All New
Version 6.9

Atlas AVM JR.

Installation and Programming Manual

Key System U.S.

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Software Version

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1. INTRODUCTION

The AVM JR. is a small stand-alone Voice Mail/Automated Attendant system for organizations that have between eight and eighty employees. Developed by KS Telecom, a leader in the field of Telephone Equipment and Voice Processing Systems. The AVM JR. incorporates state of the art technology, including DSP, flash memory and SMT production.
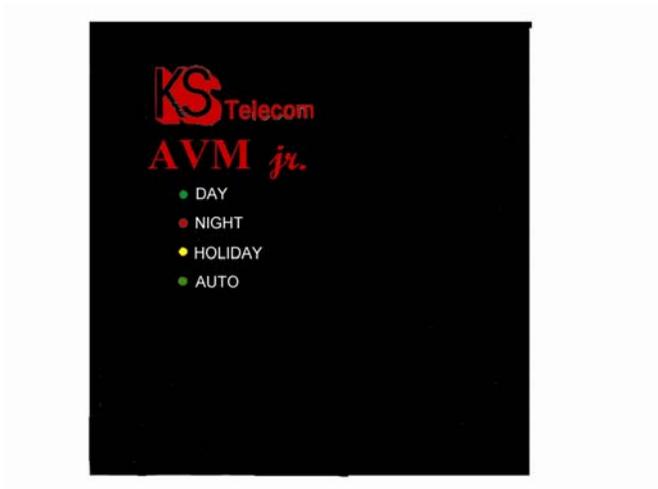
Figure 1-1 General View

The AVM JR. is available in two or four port versions. It features 128 mailboxes and provides 10 hours of recording time.

The AVM JR. is designed to be integrated with all Key System US KSU's through single line ports for voice and using the RS-232 serial port for SMDI integration.

The system administrator can program the AVM JR. by computer using the Voicemail Utility Program (VUP) or by touch-tone telephone.

Installing the AVM JR. is quick and easy. Just mount it on a wall next to the KSU and connect it to the single line ports, the SMDR serial port, and the main power supply with an external power adapter.

The AVM JR's voice mail system is ready for use immediately after the system administrator completes a short procedure that includes setting up mailboxes, notification type, system schedules and opening greetings. Each mailbox owner can then set up their own personal mailbox parameters.

1.1 Features and Services

The AVM JR. is a powerful voice mail system at an affordable price. It contains most of the useful features and services provided by PC-based systems but at a lower cost. The JR's features can be divided into three groups:

- System
- Automated Attendant
- Voice Mail

1.1.1 System Features

- **Configuration**

    The AVM JR. comes with two ports and 10 hours of recording time. The system administrator can upgrade the AVM JR. by adding a two port expansion card to the motherboard providing a total of 4 ports.

- **Programming**

    The system administrator can program the AVM JR. by:

    – Touch-tone telephone using DTMF tones

    – Computer using the Voicemail Utility Program, a Windows-based proprietary program developed by Key System US. The installer should save a file containing the parameters set in each installation.

- **Integration with your PBX**

    – The AVM JR. integrates with the KSU through the SMDR RS-232 port using SMDI signaling

- **Message Notification**

    The AVM JR. automatically notifies the mailbox owner of new messages in different ways according to the system configuration. Notification may be local (to an extension) or remote (to a telephone at a remote location, a cellular telephone or a pager).

- **Security Passwords**

    The AVM JR. supports three types of passwords, each with four digits:

    – *System Administrator*. Gives access to all data stored in the AVM JR..

    – *Operator*. Gives access to the operating modes.

    – *Mailbox*. Gives access to individual mailboxes. The mailbox owner can change the password any time.

1.1.2 Automated Attendant Features

The AVM JR.'s automated attendant answers incoming calls and, through a series of recorded menus and telephone directories, helps the callers reach the desired extensions.

- **Opening Greeting**

  The AVM JR. plays a pre-recorded greeting to callers. The opening greeting usually includes the organization's name, how to reach an extension, department or operator, how to switch languages, how to leave a message and how to access a directory.

  During the greeting, callers can access a department by dialing a single digit, dialing the extension number or holding for assistance.

- **Operating Modes**

  Depending on the time and the system schedule, the AVM JR. answers external calls with one of four opening greetings:

  - **Day Mode**

    During normal business hours, the AVM JR. answers calls with a pre-recorded daytime greeting. The daytime greeting enables the caller to reach a requested extension, mailbox, department, directory, operator, or to switch languages.

  - **Night Mode**

    During non-working hours, the AVM JR. answers calls with a pre-recorded nighttime greeting that enables the caller to leave a message in a requested mailbox.

  - **Holiday Mode**

    During holidays, the AVM JR. answers calls with a special greeting that enables the caller to leave a message in a specific mailbox or in the operator's mailbox. The holiday mode can be activated by the operator (password protected).

  - **Break Mode**

    The system administrator can program part of the day mode as break time. During break time, the AVM JR. answers calls with a special greeting that enables the caller to leave a message in a specific mailbox or in the operator's mailbox.

- **System Schedules (Auto-Mode)**

  If your organization has operating hours that vary from day to day, the system administrator can define the daily operating schedules on a weekly basis, including daytime, nighttime and break time hours. When the Auto mode is activated, the AVM JR. automatically switches between the day, night and break modes according to your pre-defined schedule.

  The operator can override the pre-defined system schedule and switch manually to day, night, break, or holiday mode using a password.

- **Fax Detection**

  If the AVM JR. detects a fax tone (CNG) during the opening greeting, it automatically transfers the call to the pre-defined fax extension.

- **Directory**

  The AVM Jr. can provide a list of mailbox owner names. The directory listing enables calls to be transferred to all extensions configured within the list. A caller can access the directory listing by following instructions during the opening greeting.

  In order to enable a directory listing call transfer, the mailbox owner must record his name and a three-letter code. A caller can reach the proper extension after dialing the respective code and verifying a correct extension according to the mailbox owner's name.

  The system administrator enables one of two methods of directory listing: according to the mailbox owners first or last name.

  .

- **Call Transfer**

  The system administrator can program the AVM JR. to detect the Call Progress tones sent by the KSU and transfer the calls to extensions in one of the following modes:

  – **Non-Supervised**. The AVM JR. transfers the call immediately without verifying the status of the extension.

  – **Supervised**. The AVM JR. checks for a busy or answer signal before transferring the call to the extension.

  – **Semi-Supervised**. The AVM JR. only checks for a busy signal before transferring the call to the extension.

- **Multilingual Option**

  The AVM Jr. can operate in 2 languages simultaneously. The system administrator can configure each mailbox to operate in one of the two selected languages. The caller can select the language in which the system messages (prompts) are played.

- **Answering on the First Ring**

  To avoid delays, the system administrator can set up the AVM JR. on each individual port to answer incoming calls on the first ring.

- **Script Menus**

  The AVM JR. supports up to 36 script menus. A script menu is a recorded announcement that can accept a digit entry (0-9) during playback. Based on the digit entered, the AVM JR. can take one of the following actions:

  – Transfer the call to another script menu

  – Transfer the call to another script menu and change the language

  – Transfer the call to an extension or hunt group

  – Transfer the call to a mailbox or a mailbox group

  – Dial a string of DTMF (10 different strings and up to 20 digits for each string including special characters)

  – Retrieve messages from a mailbox

  – Disconnect the line

  – Leave a message

– Play the directory listing

– Record a call

1.1.3 Voice Mail Features

The AVM JR.'s Voice Mail system enables a caller to leave message, recorded in his own voice, in any mailbox. The mailbox owner can access their mailbox at any time from any touch-tone telephone and listen to their messages. They can also modify Their mailbox parameters.

- **Real/Virtual Mailboxes**

  The AVM JR. supports up to 128 real and/or virtual mailboxes. A real mailbox has a telephone extension, whereas a virtual mailbox does not..

- **Personalized Mailboxes**

  Each mailbox owner can personalize his mailbox by recording a personal greeting, assigning a personal password to the mailbox and setting optional parameters.

- **Personal Greeting**

  Mailbox owners can record or change personal greeting at any time from any touch-tone telephone. Callers first hear the personal greeting of the called extension and then can leave a message.

- **Day and Time Stamp**

  The system administrator can program the AVM JR. to indicate at the start of each message the day and time the message was recorded.

- **Message Deletion**

  A mailbox owner can manually delete messages or the system administrator can program the AVM JR. to automatically delete all messages after a specific number of days.

- **Message Forwarding**

  A mailbox owner can forward a copy of a message to another mailbox or mailbox group. The mailbox owner can also record an introduction to the forwarded message.

- **Message Reply**

  Mailbox owners can reply, directly, to a message and record a message in the sender's mailbox.

- **Mailbox Groups**

  A caller can send at one time a message to all the members of a mailbox group.

  All defined mailboxes belong to the "All Group" mailbox group. In addition, the system administrator can create up to four mailbox groups, each containing up to twenty mailboxes. Mailboxes can belong to more than one group and can be added to or deleted from a mailbox group by the system administrator. Each mailbox group can be assigned with a mailbox group greeting.

- **Individual Language Selection**

The mailbox owner or caller can select one of the languages supported by the AVM Jr. When the mailbox owner or the caller enters the mailbox, the AVM Jr automatically switches to the selected language.

- **Adjustable Recording Length**

    The System administrator can select the length of all recorded messages in the AVM Jr. The selected length will control the following types of messages: scripts, greeting, names, and incoming messages. Changing this parameter will affect the operation of the AVM Jr.

1.2 About this Manual

This manual presents information needed to install, program and maintain the AVM JR., Version 6.xx. It is divided into the following sections:

1. **INTRODUCTION**
   Introduces the AVM JR. and lists its features.

2. **DESCRIPTION AND INSTALLATION**
   Provides a functional description of the AVM JR., installation instructions and specifications.

3. **DTMF PROGRAMMING**
   Describes how to program the AVM JR. from any DTMF or system telephone.

4. **PROGRAMMING BY COMPUTER**
   Describes how to program the AVM JR. using the Voicemail Utility Program.

5. **USER OPERATING INSTRUCTIONS**
   Explains how to program and use a mailbox.

6. **TROUBLESHOOTING**
   Presents answers to commonly asked questions on operating the AVM JR..

APPENDIX A
Summarizes the programming commands.

APPENDIX B
Contains the DTMF programming forms.

APPENDIX C
Lists the system messages

APPENDIX D
Shows SMDR connections and DIP switch settings

APPENDIX E
Shows telephone system programming in detail.

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2. DESCRIPTION AND INSTALLATION

The AVM JR. is a digital system consisting of a:

- Sophisticated DSP voice-processing device

- Flash memory for voice recording and storing KSU parameter information

- Central Processing Unit

- Two or four audio channels

- Real-time clock

The AVM JR. provides two major services:

- **Automated Attendant Service**

  Uses predefined menus to direct calls to a specific department, extension or mailbox.

- **Voice Mail Service**

  Receives and delivers messages. Each mailbox has its own number and the mailbox owner has a password to enable him to access his mailbox.

  Messages can be saved, deleted or transferred to other mailboxes. In one step, the mailbox owner can also send an identical message to a group of mailboxes or to all the mailboxes in the system.

You can customize the AVM JR.'s Automated Attendant and Voice Mail systems to suit the needs of your company. You can configure:

- KSU parameters, such as hook flash time.

- Automated Attendant script menus and customized "Busy", "No Answer" and "Do Not Disturb" menus in up to three different languages simultaneously.

- Voice Mail features, include: mailboxes, mailbox groups and various types of message notifications for each mailbox.

2.1 Base System

The AVM JR. comes with two lines and ten hous of recording time.

You can upgrade the AVM JR. by adding a two line expansion card to the motherboard to provide four lines

2.2 *Physical Description*

The functional components of the AVM JR. are located on the side panel. The LED's are on the left side of the front cover. The bottom panel has two indented holes for wall mounting.
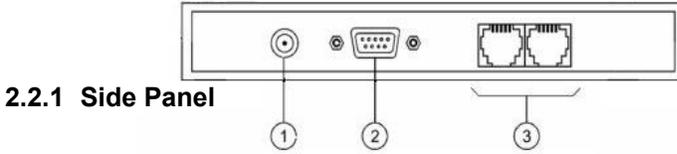
2.2.1 Side Panel

Figure 2-1 Side Panel

The numbered items in the following description correspond to the labels in Figure 2-1.

1.	Power Supply Connector	Connects the AVM JR. to the external power supply
2.	RS-232 Connector	Connects the AVM JR. to the Key System or a PC
3.	2 RJ-11 Sockets	Connects the AVM JR. to 2 or 4 Key System extensions

2.2.2 Front Panel

Figure 2-2 LED's on the Front Panel

The following table describes the function of the four LED's on the front panel.

STATUS	DAY	NIGHT	HOLIDAY	AUTO
Day Mode: Manual	On	Off	Off	Off
Night Mode: Manual	Off	On	Off	Off

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Holiday Mode: Manual	Off	Off	On	Off
Break Mode Manual:	On	On	Off	Off
Day Mode: Auto	On	Off	Off	On
Night Mode: Auto	Off	On	Off	On
Break Mode: Auto	On	On	Off	On
System Error[1]	Off	Flashing	Off	Off
System Error[1]	Flashing	Flashing	Flashing	Flashing
System Error[1]	Flashing	Flashing	Flashing	Off
Automatic Self-Test	On	On	On	On

[1] Please contact technical support.

2.3 Installation

The AVM JR. is delivered completely assembled. It is designed for mounting on a wall close to the KSU.

2.3.1 Unpacking

Before unpacking, inspect the package. If you notice any damage, immediately report it to technical support.

➤ **To unpack the AVM JR.:**

1. Place the package on a flat surface and open it.

2. Remove the contents of the package and place them on a clean surface.

3. Remove all packing material.

4. Inspect the contents. If you notice any physical damage, immediately report it to technical support.

2.3.2 Installing the AVM JR.

➤ **To install the AVM JR.:**

1. Mount the unit on a wall close to the KSU by using the drill template to place the two screws.

2. Connect the RJ-11 connector on one end of the cables to the RJ-11 sockets on the side panel of the AVM JR.. Connect the other end of the cables to one or two analog telephone lines on the Main Distribution Frame (MDF) of the KSU (see Figure 2-3).

Note: Each RJ-11 socket on the side panel of the AVM JR. can support up to two single line extensions.
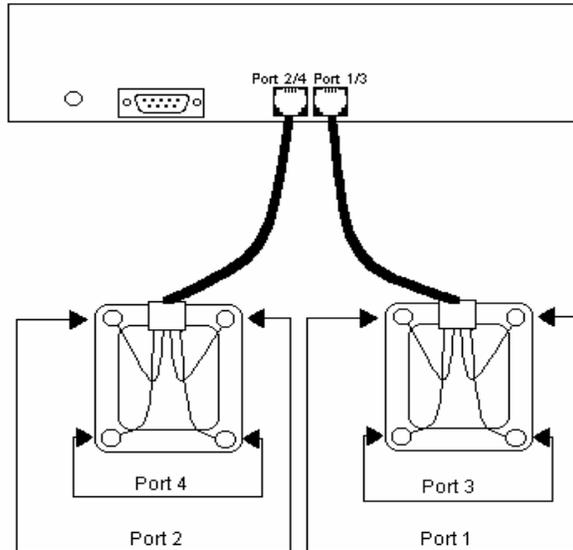
Figure 2-3 Analog Line Connections

4. On the side of the AVM JR., plug the 9V DC adapter jack into the power supply connector.

5. Plug the 9V DC adapter into the main power supply outlet to turn the AVM JR. on. The LED's on the front panel turn on and off one after another and then the LED indicating the status of the AVM JR. turns on.

