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Model No. ST200-S-RCP

DUAL FUNCTION RS422 REMOTE CONTROL PORT SWITCHER AND VTR CONTROLLER

User Manual

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1. REVISION HISTORY

072503 Rev. 2.1	Added Save Preset and Restore Preset functions.
081503 Rev. 2.2	Added Connection Diagram. Revised Top View Key Layout Revised Front Panel Key Layout Revised Rear View Layout
010504 Rev. 2.3	Company header information revised. Added DNF Controls Limited Warranty.

Getting Started . . .

2. DESCRIPTION

The ST200-S/RCP combines an ST200 Universal VTR/DDR Controller with the remote control of an SW32 Port Switcher for RS422 routing.

- ❑ Route Controller to VTR.
- ❑ Automatically configures Ports.
- ❑ Shows source (FROM) and destination (TO) routing.
- ❑ 5-Function keypad provides:
 - From (Select Source)
 - To (Select Device)
 - View From (View by Sources)
 - Take (Enable the selected route)
 - Preset (Save and Restore Presets)

(Throughout this document, VTR, DDR, VDR & Video Server will be referred to collectively as “VTR.”)

3. INSTALLATION

a. ST200-S/RCP CONTROLLER

- 1) Plug one end of a 9-conductor, RS422 serial cable into the connector labeled “VTR” on the back of the controller. Plug the other end of the cable into any of the 32-port connectors on the back of the port switcher. (This will be the source [FROM] when making routes.)
- 2) Plug one end of a 9-pin cable into the connector labeled “PORT EXP” on the back of the controller. Plug the other end into one of the connectors on the port expander. Plug the port expander into the connector labeled “RS422” on the back of the SW32PS port switcher.
- 3) Plug the POWER SUPPLY into a 90 VAC TO 240 VAC source.
- 4) Dip Switches Configuration for ST200-RCP.

Every ST200 RCP has to have a unique ID from 1 to 10. The ID should match the External Device number set in the SW32PS.

For example, if you use only one ST200-RCP with the SW32PS, the External Device should be set to 1 and the ID of the ST200 should be 01. (The ID can be seen on the second line of the display during the powerup of the ST200.)

If you use two ST200-RCPs with the SW32PS, the External Device should be set to 2 and the ID of the ST200s should be 01 and 02. (The IDs can be seen on the second line of the display during the powerup of the ST200.)

Use the table below to set the switches for the desired ID:

	SW1	SW2	SW3	SW4	SW5	SW6
ID: 01	Up	Up	Up	Up	Up	Dn
ID: 02	Up	Up	Up	Up	Dn	Up
ID: 03	Up	Up	Up	Up	Dn	Dn
ID: 04	Up	Up	Up	Dn	Up	Up
ID: 05	Up	Up	Up	Dn	Up	Dn
ID: 06	Up	Up	Up	Dn	Dn	Up
ID: 07	Up	Up	Up	Dn	Dn	Dn
ID: 08	Up	Up	Dn	Up	Up	Up
ID: 09	Up	Up	Dn	Up	Up	Dn
ID: 010	Up	Up	Dn	Up	Dn	Up

