

Nine (9) Channel Switch Interfaces for the Pioneer® V5000 player

Technical Data

DVD-P5-9+
DVD-P5-9CH
DVD-P5-9TI

Features

- Ultra low power consumption from the connected player
- Simple connection to Pioneer® V5000 player serial (RS232C) port
- Three versions allow easy integration into most applications
- Screw terminals for quick connection to Normally Open (NO) switch contacts
- Anti-bounce on all switch inputs
- Enclosure lugs provide simple secure fixing

Description

The DVD-P5-9 interfaces permit nine Normally Open (NO) momentary action switches the control of a Pioneer® V5000 player.

The DVD-P5-9 range issue special Pioneer serial commands that control the action performed by the connected player.

The DVD-P5-9+ issues PLAY, PAUSE, STILL, SCAN FWD etc. for direct control, the DVD-P5-9CH issues jumps to chapter 1-9 (on title1) and the DVD-P5-9TI issues jumps to titles 1-9.



Applications

The DVD-P5-9 range is primarily for use within a kiosk environment where input is required from the kiosk control buttons or from an Anti-Vandal button plate such as the DVD-nBUT. The devices are especially designed to connect to any type of momentary action switch and can therefore be used to control the HD-DVD player in a number of diverse applications.

Custom designed firmware is available for this product, please contact your distributor.

DVD PERIPHERALS

Selection Guide

Description	Part Number
9 channel switch interface	DVD-P5-9+
9 channel switch interface (chapter select)	DVD-P5-9CH
9 channel switch interface (title select)	DVD-P5-9TI
Individually boxed product	Order Option #01 with the above referenced part number. The product is shipped in a box , including this DVD-P5-9 data sheet.

Note: All products are subject to availability; normal despatch is 10 working days following order date.

Power requirements

The DVD-P5-9 is operated from the DTR pin of the DVD player. The maximum current draw is 6mA.

Switch Inputs

The DVD-P5-9 switch interface consists of a series of nine double terminal blocks to which any Normally Open (NO) momentary switch can be connected.

Contacts may be wired up to 50 metres away from the DVD-P5-9 without degrading the performance of the device.

DVD I/O interface

The DVD connection is a standard DB15 as specified within the DVD player specification.

Serial communication protocol is 9600 Baud, 1 Start bit, 8 Data bits, 1 Stop bits, No parity. All I/O is RS232 and TTL compatible.

DVD command protocol**

The DVD-P9 issues the DVD-V7X00 with standard command mnemonics.

This protocol takes the form of ASCII command strings of format:

PL\r
or
CH1SEPL\r

\r – Carriage return

These strings allow control commands to be issued to the player in response to an external button on the DVD-P9 being pressed.

See button function tables at the end of the document for individual product output.

DVD-V5000 interface

Function	DB15 Connection
Ground	1
TXD	2
RXD	3
DTR	4
All other connection are N/C	

Electrical Characteristics (T_A = 25°C Typical)

Parameter	Minimum	Maximum	Units	Notes
Supply Voltage (DTR)	4.5	12	V	
Supply Current	-	6	mA	1
Switch resistance	-	100	Ω	
Switch de-bounce time	-	50	mS	
RXData high level	GND	0.8	V	
RXData low level	2.4	VCC	V	
TXData high level	0.8	-15	V	
TXData low level	2.4	15	V	
Terminal wire thickness	0.5	1.3	mm ²	

Absolute Maximum Ratings

Parameter	Minimum	Maximum	Units
Supply Voltage	-0.5	+14	V
Operating Temperature	0	70	°C

