

RLM 2.6

Users Manual

INDEX

What this manual covers	4
RLM system description.....	4
Predefined DTMF commands.....	4
Login to RLM system	5
Access to DTMF commands.....	5
How to use DTMF commands in RLM	5
Voice recording.....	5
Voice playback.....	6
User parameters.....	6
Help system.....	6
Statistics	6
Date and time	6
DTMF Commands detailed description.....	7
<i>Basic functions</i>	7
# Logout	7
0 Logout	7
1 Test recording	7
2 Play personal messages	7
3 Record personal messages	8
4 Check who has messages	8
5 Check the last 5 persons that has logged in.....	8
A Repeat the last command	8
<i>Public messaging functions</i>	8
21 Record bulletins	8
22 Listen to bulletins you never heard before.....	9
23 Listen to all active bulletins	9
28 Record to the loop.....	9
29 Listen to messages from the loop.....	9
<i>Link radio functions</i>	9
31 Select channel	9
32 Start and Stop scanning.....	9
33 Turn link connection ON or OFF.....	9
34 Turn link monitor ON or OFF.....	10
36 Check what channel you are on	10
<i>Help functions</i>	10
<i>Miscellaneous functions</i>	10
51 Test DTMF.....	10
52 Who's logged in	10
55 What is the time	10
56 What is today's date.....	10
57 Test recording	10
58 Playback of test recording.....	10
<i>Weather functions</i>	10
61 Check indoor temperature	10
62 Check outdoor temperature.....	10

63 Max/min temperature indoor	10
64 Max/min temperature outdoor.....	11
66 Check both In- and outdoor temperature	11
<i>Message functions</i>	11
72 Erase the latest personal message you recorded.....	11
<i>Special functions</i>	11
81 Send CCIR	11
82 Send tone.....	11
<i>Statistics and info</i>	11
5101 Number of users in system.....	11
5102 Number of times DTMF been unlocked (system activated)	11
5103 Number of times DTMF been unlocked today (system activated)	11
5104 Number of logins (total).....	11
5105 Number of logins (today).....	11
5109 System info all	12
<i>User information</i>	12
5201 Check your user parameter mode (expert or novice)	12
5202 Get a users PIN	12
5203 Check how many times a user have logged in	12
5204 Check how many messages there are in a users mailbox.....	12
5205 Listen to other users messages without erasing.	12
5206 Listen to a users personal info.....	12
5207 Listen to your old messages	12
<i>User functions</i>	13
5301 Set Expert or Novice status.....	13
5302 Set your own user parameters	13
5303 Create a new user	13
5304 Delete yourself	13
5305 Re-record your signal.....	13
5306 Record your personal info.....	14
5307 Record your own sound file.....	14
5308 Listen to your own sound file	14
<i>Miscellaneous functions 2</i>	14
5444 Activate / deactivate burglar alarm	14
5445 Check if burglar alarm is on or off.....	14
5451 Guess a number game	14
5452 Guess a tone frequency game.....	14
5453 Pair similar tones game	14
<i>CW tutor</i>	15
6001 Choose number of groups of 5 chars.....	15
6002 Set CW-speed (characters per minute).....	15
6003 Randomise and send a new set of characters	15
6004 Re-send the latest letters	15
6005 Answer	15
<i>Repeater statistics</i>	15
6501 Repeater runtime	15
6502 Repeater info today	15
6503 Repeater info for this month	15
6504 Repeater statistics totally.....	15
<i>System info</i>	15
9003 Free space on hard disk.....	15
9004 Record time left on hard disc	15
9005 When RLM was started.....	15
9006 Number of active messages.....	16
9008 Active messages in megabytes.....	16
9009 In-active messages in megabytes	16

<i>System functions</i>	16
9501 Set the time.....	16
9502 Set the date.....	16
9506 Erase in-active messages.....	16
9509 Delete a user.....	16
9511 Log in as sysop.....	16
Appendix	17
<i>Short words used</i>	17

What this manual covers

This manual is about how to use RLM from the repeater users perspective. It covers what the RLM system is, details about DTMF commands and how to operate all functions. It is also helpful to the RLM sysop to get in to detail how RLM and all the DTMF functions work.

The RLM system can be set up in many different ways. This manual only describes the standard functions. In your system, some of these function may not be available or maybe your RLM sysop has made own DTMF commands with functionality not described here.

RLM system description

RLM is a short for Repeater, Link and Mail server and is an advanced repeater controller. RLM can also be used as a stand-alone voicemail server. RLM has been developed under 6 years and is programmed by SM2UMH Peter Hansson living in North Sweden.

