Tech Tip

Reading Real-Time RNET Display and Status Messages:

This document is a supplement to the Russound_Controllers_Protocol_V1_00_03.doc. While the RNET protocol document describes methods of controlling and polling the CAV 6.6, this document concentrates on processing real-time RNET display and status messages. You will need to read the standard protocol document to understand some of the concepts used.

There are four types of display/status messages used by RNET controllers and peripherals. These messages are used to update text displays, display icons, and to other system states such as zone power state, etc.

1) Locally rendered display messages (Rendered by the display device).
2) Pre-formatted display messages (Rendered by the CAV 6.6 or other peripheral RNET device).
3) Status messages to update special values such as source sharing, party mode, etc.
4) Event messages to change states of certain parameters such as zone power state

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1) How To Determine That A Message Should be Read:

The RNET protocol uses a device ID for each device on the bus. This device ID is broken up into 3 fields: Controller ID, Zone ID and Keypad ID. Each of these fields is 8 bits and is zero based.

When an RNET packet is sent, the device IDs for the target and the sender are sent first. Below shows a message sent from a CAV 6.6 to a keypad. The message displays "Hi There" on the keypad display. The device ID section is what we are concentrating on.

After the F0 start character there are 6 bytes. The first 3 bytes are the target device ID. The later 3 are the source device ID. The target for this message is Controller: 1, Zone: 3, Keypad ID 0x70. Keypad ID 0x70 is one used for 3rd party integration and is described below. The source of this message is Controller: 1, Zone: X (The Zone field is ignored in this case), Keypad ID 0x7F. This keypad ID is used to indicate that the message is sent by the controller itself.

F0 **00 02 70 00 00 7F** 00 02 01 01 00 00 00 01 00 10 00 01 2C 01 48 69 20 54 68 65 72 65 00 00 00 00 00 0F F7

Using special device ID fields allow for the capability of broadcasting messages to more than one device. Different device ID field values are used to indicate what type of broadcast is being sent.

Special Controller IDs:
0x7F - Message should be processed by all keypads/display devices.

Special Zone IDs:
0x7D - RNET Peripheral

Special Keypad IDs:
0x7D - Message should be processed by all keypads/display devices on a given zone. (Zone determined by controller and zone IDs)
0x79 - Message sent to all keypads/display devices selected to a particular source. This "Source Descriptive Text " message is sent by RNET peripherals such as the ST2 tuner to update keypads that are selected to that source. (e.g. The ST2 tuner is source 1, so all frequency display updates will show up on all keypads selected to source 1.) See the description of the Source Display Message for how keypads get the currently selected source value.
0x70 - Keypad id for outside vendors controlling the system. Using this ID eliminates the need to send an ACK message in response to the display messages.

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2) Handling Locally Rendered Display Messages:

The rendering library is used to display most messages.

Rendering requires the display device to have a table of rendering functions, a master string table and string ID tables associated with many of the rendering types. A render display message includes a rendering type and the value to be rendered.

For render types such as volume, bass, treble, etc the rendering will use the value in the rendered display. (E.g. data = 20. display = "Volume: 20").

In other cases, the value is an index into a table of string IDs. For instance, the value sent with RenderType_SOURCE_NAME display message is an index into the DISPLAYSTRINGS_sourceNames string table. if the value is 8, the string ID would be StringId_CD_CHANGER(59). The string ID would then be an index into the master string table . The rendered string would then be "CD Changer". This allows display devices to have their own rendering library. A display device that has a 12 character display would have a rendering library optimized for that display. A display device such as a touch panel can have a different rendering library that may include more verbose text, icons, etc.

In some cases, the display device may have different fields to show different system parameters (e.g. volume, source treble, etc.). In these cases, the rendering type can also be used to determine which field the value is displayed.

The following example is a volume feedback message. The message originates from Controller: 1 and is sent to all keypads connected to zone 1. The message has a flash time of 4 seconds.

F0 **00 00 7D 00** 00 7F 06 **0B** 00 F1 **6F 01** 10 **2B** F7

Value	Field	Description/Notes
F0	Start of message	
00	Target Controller Id	Controller: 1
00	Target Zone Id	Zone: 1
7D	Target Keypad Id	All zone keypads
00	Source Controller Id	Controller: 1
00	Source Zone Id	Ignored
7F	Source Keypad Id	The controller itself
06	Message Type	Rendered Display Message
0B	Value low byte	Volume level = 22 (2 * 11)
00	Value high byte	Ignored (used only for 2 byte values)
F1	Escape Character	Next byte needs to be inverted
6F	Flash Time low byte	Inverted to 0x90 = Low byte of "Flash" time in 10ms increments. 0 = permanent
01	Flash Time High byte	High byte of "Flash Time"
10	Render Type	RenderType_VOLUME = 10 hex = 16 decimal
7C	Checksum	This must be recalculated
F7	End of message	

The following example is a source name feedback message. This message is a little different than the others due to the fact that the source number is packed into the message. Having the source number in addition to the source name allows for "Source Descriptive Text " messages to be received. The message originates from Controller: 1 and is sent to all keypads connected to zone 1. The message is a permanent display.

F0 **00 00 7D 00** 00 7F 06 **19 03 00 00** 05 **20** F7

Value	Field	Description/Notes
F0	Start of message	
00	Target Controller Id	Controller: 1
00	Target Zone Id	Zone: 1
7D	Target Keypad Id	All zone keypads
00	Source Controller Id	Controller: 1
00	Source Zone Id	Ignored
7F	Source Keypad Id	The controller itself
06	Message Type	Rendered Display Message
19	Value low byte	Source name index into DISPLAYSTRINGS_sourceNames = StringId_DVD_CHANGER
03	Value high byte	Used to indicate selected source (Source 4)
00	Flash Time low byte	Low byte of "Flash" time in 10ms increments. 0 = permanent
00	Flash Time High byte	High byte of "Flash Time"

05	Render Type	RenderType_SOURCE_NAME
20	Checksum	This must be recalculated
F7	End of message	

NOTE: For many display devices, NOT ALL of the rendering types need to be supported. Many of these rendering types are used for configuration, etc. The most commonly supported rendering types are highlighted in red. If only a few of the rendering types are to be supported, it is also possible to eliminate the master string table and use tables of strings rather than string IDs for the few that are used.

RENDERING TYPE	TYPE VALUE	DESCRIPTION
RenderType_DIRECTORY	0	Not currently used
RenderType_UINT8_DEC_NUM	1	Displays UINT8 value in decimal (e.g. "45").
RenderType_UINT16_DEC_NUM	2	Displays UINT8 value in decimal (e.g. "902").
RenderType_STRING	3	Displays as a string with the attached string value .
RenderType_SOURCE_NUM	4	Displays as source number 1-6 (e.g. "Source: X") where X = source value + 1
RenderType_SOURCE_NAME	5	Displays as source name from the String ID table DISPLAYSTRINGS_sourceNames .
RenderType_DEVICE_TYPE_NAME	6	Displays the command type used for system setup. Uses DISPLAYSTRINGS_deviceTypeNames string ID table.
RenderType_BOOL_SELECT	7	Displays as "True" or "False" Uses DISPLAYSTRINGS_booleanSelectNames string ID table.
RenderType_NUMERIC_PREFIX	8	Displays as numeric prefix text. Used for numeric scroll feature (e.g. "Disk: 123). Uses DISPLAYSTRINGS_numericPrefixNames string ID table.
RenderType_KEY_NAME	9	Displays as key function name assigned to a particular button (e.g. "Next Track") . Uses DISPLAYSTRINGS_keyNames string ID table.
RenderType_ON_OFF	10	Displays as "On" or "Off". Uses DISPLAYSTRINGS_onOffNames string ID table.
RenderType_CHILD_NAME	11	Displays as the name of the child parameter/directory within a directory.
RenderType_YES_NO	12	Displays as "Yes" or "No". Uses DISPLAYSTRINGS_yesNoNames string ID table.
RenderType_UINT8_DEC_NUM_PLUS_ONE	13	Displays UINT8 value in decimal were the displayed value is incremented by 1. (e.g. value = 45, display = "46").
RenderType_UINT16_DEC_NUM_FIXED_WIDTH	14	Displays UINT16 value in decimal (e.g. "0902").
RenderType_UINT8_HEX_ARRAY	15	Displays string of 5 hex numbers (e.g. "0x02 0x03 0x04 0x05 0x06").

