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Model No. SR6-SONY

Serial to Parallel Converter

USER MANUAL

Manual Version:…….…… 2.1 120403
Document ID:……..…..SR6-SONY User Manual.doc

1. REVISION HISTORY

120403 Rev. 2.1 Company header information revised.
Added DNF Controls Limited Warranty.

2. DESCRIPTION

The SR6-SONY, Serial In to Parallel Out Converter, provides simple emulation of the SONY BVU-800.

The SR6 converts the following SONY serial commands into six open-collector GPIs:
RECORD, PLAY, STOP, REWIND and FAST FORWARD

Additionally, the SR6-SONY accepts the following 6 tallies from the controlled device, to provide real-time status to the control point:

LOCAL, RECORD, PLAY, STOP, REWIND and FAST FORWARD

NOTE: It is recommended that an opto-isolator be used on each tally line from the Controlled Device to the SR6-SONY.

The SR6-SONY can be configured to control an AMPEX VPR-2 or provide a standard 250 millisecond, pulsed GPI output, using the Rear Panel DIP switches.

3. INSTALLATION

1. Plug one end of a 9-conductor, RS422 serial cable into the 9-pin connector on the rear of the SR6-SONY. Plug the other end of the cable into the 9-pin connector on the controller.

2. Plug the 9-pin D-type female connector on the POWER SUPPLY into the male 9-pin connector on the rear of the ST100.

   Plug the AC connector into a wall outlet, 90 VAC - 265 VAC, 50-60 Hz.

3. Select REMOTE operation on the VTR's front panel.

INSTALLATION for Standard VTR

1. Set Rear Panel DIP Switch #6 to OFF.

2. Wire the desired command lines to the controlled VTR, per the Standard VTR Interface Connector chart.

3. Wire the Command Common to the VTR Command Input Common.

4. If Controlled Device Status Tallies are to be returned to the controlling point, ALL tallies must be connected: Local, Play, Record, FFWD, Rewind and Stop. It is recommended that an opto-isolator be used on each tally line from the Controlled Device to the SR6-SONY.

5. Set Rear Panel DIP Switch #5 to ON.

Installation is complete.

INSTALLATION for AMPEX VPR-2

Wire SR6 pin #9 to AMPEX pin #31, Ground.

Wire SR6 pin #3 to AMPEX pin #5, Record.

Wire SR6 pin #4 to AMPEX pin #1, Play.

Wire SR6 pin #5 to AMPEX pin #15, Stop.

Wire SR6 pin #8 to AMPEX pin #20, Shuttle Command

Wire SR6 pin #6 to AMPEX pin #16 through 27K ohm, 1/4 Watt, series resistor.

Wire AMPEX pin #4 (+12 Vdc) to AMPEX pin #16 through 100K ohm, 1/4 Watt series resistor.

The value of the 27K and 100K resistors can be adjusted for a desired shuttle speed per the following:

When pin #16 voltage is:

➔ 5 volts, the tape shuttles forward.

➔ 5 volts, the tape shuttles reverse.

The further away from 5 volts, the faster the shuttle speed.

The closer to 5 volts, the slower the shuttle speed.

AMPEX VPR-2 Interface Connector 15-Pin D-type, female

Pin #			
	1	Not Used	
	2	Not Used	
	3	Record Command	Active Low, Open-Collector Output
	4	Play Command	Active Low, Open-Collector Output
	5	Stop Command	Active Low, Open-Collector Output
	6	Shuttle Voltage	Active Low, Open-Collector Output
	7	Not Used	
	8	Shuttle Command	Active Low, Open-Collector Output
	9	Command & Status Common	
	10	Local Status Input	Active Low Input, Internal pullup to +5VDC
	11	Play Status Input	Active Low Input, Internal pullup to +5VDC
	12	Record Status Input	Active Low Input, Internal pullup to +5VDC
	13	Fast Forward Status Input	Active Low Input, Internal pullup to +5VDC
	14	Rewind Status Input	Active Low Input, Internal pullup to +5VDC
	15	Stop Status Input	Active Low Input, Internal pullup to +5VDC

Installation is complete.

4. OPERATION

Upon receipt of the RECORD, PLAY or STOP command, the **SR6** outputs a momentary GPI LOW, 250 milliseconds in duration, on the appropriate output. The RECORD command pulses both the RECORD + PLAY GPIs.

Receipt of the REWIND or FFWD command causes the **SR6** to output a latched GPI LOW on the REWIND/FFWD output, and a pulsed output on the Shuttle Command output (VPR-2 mode) **OR** output a momentary GPI LOW, 250 milliseconds in duration, on the REWIND/FFWD output. This is user configured using the Rear Panel DIP Switches. For latched operation, the next received command clears all previously latched outputs.

