixing screw holes

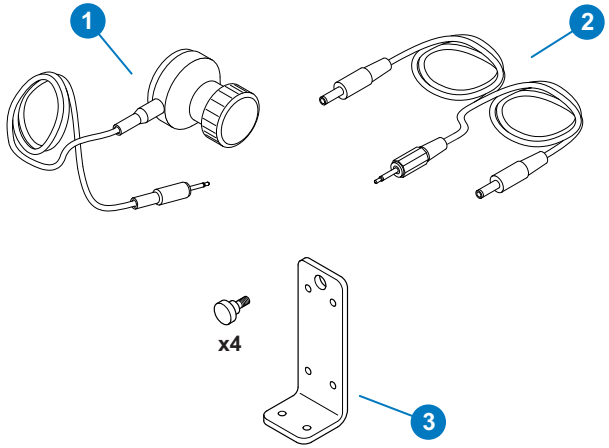
ClockPlus



1	Connection and control panels (left and right sides)
2	Spacer plate
3	Fixing thumbscrews
4	Clock display comprising six LED display digits
5	AM/PM LED display digit
6	Built-in opto sensor

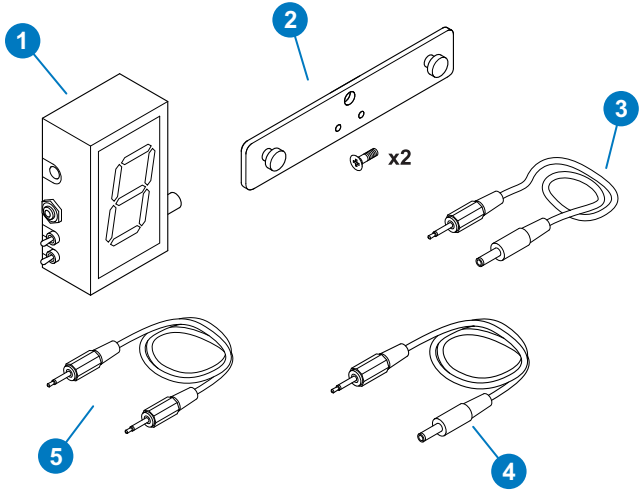
Accessory Components

The following section describes the range of component parts available for use with the TallyPlus and ClockPlus.



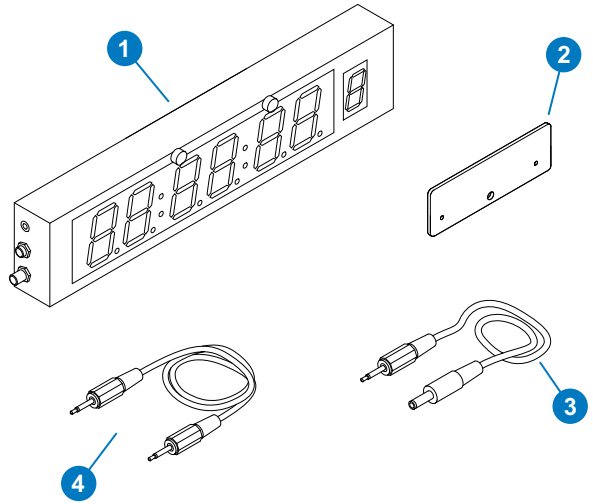
No.	Part	Description
1	**SNSR**	Tally light opto sensor
2	**MJ-CPY**	Two accessory Y power cable
3	**MTTP-OL**	Mounting bracket for attaching the TallyPlus to moulded hoods (MH-S or MH-W)

Box Contents - TallyPlus



No.	Part	Description
1	**TALLYPLUS**	TallyPlus numbered cue light
2	-	Monitor wing mounting plate
3	-	Power cable, 0.3 m long
4	-	Power cable, 1 m long
5	**MJ-C**	Tally repeat cable, 1 m long

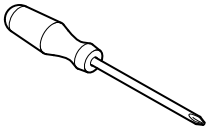
Box Contents - ClockPlus



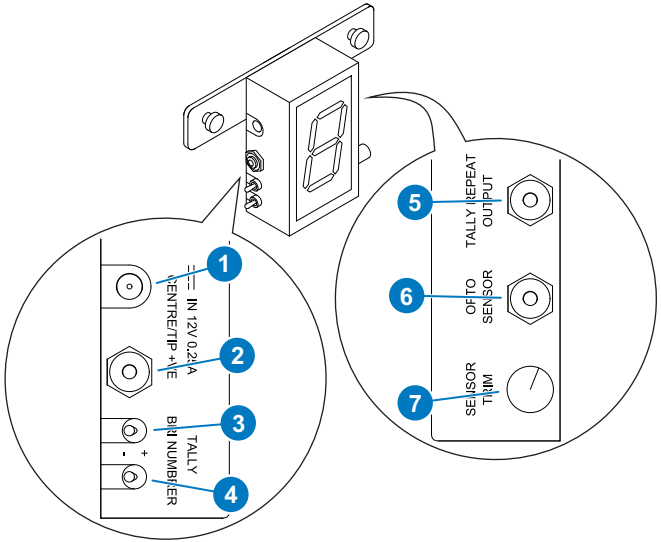
No.	Part	Description
1	**CLOCKPLUS**	Six digit ClockPlus unit
2		Spacer mounting plate
3	-	Power cable, 0.5 m long
4	**MJ-C**	Tally repeat cable, 1 m long

Tools Required

Pozi screwdriver

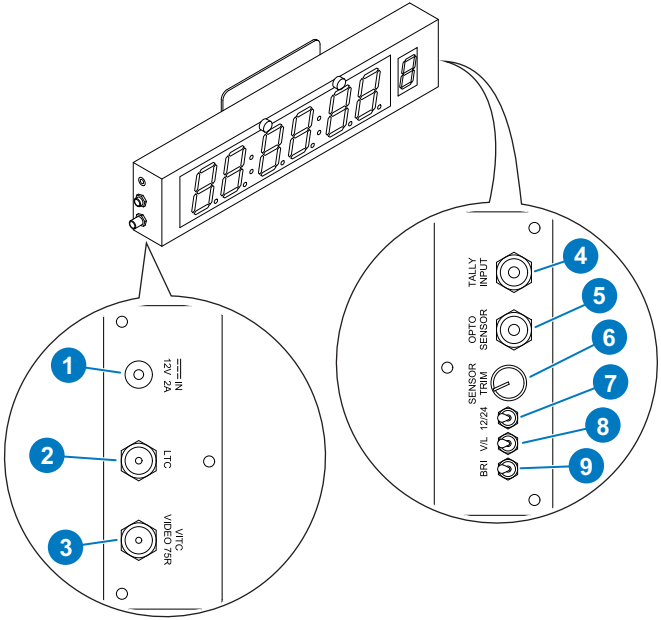


TallyPlus Connections and Controls



1	DC power IN (2.1 mm power socket)
2	DC power IN (3.5 mm mono jack socket)
3	Display brightness adjust switch
4	Tally indicator number adjust switch
5	Tally light repeat OUT socket
6	Opto sensor IN socket
7	Opto sensor trim adjuster