RenderType_VOLUME	16	Displays as volume level. Display value is 2* volume data. (e.g. volume data = 50, display = "Volume: 100") This display can also be accompanied by a level indicator.
RenderType_BASS	17	Displays as bass level. Display value range is 0 - 20 (e.g. value = 10, display = "Bass: Flat" | value = 0, display = "Bass: -10" | value = 20 Display = "Bass: +10") This display can also be accompanied by a level indicator.
RenderType_TREBLE	18	Displays as treble level. Display value range is 0 - 20 (e.g. value = 10, display = "Treble: Flat" | value = 0, display = "Treble: -10" | value = 20 Display = "Treble: +10") This display can also be accompanied by a level indicator.
RenderType_BALANCE	19	Displays as balance level. Display value range is 0 - 20 (e.g. value = 10, display = "Center" | value = 0, display = "Left: 10" | value = 20 Display = "Right: 10") This display can also be accompanied by a level indicator.
RenderType_BACKGROUND_COLOR	20	Displays as the names of the backlight colors (e.g. "Amber", "Green", "Off"). Uses DISPLAYSTRINGS_backgroundColorNames string ID table. This does not change the actual backlight color.
RenderType_DEFAULT_KEY_NAME	21	Displays as the configurable keypad buttons. (e.g. "Play"). Uses DISPLAYSTRINGS_buttonNames string ID table.
RenderType_KEY_TYPE	22	Displays as the key type names used when configuring the system (e.g. "Press", "Hold", "Both"). Uses DISPLAYSTRINGS_keyTypeNames string ID table.
RenderType_UINT8_DEC_NUM_FIXED_WIDTH	23	Displays UINT8 value in decimal (e.g. "045").
RenderType_ALL_STRINGS	24	Displays any string in the main DISPLAYSTRINGS_StringTable string ID table.
RenderType_CONTROLLER_ID	25	Displays as controller ID 1-8 (e.g. "Controller: X") where X = controller ID value + 1.
RenderType_NUMERIC_SCROLL_NAMES	26	Displays as numeric prefix text. Used for numeric scroll feature (e.g. "Disk: 123). Uses DISPLAYSTRINGS_numericScrollPrefixNames string ID table.
RenderType_DELAY_TIME	27	Displays as delay time in milli seconds (e.g. "10 MS").
RenderType_CAV_PARAM_NAMES	28	Not currently used
RenderType_MACRO_NAME	29	Displays as the name of a macro (e.g. "Macro: 24:).
RenderType_KEYCODE_NAME	30	Displays as keycode name for IR commands (e.g. "Next Chapter"). Uses

		DISPLAYSTRINGS_keycodeNames string ID table.
RenderType_SOURCE	31	Displays as source number 1-6 (e.g. "Source: X") where X = source value + 1
RenderType_SAVE_TO_ZONES	32	Displays as zones 1-6 or "All Zones" Uses DISPLAYSTRINGS_saveToZonesNames string ID table.
RenderType_ENABLE_DISABLE	33	Displays as "Enable" or "Disable". Uses DISPLAYSTRINGS_enableDisable string ID table.
RenderType_DEVICE_CODE	34	Displays as the device code of a preprogrammed IR device (e.g. "#1243").
RenderType_DISK_NUMERIC_SCROLL	35	Displays as numeric prefix text using "Disk" as the prefix text. (e.g. "Disk: 123")
RenderType_CHANNEL_NUMERIC_SCROLL	36	Displays as numeric prefix text using "Channel" as the prefix text. (e.g. "Chan: 123")
RenderType_PRESET_NUMERIC_SCROLL	37	Displays as numeric prefix text using "Preset" as the prefix text. (e.g. "Preset: 6")
RenderType_VOLUME_TRIM	38	Displays as the trim value for volume. This is used for setting trim values for sources and zones. (e.g. value = 16, display = "0 dB" | value = 0, display = "-16 dB").
RenderType_PARTY_MODE	39	Displays as party mode names (e.g. "Master"). Uses DISPLAYSTRINGS_partyModeName s string ID table. This message does not indicate party mode state. It is only the names of the states used while setting.
RenderType_SECONDS	40	Displays as time in seconds (e.g. "3 Seconds").
RenderType_CHAR_TEST	41	Factory use only.
RenderType_BLOCK_TEST	42	Factory use only.
RenderType_ROW_TEST	43	Factory use only.
RenderType_SENSE_DELAY	44	Displays as audio sense delay time in seconds 5-60. (e.g. value = 7, display = "7 Seconds" | value < 5, display = "No Sensing").
RenderType_LEARNED_SOURCE_NUM	45	Displays as the learned source bank number 1-7. The source values are zero based so the display value is incremented by 1. (e.g. value = 3, display = "Source: 4" | value = 6, display = "Misc Lrnd IR").
RenderType_LEARN_DELETE	46	Displays "Learn Now" or "Delete" for learning IR function. Uses DISPLAYSTRINGS_LearnOrDeleteNames string ID table.
RenderType_MACRO_STEP_NUM	47	Displays as macro step when configuring macros (e.g. "Step: 2").
RenderType_PORT_ID	48	Displays as controller ID 1-8 (e.g. "Port: X") where X = port ID value + 1.

RenderType_KEYPAD_ID	49	Displays as keypad ID 1-8 (e.g. "Keypad: X") where X = keypad ID value + 1.
RenderType_RECEIVER_KEY_NAME	50	Not used for this application.
RenderType_RECEIVER_DEVICE_TYPE_NAME	51	Not used for this application.

3) Handling Pre-formatted Display Messages:

RNET devices can send pre-formatted text messages when it does not make sense to use the rendering library. This allows new RNET devices to send display messages even if the rendering library does not support the new device. The following example shows a pre-formatted, broadcast display message sent to Keypad 0x70 on Zone : 3 of Controller: 1.The message displays "Hi There".

F0 **00 02 70 00 00 7F** 00 02 01 01 00 00 00 01 00 10 00 01 2C 01 **48 69 20 54 68 65 72 65 00 00 00 00 00 0F** F7

The values of each by break out as follows:

Value	Field	Description/Notes
F0	Start of message	
00	Target Controller Id	Controller: 1
02	Target Zone Id	Zone: 3
70	Target Keypad Id	3rd party keypad ID
00	Source Controller Id	
00	Source Zone Id	
7F	Source Keypad Id	The controller itself
00	Message Type	Data message
02	Target Path, Num Levels	
01	Target Path, Level 1	Standard Interface
01	Target Path, Level 2	Display
00	Source Path, Num Levels	No source path is used
00	Packet Num Lo Byte	Use for multi packet messages
00	Packet Num Hi Byte	
01	Num Packets Lo Byte	This is a single packet message 0
00	Num Packets Hi Byte	
10	Num Data Bytes Lo Byte	How many bytes of raw data are in the packet
00	Num Data Bytes Hi Byte	
01	Data Byte 1	Alignment (0 = centered, 1 = left)
2C	Data Byte 2	Low byte of "Flash" time in 10ms increments. 0 = permanent
01	Data Byte 3	Hi byte of "Flash" time
48	Data Byte 4	ASCII text character "H"
69	Data Byte 5	ASCII text character "i"
20	Data Byte 6	ASCII text character " "
54	Data Byte 7	ASCII text character "T"
68	Data Byte 8	ASCII text character "h"
65	Data Byte 9	ASCII text character "e"
72	Data Byte 10	ASCII text character "r"

65	Data Byte 11	ASCII text character "e"
00	Data Byte 12	ASCII text character NULL
00	Data Byte 13	ASCII text character NULL
00	Data Byte 14	ASCII text character NULL
00	Data Byte 15	ASCII text character NULL
00	Data Byte 16	ASCII text character NULL
0F	Checksum	This must be recalculated for different strings and devices.
F7	End of message	

The following example shows a "**Source Descriptive Text**" message sent to all keypads selected to source 3.The message displays "102.9MHz FM". This message is used by RNET source peripherals such as the ST2 Dual Tuner to update all keypad displays that are selected to the tuner source. This can either override the source name or can be used to fill in a separate field on touchpanels, etc. Future RNET source peripherals will also use this message.

The source number is packed into the byte that normally holds the alignment. This is to allow for backward compatibility.

