

Application Note

Button Connection on ViewStream™ Player (for M3-100/VS-100/M3-300/VS-300/M3-320/VS-320/VS-500/VS-520/RM-DN5)

Version 2.1

Table of Contents

1	Introduction	3
1.1	What you need?	3
2	Button Connection	4
2.1	Connection with M3-100 & VS-100	4
2.1.1	Connect 8-button with M3-100	4
2.1.2	Connect 8-button with VS-100.....	5
2.2	Connection with M3-300 & VS-300	6
2.2.1	Connect 8-button with M3-300	6
2.2.2	Connect 16-button with M3-300	7
2.2.3	Connect 8-button with VS-300.....	8
2.3	Connection with M3-320 & VS-320	9
2.3.1	Connect 8-button with M3-320	9
2.3.2	Connect 16-button with M3-320	10
2.3.3	Connect 8-button with VS-320.....	11
2.4	Connection with RM-DN5, VS-500 & VS-520	12
2.4.1	Connect 8-button with RM-DN5	12
2.4.2	Connect 16-button with RM-DN5.....	13
2.4.3	Connect 8-button with VS-500 & VS-520.....	14
3	Playlist configuration.....	15
3.1	Simple playback mode	15
3.2	Playlist mode.....	16
3.2.1	Playlist Creation	16
4	Pin Assignments	18
4.1	Button Circuit diagram	18
4.2	Switch and Button connector	18

1 Introduction

This application note explains the use of buttons with the ViewStream™ media player and the M3-100, M3-300, M3-320 and RM-DN5 OEM media player boards. It also includes the button connection and playlist configuration using DV Studio.

1.1 What you need?

Before setup, please make sure have the following parts:

For ViewStream™ 100, 300, 320, 500 & 520 (VS-100, VS-300, VS-320 VS-500 & VS-520)

- VS-100, VS-300, VS-320, VS-500 or VS-520
- Remote extension cable (P/N 426631800-3)
- Switch mount board (P/N 416101300-3)

For OEM player board M3-100, M3-300, M3-320 and RM-DN5

- M3-100, M3-300, M3-320 or RM-DN5
- 9-ways button cable (P/N 426450100-3, 140mm or P/N 426450110-3, 300mm)
- Switch mount board (P/N 416101300-3)

For both you will need a copy of DV Studio which can be downloaded from:

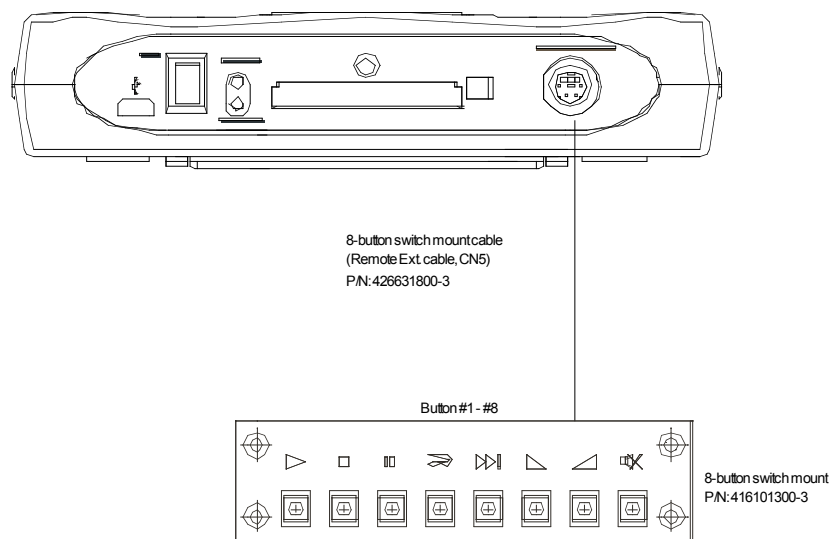
<http://www.digitalview.com/products/software>

