

Transport Pro

Universal Video Controller



User Manual

JL COOPER ELECTRONICS

*TransportPro, SloMoPro, SloMo Mini, GangWay4, GangWay16, GangWay32, Edit Suite Series, ES-SloMo and ES-450 are trademarks of JLC Cooper Electronics.
All other brand names are the property of their respective owners.*

*TransportPro RS422 User's Manual, First Edition (January 11, 2022)
Part Number 932157*

*©2022 JLC Cooper Electronics, 142 Arena Street, El Segundo, CA 90245 USA
(310) 322-9990*

FAX(310) 335-0110

www.jlcooper.com

Table of Contents

Introduction.....	4
Features.....	4
Connecting.....	5
Using your TransportPro	6
Identifying your recorder.....	6
Using the TransportPro.....	7
Manual Timecode Entry.....	10
One Touch Preset and Recall.....	10
Using with GangWay4	11
GangWay Controls.....	11
Controlling the GangWay.....	12
Technical Information	13
Pinout	13
Deck Control	13
GPI Inputs and Outputs	14
Command Reference	15
Replacement Parts	16
Power Supply.....	16
Care and Service.....	16
JLCooper Electronics Limited Warranty.....	17

Introduction

The TransportPro is a compact controller for News, Sports, Scoreboard and other slow motion editing operations. It makes the operation of professional video recorders quick and easy.

It's a full-featured 4-machine editor and universal Jog/Shuttle remote for most VTRs and disk based recorders. Its sleek design and low cost make it the perfect addition to edit suites, remote trucks and field production applications.

TransportPro features include professional transport buttons, professional Jog Wheel and Shuttle Ring for convenient picture search operations, a high quality T-Bar to control Slow Motion effects, an easy to read 2 line by 16 character VFD display for accurate editing, a numeric keypad, fast access function keys and an integrated data and power cable to minimize workspace clutter.

The JLCoper TransportPro RS-422 is a remote control for VTRs and other machines that support Sony 9 Pin "P2" protocol.

The TransportPro controls professional analogue and digital VTRs, modular digital multitrack and disk-based VTR emulators.

The TransportPro features a smooth, weighted and optically encoded jog shuttle wheel with concentric shuttle ring, and transport and function keys.

Features

The TransportPro allows the following control of your video recorder:

- Play
- Reverse Play
- Pause*
- Stop
- Record
- Jog Forward/Reverse
- Shuttle Forward/Reverse
- Rewind and Fast Forward
- Frame Advance
- Jump to Next/Previous Clip*
- Jump Ahead/Back 10 seconds*
- One touch instant recall
- Goto Manual Location

** Depends on the recorder detected by the TransportPro.*

Connecting

Connecting the TransportPro in your system is rather straightforward and easy. The TransportPro comes with an attached breakout cable. The end of the breakout cable has two connectors.

One connector is a 9 pin D-Subminiature connector that connects directly to a video recorder. This is usually labelled 'REMOTE' or 'CONTROL' on the video recorder.

The other connector is a power connector. Power can come from either the power mains using the provided power supply or directly from 9-12 volts DC. The connector is a 2.1mm coaxial power connector. The center pin is positive. A power switch on the rear panel turns the TransportPro on or off.



TransportPro Connected to a Video Deck

Using your TransportPro

Identifying Your Recorder

As soon as the TransportPro is powered up, the controller continuously asks the recorder for its Device ID. The TransportPro uses this response to adjust its behavior to specific recorders.

The TransportPro also uses this Device ID to determine the frame rate of the recorder. This is used for the Frame+1/Frame-1 function.

The TransportPro currently has specific functionality for the following recorders:

- Blackmagic Design HyperDeck Studio Series
- Aja Ki Pro Series
- Fast Forward Video Recorders
- VideoDevices PIX Series
- Datavideo HDR-60/70
- Sony XDCAM Series
- Atomos Shogun Studio

If the recorder responds with any other Device ID, the unit controls the recorder as a generic Sony Betacam (BVW-75) recorder.

