

***RLC-2 Software Version 4.30
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007: Set Up the System's Audio Routing Variables

This command allows the user to set-up the system audio routing variables. These variables tell the controller where to route messages when commands are executed. This allows the user to totally control where CW and Voice messages are routed.

```
<007> xx yy
```

Parameters:

XX is the audio routing slots

YY is the audio routing variable calculated below

Device that Executed the Commands (XX)	Audio Routing Variable
00: Internal Audio Routing Variable	01: Route to Port 1
01: RS-232 port	01: Route to Port 1
02: Not Used	01: Route to Port 1
03: Port 1	01: Route to Port 1
04: Port 2	02: Route to Port 2
05: Port 3	04: Route to Port 3
06: Autopatch	08: Route to Port 4
07: Control Receiver	01: Route to Port 1
08: Event Table	00: Use the routing variable in the event
09: Autopatch Message Routing Mask	08: Route autopatch messages also out Port 4

Audio routing variable 09 is used for voice messages, while the autopatch is active. This variable is designed to allow the 30 seconds left message to be routed out the autopatch, along with the radio ports. This variable should not need to be changed.

Calculation of the audio routing variable:

The audio routing variable is calculated by adding up a number that corresponds to the port you want the response to be routed to. This number ranges from 00..31.

DTMF Executing the Command	Number that corresponds to the device
Port 1	+1
Port 2	+2
Port 3	+4
Autopatch	+8
Control Receiver	+16

(YY) Audio routing variable = (port1)+(port2)+(port3)+(autopatch)+(control rx)

Error Codes:

E1 - Invalid audio routing source

E2 - Audio routing variable too big. Must range from 00..31

(System wide errors are listed in front of the manual)

Example 1:

I want all commands executed from Port 3 to be routed out both Port 3 and Port 1.

1) Look-up port 3's audio routing slot.

Slot 05 is port 3

2) Develop an audio routing variable that includes port 1,3

Audio Routing Variable = 1(Port 1)+0(Port 2)+4(Port 3)+0(Autopatch)+0(Control) = 05

3) Execute Command 007

007 05 05 D or unkey

Response:

'Port' is 'Audio Routing Variable'

Example 3-4: When some people talk, the DTMF cover tone covers them up for a short period of time.

The situation that you are noticing is called DTMF falsing. When the person talking causes the DTMF decoder to recognize the voice products as a DTMF digit, then controller does not know any better. So the controller starts the cover tone and mute (if enabled, see command 020). Once the cover timer has expired, and there is no DTMF digit present, the cover tone/mute is turned off (see command 052 for setting the length of your cover timer). This condition has been addressed in software version 4.30 and later. The fix is a timer that is set, that will delay the start of the DTMF cover/mute timer. When a DTMF false occurs, the controller will start this timer and if the DTMF digit is still present after this timer expires, then it starts the normal cover/mute process. If the DTMF digit received is a voice falsed DTMF digit, then the mute will never start because in most cases, the voice product that started cover/mute process will no longer be present.

Reference: See timer #34, command 050,051,052. This timer is set for 50mS out of initialization. If you set this timer to long, then the cover/mute process will not run correctly.

Example 3-5: When I am on the reverse autopatch programming, my commands do not get executed. The autopatch just hangs up after 20 seconds.

The problem that you are seeing is caused by the “DTMF Timed Execution” command is not enabled. Because most controllers leave the forced execution digit set to the ‘D’ digit, and most telephones do not support the ‘A,B,C,D’ digits, the controller has no way of knowing when the DTMF sequence you are entering is completed. Using the DTMF timed-execution command (Command 023), then users can have the controller automatically execute the command after the last DTMF digit has been received. This timer defaults to 2 seconds. If you delay more that 2 seconds between DTMF digits while entering on the reverse autopatch, then the controller will enter your sequence and you will get an error.