F0 7F 00 79 00 00 7F 00 02 01 01 00 00 00 01 00 10 00 **12** 00 00 **31 30 32 2E 39 4D 48 5A 20 46 4D 00 00 4C** F7

The values of each by break out as follows:

Value	Field	Description/Notes
F0	Start of message	
7F	Target Controller Id	All keypad devices
00	Target Zone Id	Ignored
79	Target Keypad Id	All keypads selected to a source
00	Source Controller Id	
00	Source Zone Id	
7F	Source Keypad Id	The controller itself
00	Message Type	Data message
02	Target Path, Num Levels	
01	Target Path, Level 1	Standard Interface
01	Target Path, Level 2	Display
00	Source Path, Num Levels	No source path is used
00	Packet Num Lo Byte	Use for multi packet messages
00	Packet Num Hi Byte	
01	Num Packets Lo Byte	This is a single packet message 0
00	Num Packets Hi Byte	
10	Num Data Bytes Lo Byte	How many bytes of raw data are in the packet
00	Num Data Bytes Hi Byte	
12	Data Byte 1	Source value = 0x10 ored with the source number (e.g. source 3 = 0x12)
00	Data Byte 2	Low byte of "Flash" time in 10ms increments. 0 = permanent
00	Data Byte 3	Hi byte of "Flash" time
31	Data Byte 4	ASCII text character "1"
30	Data Byte 5	ASCII text character "0"

32	Data Byte 6	ASCII text character "2"
2E	Data Byte 7	ASCII text character "."
39	Data Byte 8	ASCII text character "9"
4D	Data Byte 9	ASCII text character "M"
48	Data Byte 10	ASCII text character "H"
5A	Data Byte 11	ASCII text character "z"
20	Data Byte 12	ASCII text character " "
46	Data Byte 13	ASCII text character "F"
4D	Data Byte 14	ASCII text character "M"
00	Data Byte 15	ASCII text character NULL
00	Data Byte 16	ASCII text character NULL
4C	Checksum	This must be recalculated for different strings and devices.
F7	End of message	

4) Handling Special Status / Display Element Messages:

Some display updates do not use text to indicate status. Some examples are non textual display elements that show party mode status, shared indication, etc. These use "set data" messages sent by the RNET controller to the display devices. These messages can be read to allow displays devices to display or keep track of these states.

F0 **00 00 7D 00** 00 7F 00 03 04 04 02 **02** 04 00 00 00 01 00 01 00 **01 18** F7

Value	Field	Description Notes
F0	Start of message	
00	Target Controller Id	Affected controller (Controller: 1)
00	Target Zone Id	Affected zone (Zone: 1)
7D	Target Keypad Id	All zone keypads
00	Source Controller Id	Controller: 1
00	Source Zone Id	ignored
7F	Source Keypad Id	The controller itself
00	Message Type	Data message
03	Target Path, Num Levels	
04	Target Path, Level 1	Product Specific Objects
04	Target Path, Level 2	Branch that holds the display elements
02	Target Path, Level 3	Display element path value ("Shared Indication")
02	Source Path, Num Levels	
04	Source Path, Level 1	Product Specific Objects
00	Source Path, Level 2	Controller Working Byte
00	Packet Num Lo Byte	Use for multi packet messages
00	Packet Num Hi Byte	
01	Num Packets Lo Byte	This is a single packet message
00	Num Packets Hi Byte	
01	Num Data Bytes Lo Byte	How many bytes of raw data are in the packet
00	Num Data Bytes Hi Byte	

01	Data Byte 1	Value (0 = Off, 1 = On)
18	Checksum	This must be recalculated
F7	End of message	

DISPLAY ELEMENT	PATH VALUE
Do Not Disturb Indication	1
Shared Indication	2
System On Indication	3
Party Mode Indication	4
Party Master Indication	5

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5) Handling Event Messages:

In some cases, event messages are sent to display devices to change the state of the display device. The one in particular that is used is to update the display device as to the **power state** of the zone it is connected to or viewing. There are other cases where this is done, but they are not within the scope of this document.

F0 **00 00** 7D 00 00 7F 05 02 01 00 02 01 00 F1 23 00 **01** 00 00 00 01 **23** F7

Value	Field	Description Notes
F0	Start of message	
00	Target Controller Id	Affected controller (Controller: 1)
00	Target Zone Id	Affected zone (Zone: 1)
7D	Target Keypad Id	All zone keypads
00	Source Controller Id	Controller: 1
00	Source Zone Id	ignored
7F	Source Keypad Id	The controller itself
05	Message Type	Data message
02	Target Path, Num Levels	
01	Target Path, Level 1	Standard Interface
00	Target Path, Level 2	Event Handler
02	Source Path, Num Levels	
01	Source Path, Level 1	Standard Interface
00	Source Path, Level 2	Event Handler
F1	Escape Character	Next byte needs to be inverted
23	Event ID Low Byte	Inverted to 0xDC = "Zone On/Off Event"
00	Event ID High Byte	
01	Event Data Low Byte	Zone power status (0 = Off, 1 = On)
00	Event Data High Byte	
00	Event Timestamp Low Byte	Ignored
00	Event Timestamp High Byte	Ignored
01	Event Priority	1 = Low Event Priority
23	Checksum	This must be recalculated

F7	End of message	

6) Custom Names:

Though the RNET Rendering system generally supports only fixed text strings, a "Custom Names" system was developed for providing user configurable name strings. When a string ID value of 425 - 434 (StringId_CUSTOM_NAME_1 - StringId_CUSTOM_NAME_10) is being rendered, the system pulls the strings from a table of Custom Names strings instead of the master list of strings.

The devices that do the actual rendering (keypads, touch panels, etc..) get the Custom Names on system power up or when a new device is added to the system, from the root controller (Controller ID: 0). The strings are sent as 10 separate data messages addressed to "All Keypads" which are read by the keypads and stored in local tables in volatile memory (RAM, etc..).

The following is an example of the message sent containing the first custom name with a value of "My Favorite":

F0 7F 00 00 00 00 70 00 02 01 01 00 00 00 01 00 10 00 01 2C 01 **4D 79 20 46 61 76 6F 72 69 74 65 00 00 6A** F7

The values of each by break out as follows:

Value	Field	Description Notes
F0	Start of message	
7F	Target Controller Id	All keypad devices
00	Target Zone Id	ignored
00	Target Keypad Id	ignored
00	Source Controller Id	Controller: 1
00	Source Zone Id	ignored
7F	Source Keypad Id	The controller itself
00	Message Type	Data message
03	Target Path, Num Levels	
04	Target Path, Level 1	Product Specific Objects
01	Target Path, Level 2	Branch that holds the custom characters
00	Target Path, Level 3	Custom Name 1 (indicates which name this is)
04	Source Path, Num Levels	
04	Source Path, Level 1	Product Specific Objects
03	Source Path, Level 2	System Configuration
00	Source Path, Level 3	Custom Names
00	Source Path, Level 4	Custom Name 1
00	Packet Num Lo Byte	Use for multi packet messages
00	Packet Num Hi Byte	
01	Num Packets Lo Byte	This is a single packet message
00	Num Packets Hi Byte	
0D	Num Data Bytes Lo Byte	How many bytes of raw data are in the packet
00	Num Data Bytes Hi Byte	
4D	Data Byte 1	ASCII text character "M"
79	Data Byte 2	ASCII text character "y"

20	Data Byte 3	ASCII text character " "
46	Data Byte 4	ASCII text character "F"
61	Data Byte 5	ASCII text character "a"
76	Data Byte 6	ASCII text character "v"
6F	Data Byte 7	ASCII text character "o"
72	Data Byte 8	ASCII text character "r"
69	Data Byte 9	ASCII text character "i"
74	Data Byte 10	ASCII text character "t"
65	Data Byte 11	ASCII text character "e"
00	Data Byte 12	ASCII text character NULL
00	Data Byte 13	ASCII text character NULL
6A	Checksum	This must be recalculated for different strings and devices.
F7	End of message	

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6) String ID Tables:

MASTER STRING ID TABLE	STRING ID INDEX	MASTER STRING TABLE
StringId_UNASSIGNED	0	"Unassigned"
StringId_POUND_SIGN	1	"#"
StringId_POUND_SIGN_OF_SOURCES	2	"# OF SOURCES"
StringId_0	3	"0"
StringId_1	4	"1"
StringId_11	5	"11"
StringId_12	6	"12"
StringId_13	7	"13"
StringId_14	8	"14"
StringId_15	9	"15"
StringId_16	10	"16"
StringId_2	11	"2"
StringId_3	12	"3"
StringId_4	13	"4"
StringId_5	14	"5"
StringId_6	15	"6"
StringId_7	16	"7"
StringId_70_MM	17	"70 MM"
StringId_8	18	"8"
StringId_9	19	"9"
StringId_A_B	20	"A / B"
StringId_ALL_ZONES	21	"All Zones"
StringId_AM_FM	22	"AM / FM"