ClockPlus Connections and Controls



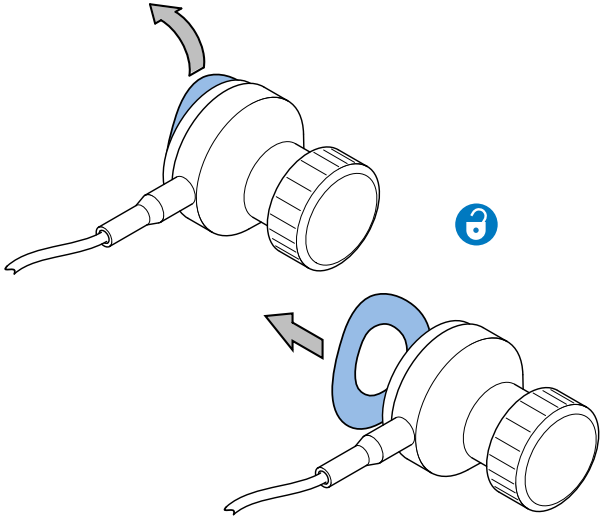
1	DC power IN socket	6	Opto sensor trim adjuster
2	LTC IN socket	7	12/24 hour select switch
3	VITC IN socket	8	VITC/LTC select switch
4	Tally signal IN socket	9	Brightness adjust switch
5	Opto sensor IN socket		

Mounting the Tally Opto Sensor

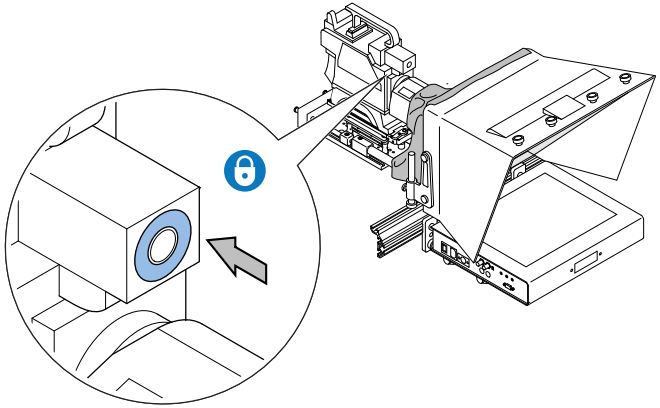
WARNING! Before attempting to install or adjust accessories, the tilt axis of the head support must be securely locked horizontally (tilt axis).

The tally opto sensor (SNSR) is fitted over the tally light on the camera and connected to the prompter monitor. This allows the monitor's tally light, or the tally function on the ClockPlus and TallyPlus, to replicate the operation of the camera tally.

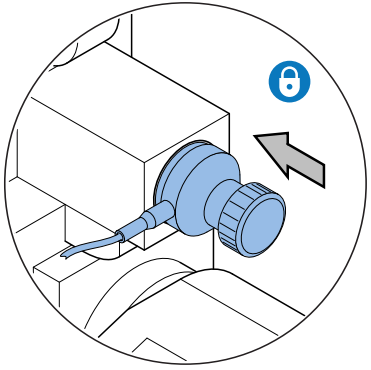
1. Pull the mating Velcro ring from the base of the tally opto sensor.



2. Peel the adhesive backing from the Velcro ring and fit it firmly around the tally indicator light on the camera.



3. Press the tally opto sensor firmly onto the Velcro ring to secure it in position over the tally indicator light.



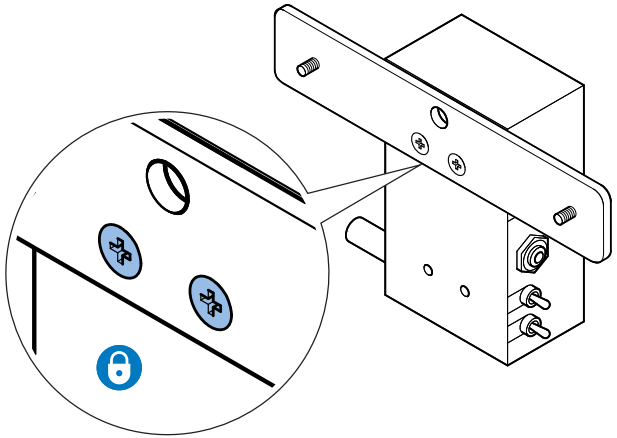
Mounting the TallyPlus

WARNING! Before attempting to install or adjust accessories, the tilt axis of the head support must be securely locked horizontally (tilt axis).

The TallyPlus can be mounted to the prompter monitor or a compatible hood, depending on the requirements of the installation.

Monitor Mounting

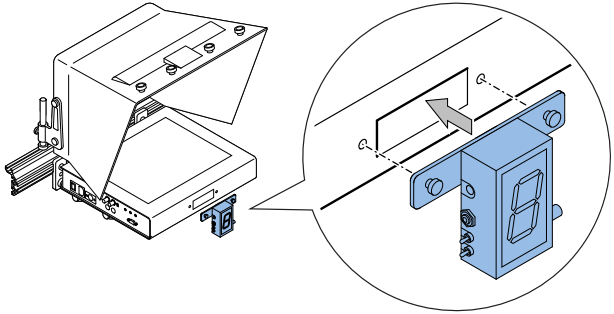
Before the TallyPlus can be mounted to a monitor, the supplied wing plate must be fitted to the rear of the TallyPlus with the two countersink screws.



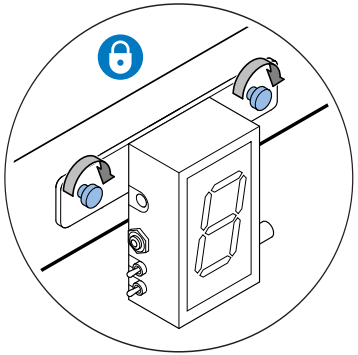
Monitor Mounting - LED TFT and LED 8

The TallyPlus is mounted to the front of the monitor over the existing tally light. The built in opto sensor on the rear of the TallyPlus can then capture and replicate the status of the hidden tally light.

1. Align the fixing thumbscrews on the wing plate with the holes either side of the tally light on the monitor.



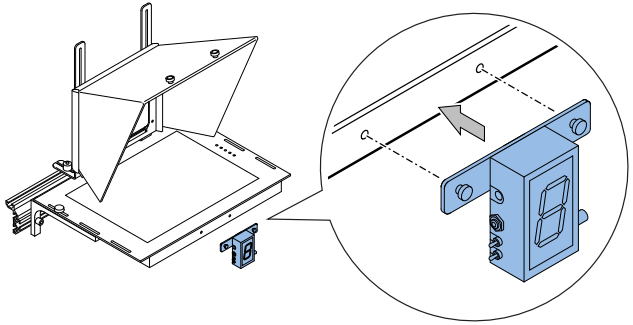
2. Tighten the two fixing thumb screws to secure the TallyPlus in position.



