

MCS6 RS-422

Media Control Station for VTR Control



Users Manual

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JL COOPER ELECTRONICS

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Introduction

The JLCoooper MCS6 RS-422 is a remote control for VTRs and other machines that support Sony 9 Pin "P2" protocol.

The MCS6 controls professional analogue and digital VTRs, modular digital multitrack and disk-based VTR emulators.

The MCS6 can also operate in certain applications as a control station input device for computer-based editing systems.

The MCS6 features a smooth, weighted and optically encoded jog shuttle wheel with concentric shuttle ring, and transport and function keys.

As shipped from the factory, the MCS6 is normally configured and ready to use as a VTR controller.

When the MCS6 is intended to be used as an input device for a computer editing system, it will need to be reconfigured internally. Instructions for doing this are provided at the end of this manual.

This manual relates to the features and operation of the MCS6 as a 9 Pin/P2 controller. If the MCS6 is used as an input device to a computer-based system, follow the instructions included with the system.

Connecting The MCS6

Connect the supplied external power supply to the power jack on the MCS6's captive cable.

In case a replacement supply is used, see to it that it has the same rating as the original supply. The power supply's output is rated at 9 volts DC, 500 mA, with a center positive 2.1 mm plug.

Connect MCS6 9 Pin cable to the 9 Pin remote input of the machine that you are controlling.

Features And Operation

Transport Functions

The Transports control Rewind, Fast Forward, Stop, Play, and Record. Pause is enabled by pressing the button marked W7.

The Record button is interlocked with the Play button.

To enable Record, you must hold down one and push the other.

Record only operates if tracks have been enabled (armed) first (see Track Enabling below).

To Record, first arm tracks. Then press and release Play, and allow the machine to come up to speed.

Then press Play again and hold it down.

While holding down Play, press Record.

Then release both switches.

While in Record mode, the pressing of the Play button send a Record Exit command, dropping the controlled unit out the record state.

V-Stick Functions

The V-Stick is located to the upper right of the jog/shuttle control. It is a soft, four position switch.

The switch is activated by applying pressure either left, right, toward you, or away from you (it is not necessary to press down or rotate the control). It performs the following functions:

- V-Stick Down = Reverse 2x Speed
- V-Stick Up = Forward 2x Speed
- V-Stick Left = Reverse 1x Speed
- V-Stick Right = Forward 1x Speed

Jog Mode

The center wheel is for Jog mode. In Jog mode, playback speed and direction is proportional to the speed and direction that the wheel is rotated.

Rotate the wheel clockwise for forward playback.

Rotate the wheel counter clockwise for reverse playback.

In Jog mode, continuously rotating the wheel results in 1x play speed, either forward or backward.

To stop the tape, simply stop turning the wheel.

Shuttle Mode

The outer ring is for Shuttle mode. In Shuttle mode, playback speed is related to the extent of rotation away from the starting position of the wheel.

Rotate the ring clockwise for forward shuttle.

Rotate the ring counter clockwise for reverse shuttle.

The program continues to shuttle until the ring is returned to its center position. Alternately, simply press Stop.

Shuttle LEDs

Normally, on power up, the shuttle ring LEDs will not light until the shuttle ring is centered.

After that, the shuttle ring LEDs will light depending upon the direction of rotation from center. Both LEDs are on when the ring is centered.

Locate Functions

The MCS6 may be taught locations either on the fly (program is playing) or while stationary (program is stopped).

Locates are stored by pressing and holding the Record button, and while holding the Record button, press W1 thru W6.

A location request will be sent, and the response stored within the MCS6. This will be remembered until power is removed from the MCS6 .

The MCS6 stores six locate points:

W1	= Locate 1
W2	= Locate 2
W3	= Locate 3
W4	= Locate 4
W5	= Locate 5
W6	= Locate 6
W7	= Pause

Track Arming Analog Or Digital Machines

The MCS6 can send the appropriate commands for track arming analog or digital machines.

The unit normally is configured for digital track arming.

To change modes, press and hold down buttons F5 and F6 at the same time.

While holding down F5 and F6, press F2 to change to analog mode.

While holding down F5 and F6, press F1 to return to digital mode.

Track Number Shifting

Function Keys F1 - F4 can be used to arm tracks 1 - 4, and

Function Keys F1 - F4 can be used to arm tracks 5 - 8.

Function Keys F5 & F6 act as track number "shift buttons".

For example,

F1 through F4 toggle the track arming state of tracks 1 - 4.

Press and release F6:

F1 through F4 now toggle the track arming state of tracks 5 - 8.

Press and release F5:

F1 through F4 now toggle the track arming state of tracks 1 - 4 again.

Be aware that the MCS6 has no knowledge of any track enabling done on the front panel of the VTR machine itself. Nor does it know the status of the machine when the MCS6 is first powered on. The MCS6 powers-up operating under the assumption that all tracks are not enabled.

Analog Machine Track Mapping

Actual mapping of tracks to audio/video is machine dependent, and should be confirmed before doing any real editing.

Typically, the mapping is:

Track 1	= Audio Track 1
Track 2	= Audio Track 2
Track 3	= Time Code
Track 4	= not used
Track 5	= Video
Track 6	= Assemble
Track 7	= Insert
Track 8	= not used

Technical Information

MCS6 As A Computer Controller

The MCS6 RS-422 can operate in either of two modes, either as a stand-alone Master Controller for machines that respond to the so-called P2 format, or as a slave RS-422 device meant to be attached to a master host. This generally means that the MCS6 is a control station for a computer-based editing system.

As shipped from the factory, the MCS6 is normally configured as a Master device, but is easily re-configured for Slave/Host mode to act as a computer input device. To do so, a small (#1) Phillips screwdriver and a small flat-blade screwdriver are needed.

1. Remove the four screws on the bottom.
2. Carefully slide the cables strain relief from its slot on the unit bottom.
3. On the small circuit board, remove the 8-pin IC which is inserted into U3 To Mach position and move it over to the To Host position. Make sure orientation is preserved.
4. Remove the jumper JB1. Store the jumper by placing it over only one pin of JB1.
5. Carefully reinsert the strain relief, dress the inside section of cable away from the sensitive Jog Wheel assembly, and reinsert the four screws.

Care And Service

If properly cared for, your MCS6 should provide years of trouble-free performance. While the MCS6 is built in a rugged metal enclosure, please avoid dropping the MCS6 or hard banging on the keys.

Clean with a soft cloth dampened with window cleaner.

Do not allow liquids to get inside the unit.

There are no user-serviceable parts in the MCS6. 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. Carriage, insurance, customs duties, impounds, tariffs, taxes, surcharges, brokerage fees and other shipping costs are not covered by this warranty. JLCooper's normal repair turn around time at the factory is approximately 15 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 technician at the time the return authorization is issued. This warranty provides only the benefits specified and does not cover defects or repairs needed as result of acts beyond the control of JLCooper including but not limited to: abuse, failure to operate in accordance with the procedures outlined in this owner's manual; nor does it cover damage from accident, negligence, using incorrect power supply, modification, alteration, improper use, unauthorized servicing, tampering, ingress of foreign matter; nor for damage from natural or man-made events such as, but not limited to flooding, lightning, electrostatic discharge, tornadoes, earthquake, fire, civil unrest, war, terrorism, etc.

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