2.1.1 Connect 8-button with M3-100

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- The diagram illustrates the layout of the M3-100 control panel. At the top, a section labeled "Button#1 - #8" shows eight buttons with different symbols (directional arrows, a square, a rectangle, a play button, a stop button, a triangle, a square, and a circle) and eight circular indicators. Below this, an "8-button switch mount (CN6)" is shown with a cable labeled "P/N: 42645 1100-3". The main panel area includes a large rectangular display labeled "J6". To the left of the display are components labeled "CN5", "JP2", "CN6", "CN11", and "IR1". To the right of the display are "LED 1", "JA1", "BT1", "J5", "CN10", "S3", "CN1", "VR1", "CN2", "CN9", "PP1", "CN7", "S1", "J1", "J2", "J3", "J4", "S2", and "CN4". The model number "M3-100" is prominently displayed in the center.

2.1.2 Connect 8-button with VS-100

Use the switchmount (P/N:416101300-3) for 1-8 buttons when connected to the Remote Ext. socket (CN5) via the standard cable (P/N:426631800-3)

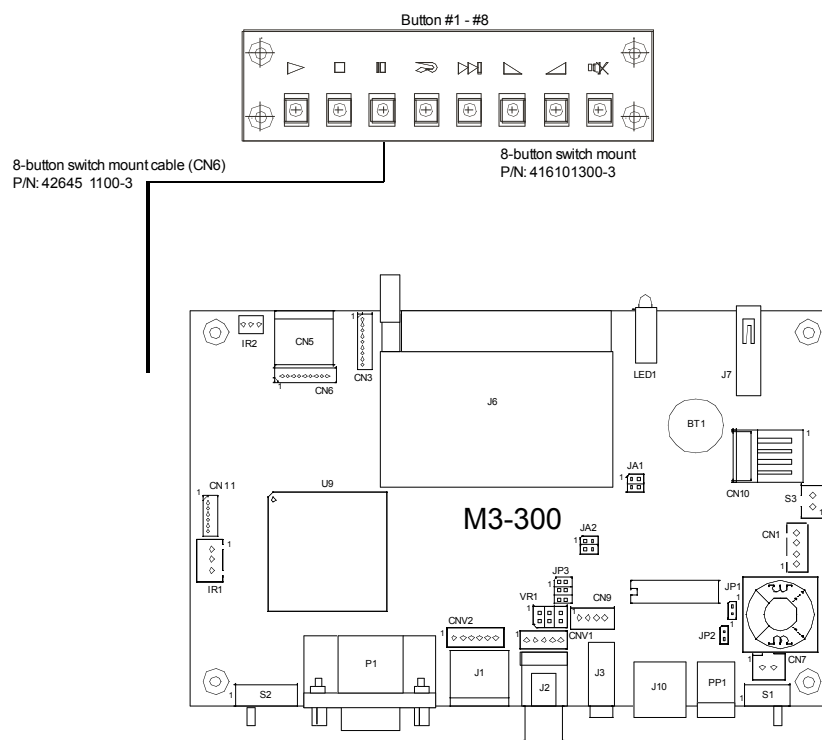


Important note: There is no additional button connector for #9 - #16 available on M3-100 and VS-100.