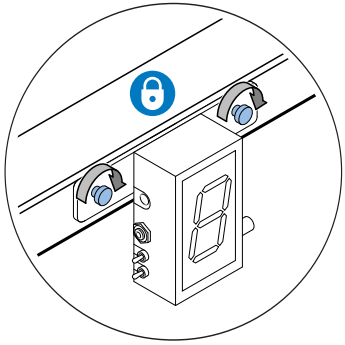
Monitor Mounting - ELP15

The TallyPlus is mounted to the front of the ELP15 monitor. Unlike the other LED monitors, this monitor does not have a tally light, and therefore the built-in opto sensor on the TallyPlus will not function.

1. Align the fixing thumbscrews on the wing plate with the holes on the front of the monitor.

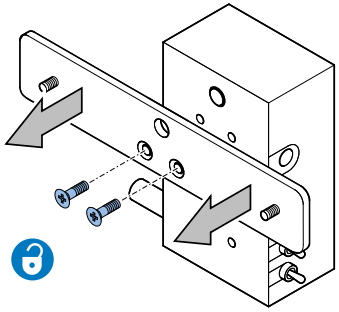


2. Tighten the two fixing thumb screws to secure the TallyPlus in position.

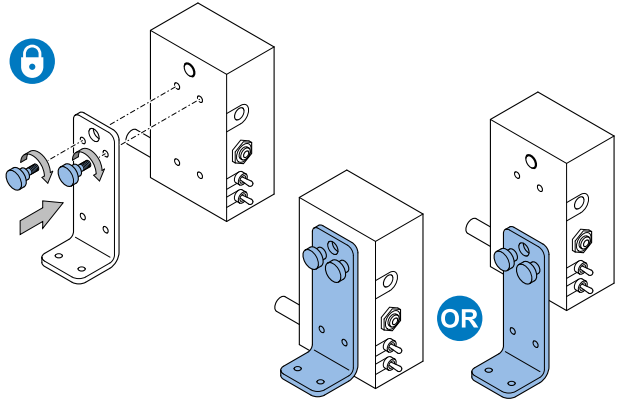


Hood Mounting

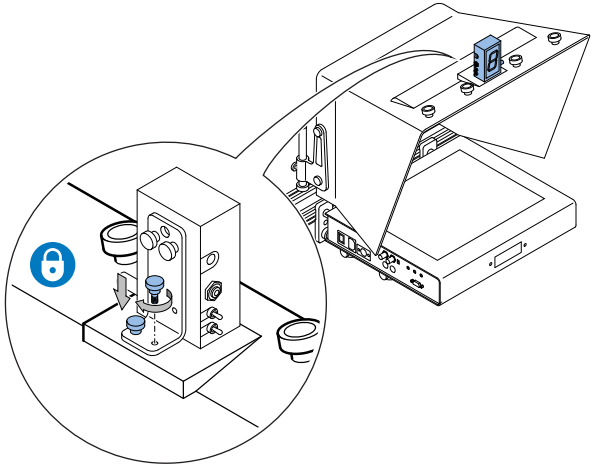
1. If fitted, remove the wing plate from the TallyPlus by unscrewing the two countersink screws.



2. Fit the mounting bracket to the rear of the TallyPlus using the two fixing screws provided. The mounting bracket can be fitted to the lower set of mounting holes to increase the height of the TallyPlus above the hood.



3. Fit the TallyPlus to the hood, aligning the fixing holes in the brackets and securing with the two fixing screws provided.

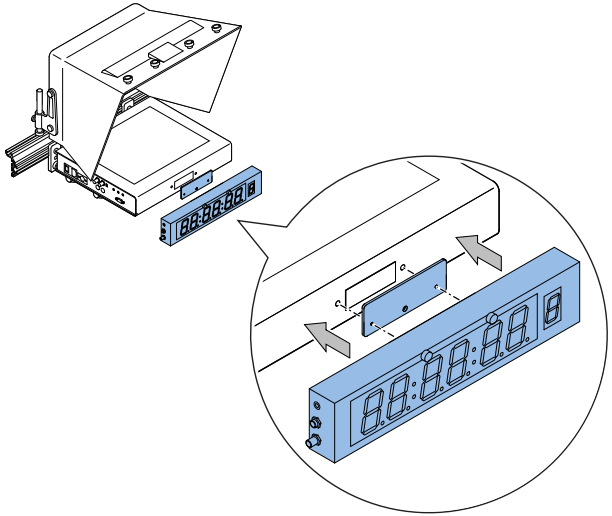


Mounting the ClockPlus

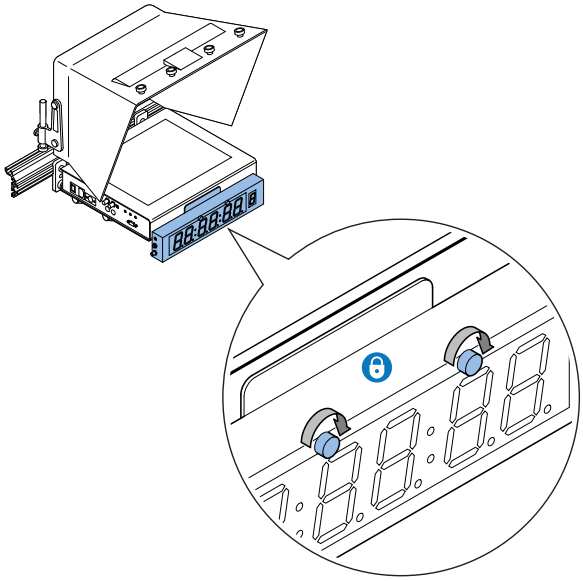
WARNING! Before attempting to install or adjust accessories, the tilt axis of the head support must be securely locked horizontally (tilt axis).

The ClockPlus is mounted over the tally light on the front of the prompter monitor.

1. With the spacer plate in between, align the fixing thumbscrews on the ClockPlus with the holes either side of the tally light on the monitor. Ensure that the centre hole in the plate is correctly aligned with the built-in opto sensor aperture.



2. Tighten the two fixing thumb screws to secure the ClockPlus in position.



Tally Connections

The TallyPlus and ClockPlus can provide tally indication using many different connection configurations, depending on the requirements of the installation.