b. SW32PS PORT SWITCHER

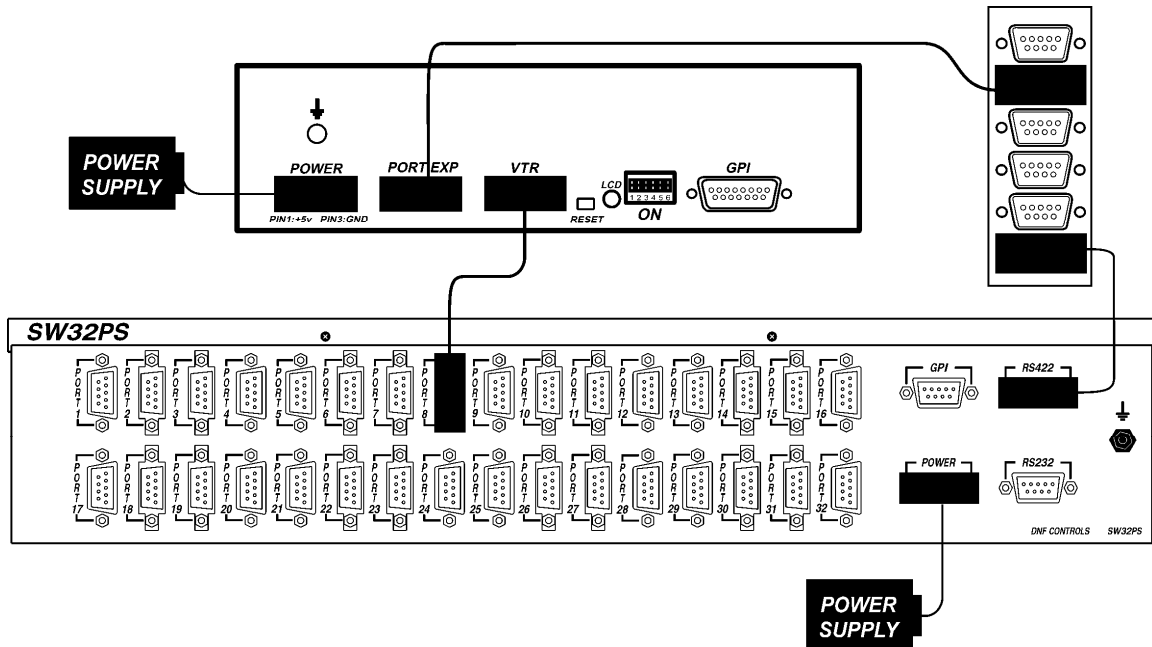
- 1) Plug one end of a 9-pin cable into a VTR/DDR/Video Server. Plug the other end into any of the 32 connectors on the back of the switcher.
- 2) Connect DB9F side of supplied power supply into the connector labeled "Power." Then connect the IEC to Edison cable to the power supply. Connect the power cable to a 90 VAC to 240 VAC source.

Caution: Do Not Hot Plug the Power Supply (DB9F) !

- 3) Press [MENU] on the SW32PS front panel to enter MENU mode. Scroll the Wheel to the menu option "External Devices." Select the number that matches the number of ST200-S/RCP controllers that will be connected.

Installation is complete.

CONNECTION DIAGRAM



4. OPERATION

a. MAKE A ROUTE

Press [**FROM**]. The FROM indicator will turn on.

The left side of the display shows the currently selected FROM connector (PORT1-32).

Turn the Wheel until the desired FROM point is displayed.

Press [**TO**]. The TO indicator will turn on. The right side of the display shows the currently selected TO connector (PORT1-32). Turn the Wheel until the desired TO point is displayed.

Press [**TAKE**] to route the FROM input to the TO output.

NOTE: No Route is made until [**TAKE**] is pressed.

b. VIEW THE ROUTES

- 1) Press [**VIEW**]. The VIEW indicator will turn on.
- 2) Turn the Wheel to scroll through all ports that are displayed on the first line of the display.
- 3) The second line of the display will show the port(s) connected to the selected port.

c. DISCONNECT ROUTE

Press [**FROM**].

Turn the Wheel until OFF is displayed.

Press [**TO**].

Find the destination that you wish to turn off.

Press [**TAKE**] to turn off the route.

d. SAVE PRESET

- 1) Press [**SHIFT**] + [**PRESET**]. The PRESET indicator will turn on. The first line of the display will show "Save Preset 1."
- 2) Turn the Wheel to select preset number 1-8.
- 3) Press [**TAKE**] to save current configuration into the selected preset.
OR

Press [**ESC**] to exit without saving.

e. **RESTORE PRESET**

- 1) Press [**PRESET**]. The PRESET indicator will turn on. The first line of the display will show "Recall Preset 1."
- 2) Turn the Wheel to select preset number 1-8.
- 3) Press [**TAKE**] to restore selected preset.
OR
Press [**ESC**] to exit without restoring.

5. **CONTROLLER FUNCTIONS**

Select the desired transport function by pressing the appropriate switch on the front of the SLOW MOTION CONTROLLER.

The Real-Time Status Indicators will light to indicate the VTR's current tape transport mode.

For example - Pressing [**PLAY**] will put the VTR into the PLAY mode. The PLAY Status Indicator will turn on when the VTR is in PLAY mode.