Reference: See timer #62, command 050,051,052. To enable timed execution, execute command 023 followed by the ‘1’ digit. To disable timed execution, follow command 023 with a ‘0’ digit.

043: Generate a CW Message Out Selected Ports

This command generates the CW messages used by the controller.

<043> xx..xx

Parameters:

XX..XX is the CW code table

CW	XX	.	CW	XX	.	CW	XX	.	CW	XX	.	CW	XX
0	0	.	A	10	.	K	20	.	U	30	.	SPACE	40
1	1	.	B	11	.	L	21	.	V	31	.	PAUSE	41
2	2	.	C	12	.	M	22	.	W	32	.	Special	42
3	3	.	D	13	.	N	23	.	X	33	.		
4	4	.	E	14	.	O	24	.	Y	34	.		
5	5	.	F	15	.	P	25	.	Z	35	.		
6	6	.	G	16	.	Q	26	.	/	36	.		
7	7	.	H	17	.	R	27	.	0	37	.		
8	8	.	I	18	.	S	28	.	?	38	.		
9	9	.	J	19	.	T	29	.	AR	39	.		

Defaults:

CW speed defaults to 20 WPM

CW Frequency defaults to 1000HZ and 1500HZ

CW Character 42 is a special case character that pauses the CW message from being sent. See voice word 603 for a detailed explanation.

Error Codes:

E1 - To much CW data

E2 - Invalid CW Character

(System wide errors are listed in front of the manual)

Example 1:

I want to generate a CW message 'KF7FW/R'

043 20 15 07 15 32 36 27 D or unkey

Response:

There is no voice response for this command

Timer #	Resolution	Default	Definition
20	10 Sec.	003 (30 Seconds)	Port 1 ID Wait Timer
21	10 Sec.	003 (30 Seconds)	Port 2 ID Wait Timer
22	10 Sec.	003 (30 Seconds)	Port 3 ID Wait Timer
23	10 Sec.	003 (30 Seconds)	Port 4 ID Wait Timer
24	10 Sec.	003 (30 Seconds)	Port 5 ID Wait Timer
25	10mS	100 (1 Second)	Port 1 Courtesy Beep Timer
26	10mS	100 (1 Second)	Port 2 Courtesy Beep Timer
27	10mS	100 (1 Second)	Port 3 Courtesy Beep Timer
28	10mS	100 (1 Second)	Port 4 Courtesy Beep Timer
29	10mS	100 (1 Second)	Port 5 Courtesy Beep Timer
30	10mS	100 (1 Second)	Port 1 Kerchunk Filter Timer
31	10mS	100 (1 Second)	Port 2 Kerchunk Filter Timer
32	10mS	100 (1 Second)	Port 3 Kerchunk Filter Timer
33	10mS	100 (1 Second)	Port 5 Kerchunk Filter Timer
34	10mS	005 (50mS)	DTMF Mute Delay Start Timer
35	1 Sec.	300 (5 minutes)	User 1 Timer
36	1 Sec.	300 (5 minutes)	User 2 Timer
37	1 Sec.	300 (5 minutes)	User 3 Timer
38	1 Sec.	300 (5 minutes)	User 4 Timer
39	1 Sec.	300 (5 minutes)	User 5 Timer
40	10mS	010 (100mS)	DTMF Generate Length
41	10mS	010 (100mS)	DTMF Pause Length
42	10mS	500 (5 Seconds)	DTMF Scanner Timer
43	10mS	200 (2 Seconds)	DTMF Mute Timer
44	10 Sec.	030 (5 Minutes)	System Unlock Timer
45	10mS	100 (1 Second)	RBI-1 Send Timer
46	10mS	300 (3 Seconds)	Pre-Access Tone Length Timer

053: Speak Good Morning, Afternoon, or Evening

This command simply speaks the part of the day it is. If the time is between 12:00AM and 11:59AM the female voice message is 'Good Morning'. If the time is between 12:00PM and 5:59PM the female voice message is 'Good Afternoon'. If the time is between 6:00PM and 11:59PM the female voice message is 'Good Evening'.