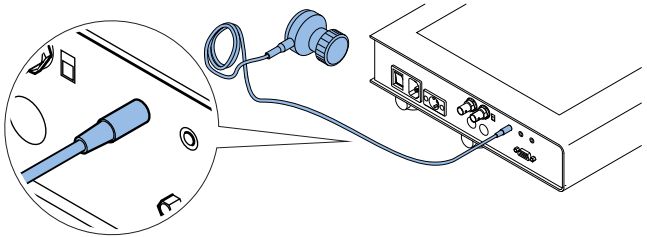
The tally indication signal can be sourced from:

- The monitor (looped through from an external tally opto sensor)
- An external tally opto sensor directly
- An accessory (looped through or sourced from the TallyPlus to the ClockPlus, for example)
- The accessory internal opto sensor
- Alternative connection methods to suit the requirements of the installation

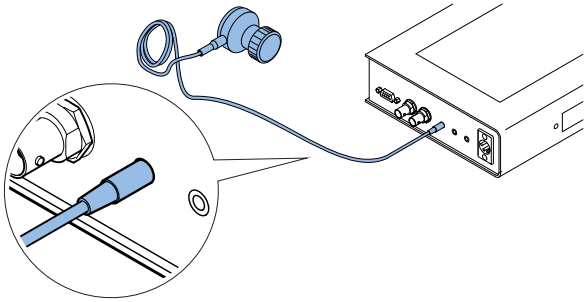
Tally Opto Sensor Monitor Connections

The tally opto sensor can be connected directly to a monitor to control the built-in tally light, and also provide a loop-through signal facility to control the tally indication on the TallyPlus and the ClockPlus.

Connecting to the Monitor - LED-TFT



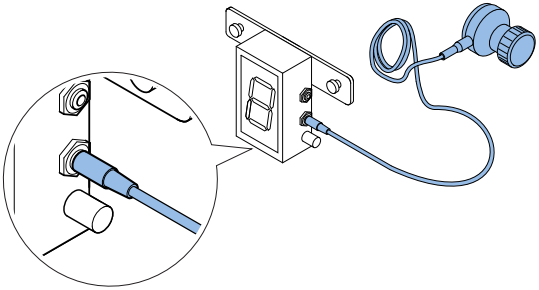
Connecting to the Monitor - LED-8



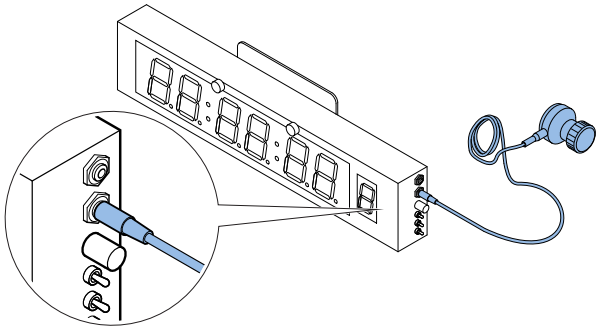
Directly Connecting the Opto Sensor

The tally opto sensor can be connected directly to the TallyPlus or the ClockPlus. This is particularly useful if only one accessory is being used in the prompter installation.

TallyPlus



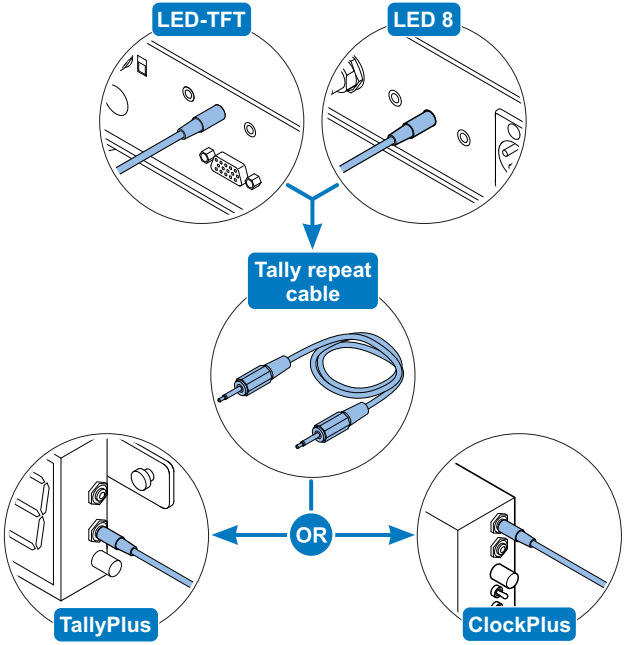
ClockPlus



Connecting the Tally Signal from the Monitor

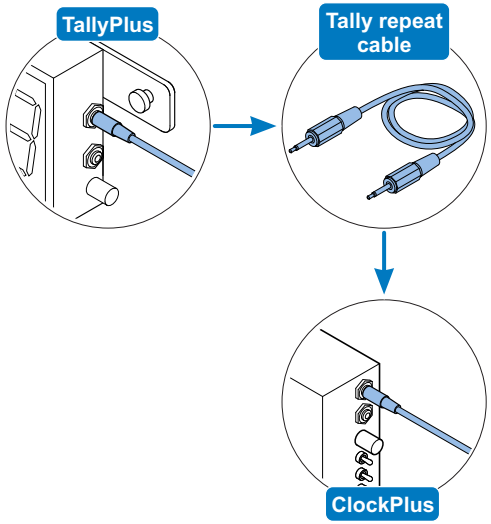
If the tally opto sensor is connected directly to the monitor, the tally indication signal is looped through the monitor* and can be connected to either the TallyPlus or the ClockPlus. The TallyPlus also has a tally loop through function, providing additional flexibility.

TallyPlus and ClockPlus



*The tally signal function is not available on the ELP15.

TallyPlus Loop Through Connection



Using the Internal Opto Sensor

If the TallyPlus or ClockPlus are mounted over the tally light on the front of the monitor, the internal opto sensor can be used to provide tally indication.

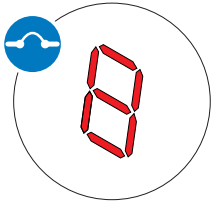
The internal opto sensor is automatically disabled if a connector is inserted into the opto sensor socket on the TallyPlus or ClockPlus, and also the tally input socket on the ClockPlus.

Alternative Tally Connections

The tally indication status of the TallyPlus and ClockPlus can be controlled by alternative control connection methods, if this is a requirement of the installation.

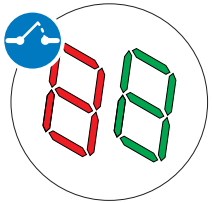
Shorting Plug for Constant Red Display

If a permanent red display is required on the ClockPlus or the TallyPlus, insert a shorting 3.5mm mono jack plug into the Tally Opto Sensor IN socket.



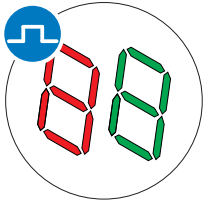
Switch Control Cable

The tally colour status change can be controlled manually by inserting a switching cable (ground loop) into the Tally Opto Sensor IN socket. An operator in the control room, for example, could then change the tally status when required.