2.2 Connection with M3-300 & VS-300

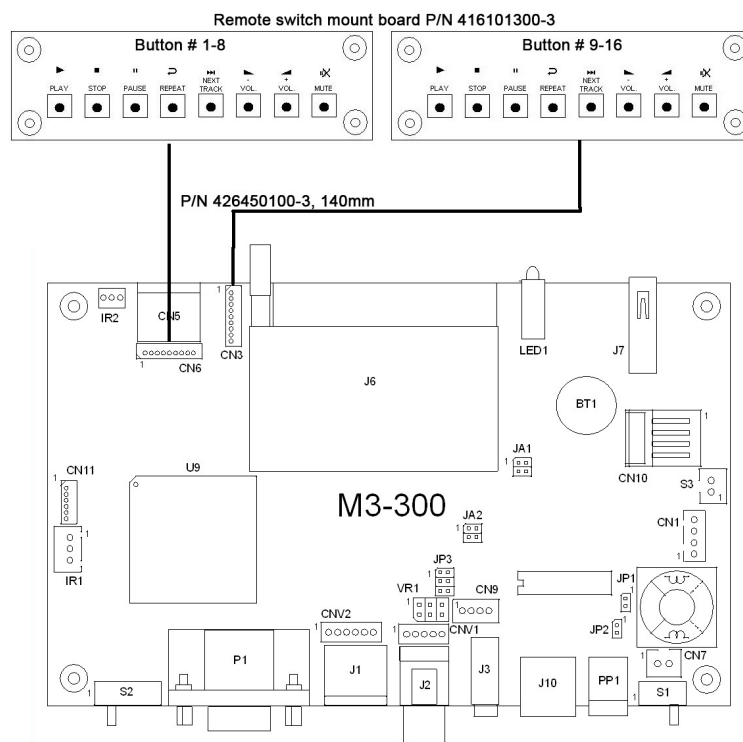
2.2.1 Connect 8-button with M3-300

- Use the switchmount (P/N:416101300-3) for 1-8 buttons when connected to the button connector CN6 via the standard switchmount cable (P/N:426450100-3)



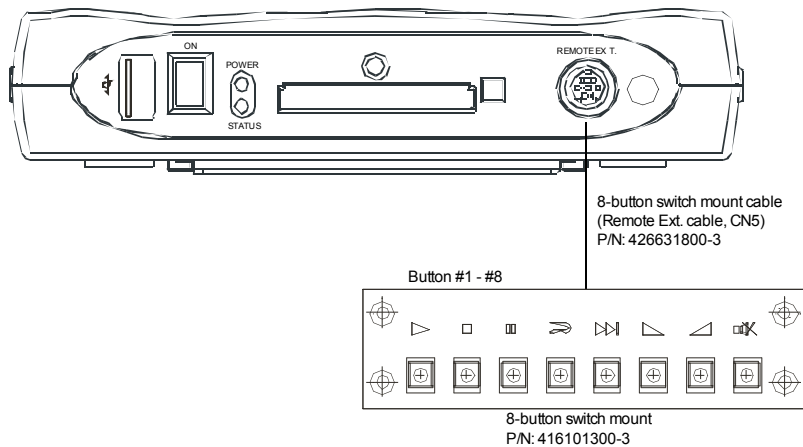
2.2.2 Connect 16-button with M3-300

- Use the switchmount (P/N:416101300-3) for 1-8 buttons when connected to the button connector CN6 via the standard switchmount cable (P/N:426450100-3)
- Use the switchmount (P/N:416101300-3) for 9-16 buttons when connected to the button connector CN3 via the standard switchmount cable (P/N:426450100-3)



2.2.3 Connect 8-button with VS-300

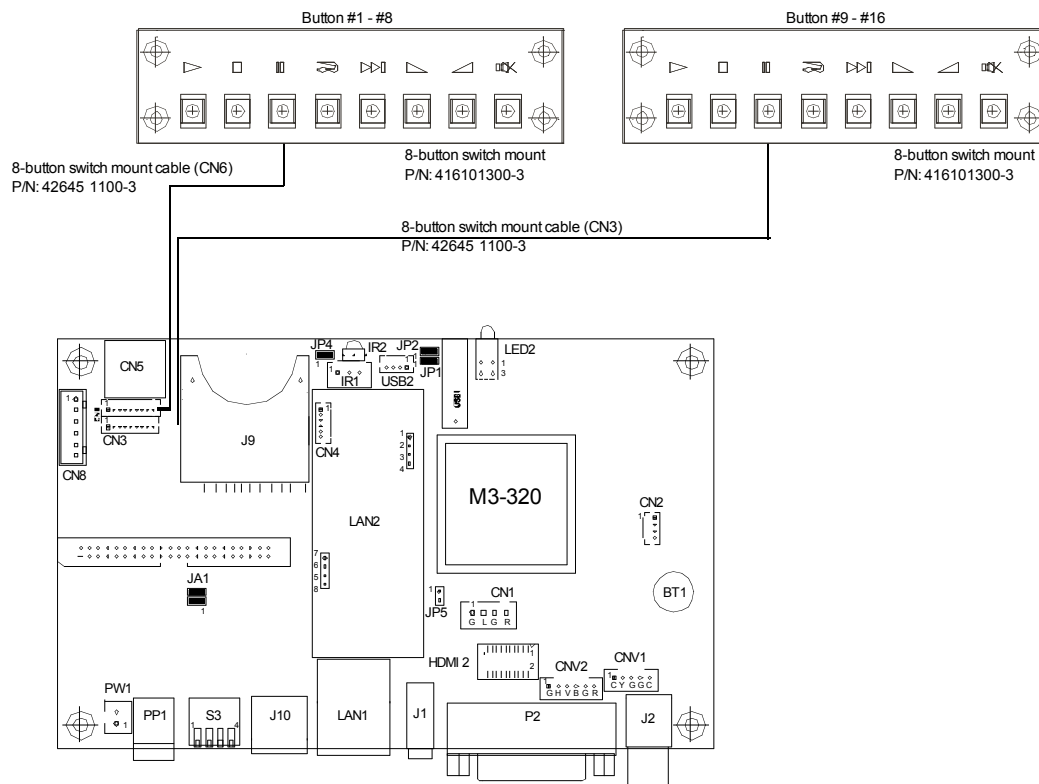
Use the switchmount (P/N:416101300-3) for 1-8 buttons when connected to the Remote Ext. socket (CN5) via the standard cable (P/N:426631800-3)



