

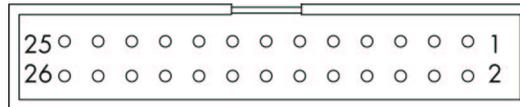
Application Note

Using the iPlayer 2 Expansion Port

Last update: 29 October 2001

The iPlayer 2 has a 26-pin expansion port that allows dry contact switches to select between shows. This note explains how the expansion port is configured and how to use it properly.

Expansion Port Pinout



Pin	Signal	Pin	Signal
1	Ground	2	Ground
3	Ground	4	Ground
5	Switch 1	6	Switch 2
7	Switch 3	8	Switch 4
9	Switch 5	10	Switch 6
11	Switch 7	12	Switch 8
13	+3.3 Volts	14	+3.3 Volts
15	Ground	16	Ground
17	Switch Off	18	Switch Up
19	Switch Down	20	Spare 3
21	Spare 1	22	Spare 2
23	N/C	24	+5 Volts
25	Ground	26	Ground

Usage

The signals labeled "Switch 1" through "Switch 8" are inputs used to switch between shows 1 through 8. These inputs are pulled high internally on the iPlayer 2.

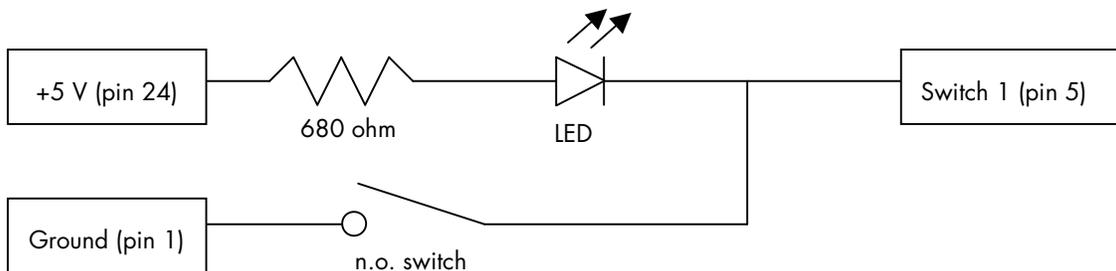
Show selection can be triggered by connecting the normally open (N.O.) terminals of a dry contact switch or relay output between Ground and the appropriate "Switch *n*" signal. Momentarily closing the switch will instantly trigger the show change. You do not need to hold the switch closed after the show change has been triggered. If multiple switch inputs are closed simultaneously the resulting show triggering is not defined.

Wiring the expansion port

The expansion port connector is intended to be used with a 26-pin ribbon cable. The simplest way to connect to the expansion port is to use a ribbon cable to screw terminal adapter. Scidyne model 100-7625/26 (www.scidyne.com) is one such device. You will also need a short ribbon cable with connectors on each end, such as Scidyne 115-7623/2618. To minimize potential noise problems the length of wiring between the iPlayer 2 and the switches should be kept as short as possible.

Driving LED indicators

The expansion port can also be used to light an LED indicating the currently selected show. The iPlayer 2 does this by rapidly alternating between reading the "Switch *n*" signals and then driving the one signal that corresponds to the selected show. This allows you to use a keypad that combines both switches and LEDs, such as the Lutron HWV-KPCC-M. Each switch/LED combination should be wired to the expansion port like this:



Warning

The pins on the iPlayer 2 expansion port are internally tied directly to the microprocessor. Applying a voltage to any of these pins could permanently damage the iPlayer 2. These pins are also sensitive to static discharge.