Normally a repeater controller consists of a logic board that controls repeater close timeouts, beeps and maybe link radio steering. This controller board can be very simple or a very advanced, micro controller based model with synthetic speech and advanced features.

RLM is not based on a controller board. It is a PC software that controls repeater radio and links via a simple interface. All the functionality is in the PC program.

This makes it very flexible and RLM I designed so it can fit an almost any environment.

The repeater administrator can enable or disable functions. There is also a possibility to write new DTMF commands for new functions and much more.

As a RLM user (repeater user) you get much more value from your repeater.

You will be able to...

- Leave personal voice messages to your ham friends
- Record bulletins that affect all users of RLM
- Test recording for modulation check
- Check in and outdoor temperature with min/max functions
- Check Repeater / User / Voicemail statistics.
- Select link channel and connect to other repeaters
- Check time and date
- Send CCIR and DTMF
- Built in CW trainer

And much more...

More info about RLM can be found at the RLM homepage.

<http://vbk.campus.luth.se/~rlm> or send me an email at rlm@vbk.campus.luth.se.

Predefined DTMF commands

RLM has about 110 predefined DTMF commands. That means that command 3, who is "Record personal message" is always 3 on every RLM system. For example, here in Sweden there are about 30 RLM repeaters in operation. If you travel and find a RLM repeater you use the same commands everywhere. Of course the administrator maybe have disabled some DTMF commands and could also have created some new.

Login to RLM system

To use the RLM voice mail system and get access to some of the functions, you must log in. To do this you must have a 3-digit code (PIN) registered in the RLM user database. This registration can be done by the RLM sysop or by your self (if the sysop allow this) with command 5303.

The code that you use can be anyone that isn't already in use in RLM. Ask your RLM sysop about a code.

To login, you just send your 3-digit code and then a RLM will tell you that you logged in and if you have mail. You log out with 0 or #.

Access to DTMF commands

The RLM sysop decide what type of access users should have to DTMF commands. There are these kind of access that is possible.

1. No Access
2. Access to all users
3. Only for users who has logged in
4. Only if you logged in as SYSOP

In the first case (1) you cannot use the command at all. If the access setting for a command is 2, all users, logged in or not can use this command. This setting is for example normally used for the DTMF command 1 (Test recording). If a DTMF command has access type 3, you must be logged in to be able to use this command. Example of this is command 2 and 3 that is record and play personal messages. In the fourth case you must have the SYSOP code to use the command.

How to use DTMF commands in RLM

All functions start with transmitting a DTMF command to RLM.

You do so by pressing your PTT- button and then enter the code. Release the PTT button and RLM will answer or ask you a question.

There are two types of question that will appear often...

1. "Is this ok?" or in Swedish "Är du nöjd?"
2. "Do you want to continue?" or in Swedish "Vill du fortsätta?"

When you get this kind of questions RLM expects an answer (Yes or No). You have about 3 seconds (definable) to answer before RLM either cancels the question or answer NO for you.

You use DTMF 1 for YES and DTMF 0 for NO. In some cases you can use DTMF 9 for Cancel.

Voice recording

Recordings are used in many situations in a RLM system. For example you can record a message to another user, record info about your selves, record bulletin and more. A recording starts by that you enter a command and then RLM tells you that the recording starts. As soon as you hit you PTT and start transmit, the Squelch on the repeater opening and RLM start to record to a voice file. When you release your PTT, RLM stops the recording and depending on what DTMF function you're running, RLM will playback the recording and end with the question, "Is this OK?".

You answer 1 to accept and save, 0 to record again or 9 to cancel. You can also wait a couple of seconds to cancel the recording.

There is also possible to enter DTMF while you are recording. The commands will be muted. The available commands are...

- 1 Quick save (If you don't want to hear your recording and saving it immediately)
- 0 Same as 1
- * Extend to 5 second of lost signal (instead of 2 seconds) to sense end of recording
- B As * but also turn off the muting of DTMF commands.
- # Stop recording

Voice playback

Play back off messages is used often in RLM. Example of this is when you listen to your voicemail. When a playback is done you will sometimes get a question. You answer with DTMF number. You can always stop a playback by hitting you PTT briefly.

User parameters

In RLM all users has their personal parameters of how RLM will respond and behave to you. You activate your personal user parameters when you log in. User parameters control the time on different timeouts or if questions should be repeated I you don't answer in time.

Read more about this in the sections about command 5301 and 5302.