StringId_AMBER	23	"Amber"
StringId_AMBIANCE	24	"Ambiance"
StringId_AMP	25	"Amp"
StringId_ARE_YOU_SURE	26	"ARE YOU SURE"
StringId_ASSIGN_KEYPAD_ID	27	"AssignKeypadID"
StringId_AUDIO	28	"Audio"
StringId_AUDIO_SENSING	29	"AudioSensing"
StringId_AUTO_PLAY	30	"Auto Play"
StringId_AUTO_PLAY_UC	31	"AUTO PLAY"
StringId_AUTO_PLAY_QUESTION_MARK	32	"AUTO PLAY?"
StringId_AUTO_SETUP	33	"AUTO SETUP"
StringId_AUX_1	34	"Aux 1"
StringId_AUX_2	35	"Aux 2"
StringId_AUX	36	"Aux"
StringId_BALANCE_UC	37	"BALANCE"
StringId_BARGRAPH	38	"Bargraph"
StringId_BASIC_SETUP	39	"BASIC SETUP"
StringId_BASS	40	"BASS"
StringId_BASS_MINUS	41	"Bass -"
StringId_BASS_PLUS	42	"Bass +"
StringId_BACKGROUND_COLOR	43	"BackgndColor"
StringId_BACKGROUND_COLOR_UC	44	"BG COLOR"
StringId_BLUES	45	"Blues"
StringId_BOTH	46	"Both"
StringId_BRIGHT	47	"Bright"
StringId_BUILD_DATE_UC	48	"BUILD DATE"
StringId_BUILD_TIME_UC	49	"BUILD TIME"
StringId_BUTTON_TEST_UC	50	"BUTTON TEST"
StringId_CABLE_1	51	"Cable 1"
StringId_CABLE_2	52	"Cable 2"
StringId_CABLE_3	53	"Cable 3"
StringId_CABLE	54	"Cable"
StringId_CASSETTE_TAPE	55	"CassetteTape"
StringId_CAV_PARAM	56	"CAV Param"
StringId_CAV_PARAM_UC	57	"CAV PARAM"
StringId_CD	58	"CD"
StringId_CD_CHANGER	59	"CD Changer"
StringId_CD_CHANGER_1	60	"CD Changer 1"
StringId_CD_CHANGER_2	61	"CD Changer 2"
StringId_CD_CHANGER_3	62	"CD Changer 3"
StringId_CD_PLAYER	63	"CD Player"
StringId_CD_PLAYER_1	64	"CD Player 1"
StringId_CD_PLAYER_2	65	"CD Player 2"

StringId_CD_PLAYER_3	66	"CD Player 3"
StringId_CHANNEL	67	"Channel"
StringId_CHANNEL_DOWN	68	"Channel Dn"
StringId_CHANNEL_UP	69	"Channel Up"
StringId_CLASSICAL	70	"Classical"
StringId_CLOSE	71	"Close"
StringId_COMMAND_NUM	72	"COMMAND NUM"
StringId_COMMAND_POOL	73	"CommandPool"
StringId_COMMAND_TYPE	74	"COMMAND TYPE"
StringId_COMPUTER	75	"Computer"
StringId_COPY_CONFIGURATION	76	"COPY CONFIG"
StringId_COPY_TO	77	"COPY TO..."
StringId_CONTROLLER_ID	78	"CONTROLLR ID"
StringId_CONTROLLER_ID_FLAGS	79	"Ctrl ID Flags"
StringId_COUNTRY	80	"Country"
StringId_CTRLR_SET_UP	81	"CTRLR SETUP"
StringId_CUE	82	"Cue"
StringId_CUSTOM_NAME	83	"CustomName"
StringId_CUSTOM_NAMES	84	"CUSTOM NAMES"
StringId_DANCE_MUSIC	85	"Dance Music"
StringId_DAT	86	"DAT"
StringId_DATA	87	"Data"
StringId_DEFAULT	88	"Default"
StringId_DEFAULT_DEVICE_CODE	89	"Dflt Dev Cod"
StringId_DEFAULT_DEVICE_TYPE	90	"Deflt Dev Tp"
StringId_DELAY	91	"Delay"
StringId_DELAY_TIME_UC	92	"DELAY TIME"
StringId_DELETE_IR	93	"Delete IR"
StringId_DETECT_AUDIO	94	"DetectAudio"
StringId_DEVICE_CODE_UC	95	"DEVICE CODE"
StringId_DEVICE_NAMES	96	"DEVICE NAMES"
StringId_DEVICE_TYPE	97	"DEVICE TYPE"
StringId_DIAGNOSTICS	98	"Diagnostics"
StringId_DIAGNOSTICS_UC	99	"DIAGNOSTICS"
StringId_DIGITAL_CABLE	100	"Digtl Cable"
StringId_DIM	101	"Dim"
StringId_DISABLE	102	"Disable"
StringId_DISK	103	"Disk"
StringId_DISK_DOWN	104	"Disk Down"
StringId_DISK_UP	105	"Disk Up"
StringId_DISPLAY	106	"Display"
StringId_DISPLAY_BACKLIGHT_TEST	107	"DISP BKLIGHT"
StringId_DISPLAY_BLOCK_TEST	108	"DISP BLOCK"

StringId_DISPLAY_CHAR_TEST	109	"DISP CHAR"
StringId_DISPLAY_ROW_TEST	110	"DISP ROW"
StringId_DO_NO_DISTURB	111	"DoNotDisturb"
StringId_DO_NO_DISTURB_UC	112	"DO NOT DSTRB"
StringId_DOLBY_DIGITAL	113	"Dolby Digitl"
StringId_DTS	114	"DTS"
StringId_DSS_1	115	"DSS 1"
StringId_DSS_2	116	"DSS 2"
StringId_DSS_3	117	"DSS 3"
StringId_DSS_RECEIVER	118	"DSS Receiver"
StringId_DVD	119	"DVD"
StringId_DVD_CHANGER	120	"DVD Changer"
StringId_DVD_CHANGER_1	121	"DVD Changr 1"
StringId_DVD_CHANGER_2	122	"DVD Changr 2"
StringId_DVD_CHANGER_3	123	"DVD Changr 3"
StringId_DVD_PLAYER_1	124	"DVD Player 1"
StringId_DVD_PLAYER_2	125	"DVD Player 2"
StringId_DVD_PLAYER_3	126	"DVD Player 3"
StringId_DVD_PLAYER	127	"DVD Player"
StringId_ENABLE	128	"Enable"
StringId_ENTER	129	"Enter"
StringId_ERROR_LOG	130	"Error Log"
StringId_EVENT_HANDLER	131	"EventHandler"
StringId_EXIT	132	"Exit"
StringId_EXT_INTERFACE	133	"ExtInterface"
StringId_FACTORY_INIT	134	"FACTORY INIT"
StringId_FALSE	135	"False"
StringId_FAST_FORWARD	136	"Fast Fwd"
StringId_FAV_FUNCT_1	137	"Fav/Funct 1"
StringId_FAV_FUNCT_2	138	"Fav/Funct 2"
StringId_FAVORITE	139	"Favorite"
StringId_FLASH_DISPLAY	140	"FlashDisplay"
StringId_FORMATID	141	"FormatID"
StringId_FRONT_AV_INPUT	142	"Front A/V In"
StringId_FRONT_AV_INPUT_UC	143	"FRONT A/V IN"
StringId_FRONT_DOOR	144	"Front Door"
StringId_FUNCTION_1	145	"Function 1"
StringId_FUNCTION_2	146	"Function 2"
StringId_GREEN	147	"Green"
StringId_GUIDE	148	"Guide"
StringId_HALT	149	"Halt"
StringId_HIGHEST_NUM_UC	150	"HIGHEST NUM"
StringId_HOME_CONTROL	151	"Home Control"

