



## Rotel RSP-1572 RS232 HEX Protocol

Date	Version	Update Description
February 3, 2012	1.00	Original Specification
August 12, 2014	1.01	Corrected an error with the Max volume command

The RS232 protocol structure for the RSP-1572 is detailed below. This is a HEX based communication protocol.

### Connection Settings

Baud Rate	Parity	Valid Data Bits	Stop Bit Value	Handshaking	Data Type
115200	N	8	1	None	String

All commands sent to the attached Rotel device must follow the command structure detailed below, unless specified otherwise. Send only the bytes only, no spaces, delimiter, etc.

### Standard Command String Format

Start	Count	Device ID	Type	Key	Checksum
0xFE	0x03	0xA5	0x10	0xFF	0xFF

**Note:** The count byte only includes the ID, Type, and Key bytes; it does not include the Start or Checksum bytes.

**Note 2:** Do not include any carriage returns or line feeds after the commands

### Communication Protocol

Command and response messages are included on the following pages. The standard response string of the unit mirrors the data that would be available on the front panel of the unit.

Any change to the status of the front display on the unit will prompt a feedback string mirroring that change.

*Note that the spaces shown between hex bytes below are for clarity only; do not include spaces in the actual command sent to the unit.*

## Meta Encoding

The start byte for all command and response strings is FE. To keep the device from encountering the start byte FE in any position other than as the start byte, any occurrence of the bytes FD or FE in a command string must be converted to either FD 00 (for FD), or FD 01 (for FE). This will allow the string to pass while masking any occurrence of the byte FE except as the start byte.

Commands that have Meta Encoding applied will be highlighted in red.

## Press & Release Keys

Certain commands require a starting "Key Pressed" command and will automatically repeat the command until a "Key Released" command is received.

The key pressed command is the standard Type 10 command, while key released commands use the same command Key but with Type 11.

Commands requiring press & release are highlighted in orange.

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**Table 1 - Type 10 Primary Commands**

RSP-1572 HEX	Command Description
<b>POWER &amp; VOLUME COMMANDS</b>	
FE 03 A5 10 0A C2	Power Toggle
FE 03 A5 10 4A 02	Power Off
FE 03 A5 10 4B 03	Power On
FE 03 A5 10 0B C3	Volume Up
FE 03 A5 10 0C C4	Volume Down
FE 03 A5 10 1E D6	Mute Toggle
FE 03 A5 10 71 29	Power Off All Zones
<b>SOURCE SELECTION COMMANDS</b>	
FE 03 A5 10 02 BA	Source CD
FE 03 A5 10 03 BB	Source Tuner
FE 03 A5 10 05 BD	Source Video 1
FE 03 A5 10 06 BE	Source Video 2
FE 03 A5 10 07 BF	Source Video 3
FE 03 A5 10 08 C0	Source Video 4
FE 03 A5 10 09 C1	Source Video 5
FE 03 A5 10 94 4C	Source Video 6
FE 03 A5 10 8E 46	Source iPod/USB
FE 03 A5 10 15 CD	Source Multi Input
<b>SURROUND MODE COMMANDS</b>	
FE 03 A5 10 11 C9	Stereo / Bypass Toggle
FE 03 A5 10 12 CA	Dolby 3 Stereo
FE 03 A5 10 13 CB	Dolby PLIIx Mode Toggle
FE 03 A5 10 A2 5A	Dolby PLIIx Music/Cinema Toggle
FE 03 A5 10 14 CC	DSP Mode Toggle
FE 03 A5 10 53 0B	Dolby 3 Stereo / PLIIx Toggle
FE 03 A5 10 54 0C	dts Neo:6 Music/Cinema Toggle
FE 03 A5 10 57 0F	DSP 1
FE 03 A5 10 58 10	DSP 2
FE 03 A5 10 59 11	DSP 3
FE 03 A5 10 5A 12	DSP 4
FE 03 A5 10 5B 13	5 Channel Stereo
FE 03 A5 10 5C 14	7 Channel Stereo
FE 03 A5 10 5D 15	Dolby PLIIx Cinema
FE 03 A5 10 5E 16	Dolby PLIIx Music
FE 03 A5 10 74 2C	Dolby PLIIx Game
FE 03 A5 10 5F 17	Dolby Pro Logic
FE 03 A5 10 92 4A	Dolby PLIIz
FE 03 A5 10 60 18	dts Neo:6 Music
FE 03 A5 10 61 19	dts Neo:6 Cinema