Important note: There is no additional button connector for #9 - #16 available on VS-300. However, it is possible to access button #9 - #16 on VS-300 but a custom-made housing design is required. Please contact your local Digital View distributors for more details.

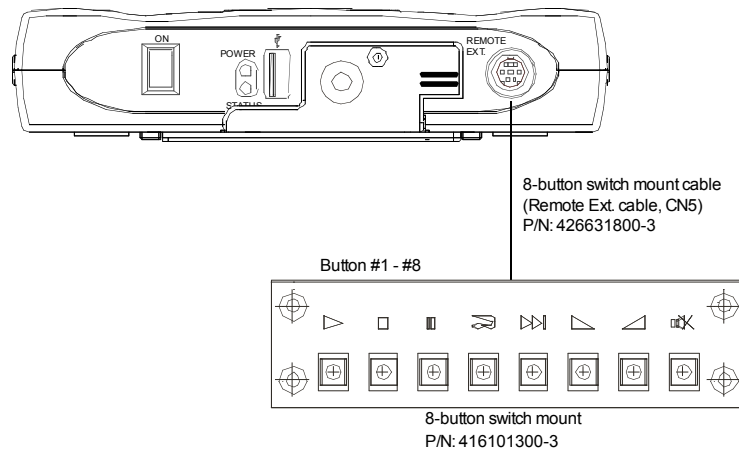
2.3.2 Connect 16-button with M3-320

- Use the switchmount (P/N:416101300-3) for 1-8 buttons when connected to the button connector CN6 via the standard switchmount cable (P/N:426450100-3)
- Use the switchmount (P/N:416101300-3) for 9-16 buttons when connected to the button connector CN3 via the standard switchmount cable (P/N:426450100-3)



2.3.3 Connect 8-button with VS-320

Use the switchmount (P/N:416101300-3) for 1-8 buttons when connected to the Remote Ext. socket (CN5) via the standard cable (P/N:426631800-3)