Using the TransportPro

TIMECODE DISPLAY

The TransportPro continuously asks the recorder selected for tally for its position. The TransportPro will display the recorders position in the Timecode display on the controller.

Nondrop frame timecode is indicated without a period before the timecode as shown in the screenshot at right.

TC= 01:26:43:15

Drop frame timecode is indicated with a period before the timecode as shown in the screenshot at right.

TC=.01:26:43:15

F-PLAY

Pressing this button causes the TransportPro to send the Play command. Alternately, pressing and holding the Shift button while pressing the Play button will cause the TransportPro to send the Record command.

This button illuminates when the video device reports back that it is playing or recording.

SHIFT/RECORD

Pressing the SHIFT + F-Play button causes the TransportPro to send the Record command. This also known as Crash Record. When the recorder enters the record mode, the recorder will respond accordingly and the TransportPro will illuminate the Record indicator. Conversely, when the recorder exits the record mode, the recorder will respond accordingly and the TransportPro will extinguish the Record indicator.

Note: Only the recorder selected for tally is used to illuminate the Record indicator.

When the recorder is in Record mode, pressing the STOP button causes the TransportPro to command the recorder to stop recording.

R-PLAY

Pressing the R-PLAY button causes the TransportPro to send the Variable Reverse 1x command.



F-FWD, REWIND

Pressing the F-FWD/Rewind buttons causes the TransportPro to send the Fast Forward and Rewind commands respectively.

STOP

Pressing the STOP button causes the TransportPro to stop the playback of video. If the recorder is in Record mode, the TransportPro commands the recorder to stop recording.

For the Atomos Shogun Studio, TransportPro sends the Stop command.

For all other recorders, TransportPro sends the Shuttle Forward 0x command. This is also known as Pause or Still.

FRAME+1, FRAME-1

Pressing the Frame+1/Frame-1 buttons cause the TransportPro to retrieve the current timecode from the recorder selected for tally, adds or subtracts one frame from the timecode and commands the recorder to goto that new position.

CLIP/10 SEC+, CLIP/10 SEC-

For the Ki Pro, Sony XDCAM and VideoDevices PIX Series recorders, pressing the Clip/10 Sec+ button causes the TransportPro to command the recorder to load the next clip. Pressing the Clip/10 Sec- button causes the TransportPro to command the recorder to load the previous clip.

For all other recorders, pressing these buttons causes the TransportPro to retrieve the current timecode from the recorder selected for tally, adds or subtracts ten seconds from the timecode and commands the recorder to goto that new position.

2/4/8/16X+, 2/4/8/16X-

Pressing the 2/4/8/16x+, 2/4/8/16x- buttons cause the TransportPro to send the Shuttle Forward or Reverse 2x command. Subsequent presses cause the TransportPro to increase the speed to 4x, 8x and 16x.

JOG WHEEL

Turning the center Jog wheel causes the recorder to play video slowly (slower than play speed). Turning the Jog wheel clockwise causes the video to move forward. Conversely, turning the Jog wheel counterclockwise causes the video to move backwards. The Jog wheel has a range of forward 1/2x play speed to reverse 1/2x play speed.

When the Jog wheel ceases moving, the TransportPro pauses the video playback. The TransportPro also retrieves the current timecode from the recorder selected for tally and commands all the selected recorders to goto that new position. This allows all the selected recorders to pause at the same location.

As the Jog wheel is turned, the direction indicators above the Jog wheel will illuminate based on the direction that the Jog wheel is being turned. Turning the Jog wheel clockwise causes the right facing direction indicator to illuminate. Conversely, turning the Jog wheel counterclockwise causes the left facing direction indicator to illuminate. When the Jog wheel ceases moving, both direction indicators are extinguished.