6. Connect one end of the RS-232 cable to the AVM JR.'s RS-232 connector and the other end to the RS-232 connector of the SMDR.

    -   If you are using an SMDR-E unit, you should plug the RS-232 cable into the port labeled COM 2 on the SMDR.

    -   If you are using an SMDRU (KDX-500) unit you should plug the RS-232 cable into the port labeled CN10 (Com 3)

    Note: *If you are attaching a caller id unit or InnFone call accounting system to the SMDR along with the voicemail you must remove pin 3 from the DB-9 connector that attaches to the SMDR RS-232 port. However, please contact technical support before doing this to verify your application.*

    -   Refer to APPENDIX D for cabling diagrams

7. Set your dip switch settings on the SMDR

- If you are using an SMDR-E you should turn switch one (1) on and have six (6) off. The rest do not affect the voicemail interface

- If you are using an SMDRU (KDX-500), you should set DIP switch 6 to the on position.

- Refer to APPENDIX D for SMDR switch location.

8. Call each AVM JR. line from any extension and verify the answer. You should hear the default greeting (system message no. 000. See Appendix C).

9. Program the AVM JR. according to your required applications.

10. Program the analog station ports you are using as voicemail ports in the KSU. Refer to APPENDIX E for programming procedures for your particular system as they vary between systems.

11. Program the voicemail ports into a station hunt group. Refer to APPENDIX E for programming procedures for your particular system as they vary between systems.

12. Program the voicemail to ring for incoming calls, either delayed or direct. Refer to APPENDIX E for programming procedures for your particular system as they vary between systems.
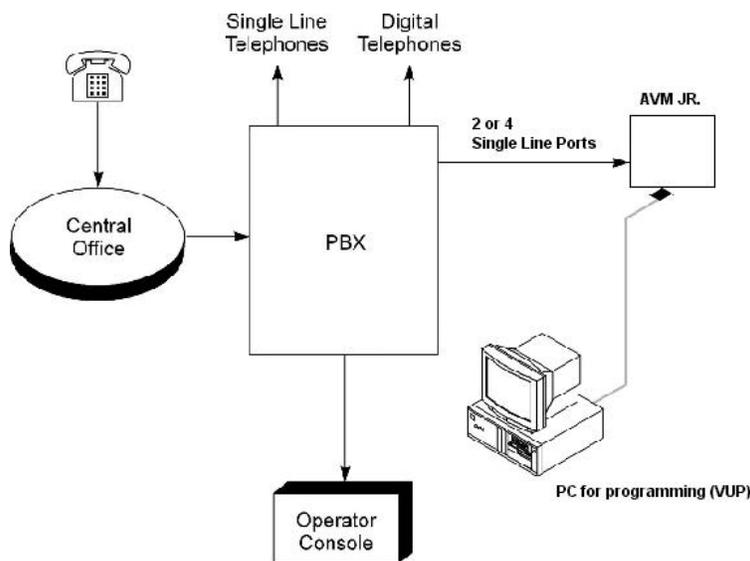
Figure 2-4 System Installation

2.3.3 Expanding the System

The basic AVM JR. includes two lines and ten hours of recording time. You can expand the AVM JR. to four lines by adding expansion cards.

2.3.3.1 Expanding to Four Lines

The two-port expansion kit contains:

- 2-port expansion card

- 4-wire connector

- Two plastic stand-offs

➤ **To install the expansion card:**

1. Disconnect all external cables and connectors.

2. Remove the 9V DC adapter power plug from the main power supply outlet to turn the AVM JR. off.

3. Open the AVM JR.'s top cover by unscrewing the four screws.

4. Place the two plastic stand-offs into the corresponding holes.

5. Insert the expansion card into the corresponding J6 connector.

6. Connect one end of the 4-wire cable to J5 on the motherboard and the other end to J5 on the expansion card.

7. Replace the top panel cover and plug the 9V DC adapter into the main power supply outlet to turn the AVM JR. on.

8. Reconnect all the external cables and connectors to the AVM JR..

9. Connect your two new analog ports to the corresponding connectors on the AVM JR.

10. Program your two new ports as voicemail ports. Refer to APPENDIX E for programming procedures for your particular system as they vary between systems.

11. Program your two new ports in your voicemail station hunt group. Refer to APPENDIX E for programming procedures for your particular system as they vary between systems.

AVM JR. automatically detects the two new lines when it is turned on.

2.4 Specifications

DC Power Supply	9V DC/800 mA
Line Voltage	24V to 72V DC
DC Leakage Current	< 10 μA
On-hook Insulation Resistance between Line Terminal and the Ground	0V to 100V DC > 5 MΩ 100V to 200V DC > 30 KΩ 500V AC/50 Hz > 20 KΩ 100V AC/25 Hz > 100 KΩ
Ring Capacitor	0.47 μF ± 10%
On-hook Impedance	@ 50V DC, 40V AC/25 Hz > 3000 Ω
Ring Detect	27V to 100V AC/16 to 60 Hz
DC Resistance (off-hook)	24V to 66V DC @ 20 to 100 mA 100 to 350 Ω
Impedance (off-hook)	300 to 3400 Hz 500 to 700 Ω

Imbalance Ratio	300 to 3400 Hz > 46 db
Return Loss	300 to 3400 Hz > 18 db
Current during Break	< 700 μA

DTMF Transmission:
    Frequency Tolerance
    Frequency Level (High Group)
    Frequency Level (Low Group)
	
	+1.5%
	-6 to -8 dBm
	-8 to -10 dBm

Inter-digit Pause in Tone Dialing	70 to 80 ms
Fax CNG Tone Detection	1100 Hz ± 38 Hz

3. DTMF PROGRAMMING

You can program the AVM JR. by:

- Telephone using DTMF tones

- Computer using the Voicemail Utility Program (see Section 4)

This section describes programming the AVM JR. using DTMF tones.

Note: You will hear a confirmation tone every time you enter a programming command.

3.1 Entering and Exiting the Programming Mode

The AVM JR. does not handle calls when in the programming mode.

➤ **To enter the programming mode:**

1. Connect a single line extension to the AVM JR.. (This should have been done during the installation)

2. Call the single line extension from any other extension on the system.

3. Wait until the AVM JR. answers and plays the opening menu. Then dial *900.

*Note: If you are calling from a system extension that has a mailbox set up for it you will first have to dial the mailbox password and then from the mailbox menu dial "9" to get to the main greeting. You can then dial "*900"*

4. Dial the System Administrator's password (the default password is 1234) to enter the programming mode.

➤ **To exit the programming mode:**

- Dial *900.
  –or–
  Do not dial for one minute.

*Note: If you exited the programming mode by dialing *900, the AVM JR. plays the opening menu. You can then test the changes made to the system.*

3.2 First Time Programming Checklist

1. Call from a system extension to the AVM JR.. You will hear the default message (system message 000 - see Appendix C).

2. Dial *900 and the administrator password (default: 1234) to enter the programming mode.

3. Set the KSU parameters (see Sections 3.3 and 6) to ensure the proper operation of the AVM JR. with your KSU.

   Note: These parameters are set by the factory for a 2-digit system all flash times and message light parameters should not have to be changed.

4. Set the AVM JR's real-time clock (see Section 3.4).

5. Set the system schedule (see Section 3.5).

6. Create mailboxes (see Section 3.6.1).

7. Define a notification type for each mailbox (see Section 3.6.3).

8. Define notification parameters (i.e., message light on and message light off and interval between ring notification in Section 3.6.3.) Message light parameters are set from the factory.

9. Record (see Section 3.7.1) and program (see Section 3.7.2) script menus for the Automated Attendant. Make sure you define the mailboxes before building Automated Attendant script menus.

   Important:Make sure you record the Day Opening script (script 00) before using the AVM JR. for the first time.

3.3 Defining KSU Parameters

To integrate the AVM JR. with your KSU, apply the following parameters to the AVM JR.. To obtain your current KSU parameters, check your Programming Manual or the current programming setup.

Table 3-1 presents the commands you must enter to apply the KSU parameters to the AVM JR..

Table 3-1 PBX Parameter Commands

OPERATION	COMMAND	DEFAULT
Extension Size	***300 + X** Where X is a digit 1-4 You can only change this parameter if mailboxes and/or legal extensions have not yet been defined.	2
Cut off time for continuous call progress tone detection	***301 + X** Where X= cut off time in seconds (0-9)	6 seconds

OPERATION	COMMAND	DEFAULT
Number of rings before the line is answered	***310 + X +Y** Where X is the port number (1-4) Y is the number of rings (1-9) *Note: this field will only be in affect if the SMDI integration is not working. To program ringing to voicemail see APPENDIX E.*	1 for port 1 1 for port 2 1 for port 3 1 for port 4
Time to wait for No-Answer	***311 + XX** Where XX is 00-99 seconds. This code is applicable only when supervised transfer is selected	20 seconds
Legal KSU Extensions	***320 + Y + First Ext. + Last Ext. + #** where Y is a group number (0-9). Example: *320 0 330 350 # *320 1 355 375 # You can define up to 10 groups of legal extensions. If a caller dials an extension by direct dialing (code 170), AVM JR. checks if the extension is legal. If the extension is not legal, AVM JR. does not transfer the call.	None
Resetting a group	***320 + Y + 000 + 000 + #** (the two groups of zeros can be 2, 3, or 4 digits long, according to the extension size)	None
Resetting all groups	***320 + #**	None
Operator ID Code	***330 + X** where X is a digit 0-9 When the caller dials this digit during *any* script message, the call is transferred to the operator.	0
Programmable code for retrieving messages	***331 + X** Where X is a digit 0-9 When the caller dials this digit at the no answer or busy greeting for their mailbox the system will prompt them for their password	9
Disconnect Code	***333 + Code[1] + #** The AVM JR terminates the call when it receives the disconnect code. The code can include up to four digits. Legal values for this code can be any combination of 0-9, *, # and A-D	###
Clear Disconnect Code	***333 + #**	
External Access Code	***340 + X** where X is the external access code (0-9). This code is applicable for external notification.	9

OPERATION	COMMAND	DEFAULT
Clear External Access Code	***340 + #**	
Pause before and after external access code	***341 + X** Where X is the length of the pause in seconds (0-9)	2 seconds
Transfer mode for all extensions	***350 + X + Y** X = 1; All Extensions except the operator X = 2; Operator extension only Y = 0; Non Supervised Y = 1; Supervised Mode Y = 2; Semi Supervised Mode	Non-Supervised
Day Operator, Night Operator, Fax and Supervisor's Extension numbers	***360 + X + YYYY + #** where: X = 1; Day operator X = 2; Night operator X = 3; Fax extension X = 4; Supervisor extension *One mailbox can be defined as Supervisor. When the storage memory reaches 80% of its capacity, a message is sent to this mailbox indicating the situation.* YYYY = Corresponding extension number	0 0 - -
Delete the extension assignments	***360 + X + #** Where: X = 1; Day operator X = 2; Night operator X = 3; Fax extension X = 4; Supervisor extension	
Volume level	***369 + X** Where: X = volume level (0-9), 9 = Loudest	5
Flash-1	***370 + XXX** where XXX is a 3-digit number (000-980) in increments of 20 ms. Example: *370 300 sets Flash-1 to 300 ms	600 ms
Flash-2	Flash-2 is fixed at 1200 ms. Flash-2 is used in some KSU's for Recall from No-Answer or Busy Codes.	1200 ms

OPERATION	COMMAND	DEFAULT
Busy, Disconnect and DTMF Off/On time	***371 + X + YYY** where: X = 1; busy off (100-980 ms) X = 2; busy on (100-980 ms) X = 3; disconnect off (100-980 ms) X = 4; disconnect on (100-980 ms) X = *; DTMF off (000-980 ms) X = #; DTMF on (000-980 ms) YYY = Cadence in milliseconds in increments of 20 milliseconds	 500 ms 500 ms 240 ms 240 ms 200 ms 60 ms
Busy Signal Cadence Check	***375 + XXXX + #** Where XXXX is a busy extension number. Checks the busy signal by dialing the busy extension number and playing the busy cadence values.	
Voice and DTMF Sensitivity	***376 + X + Y** X = 1; Voice sensitivity level X = 2; DTMF sensitivity level Y = Sensitivity level (0-9) The volume at which the AVM JR detects voice when the called extension answers or the volume level at which the unit detects DTMF throughout it's operation. *Note: The higher the sensitivity level, the higher the sensitivity to voice or DTMF.* In order to activate the new selection, a new call must be initiated	 2* 2* * Setting of 2 is equivalent to 5 in previous versions.
Automatic Gain Control (AGC)	***377 + X** X = 0 AGC disabled X = 1 AGC enabled When enabled, AVM JR will adjust the incoming messages volume to a set volume level. In order to activate the new selection, a new call must be initiated	Enabled
DTMF amplitude	***379 + X** Where X = volume level (0-9), 9 = Loudest	5
Procedural codes sent to the PBX in order to perform a specific task	***380 + X + CODE[1] + #** X = 1; LED 1 notification code X = 2; LED 2 notification code X = 3; LED notification off code X = 4; Transfer code X = 5; Recall from Busy X = 6; Recall from No Answer **CODE**[1] = Respective PBX code	 743X - 740X Flash 1 + Ext Flash 1 Flash 1

OPERATION	COMMAND	DEFAULT
Delete a specific procedural code	***380 + X + #** X = 1; LED 1 notification code X = 2; LED 2 notification code X = 3; LED notification off code X = 4; Transfer code X = 5; Recall from Busy X = 6; Recall from No Answer	
Dial a String from the Auto Attendant to the KSU	***381 = X = YY…YY + *** X=String number (0-9) YY…YY = DTMF string Note: Use CODE[1]	3.3
Answer number of samples	***386 + X** Where: X = number of samples (0-9) Used for Supervised Transfers to determine an answer condition	5

[1] Refers to Key System codes. Each code contains digits 0-9, *, #, Flash-1,
    Flash-2, Pause and Extension Number.

Note: The PBX codes for Message Light On and Message Light Off can also include A-D.

When entering a code, dial:

*0	for extension	*5	for A
*1	for pause	*6	for B
*2	for Flash-1	*7	for C
*3	for Flash-2	*8	for D
*4	for #	**	for *

3.4 Setting the Time and Date

Table 3-2 presents commands used to set the AVM JR. clock and calendar.

Table 3-2 Commands to Set the AVM JR. Clock and Calendar

OPERATION	COMMAND
Setting the time	***420 + HH + MM** where HH = hour (00-23) MM = minutes (00-59) Example: *420 15 25 stands for 3:25 P.M.
Setting the date	***430 + DD + MM + YY** where DD = date of the month (01-31) MM = month (01-12) YY = year (00-99) Example: *430 15 03 97 March 15, 1997 *Note: 00 represents Year 2000.*
Listening to the system time	***440** The system announces the date and time.

3.5 Programming the Operational Mode

The AVM JR. can operate in Day, Night, Break, or Holiday mode. If the AVM JR. is in the Auto mode, it automatically changes modes according to programmed weekly working hours.