RSP-1572 HEX	Command Description
FE 03 A5 10 62 1A	PLII Panorama Toggle
FE 03 A5 10 63 1B	PLII Dimension Up
FE 03 A5 10 64 1C	PLII Dimension Down
FE 03 A5 10 65 1D	PLII Center Width Up
FE 03 A5 10 66 1E	PLII Center Width Down
FE 03 A5 10 68 20	Dolby Digital EX Toggle
FE 03 A5 10 22 DA	Next Surround Mode
<b>OSD MENU COMMANDS</b>	
FE 03 A5 10 18 D0	OSD Menu
FE 03 A5 10 19 D1	Enter
FE 03 A5 10 90 48	Exit
FE 03 A5 10 1A D2	Cursor Right – Key Pressed
FE 03 A5 11 1A D3	Cursor Right – Key Released
FE 03 A5 10 1B D3	Cursor Left – Key Pressed
FE 03 A5 11 1B D4	Cursor Left – Key Released
FE 03 A5 10 1C D4	Cursor Up – Key Pressed
FE 03 A5 11 1C D5	Cursor Up – Key Released
FE 03 A5 10 1D D5	Cursor Down – Key Pressed
FE 03 A5 11 1D D6	Cursor Down – Key Released
<b>NUMERIC KEY COMMANDS</b>	
FE 03 A5 10 2A E2	Number Key 1
FE 03 A5 10 2B E3	Number Key 2
FE 03 A5 10 2C E4	Number Key 3
FE 03 A5 10 2D E5	Number Key 4
FE 03 A5 10 2E E6	Number Key 5
FE 03 A5 10 2F E7	Number Key 6
FE 03 A5 10 30 E8	Number Key 7
FE 03 A5 10 31 E9	Number Key 8
FE 03 A5 10 32 EA	Number Key 9
FE 03 A5 10 33 EB	Number Key 0
<b>USB CONTROL COMMANDS</b>	
FE 03 A5 10 85 3D	Play
FE 03 A5 10 86 3E	Pause
FE 03 A5 10 87 3F	Stop – Key Pressed
FE 03 A5 11 87 40	Stop – Key Released
FE 03 A5 10 88 40	Track Forward – Key Pressed
FE 03 A5 11 88 41	Track Forward – Key Released
FE 03 A5 10 89 41	Track Back – Key Pressed
FE 03 A5 11 89 42	Track Back – Key Released
FE 03 A5 10 8A 42	Scan Forward – Key Pressed
FE 03 A5 11 8A 43	Scan Forward – Key Released
FE 03 A5 10 8B 43	Scan Back – Key Pressed

RSP-1572 HEX	Command Description
FE 03 A5 11 8B 44	Scan Back – Key Released
FE 03 A5 10 8F 47	Shuffle
FE 03 A5 10 8C 44	Repeat
<b>OTHER COMMANDS</b>	
FE 03 A5 10 17 CF	Record Function Select
FE 03 A5 10 16 CE	Dynamic Range
FE 03 A5 10 1F D7	Digital Input Select
FE 03 A5 10 23 DB	Zone 2 / Main
FE 03 A5 10 4C 04	Temporary Center Trim
FE 03 A5 10 4D 05	Temporary Subwoofer Trim
FE 03 A5 10 4E 06	Temporary Surround Trim
FE 03 A5 10 4F 07	Cinema EQ Toggle
FE 03 A5 10 52 0A	Front Display On/Off
FE 03 A5 10 FF B7	Display Refresh
FE 03 A5 10 6E 26	Party Mode Toggle
FE 03 A5 10 75 2D	Output Resolution
FE 03 A5 10 78 30	HDMI Amp Mode
FE 03 A5 10 79 31	HDMI TV Mode
FE 03 A5 10 67 1F	Temporary Room EQ Toggle
FE 03 A5 10 91 49	Display
FE 03 A5 10 A1 59	Speaker Level Setting Toggle
FE 03 A5 10 93 4B	Force Factory Default