<053>

Parameters:

There are no parameters for this command

Defaults:

There are no defaults for this command

Notes:

- Special voice word 700 speaks Good Morning, Afternoon, or Evening. To add these phrases to any voice message simply include word 700.

Error Codes:

(System wide errors are listed in front of the manual)

Example 1:

I want to know the part of the day it is

053 D or unkey

Response:

Voice: 'Good <Morning><Afternoon><Evening>'

054: Recall Time-of-Day Clock (Male)
124: Recall Time-of-Day Clock in 24 Hour Mode (Male)

This command reads the time-of-day clock in male speech. Software version 4.30 added the ability to also read the time-of-day clock in 24 hour mode.

<054>

Parameters:

There are no parameters for this command

Defaults:

There are no defaults for this command

Notes:

- Special voice word 701 speaks Male time-of-day. To add these phrases to any voice message simply include word 701.

Error Codes:

(System wide errors are listed in front of the manual)

Example 1:

I want to know the time-of-day

054 D or unkey

Response:

Voice: '<Time>'

059: Setting the Date, Y2K Compliant

This command sets the internal clocks date function.

```
<059> mm dd yyyy z
```

Parameters:

MM is the month indication that range from 01..12

DD is the day indication that ranges from 01..31

YY is the year indication that ranges from 0000..9999 (1998 for example) (Version 4.30 and later)

Z is the day of the week

Number	Day of the Week
1	Sunday
2	Monday
3	Tuesday
4	Wednesday
5	Thursday
6	Friday
7	Saturday

Defaults:

There are no defaults for this command

Error Codes:

E1 - Invalid month setting. Number must be between 01..12

E2 - Invalid day setting. Number must be between 00..31

E3 - Invalid year setting. Number must be between 00..99

E4 - Invalid day of the week setting. Number must be between 1..7

(System wide errors are listed in front of the manual)

Example 1:

I want to set the date to November 28, 1998 Tuesday

```
059 11 28 1998 3
```

Response:

"<Month> <Day> <Year> <Day of the week>"

Special Voice Words

Special voice words begin at 700. These words do special functions like read the time, day, date, analog channels with high/lows.

Special words 733 and 734 control how a **voice** message is handled. When the voice encounters either of these 2 words it will watch the calling channel and quit speaking if interrupted. When interrupted the voice will either quit speaking, or it will quit speaking and fetch an event (See command 063,064,065). This fetched event can contain a special CW message for ID's, voice interruption messages, and alike. This word can be located anywhere in the voice message.

Special words 770 and 771 control how a **Small DVR** message is handled. When the DVR encounters either of these 2 words it will watch the calling channel and quit speaking if interrupted. When interrupted the DVR will either quit speaking, or it will quit speaking and fetch an event (See command 063,064,065). This fetched event can contain a special CW message for ID's, DVR interruption messages, and alike. This word can be located anywhere in the DVR message.

Special word 772 recalls the DVR public mail waiting (See Command 068 in the DVR chapter). When this message is requested the DVR will either be silent if there is no mail or will speak "There is mail for"

Special word 602 allows execution of a command with a voice message. This is useful in synchronization of commands with words. Applications of this special word include link on\off messages, starting an external cart machine, toggling output lines on\off with the voice synthesizer and the list goes on... The format for this command is as follows: Word 602 must be followed by a 3 digit command number ranging between 000 and 245. This command number will be executed when the voice synthesizer reaches it.

Special word 603 forces the voice synthesizer to wait until all the receivers, on the ports the voice message is being routed to, go inactive before the message begins. This word should be the first word in the voice message if you want a polite response. Applications for this word are routing messages out half-duplex radio ports and having a truly polite voice message on a repeater port. In any application using this word it is important to remember that the voice synthesizer will not speak, at all, while the receivers of the connected ports are active. CW character 42 has the same affect on the CW messages.