



Application Note

Synchronizing Multiple iPlayer 2s

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The iPlayer 2 has a built-in capability to interconnect with other iPlayer 2s to maintain both time and show selection synchronization. This application note describes how to use this capability.

Overview

Synchronization is achieved via the RS-232 Serial port on the iPlayer 2. By properly configuring and wiring a system of iPlayer 2s timing and show selection information is sent between all of the iPlayer 2s to maintain synchronization.

iPlayer 2 modes

The iPlayer 2 can operate in three different modes: *Normal*, *Master*, and *Slave*. By default iPlayer 2s are in normal mode. The mode of an iPlayer 2 can be changed with the ColorPlay software (version 1.8 or later), through the "Trigger" button in the Download task (see Figure 1).

The operating mode is stored in flash memory on the iPlayer 2, so it will remember its mode when powered off.

Serial port

There are three signals on the DB9 serial port connector that are used for synchronization:

- Pin 5: Signal Ground
- Pin 2: Transmit Data
- Pin 3: Receive Data

Information is sent from the Transmit pin on one iPlayer 2 to the Receive pin on one or more other iPlayer 2s. The Ground pin must be commonly connected between all iPlayer 2s in the system.

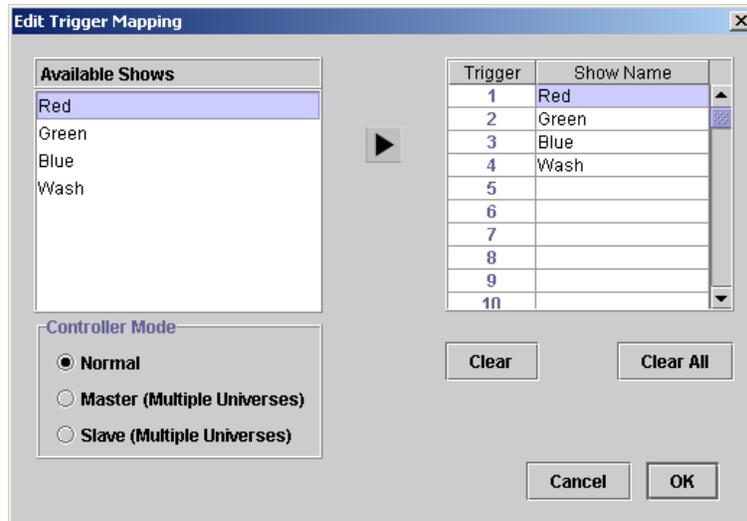


Figure 1 - ColorPlay Trigger editor screen

Mode descriptions

In all modes the iPlayer 2 will receive show selection information (typically from a controller keypad). The modes differ in whether show selection information is also sent, and if timing synchronization is sent or received.

Normal mode

In Normal mode (the default) show selection information is not sent. Timing synchronization information is neither sent nor received.

Master mode

In Master mode show selection information is sent whenever the show is changed. Timing synchronization information is sent at the beginning of every DMX frame.

Slave mode

In Slave mode show selection information is not sent. Timing synchronization information is received which triggers DMX frame transmission.

Note: an iPlayer 2 in Slave mode will not transmit DMX data unless it is receiving timing synchronization from another iPlayer 2 in Master mode.

Typical setup

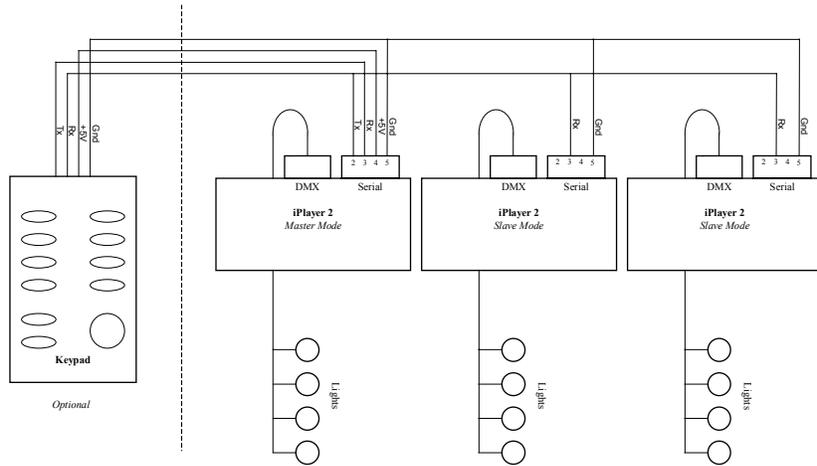


Figure 2 - Typical master/slave setup with keypad

Figure 2 shows the serial port wiring configuration for a master iPlayer 2 and two slave units, along with a controller keypad. The important concept is that the transmit signal (Tx) from the master goes to the receive signal (Rx) on all of the slave units.