Table 3-3 Programming the Operational Modes

OPERATION	COMMAND
Selecting an Operational Mode	***400 + X** where X stands for the operational mode. Day mode = 0 (default mode) Night mode = 1 Holiday mode = 2 Auto mode = 3 Break mode = 4
Selecting time stamp format (Applicable to English only)	***410 + X** where X = 0 means the time stamp is in 12-hour format (default) X = 1 means the time stamp is in 24-hour format

OPERATION	COMMAND
Setting the Working Time (for Auto mode only)	***450 + D + HH MM + HH MM** where D is the day of the week (1-7)[1] First HH MM = start of work time Second HH MM = end of work time Repeat for all days of the week. Example: *450 1 08 30 1700 means that the AVM JR. will play the Day mode opening greeting (script message 00) on Monday from 8:30 until 17:00. It will play the Night mode opening greeting (script message 10) the rest of the time. *Note: Day 1 is Monday day 2 is Tuesday day 3 is Wednesday day 4 is Thursday day 5 is Friday day 6 is Saturday and day 7 is Sunday.*
Setting the Break Time (for Auto mode only)	***460 + D + HH MM + HH MM** where D is the day of the week (1-7)[1] First HH MM = start of break time Second HH MM = end of break time Repeat for all days of the week. Example 1: *460 1 13 15 14 30 AVM JR. will play the Break mode opening greeting (script message 15) on Monday, from 13:15 until 14:30. *Note: Day 1 is Monday day 2 is Tuesday day 3 is Wednesday day 4 is Thursday day 5 is Friday day 6 is Saturday and day 7 is Sunday.*
Entering annual holiday dates (For Auto mode only)	***470 + DD + MM + hh:mm + hh:mm** Where: DD = Day of month (01-31) MM = Month (01-12) Hh:mm = Start time; Hour and minutes in 24 hour format Hh:mm = End time; Hour and minutes in 24 hour format Repeat for multiple days Example 1: *470 02 12 08 15 23 45 The AVM JR will play the Holiday mode opening greeting on December 2nd, from 8:15 until 11:45.
Delete all holidays on a specific date	***470 + DD + MM #** Where: DD = Day of month (01-31) MM = month (01-12)
Delete all holidays on a specific month	***470 + ** + MM + #** Where: MM = month (01-12)
Delete all holidays	***470 + #**

Comment:

OPERATION	COMMAND
External Notification Active Time	***490 + hh:mm + hh:mm** Where: hh:mm = Start time; Hour and minutes in 24 hour format hh:mm = End Time; Hour and minutes in 24 hour format Example 1: ***490 09 00 20 00** AVM JR will activate the external notification between 9 am to 8 pm.

3.6 Programming the Voice Mail

3.6.1 Creating Mailboxes

You can define up to 128 mailboxes. The mailbox number and its extension number are identical. Make sure that the number of digits in the mailbox number conforms to the number of digits in an extension (*300).

You can select one the languages supported by the AVM Jr for each mailbox. After selecting a language, the AVM Jr:

- Plays all menus in the selected language.

- Plays all system messages (e.g., time stamp and error messages) in the selected language.

- If ring or remote notification is enabled, the mailbox owner is notified in the selected language.

You can also create a virtual mailbox for a user who does not have an extension. When a caller dials a virtual mailbox number on the Automated Attendant menu, the call is immediately transferred to the Do Not Disturb menu and the caller is given the option to leave a message.

You may use the external notification features for the virtual mailboxes. Do not select internal notification because virtual mailboxes do not have extensions.

You can assign a mailbox for announcing messages without the ability to record incoming messages. This mailbox is called an Announcer mailbox. All mailboxes can be changed from regular mailboxes to an announcer and vice versa at any time.

Table 3-4 Commands to Create Mailboxes

OPERATION	COMMAND
Creating a range of mailboxes	***500 + First Mailbox + Last Mailbox + #**
Creating one mailbox	***501 + Mailbox Number + #**

Selecting an announcer mailbox	***502 + XXXX + Y + #** Where: XXXX = existing mailbox number Y = 0; Regular mailbox (default) Y = 1; Announcer mailbox
Deleting a mailbox	***510 + Mailbox Number + #** Make sure to remove any transfer to the deleted mailbox from the Automated Attendant scripts.
Creating a range of <u>virtual</u> mailboxes	***520 + First Mailbox + Last Mailbox + #**
Creating one <u>virtual</u> mailbox	***521 + Mailbox Number + #**
Defining whether to play or skip the time and date stamp during message playback for a range of mailboxes real or virtual.	***530 + First Mailbox + Last Mailbox + B + #** where B = 0; Play the date and time stamp (default) B = 1; Skip the date and time stamp
Defining whether to play or skip the time and date stamp during message playback for one mailbox real or virtual	***531 + Mailbox Number + B + #** where B = 0; Play the date and time stamp (default) B = 1; Skip the date and time stamp
Defining a language for a range of mailboxes	***532 + First Mailbox + Z + #** where Z=1 or 2 (language numbers)
Defining a language for a mailbox	***533 + Mailbox Number + Z +#** where Z = 1 or 2 (language numbers)

3.6.2 Creating Mailbox Groups

You can create up to four mailbox groups for distributing messages. Each mailbox group can contain up to twenty mailboxes. The group numbers are by default 000, 001, 002 and 003. Group 099 consists of all mailboxes (real and virtual).

You can select a different number for the first digit of the mailbox groups using code *545. **Make sure that you select a number that does not interfere with your KSU's numbering plan.**

Table 3-5 Commands to Create Mailbox Groups

OPERATION	COMMAND
Adding a mailbox to a group	***540 + Group Number + Mailbox Number + #** *Note: You must define the mailbox before adding it to a group.*
Changing the number of the first digit in the mailbox groups	***545 + X** where X is the first digit of the mailbox groups. Default is 0.
Deleting a mailbox from a group	***550 + Group Number + Mailbox Number + #**
Resetting a group	***560 + Group Number + #** *Note: Resetting a group deletes all the mailboxes within that group.*

3.6.3 Notification

AVM JR. notifies the mailbox owner of new messages in different ways according to the system configuration. Notification may be local or remote.

> Notification is *always done on port* two.

Local Notification

You can select one of the following options:

- *None*. The notification feature is disabled.

- *Message Light On*. The AVM JR. signals the Key System that a mailbox has received the first message. The Key System then turns on the message light of the telephone extension. If the Message Light Off code is programmed, the code is sent to the KSU after the mailbox owner retrieves all his new messages.

The System administrator can set the notification method to one of the two states (code *760)

- Notification on 1st new message

- Notification on every new message

- *Rings*. The AVM JR. rings the notified extension for a programmed time period (code *730). When the mailbox owner answers, the AVM JR. prompts him to enter his password. After entering the password, the mailbox owner may retrieve his messages. If the mailbox owner does not answer, the AVM JR. tries again at programmed intervals (code *720). The AVM JR. stops sending Ring notifications after the mailbox owner retrieves all his new messages or the maximum number of retries has been made (code *750).

Remote Notification

The mailbox owner may choose to be notified at a remote location (i.e., his mobile or home telephone number) by entering a remote telephone number of up to 20 digits. You can use any combination of *, #, A-D, 0-9, and Pause (*1) when setting the remote notification telephone number.

After remote notification is enabled, the AVM JR. will dial the remote telephone number and notify the mailbox owner of any new messages. After entering the password, the mailbox owner can retrieve his messages. The duration of remote notification rings is programmed using code *730.

The AVM JR. stops sending Ring notifications after the mailbox owner retrieves all his new messages or the maximum number of retries has been made (code *750). The mailbox owner must obtain permission from the System Administrator to enable remote notification. The System Administrator must use code *710 or *711 to grant permission.

The remote activation time can be programmed so the administrator can decide on the daylights hours for the external notification to be activated. The time span of this service si programmed using code *490.

When permission has been granted and the mailbox owner enables remote notification, the AVM JR. first dials the external access digit (programmed using code *340) and then dials the mailbox owner's remote telephone number.

Note: Make sure that you enter the remote telephone number before enabling remote notification.

> Notification is *always done on port two*.

3.6.3.1 Setting Notification for Mailboxes

Notes:

1. *Virtual mailboxes do not have extensions and may not be configured for internal notification.*

Table 3-6 Commands to Program Notification for Mailboxes

OPERATION	COMMAND
Setting local notification for a range of real mailboxes	***700 +First Mailbox + Last Mailbox + X+#** where X = 0 means notification is disabled X = 1 means Message Light On 1 is selected X = 4 means Rings is selected
Disable local notification for all mailboxes	***700 + #**
Setting local notification for one real mailbox	***701 + Mailbox + X + #** where X is defined as above
Permitting remote notification for a range of mailboxes real or virtual	***710 + First Mailbox + Last Mailbox + Y + #** where Y = 0 means remote notification is not permitted Y = 1 means remote notification is permitted
Disable remote notification for all mailboxes	***710 + #**
Permitting remote notification for one mailbox real or virtual	***711 + Mailbox + Y + #** where Y = 0 means remote notification is not permitted Y = 1 means remote notification is permitted

Message Notification Interval	***720 + XX** where XX is a 2 digit number in minutes. Default is 30 minutes. This timer is how often the system checks to see if a mailbox has a new message waiting to notify the mailbox owner.
Ring Notification Duration	***730 + X** where X = 0 stands for short time for rings (default) X = 1 stands for long time for rings
Maximum number of days to store messages	***740 + XX** where XX stands for number of days (00 – 99), 00 + Messages are not deleted by Voice Mail System automatically.
Time to wait after off-hook for notification dialing	***741 + X** X = time in seconds (0 – 9)
Number of Ring Notification retries	***750 + XX** where XX refers to the number of ring notification attempts. Default is 05.
Activate the LED notification	***760 + X** Where X = 0 for the 1st new message (Default) X = 1 for every new message

3.7 Programming the Automated Attendant Script Menu

The AVM JR. supports up to 21 script messages (00-20) for building the Automated Attendant menu. The AVM JR. also supports another six script messages in both languages (21-26) for Busy, No Answer and Pst Recording menu (see section 3.7.5)

The opening scripts for each line are selected by command *112

The following numbers are dedicated to specific script messages:

- Script message number 00 to the Day Mode Opening Menu

- Script message number 10 to the Night Mode Opening Menu

- Script message number 15 to the Break Time Opening Menu

- Script message number 20 to the Holiday Mode Opening Menu

The rest of the script messages (01-09, 11-14 and 16-19) may be used in all modes without limitations.

Each script message has three parts:

- Script message number

- Recorded announcement
- Programming that indicates the action to be taken when a caller dials one digit (0-9) or dials nothing during an announcement

3.7.1 Recording Script Messages

Table 3-7 describes how to record script messages.

Table 3-7 Commands for Recording Script Messages

OPERATION	COMMAND
Recording a script message	***100 + XX + Beep + Record + #**
Playback a script message	***101 + XX**
Deleting a script message	***102 + XX**

Note: XX is script message 00-26, 31 - 36.

IMPORTANT: You must record script message 00 for AVM JR. to operate properly.

3.7.2 Programming Script Messages

You can program each script message separately. The programming command format for script messages is:

> *** + Command Code + XX + B + YY + #**

Where:

- **Command Code** defines the action that should be taken when B is pressed during playback of script message XX.

- **XX** refers to a script message numbers.

- **B** refers to the digit dialed by the caller during playback of script message XX or at the end of the message. B can be 0-9 or * (for end of message).

- **YY** refers to the destination, which can be an extension, mailbox or another script message.

IMPORTANT: Do not define the Operator ID digit on script messages.
Table 3-1 describes how to define the operator ID digit which is then automatically reserved on all script messages.

The command codes used to build the Automated Attendant Script Menu are presented on the following pages. You can program one of the following actions for each script message:

- Play another script message

- Return to the opening menu

- Play another script message and change the language

- Transfer the call to an extension

- Transfer the call to the operator

- Transfer the call to a mailbox

- Disconnect the line

- Leave a message in a mailbox

- Retrieve messages from a mailbox

- Directly dial an extension

- Directly transfer a call to a mailbox

- Place a call on hold

- Blind Transfer to the busy extension

- Play the directory listings

Technicians and System Administrators should program the script messages according to the application.

3.7.2.1 Programming the End Of Message (OEM) Timeout for Each Script

Sets the EOM timeout period for each script individually. This is the amount of time to wait after playing the script message before processing the EOM option.

Command: ***105 + XX + Y + #**

Where:

XX = Script number

Y = Timeout in seconds

Example 1: *105 05 6 #

   The AVM JR sets the EOM timeout to 6 seconds for script message 05.

3.7.2.2 Play another Script Message

Build sub-menus by transferring the caller from one script message to another when the caller dials a certain digit.

Command: ***110 + XX + B + YY + #**

Example: *110 00 3 02 #

The AVM JR. plays script message 02 when "3" is dialed during playback of script message 00.

Note: Make sure to record any script message you use.

3.7.2.3 Select Opening Script

Selects the opening script message for individual ports. This allows you to have different greetings for different ports.

Command: ***112 + XX + YY + Z + #**

Where:

XX = Default script number 00,10,15 or 20

YY = Replacement script number 00-20

Z = Port Number 1-4

3.7.2.4 Return to the Opening Menu

Transfers the caller to the opening main menu. Used mainly by Busy and No-Answer script messages (21-24 for the first language, 31-34 for the seond language), where the caller is given the option to return to the main menu. The caller is transferred to script 00 in Day mode, script 10 in Night mode, script 15 in Break mode and script 20 in Holiday mode.

Command: ***115 + XX + B #**

Example: *115 21 5 #

The AVM JR. plays the opening menu when "5" is dialed during playback of script message 21.

3.7.2.5 Transfer to a Script Message and Change the Language

Changes the system Language and plays another script message. The AVM Jr supports up to 2 system languages simultaneously (factory loaded)

Command: *117 + XX + B + YY + Z + #

XX refers to the current script message

B Refers to the digit dialed by the caller during playback of script message XX

YY refers to the destination script message

Z refers to the system language digit (1 or 2)

Example;   *117 00 7 01 2#

The AVM Jr changes to the second language and plays script message 01 when "7" is dialed during playback of script

message 00.

NOTE: Make sure that the script message 01 has been recorded in the appropriate language.

3.7.2.6 Select default Language

The AVM Jr can support up to two languages. The default language is the language the AVM Jr automatically used if no other languages have been selected. To change the default language, dial *900 and the administrator password to enter the programming mode, then dial:

*118 + Z + #

Z = 1 is the first language
Z = 2 is the second language

3.7.2.7 Transfer the Call to an Extension

Transfers the caller to an extension or department (hunt group).

The designated extension number may contain up to 4 digits and does not have to be in the range of legal extensions.

Command: ***120 + XX + B + extension number + #**

Example 1: *120 05 3 123#

> The AVM JR. transfers the call to extension 123 when "3" is dialed during playback of script message 05.

Example 2: *120 00 * 782 #

> The AVM JR. transfers the call to hunt group 2 at the end of script message 00.

3.7.2.8 Transfer the Call to the Operator at the End of the Script Message (If nothing is dialed by the caller)

Transfers the call to the operator **at the end of the script message**. The operator extension is defined in Table 3-1 (codes *360 and *361).

The AVM JR. transfers the call in supervised, semi-supervised or non-supervised mode depending on code *351 (see Section 3.7.5).

Command: ***125 + XX + #**

Example: *125 00 #.

> The AVM JR. transfers the call to the operator at the end of script message 00.

3.7.2.9 Transfer the Call to a Mailbox

Transfers the caller to a specific mailbox number. The mailbox must be defined (see Section 3.6.1).

Command: ***130 + XX + B+ Mailbox number + #**

Example: *130 01 5 152 #

Transfers the call to mailbox 152 when "5" is dialed during playback of script message 01.