NOTE: The VTR will not go into Record mode if "Record Inhibit" is enabled on the VTR or tape cassette.

Loss of serial communication with the VTR is indicated by ALL bottom row status LEDs turned ON.

The top line of the display will show "VTR COMM ERROR."
Check all cabling and connections between the VTR and the ST200-S/RCP.

Selecting LOCAL control on the VTR's front panel will turn OFF all bottom row status LEDs.

RECORD MODE SELECTION

Four (4) Record modes are available: Crash Record (Full Record), Assemble Record, Insert Record and Record Lockout.

To change RECORD MODE:

Press [**SHIFT**] + [**RECORD**].

Then, press [**RECORD**] to toggle through **Record Lockout**, **Assemble**, **Crash** or **Insert** Record modes.

Reference . . .

6. SPECIFICATIONS

a. ST200-S/RCP

Front Panel

6 Status LEDs	Record, Play, Stop, Rewind, FFwd, Jog, Shift
1 Power LED	
3 Direction LEDs	Indicates direction of Jog Shuttle
Switches	Record, Play, Stop, Rewind, Fast Forward, Jog, Shift
Display	2-Line LCD, back lit with adjustable contrast
Jog/Shuttle Wheel	
Size	8 1/2" x 5 1/2" x 2 1/2"
Weight	4 lbs.

Rear Panel

DIP Switches	3-6, Binary switches for unit ID
LCD Contrast adjust	
Reset	
Ground Terminal	
RS422 Serial Out	9-Pin D-type connector, female (DB9-F)
Port Expander	9-Pin D-type connector, female (DB9-F)
Power:	9-Pin D-type connector, male (DB9M) 5 volt D.C., 1 A. 90-265 VAC, 50/60 Hz converter supplied
GPI	15-Pin D-type connector, female (DB15F) Switch Input: SPST contact closure, momentary Status Output: Open collector, sink 50mA.

External Interface Connector (GPI) DB15F

PIN	FUNCTION	NOTE
1	+5v DC	
2	SHIFT Switch	Active Low
3	Record Tally	Active Low, Open-Collector
4	Play Tally	Active Low, Open-Collector
5	Stop/Still Tally	Active Low, Open-Collector
6	Rewind/ Reverse Tally	Active Low, Open-Collector
7	Fast Forward/ Forward Tally	Active Low, Open-Collector
8	Jog Tally	Active Low, Open-Collector
9	Command Common	
10	Record Command	Active Low
11	Play Command	Active Low
12	Stop Command	Active Low
13	Rewind Command	Active Low
14	Fast Forward Command	Active Low
15	Jog/Shuttle Select Command	Active Low

NOTE: There are **no** internal current limiting resistors for the open-collector Tally Outputs. Limit each Tally Output current to 40ma.

**REAL-TIME STATUS INDICATORS - ACTIVE ON
Bottom Row of Keypad LEDs.**

#1	RECORD
2	PLAY
3	STOP/STILL
4	REWIND/REVERSE
5	FAST FORWARD/FORWARD
6	JOG MODE

**RS422 SERIAL CONNECTOR
9-Pin D-Type, Female**

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

b. SW32PS

Power Requirements: 90 VAC to 265 VAC adapter supplied with IEC connector

Power Supply: +5VDC, 3A

Size: (L" x W" x H") 19" x 8.5" x 5.25" (2RU)

Weight: 4 lbs.

Rear Panel Connectors: PORT1-32 (All DB9F)
GPI (DB9F)
RS422 (DB9F)
RS232 (DB9F)
Power (DB9M)

Display: 4-Line x 20 Character LCD display, back-lit.