Logic Control Connection

On the ClockPlus, a connection can be made to the Tally Input socket to feed in a logic level controlled tally signal. This could be sourced from a tally control system already in use in the studio.

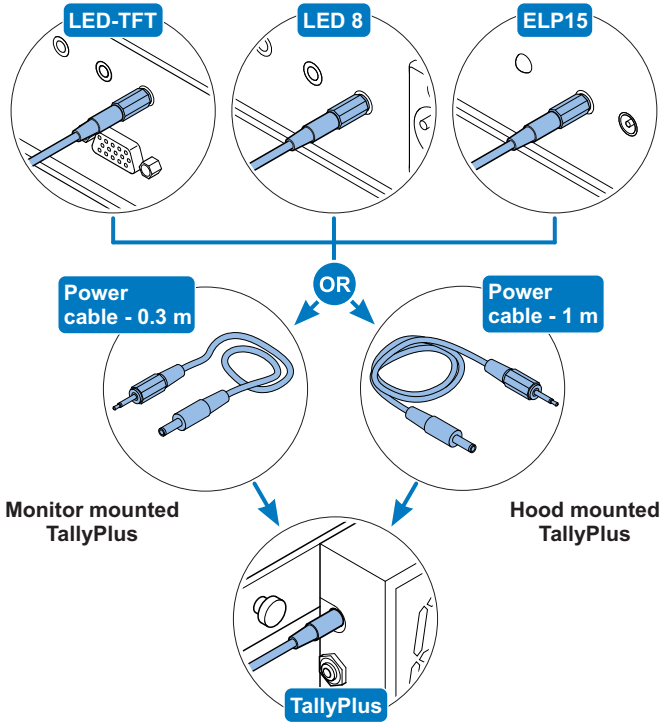


For more information on the technical specifications required for the tally connection methods, see **Alternative Tally Control Connections** on page 25.

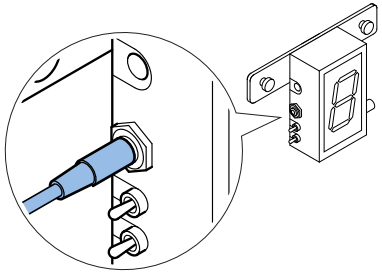
Power Connections

TallyPlus Power Connections

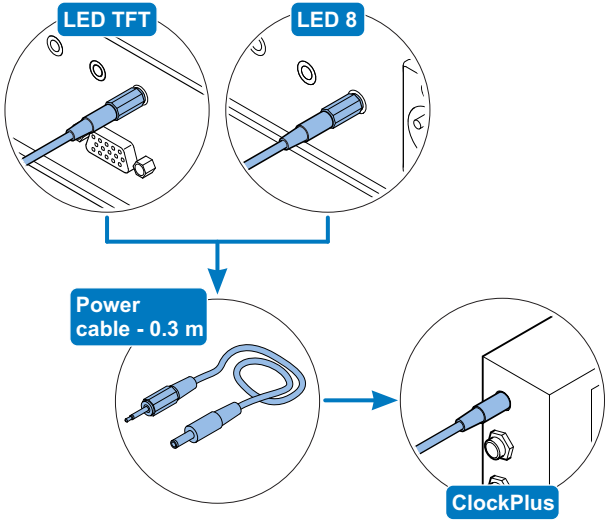
Two lengths of cable are provided to connect DC power to the TallyPlus from the monitor to cover either mounting position.



Alternatively, DC power can be supplied to the TallyPlus via the 3.5 mm jack socket.

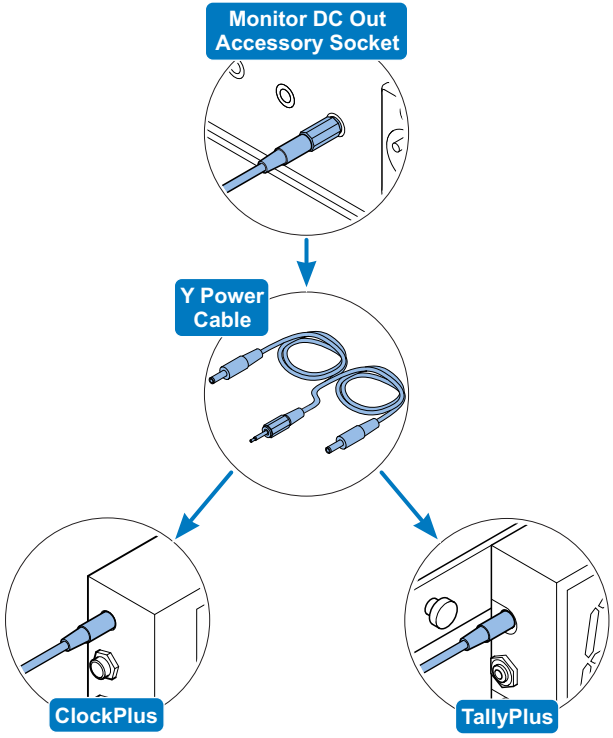


ClockPlus Power Connection



Dual Power Connection

If the TallyPlus and ClockPlus are being used in the same installation, a dual Y power cable is available to connect DC power to both accessories at the same time.



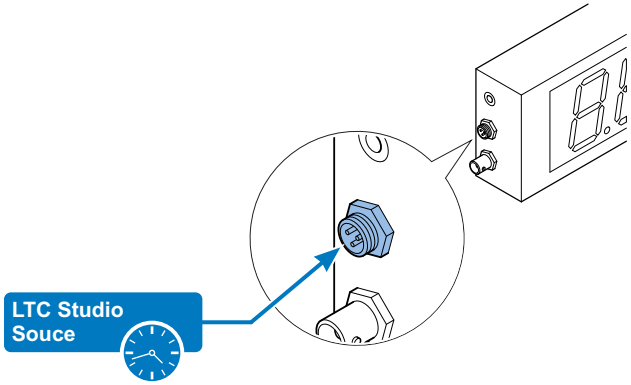
Timecode Connections (ClockPlus)

Studio sourced timecode can be connected to the ClockPlus using either LTC (Longitudinal Time Code) or VITC (Vertical Interval Time Code).

LTC and VITC can be connected to the ClockPlus at the same time and selected during configuration. The timecode cables can be connected or disconnected whilst the unit is powered.