3.7.2.10 Disconnect the Line

Disconnects the call at the end of the script message or if the caller dialed the disconnect digit during playback.

This command may or may not include the following system message:

"Thank you and good-bye."

Command: ***140 + XX + *+Z+#**

Where:

Z = 0; means disconnect the line with no message.

Z = 1; means disconnect the line with the above system message

Example: *140 10 * 1 #

The AVM JR. plays the disconnection message and then disconnects the call at the end of script message 10.

3.7.2.11 Leave a Message in a Mailbox

Initiates the procedure for leaving a message in a mailbox. This can be used either during a greeting or in script messages 21, 23 and 25. When used during a greeting the user will be able to dial B+XX and then press TRF to send the caller directly into a mailbox. When used during script messages 21, 23 and 25 the system will put the caller into the mailbox that the call was for.

Command: ***150 + XX + B + #**

Example: *150 00 8 #

The AVM JR. asks for a mailbox number when "8" is dialed during playback of script message 00. After dialing the requested mailbox number, the caller hears the mailbox greeting and can leave a message.

3.7.2.12 Retrieve Messages from a Mailbox

Initiates the procedure for retrieving messages from a mailbox.

Command: ***160 + XX + B + #**

Example: *160 00 9 #

> The AVM JR. asks for a mailbox number and password when "9" is dialed during playback of script message 00. After dialing the requested mailbox number and password, the mailbox owner can retrieve his messages and access the user menu to record a personal greeting, change his password, etc.

3.7.2.13 Directly Dial an Extension

Enables the caller to dial an extension directly by programming the first digit of the extension. When a caller dials the first digit of an extension during playback of a script message, the AVM JR. stops the message and waits for the rest of the digits of the extension. The number of digits in an extension is defined by code *300 in Table 3-1. You can enter up to four different digits.

Note: You must program this option to enable the voicemail to transfer calls to extensions in the system.

Command: ***170 + XX + first digit(s) + #**

Example 1: *170 00 2 #

> The AVM JR. waits for the rest of the extension number when "2" is dialed during playback of script message 00. After the caller dials the rest of the extension number, the AVM JR. transfers the call to the extension.

Example 2: *170 00 2 4 #

> Same as Example 1, except the extension number starts with 2 or 4 (for extension numbers 2XX and 4XX).

3.7.2.14 Directly Transfer a Call to a Mailbox

Transfers the call directly to a mailbox number on the opening greeting script message only. This feature is similar to directly dialing an extension, except the call is transferred directly to a mailbox. This feature is used to place a caller directly into the mailbox of someone who may be out of the office or unavailable to take the call. You can enter up to four different digits.

*Note: Do not confuse this with *150. This option would be used (for example) if you had a live operator answering and transferring calls and then asking the caller if they want to leave a message.*

*Note: This option will not work if *170 is programmed for the same digit entry in the same script message.*

Command: ***175 + XX + first digit(s) + #**

Example 1: *175 00 2 #

> The AVM JR. waits for the rest of the mailbox number when "2" is dialed during playback of script message 00. After the caller dials the rest of the mailbox number, the AVM JR. transfers the call to the mailbox.

Example 2: *175 00 2 4 #

Same as Example 1, except the mailbox number starts with 2 or 4.

3.7.2.15 Place a Call on Hold

Gives the caller the option to remain on hold. Valid only for script messages 21-22 (for the first language), 31-32 (for the second language) which are reserved for the extension Busy menus.

Command: ***180 + XX + B +#**

Example: *180 21 3 #

The AVM JR. places the call on hold for 10 seconds before trying to transfer the call again when "3" is dialed during playback of script message 21.

3.7.2.16 Blind Transfer to a Busy Extension

Transfers a call in blind mode to a busy extension. Valid only for script messages 21-22 (for the first language), and 31-32 for the second language) which are reserved for the extension's Busy menus.

Command: ***185 + XX + B + #**

Example: *185 21 5 #

The AVM JR. immediately tries to transfer the call again when "5" is dialed during playback of script message 21.

Note: Both Place a Call on Hold and Blind Transfer to a Busy Extension are used to transfer calls to a busy extension. Place a Call on Hold retries every 10 seconds to transfer the call until the extension is available. Blind Transfer to a Busy Extension transfers the call immediately and unconditionally to the busy extension.

3.7.3 Directory Listing Programming

The directory-listing feature (Dial By Name) allows calls to be transferred to proper extensions based on recorded names and codes of mailbox owners. The directory listing parameters are set through the commands explained in the following paragraphs

3.7.3.1 Directory listing format

Changes the format of the directory listing. The AVM JR supports two directory-listing formats.

Command: ***011 + X**

Where:
X = 0; List according to the last name (Default)
X = 1; List according to the first name

3.7.3.2 Transfer to the directory listing

Transfer the call to the directory listing.

Command: ***111 + XX + B + #**

Where:

XX = Script Number

Example: *111 00 5 #

   Play the directory listing when "5" is dialed during playback of script message 00.

3.7.4 Reset Script Message Programming to Default

Resets a complete script message or only one entry (see Section 3.7.2) Does not delete the recorded script message.

Resetting a Complete Script Message

Command: ***190 + XX + #**

Example: *190 03 #

        Resets script message 03 to its default values.

Resetting One Entry in a Script Message

Command: ***190 + XX + B + #**

Example: *190 02 5 #

        Resets entry 5 in script message 02 to its default value.

Default Values

- 0-9. If a caller dials a digit that has not been programmed (or set to default) during playback of a script message, the AVM JR. plays "This entry is not supported" and repeats the script message.

- If the caller dials the Operator ID code, the call is forwarded to the operator extension regardless of script message programming.

- At the end of a script message. If the caller does not dial a number during playback of a script message, AVM JR. disconnects the call at the end of the message, unless otherwise programmed.

3.7.5 Supervised, Semi-Supervised and Non-Supervised Transfers

Transfer to an extension may be supervised, semi-supervised or non-supervised. In the supervised mode, the AVM JR. checks for Busy and No-Answer conditions. In the semi-supervised mode, the AVM JR. only checks for a Busy condition. In the non-supervised mode, the AVM JR. transfers the call to the extension without checking for a Busy or No-Answer condition.

The AVM JR is configured to detect Answer, Busy and Do Not Disturb conditions by recognizing and analyzing the Call Progress tones sent by the KSU.

The AVM JR. distinguishes between two types of transfers:

- Transfer to operator

- Transfer to the rest of the extensions

Table 3-8 explains how to program supervised, semi-supervised and non-supervised transfers to the operator and to the rest of the extensions.

Table 3-8 Commands to Program the Transfer Modes

OPERATION	COMMAND	DEFAULT
Transfer mode to all extensions	***350 + X + Y** where X = 1; All extensions except the operator X = 2; Operator extension only Y = 0; Non Supervised Y = 1; Supervised Mode Y = 2; Semi Supervised Mode	Non Supervised

3.7.5.1 Detecting a Busy Extension

If the AVM JR. detects a busy extension, it performs a Recall-from-Busy and by default plays system message 96 (if the extension has a mailbox) or 103 (if the extension does not have a mailbox). Refer to Section 3.7.5.3 for information on changing the default system messages.

3.7.5.2 Detecting a No Answer from an Extension

If the AVM JR. does not detect an answer from the extension, it performs a Recall-from-No-Answer and by default plays system message 97 (if the extension has a mailbox) or 104 (if it does not have a mailbox). Refer to Section 3.7.5.3 for information on changing the default system messages.

3.7.5.3 Changing the Busy and No Answer Menus

System messages 96, 97, 103, and 104 are default messages. The System Administrator can replace the system messages with script messages as follows:

- System message 96 (Busy and the extension has a mailbox) is replaced by script message 21 in the first language, and script 31 in the second language..

- System message 103 (Busy and the extension does not have a mailbox) is replaced by script message 22 in the first language, and script 32 in the second language.

- System message 97 (No-Answer and the extension has a mailbox) is replaced by script message 23 in the first language, and script 33 in the second language.

- System message 104 (No-Answer and the extension does not have a mailbox) is replaced by script message 24 in the first language, and script 34 in the second language

For instructions on programming the above script messages, see Section 3.7.2. For instructions on recording the script messages, see Section 3.7.1.

3.8 Additional Features

3.8.1 Changing Passwords

The AVM JR. uses three types of passwords:

- System Administrator's password
- Operator's password
- Mailbox owner's password (see Section 5.2.2)

A password always contains four digits (0-9). The default for all three types of passwords is 1234.

3.8.1.1 Changing the System Administrator's Password

The System Administrator can change his password by dialing code *900 to enter the programming mode, dialing the current password and then dialing:

*600 + XXXX

Where XXXX is the new 4-digit password. Use digits 0-9 only. Do not dial * and #.

Note: The System Administrator's password cannot be disabled.

3.8.1.2 Changing the Operator's Password

The System Administrator can change the operator's password by dialing code *900 to enter the programming mode, dialing the System Administrator's password and then dialing:

*601 + XXXX

Where XXXX is the new 4-digit password. Use digits 0-9 only. Do not dial * and #.

To disable the operator's password, enter "0000".

3.8.1.3 Resetting the Mailbox Password

The System Administrator can reset a mailbox password to its default (1234) by dialing code *900 to enter the programming mode, dialing the System Administrator's password and then dialing:

*570 + XXXX + #

Where XXXX is the mailbox number.

3.8.2 Activate Force Reorganize

The force reorganize option automatically reorganizes and optimizes the data stored in the AVM JR.

The system administrator can activate the Force Reorganize option by calling the AVM JR and, during the opening greeting, dialing

*900 + Password + *610

3.8.3 Changing to/from Day Light Saving Time

The operator can change to/from Day Light Saving time by calling the AVM JR and, during the opening greeting, dialing:

*7 + XXXX + Y

Where:

XXXX refers to the operator's password.

This password can be disabled. See Section 3.8.1.2.

Y = 0; Reduce the time by one hour
Y = 1; Increase the time by one hour

3.8.4 Changing the Operational Mode

The operator can change the operational mode by calling the AVM JR. and, during the opening greeting, dialing:

*8 + XXXX + Y

Where:

XXXX refers to the operator's password.

This password can be disabled. See Section 3.8.1.2.

Y = 0; Day Mode

Y = 1; Night Mode

Y = 2; Holiday Mode

Y = 3; Auto Mode

Y = 4; Break Mode

3.8.5 Playing a System Message

You can listen to any system message by dialing:

*690 + Z + XXX

Where:

Z refers to the language number

Z=1 is the first language

Z=2 is the second language

XXX is the message number

See Appendix C for a list of system messages.

3.8.6 Playing All System Messages

To listen to all system messages, dial *900 and the administrator password to enter the programming mode, then dial:

*691 + Z

Z refers to the language number

Z=1 id the first language

Z=2 is the second language

See Appendix C for a list of system messages

3.8.7 System Message Setting

To determine is some of the system messages are played, dial *900 and the administrator password to enter the programming mode, the dial:

*699 + X + Y

where X is system message affected:

X=1 system message 004

X=2 system message 102

Y=0 play the message (default)

Y=1 do not play the message

Y=2 (only when X=3) plays a message to mailboxes without a greeting message

3.8.8 Listening to the Software Version Number

To hear the AVM JR.'s software version number, dial *680.

3.8.9 Listening to the System Time and Date

To hear the current AVM JR. date and time, dial *440.

3.8.10 Resetting the System

The System Administrator can reset the AVM JR. to its factory default settings by dialing:***654 + * + XXXX + #**

Where XXX is the System Administrator's password.

3.8.11 Adjusting Recording Length

The System Administrator can select the length of the recorded messages in the AVM JR. The selected length of message (in minutes) will affect all recorded messages. The types of recorded messages that are affected are: script recordings, mailbox owners' greetings, name recordings and recorded incoming calls. To set message length dial *900 and the administrator password to enter the programming mode, then dial:

*790 + X

Where X = 1-9 minutes.

This parameter is set to two minutes by default.

4. PROGRAMMING BY COMPUTER

This section describes how to program the AVM JR. using the Voicemail Utility Program (VUP). You can work with the VUP online or off-line.

The VUP enables you to:

- Define PBX parameters
- Set the AVM JR. clock and calendar
- Create and maintain mailboxes
- Build Automated Attendant menus
- Review traffic statistics
- Print system parameters and statistics

All changes to the AVM JR.'s configuration are stored in the computer's memory until you send them as one block to the AVM JR.. We recommend that you save the new configuration in a file.

Using the VUP, you can also:

- Open a configuration file to make more changes or to download to the AVM JR.
- Open the default configuration file
- View AVM JR. statistics, e.g., line and memory utilization

4.1 Connecting the Computer to the AVM JR.

To work online, connect your computer to the AVM JR..

➤ **To connect your computer to the AVM JR.:**

1. Remove any cable attached to the AVM JR.'s RS-232 connector.

2. Connect one end of the RS-232 cable to one of the unused serial ports of your PC and the other end to the AVM JR.'s RS-232 connector as shown in Figure 4-1.
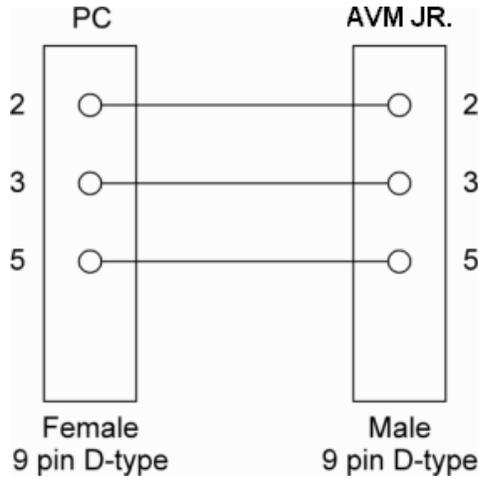
Figure 4-1 RS-232 Cable Connection

4.2 System Requirements

Before installing the VUP, check that your computer meets the following minimum requirements:

- PC 486 or higher

- 8 MB RAM

- 2 MB free hard disk space

- Microsoft Windows 3.1, Windows 95/98, Windows NT or higher

4.3 Installing the VUP

➤ **To install the VUP:**

1. Exit all open applications.
2. Insert the VUP installation diskette into the floppy drive on your computer.
3. Use File Manager or Windows Explorer to locate the setup file. Or with Windows 95/98 you may click on start, select run and type in X:\SETUP.EXE where X equals the drive letter
4. Double-click the setup file.
5. Follow the instructions on the screen.

4.4 Starting VUP

➤ **To start the VUP:**

- Click the **VUP** icon.
- Or in Windows 95/98 click on start, then click on Programs, Click on VUP and select VUP.

  Note: You may press the F1 key at any time to receive help on the current field that you are working in.