**Table 2 - Type 14 Main Zone Commands**

**NOTE:** These commands are duplicate functions of the primary commands in the table above bearing the same name, but are discrete for the main zone only. For multi-zone installation applications, it is recommended that the below commands be used where applicable rather than the type 10 commands to avoid zone conflicts.

RSP-1572 HEX	Command Description
<b>MAIN ZONE POWER &amp; VOLUME COMMANDS</b>	
FE 03 A5 14 0A C6	Main Zone Power Toggle
FE 03 A5 15 4A 06	Main Zone Power Off
FE 03 A5 15 4B 07	Main Zone Power On
FE 03 A5 14 00 BC	Main Zone Volume Up
FE 03 A5 14 01 BD	Main Zone Volume Down
FE 03 A5 14 1E DA	Main Zone Mute Toggle
FE 03 A5 14 6C 28	Main Zone Mute On
FE 03 A5 14 6D 29	Main Zone Mute Off
FE 03 A5 14 71 2D	Power Off All Zones
<b>MAIN ZONE SOURCE SELECTION COMMANDS</b>	
FE 03 A5 14 02 BE	Main Zone Source CD
FE 03 A5 14 03 BF	Main Zone Source Tuner

RSP-1572 HEX	Command Description
FE 03 A5 14 05 C1	Main Zone Source Video 1
FE 03 A5 14 06 C2	Main Zone Source Video 2
FE 03 A5 14 07 C3	Main Zone Source Video 3
FE 03 A5 14 08 C4	Main Zone Source Video 4
FE 03 A5 14 09 C5	Main Zone Source Video 5
FE 03 A5 14 94 50	Main Zone Source Video 6
FE 03 A5 14 8E 4A	Main Zone Source iPod/USB
FE 03 A5 14 15 D1	Main Zone Source Multi Input

**Table 3 - Type 15 Record Source Commands**

RSP-1572 HEX	Command Description
<b>RECORD SOURCE SELECTION COMMANDS</b>	
FE 03 A5 15 02 BF	Record Source CD
FE 03 A5 15 03 C0	Record Source Tuner
FE 03 A5 15 05 C2	Record Source Video 1
FE 03 A5 15 06 C3	Record Source Video 2
FE 03 A5 15 07 C4	Record Source Video 3
FE 03 A5 15 08 C5	Record Source Video 4
FE 03 A5 15 09 C6	Record Source Video 5
FE 03 A5 15 94 51	Record Source Video 6
FE 03 A5 15 8E 4B	Record Source iPod/USB
FE 03 A5 15 6B 28	Record Follow Main Zone Source