Help system

All command sections start with help. For example command 21-29 has help on command 20 and 5101-5109 has help on command 5100. It is up to the RLM sysop to record those help files so it may not be available in your system.

Statistics

RLM does a lot of logging of all that's happening. It logs repeater, user, weather and link usage to text files so it can be used in Microsoft Excel or other program to make curves of how the system is used. It also have a statistics database file that information like how many times a user has logged in and when the last time was and how many times the repeater has opened today or the total runtime of repeater is stored. There are several DTMF commands in RLM to get this information.

Date and time

RLM has a kind of Scandinavian way to look at dates. The date format is YY-MM-DD. So if you have to enter the date 4th of January 2000, you enter 000104. However the output speech of dates is configurable in many different ways.

The time is in the format HH:MM. RLM can work with 24-hour or 12-hour clock.

DTMF Commands detailed description

Basic functions

Logout

This command logs you out from a RLM. You must be logged in first.

0 Logout

As # but will send some tones if you're not logged in.

1 Test recording

This command is a quick recording and playback function to test your transmit quality.

→ Send DTMF 1 , Release PTT

← RLM answer with a three-tone sound that tells you that RLM is ready to start recording.

→ Press your PTT and say something.

→ Release PTT and RLM will playback you recording.

Now RLM is ready for recording again. If you wait a couple of seconds, RLM Cancel the command. You can also cancel anytime with DTMF 1 or 0.

2 Play personal messages

This command is for listening on voicemails in your personal mailbox. Depending on your user parameters or the RLM sysop's setting, the command can behave differently.

→ Send DTMF 2, Release PTT

← Answer machine beep

← Info who recorded the message (If your user parameter 5 is 1)

← Info on date and time when the message was recorded (If your user parameter 5 is 2)

← Starts to playback your message

Repeating from the Beep if you have more than one message.

Then a question ("Is this OK?") come up and you answer...

0 to listen to the messages again

1 to erase your messages

2 to reply to the message. (If there more than one message in your mailbox you will reply to the last message recorded)

9 to cancel and keep your messages.

If you don't answer, RLM will Cancel (like 9).

3 Record personal messages

This command is for recording messages to RLM users. The user you record to must first have a personal code and you must know it. You can record to one or up to 5 different users simultaneously.

- Send DTMF 3, Release PTT
- ← “Enter the user code”
- Press PTT and enter the code of the user you want to record to. Example “643”
- ← “Recording message to...” (call sign)
- Press PTT and start your recording
- ← The message will playback followed by...
- ← “Is this OK?” you answer...

0 to repeat recording

1 to save message

9 to Cancel (Same as not answering at all)

If you want to record the message to multiple users simultaneously you just enter the user codes after each other. Example: 643360776 will copy the recorded message to 643, 360 and 776. You can record to a maximum of 5 users at a time. If the RLM computer is slow and your message is long, you might here some tones while the file is copying.

4 Check who has messages

Use this command to check who has messages in their mailboxes.

5 Check the last 5 persons that has logged in

With this command, RLM will tell you date and time of the last 5 persons who logged in. You must answer 1 to the question “Do you want to continue” to get to the next person.

A Repeat the last command

Use A to repeat the latest DTMF command you used.

Public messaging functions

A bulletin is a type of message that you record once but is available for all RLM users.

The recorder of a bulletin sets the dates when this message should be activated and when it will expire. Lets say that you want to announce a club meeting next weekend. Then you record your bulletin and set it to expire the day after the club meeting. All users that log on will hear the message but those who never heard the message will not do so after the expiration date. You can also record a bulletin that should be active in the future, on a specific date.

21 Record bulletins

To use this function you must have logged in first.

RLM will first ask you about the dates that this bulletin should be active.

“If you want this message to be active for one week, press 1,
If you want to enter start and stop date, press 2”

If you enter 1 the bulletin will be active from now and 7 days ahead. If you enter 2 you must enter start and stop date. You enter the date in format (yymmdd) 000502 for 2-May 2000.

Then you start to record and save your message as usual. When a user logs on and the bulletin is active, he will be notified to enter 22 to listen.

22 Listen to bulletins you never heard before

With this command you listen to bulletins you haven't heard before. If you answer "1" after the message, it will be flagged that you listened to it. If you want to hear it again, you must use command 23.

23 Listen to all active bulletins

This command playbacks all active bulletins in the system.

28 Record to the loop

The "loop" is a message loop holding 10 messages. The messages are not personal, and all users have access to the same messages. When a new message is recorded, the oldest (10th) message is deleted. This function is a kind of voice message scrapbook just for testing and memory notes.