  *Note: If the VUP issues a warning message that it cannot open the current COM port, click **OK**.*

The VUP loads the data stored in the default configuration file and opens the main screen.
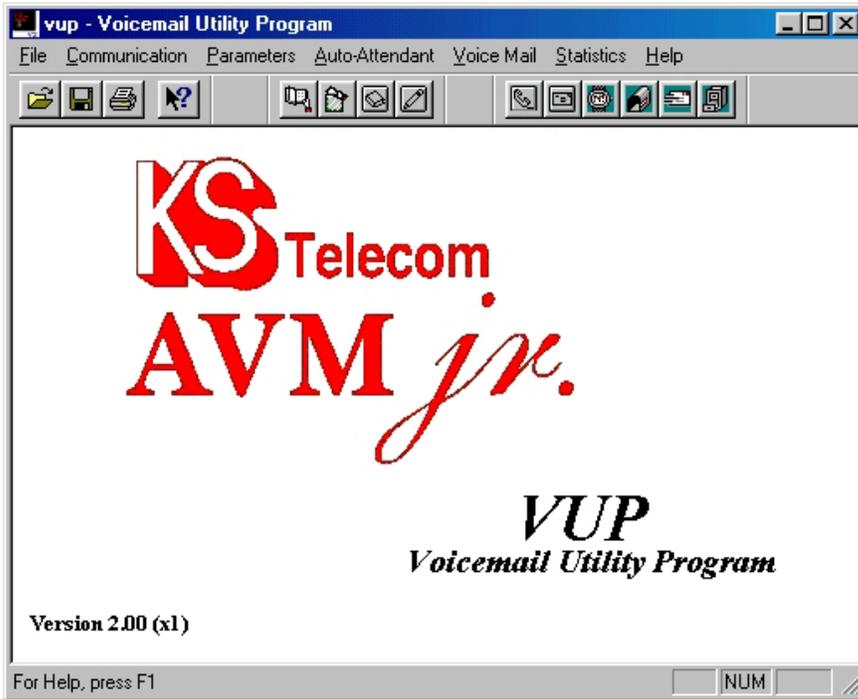
Figure 4-2 VUP Main Screen

➤ **To select a COM port:**

1. On the **Communication** menu, click **Com Port**.

   The **Communication Port** dialog box opens.

2. Click the appropriate COM port (1-4) according to your computer's configuration.

   Then select Ok to enable the COM port.

   Note: If you are unsure of your COM port and you are using a portable/laptop computer try selecting COM 1, as this is usually the default setting on most of these types of systems.

➤ **To load the data stored in the AVM JR. database:**

• On the **Communication** menu, click **Read Parameters**.

   The VUP reads the AVM JR. database and overwrites the current settings.

➤ **To load data stored in a configuration file:**

1. On the **File** menu, click **Open**.

2. In the **Open** dialog box, locate the configuration file and click **OK**.

    The VUP opens the file, overwrites the current VUP settings with those stored in the file and displays the filename on the title bar of the main screen.

➤ **To load data stored in the default configuration file:**

•   On the **File** menu, click **Open Default**.

    The VUP opens the default file and overwrites the current VUP settings with those stored in the default file.

Note: Overwriting the current VUP settings with those in the default file does not delete recorded script messages. For information on how to delete recorded script messages, see Section 3.7.1.

4.5 Defining the AVM JR. Parameters

The AVM JR. parameters are divided into two groups:

•   PBX parameters

•   System Parameters

4.5.1 Defining PBX Parameters

To integrate the AVM JR. with your PBX, define the PBX parameters in the AVM JR.. To obtain your current PBX parameters, check your PBX manual or the current PBX setup configuration.

For detailed information on PBX parameters, see Section 3.3.

➤ **To define the PBX parameters:**

On the **Parameters** menu, click **PBX Parameters**.

    The **PBX Parameters** dialog box opens.

Figure 4-3 PBX Parameters Extension Screen

The PBX Parameters are divided into four sections; Extensions, Call Transfer, Supervision and CP Tone & Disconnect.

4.5.1.1 Defining Extension Parameters

On the extension screen there are six fields that should be filled in.

- Extension Size – This is the length in digits that your extensions in your KSU are set at.
- Fax – This is the extension that your fax machine is attached to in the system. If you do not have a fax machine installed on the system leave this field blank.
- Default Oper. Menu Key – Defines the key that is to be used to call the operator in the system.
- Day Operator – Defines the extension to send operator calls to during day mode.
- Night Operator – Defines the extension to send operator call to during night mode.
- Valid PBX Extensions – Used to define groups of valid extensions in the PBX. You can define up to ten groups in the AVM JR.

4.5.1.2 Defining Call Transfer Parameters

To switch to the Call Transfer Parameters screen click on the tab for Call Transfer. The following screen will open.
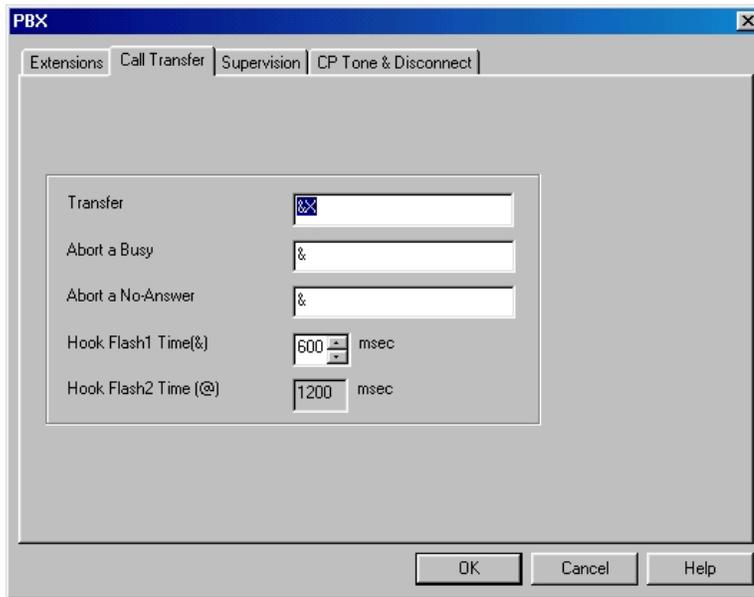
Figure 4-4 PBX Parameters Call Transfer Screen

There are four fields programmable on the Call Transfer screen.

- Transfer – This is the sequence that the AVM JR will dial to transfer a call to an extension. The default setting of "&X" will do a hook flash and then dial the extension.

- Abort a Busy – This is the sequence the AVM JR will execute to bring back a transferred call from a busy extension. The default code of "&" will perform a hook flash.

- Abort a No-Answer – This is the sequence the AVM JR will execute to bring a transferred call back from a no answer situation. The default code of "&" will do a hook flash.

- Hook Flash1Time – This field defines the length of the hook flash that will be performed by the system. This field must be in between your upper and lower flash time on your PBX. Please see PBX manuals for the times on your system.

4.5.1.3 Defining Supervision Parameters

The Supervision parameters define how the system will transfer calls. To open this screen click on the Supervision tab on the screen. The following window will open.
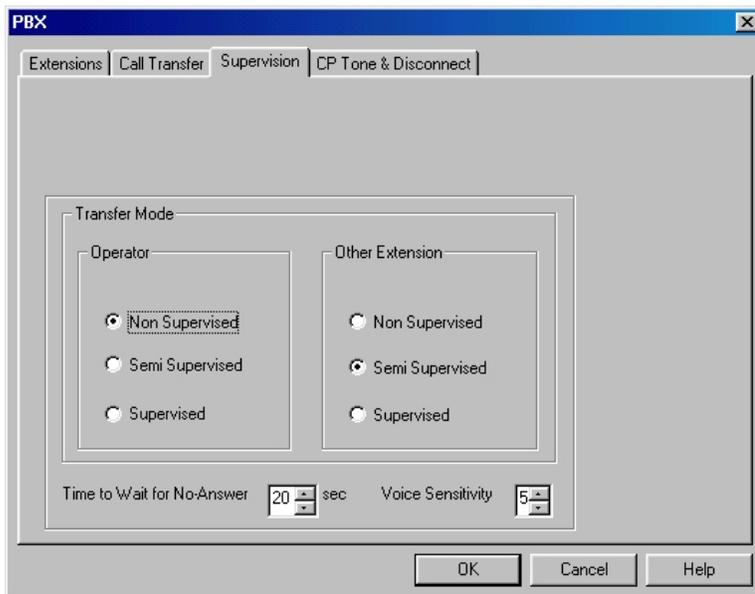
Figure 4-5-5 PBX Parameters Supervision Screen

The transfer mode is broken up into two sections; operator and other extension. This determines how the calls will be transferred to the extensions on the system. The three different types of transfer modes are:

- Non-Supervised – The AVM JR will transfer the call to the extension without checking the status of that extension on the PBX.

- Semi Supervised – The AVM JR will transfer the call to the extension after checking to see if that extension is busy. If the extension is busy it will pull back the caller and play the busy menu. If the extension is not busy the AVM JR will proceed to transfer the call in a Non Supervised mode.

- Supervised – The AVM JR will transfer the call with full supervision. This means the AVM JR will monitor the call for both busy and no answer conditions and then either bring the call back to the appropriate menu or transfer the call to the station. This should only be used if your system supplies no integration.

Time to Wait for No-Answer is the amount of time the AVM JR will wait for an extension to answer when the system is using Supervised mode to transfer the calls.

Voice Sensitivity is used to determine when a station has picked up a call when the call is transferred in a Supervised mode. The higher the number the more sensitive the AVM JR will be at detecting an answer.

4.5.1.4 Defining CP Tone & Disconnect Parameters

The CP Tone & Disconnect Parameters screen is not used for integrating the AVM JR with any Key System US product.

4.5.2 Defining System Parameters

The System parameters include:
- Maximum Recording Time
- Default System Language
- Automatic Gain Control
- Directory Listing

➤ **To define the System parameters:**

On the **Parameters** menu, click **System Parameters.**

The **System Parameters** dialog box opens.

Figure 4-6 System Parameters Dialog Box

There are four fields to define under the System Parameters screen. They are Maximum recording time, Default System Language, Automatic Gain Control and Directory Listing.

- **Maximum Recording Time** – This is the maximum message length the AVMJR will allow a caller to record. The value can be set from 1 to 9 minutes.

- **Default System Language** – This defines the default language for the AVM JR. Unless you have purchased additional languages for your system this field should be set at 1st language.

- **Auto Gain Control** – This option will enable or disable the Automatic Gain Control in the AVM JR. This option will automatically adjust the volume of incoming messages to a pre-defined level.

- **Directory Listing** – Determines whether the Dial by Name directory will be by first or last name.

4.6 Programming the Voice Mail

Using the VUP, you can:

- View a list of all existing mailboxes

- Create new mailboxes

- Change parameters of existing mailboxes

- Delete existing mailboxes

- Create mailbox groups

- Set Notification parameters

For detailed information on Voice Mail features, see Section 3.6.

4.6.1 Viewing the Mailbox List

If you are working online, you can view the status of all active mailboxes in the AVM JR.. If you are working off-line with a configuration file, you can review the status of the mailboxes configured for that file.

➤ **To view the mailbox list:**

- On the **Voice Mail** menu, click **List of Mailboxes**.

    The **List of Mailboxes** dialog box opens.
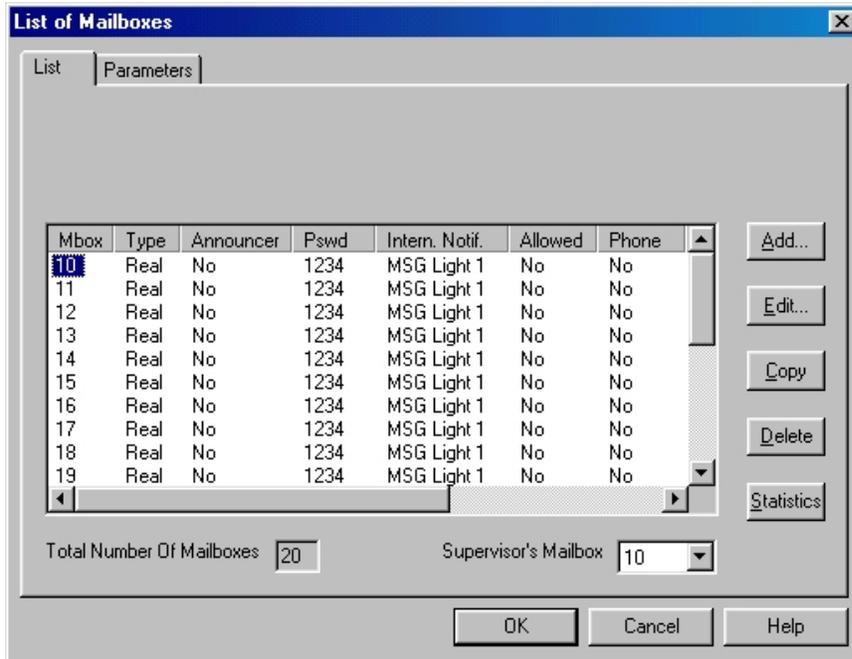
Figure 4-7List of Mailboxes Dialog Box

4.6.2 Creating Mailboxes

➤ **To create a new mailbox:**

1. On the **Voice Mail** menu, click **List of Mailboxes**.

    The **List of Mailboxes** dialog box opens (see Figure 4-7).

2. Click **Add**.

    The **New Mailbox** dialog box opens.
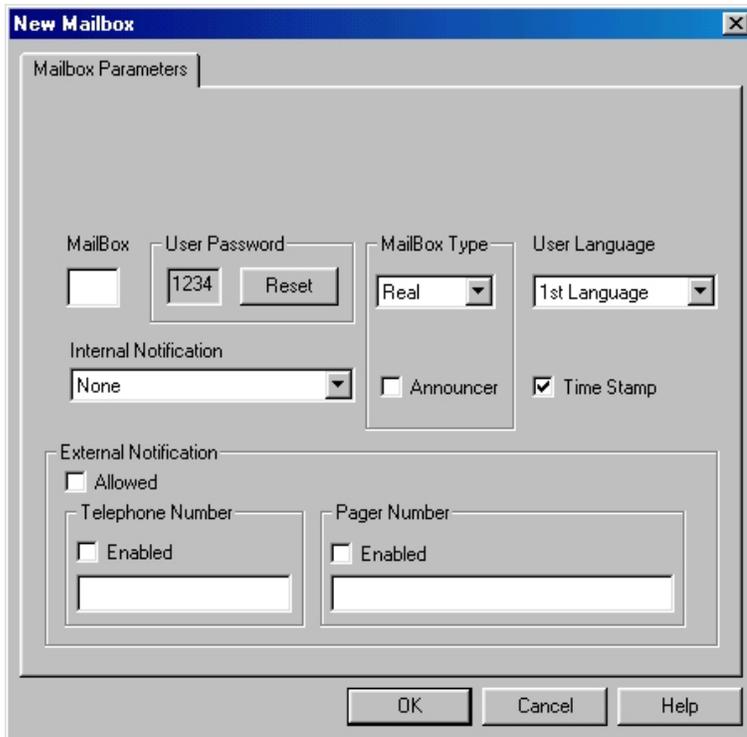
Figure 4-8 New Mailbox Dialog Box

3. In the **Mailbox** box, type the number of the new mailbox.

4. In the **Internal Notification** list, select a notification type.

5. Under **External Notification**, do the following:

    a. Click **Yes** in the **Allowed** box to grant permission to the user for External Notification.

    b. Click **Yes** in the appropriate **Enabled** box to activate the External Notification feature for either telephone or pager.

    c. In the number box, type the telephone number (containing 0-9, A-D, *, $, # and P only) to which the AVM JR. will send notification.

6. Under **Type**, click **Real** to create a real mailbox or **Virtual** to create a virtual mailbox.

7. Under **Time Stamp**, click **Yes** to play the time and date stamp during message playback or **No** to skip it.

8. Under **Announcer** click to enable the box to be an announcer box. (This will enable the box to only play an outgoing message and not record any incoming messages.)