Data Entry Wheel

**POWER CONNECTOR
9-Pin D-Type, Male**

Pin #	1	+5v DC	6	NC
	2	NC	7	NC
	3	Ground	8	NC
	4	NC	9	NC
	5	NC		

**DEVICE (PORT 1-32)
RS422 SERIAL CONNECTOR
9-Pin D-Type, Female**

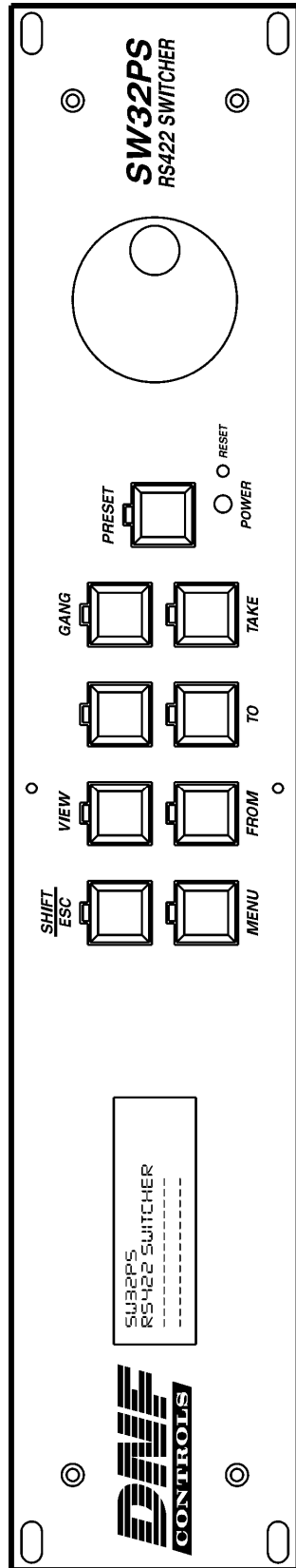
Pin #	1	Frame Ground	6	Receive Common
	2	Receive A ←	7	Receive B ←
	3	Transmit B →	8	Transmit A →
	4	Transmit Common	9	Frame Ground
	5	Spare		

**GPI CONNECTOR
9-Pin D-Type, Female**

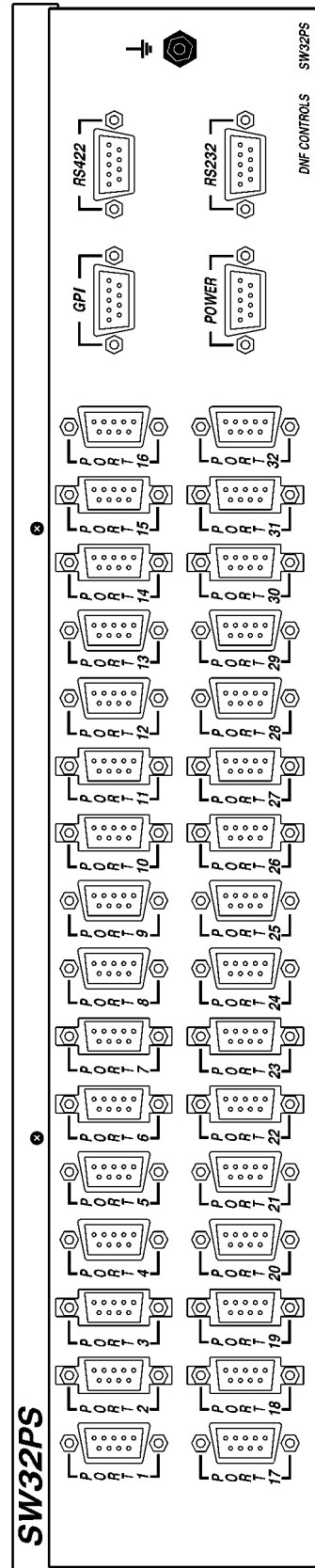
Pin #	1	Input # 1, Select Preset # 1
	2	Input # 2, Select Preset # 2
	3	Input # 3, Select Preset # 3
	4	Input # 4, Select Preset # 4
	5	Input # 5, Select Preset # 5
	6	Input # 6, Select Preset # 6
	7	Input # 7, Select Preset # 7
	8	Input # 8, Select Preset # 8
	9	Ground