5. FUNCTIONS

GPI OUTPUTS	FUNCTION
1	RECORD
2	PLAY
3	STOP
4	REWIND
5	FFWD
6	Shuttle Command (Ampex VPR2 Mode only)

The front panel LEDs turn on to indicate GPI ACTIVATION.

Status Tally Inputs

The SR6 STATUS INPUTs require an active low (pull to Status Common) on the desired input for proper status detection. The active low can be provided by an open-collector output, switch closure, relay contact closure or TTL signal.

Each STATUS INPUT has an internal pullup to +5VDC.

It is recommended that an opto-isolator be used with each Status line from the VPR-2. The emitter of the output transistor, on the opto-isolator output, should be tied to Status Common. The collector of the output transistor should be tied to the desired STATUS INPUT.

Set Rear Panel DIP Switch #5 to ON.

Rear Panel DIP Switches

NOTE: Switches are read Only on power up.

After making changes to the switches, turn the unit off then on, for changes to take effect.

Switch	Function
#1 - 4	Not Used
#5 Source of Status Tallies	ON = Use Controlled Device Status Tallies OFF = SR6 generates Status Tallies from received commands
#6 GPI Output	ON = AMPEX VPR-2 mode OFF = All GPI outputs are pulsed low, 250 milliseconds

6. SPECIFICATIONS

Front Panel:

6 Status LEDs	Record, Play, Stop, Rewind, FFWD, Jog
1 Power LED	
Size	1 RU. 9" L x 1 .75" H x 4.5" D
Weight	5lbs.

Rear Panel Connectors:

RS422 Serial In	9-Pin D-type connector, female (DB9-F)
Power	5 volt D.C., 500 ma. 90-265 VAC, 50/60 Hz converter (Supplied) (DB9M)
VTR Interface	15-pin D-type connector, female (DB15F) Switch Output: Open collector, sink 50mA. Status Input: SPST contact closure, momentary

POWER CONNECTOR

9-Pin D-type, male (DB9M)

Pin #				
	1	+5v DC	6	+5 VDC
	2	+5v DC	7	Ground
	3	Ground	8	Ground
	4	Not Used	9	Ground
	5	Not Used		

RS422 SERIAL CONNECTOR

9-Pin D-type, female (DB9F)

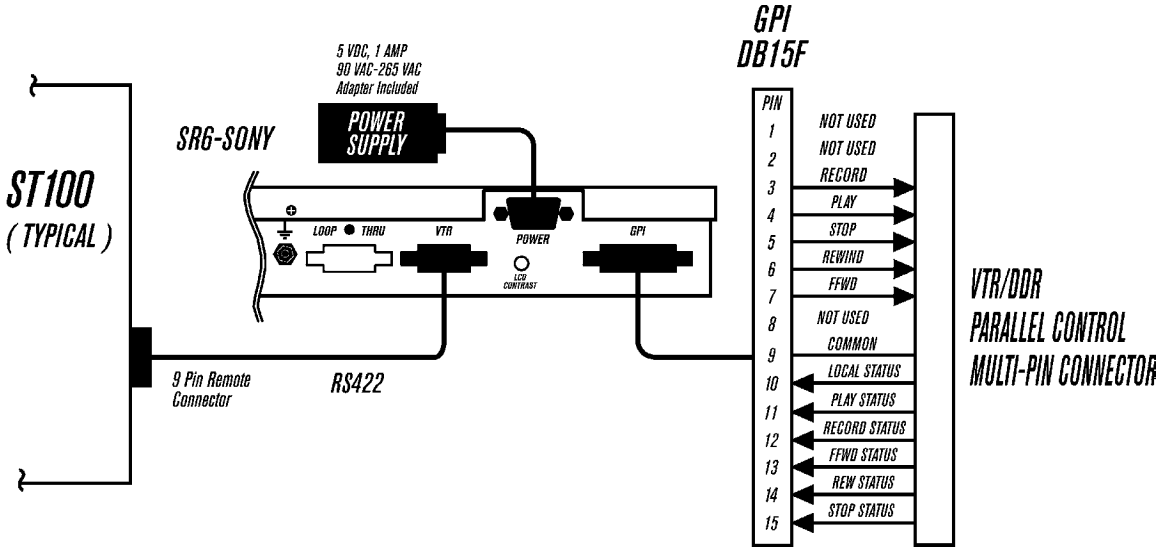
Pin #		
	1	Frame Ground
	2	Transmit A →
	3	Receive B ←
	4	Transmit Common
	5	Spare
	6	Receive Common
	7	Transmit B →
	8	Receive A ←
	9	Frame Ground