SHUTTLE RING

Turning the outer Shuttle ring causes the recorder to play video quickly (faster than play speed). Turning the Shuttle ring clockwise from the center detent position causes the video to move forward. Conversely, turning the Shuttle ring counterclockwise from the center detent position causes the video to move backwards. The Shuttle ring has a range of forward 10x play speed to reverse 10x play speed.

When the Shuttle ring is moved to the center detent, the TransportPro pauses the video playback. The TransportPro also retrieves the current timecode from the recorder selected for tally and commands all the selected recorders to goto that new position. This allows all the selected recorders to pause at the same location.

As the Shuttle ring is turned, the direction indicators above the Shuttle ring will illuminate based on the direction that the Shuttle ring is being turned. Turning the Shuttle ring clockwise causes the right facing direction indicator to illuminate. Conversely, turning the Shuttle ring counterclockwise causes the left facing direction indicator to illuminate. When the Shuttle ring is brought to the center detent, both direction indicators are illuminated.

Note: The TransportPro uses the center detent position to calibrate the Shuttle ring. If the TransportPro is powered up with the Shuttle ring out of the center detent position, the Shuttle ring may not work as expected.

ON/OFF

This button allows the Jog wheel and Shuttle ring to be enabled or disabled. Tap the button once to disable the Jog wheel and Shuttle ring. Tap the button again to enable the Jog wheel and Shuttle ring.

GOTO

The TransportPro has the ability to cue the recorder to any arbitrary location that is valid for the recorder. The TransportPro has two ways to cue the recorder.

- Manual Timecode Entry
- One Touch Preset and Recall

SELECT CHANNEL

This button is used with the optional GangWay4 to select the active ports. Pressing the Select Channel button at the top left corner of the TransportPro will cause the TransportPro to display "Select Channel". Refer to the section on GangWay operation.

1 - 4

These buttons are used with the optional GangWay4 to select the active ports. Refer to the section on GangWay operation.

TALLY

This button is used with the optional GangWay4 to select the active ports. Refer to the section on GangWay operation.

Manual Timecode Entry

The Manual Timecode Entry method allows you to manually enter a timecode and have the TransportPro command the recorder(s) to go to that location.

To use the Manual Timecode Entry method, simply perform the following:

1. Press the GOTO button.



Goto : : :

2. Enter the desired timecode using the blue numbered buttons.

Note: Any leading zeros do not need to be entered.



Goto 02:15:37:16

3. To complete the locate operation, press the ENTER button. The TransportPro will command the recorder(s) to go to that location.



Goto Locate

One Touch Preset and Recall

The One Touch Preset and Recall method allows you to store a location and later recall that location. When the location is recalled, the TransportPro will command the recorder(s) to go to that location. Up to 7 locations can be stored. Locations can be stored regardless of the mode that the recorder is in. Locations will be remembered even after the TransportPro is powered off.

Storing a Preset Location

Store Locate #5 To store a location for later recall, press and hold the SHIFT button, then tap one of the location buttons (LOC1 - LOC7).



Store Locate #5

Recalling a Preset Location

Goto Locate #5 To recall a location, press the GOTO button, then tap one of the location buttons (LOC1 - LOC7).

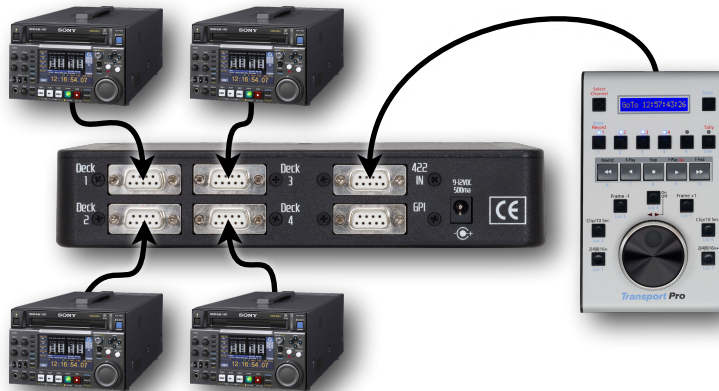


Goto Locate #5

Using with GangWay4

The TransportPro is able to remotely control the GangWay4.