29 Listen to messages from the loop

Use this command to listen to the 10 recordings from the message loop. You will hear the newest recording first and then you get a question if you want to continue. Next you hear the second newest message and so on until you reach the 10th message.

Link radio functions

One of RLM's main functions is to control a link radio. This makes it possible to connect your repeater to others or to have a simplex gateway to another frequency band. The user of the other repeater can use RLM's DTMF functions. If the RLM repeater is closed, RLM can scan through the channels and stops when someone is sending a special DTMF tone to activate the link and repeater. The DTMF tone to open from link side is set up by the RLM sysop.

31 Select channel

To select channel to link to you must first know what channel that are available. Talk to your RLM sysop to give you the channel codes.

→ Send DTMF 31 , Release PTT

← "Select channel"...

→ Press PTT and enter the channel code for the link channel you want to open

← You here 3 + 1 tone, the channel is selected and the link is up.

If this is a simplex channel you just make your call, if it is a link to another repeater you send the opening tone or code to activate the other repeater. When the repeater on the link-side is closing, the link is automatically disconnected, however the monitor is still on so you can hear if the repeater is opening again and someone makes a call to you.

If you select a channel that is busy (SQ open on link radio) you will hear a three-tone busy signal and you will only be able to listen (monitor) the channel. If you hit DTMF 33 you will connect to the busy channel and will be able to transmit.

32 Start and Stop scanning

To stop and start the scanning of link channels, use this function.

33 Turn link connection ON or OFF

To disconnect the link manually, use this command. This command doesn't detect a busy channel.

34 Turn link monitor ON or OFF

Use this command to enable you to only listen to a link channel. To be able to transmit, you must use DTMF 33 to connect to link.

36 Check what channel you are on

Use this command to have RLM to tell what channel you're on right now.

Help functions

The commands from 40 to 49 are help for using RLM. These files are recorded by the RLM sysop, as they are different in different RLM configurations.

Miscellaneous functions

51 Test DTMF

To test that RLM receives and decode your DTMF tones properly, run this command and follow the instructions. RLM will echo back all the DTMF keys you entered.

52 Who's logged in

Just for checking who's logged in right now.

55 What is the time

RLM will tell you the computers system time in format "HH MM".

56 What is today's date

RLM will tell you the computers system date in format "YY MM DD".

57 Test recording

This function is similar to "1" but records to a file that you can listen to later with DTMF 58.

58 Playback of test recording

Playback the recording done with DTMF 57.

Weather functions

RLM have the possibility to record two temperatures (IN and OUT). These temperatures and can be checked with DTMF commands. RLM log the temperature every hour to a log file on the computer for weather statistics. The RLM sysop can also set up trig points where RLM can alarm if a temperature goes too high or too low. This can be used in a repeater QTH to get alarmed if there is a problem with warming up the house.

61 Check indoor temperature

RLM checks the indoor temperature and tells it.

62 Check outdoor temperature

RLM checks the outdoor temperature and tells it.

63 Max/min temperature indoor

RLM tells the lowest and highest indoor temperature recorded after midnight.

64 Max/min temperature outdoor

RLM tells the lowest and highest outdoor temperature recorded after midnight.

66 Check both In- and outdoor temperature

As function 61 and 62 run after each other.

Message functions

72 Erase the latest personal message you recorded

If you regret your latest recording, you can use this command do erase the message.

Special functions

81 Send CCIR

With this function you can send CCIR using your DTMF keypad. Just run the command and RLM asks you to "enter you CCIR code". Enter some numbers and when you release your PTT the CCIR code will be heard.

82 Send tone

This is a function where you can send a tone in any frequency and tone length you want.

→ Send DTMF 82, Release PTT

← "Enter tone frequency"...

→ Enter a frequency between 30 and 10000 Hz

← RLM will beep this frequency for one second

To get a different tone duration, when RLM asks you for the frequency, enter frequency followed by a # and then the length in seconds. For example: 1000#5 for 1000Hz in 5 seconds. The longest tone possible is 10 seconds.

Statistics and info

5101 Number of users in system

This command tells you how many users there are in the user database.

5102 Number of times DTMF been unlocked (system activated)

The RLM sysop can configure so that RLM not is accepting any DTMF commands as default.

To unlock this you use a special DTMF command that your RLM sysop sets up.