**Table 4 - Type 16 Zone 2 Commands**

RSP-1572 HEX	Command Description
<b>ZONE 2 POWER &amp; VOLUME COMMANDS</b>	
FE 03 A5 16 0A C8	Zone 2 Power Toggle
FE 03 A5 16 4A 08	Zone 2 Power Off
FE 03 A5 16 4B 09	Zone 2 Power On
FE 03 A5 16 00 BE	Zone 2 Volume Up
FE 03 A5 16 01 BF	Zone 2 Volume Down
FE 03 A5 16 1E DC	Zone 2 Mute Toggle
FE 03 A5 16 6C 2A	Zone 2 Mute On
FE 03 A5 16 6D 2B	Zone 2 Mute Off
FE 03 A5 16 71 2F	Power Off All Zones
<b>ZONE 2 SOURCE SELECTION COMMANDS</b>	
FE 03 A5 16 02 C0	Zone 2 Source CD
FE 03 A5 16 03 C1	Zone 2 Source Tuner
FE 03 A5 16 05 C3	Zone 2 Source Video 1
FE 03 A5 16 06 C4	Zone 2 Source Video 2
FE 03 A5 16 07 C5	Zone 2 Source Video 3

RSP-1572 HEX	Command Description
FE 03 A5 16 08 C6	Zone 2 Source Video 4
FE 03 A5 16 09 C7	Zone 2 Source Video 5
FE 03 A5 16 94 52	Zone 2 Source Video 6
FE 03 A5 16 8E 4C	Zone 2 Source iPod/USB
FE 03 A5 16 6B 29	Zone 2 Follow Main Zone Source
<b>ZONE 2 OTHER COMMANDS</b>	
FE 03 A5 16 6E 2C	Party Mode Toggle

**Table 5 - Type 17 Zone 3 Commands**

RSP-1572 HEX	Command Description
<b>ZONE 3 POWER &amp; VOLUME COMMANDS</b>	
FE 03 A5 17 0A C9	Zone 3 Power Toggle
FE 03 A5 17 4A 09	Zone 3 Power Off
FE 03 A5 17 4B 0A	Zone 3 Power On
FE 03 A5 17 00 BF	Zone 3 Volume Up
FE 03 A5 17 01 C0	Zone 3 Volume Down
FE 03 A5 17 1E DD	Zone 3 Mute Toggle
FE 03 A5 17 6C 2B	Zone 3 Mute On
FE 03 A5 17 6D 2C	Zone 3 Mute Off
FE 03 A5 17 71 30	Power Off All Zones
<b>ZONE 3 SOURCE SELECTION COMMANDS</b>	
FE 03 A5 17 02 C1	Zone 3 Source CD
FE 03 A5 17 03 C2	Zone 3 Source Tuner
FE 03 A5 17 05 C4	Zone 3 Source Video 1
FE 03 A5 17 06 C5	Zone 3 Source Video 2
FE 03 A5 17 07 C6	Zone 3 Source Video 3
FE 03 A5 17 08 C7	Zone 3 Source Video 4
FE 03 A5 17 09 C8	Zone 3 Source Video 5
FE 03 A5 17 94 53	Zone 3 Source Video 6
FE 03 A5 17 8E 4D	Zone 3 Source iPod/USB
FE 03 A5 17 6B 2A	Zone 3 Follow Main Zone Source
<b>ZONE 3 OTHER COMMANDS</b>	
FE 03 A5 17 6E 2D	Party Mode Toggle

**Table 6 - Type 18 Zone 4 Commands**

RSP-1572 HEX	Command Description
<b>ZONE 4 POWER &amp; VOLUME COMMANDS</b>	
FE 03 A5 18 0A CA	Zone 4 Power Toggle
FE 03 A5 18 4A 0A	Zone 4 Power Off
FE 03 A5 18 4B 0B	Zone 4 Power On
FE 03 A5 18 00 C0	Zone 4 Volume Up