9. Click **OK**.

    A new mailbox is created, the **New Mail Box** dialog box closes and the new mailbox appears on the **List of Mailboxes** dialog box. This mailbox is only activated after you click **Send to AVM JR..**

4.6.2.1 Creating a Duplicate Mailbox

You can create a new mailbox with the same features as an existing mailbox. The VUP assigns to the newly duplicated mailbox a number that is one higher than the highest existing mailbox number.

By duplicating a series of mailboxes, you can, in effect, create a range of mailboxes.

➤ **To create a duplicate mailbox:**

1. On the **List of Mailboxes** dialog box, click the mailbox you want to duplicate.

2. Click **COPY**.

   A new mailbox is created with the same parameters. The VUP assigns a number to the mailbox (the number will be the next number available after the last mailbox number) and lists it in the **List of Mailboxes** dialog box.

4.6.3 Changing the Parameters of an Existing Mailbox

➤ **To change the parameters of an existing mailbox:**

1. On the **List of Mailboxes** dialog box, click the mailbox you want to change.

2. Click **EDIT**.

   The **Change Mailbox** dialog box opens.

3. Change the mailbox settings.

4. If the mailbox owner forgot his password, click **Reset** to reset the mailbox password to the default password (1234).

5. Click **OK**.

   The changes to the mailbox are saved, the **Change Mailbox** dialog box closes and the changes appear in the **List of Mailboxes** dialog box.

4.6.4 Deleting an Existing Mailbox

➤ **To delete an existing mailbox:**

1. On the **List of Mailboxes** dialog box, click the mailbox you want to delete.

2. Click **Delete** to remove the mailbox from the List of Mailboxes.

3. Repeat steps 1 and 2 until all mailboxes to be deleted have been removed form the List of Mailboxes.

4. Click **OK**.

4.6.5 Organizing Mailbox Groups

You can organize up to four mailbox groups for distributing messages. Each group can contain up to twenty real or virtual mailboxes. A fifth mailbox group contains all the mailboxes in the Voice Mail system.

Note: You can only add an existing mailbox to a mailbox group.

You can also select a different number for the first digit of the mailbox groups. Make sure that you select a number that does not interfere with your KSU's numbering plan. The default number is 0.

➤ **To organize a mailbox group:**

1. On the **Voice Mail** menu, click **Group of Mailboxes**.

    The **Groups of Mailboxes** dialog box opens.
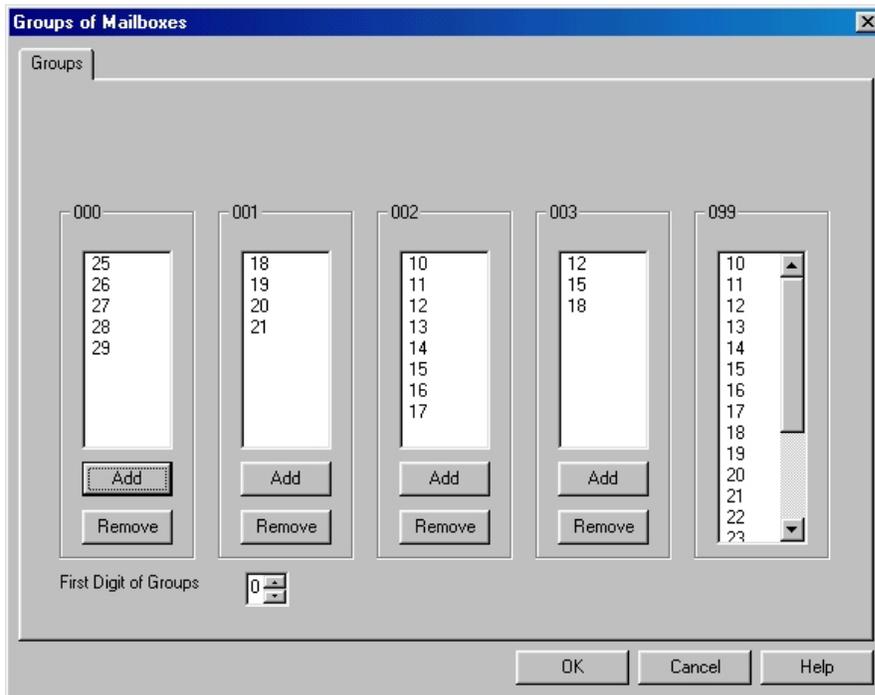
Figure 4-9 Group of Mailboxes Dialog Box

2. If you want to add a mailbox to a group, do the following:

    a. Click on the box to add in group 099. (To add multiple boxes hold the CTRL key while selecting the additional mailboxes.)

    b. In the group you wish to add the box(es) to click on the **ADD** button, the box will no be displayed in that group.

3. If you want to remove a mailbox from a group, select the mailbox and then click **Remove** at the bottom of the group.

4. To change the first digit on the mailbox group numbers, type a number in the **First Digit of Group** box.

Note: Do not assign the first digit to be the same number as any digit your extensions start with.

    5.   Click **OK** to save and return to the main screen.

4.6.6 Setting Notification Parameters

Use the following codes when entering notification parameters: 0-9, #, *, P for pause, X for extension, & for Flash-1, @ for Flash-2 and A-D.

For detailed information on the notification parameters, see Section 3.6.3.

➤ **To set notification parameters:**

    1.   On the **Voice Mail** menu, click **Notification Parameters**.

       The **Notification Parameters** dialog box opens.

Figure 4-10 Notification Parameters Dialog Box

    2.   Type the notification parameters. The external access code is used only for remote notification and should match your PBX external access code.

    3.   Click **OK** to save and return to the main screen.

Note: the message light parameters should only be changed if instructed to do so by technical support.

4.7 Programming the Automated Attendant

The AVM JR. supports up to 21 script messages (00-20) for building the Automated Attendant menu. The AVM JR. also supports another five script messages (21-25) for Busy, No Answer and Do Not Disturb menus (see Section 3.7).

4.7.1 To program a script message

On the **Auto-Attendant** menu, click **Script Menu**.

The **Auto Attendant Script Menu** dialog box opens.

Figure 4-11 Auto Attendant Script Menu Dialog Box

The Key column contains the digit the caller can dial while the Automated Attendant plays a script message. EOM (End of Message) refers to a condition in which the script reaches its end and the caller has not dialed a number.

The Command column describes the action the AVM JR. takes when the caller dials a digit or the script message comes to an end. Each action corresponds to a number in the DTMF column.

The Destination column lists to which extension, mailbox or submenu to transfer the call.

1. In the **Menu No.** box, type the number of the script message you want to program and press **ENTER.** Or press the **NEXT** and **PREVIOUS** buttons to scroll through all of the script menus

   The VUP displays past programming for the script message selected.

2. Under **Command**, click the arrow button to select an action for a corresponding DTMF digit.

3. Under **Destination**, type an extension number, mailbox number or submenu number, if applicable.

4. Click **OK** to save and return to the main menu.

4.7.2 Setting Up Different Script Menus Per Port

The AVM JR allows you to set up different Script Menus per port. To set this up open the Script menu screen by selecting **Auto Attendant** and then **Script Menu**. Then click on the **Script Opening** tab. The following screen will appear.
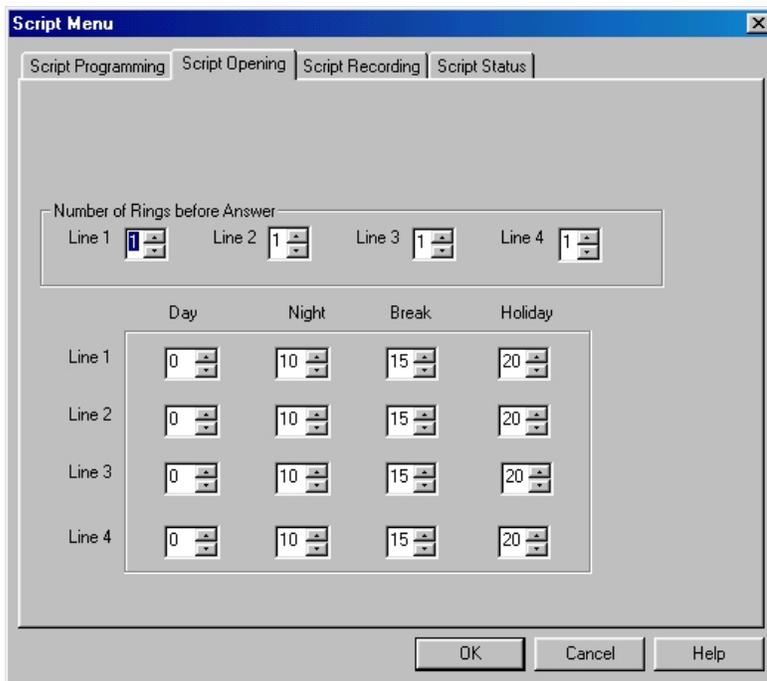
Figure 4-12 Script Opening Screen

The AVMJR allows for up to four different greetings per port when the system is set to auto mode. To program the system to answer with a different script message on a particular port

select the port you wish to change, then select the mode that you wish to change the script message for. Once you have selected the appropriate item to change use the up and down arrow keys to select the new script number to play. (This script will now replace the default script on that particular port for that particular mode.)

The Number of Rings Before Answer field should be left at one. If you wish to program a delay answer for the voicemail please refer to section E.1.4 or E.2.4 depending on your system.

4.8 Setting the Time, Date and Operation Mode

The VUP enables you to adjust the AVM JR. clock and calendar using a 24-hour format.

➤ **To set the AVM JR. clock and calendar and mode:**

    1. On the **Auto-Attendant** menu, click **Time & Date**.
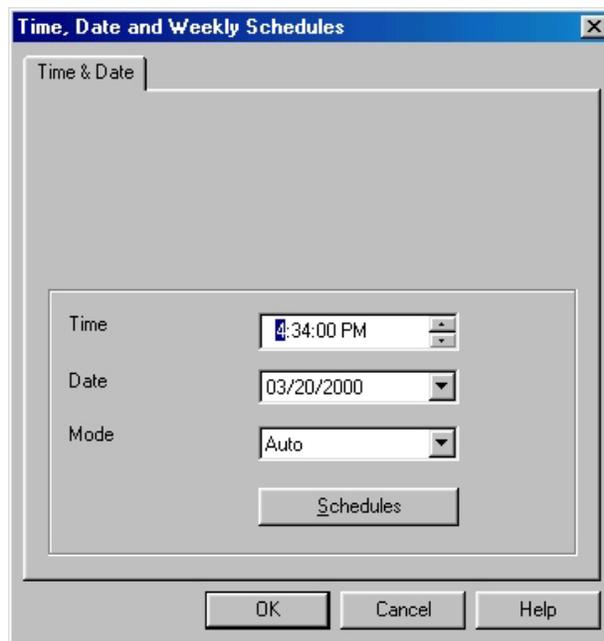
The **Time & Date** dialog box opens.

Figure 4-13 Date & Time Dialog Box

    2. In the **Time** box, type a new time.

    3. In the **Date** box, type a new calendar date.

    4. In the **Mode** box, select the mode you wish the system to run in.

a.) Auto – The AVM JR will automatically switch among day, night, break and holiday modes depending on a predefined schedule.

b.) Day – The AVM JR will operate in Day mode playing the appropriate script menu(s) setup in section 4.7.2.

c.) Night – The AVM JR will operate in Night mode playing the appropriate script menu(s) setup in section 4.7.2.

d.) Break – The AVM JR will operate in Break mode playing the appropriate script menu(s) setup in section 4.7.2.

e.) Holiday – The AVM JR will operate in Holiday mode playing the appropriate script menu(s) setup in section 4.7.2.

5. Click **OK**.

4.8.1 Setting up Auto Mode

Auto mode allows the AVM JR to switch between operation modes automatically on a pre-defined schedule. This mode can switch between day, night, break and/or holiday mode. To enable this you must set up the schedule for auto mode.

4.8.1.1 Programming Daily Schedules

To program the daily schedules click on the Auto-Attendant menu, click Time & Date.

The **Time & Date** dialog box opens. Click on **Schedules** to edit the schedule field. The following screen will appear:
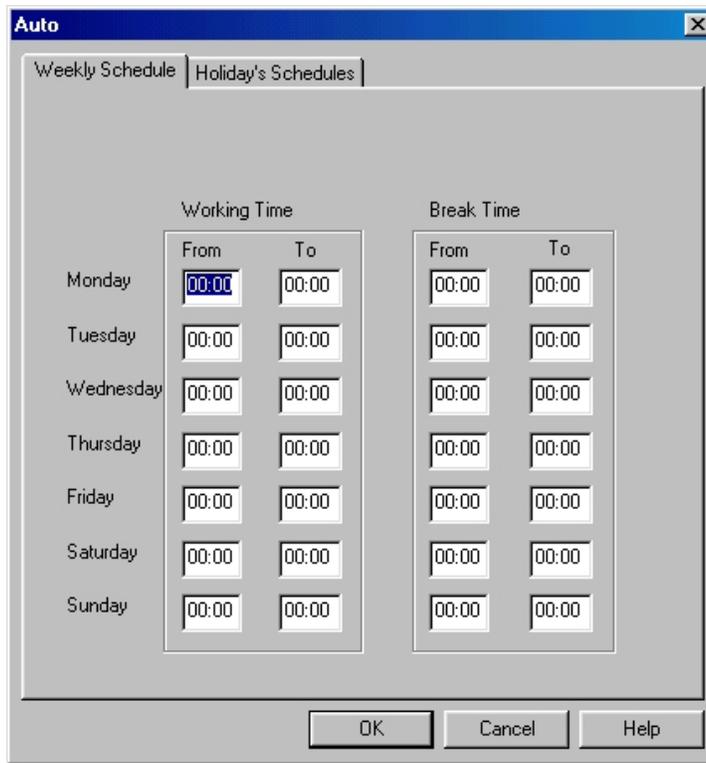
Figure 4-14 Auto Mode Schedule

At this point you should proceed to enter the working time and break modes for each day of the week. The working time is the time of day the system will play the day script menu. The system will play the night script menu at all other times during the day except for the break time if it is entered.

4.8.1.2 Programming Holiday Schedules

The AVM JR allows you to set up an automatic holiday mode. This allows the system to switch between normal operation and holiday mode on a pre-defined schedule. To program the holiday schedule click on the Auto-Attendant menu, click Time & Date.

The **Time & Date** dialog box opens. Click on **Schedules** to edit the schedule field, and then click on the Holiday Schedules tab. The following screen will appear:
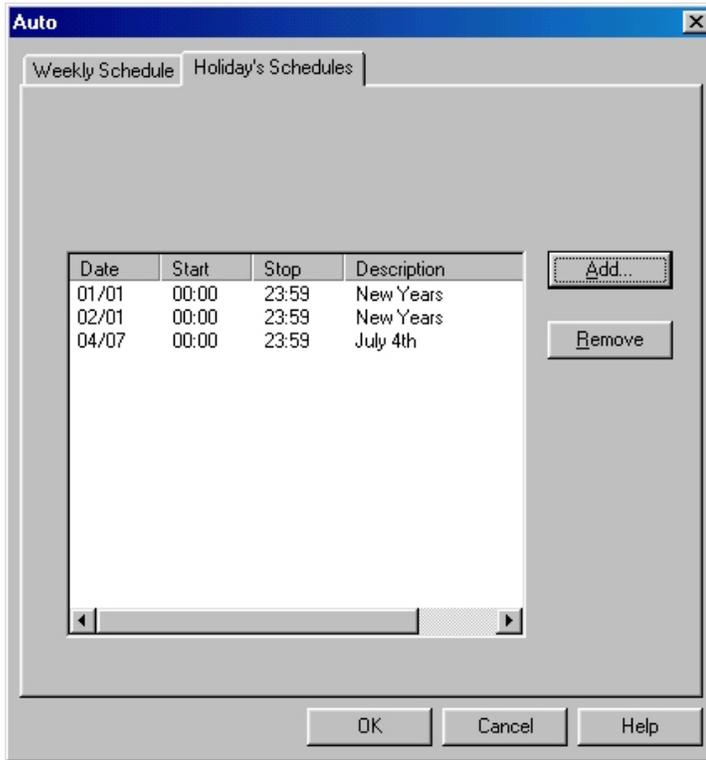
Figure 4-15 Holiday Schedule Screen

At this point you may either add or delete a scheduled holiday

4.8.1.2.1 Adding a Holiday

To add a holiday click on the add button. The add to holiday list screen will appear. Select the day you wish to program the holiday greeting for by clicking on the arrow next to the date and the selecting the day on the calendar by clicking on the day you wish. Set the start and stop time and then give the holiday a description for future reference. If you wish to have the holiday mode be in effect all day long set the start time to 00:00 and the stop time to 23:59.