STANDARD VTR INTERFACE CONNECTOR

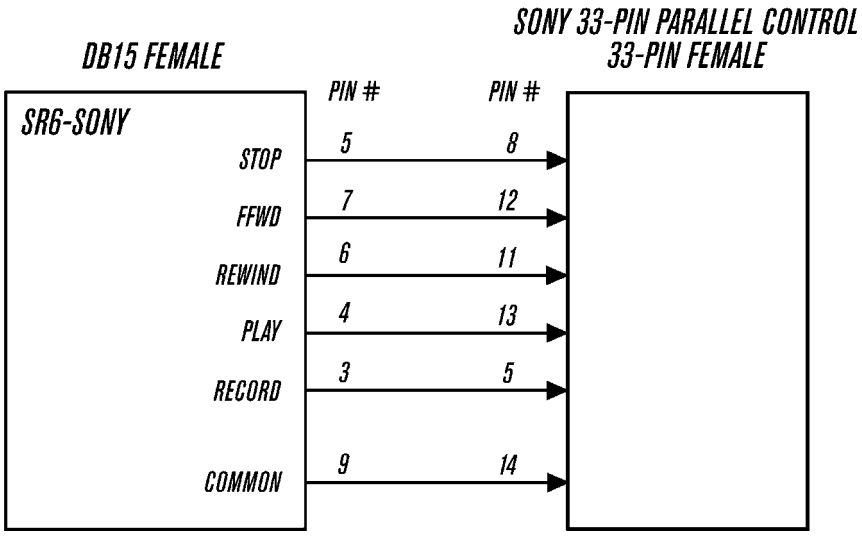
15-Pin D-type, female (DB15F)

Pin #			
	1	Not Used	
	2	Not Used	
	3	Record Command	Active Low, Open-Collector Output
	4	Play Command	Active Low, Open-Collector Output
	5	Stop Command	Active Low, Open-Collector Output
	6	Rewind Command	Active Low, Open-Collector Output
	7	Fast Forward Command	Active Low, Open-Collector Output
	8	Not Used	
	9	Command & Status Common	
	10	Local Status Input	Active Low Input, Internal pullup to +5VDC
	11	Play Status Input	Active Low Input, Internal pullup to +5VDC
	12	Record Status Input	Active Low Input, Internal pullup to +5VDC
	13	Fast Forward Status Input	Active Low Input, Internal pullup to +5VDC
	14	Rewind Status Input	Active Low Input, Internal pullup to +5VDC
	15	Stop Status Input	Active Low Input, Internal pullup to +5VDC

Typical Connection Diagram



SR6-SONY TO SONY 33-PIN PARALLEL CONTROL



7. DNF CONTROLS LIMITED WARRANTY

DNF Controls warrants its product to be free from defects in material and workmanship for a period of one (1) year from the date of sale to the original purchaser from DNF Controls.

In order to enforce the rights under this warranty, the customer must first contact DNF's Customer Support Department to afford the opportunity of identifying and fixing the problem without sending the unit in for repair. If DNF's Customer Support Department cannot fix the problem, the customer will be issued a Returned Merchandise Authorization number (RMA). The customer will then ship the defective product prepaid to DNF Controls with the RMA number clearly indicated on the customer's shipping document. The merchandise is to be shipped to:

DNF Controls
12843 Foothill Blvd., Suite D
Sylmar, CA 91342
USA

Failure to obtain a proper RMA number prior to returning the product may result in the return not being accepted, or in a charge for the required repair.

DNF Controls, at its option, will repair or replace the defective unit. DNF Controls will return the unit prepaid to the customer. The method of shipment is at the discretion of DNF Controls, principally UPS Ground for shipments within the United States of America. Shipments to international customers will be sent via air. Should a customer require the product to be returned in a more expeditious manner, the return shipment will be billed to their freight account.

This warranty will be considered null and void if accident, misuse, abuse, improper line voltage, fire, water, lightning or other acts of God damaged the product. All repair parts are to be supplied by DNF Controls, either directly or through its authorized dealer network. Similarly, any repair work not performed by either DNF Controls or its authorized dealer may void the warranty.

After the warranty period has expired, DNF Controls offers repair services at prices listed in the DNF Controls Price List. DNF Controls reserves the right to refuse repair of any unit outside the warranty period that is deemed non-repairable.

DNF Controls shall not be liable for direct, indirect, incidental, consequential or other types of damage resulting from the use of the product.

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