This command tells you how many times RLM has been activated. Normally you use this only when RLM is used as a simplex voicemail system and not as a repeater controller. The DTMF lock functionality is to prevent from false DTMF detection coming from distorted speech or noise.

5103 Number of times DTMF been unlocked today (system activated)

As 5102, but to get number of unlocks after midnight.

5104 Number of logins (total)

How many times users logged in to RLM since the system was installed.

5105 Number of logins (today)

As 5104, but only for today.

5109 System info all

If you run this command you get information about all things in the 5101 to 5105 section.

User information

5201 Check your user parameter mode (expert or novice)

This command tells you if your user parameters are set in Novice or Expert mode. See DTMF 5301 and 5302 for more info.

5202 Get a users PIN

This command gives you a list of all users in the RLM user database. First it asks you from what user you want to list from. If there are many users in the database and you know that this is a relatively new user you can start to list from the 10th or 20th user to save time. RLM inform you of the users call sign followed by their PIN.

5203 Check how many times a user have logged in

You can check how many times a user has logged in and when the last time hi/she logged in. You must now the users login code to use this command.

5204 Check how many messages there are in a users mailbox

This command tells you how many messages a user has in their mailbox. You must know the users PIN to be able to do this.

5205 Listen to other users messages without erasing.

Here you can listen to other users personal messages. You must know the users login code (PIN). You will not be able to delete the messages.

5206 Listen to a users personal info

All users have the possibility to record info about themselves with the command 5306. To listen to the users info, run this command. If the user hasn't recorded any info, you get an error message.

5207 Listen to your old messages

When you have listened to your personal message with the command 3, and after that you answer 1, you reset your mail counter to 0. That means that you have no messages. However, the voice file is still on the hard disk and as long as you don't get new messages they are not overwritten. With this command you can listen to old messages belonging to your RLM account.

User functions

The User functions section is a set of commands for the user to administer their own user account

5301 Set Expert or Novice status

Expert and Novice are two types of standard settings of user parameters. The RLM sysop define the parameters setting behind the Expert and Novice. For example it could be that if you are in Novice mode you have a 5 seconds time to answer a RLM question but if you are in Expert mode you only have 2 seconds. Talk to your RLM sysop about what the different is between those modes. With this command you alternatively switch between Novice and Expert status. See also 5201 and 5302.

5302 Set your own user parameters

If you don't want to use the pre configured Expert or Novice modes, you can customize the parameters on you own.

The available parameters are

1. Timeout in seconds before a question is cancelled
2. Timeout in seconds before a recording is cancelled
3. Set to '1' will make RLM ask a question twice if no response. 0 = Ask once.
4. If no response after a question run 0= "DTMF 9 (Cancel)" or 1= DTMF 1 (Yes)
5. Tell who recorded the message, and the record Date and Time when playback personal message. 0=Tell nothing, 1=Just who recorded, 2=Who recorded and date/time

This is an example how to enter you own parameters. Hit 5302, wait for RLM telling you to enter you parameters. If you then enter **22002** you will get these settings....

2 = you will have 2 second on you to answer a question.

2 = you will have 2 seconds on you to press the PTT and start recording when RLM asks you to.

0 = a question is only asked once if you don't answer the first time

0 = if you don't answer a question or after a recording the command will be cancelled

2 = when you listen to your personal messages (2) you first hear who recorded it and the date and time it was done.

5303 Create a new user

If the RLM sysop allow it, new users can make their own user account in RLM. Follow the instruction below...

→ Send DTMF 5303, Release PTT

← "Welcome as a new mailbox user, enter your code"...

→ Enter your RLM sysop assigned PIN or pick any 3-digit code you want.

← The code is repeated and you answer 1 if it is correct or 0 if you want to enter it again

← "Record you call sign"

→ The recording is repeated and you answer 1 if it is correct or 0 if you want to record it again

← "You are now registered in the mailbox!"

5304 Delete yourself

Use this command to delete your user account in RLM

5305 Re-record your signal

If you are not satisfied with the recording of your call sign that you done when you created your user account, you can re record it with this command.

5306 Record your personal info

Here you can record some personal info. For example you can record your name and QTH. All users can listen to this with the command 5206.

5307 Record your own sound file

This is a personal sound file that you can record. You can use it as a memo. No one else can listen to or delete it.

5308 Listen to your own sound file

Listen to the file recorded with 5307.

Miscellaneous functions 2**5444 Activate / deactivate burglar alarm**

RLM has a feature that makes it possible to alarm when someone opening a door without first deactivate the alarm. If an alarm is triggered, RLM will activate the repeater and tell that alarm has been triggered. It will continue to do so every hour until someone turns it off with this command.