4.8.1.2.2 Removing a Holiday

To remove a holiday click on the date of the holiday you wish to remove and then click on the remove key.

4.9 Working with Configuration Files

You can program the AVM JR. parameters and save them as a file on your hard disk. Later you can download the data on the file to the AVM JR..

➤ **To save the current parameters as a new configuration file:**

1. On the **File** menu, click **Save As**.

2. In the **Save As** dialog box, type a file name.

3. Click **OK**.

➤ **To save current settings and values into an open configuration file:**

- On the **File** menu, click **Save**.

4.10 Downloading Data to the AVM JR.

You can download data to the AVM JR. only if the VUP is online. See Section 4.1.

➤ **To download data to the AVM JR.:**

1. On the **Communication** menu, click **Send Parameters**.

2. Type the System Administrator's password and press **ENTER**.

   If the password is correct, the data is downloaded from the PC to the AVM JR.. If the password is incorrect, the VUP issues an error message and asks you to retype the password.

4.11 Viewing Statistical Information Stored in the AVM JR. Database

The VUP organizes statistical information stored in the AVM JR. database into the following tables:

- List of all new and saved messages, including mailbox number, date and time of entry and status

- List of messages per mailbox, including date and time of entry and status

- Status of the flash memory, including total time available, amount of time used, amount of time remaining and percent of memory used

- Number of incoming calls on each line

➤ **To view statistical information stored in the AVM JR. database:**

1. On the **Communication** menu, click **Read Parameters**.

2. On the **Statistics** menu, click the report you want.

3. Click **OK** to close the report and return to the main screen.

4.12 Printing Reports

You can organize and print reports on the AVM JR. parameters and on statistical information stored in the AVM JR. database.

➤ **To print a report:**

1. On the **File** menu, point to **Print Settings Menu** and click select the information you wish to print out. You may only select one option from this menu.

2. On the **File** menu, point to **Print**. The print screen will appear. Select the correct printer and the number of copies.

3. Click **OK**.

4.13 Saving Reports

You can organize and save reports on the AVM JR. parameters and on statistical information stored in the AVM JR. database.

➤ **To save a report:**

1. On the **File** menu, point to **Print** and click **System Parameters** to open the **System Parameters** dialog box or **Statistics** to open the **Statistics** dialog box.
2. Select the appropriate check boxes.
3. Click **OK**.

    The **Output Location** dialog box opens.
4. Click **To a File**.

    The **Save As** dialog box opens.
5. Type a file name and click **OK**.

    The AVM JR. saves the report.

You can print the report from DOS or by using any Windows print utility.

4.14 Getting Help

You can get help on a topic in two ways:

- Click **Index** on the **Help** menu to open the comprehensive online index.

- Highlight a text box on any dialog box and press F1 to see a short description of the option.

4.15 Closing the VUP

➤ **To close the VUP:**

- On the **File** menu, click **Exit**.

5. USER OPERATING INSTRUCTIONS

5.1 Introduction

The following paragraphs describe the user's operational menus.

5.2 User's Main Menu

When the caller user logs into their mailbox the AVM JR announces the number of messages and then plays the user's main menu.

DIGIT	NAME	DESCRIPTION
1	Retrieve Message	Enter Retrieve Message menu
2	Mailbox Parameters	Enter Mailbox Parameters menu
8	Send Message	Send a message to a specific mailbox
9	Return to Auto Attendant	Exit current menu and return to Auto Attendant

5.3 Retrieve Message Menu

If the mailbox owner dials "1" while in the user's main menu, the AVM JR plays the new messages, followed by previously saved messages. At the end of each message, the AVM JR plays the Retrieve Message menu:

DIGIT	NAME	DESCRIPTION
1	Next Message	Plays the next message
2	Replay	Replay the current message
3	Save	Save the current message
4	Forward	Forward current message to another mailbox
5	Reply	Reply to message sender (Internal messages only)
8	Delete	Delete current message
9	Return to Previous Menu	Return to previous menu (User's main menu)

5.4 Mailbox Parameters

If the mailbox owner dials "2" while in the user's main menu, the AVM JR plays the Mailbox Parameters menu:

DIGIT	NAME	DESCRIPTION
1	Record Greeting	Record a greeting message for the mailbox
2	Record Name	Record your name
3	Directory Listing	Set directory listing parameters
4	Change Password	Change the mailbox access password
6	External Notification	Set the external notification parameters (if allowed)
7	Pager Notification	Set the pager notification parameters (if allowed)
9	Return to Previous Menu	Return to previous menu (User's main menu)

5.4.1 Record Greeting

The mailbox owner can record a personal greeting by dialing "1" on the User's Parameters menu. The AVM JR then plays the Record Greeting menu:

DIGIT	NAME	DESCRIPTION
1	Play Back	Play existing recording
2	Record	Record a new greeting message
8	Delete	Delete existing message
9	Return to Previous Menu	Return to previous menu (User's parameters menu)

5.4.2 Record Name

The mailbox owner can record his personal name by dialing "2" on the user's parameters menu. The AVM JR then plays the Record Name menu:

DIGIT	NAME	DESCRIPTION
1	Play Back	Play existing recording
2	Record	Record a new name
8	Delete	Delete existing name
9	Return to Previous Menu	Return to previous menu (User's parameters menu)

5.4.3 Directory Listing

The mailbox owner can set the directory listing parameters by dialing "3" on the user's parameters menu. The AVM JR then plays the Directory Listing menu:

DIGIT	NAME	DESCRIPTION
1	Play Back	Play current directory listing code
2	Change	Change directory listing code
8	Delete	Delete directory listing code
9	Return to Previous Menu	Return to previous menu (User's parameters menu)

5.4.4 Change Password

A mailbox password consists of four digits. The default password is 1234. To disable the password, enter 0000.

The mailbox owner can change their password by dialing "4" on the user's parameters menu. The AVM JR then plays the Change Password menu:

DIGIT	NAME	DESCRIPTION
1	Play Back	Plays the current password
2	Change	Change existing password
9	Return to Previous Menu	Return to previous menu (User's parameters menu)

5.4.5 External Notification

If the System Administrator grants permission, the mailbox owner can:

- Enable/disable remote notification
- Enter their remote telephone number
- Listen to the current remote telephone number

By dialing "6" on the user's parameters menu.

DIGIT	NAME	DESCRIPTION
1	Change Mode	Toggles the external notification state

		(enabled/disabled)
2	Telephone Number	Enter the selected telephone number for external notification. **Codes**[1] 0-9, extension number, *, #, A-D, P and Q can be used
8	Play Back	Play back the external telephone number
9	Return to Previous Menu	Return to the previous menu (User's parameters menu)

Codes[1]:

P (1 second pause) = *1   # = *4   B = *6   D = *8   * = **

Q (4 second pause) = *2   A = *5   C = *7   Ext No. = *0   0-9 = 0-9

5.4.6 Pager Notification

If the System Administrator grants permission, the mailbox owner can:

- Enable/Disable pager notification
- Enter their pager number
- Listen to the current pager number

By dialing "7" on the user's parameters menu.

DIGIT	NAME	DESCRIPTION
1	Change Mode	Toggles the pager notification state (enabled/disabled)
2	Pager Number	Enter the selected pager number for pager notification. Codes[1] 0-9, extension number, *, #, A-D, P, Q and SID can be used
8	Play Back	Play back the pager number
9	Return to Previous Menu	Return to previous menu (User's parameters menu)

Codes[1]:

P (1 second pause) = *1   # = *4   B = *6   D = *8   * = **

Q (4 second pause) = *2   A = *5   C = *7   Ext No. = *0   0-9 = 0-9

SID = *3 (SID will wait for the pager confirmation tone before the system continues dialing <beep, beep, beep>)

5.4.7 Return to Previous Menu

The mailbox owner can dial "9" on the user's parameters menu to return to the user's main menu.

5.5 *Send Message*

The mailbox owner can leave a message in any mailbox or group of mailboxes by dialing "8" on the user's main menu.

5.6 *Return to Auto Attendant*

The mailbox owner can dial "9" on the user's main menu to return to the auto attendant.

5.7 *Quick Reference Guide*

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User's Main Menu

1 Retrieve Message

- **1** Next Message
- **2** Replay
- **3** Save
- **4** Forward
- **5** Reply
- **8** Delete
- **9** Return to Previous Menu

2 Mailbox Parameters

User's Parameters Menu

1 Record Greeting
- **1** Play Back
- **2** Record
- **8** Delete
- **9** Return to Previous menu

2 Record Name
- **1** Play Back
- **2** Record
- **8** Delete
- **9** Return to Previous menu

3 Directory Listing
- **1** Play Back
- **2** Change
- **8** Delete
- **9** Return to Previous menu

4 Change Password
- **1** Play Back
- **2** Change
- **9** Return to Previous menu

5

6 External Notification
- **1** Change Mode
- **2** Telephone Number
- **3** Play Back
- **9** Return to Previous menu

7 Pager Notification
- **1** Change Mode
- **2** Pager Number
- **3** Play Back
- **9** Return to Previous menu

9 Return to Previous menu

8 Send Message

9 Return to Auto Attendant

6. TROUBLESHOOTING

This section presents answers to commonly asked questions on operating the AVM JR..

If a problem persists, contact your Key System US dealer.

Q: Local notification does not work.

A: • Make sure you entered the correct notification codes.

   • Make sure that local notification is enabled.

   • Make sure that line 2 is properly connected to the AVM JR. and is fully operational. Try calling into port 2 of the AVM JR.

   • Remove all the messages from the mailbox and then send a new message.

   Note: The AVM JR. only signals the KSU when it places a message in an empty mailbox. The KSU then turns on the notification LED on the telephone extension.

   If an error occurred and the KSU did not receive the Message Light On code, correcting the error does not turn the notification LED on. Only first emptying the mailbox and then sending a new message can turn the notification LED on.

   • Add a pause between codes.

   • Check message light codes. They should be 743x for on and 740x for off.

   • Check dial 7 features in the phone system for the 2nd port of voicemail. They need to be set to on.

Q: External Notification does not work.

A: • Make sure you selected the correct external access code.

   • Make sure you did not add the external access code to the telephone number because the AVM JR. automatically dials the external access code.

   • Make sure external notification is allowed and enabled.

- Make sure start and stop times are properly defined and maximum number of retries has not been reached.

- Try dialing the external notification sequence on the 2nd port of voicemail with your test set to make sure that the system is allowing the call to be made.

- Monitor the 2nd port during a notification attempt to try and determine where the notification is failing.

Q: **The AVM JR. does not transfer calls. DTMF tones are heard or the call is disconnected.**

A: • Flash 1 has been incorrectly configured.

- The port cannot put a call on hold in system programming.

Q: **When I dial command code *300, the AVM JR. plays an error message.**

A: You are trying to change the number of digits in an extension after extensions and mailboxes have been configured. To change the number of digits in an extension, you must first remove all mailboxes and extensions.

Q: **In supervised mode, the AVM JR. incorrectly recalls calls.**

A: The AVM JR.'s Time to Wait for No-Answer parameter value is greater than the KSU's hold recall time parameter value. Decrease the value of the AVM JR.'s Time to Wait for No-Answer parameter or increase the value of the KSU's hold recall time parameter.

Q: **In supervised mode, the AVM JR. does not recognize answered calls.**

A: • Increase the Voice Sensitivity parameter value.

- Make sure that the correct Transfer Supervision Type has been selected.

Q: **Command *510 does not allow a mailbox to be deleted.**

A: The mailbox is used in script menus. Please remove the mailbox from all script menus and then use the delete command.

Q: **The AVM JR. plays the wrong time stamp and does not play the user messages.**

A: Make sure that you have recorded a Day Opening greeting. Until this script is recorded, the AVM JR. is in test mode.

Q: **The Voicemail Utility Program (VUP) issues a warning that the com port is unavailable.**

A: • Make sure that the selected COM port is not being used by another device.

• If the selected COM port was previously used by another device, shut down and restart your computer to release the serial port.

Q: **A message is sent to a mailbox group that contains five defined mailboxes but only two mailboxes receive the message.**

A: The messages were sent to all the mailboxes in the group but only accepted by those mailboxes that did not have the maximum number of messages recorded.

Q: **The AVM JR. has been programmed to operate in Night mode. When a call is received, it disconnects the call and switches to Day mode.**

A: Make sure that the night greeting script is recorded.

Q: **What happens when a mailbox and mailbox group have the same extension number?**

A: Messages are sent to the mailbox. In general, mailboxes have higher priority than mailbox groups.

Q: **I dialed "6" on the User menu and got an error message.**

A: Make sure that the external notification feature for the mailbox is allowed.

Q: **DTMF's dialed by AVM JR are not recognized by the KSU.**

A: Change the amplitude and the on and off levels of DTMF's dialed by the AVM JR. (*379, *371)

Q: **How can I find out how much memory is supported by my AVM JR?**

A: Use statistics option in VUP.

Q: When I reach a mailbox a menu is played immediately and I am not given a chance to leave a message.

A: The mailbox is defined as an announcer mailbox

Q: I have disabled the Automatic Gain Control but the messages are played louder then needed.

A: Only messages recorded after the changes are effected. Initiate a new call after the changing the AGC's status.

Q: I have three digit extension numbers on my system and the AVM JR defaults to two digit. How do I change the system to three digits?

A: To change the system from two digit to three digit you must do the following

> 1) Delete all mailboxes defined in the system using mode *510. You need to delete mailboxes 10-29. (Dial *510 10#, *510 11#, *510 12# etc.)
>
> 2) Reset legal extension group 0 to none using mode *320. (Dial *320+0+00+00+#)
>
> 3) Change extension size to 3 in mode *300. (Dial *300 + 3)
>
> 4) Set the range of valid extension numbers in mode *320. (Dial *320 + 0 + SSS + EEE where SSS = starting station number and EEE = ending station number.)
>
> 5) Create new mailboxes using mode *500. (Dial *500 + SSS + EEE + # where SSS = starting mailbox number and EEE = ending mailbox number.)

Q: Pager Notification does not work

A:
- Make sure you have selected the correct External Access Code.

- Make sure you did not add the External Access Code to the pager number.

- Make sure the pager notifications allowed and enabled.

- Make sure the pager number is entered correctly.

- Make sure your pager company provides a 1400 Hz tone if '$' is used.

- If your provider does not support 1400 Hz tone SIT tone, use enough pauses to by-pass the sent tone.