7. PANEL VIEWS, SW32PS

Front Panel

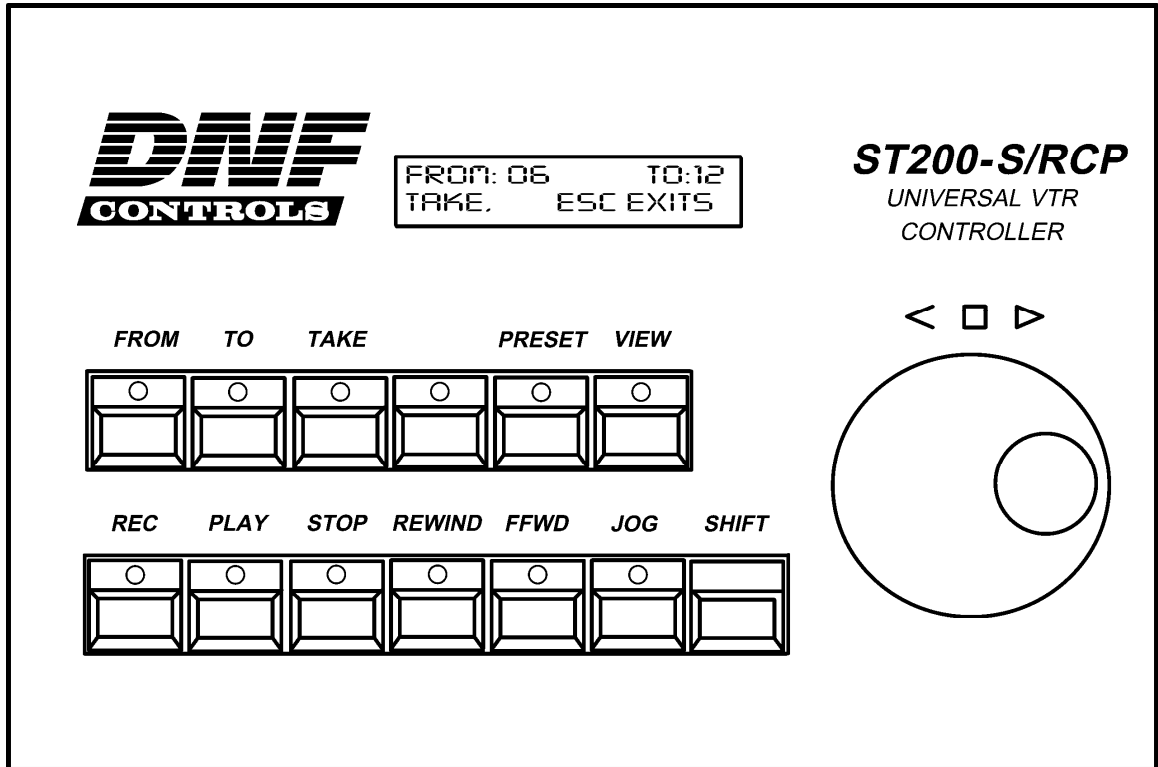


Rear Panel

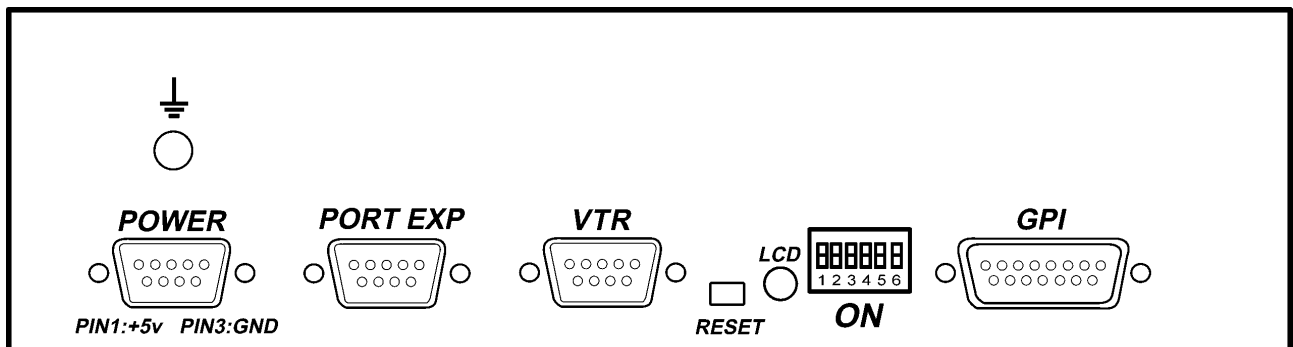


8. KEY LAYOUT

Top View



Rear View



9. 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 C
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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