When you use this command RLM ask you for a code. You must get this code from your RLM sysop to be able to deactivate and activate the burglar alarm.

5445 Check if burglar alarm is on or off

Before you opening a door that is alarmed, you can check that the alarm is OFF with this function.

5451 Guess a number game

A number between 1 and 100 is randomised by RLM. You enter a number and RLM will answer with one or two tones. One tone tells you that the number you sent is too low and two tones tells you that the number you sent is too high. When you find the right number you hear applause.

5452 Guess a tone frequency game

A tone between 100 and 1000Hz is randomised by RLM. You enter a frequency and RLM will answer with one or two tones. One tone tells you that the frequency you sent is too low and two tones tell you that the frequency you sent is too high. When you find the right frequency you hear applause.

5453 Pair similar tones game

The DTMF number 0 to 9 is associated with different melodies. You must pair the numbers (0-9) that have the same melody. When you get a pair, RLM will tell you so. Continue until you get all 5 pairs.

CW tutor

The built in CW tutor makes it possible to arrange CW practising in a club via the repeater. With function 6001 and 6002 you set it up and then you use 6003 and 6004 to send the randomised characters. End with function 6005 to check if you have got it right.

6001 Choose number of groups of 5 chars

Choose how many character groups that will be sent. If you choose 1 the character sent could be "SFUEJ". If you choose 3, the characters sent could be "OEJFJ", "KDSOS", "OSOEN".

6002 Set CW-speed (characters per minute)

Here you set the CW speed in characters per minute. Accepted values are 20 to 250 ch/min.

6003 Randomise and send a new set of characters

This function will make RLM randomise a new set of characters and then send it.

6004 Re-send the latest letters

If you want to resend the characters randomised with 6003 you use this function.

6005 Answer

When you have wrote down the keyed characters on a paper, you use in this function to get RLM to read the letters for you in your language to see if you were right.

Repeater statistics

6501 Repeater runtime

Tells you how long the repeater been activated since you opened it.

6502 Repeater info today

RLM will tell you how many times the repeater was activated and the total runtime for today.

6503 Repeater info for this month

As 6502, but for this month.

6504 Repeater statistics totally

As 6502, but totally since the RLM system was installed.

System info

9003 Free space on hard disk

This command tells you how much free space there is on the RLM partition.

9004 Record time left on hard disc

Tells you how much time there is left for recording of messages.

9005 When RLM was started

Tells you the date when the RLM computer was restarted.

9006 Number of active messages

Gives the total number of all personal messages in all users mailboxes.

9008 Active messages in megabytes

Tells how much all the active personal messages takes up on the hard disk.

9009 In-active messages in megabytes

The inactive messages is messages that already been listened to but remain on hard disk until the RLM sysop remove them or schedule RLM to delete them once a day or once a month. With this function you can check how much storage space these messages takes up on your hard disk.

System functions**9501 Set the time**

To set the clock on the RLM computer use this command. When you run the command, RLM answer "CLK", and then you enter the time "1030" for 10:30. Then you get back an "OK" if all is OK!

9502 Set the date

To set the date on the RLM computer use this command. When you run the command, RLM answer "DAT", and then you enter the date "000604" (yymmdd) for the 4th of June 2000. Then you get back an "OK" if all is OK!

9506 Erase in-active messages

This command erases all messages that users have listened to. Se also DTMF 9009.

9509 Delete a user

Permanent deletion of a user with its users statistics and parameters.

9511 Log in as sysop

To log in as a sysop you must first run this command. The RLM sysop can configure Sysop login in two different ways.

In the first way, you only need a sysop code. Enter the 9510 command and RLM will ask you for the code, enter the code and you have logged in. You must first log in as a standard user to be able to log in as a sysop.

The second way require you to have a key-map to log in. You can get this key-map from your RLM sysop.

→ Send the sysop code, Release PTT

← RLM answers with a series of numbers. Write them down and decode this numbers with your key-map. Add the decoded numbers together.

→ Send 9511 and after the keyed "L" you send the sum of the decoded numbers.

Appendix

Short words used

PTT	Push To Talk button on your radio (Transmit button)
DTMF	Dual Tone Multi Frequency, The touch tones that sounds like a telephone dialling.
RLM	Repeater Link Mail server. A PC based repeater and voicemail system.
RLM sysop	The person in charge to set up and configure the RLM system.'
PIN	Personal Identification Number (3 digit login code in RLM)