

## Request Commands

Command	Command Value	Data Format	Description	T163	T762 / T763 / T773
Query Function	20	1 byte representing which function to query. Refer to the Function table for a list of valid values.	This command requests that a value be sent back from the unit. For example the current volume level could be requested.	Yes	Yes
Set Function	21	1 byte representing which function to set, followed by the value to which it should be set. The length and format of the value depends on which function is being sent. Refer to the Function table for more details.	This command sets a specified function to a specified value. For example, the volume could be set to a specific value. A Function Value response should always be sent in response to this command to confirm the value was set.	Yes	Yes
Remote Command	22	The remote code.	Remote codes can be sent with this command. The unit should respond to the remote code as if the command had actually been received from the remote.	Yes	Yes
Get Software Version	23	n/a	Request software version number.	Yes	Yes
Software Update	24	Depends of the device.	This command can be used for doing software updates of the unit. However, since the method of updating the software is highly dependent on the hardware and software implementation, other methods of update are also acceptable provided they do not conflict with any other part of this protocol.	No	No
Store A/V Preset	25	1 byte value to indicate which preset to store the current settings in.	This command causes all the current settings to be stored in the specified A/V preset.	Yes	Yes
Store Tuner Preset	26	1 byte to indicate which preset to store into.	Store the current tuner frequency in the specified preset.	No	No

## Response Commands

Response Command	Command Value	Data Format	Description	T163	T762 / T763 / T773
Function Value	20	1 byte indicating which function the value is for, followed by the value for that function. The format and length of the value depends on the function. Refer to the Function table for more details.	This command should be sent whenever any of the function values change. This includes changes through the front panel controls, the remote, and the RS-232 port. This command should also be sent in response to Query Function and Set Function commands. For example, if the user changes the volume using the remote, this command should be sent indicating the new volume.	Yes	Yes
Software Verify	24	Depends on the device.	This command can be used to retrieve the software from the unit for verification purposes. Other methods are also acceptable. See the description for the Update Software command.	No	No
A/V Preset Stored	25	1 byte indicating which preset was stored.	This response is sent back to confirm a preset has been stored in response to a Store Preset command.	Yes	Yes
Tuner Preset Stored	26	1 byte indicating which preset was stored.	This response is sent back to confirm a tuner preset has been stored in response to a Store Tuner Preset command.	No	No
RDS - PS	27	0 bytes if no PS name, or 8 bytes for current PS name.	Whenever a new FM station is tuned or the PS name changes, this message will be sent.	Yes	Yes
RDS - RT	28	If no data bytes are sent, then the current RT message should be cleared. Otherwise, 1 byte indicates position in the message (0 - 63) followed by 2 or 4 characters of the message.	As RDS Radio Text is decoded, each block is sent via RS232. Each RDS RT block is 2 or 4 characters at a time.	Yes	Yes

## Function Table

Function	Function Value	Value Format	Description	T163	T762 / T763 / T773
Device ID	20	ASCII string	This function can only be queried, and not set. When this function is queried it should return a string identifying the model of the unit. For example, the T762 would return the string "T762".	Yes	Yes
Power Mode	21	1 byte for current mode: 0 = Standby 1 = On	Mode of the unit, Standby or On.	Yes	Yes
Brightness	22	1 byte: 0 = bright 1 = dimmed	Brightness mode of the display.	No	No
Volume	23	1 byte signed two's complement number representing the volume in dB.	Master Volume level.	Yes	Yes
Mute	24	1 byte: 0 = not muted 1 = muted	Mute status.	Yes	Yes
Audio Source	25	1 byte number indicating the audio source	Source number of the current audio source.	No	No
Video Source	26	1 byte number indicating the video source	Source number of the current video source.	No	No
Zone Volume	27	1 byte signed two's complement number representing the volume in dB.	Multi Source volume level.	Yes	Yes
Zone Mute	28	1 byte: 0 = not muted 1 = muted	Multi Source mute status.	Yes	Yes
Zone Audio Source	29	1 byte number indicating the audio source	Source number for current multi source audio.	No	No
Zone Video Source	30	1 byte number indicating the video source	Source number for current multi source video.	No	No
Tape Monitor	31	1 byte: 0 = tape monitor off 1 = tape monitor on	Tape monitor status.	Yes	Yes
Treble	32	1 byte signed two's complement number representing the Treble in dB.	Treble level.	Yes	Yes
Bass	33	1 byte signed two's complement number representing the Bass in dB.	Bass level.	Yes	Yes
Subwoofer Level	34	1 byte signed two's complement number representing the level in dB.	Sub Woofer level.	No	No
Center Level	35	1 byte signed two's complement number representing the level in dB.	Center channel level.	No	No