LTC Timecode Connection

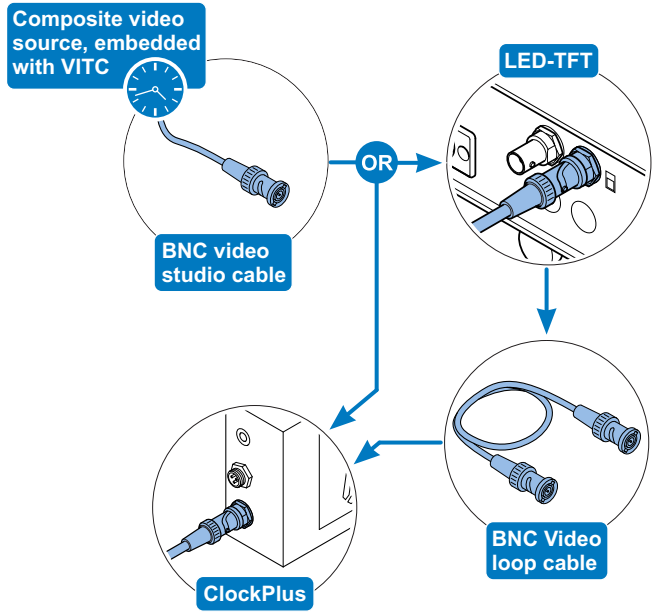
CAUTION! The LTC input is balanced and connection must be made with a suitable twin screened audio cable.



VITC Timecode Connection

CAUTION! Connection to the ClockPlus using composite video must be made with screened 75Ω coaxial cable.The video cable screen must be connected to earth (ground) at both ends.

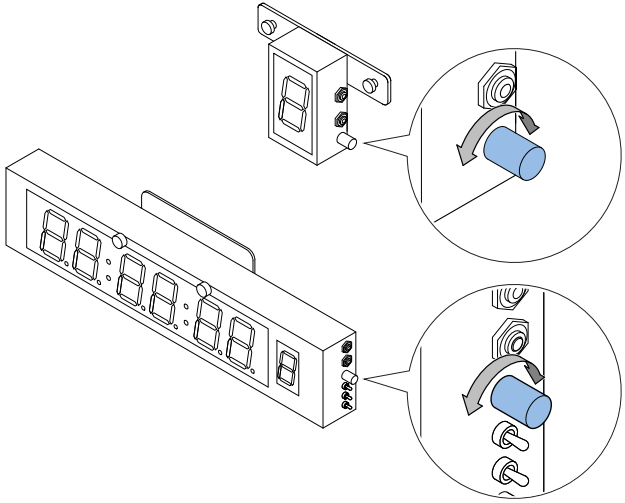
A composite video signal with embedded VITC can be connected directly, or looped through from the LED TFT range of monitors.



Adjusting the Opto Sensor Sensitivity (TallyPlus and ClockPlus)

The sensor trim control adjusts the threshold at which the opto sensor (internal or external) causes the tally indication to change colour.

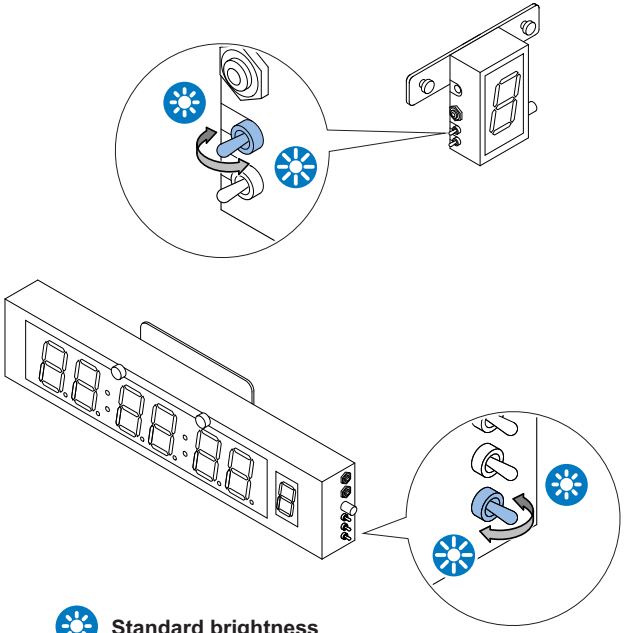
Turning the control clockwise lowers the threshold at which the unit switches from green to red, effectively increasing the sensitivity of the opto sensor.



If the tally status colour change is NOT required, the colour can be set to a permanent green display by turning the sensor trim control fully anti-clockwise.

Adjusting the Display Brightness (TallyPlus and ClockPlus)

The brightness of the LED display digits can be adjusted with the BRI switch. Two brightness levels are available.

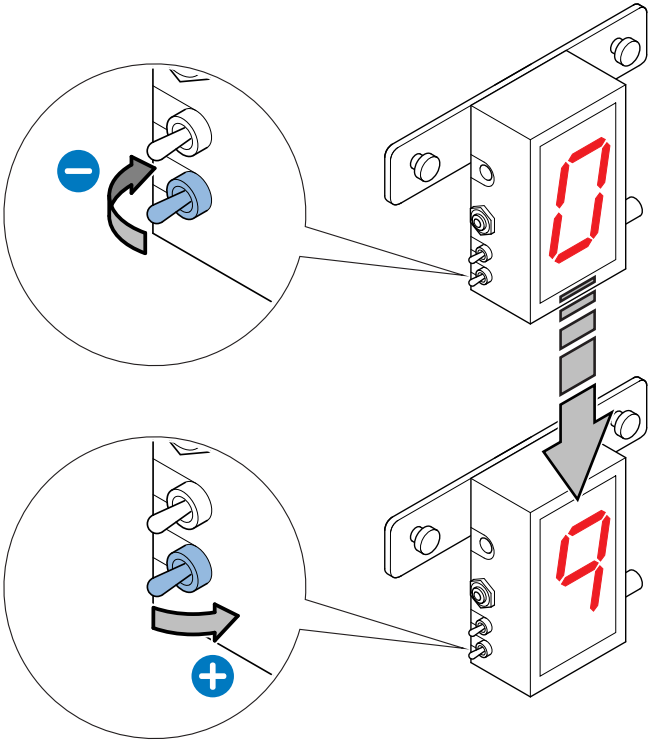


Standard brightness

High brightness

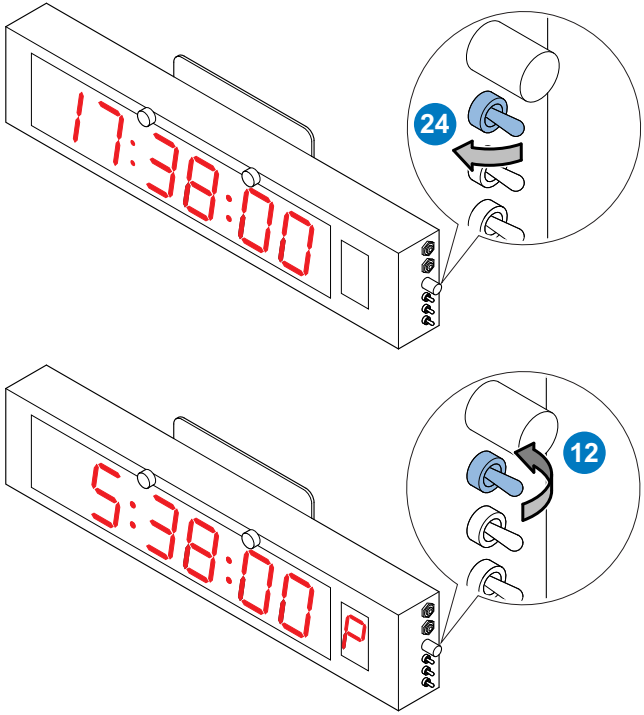
Changing the Camera Number (TallyPlus)

The camera number displayed on the TallyPlus can be changed with the NUMBER switch. Any number can be displayed in the range 0 to 9.