StringId_INFO	152	"Info"
StringId_INPUT	153	"Input"
StringId_INTERNET_RADIO	154	"IntrnetRadio"
StringId_IR_IC_TEST	155	"IR IC Test"
StringId_IR_LEARNING	156	"IR Learning"
StringId_JAZZ	157	"Jazz"
StringId_KEY	158	"Key"
StringId_KEY_CODE	159	"KEY CODE"
StringId_KEY_CONFIG	160	"KEY CONFIG"
StringId_KEY_FUNCTION	161	"KEY FUNCTION"
StringId_KEY_HOLD	162	"Key Hold"
StringId_KEY_NAME	163	"KEY NAME"
StringId_KEY_PRESS	164	"Key Press"
StringId_KEY_TYPE	165	"KEY TYPE"
StringId_KEYPAD_ID	166	"KEYPAD ID"
StringId_KEYPADS	167	"Keypads"
StringId_KEYS	168	"Keys"
StringId_LASER_DISK	169	"Laser Disk"
StringId_LAST	170	"Last"
StringId_LEARN_DELETE	171	"LEARN/DELETE"
StringId_LEARN_IR	172	"LEARN IR"
StringId_LEARN_IR_NOW	173	"Learn IR Now"
StringId_LEARNED_CODE	174	"Learned Code"
StringId_LEARNED_CODE_ID	175	"Lrnd Code ID"
StringId_LEARND_CODES	176	"Learnd Codes"
StringId_LEARNED_IR	177	"Learned IR"
StringId_LEARNED_SOURCE_UC	178	"LEARNED SRC"
StringId_LOUDNESS_UC	179	"LOUDNESS"
StringId_LRND_SOURCE	180	"Lrnd Source"
StringId_LRND_SOURCES	181	"Lrnd Sources"
StringId_MACRO	182	"Macro"
StringId_MACRO_1	183	"Macro 1"
StringId_MACRO_2	184	"Macro 2"
StringId_MACRO_3	185	"Macro 3"
StringId_MACRO_4	186	"Macro 4"
StringId_MACRO_EDITOR	187	"MACRO EDITOR"
StringId_MACRO_ID_UC	188	"MACRO ID"
StringId_MACRO_NAME	189	"MACRO NAME"
StringId_MACRO_NUM	190	"MACRO NUM"
StringId_MAIN_TRIGGER	191	"Main Trigger"
StringId_MASTER	192	"Master"
StringId_MASTER_ENABLE	193	"MASTER ENABL"
StringId_MAX_NUMERIC_SCOLL_NUM	194	"Num Scrl Num"

StringId_MAX_LEVELS	195	"MaxLevels"
StringId_MAX_VOLUME	196	"MAX VOLUME"
StringId_MEDIA_SERVER	197	"Media Server"
StringId_MENU	198	"Menu"
StringId_MENU_DOWN	199	"Menu Dn"
StringId_MENU_LEFT	200	"Menu Left"
StringId_MENU_RIGHT	201	"Menu Right"
StringId_MENU_UP	202	"Menu Up"
StringId_MINI_DISK	203	"Mini Disk"
StringId_MINUS	204	"Minus"
StringId_MOOD	205	"Mood Music"
StringId_MORNING_MUSIC	206	"MorningMusic"
StringId_MP3	207	"MP3"
StringId_MUTE	208	"Mute"
StringId_NEXT	209	"Next"
StringId_NEXT_CHAPTER	210	"Next Chapter"
StringId_NEXT_SONG	211	"Next Song"
StringId_NEXT_TRACK	212	"Next Track"
StringId_NO	213	"No"
StringId_NONE	214	"None"
StringId_NUM_CONTROLLERS_UC	215	"#CONTROLLERS"
StringId_NUM_OBJECT_TYPES	216	"NumObjectTypes"
StringId_NUM_ZONES	217	"NUM ZONES"
StringId_NUMERIC_IR	218	"NUMERIC IR"
StringId_NUMERIC_PREFIX_COMMAND	219	"Num Pfx Cmd"
StringId_NUMERIC_SUFFIX_COMMAND	220	"Num Sfx Cmd"
StringId_NUMERIC_TEXT	221	"NUMERIC TEXT"
StringId_OFF	222	"Off"
StringId_OLDIES	223	"Oldies"
StringId_ON	224	"On"
StringId_OPEN	225	"Open"
StringId_OPEN_CLOSE	226	"Open / Close"
StringId_PAGE_DOWN	227	"Page Down"
StringId_PAGE_ENABLE_UC	228	"PAGE ENABLE"
StringId_PAGE_UP	229	"Page Up"
StringId_PAGE_VOLUME_UC	230	"PAGE VOLUME"
StringId_PARAM_VALUE	231	"PARAM VALUE"
StringId_PARTY	232	"Party"
StringId_PARTY_ENABLE	233	"PARTY ENABLE"
StringId_PARTY_MODE	234	"PARTY MODE"
StringId_PAUSE	235	"Pause"
StringId_PEEKPOKE_DATA	236	"PeekPoke Data"
StringId_PEEKPOKE_SETUP	237	"PeekPoke Setup"

StringId_PERIPHERAL	238	"Peripheral"
StringId_PIP	239	"PIP"
StringId_PIP_MOVE	240	"PIP Move"
StringId_PIP_SWAP	241	"PIP Swap"
StringId_PHONOGRAPH	242	"Phonograph"
StringId_PLAY	243	"Play"
StringId_PLUS	244	"Plus"
StringId_PLUS_10	245	"Plus 10"
StringId_POP	246	"Pop"
StringId_PORT_ID	247	"PORT ID"
StringId_POWER	248	"Power"
StringId_POWER_UC	249	"POWER"
StringId_POWER_MGT_UC	250	"POWER MGT"
StringId_POWER_ON	251	"Power On"
StringId_POWER_MGT_STATE	252	"Pwr Mgt Stat"
StringId_POWER_ON_COMMAND	253	"Pwr On Cmd"
StringId_POWER_ON_COMMAND_QUESTION_MARK	254	"PWR ON CMD?"
StringId_POWER_OFF	255	"Power Off"
StringId_POWER_OFF_COMMAND	256	"Pwr Off Cmd"
StringId_POWER_OFF_COMMAND_QUESTION_MARK	257	"PWR OFF CMD?"
StringId_PREFIX_COMMAND	258	"PREFIX CMD ?"
StringId_PRESET	259	"Preset"
StringId_PRESET_DOWN	260	"Preset Dn"
StringId_PRESET_UP	261	"Preset Up"
StringId_PRESS_AND_HOLD	262	"Press & Hold"
StringId_PREVIOUS_CHANNEL	263	"Prev Channel"
StringId_PREVIOUS_CHAPTER	264	"Prev Chapter"
StringId_PREVIOUS_SONG	265	"Prev Song"
StringId_PREVIOUS_TRACK	266	"Prev Track"
StringId_PREVIOUS	267	"Previous"
StringId_PRODUCT_NAME	268	"Product Name"
StringId_PRODUCT_SPECIFIC	269	"Product Specific"
StringId_PRO_LOGIC	270	"Pro Logic"
StringId_PROGRAM	271	"Program"
StringId_RANDOM	272	"Random"
StringId_REAR_DOOR	273	"Rear Door"
StringId_RECALL	274	"Recall"
StringId_RECORD	275	"Record"
StringId_RELIGIOUS	276	"Religious"
StringId_REMOTE_INTERFACE	277	"RemoteInface"
StringId_REPLAYTV	278	"ReplayTV"
StringId_REWIND	279	"Rewind"
StringId_ROCK	280	"Rock"