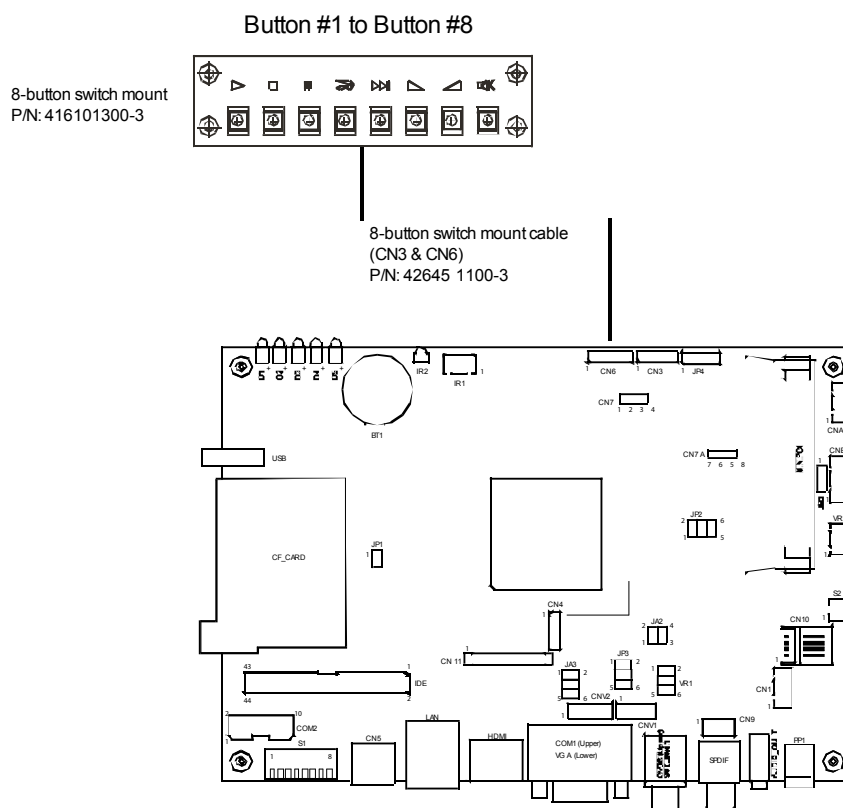


Important note: There is no additional button connector for #9 - #16 available on VS-320. However, it is possible to access button #9 - #16 on VS-320 but a custom-made housing design is required. Please contact your local Digital View distributors for more details.

2.4 Connection with RM-DN5, VS-500 & VS-520

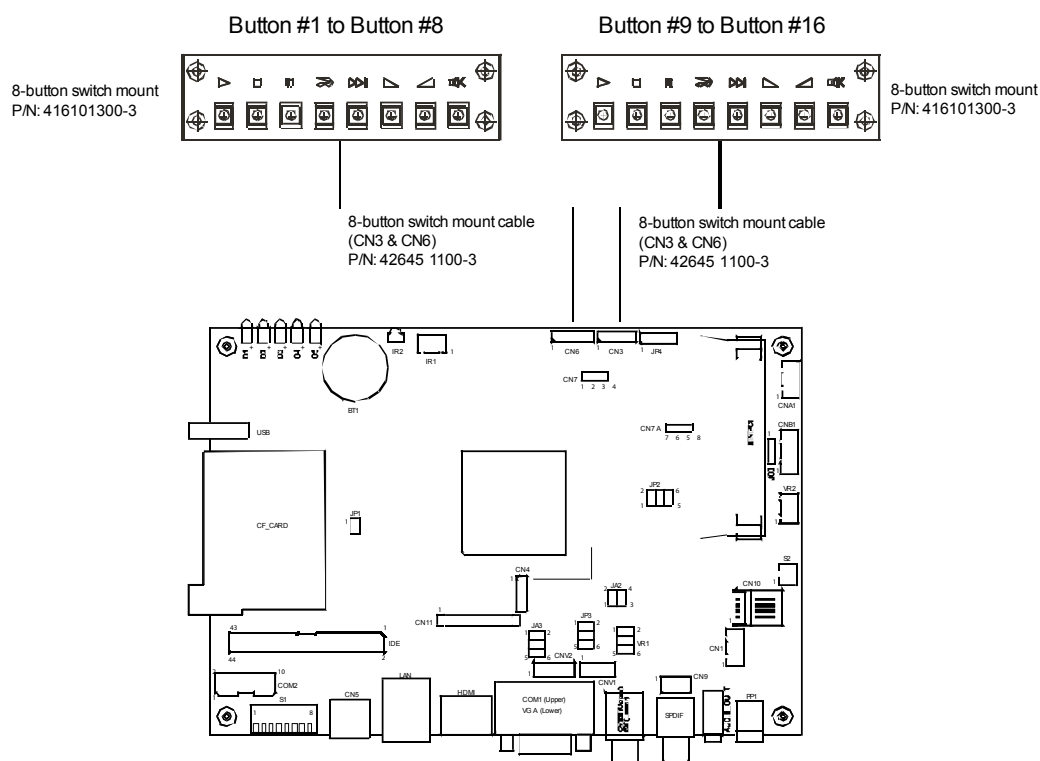
2.4.1 Connect 8-button with RM-DN5

- Use the switchmount (P/N:416101300-3) for 1-8 buttons when connected to the button connector CN6 via the standard switchmount cable (P/N:426450100-3)