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Surround Level	36	1 byte signed two's complement number representing the level in dB.	Surround level.	No	No
Level Preset	37	1 byte indicating which level preset is currently selected, or the value 255 if no preset is selected.	Currently selected level preset. If the Set Function is called for this value, the unit should switch to the specified preset.	No	No
Audio Input Type	38	1 byte: 0 = Non-Balanced Analog 1 = Coaxial 2 = Optical 3 = RF Demodulated (AC-3) 4 = Balanced Analog	Audio Input Type.	No	No
Audio Signal Type	39	1 byte: 0 = Analog Signal 1 = Dolby Digital 2 = DTS 3 = PCM 4 = HDCD	Audio Signal Type.	Yes	Yes
Surround Mode	40	1 byte: 0 = No Surround Mode 1 = Stereo Downmix 2 = Dolby Pro Logic 3 = Dolby Pro Logic II - Movie 4 = Dolby Pro Logic II - Music 5 = NEO:6 - Cinema 6 = NEO:6 - Music 7 = Matrix 7.1 8 = EARS 9 = Enhanced Stereo 1 10 = Enhanced Stereo 2 11 = Dolby Surround EX 12 = Dolby Pro Logic IIx - Movie 13 = Dolby Pro Logic IIx - Music	Surround Mode.	Yes	Yes
Video Input Type	41	1 byte: 0 = unknown 1 = Composite 2 = S Video	Video input type.	No	No
Late Night	42	1 byte: 0 = off 1 = on	Status of Late Night mode.	No	No
Tuner Band	43	1 byte: 0 = AM 1 = FM	Selected tuner band.	Yes	Yes
AM Frequency	44	2 byte number representing AM frequency	Currently selected AM frequency.	Yes	Yes

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Function	Function Value	Value Format	Description	T163	T762 / T763 / T773
FM Frequency	45	2 byte number representing FM frequency. The number should be scaled by a factor of 100. Eg: frequency 102.1 is represented as 10210.	Currently selected FM frequency.	Yes	Yes
Tuner Stereo Mode	46	1 byte: 0 = Mono 1 = Stereo	Tuner Stereo Mode	No	No
FM Mute	47	1 byte: 0 = FM mute off 1 = FM mute on	FM Mute Status.  Note: On the T163/T762/T763/T773, the FM Mute and FM Stereo functions are linked.	Yes	Yes
Zone Power Mode	52	1 byte for current mode: 0 = Standby 1 = On	Power mode of the second zone.	Yes	Yes
Current Input	53	1 byte for current input: 0 = DVD 1 = Satellite 2 = VCR 3 = Video 4 4 = Video 5 5 = Video 6 6 = CD 7 = Disc 8 = External 7.1 9 = Tuner	Current Input.	Yes	Yes
Zone Input	54	1 byte for current input: 0 = DVD 1 = Satellite 2 = VCR 3 = Video 4 4 = Video 5 5 = Video 6 6 = CD 7 = Disc 8 = Local 9 = Tuner	Current Zone Input.	Yes	Yes
Input Name	55	1 byte to indicate which input followed by 13 bytes to indicate the name	This function can be used to retrieve and set input names.	Yes	Yes
AM Preset	56	1 byte indicating the current AM preset.	Current AM frequency preset.	Yes	Yes
FM Preset	57	1 byte indicating the current FM preset.	Current FM frequency preset.	Yes	Yes
Speaker A	58	1 byte: 0 = Speaker A Off 1 = Speaker A On	Speaker A Relay setting.	No	Yes

## Function Table

Function	Function Value	Value Format	Description	T163	T762 / T763 / T773
Speaker B	59	1 byte: 0 = Speaker B Off 1 = Speaker B On	Speaker B Relay setting.	No	Yes
Tone Defeat	60	1 byte: 0 = Tone Defeat Off 1 = Tone Defeat On	Tone Defeat setting.	Yes	Yes
Query All	255	None	If this value is queried, all of the above function values which are supported for the model in question will be sent.	Yes	Yes