StringId_ROOT_MENU	281	"ROOT MENU"
StringId_RUN_MENU	282	"RUN MENU"
StringId_SAT_DSS	283	"Sat / DSS"
StringId_SATELLITE	284	"Satellite"
StringId_SATELLITE_1	285	"Satellite 1"
StringId_SATELLITE_2	286	"Satellite 2"
StringId_SATELLITE_3	287	"Satellite 3"
StringId_SAVE_CHANGES	288	"SAVE CHANGES"
StringId_SAVE_TO	289	"SAVE TO.."
StringId_SEARCH_FORWARD	290	"Search Fwd"
StringId_SEARCH_REVERSE	291	"Search Rev"
StringId_SELECT	292	"Select"
StringId_SELECT_A_KEY	293	"SELECT A KEY"
StringId_SENSE_DELAY	294	"SENSE DELAY"
StringId_SENSE_ENABLE	295	"SenseEnable"
StringId_SENSE_SOURCE	296	"SenseSource"
StringId_SENSE_STATES	297	"SenseStates"
StringId_SETUP	298	"Setup"
StringId_SETUP_MENU	299	"SETUP MENU"
StringId_SHARED	300	"Shared"
StringId_SHUFFLE	301	"Shuffle"
StringId_SIZE	302	"Size"
StringId_SLEEP	303	"Sleep"
StringId_SOURCE	304	"Source"
StringId_SOURCE_UC	305	"SOURCE"
StringId_SOURCE_1	306	"Source 1"
StringId_SOURCE_2	307	"Source 2"
StringId_SOURCE_3	308	"Source 3"
StringId_SOURCE_4	309	"Source 4"
StringId_SOURCE_5	310	"Source 5"
StringId_SOURCE_6	311	"Source 6"
StringId_SOURCE_7	312	"Source 7"
StringId_SOURCE_8	313	"Source 8"
StringId_SOURCE_NAME	314	"Source Name"
StringId_SOURCE_NAME_UC	315	"SOURCE NAME"
StringId_SOURCE_NAMES	316	"SOURCE NAMES"
StringId_SOURCE_NUM	317	"SOURCE NUM"
StringId_SOURCE_SETUP	318	"SOURCE SETUP"
StringId_SOURCE_SELECT_COMMAND	319	"SRC SEL CMD"
StringId_SOURCE_VOLUME_TRIM	320	"SRC VOL TRIM"
StringId_SOURCES	321	"Sources"
StringId_SPECIAL	322	"Special"
StringId_START_ASSIGNMENT	323	"StartAssgnmt"

StringId_STD_INTERFACE	324	"StdInterface"
StringId_STOP	325	"Stop"
StringId_STORAGE	326	"Storage"
StringId_SUCCESS_QUESTION_MARK	327	"SUCCESS?"
StringId_SUFFIX_COMMAND	328	"SUFFIX CMD ?"
StringId_SURROUND_MODE	329	"Sur Mode"
StringId_SURROUND_MODE_1	330	"Surr Mode 1"
StringId_SURROUND_MODE_2	331	"Surr Mode 2"
StringId_SURROUND_MODE_3	332	"Surr Mode 3"
StringId_SURROUND_MODE_4	333	"Surr Mode 4"
StringId_SURROUND_MODE_5	334	"Surr Mode 5"
StringId_SURROUND_MODE_6	335	"Surr Mode 6"
StringId_SURROUND_MODE_7	336	"Surr Mode 7"
StringId_SURROUND_MODE_8	337	"Surr Mode 8"
StringId_SURROUND_MODE_9	338	"Surr Mode 9"
StringId_SURROUND_MODE_10	339	"Surr Mode 10"
StringId_SURROUND_ON_OFF	340	"Sur On/Off"
StringId_SURROUND_DOWN	341	"Surround Dn"
StringId_SURROUND_UP	342	"Surround Up"
StringId_SYSTEM_CONFIG	343	"System Cfg"
StringId_SYSTEM_INFO	344	"System Info"
StringId_SYSTEM_INFO_UC	345	"SYSTEM INFO"
StringId_SYSTEM_ON	346	"SysOn"
StringId_SYSTEM_ON_ENABLE_UC	347	"SYSON ENABLE"
StringId_TAPE	348	"Tape"
StringId_TAPE_1	349	"Tape 1"
StringId_TAPE_2	350	"Tape 2"
StringId_TEMPLATE_TYPE	351	"TEMPLATE TYPE"
StringId_TERMINAL_RECEIVE	352	"Terminal Rec"
StringId_TERMINAL_SEND	353	"TerminalSend"
StringId_TEST_IR_QUESTION_MARK	354	"TEST IR?"
StringId_THEATER	355	"Theater"
StringId_THIS_ZONE	356	"This Zone"
StringId_TIVO	357	"TIVO"
StringId_TRACE_LOG	358	"Trace Log"
StringId_TRACK_FORWARD	359	"Track Fwd"
StringId_TRACK_REVERSE	360	"Track Rev"
StringId_TREBLE	361	"TREBLE"
StringId_TREBLE_MINUS	362	"Treble -"
StringId_TREBLE_PLUS	363	"Treble +"
StringId_TREE_TOP	364	"Tree Top"
StringId_TRIM_LEVEL	365	"TRIM LEVEL"
StringId_TRUE	366	"True"

StringId_TUNER	367	"Tuner"
StringId_TUNER_1	368	"Tuner 1"
StringId_TUNER_2	369	"Tuner 2"
StringId_TUNER_3	370	"Tuner 3"
StringId_TUNER_AMP	371	"Tuner / Amp"
StringId_TURN_ON_SOURCE//nolongerused?	372	"TURN ON SRC"
StringId_TURN_ON_VOLUME	373	"TURN ON VOL"
StringId_TV	374	"TV"
StringId_TV_DSS	375	"TV / DSS"
StringId_TV_DVD	376	"TV / DVD"
StringId_TV_LD	377	"TV / LD"
StringId_TV_VCR	378	"TV / VCR"
StringId_TV_VIDEO	379	"TV / Video"
StringId_UEI	380	"UEI"
StringId_UNIVERSAL_KEYPAD	381	"Univ.Keypad"
StringId_UPDATE_FIRMWARE	382	"UPDATE FIRMW"
StringId_USE_NUM_IR_QUESTION_MARK	383	"USE NUM IR ?"
StringId_USER_MENU_UC	384	"USER MENU"
StringId_VCR	385	"VCR"
StringId_VCR_1	386	"VCR 1"
StringId_VCR_2	387	"VCR 2"
StringId_VERSION	388	"VERSION"
StringId_VIDEO_ACC	389	"Video Acc"
StringId_VOLUME	390	"Volume"
StringId_VOLUME_UC	391	"VOLUME"
StringId_VOLUME_UP	392	"Volume Up"
StringId_VOLUME_DOWN	393	"Volume Down"
StringId_WORKING_BYTE	394	"Working Byte"
StringId_YES	395	"Yes"
StringId_ZONE	396	"Zone"
StringId_ZONE_UC	397	"ZONE"
StringId_ZONE_NUM	398	"ZONE NUM"
StringId_ZONE_ON_COMMAND	399	"Zone On Cmd"
StringId_ZONE_OFF_COMMAND	400	"Zone Off Cmd"
StringId_ZONE_SET_UP	401	"ZONE SETUP"
StringId_ZONE_SOURCE	402	"Zone Source"
StringId_ZONE_SOURCES	403	"Zone Sources"
StringId_ZONE_TRIGGER	404	"Zone Trigger"
StringId_ZONE_VOLUME_TRIM	405	"ZON VOL TRIM"
StringId_ZONE_1	406	"Zone: 1"
StringId_ZONE_2	407	"Zone: 2"
StringId_ZONE_3	408	"Zone: 3"
StringId_ZONE_4	409	"Zone: 4"

StringId_ZONE_5	410	"Zone: 5"
StringId_ZONE_6	411	"Zone: 6"
StringId_ZONE1_SOURCE	412	"Zone1 Source"
StringId_ZONE2_SOURCE	413	"Zone2 Source"
StringId_ZONE3_SOURCE	414	"Zone3 Source"
StringId_ZONE4_SOURCE	415	"Zone4 Source"
StringId_ZONE5_SOURCE	416	"Zone5 Source"
StringId_ZONE6_SOURCE	417	"Zone6 Source"
StringId_ZONE1_VOLUME	418	"Zone1 Volume"
StringId_ZONE2_VOLUME	419	"Zone2 Volume"
StringId_ZONE3_VOLUME	420	"Zone3 Volume"
StringId_ZONE4_VOLUME	421	"Zone4 Volume"
StringId_ZONE5_VOLUME	422	"Zone5 Volume"
StringId_ZONE6_VOLUME	423	"Zone6 Volume"
StringId_ZONES	424	"Zones"
StringId_CUSTOM_NAME_1	425	"cust 1"
StringId_CUSTOM_NAME_2	426	"cust 2"
StringId_CUSTOM_NAME_3	427	"cust 3"
StringId_CUSTOM_NAME_4	428	"cust 4"
StringId_CUSTOM_NAME_5	429	"cust 5"
StringId_CUSTOM_NAME_6	430	"cust 6"
StringId_CUSTOM_NAME_7	431	"cust 7"
StringId_CUSTOM_NAME_8	432	"cust 8"
StringId_CUSTOM_NAME_9	433	"cust 9"
StringId_CUSTOM_NAME_10	434	"cust 10
StringId_EXTERNAL_SOURCE	435	"External Src"
StringId_LIVE_INTRO	436	"Live/Intro"
StringId_DEVICE_SETUP_MENU	437	"Setup Menu"
StringId_BACK	438	"Back"
StringId_FAVORITE_CHANNEL	439	"Fav Channel"
StringId_DISPLAY_FORMAT	440	"Display Fmt"
StringId_SAP	441	"SAP"
StringId_SLOW	442	"Slow"
StringId_PIP_ON	443	"PIP On"
StringId_PIP_OFF	444	"PIP Off"
StringId_PIP_FREEZE	445	"PIP Freeze"
StringId_PIP_INPUT	446	"PIP Input"
StringId_PIP_CHANNEL_UP	447	"PIP Chan Up"
StringId_PIP_CHANNEL_DOWN	448	"PIP Chan Dn"
StringId_PIP_MULTI	449	"PIP Multi"
StringId_INPUT_1	450	"Input 1"
StringId_INPUT_2	451	"Input 2"
StringId_INPUT_3	452	"Input 3"