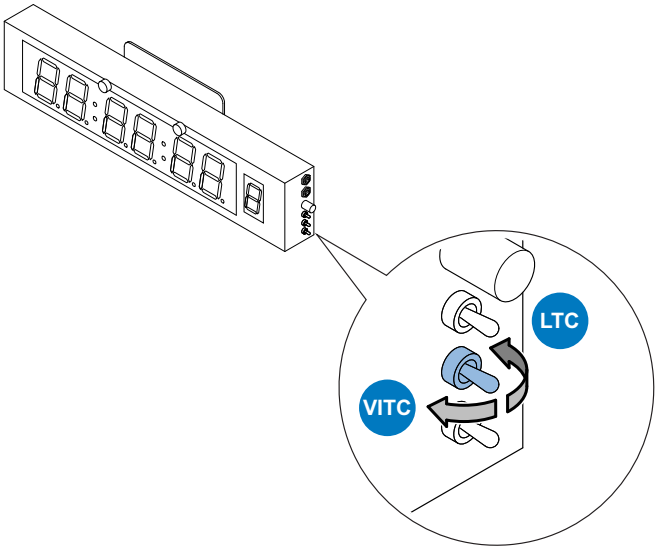
Changing the Clock Display Format (ClockPlus)

The format of the clock display can be changed with the 12/24 switch. The 12 hour clock display format provides AM/PM indication.



Timecode Selection (ClockPlus)

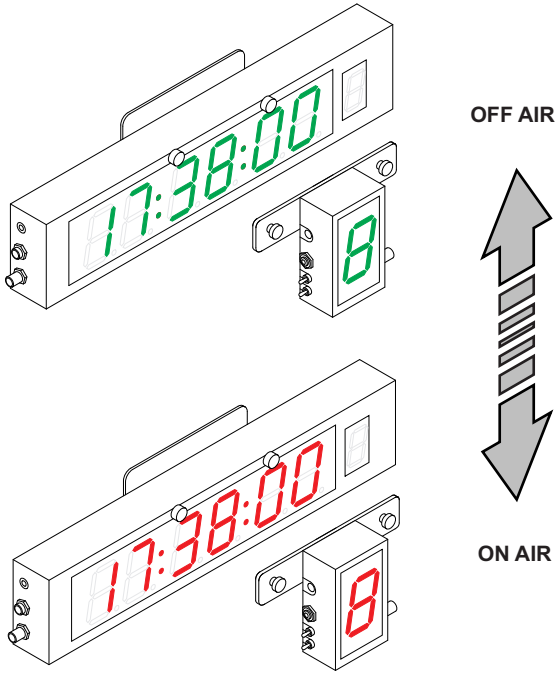
The selection of the active timecode input (VITC or LTC) can be changed with the V/L switch.



If only one timecode source is connected, the ClockPlus will auto-select the active input and disregard the current switch setting.

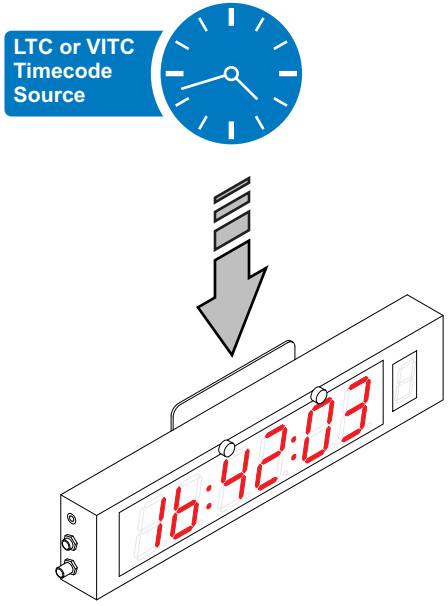
Tally Function Operation (TallyPlus and ClockPlus)

The tally indication on the TallyPlus and ClockPlus is represented by the colour of the display digits changing between green and red. Depending on how the system has been configured, the tally indication change can be sourced from either the camera or monitor tally light, a switch, or a logic control signal.



Timecode Operation (ClockPlus)

The ClockPlus can display SMPTE/EBU station timecode when connected to a suitable LTC or VITC source. When a timecode source is connected the clock will instantly set itself to the input time.



If the timecode source is removed, the clock will continue to count and display time but with decreased accuracy.

Routine Maintenance

The on-camera prompter accessories require minimal routine maintenance, apart from checking the connections and overall operation periodically.

Routine checks

During use, check the following:

- Check cables for signs of wear or damage. Replace as necessary.
- Check that all cables are connected properly.

Cleaning

WARNING! Risk of electric shock. Disconnect and isolate the product from the power supply before cleaning.

During normal use the only cleaning required should be a regular wipe over with a dry, lint-free cloth. Dirt accumulated during storage or periods of disuse may be removed with a vacuum cleaner. Particular attention should be paid to all connection ports on the ClockPlus and the TallyPlus.

Fault	Check	Comments
The accessory is not powering up.	Check that the DC power source is connected and secured.	See the section **Power Connections** on page 15.
The tally indication (ClockPlus or TallyPlus) is not changing colour status.	Check that the appropriate tally connections for the installation have been correctly made.	See the section **Directly Connecting the Opto Sensor** on page 13.
	Use the opto sensor trim control to adjust the switching threshold.	See the section **Adjusting the Opto Sensor Sensitivity (TallyPlus and ClockPlus)** on page 18.
	Check that the opto sensor is correctly positioned over the camera tally light, and that the light is functioning.	See the section **Mounting the Tally Opto Sensor** on page 8.
Timecode is not being displayed on the ClockPlus or has become inaccurate.	Check that the timecode source (LTC or VITC) has been connected and is active.	See the section **Timecode Connections (ClockPlus)** on page 17.

Technical Specification

Physical Data

	TallyPlus	ClockPlus
Width*	60 mm (2.4 in)	383 mm (15.1 in)
Height*	82 mm (3.2 in)	88 mm (3.5 in)
Depth*	31 mm (1.2 in)	34.5 mm (1.4 in)
Weight	0.15 kg (0.33 lb)	0.8 kg (1.76 lb)

*Excluding controls/connectors.