To use the GangWay4 with the TransportPro, simply connect the TransportPro to the rear panel controller port of the GangWay4 as shown below.



Connecting the GangWay4 to the TransportPro and 4 video recorders

GangWay Controls

When GangWay Operation is enabled in the menu, the Machine Control buttons and LEDs are repurposed to control the GangWay4 (Ports 1-16 only). In this case, the functions of the buttons and LEDs are as follows:

Select Channel

Pressing this button enters the GangWay4 configuration mode. In this mode, the Select Channel LED will illuminate and the VFD will show and the 1 - 4 LEDs will show the GangWay4 routing.

Tally

Pressing this button allows you to select the port, which provides Tally information (timecode, status) to the TransportPro. In this mode, the Tally LED will illuminate and the 1 - 4 LEDs will show the GangWay4 Tally routing.

1 - 4

These numbered switches allow the user to enable a slave device connected to the corresponding numbered port on the rear panel. This allows commands from the controller port to be routed to the selected numbered port(s).

When the Set Tally button is not pressed,

- A button illuminates when the port is selected for control.

- A button is extinguished when the port is not selected for control.

Then the Set Tally button is pressed,

- A button illuminates when the port is selected for Tally.

- A button is extinguished when the port is not selected for Tally.

Controlling the GangWay

Select Channel

To control the GangWay4, simply press the Select Channel button. The display will show Select Channel and indicate the selected decks by illuminating buttons 1 -4.

To toggle the selection of a deck, press a numbered button.



Select Channel

Select Tally

To select the deck that shows it's timecode on the TransportPro, press and hold the Tally button then press a numbered button. The TransportPro will indicate the deck selected for Tally by illuminating buttons 1 -4.



Select Tally

Exiting GangWay Mode

To exit the GangWay4. mode, simply press the Select Channel button so the TransportPro displays the timecode from the selected deck.



TC=. 00:32:41:20

Technical Information

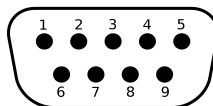
Pinout

Deck Control

The pinout of the 9 pin D Subminiature connectors is shown in the following table.

	TransportPr	Direction	Recorder
1	Ground		Ground
2	Receive A (-)	←	Transmit A (-)
3	Transmit B	→	Receive B (+)
4	Ground		Ground
5	Not used		Not used
6	Ground		Ground
7	Receive B (+)	←	Transmit B
8	Transmit A (-)	→	Receive A (-)
9	Ground		Ground

Pinout of 9 Pin D-Subminiature Connector
For Deck Control



Pin Identification of 9 Pin D-Subminiature
Connectors

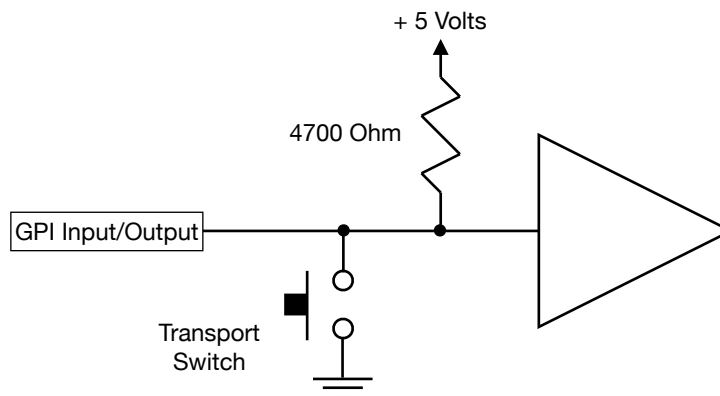
GPI Inputs and Outputs

The table below details the pinout of the GPI connector on the rear panel of the TransportPro.