StringId_INPUT_4	453	"Input 4"
StringId_INPUT_5	454	"Input 5"
StringId_INPUT_6	455	"Input 6"
StringId_INPUT_7	456	"Input 7"
StringId_INPUT_8	457	"Input 8"
StringId_INPUT_9	458	"Input 9"
StringId_INPUT_10	459	"Input 10"
StringId_ZONE_INFO	460	"Zone Info"
StringId_PLEASE_WAIT	461	"Please Wait"
StringId_DISK_LOADING	462	"Disk Loading"
StringId_DVD_PREFIX	463	"DVD Suffix"
StringId_DVD_SUFFIX	464	"DVD Prefix"
StringId_10	465	"10"
StringId_LIVING_ROOM	466	"Living Room"
StringId_KITCHEN	467	"Kitchen"
StringId_BEDROOM	468	"Bedroom"
StringId_BEDROOM_1	469	"Bedroom 1"
StringId_BEDROOM_2	470	"Bedroom 2"
StringId_BEDROOM_3	471	"Bedroom 3"
StringId_BEDROOM_4	472	"Bedroom 4"
StringId_BEDROOM_5	473	"Bedroom 5"
StringId_FAMILY_ROOM	474	"Family Room"
StringId_DEN	475	"Den"
StringId_BASEMENT	476	"Basement"
StringId_FRONT_YARD	477	"Front Yard"
StringId_BACK_YARD	478	"Back Yard"
StringId_DECK	479	"Deck"
StringId_BATHROOM	480	"Bathroom"
StringId_BATHROOM_1	481	"Bathroom 1"
StringId_BATHROOM_2	482	"Bathroom 2"
StringId_BATHROOM_3	483	"Bathroom 3"
StringId_BATHROOM_4	484	"Bathroom 4"
StringId_GARDEN	485	"Garden"
StringId_POOL_AREA	486	"Pool Area"
StringId_POOL_ROOM	487	"Pool Room"
StringId_STUDIO	488	"Studio"
StringId_CONTROL_ROOM	489	"Control Room"
StringId_MASTER_BEDROOM	490	"Master Bedroom"
StringId_DINING_ROOM	491	"Dining Room"
StringId_TENNIS_COURT	492	"Tennis Court"
StringId_SAUNA	493	"Sauna"
StringId_OFFICE	494	"Office"
StringId_OFFICE_1	495	"Office 1"

StringId_OFFICE_2	496	"Office 2"
StringId_OFFICE_3	497	"Office 3"
StringId_OFFICE_4	498	"Office 4"
StringId_AMP_RECEIVER_SETUP	499	"AMP/RCVR SET"
StringId_SYSTEM	500	"SYSTEM"
StringId_USE_STATUS_QUESTION_MARK	501	"USE STATUS?"
StringId_BANK_NAME_UC	502	"BANK NAME"
StringId_BANK_NUM_UC	503	"BANK #"
StringId_MEMORY_NAME_UC	504	"MEMORY NAME"
StringId_MEMORY_NUM_UC	505	"MEMORY #"
StringId_TUNER_NUM_UC	506	"TUNER #"
StringId_REGION_UC	507	"REGION"
StringId_US	508	"US"
StringId_EURO	509	"Euro"

DISPLAYSTRINGS_sourceNames	INDEX
StringId_AUX_1	0
StringId_AUX_2	1
StringId_AUX	2
StringId_BLUES	3
StringId_CABLE_1	4
StringId_CABLE_2	5
StringId_CABLE_3	6
StringId_CABLE	7
StringId_CD_CHANGER	8
StringId_CD_CHANGER_1	9
StringId_CD_CHANGER_2	10
StringId_CD_CHANGER_3	11
StringId_CD_PLAYER	12
StringId_CD_PLAYER_1	13
StringId_CD_PLAYER_2	14
StringId_CD_PLAYER_3	15
StringId_CLASSICAL	16
StringId_COMPUTER	17
StringId_COUNTRY	18
StringId_DANCE_MUSIC	19
StringId_DIGITAL_CABLE	20
StringId_DSS_RECEIVER	21
StringId_DSS_1	22
StringId_DSS_2	23
StringId_DSS_3	24
StringId_DVD_CHANGER	25
StringId_DVD_CHANGER_1	26

StringId_DVD_CHANGER_2	27
StringId_DVD_CHANGER_3	28
StringId_DVD_PLAYER	29
StringId_DVD_PLAYER_1	30
StringId_DVD_PLAYER_2	31
StringId_DVD_PLAYER_3	32
StringId_FRONT_DOOR	33
StringId_INTERNET_RADIO	34
StringId_JAZZ	35
StringId_LASER_DISK	36
StringId_MEDIA_SERVER	37
StringId_MINI_DISK	38
StringId_MOOD	39
StringId_MORNING_MUSIC	40
StringId_MP3	41
StringId_OLDIES	42
StringId_POP	43
StringId_REAR_DOOR	44
StringId_RELIGIOUS	45
StringId_REPLAYTV	46
StringId_ROCK	47
StringId_SATELLITE	48
StringId_SATELLITE_1	49
StringId_SATELLITE_2	50
StringId_SATELLITE_3	51
StringId_SPECIAL	52
StringId_TAPE	53
StringId_TAPE_1	54
StringId_TAPE_2	55
StringId_TIVO	56
StringId_TUNER_1	57
StringId_TUNER_2	58
StringId_TUNER_3	59
StringId_TUNER	60
StringId_TV	61
StringId_VCR	62
StringId_VCR_1	63
StringId_VCR_2	64
StringId_SOURCE_1	65
StringId_SOURCE_2	66
StringId_SOURCE_3	67
StringId_SOURCE_4	68
StringId_SOURCE_5	69
StringId_SOURCE_6	70
StringId_SOURCE_7	71
StringId_SOURCE_8	72
StringId_CUSTOM_NAME_1	73

StringId_CUSTOM_NAME_2	74
StringId_CUSTOM_NAME_3	75
StringId_CUSTOM_NAME_4	76
StringId_CUSTOM_NAME_5	77
StringId_CUSTOM_NAME_6	78
StringId_CUSTOM_NAME_7	79
StringId_CUSTOM_NAME_8	80
StringId_CUSTOM_NAME_9	81
StringId_CUSTOM_NAME_10	82

DISPLAYSTRINGS_deviceTypeNames	INDEX
StringId_UNASSIGNED	0
StringId_TV	1
StringId_CABLE	2
StringId_VIDEO_ACC	3
StringId_SAT_DSS	4
StringId_VCR	5
StringId_CASSETTE_TAPE	6
StringId_LASER_DISK	7
StringId_DAT	8
StringId_DVD	9
StringId_TUNER_AMP	10
StringId_AMP	11
StringId_CD	12
StringId_PHONOGRAPH	13
StringId_HOME_CONTROL	14
StringId_LEARNED_IR	15
StringId_PERIPHERAL	16
StringId_DEFAULT	17
StringId_MACRO	18
StringId_DELAY	19
StringId_CAV_PARAM	20

DISPLAYSTRINGS_keycodeNames	INDEX
StringId_UNASSIGNED	0
StringId_TV	1
StringId_CABLE	2
StringId_VIDEO_ACC	3
StringId_SAT_DSS	4
StringId_VCR	5
StringId_CASSETTE_TAPE	6
StringId_LASER_DISK	7