RSP-1572 HEX	Command Description
FE 03 A5 18 01 C1	Zone 4 Volume Down
FE 03 A5 18 1E DE	Zone 4 Mute Toggle
FE 03 A5 18 6C 2C	Zone 4 Mute On
FE 03 A5 18 6D 2D	Zone 4 Mute Off
FE 03 A5 18 71 31	Power Off All Zones
<b>ZONE 4 SOURCE SELECTION COMMANDS</b>	
FE 03 A5 18 02 C2	Zone 4 Source CD
FE 03 A5 18 03 C3	Zone 4 Source Tuner
FE 03 A5 18 05 C5	Zone 4 Source Video 1
FE 03 A5 18 06 C6	Zone 4 Source Video 2
FE 03 A5 18 07 C7	Zone 4 Source Video 3
FE 03 A5 18 08 C8	Zone 4 Source Video 4
FE 03 A5 18 09 C9	Zone 4 Source Video 5
FE 03 A5 18 94 54	Zone 4 Source Video 6
FE 03 A5 18 8E 4E	Zone 4 Source iPod/USB
FE 03 A5 18 6B 2B	Zone 4 Follow Main Zone Source
<b>ZONE 4 OTHER COMMANDS</b>	
FE 03 A5 18 6E 2E	Party Mode Toggle

**Table 7 - Type 30 Volume Direct Commands**

**NOTE:** Volume direct commands range from hex 00 – 60; below is a sample of the commands available.

RSP-1572 HEX	Command Description
<b>VOLUME DIRECT COMMANDS</b>	
FE 03 A5 30 00 D8	Volume Min
FE 03 A5 30 01 D9	Volume 1
FE 03 A5 30 02 DA	Volume 2
FE 03 A5 30 03 DB	Volume 3
FE 03 A5 30 04 DC	Volume 4
FE 03 A5 30 05 DD	Volume 5
FE 03 A5 30 06 DE	Volume 6
FE 03 A5 30 07 DF	Volume 7
FE 03 A5 30 08 E0	Volume 8
FE 03 A5 30 09 E1	Volume 9
FE 03 A5 30 0A E2	Volume 10
FE 03 A5 30 10 E8	Volume 16
FE 03 A5 30 20 F8	Volume 32
FE 03 A5 30 26 FD 01	Volume 38
FE 03 A5 30 30 08	Volume 48
FE 03 A5 30 40 18	Volume 64
FE 03 A5 30 50 28	Volume 80
FE 03 A5 30 5F 37	Volume 95



**Table 8 - Type 32 Zone 2 Volume Direct Commands**

RSP-1572 HEX	Command Description
<b>ZONE 2 VOLUME DIRECT COMMANDS</b>	
FE 03 A5 32 00 DA	Zone 2 Volume Min
FE 03 A5 32 01 DB	Zone 2 Volume 1
FE 03 A5 32 02 DC	Zone 2 Volume 2
FE 03 A5 32 03 DD	Zone 2 Volume 3
FE 03 A5 32 04 DE	Zone 2 Volume 4
FE 03 A5 32 05 DF	Zone 2 Volume 5
FE 03 A5 32 06 E0	Zone 2 Volume 6
FE 03 A5 32 10 EA	Zone 2 Volume 16
FE 03 A5 32 24 FD 01	Zone 2 Volume 36
FE 03 A5 32 30 0A	Zone 2 Volume 48
FE 03 A5 32 40 1A	Zone 2 Volume 64
FE 03 A5 32 50 2A	Zone 2 Volume 80
FE 03 A5 32 5F 39	Zone 2 Volume 95
FE 03 A5 32 64 3E	Zone 2 Volume Max

**Table 9 - Type 33 Zone 3 Volume Direct Commands**

RSP-1572 HEX	Command Description
<b>ZONE 3 VOLUME DIRECT COMMANDS</b>	
FE 03 A5 33 00 DB	Zone 3 Volume Min
FE 03 A5 33 01 DC	Zone 3 Volume 1
FE 03 A5 33 02 DD	Zone 3 Volume 2
FE 03 A5 33 03 DE	Zone 3 Volume 3
FE 03 A5 33 04 DF	Zone 3 Volume 4
FE 03 A5 33 05 E0	Zone 3 Volume 5
FE 03 A5 33 06 E1	Zone 3 Volume 6
FE 03 A5 33 10 EB	Zone 3 Volume 16
FE 03 A5 33 22 FD 00	Zone 3 Volume 34
FE 03 A5 33 30 0B	Zone 3 Volume 48
FE 03 A5 33 40 1B	Zone 3 Volume 64
FE 03 A5 33 50 2B	Zone 3 Volume 80
FE 03 A5 33 5F 3A	Zone 3 Volume 95
FE 03 A5 33 64 3F	Zone 3 Volume Max