Environmental

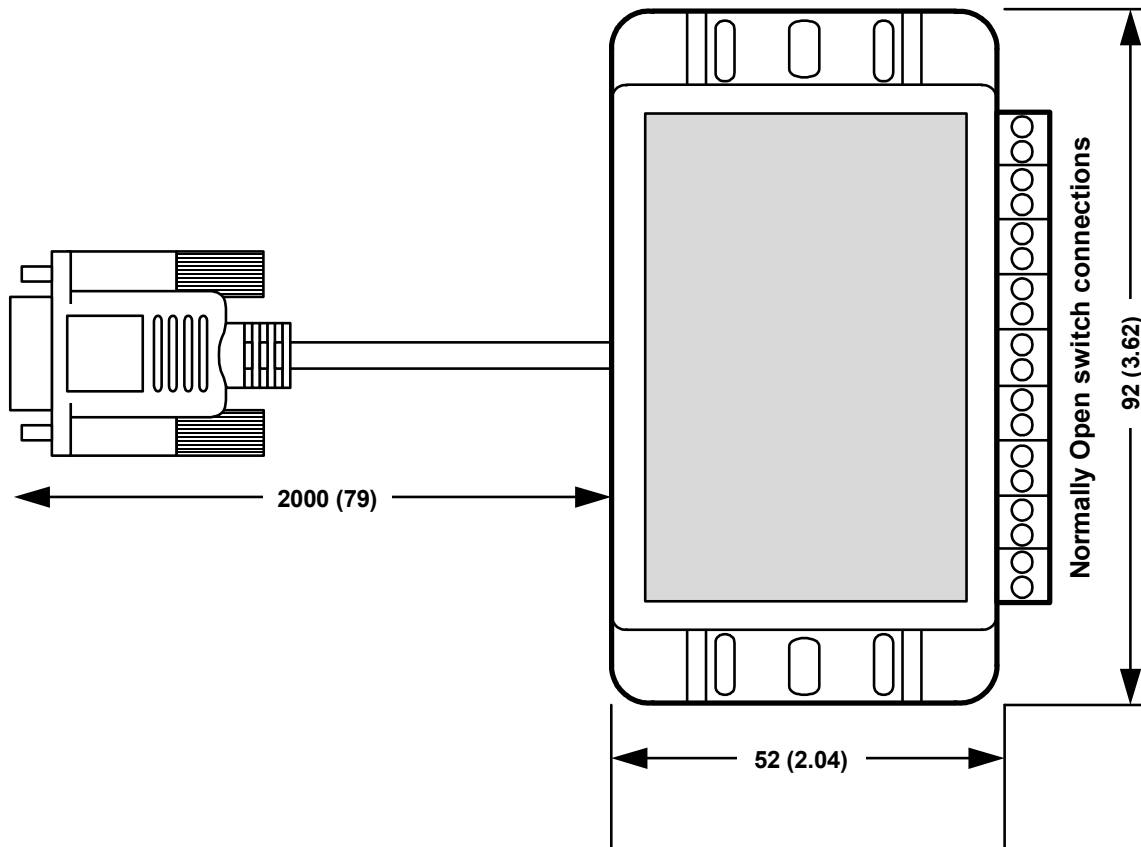
Parameter	Minimum	Maximum	Units
Operating Temperature	0	70	°C
Storage Temperature	-10	80	°C
Humidity	0	80	%
Dimensions	See below		
Weight	100g		
Immunity & emissions	EMC compliance to 2004/108/EC		

Notes:

1. Value given must not be exceeded to ensure reliable operation.

** See Pioneer serial communications technical specification for more information.

Mechanical Specifications – Units millimetres (inches)



Installation

1. Ensure power to the Pioneer V5000 player is switched OFF.
2. Insert the lead on the DVD-P5-9 into the RS232C connector on the rear of the player and secure with the integral screw-locks.
3. Connect a Normally Open (NO) momentary action button across each of the inputs you wish to use (Note: each double terminal block is one input) using a pair of wires or multi-conductor cable to a maximum length of 50 metres using a small flat blade screwdriver.
(NB. For a ready-made aluminium button plate with sealed anti-vandal buttons see the Designer Systems DVD-nBUT solution)
4. Site the DVD-P5-9 in a location that will not put undue strain on the terminals.
5. Turn on the player and after entering the setup menu to check that the serial baud rate is set to 9600 test the installation by pressing each of the wired in buttons cross referencing with the table below. Should the installation not function, switch OFF immediately and check all connections.

Button function table (DVD-P5-9+)

Switch input No.	Function
1	PLAY
2	PAUSE
3	STOP
4	SCAN FORWARD
5	SCAN REVERSE
6	SCAN STOP
7	STILL
8	OPEN
9	CLOSE

Button function table (DVD-P5-9CH)

Switch input No.	Function
1	Chapter 1 Title 1
2	Chapter 2 Title 1
3	Chapter 3 Title 1
4	Chapter 4 Title 1
5	Chapter 5 Title 1
6	Chapter 6 Title 1
7	Chapter 7 Title 1
8	Chapter 8 Title 1
9	Chapter 9 Title 1

Button function table (DVD-P5-9TI)

Switch input No.	Function
1	Title 1
2	Title 2
3	Title 3
4	Title 4
5	Title 5
6	Title 6
7	Title 7
8	Title 8
9	Title 9

Notes:

- The DVD-P5-9 must NEVER be connected to voltage bearing circuits; damage to the unit and the Pioneer V5000 player will result and will invalidate the Warranty.



WEEE Consumer Notice

This product is subject to Directive 2002/96/EC of the European Parliament and the Council of the European Union on Waste of Electrical and Electronic Equipment (WEEE) and, in jurisdictions adopting that Directive, is marked as being put on the market after August 13, 2005, and should not be disposed of as unsorted municipal/public waste. Please utilise your local WEEE collection facilities in the disposition and otherwise observe all applicable requirements. For further information on the requirements regarding the disposition of this product in other languages please visit <http://www.designersystems.co.uk>



RoHS Compliance

This product complies with Directive 2002/95/EC of the European Parliament and the Council of the European Union on the Restriction of Hazardous Substances (RoHS) which prohibits the use of various heavy metals (lead, mercury, cadmium, and hexavalent chromium), polybrominated biphenyls (PBB) and polybrominated diphenyl ethers (PBDE).

Declaration of Conformity

Apparatus name / model number DVD-P5-9

Conformity via Generic Standard EN50081-1
Generic Standard EN50082-1

Conformity criteria For use only within commercial, residential and light industrial applications

We certify that the apparatus identified above conforms to the requirements of Council Directive 2004/108/EC & 2006/95/EC

Signed.

Date 13/7/07

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Manufacturer Designer Systems, 15 Andrew Place, Truro, Cornwall
TR1 3HZ, United Kingdom

Description of apparatus DVD control device

Having made this declaration the CE mark is affixed to this product, its packaging, manual or warranty.

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