Rotel RCD-1572
RS232 ASCII Controller Command List

Date	Version	Update Description
July 19, 2017	1.00	Original Specification

The RCD-1572 supports an ASCII based RS232 protocol. The RS232 hardware does not support flow control so care needs to be take when sending and receiving data to avoid packet loss.

All commands sent to the attached Rotel device must have a terminating "!" character.

Example Command: power_on!

Note: *Do not include any spaces in the command, and do not include a carriage return or line feed after the command, only the "!" terminating character.*

Status information from the attached Rotel product with either have a terminating "!" character or a byte count for variable length text data that may include a "!" in the returned message. It is up to the sending/receiving control application to properly parse and process the packets.

Note: *The byte count only includes the text data and not the length or "," character.*

Connection Settings

Baud Rate	Parity	Valid Data Bits	Stop Bit Value	Handshaking	Data Type
57600	N	8	1	None	String

Communication Protocol

Command and response messages are included on the following pages. Automatic display update information can be enabled/disabled using the "display_update_auto" and "display_update_manual" commands.

In automatic mode each time the display changes the new display line(s) will be sent.

In manual mode the display updates must be requested each time a refresh of the display information is desired.

Section 1: Control Command List

RCD-1572 ASCII	Command Description	Unit Response
POWER COMMANDS		
power_on!	Power On	power=on!
power_off!	Power Off	power=standby!
power_toggle!	Power Toggle	power=on/standby!
CD TRANSPORT COMMANDS		
play!	Play	play_status=play!
stop!	Stop	play_status=stop!
pause!	Pause	play_status=pause!
track_fwd!	Track Forward	n/a
track_back!	Track Backward	n/a
fast_fwd!	Fast Forward	n/a
fast_back!	Fast Backward	n/a
random!	Random Play Mode Toggle	rnd=off/on!
repeat!	Repeat Play Mode Toggle	rpt=track/disc/off!
MENU CONTROL COMMANDS		
menu!	Display the Menu	n/a
exit!	Exit Key	n/a
up!	Cursor Up	n/a
down!	Cursor Down	n/a
left!	Cursor Left	n/a
right!	Cursor Right	n/a
enter!	Enter Key	n/a
NUMERIC KEY COMMANDS		
1!	Number Key 1	n/a
2!	Number Key 2	n/a
3!	Number Key 3	n/a
4!	Number Key 4	n/a
5!	Number Key 5	n/a
6!	Number Key 6	n/a
7!	Number Key 7	n/a
8!	Number Key 8	n/a
9!	Number Key 9	n/a
0!	Number Key 0	n/a
OTHER COMMANDS		
eject!	Eject CD	eject_status=open/close!
time!	Toggle CD Time Display	n/a
program!	Program Key	n/a
dimmer!	Toggle Display Dimmer	dimmer_#!
dimmer_0!	Set Display to 0 (Brightest)	dimmer=0!
dimmer_1!	Set Display to 1	dimmer=1!

RCD-1572 ASCII	Command Description	Unit Response
dimmer_2!	Set Display to 2	dimmer=2!
dimmer_3!	Set Display to 3	dimmer=3!
dimmer_4!	Set Display to 4	dimmer=4!
dimmer_5!	Set Display to 5	dimmer=5!
dimmer_6!	Set Display to 6 (Dimmest)	dimmer=6!
DISPLAY REFRESH COMMANDS		
display_update_auto!	Set Display Update to Auto	display_update=auto!
display_update_manual!	Set Display Update to Manual	display_update=manual!

Section 2: Feedback Request Command List

Command:	get_display!
Description:	Request the entire display to be sent
Return String:	display=###,text
Return Description:	Current display data; must include 3 digit length of text string at beginning followed by "," text string and terminating character (!)
Example:	display=040, Sample Text !

Command:	get_display1!
Description:	Request display line #1 to be sent
Return String:	display1=##,text!
Return Description:	Current display line 1, must include 2 digit length of text string at beginning followed by "," text string and terminating character (!)
Example:	display1=20, Sample Text !

Command:	get_display2!
Description:	Request display line #2 to be sent
Return String:	display2=##,text
Return Description:	Current display line 2, must include 2 digit length of text string at beginning followed by "," text string and terminating character (!)
Example:	display2=20, Sample Text

Command:	get_product_type!
Description:	Request the product type
Return String:	product_type=##,text
Return Description:	Rotel product type name, must include 2 digit length of text string at beginning followed by "," and text string (no terminating character)
Example:	product_type=08,RCD-1572

Command:	get_product_version!
Description:	Request the main CPU software version
Return String:	product_version=##,text
Return Description:	Rotel main CPU software version, must include 2 digit length of text string at beginning followed by "," and text string with terminating character (!)
Example:	product_version=05,V2.29!

Command:	get_display_size!
Description:	Request display size
Return String:	display_size=##,##!
Return Description:	Columns and rows on current display
Example:	display_size=20,02!

Command:	get_display_update!
Description:	Request display update
Return String(s):	display_update=auto! / display_update=manual!
Return Description:	Status of if the display refresh is automatic or manual
Example:	display_update=auto!

Command:	get_current_power!
Description:	Request current power status
Return String(s):	power=on! / power=standby!
Return Description:	Current power status
Example:	power=on!

Command:	get_current_dimmer!
Description:	Request current display dimmer status
Return String(s):	dimmer=#!
Return Description:	Current dimmer status (0=brightest, 6=dimmest)
Example:	dimmer=3!

Command:	get_cd_tray_status!
Description:	Request current CD mechanism status
Return String(s):	eject_status=open! / eject_status=close! / eject_status=loading!
Return Description:	Current CD tray status
Example:	eject_status=close!

Command:	get_cd_play_status!
Description:	Request CD play status
Return String(s):	play_status=play! / play_status=stop! / play_status=pause!
Return Description:	CD Play Status
Example:	play_status=pause!

Command:	get_cd_disc_type!
Description:	Request type of loaded CD
Return String(s):	disc_type=None! / disc_type=CD-DA!
Return Description:	Disc type
Example:	disc_type=CD-DA!

Section 3: Special Character Mapping

Certain characters on the RCD-1572 display may be represented by a combination of 2 hex bytes in the feedback string provided by the unit. Refer to the chart below for a mapping of the different characters.

Symbol	Hex Value	Description
R	C2 8C	Time Remaining (Invert R)
T	C2 54	Track (Invert T)
‖	C2 81	Pause
▶	C2 82	Play
■	C2 83	Stop