



# PARASOUND

## Halo D 3 RS-232 Protocol

### Protocol Specs

Baud Rate: 9600 bps  
 Data Bit: 8 bits  
 Stop Bit: 1 bit  
 Parity: None  
 Flow Control: No

### Pin Connections

TxD: Pin 2  
 RxD: Pin 3  
 Gnd: Pin 5

**Basic RS-232 Control:** Hexadecimal control codes are shown below. The commas in the Hex code are merely for your ease of reading and are not part of the transmission. There are no spaces between any bytes. Before each command you must enable the RS-232 by issuing Hex code "835F", this is shown in all the examples. The end of each string must have a carriage return after the last byte with no space in between. In the Hex examples, the carriage return is already represented with code "0D". A straight-through Male DB9 cable is required for connecting to a control system.

<u>Command Action</u>	<u>Hex Code</u>	<u>Example in Hex</u>
<b><i>Power</i></b>		
Power On	11	83,5F,11,0D
Power Off	57	83,5F,57,0D
<b><i>Transport</i></b>		
Play	1C	83,5F,1C,0D
Stop	45	83,5F,45,0D
Pause / Step	46	83,5F,46,0D
Skip Forward	14	83,5F,14,0D
Skip Reverse	15	83,5F,15,0D
Fast Reverse	1A	83,5F,1A,0D
Fast Forward	1B	83,5F,1B,0D
Tray Open / Close	43	83,5F,43,0D
<b><i>Cursor</i></b>		
Cursor Left	4C	83,5F,4C,0D
Cursor Right	4D	83,5F,4D,0D
Cursor Up	4E	83,5F,4E,0D
Cursor Down	4F	83,5F,4F,0D
Enter	1E	83,5F,1E,0D
<b><i>DVD Video</i></b>		
DVD Menu	1F	83,5F,1F,0D
DVD Top Menu	5C	83,5F,5C,0D
Audio Select	52	83,5F,52,0D
Subtitle Select	13	83,5F,13,0D
Angle	53	83,5F,53,0D
Zoom	55	83,5F,55,0D
Return	5E	83,5F,5E,0D
Page -	0E	83,5F,0E,0D
Page +	0F	83,5F,0F,0D
Title / Group -	40	83,5F,40,0D
Title / Group +	41	83,5F,41,0D

**Other Features**

Program	12	83,5F,12,0D
Search	17	83,5F,17,0D
Random	18	83,5F,18,0D
Repeat A/B	1D	83,5F,1D,0D
Repeat	4A	83,5F,4A,0D
Clear	58	83,5F,58,0D
Marker	5B	83,5F,5B,0D
Player Setup	19	83,5F,19,0D
Dimmer	47	83,5F,47,0D
Display	54	83,5F,54,0D
SACD Area	5F	83,5F,5F,0D
Video / Digital Off	5D	83,5F,5D,0D

**Number Entry**

Number 0	00	83,5F,00,0D
Number 1	01	83,5F,01,0D
Number 2	02	83,5F,02,0D
Number 3	03	83,5F,03,0D
Number 4	04	83,5F,04,0D
Number 5	05	83,5F,05,0D
Number 6	06	83,5F,06,0D
Number 7	07	83,5F,07,0D
Number 8	08	83,5F,08,0D
Number 9	09	83,5F,09,0D
Number +10	0A	83,5F,0A,0D