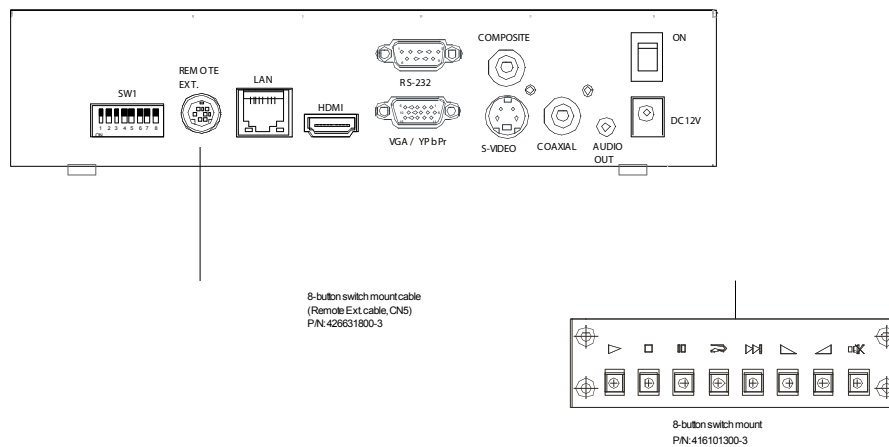
2.4.2 Connect 16-button with RM-DN5

- Use the switchmount (P/N:416101300-3) for 1-8 buttons when connected to the button connector CN6 via the standard switchmount cable (P/N:426450100-3)
- Use the switchmount (P/N:416101300-3) for 9-16 buttons when connected to the button connector CN3 via the standard switchmount cable (P/N:426450100-3)



2.4.3 Connect 8-button with VS-500 & VS-520

- Use the switchmount (P/N:416101300-3) for 1-8 buttons when connected to the Remote Ext. socket (CN5) via the standard cable (P/N:426631800-3)



Important note: There is no additional button connector for #9 - #16 available on VS-500. However, it is possible to access button #9 - #16 on VS-500 but a custom-made housing design is required. Please contact your local Digital View distributors for more details.

3 Playlist configuration

For whatever type of buttons are used including the ITO touch screen type, each button function can be programmed with **DV Studio** to perform a video player mode function or specific track select function.

The button control has two modes of operation - simple playback mode and playlist mode.

3.1 Simple playback mode

When using simple playback mode, the function of all buttons 1 to 8 has been preset.

The preset function for button (#1-#8) is:

Button	#1	#2	#3	#4	#5	#6	#7	#8
Function	Play	Stop	Pause	Repeat	Next	Vol -	Vol +	Mute

Note: There are no functions for buttons 9-16 in simple playback mode.