Transport Switch	
1	Fast Forward
2	Stop
3	Rewind
4	-
5	Ground
6	Play
7	R-Play
8	Shift
9	-

Pinout of 9 Pin D-Subminiature Connector
For GPI Inputs/Outputs

The GPI Inputs/Outputs mirror the function of the common transport switches. The function of each GPI Inputs/Outputs is shown in the diagram below. **The maximum voltage on the GPI pins is +5 volts.**



Command Reference

The table below lists the various command messages that the TransportPro sends to the recorder. The specific messages may vary based on the actual recorder detected.

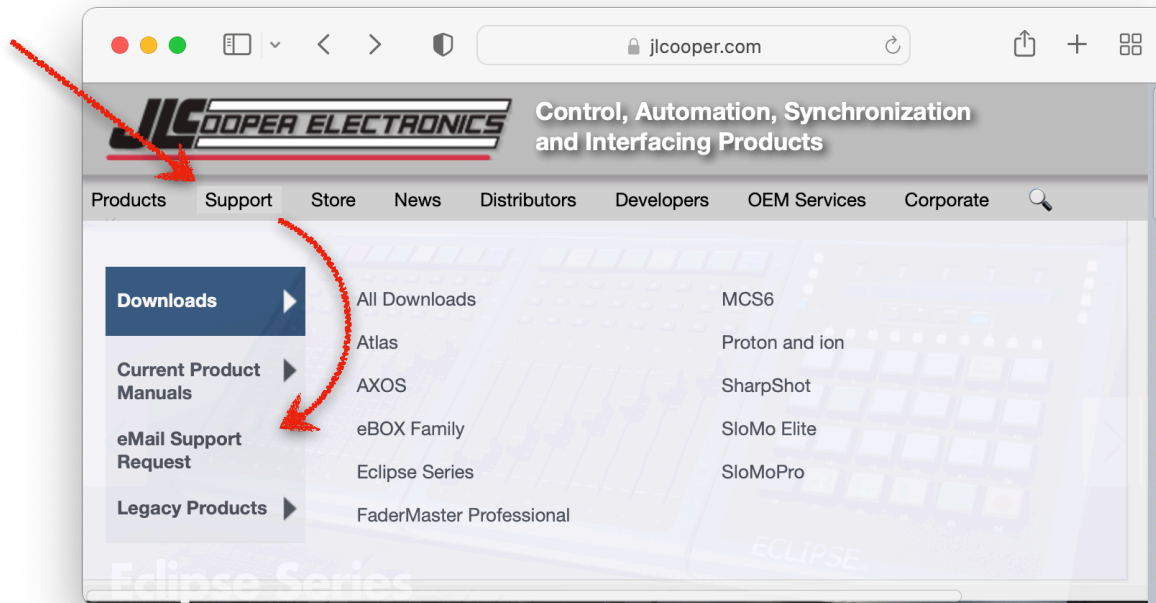
Function	Command
STOP	21 13 00
F-PLAY	20 01
R-PLAY	21 22 40
F-FWD	20 10
REWIND	20 20
RECORD	20 02
FRAME+/-1	24 31 <ff> <ss> <mm> <hh>
+/-10 SECONDS	24 31 <ff> <ss> <mm> <hh>
+2/4/8/16X	21 13 <speed>
-2/4/8/16X	21 23 <speed>
JOG FORWARD	21 11 <speed>
JOG REVERSE	21 21 <speed>
SHUTTLE FORWARD	21 13 <speed>
SHUTTLE REVERSE	21 23 <speed>
GOTO	24 31 <ff> <ss> <mm> <hh>
TIMECODE REQUEST	61 0C 03
STATUS REQUEST	61 20 11
DEVICE ID REQUEST	00 11

Function Commands

Replacement Parts

If replacement parts are needed, you can order them directly from JLC Cooper Electronics.

You can contact us using our website by going to JLCooper.com, selecting the **Support** tab and clicking on **eMail Support Request**.