StringId_DAT	8
StringId_DVD	9
StringId_TUNER_AMP	10
StringId_AMP	11
StringId_CD	12
StringId_PHONOGRAPH	13
StringId_HOME_CONTROL	14
StringId_LEARNED_IR	15
StringId_PERIPHERAL	16
StringId_DEFAULT	17
StringId_MACRO	18
StringId_DELAY	19
StringId_CAV_PARAM	20
StringId_UNASSIGNED	21
StringId_1	22
StringId_2	23
StringId_3	24
StringId_4	25
StringId_5	26
StringId_6	27
StringId_7	28
StringId_8	29
StringId_9	30
StringId_0	31
StringId_VOLUME_UP	32
StringId_VOLUME_DOWN	33
StringId_MUTE	34
StringId_CHANNEL_UP	35
StringId_CHANNEL_DOWN	36
StringId_POWER	37
StringId_ENTER	38
StringId_PREVIOUS_CHANNEL	39
StringId_TV_VIDEO	40
StringId_TV_VCR	41
StringId_A_B	42
StringId_TV_DVD	43
StringId_TV_LD	44
StringId_INPUT	45
StringId_TV_DSS	46
StringId_PLAY	47
StringId_STOP	48
StringId_SEARCH_FORWARD	49
StringId_SEARCH_REVERSE	50
StringId_PAUSE	51
StringId_RECORD	52
StringId_MENU	53
StringId_MENU_UP	54

StringId_MENU_DOWN	55
StringId_MENU_LEFT	56
StringId_MENU_RIGHT	57
StringId_SELECT	58
StringId_EXIT	59
StringId_DISPLAY	60
StringId_GUIDE	61
StringId_PAGE_UP	62
StringId_PAGE_DOWN	63
StringId_DISK	64
StringId_PLUS_10	65
StringId_OPEN_CLOSE	66
StringId_RANDOM	67
StringId_TRACK_FORWARD	68
StringId_TRACK_REVERSE	69
StringId_SURROUND_ON_OFF	70
StringId_SURROUND_MODE	71
StringId_SURROUND_UP	72
StringId_SURROUND_DOWN	73
StringId_PIP	74
StringId_PIP_MOVE	75
StringId_PIP_SWAP	76
StringId_PROGRAM	77
StringId_SLEEP	78
StringId_ON	79
StringId_OFF	80
StringId_11	81
StringId_12	82
StringId_13	83
StringId_14	84
StringId_15	85
StringId_16	86
StringId_BRIGHT	87
StringId_DIM	88
StringId_CLOSE	89
StringId_OPEN	90
StringId_HALT	91
StringId_AM_FM	92
StringId_CUE	93
StringId_DISK_UP	94
StringId_DISK_DOWN	95
StringId_INFO	96

DISPLAYSTRINGS_booleanSelectNames	INDEX
StringId_FALSE	0

StringId_TRUE	1

DISPLAYSTRINGS_onOffNames	INDEX
StringId_OFF	0
StringId_ON	1

DISPLAYSTRINGS_yesNoNames	INDEX
StringId_NO	0
StringId_YES	1

DISPLAYSTRINGS_numericPrefixNames	INDEX
StringId_POUND_SIGN	0
StringId_DISK	1
StringId_CHANNEL	2
StringId_PRESET	3
StringId_VOLUME	4
StringId_BASS_MINUS	5
StringId_BASS_PLUS	6
StringId_TREBLE_MINUS	7
StringId_OFF	8
StringId_TREBLE_PLUS	9

DISPLAYSTRINGS_backgroundColorNames	INDEX
StringId_OFF	0
StringId_AMBER	1
StringId_GREEN	2

DISPLAYSTRINGS_buttonNames	INDEX
StringId_PLAY	0
StringId_STOP	1
StringId_PAUSE	2
StringId_PREVIOUS	3
StringId_NEXT	4
StringId_PLUS	5
StringId_MINUS	6
StringId_FAV_FUNCT_1	7

StringId_FAV_FUNCT_2	8
StringId_SOURCE	9
StringId_POWER	10
StringId_VOLUME_UP	11
StringId_VOLUME_DOWN	12

DISPLAYSTRINGS_keyTypeNames	INDEX
StringId_KEY_PRESS	0
StringId_KEY_HOLD	1
StringId_BOTH	2

DISPLAYSTRINGS_numericScrollPrefixNames	INDEX
StringId_DISK	0
StringId_CHANNEL	1
StringId_PRESET	2
StringId_POUND_SIGN	3

DISPLAYSTRINGS_saveToZonesNames	INDEX
StringId_ZONE_1	0
StringId_ZONE_2	1
StringId_ZONE_3	2
StringId_ZONE_4	3
StringId_ZONE_5	4
StringId_ZONE_6	5
StringId_ALL_ZONES	6

DISPLAYSTRINGS_enableDisable	INDEX
StringId_DISABLE	0
StringId_ENABLE	1

DISPLAYSTRINGS_partyModeNames	INDEX
StringId_OFF	0
StringId_ON	1

StringId_MASTER	2

DISPLAYSTRINGS_keyNames	INDEX
StringId_NONE	0
StringId_70_MM	1
StringId_A_B	2
StringId_AM_FM	3
StringId_AMBIANCE	4
StringId_CLOSE	5
StringId_BRIGHT	6
StringId_CHANNEL_UP	7
StringId_CHANNEL_DOWN	8
StringId_CUE	9
StringId_DIM	10
StringId_DISK	11
StringId_DISK_DOWN	12
StringId_DISK_UP	13
StringId_DISPLAY	14
StringId_DOLBY_DIGITAL	15
StringId_DTS	16
StringId_ENTER	17
StringId_EXIT	18
StringId_FAST_FORWARD	19
StringId_FAVORITE	20
StringId_FUNCTION_1	21
StringId_FUNCTION_2	22
StringId_GUIDE	23
StringId_INFO	24
StringId_LAST	25
StringId_MACRO	26
StringId_MACRO_1	27
StringId_MACRO_2	28
StringId_MACRO_3	29
StringId_MACRO_4	30
StringId_MENU	31
StringId_MENU_UP	32
StringId_MENU_DOWN	33
StringId_MENU_LEFT	34
StringId_MENU_RIGHT	35
StringId_MOOD	36
StringId_MUTE	37
StringId_NEXT_CHAPTER	38
StringId_NEXT_SONG	39
StringId_NEXT_TRACK	40
StringId_OFF	41
StringId_ON	42

StringId_OPEN	43
StringId_OPEN_CLOSE	44
StringId_PAGE_DOWN	45
StringId_PAGE_UP	46
StringId_PAUSE	47
StringId_PIP	48
StringId_PIP_MOVE	49
StringId_PIP_SWAP	50
StringId_PLAY	51
StringId_POWER	52
StringId_PRESET	53
StringId_PRESET_DOWN	54
StringId_PRESET_UP	55
StringId_PREVIOUS_CHAPTER	56
StringId_PREVIOUS_SONG	57
StringId_PREVIOUS_TRACK	58
StringId_PRO_LOGIC	59
StringId_PROGRAM	60
StringId_RANDOM	61
StringId_RECALL	62
StringId_RECORD	63
StringId_REWIND	64
StringId_SEARCH_FORWARD	65
StringId_SEARCH_REVERSE	66
StringId_SELECT	67
StringId_SETUP	68
StringId_SHUFFLE	69
StringId_SLEEP	70
StringId_STOP	71
StringId_SURROUND_MODE	72
StringId_SURROUND_ON_OFF	73
StringId_SURROUND_DOWN	74
StringId_SURROUND_UP	75
StringId_THEATER	76
StringId_TV_DVD	77
StringId_TV_VCR	78
StringId_TV_VIDEO	79
StringId_CUSTOM_NAME_1	80
StringId_CUSTOM_NAME_2	81
StringId_CUSTOM_NAME_3	82
StringId_CUSTOM_NAME_4	83
StringId_CUSTOM_NAME_5	84
StringId_CUSTOM_NAME_6	85
StringId_CUSTOM_NAME_7	86
StringId_CUSTOM_NAME_8	87
StringId_CUSTOM_NAME_9	88
StringId_CUSTOM_NAME_10	89

DISPLAYSTRINGS_LearnOrDeleteNames	INDEX
StringId_LEARN_IR_NOW	0
StringId_DELETE_IR	1