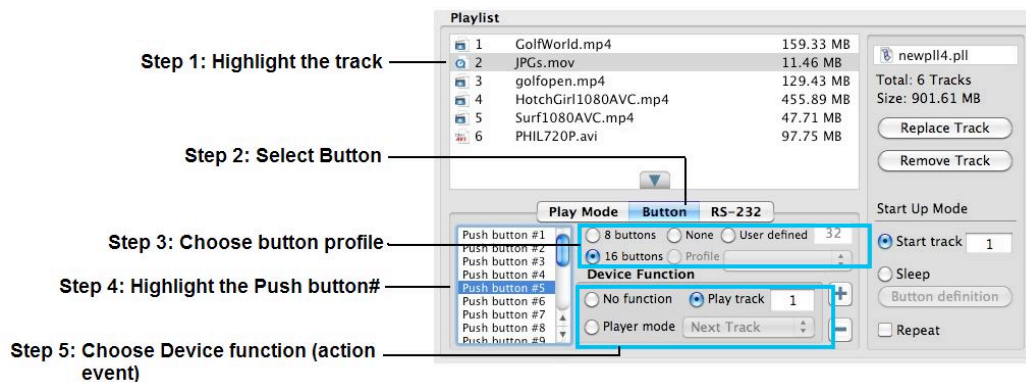
3.2 Playlist mode

In playlist mode both a playlist file (.pll) and project file (.prj) are required. These are created by DV Studio.

3.2.1 Playlist Creation

In the Button settings area, you are able to define the action events of each push button for each track.

- Highlight the track in playlist window.
- Click on the **Button** folder tab.
- Select button profile: None(no button), 8-button, 16-button or user defined).
- Highlight the Push button#.
- Choose one of action events from **Device function** option.



- The Device Function has three action events:

<i>No function</i>	No action when button is selected.
<i>Play track</i>	Jump to a specific track when button is selected.
<i>Player mode</i>	Nine playback functions: Play, Stop, Pause, Volume up, Volume down, Mute, Next track, Previous track and Repeat.

We have pre-defined two button profiles (8 buttons and 16 buttons) in DV Studio.

The following is the default settings in device function for these two profiles.

8 Buttons Profile

	No function	Play track	Player mode
Push button # 1	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> Play
Push button # 2	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> Stop
Push button # 3	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> Pause
Push button # 4	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> Repeat/Continue toggle
Push button # 5	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> Next track
Push button # 6	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> Volume Down
Push button # 7	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> Volume Up
Push button # 8	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> Mute

16 Buttons Profile

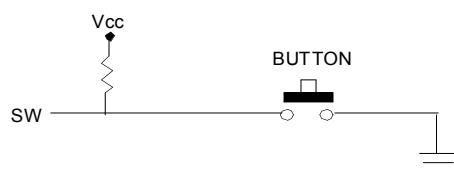
	No function	Play track	Player mode
Push button # 1	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> Play
Push button # 2	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> Stop
Push button # 3	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> Pause
Push button # 4	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> Repeat/Continue toggle
Push button # 5	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> Next track
Push button # 6	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> Volume Down
Push button # 7	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> Volume Up
Push button # 8	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> Mute
Push button # 9	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Push button # 10	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Push button # 11	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Push button # 12	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Push button # 13	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Push button # 14	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Push button # 15	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Push button # 16	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Step 5: After finishing all the required settings ensure you deploy the Playlist and/or save the playlist so it can be amended at a later date.

4 Pin Assignments

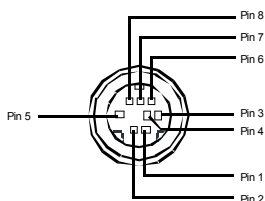
4.1 Button Circuit diagram

The following circuit diagram illustrates each button connection on CN3, CN5 and CN6.



4.2 Switch and Button connector

CN5 – Remote Ext. connector (#1 - #8)



PIN	SYMBOL	DESCRIPTION
1	SW1	Button 1
2	SW2	Button 2
3	SW3	Button 3
4	SW4	Button 4
5	SW5	Button 5
6	SW6	Button 6
7	SW7	Button 7
8	SW8	Button 8
The shielding of connector is grounded.		

CN6 - Switches and buttons connector (#1 - #8)

PIN	SYMBOL	DESCRIPTION
1	SW1	Button 1
2	SW2	Button 2
3	SW3	Button 3
4	SW4	Button 4
5	SW5	Button 5
6	SW6	Button 6
7	SW7	Button 7
8	SW8	Button 8
9	GND	Ground

CN3 - Switches and buttons connector (#9 - #16)

PIN	SYMBOL	DESCRIPTION
1	SW9	Button 9
2	SW10	Button 10
3	SW11	Button 11
4	SW12	Button 12
5	SW13	Button 13
6	SW14	Button 14
7	SW15	Button 15
8	SW16	Button 16
9	GND	Ground

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