Power Supply

The TransportPro uses a power supply that is rated at 9 volts DC at 500mA. The connector is a barrel connector that is 11mm long, has an outer diameter of 5.5mm and center diameter of 2.1 mm. Connector is positive polarity.

If you need to order a replacement, you can order it directly from us. The JLCooper part number is 561036.

Care and Service

If properly cared for, your TransportPro should provide years of trouble-free performance. While the TransportPro is built in a rugged metal enclosure, please avoid dropping the TransportPro or hard banging on the keys.

Clean with a soft cloth dampened with window cleaner. Do not allow liquids or foreign matter to get inside the unit.

There are no user-serviceable parts in the TransportPro. Please refer to the really fine print following for detailed warranty and service information.

JLCooper Electronics Limited Warranty

JLCooper Electronics ("JLCooper") warrants this product to be free of defects in materials or workmanship for a period of 12 months from the date of purchase. This warranty is non-transferable and the benefits apply only to the original owner. Proof of purchase in the form of an itemized sales receipt is required for warranty coverage. To receive service under this warranty, customers in the United States should contact the JLCooper factory at (310) 322-9990 and talk to a service technician. If necessary, a Return Authorization number may be issued. For our customers outside the United States, it is recommended that you first contact your Dealer or Distributor, since they may offer their own service or support policy. If local support is not obtainable, please send a FAX to JLCooper's Service Department at +1 310 335 0110 with a detailed description of the service required. Upon issuance of return authorization, the product should be packed in the original shipping materials and shipped prepaid and insured to: Service Department, JLCooper Electronics, 142 Arena Street, El Segundo, CA 90245. Please include the following: copy of the sales receipt, your name and address (no P.O. Boxes, please), a brief description of the problem, and any other related items discussed with the service department and considered necessary to evaluate the product or effect a repair. The return authorization number must be clearly written on the outside of the package. JLCooper will, at its option, without charge for parts or labor, either repair or replace the defective part(s) or unit. Shipping costs, duties, customs, brokerage and other fees to and from JLCooper are not covered by this warranty. JLCooper's normal repair turn around time at the factory is approximately 10 business days from receipt of product to shipping. Your actual turn around time will include return shipping. Actual turn around time will vary depending upon many factors including the repeatability of the customer's reported complaint, the availability of parts required for repair, the availability of related products needed to evaluate the product if necessary. Priority services are available at additional cost. These should be discussed with the service representative at the time the return authorization is issued. This warranty provides only the benefits specified and does not cover damage, defects or repairs needed as result of acts beyond the control of JLCooper including but not limited to: abuse, damage by accident or negligence, damage from using incorrect power supply, modification, alteration, improper or abnormal use, unauthorized servicing, tampering, ingress of foreign matter or failure to operate in accordance with the procedures outlined in the owner's manual; nor for natural or man-made events such as, but not limited to flooding, lightning, tornadoes, earthquake, fire, civil unrest, war, terrorism, etc.

THE DURATION OF ANY OTHER WARRANTIES, WHETHER IMPLIED OR EXPRESS, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTY OF MERCHANTABILITY, IS LIMITED TO THE DURATION OF THE EXPRESS WARRANTY HEREIN. JLCOOPER HEREBY EXCLUDES INCIDENTAL AND CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO: LOSS OF TIME, INCONVENIENCE, DELAY IN PERFORMANCE OF THIS WARRANTY, THE LOSS OF USE OF THE PRODUCT OR COMMERCIAL LOSS, AND FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY APPLICABLE TO THIS PRODUCT. JLCOOPER SHALL NOT BE LIABLE FOR DAMAGES OR LOSS RESULTING FROM THE NEGLIGENT OR INTENTIONAL ACTS OF THE SHIPPER OR HIS CONTRACT AFFILIATES. THIS WARRANTY SHALL BE GOVERNED BY THE LAWS OF THE STATE OF CALIFORNIA.