Environmental Data (All Accessories)

Operating temperature range . . . . . .5°C to +40°C (41°F to +104°F)
Storage temperature range. . . . . -20°C to +60°C (-4°F to +140°F)

Electrical Data

	TallyPlus	ClockPlus
Supply Voltage	12 VDC	12 VDC
Current (max)	0.22 A	1.6 A

Display Data (TallyPlus)

Format . . . . . Seven segment LED display digit (0-9)
Size. . . . . 57.1 mm (2.25 in)

Display Data (ClockPlus)

Format . . . . . Seven segment LED display digits (HH:MM:SS A/P)
Size (HH:MM:SS) . . . . . 57.1 mm (2.25 in)
Size (A/P) . . . . . .38.1 mm(1.5 in)

Opto Sensor Data

Sensor . . . Light dependent resistor, 20k Ω at 10 Lux, 5K Ω at 100 lux
High illumination . . . . . Red tally indication
Low illumination . . . . . Green tally indication

Connections Data

DC Power Socket (TallyPlus and ClockPlus)

Connector type: 2.1 mm DC socket.

Pin	Signal
Centre	+12 VDC
Outer	GROUND

TallyPlus Alternative DC Power Socket

Connector type: 3.5 mm mono jack socket.

Pin	Signal
Centre	+12 VDC
Outer	GROUND

Opto Sensor Socket (TallyPlus and ClockPlus)

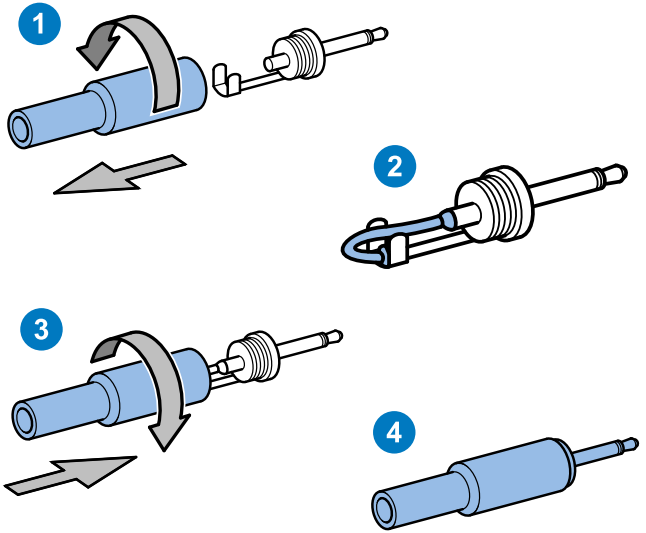
Connector type: 3.5 mm mono jack socket.

Pin	Signal
Tip	HOT
Sleeve	GROUND

Alternative Tally Control Connections

Shorting Plug (TallyPlus and ClockPlus)

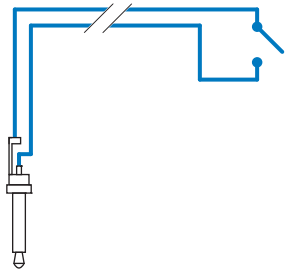
If a constant red display is required, a 3.5 mm shorting jack plug can be inserted into the opto sensor socket. The shorting jack plug can be easily made by wiring the tip and sleeve of the plug together.

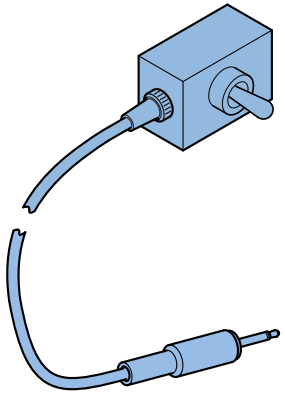


Switch Control Cable (TallyPlus and ClockPlus)

The tally colour status change can be controlled manually by inserting a switching cable (ground loop) into the opto sensor socket. An operator in the control room, for example, could then change the tally status when required.

The switching cable consists of a 3.5 mm jack plug, a length of twin conductor cable, and a latching on/off switch.





Logic Control Connection (ClockPlus)

The tally input connector senses a positive logic signal applied to the input and switches the display red.

Connector type: 3.5 mm mono jack socket.

Pin	Signal
Tip	HOT
Sleeve	GROUND

Logic voltage specification:

High State (Red Tally)	>2.5V, <12.5V
Low State (Green Tally)	<1.0V or CONTACT OPEN

Longitudinal Time Code Input Socket (ClockPlus)

Standard . . . SMPTE 12M linear time code - 24, 25 or 30 Fps nominal
Impedance . . . . . .> 50k Ω, balanced
Level . . . . . .1 V to 3.0 V p-p
Connector type: 3 pin male TiniQ-G miniature XLR.

Pin	Signal
1	GROUND (Cable screen)
2	SIGNAL + (HOT)
3	SIGNAL - (COLD)

Vertical Interval Time Code Input Socket

Standard . . . . . PAL or NTSC
Impedance . . . . . 75 Ω, balanced
Level . . . . . 1 V p-p
Connector type: 75Ω BNC socket.

Pin	Signal
Centre	Composite Video In (PAL or NTSC)
Outer	GROUND (Cable screen)

Technical specifications are subject to change without notice.

FCC Certification

FCC Notice

This product complies with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference with radio communications. Operation of this product in a residential area is likely to cause harmful interference, in which case you will be required to correct the interference at your own expense.

FCC Warning

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC Declaration of Conformity

This product complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This product may not cause harmful interference.
2. This product must accept any interference received, including interference that may cause undesired operations.

Declaration of Conformity

This product complies with the following EU Directives:

- Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC

Compliance with these directives implies conformity to applicable harmonized European standards (European Norms) which are listed on the EU Declaration of Conformity for this product or product family. A copy of the Declaration of Conformity is available upon request.

Environmental considerations

ROHS Compliance Statement

Vitec Videocom Limited is compliant with the European Union Directive 2002/95/EC Restrictions of Hazardous Substances (RoHS) that restricts the use of hazardous substances in Electrical and Electronic Equipment.

European Union Waste of Electrical and Electronic Equipment (WEEE) Directive (2002/96/EC)

This symbol marked on the product or its packaging indicates that this product must not be disposed of with general household waste. In some countries or European Community regions separate collection systems have been set up to handle the recycling of electrical and electronic waste products. By ensuring this product is disposed of correctly, you will help prevent potentially negative consequences for the environment and human health. The recycling of materials helps conserve natural resources.

Visit our website for information on how to safely dispose of this product and its packaging.

In countries outside the EU:

Dispose of this product at a collection point for the recycling of electrical and electronic equipment according to your local government regulations.

Pollution statement

This equipment is designed for operation in Pollution Degree 2 environments.

Publication part No. ACC-4980/1

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