



DMX to RS232 Conversion Box

Serial Interface

RS232 Standard

DB9 Female on Unit

19200 Baud

8N1 Data Format

CTS Handshaking

The unit will set the CTS line when it is ready to receive a data packet.

RS232 Pinout

2 RS232 Input

3 RS232 Out

5 Ground

8 CTS

Protocol document v3.0

18th March 2008

Based on v3.00 Firmware

Updated to add new commands to trigger multiple channels

Updated to document speed reductions in DMX out for safer fading of multiple channels

Chases Control

The unit has a built in three channel chase for DMX channels 1, 2 and 3.

This can be activated over RS232, or by setting an internal jumper it can be triggered at Power Up (Med Speed)

Code	Action
00@000	Cancel Chases
00@001	Slow Chase
00@002	Med Chase
00@003	Fast Chase

Notes When the unit receives a channel change or recall message it will cancel any running chases

Channel Control

Code	Action
XX@YYY	Set Channel XX to value YYY

Notes Channel should be between 01 and 64
Value should be between 000 and 255
If an invalid Channel value is received to unit will ignore the command.

Group Channel Control

This command allows tyou to control multiple channels with a single command. This is useful for fading groups of channels without flooding the data bus of the controller.

Code	Action
Code	Action
71@YYY	Set Channel 1 - 12 to value YYY
72@YYY	Set Channel 13 - 24 to value YYY
73@YYY	Set Channel 25 - 36 to value YYY
74@YYY	Set Channel 37 - 48 to value YYY
75@YYY	Set Channel 49 - 64 to value YYY
76@YYY	Set Channel 1 - 24 to value YYY
77@YYY	Set Channel 25 - 48 to value YYY
78@YYY	Set Channel 49 - 64 to value YYY
79@YYY	Set Channel 1 - 64 to value YYY

Notes Value should be between 000 and 255
If an invalid Channel value is received to unit will ignore the command.

Preset Store and Recall

The unit has 4 presets of 64 channels that can be stored and recalled as required.

In the v2.0 firmware these values will snap to the required values. Future updates will fade over a fixed time.

Code	Action
81@000	Store current channel settings to Preset 1
82@000	Store current channel settings to Preset 2
83@000	Store current channel settings to Preset 3
84@000	Store current channel settings to Preset 4
91@000	Recall Preset 1
92@000	Recall Preset 2
93@000	Recall Preset 3
94@000	Recall Preset 4

Notes When presets are recalled the output will snap to the stored values and a message sent to the comm port. The unit will send the value of all the channel to the control system.
The return channels will be in the form XX@YYY<CR><LF>

When a preset is recalled the DMX will drop for 100ms. DMX is tolerant of these temporary drop outs as part of the DMX-512(1990) standard.

Firmware Info

Code	Action
99@000	Return Firmware version string - vX.XX currently v2.02

Notes Firmware value is also send from the unit on power up



DMX to RS232 Conversion Box

Version 3 Firmware

18/03/2008

This new firmware has a completely re-written DMX transmission routine which allows a lower latency transmission, but in order to ensure serial communication is maintained at all times and commands are not lost we have reduced the DMX transmission rate to 17Hz. This is still well within the DMX-512A specification and will have no noticeable effect on connected equipment.

Bill Coghill
Bill Coghill Design, Sydney
www.bcd.cx