**Table 10 - Type 34 Zone 4 Volume Direct Commands**

RSP-1572 HEX	Command Description
<b>ZONE 4 VOLUME DIRECT COMMANDS</b>	
FE 03 A5 34 00 DC	Zone 4 Volume Min
FE 03 A5 34 01 DD	Zone 4 Volume 1
FE 03 A5 34 02 DE	Zone 4 Volume 2

RSP-1572 HEX	Command Description
FE 03 A5 34 03 DF	Zone 4 Volume 3
FE 03 A5 34 04 E0	Zone 4 Volume 4
FE 03 A5 34 05 E1	Zone 4 Volume 5
FE 03 A5 34 06 E2	Zone 4 Volume 6
FE 03 A5 34 10 EC	Zone 4 Volume 16
FE 03 A5 34 22 FD 01	Zone 4 Volume 34
FE 03 A5 34 30 0C	Zone 4 Volume 48
FE 03 A5 34 40 1C	Zone 4 Volume 64
FE 03 A5 34 50 2C	Zone 4 Volume 80
FE 03 A5 34 5F 3B	Zone 4 Volume 95
FE 03 A5 34 64 40	Zone 4 Volume Max

**Table 11 - Type 40 12V Trigger Direct Commands**

RSP-1572 HEX	Command Description
<b>12V TRIGGER DIRECT COMMANDS</b>	
FE 03 A5 40 00 E8	Main Zone 12V Trigger 1 Toggle
FE 03 A5 40 01 E9	Main Zone 12V Trigger 2 Toggle
FE 03 A5 40 02 EA	Main Zone 12V Trigger 3 Toggle
FE 03 A5 40 03 EB	Main Zone 12V Trigger 4 Toggle
FE 03 A5 40 04 EC	Main Zone 12V Trigger 5 Toggle
FE 03 A5 40 05 ED	Main Zone 12V Trigger 6 Toggle
FE 03 A5 40 06 EE	Zone 2 12V Trigger 1 Toggle
FE 03 A5 40 07 EF	Zone 2 12V Trigger 2 Toggle
FE 03 A5 40 08 F0	Zone 2 12V Trigger 3 Toggle
FE 03 A5 40 09 F1	Zone 2 12V Trigger 4 Toggle
FE 03 A5 40 0A F2	Zone 2 12V Trigger 5 Toggle
FE 03 A5 40 0B F3	Zone 2 12V Trigger 6 Toggle
FE 03 A5 40 0C F4	Zone 3 12V Trigger 1 Toggle
FE 03 A5 40 0D F5	Zone 3 12V Trigger 2 Toggle
FE 03 A5 40 0E F6	Zone 3 12V Trigger 3 Toggle
FE 03 A5 40 0F F7	Zone 3 12V Trigger 4 Toggle
FE 03 A5 40 10 F8	Zone 3 12V Trigger 5 Toggle
FE 03 A5 40 11 F9	Zone 3 12V Trigger 6 Toggle
FE 03 A5 40 12 FA	Zone 4 12V Trigger 1 Toggle
FE 03 A5 40 13 FB	Zone 4 12V Trigger 2 Toggle
FE 03 A5 40 14 FC	Zone 4 12V Trigger 3 Toggle
FE 03 A5 40 15 FD 00	Zone 4 12V Trigger 4 Toggle
FE 03 A5 40 16 FD 01	Zone 4 12V Trigger 5 Toggle
FE 03 A5 40 17 FF	Zone 4 12V Trigger 6 Toggle

## Section 2: Feedback String Format

### Standard Response String Format

Start	Count	ID	Type	Data						Checksum
0xFE	0x31	0xA5	0x20	Char1	...	Char42	Flag1	...	Flag5	0xFF

The feedback string is a representation of the display of the unit. The Char1 - Char42 data bytes contain ASCII data representing the text that appears across the 2 lines of the front display. It can contain source input, volume, and surround mode data and should be parsed to obtain this information.

