

## Overview

The following information will guide the installer through simple set up and programming for Serial control of WPS-300 Series DVRs.

Please read through the entire document before attempting to control via RS-232.

Should you have any questions about Serial control after reading this document, please contact SnapAV: Technical Support.

### Contacting Technical Support

Phone: (866) 838-5052 (704) 909-5229

Email: TechSupport@SnapAV.com

## Before Beginning

Before you begin the setup for RS-232 control make sure the following items are at hand.

- Wirepath™ Surveillance DVR with the proper software version  
See Software Version section for details.
- Automation System or other control device
- Owner's Manual for the Automation System
- Wirepath™ Surveillance DVR Owner's Manual
- Cable to connect to the Automation System. See RS232 Communications Format for details.
- List of the functions that you intend to program into the Automation System
- Knowledge of this document and the Automation Device being used.

## Software Version

The information contained in this document is intended for DVRs with the latest version of software. Please verify that you have the latest version of software for each DVR in the system.

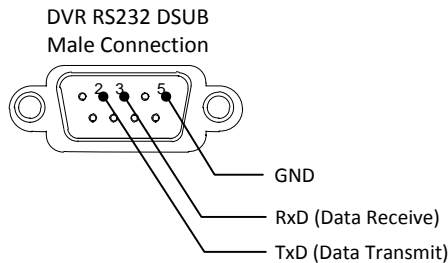
If the software version of the DVR is below the version listed here, it is recommended that it is updated. Follow the instructions in the Software Upgrade Instructions document available on the SnapAV website.

Software Version: 7.77.53

## RS232 Port Configuration

The Binary™ WPS-DVR receives control data on pin 3 (Rxd – Data Receive) and transmits control data on pin 2 (TxD - Data Transmit). The connection cable between the WPS-DVR and the Automation System will need to be configured so that pin 3 (RxD) on the WPS-DVR is connected to the Automation Systems Txd pin, and pin 2 (TxD) on the WPS-DVR is connected to the Automation Systems Rxd (Receive Data) pin. See below for details.

**Note:** Configuration for the Automation System control ports can vary. Refer to the documentation for the Automation System you are using to ensure proper connection and configuration.



Pin	Function
2	TxD (Data Transmit)
3	RxD (Data Receive)
5	GND

## RS232 Communications Format

RS232 communications format (Baud Rate, etc..) is adjustable by the Administrator within the DVR. Set the Automation Systems communications format to match the setting within the DVR.

See section 6.9 RS232/RS485 Setup in the owner’s manual for details.

## Command Structure

The commands for the WPS-300 series DVRs are single ASCII characters assigned to specific single operations that mimic the front panel buttons and the remote.

Note: The characters are case sensitive and are all **lowercase**, they **MUST** be entered exactly as defined in the code list.

## Command Codes

*Note: The HEX value has been provided as a reference and is not be used for communicating with DVR.*

Code	ASCII	HEX
0	0	30
1	1	31
2	2	32
3	3	33
4	4	34
5	5	35
6	6	36
7	7	37
8	8	38
9	9	39
10	!	21
11	@	40
12	#	23
13	\$	24
14	%	25
15	^	5E
16	&	26
-	c	63
#/code	=	3D
*/mark	-	2D
+	v	76
▲/BS	i	69
▼/DEL	m	6D
▶	l	6C
◀	j	6A
16-Window	)	29
4-Window	*	2A
9-Window	(	28
Alarm out OFF	>	3E
Alarm out ON	<	3C

Code	ASCII	HEX
Alarm Reset	q	71
CALL	r	72
CALL-AUX OFF	]	5D
CALL-AUX ON	[	5B
Copy	h	68
DOWN-LEFT		7C
DOWN-RIGHT	~	7E
ENTER	k	6B
ESC/PTZ	o	6F
Fast Backward	a	61
Fast Forward	s	73
MAIN-AUX ON	b	62
MAIN-AUX OFF	p	70
MENU	u	75
MODE	w	77
MUTE/NEXT	n	6E
Next Camera / Window	=	3D
Play/Pause	f	66
Previous Camera / Window	-	2D
REC	y	79
SEARCH	t	74
SEQ	e	65
Single Step	d	64
Stop	g	67
UP-LEFT	{	7B
UP-RIGHT	}	7D
Vol-	z	7A
Vol+	x	78
X2/GOTO	,	2C