The Flag1 - Flag5 data bytes contain data on which of the various icons on the front display are currently illuminated. The display status uses 2 bits in Flag3 to confirm if the front display is On or Off.

#### Flag1 – Flag5 Data

	Flag1	Flag2	Flag3	Flag4	Flag5
Bit0	A	x	Display Mode0	SB	CBL
Bit1	5	II	Display Mode1	Zone 4	CBR
Bit2	4	HDMI	Zone 2	Zone 3	SW
Bit3	3	EX	Standby LED	<	SR
Bit4	2	ES		>	SL
Bit5	1	dtS		7.1	FR
Bit6	Coaxial	Pro Logic		5.1	C
Bit7	Optical	Dolby Digital		Zone	FL

#### Display Status

	Display On	Display Off
Display Mode 1	0	1
Display Mode 0	0	0

### 12V Trigger Status String Format

Start	Count	ID	Type	Data					Checksum
0xFE	0x07	0xA5	0x21	Flag1	Flag2	Flag3	Flag4	Flag5	0xFF

#### 12V Trigger Status Flag1 – Flag5 Data

	Flag1: All	Flag2: Main	Flag3: Zone 2	Flag4: Zone 3	Flag5: Zone 4
Bit0	Trigger 1	Trigger 1	Trigger 1	Trigger 1	Trigger 1
Bit1	Trigger 2	Trigger 2	Trigger 2	Trigger 2	Trigger 2
Bit2	Trigger 3	Trigger 3	Trigger 3	Trigger 3	Trigger 3
Bit3	Trigger 4	Trigger 4	Trigger 4	Trigger 4	Trigger 4
Bit4	Trigger 5	Trigger 5	Trigger 5	Trigger 5	Trigger 5
Bit5	Trigger 6	Trigger 6	Trigger 6	Trigger 6	Trigger 6
Bit6					
Bit7					

### Smart Display Data String 1 Format

Start	Count	ID	Type	Data (28 Bytes)					Checksum
0xFE	0x1E	0xA5	0x22	0x00	0x00	Line1(1)	...	Line1(26)	0xFF

### Smart Display Data String 2 Format

Start	Count	ID	Type	Data (234 Bytes)					
0xFE	0xEC	0xA5	0x23	Line2(1)	...	Line2(26)	Line3(1)	...	Line3(26)

Data					
Line4(1)	...	Line4(26)	Line5(1)	...	Line5(26)

Data					
Line6(1)	...	Line6(26)	Line7(1)	...	Line7(26)

Data					
Line8(1)	...	Line8(26)	Line9(1)	...	Line9(26)

Data					Checksum
Line10(1)	...	Line10(26)			0xFF

When the iPod/USB input is in use, the unit will send additional information representing the metadata from the USB source device. This is contained in 2 separate strings and is sent in addition to the standard feedback string.

The smart display strings represent the metadata that is also shown on the video output of the unit. The first string contains the data present on the first line of the display. The second string represents the remaining 9 lines of data.

Each line of data is 26 characters, and can be either ASCII characters (0x20-0x7F) or special characters (0x80-0x8C). A reference chart for the special character data is below.

Value	Display Data
0x20-0x7F	Standard ASCII Characters
0x80	Invert F
0x81	Invert M
0x82	Invert T
0x83	Invert R
0x84	Invert S
0x85	Invert A
0x86	Full Bar "—"
0x87	▶
0x88	
0x89	■
0x8A	◀
0x8B	Cursor Right >
0x8C	Cursor Left <