- The first notification can take up to the amount of time that is defined by Ring Notification Interval.

- Make sure start and stop times are properly defined and maximum number of retries has not been reached.

7. APPENDIX A

The following table presents a summary of DTMF programming commands.

Note: The DTMF and PC columns list the sections in which the DTMF and computer programming operations are discussed in this manual.

OPERATOR COMMANDS			
OPERATION	**COMMAND**	**DTMF**	**PC**
Day Light Savings Time	***7 + XXXX + Y** XXXX = operator's password Y = 0; Reduce the time by one hour. Y = 1; Increase the time by one hour.	3.8.3	
Change the operational mode (without entering the programming mode)	***8 + XXXX + Y** XXXX = operator's password Y = 0; Day Y = 1; Night Y = 2; Holiday Y = 3; Auto Y = 4; Break	3.8.4	4.9

SCRIPT PROGRAMMING COMMANDS			
OPERATION	**COMMAND**	**DTMF**	**PC**
Directory listing format	***011 + X** X = 0; Directory by last name X = 1; Directory by first name	3.7.3.1	4.5.2
Record a message	***100 + XX + Beep + Record + #**	3.7.1	N/A
Play a message	***101 + XX + Beep + Playback**	3.7.1	N/A
Delete a message	***102 + XX**	3.7.1	N/A
Select EOM timeout for each script	***105 + XX + Y + #** XX = Script No. Y = Timeout in seconds	3.7.2.1	4.7
Transfer to a script message	***110 + XX + B +** **Destination script message + #**	3.7.2.2	4.7

SCRIPT PROGRAMMING COMMANDS (CONT'D)

Transfer to the directory listing	***111 + XX + B + #** XX = script number	3.7.3.2	
Select Opening Script	***112 + XX + YY + Z + #** XX = Default script number 00, 10, 15 or 20 YY = Replacement script number 00-20 Z = Port number 1-4	3.7.2.3	4.7.2
Transfer to opening menu	***115 + XX + B + #**	3.7.2.4	4.7
Transfer to a script message with a change of language	***117 + XX + B + YY + Z + #** Z = 1or 2 (language number)	3.7.2.5	
Set default language	***118 + Z** Z = 1 or 2 (language number)	3.7.2.6	
Transfer to an extension	***120 + XX + B+ Extension +#**	3.7.2.5	4.7
Transfer to an operator	***125 + XX + #**	3.7.2.6	4.7
Transfer to a mailbox	***130 + XX + B + Mailbox + #**	3.7.2.7	4.7
Disconnect	***140 + XX + B +Z +#** Z = 0, no message Z = 1 with message	3.7.2.8	4.7
Leave a message in a mailbox	***150 + XX + B + #** XX = script No.	3.7.2.9	4.7
Retrieve messages from a mailbox	***160 + XX + B + #** XX = script No.	3.7.2.10	4.7
Direct transfer to an extension	***170 + XX + first digit(s) + #**	3.7.2.11	4.7
Direct transfer to a mailbox	***175 + XX + first digit(s) + #**	3.7.2.12	4.7
Hold	***180 + XX + B + #**	3.7.2.13	4.7
Blind Transfer to Busy Extension	***185 + XX + B + #**	3.7.2.14	4.7
Reset a specific message entry to its default value	***190 + XX + B + #**	3.7.4	4.7
Reset all message entries to defaults	***190 + XX + #**	3.7.4	4.7

PBX PARAMETERS			
No. Of digits in extension	***300 + X**	3.3	4.5.1.1
Cut off time for continuous call progress tone detection	***301 + X** X = cut off time in seconds (0-9)	3.3	4.5.1.4
No. Of rings before the line is answered	***310 + line number + number of rings**	3.3	4.5.1
Time to wait for No Answer	***311 + XX**	3.3	4.5.1
PBX legal extensions	***320 + Y +First Ext. + Last Ext. + #** Y = group number (0-9)	3.3	4.5.1
Delete all PBX legal extensions	***320 + #**	3.3	
Operator ID code.	***330 + X** X = 0-9	3.3	4.5.1
Key to retrieve messages during mailbox greeting playback	***331 + X** X = 0-9; Retrieve digit	5.2	N/A
Disconnect code	***333 + XXXX + #**	3.3	4.5.2
Delete disconnect code	***333 + #**	3.3	
External access code	***340 + X** X = external access digit (0-9)	3.3	4.6.6
Pause before and after external access code	***341 + X** X = pause length in seconds (0-9)	3.3	N/A
Transfer mode for all extensions except the operator's extension	***350 + X + Y** X = 1; All extensions except the operator X = 2; Semi-Supervised Y = 0; Non Supervised Y = 1; Supervised Y = 2; Semi Supervised	3.7.5	4.5.2
Day operator extension no.	***360 + X + YYYY + #** X = 1; Day operator X = 2; Night operator X = 3; Fax extension X = 4; Supervisor extension YYYY = extension number ***360 + X + #** to delete extension	3.3	4.5.1

PBX PARAMETERS (CONT'D)			
Volume level	***369 + X** X = volume level (0-9) 9 = loudest	3.3	N/A
Flash 1	***370 + XXX**	3.3	4.5.1.2
Cadence of system input and output tomes in milliseconds	***371 + X + YYYY** X = 1; busy off X = 2; busy on X = 3; Disconnect off X = 4; Disconnect on X = *; DTMF off X = #; DTMF on YYYY = Cadence in milliseconds in steps of 20 milliseconds	3.3	
Busy signal cadence check	***375 + XXXX + #**	3.3	
Voice sensitivity	***376 + X + Y** X = 1; Voice sensitivity level X = 2; DTMF sensitivity level Y = level (0-9), 9 = Most sensitive Default = 5 Note; To activate the new selection, a new call must be initiated	3.3	4.5.2
Automatic Gain Control (AGC)	***377 + X** X = 0 AGC disabled X = 1 AGC enabled (Default) Note: To activate the new selection, a new call must be initiated	3.3	4.5.2
DTMF amplitude	***379 + X** X = volume level (0-9), 9 = Loudest Default = 5	3.3	4.5.1.3

PBX PARAMETERS (CONT'D)			

Procedural codes sent to the PBX in order to perform a specific task.	***380 + X + CODE[1] + #** X = 1; LED1 notification code X = 3; LED off code X = 4; Transfer code X = 5; Recall from busy X = 6; Recall from no answer Code = Respective PBX CODE[1] ***380 + X + #** to cancel code	3.3	4.5
Dial a string from the Auto Attendant to the PBX	***381 + X + YY…YY + #** **X = String number (0-9)** **YY…YY = DTMF string**	3.3	
Answer number of samples	***386 + X** X = number of samples (0-9) Default = 5	3.3	

SETTING TIME & DATE			
Change the operational mode	***400 + X** X = 0; Day X = 3; Auto X = 1; Night X = 4; Break X = 2; Holiday	3.5	4.9
Select time stamp format	***410 + X**	3.5	N/A
Set time and day	***420 + Hour + Minutes**	3.4	4.8
Set date	***430 + Date + Month + Year**	3.4	4.8
Listen to the system time	***440**	3.4	N/A
Set working hours	***450 + Day + Starting time + Ending time**	3.5	4.9

OPERATION	COMMAND	DTMF	PC
Set break time	***460 + Day + Starting time + Ending time**	3.5	4.9
Entering annual holiday dates	***470 + DD + MM + hh:mm + hh:mm** DD = Day of month MM = Month HH:MM = Start time Hh:mm = End time _Note_: Time as in 24hr format	3.5	4.8.1.2
Delete all holidays	***470 + #**	3.5	4.8.1.2

OPERATION	COMMAND	DTMF	PC
Delete all holidays on a specific date	***470 + DD + MM + #** DD = Day MM = Month	3.5	4.8.1.2
Delete all holidays for a specific month	***470 + ** + MM + #** MM = Month	3.5	4.8.1.2
External notification active time	***490 + HH:MM + hh:mm** HH:MM = Start time Hh:mm = End time *Note*: Time as in 24hr format	3.6.3	4.6.6

MAILBOX CONFIGURATION COMMANDS			
OPERATION	**COMMAND**	**DTMF**	**PC**
Create a range of mailboxes	***500 + First mailbox + Last mailbox + #**	3.6.1	4.6.2.1
Create a mailbox	***501 + Mailbox + #**	3.6.1	4.6.2
Change to announce mailbox	***502 + XXXX + Y + #** XXXX = Existing mailbox number Y = 0; Regular mailbox Y = 1; Announcer mailbox	3.6.1	4.6.2
Delete a mailbox	***510 + Mailbox number + #**	3.6.1	4.6.4
Create a range of virtual mailboxes	***520 + First mailbox + Last mailbox + #**	3.6.1	4.6.2.1
Create a virtual mailbox	***521 + Mailbox number + #**	3.6.1	4.6.2
Play or skip time and date stamp for a range of mailboxes	***530 + First mailbox + Last mailbox +B + #** B = 0; Play the date and time B = 1; Skip the date and time	3.6.1	4.6.2.1
Play or skip time and date stamp for a mailbox	***531 + Mailbox number + B + #** B = 0 or 1	3.6.1	4.6.2.1
Define a language for mailbox	***532 + Mailbox + last Mailbox + Z + #** where Z = 1 or 2 (language number)	3.6.1	
Define a language for a mailbox	***533 + Mailbox Number + Z + #** Where Z = 1 or 2 (language number)	3.6.1	
MAILBOX CONFIGURATION COMMANDS (CONT'D)			

OPERATION	COMMAND	DTMF	PC
Add a mailbox to a group	***540 + Group number + Mailbox number + #**	3.6.2	4.6.5
Change the first digit of the group numbers	***545 + First Digit of the Group Numbers**	3.6.2	4.6.5
Delete a mailbox from a group	***550 + Group number + Mailbox number + #**	3.6.2	4.6.5
Reset a mailbox group	***560 + Group number + #**	3.6.2	4.6.5
Reset a user password	***570 + Mailbox number + #**	5.2.2	4.6.3

SYSTEM FUNCTIONALITY COMMANDS			
OPERATION	**COMMAND**	**DTMF**	**PC**
Change the system administrator's password	***600 + * + Old password + New password**	3.8.1.1	N/A
Change the operator's password	***601 + * + Old password + New password**	3.8.1.2	N/A
Forced Reorganization	**#610**	3.8.2	
Resetting the system to default	***654 + * + XXXX + #** XXXX is the system administrator password	3.8.9	N/A
Listen to the software version number	***680**	3.8.5	N/A
Play a system message	***690 + Z + XXX** Z = 0, 1 or 2 (language number) XXX = system message number	3.8.4	N/A
Play all system messages	***691 + Z** Z = 1 or 2 (language number)	3.8.6	
System message setting	***699 + X + Y** X = 1; System message 004 X = 2; System message 102 X = 3; System message 095 Y = 0; Play Y = 1; Don't play Y = 2;(Only when X=3) Play the message to mailboxes without a greeting message	3.8.7	

MAILBOX NOTIFICATION COMMANDS			
OPERATION	**COMMAND**	**DTMF**	**PC**
Set local notification for a range of mailboxes	***700 + First mailbox + Last mailbox + X + #** X = 0; disabled X = 1; LED 1 X = 3; Ring Signs X = 4; Rings	3.6.3.1	4.6.2
Set local notification for one mailbox	***701 + Mailbox + X + #** X = 0; disabled X = 1; LED 1 X = 3; Ring Signs X = 4; Rings	3.6.3.1	4.6.2
Permit remote notification for a range of mailboxes	***710 + First mailbox + Last mailbox + X + #** X = 0; not permitted X = 1; permitted	3.6.3.1	4.6.2
Disable remote notification for all mailboxes	***710 + #**	3.6.3.1	
Permit remote notification for one mailbox	***711 + Mailbox + X + #** X = 0; not permitted X = 1; permitted	3.6.3.1	4.6.6
Ring Notification Interval	***720 + XX** XX is in minutes	3.6.3.1	4.6.6
Ring Notification Duration	***730+ X** X = 0 means short ring X = 1 means long ring	3.6.3.1	4.6.6
Maximum no. Of days to store a message in the system	***740 + XX** XX is number of days 00-99.	3.6.3.1	N/A
Time to wait after off-hook for notification dialing	***741 + X** X = Time in seconds (0-9)	3.6.3.1	
Ring notification Retries	***750 + XX**	3.6.3.1	4.6.6
MSG light activation method	***760 + X** X = 0; Only on first new message X = 1; On every new message	3.6.3.1	4.6.6
Adjusting recording length	***790 + X** X = 1-9 minutes	3.8.10	4.6.6

[1] Refers to PBX codes. Each code contains digits 0-9, *, #, Flash-1, Flash-2,
    Pause and Extension Number.
    When entering a code, dial:

*0   for extension   *5   for A

*1	for pause		*6	for B
*2	for Flash-1		*7	for C
*3	for Flash-2		*8	for D
*4	for #		**	for *

N/A stands for Not Applicable.

8. APPENDIX B

The following pages include forms to help you properly setup and maintain the AVM JR. system using DTMF programming commands.

OPERATION	COMMAND	VALUE
Selecting opening menu	*112 ____ ____ __ # ____ ____ __ # ____ ____ __ # ____ ____ __ #	
No. Of digits in an extension	*300 _____	
No. Of rings before the line is answered	Line 1: *310 1 _____ Line 2: *310 2 _____ Line 3: *310 3 _____ Line 4: *310 4 _____	
Time to wait for No Answer	*311 _____	
Legal PBX extensions	Group 1: *320 0 ___ ___ # Group 2: *320 1 ___ ___ # Group 3: *320 2 ___ ___ # Group 4: *320 3 ___ ___ # Group 5: *320 4 ___ ___ # Group 6: *320 5 ___ ___ # Group 7: *320 6 ___ ___ # Group 8: *320 7 ___ ___ # Group 9: *320 8 ___ ___ # Group 10: *320 9 ___ ___ #	
Operator ID Code.	*330 _____	
Disconnect Code	*333 _____ #	
External Access Code	*340 _____	
Transfer mode	*350_____ _____	
Day Operator's Extension No.	*360 _____ #	
Night Operator's Extension No.	*360 _____ #	
Fax Extension No.	*360 _____ #	
Supervisor Extension No.	*360 _____#	
Flash 1	*370 _____	
Cadence of System Input and Output Tones in milliseconds	*371_____	
Voice Sensitivity	*376 _____	

OPERATION	COMMAND	VALUE
Message Light On 1 Code	*380 _____ #	
Message Light Off Code	*380 _____ #	
Transfer Code	*380 _____ #	
Recall from Busy Code	*380 _____ #	
Recall from No Answer Code	*380 _____ #	
Create a range of mailboxes Create a mailbox	*500 _____ _____ # *501 _____ #	
Create a range of virtual mailboxes Create a virtual mailbox	*520 _____ _____ # *521 _____ #	
Change the first digit of the group numbers	*545 __	
Add mailboxes to a group	Group 000: *540 000 _____ # Group 001: *540 001 _____ # Group 002: *540 002 _____ # Group 003: *540 003 _____ #	
Maximum no. Of days to store a message in the system	*740 _____	

SETTING NOTIFICATION FOR MAILBOXES

Local notification for a range of mailboxes: *700 _____ _____ ___ #

Local notification for one mailbox: *701 _____ ___ #

Permitting remote notification for a range of mailboxes: *710 _____ _____ ___ #

Permitting remote notification for one mailbox: *711 _____ ___ #

External notification active time *490 _____

NOTIFICATION PARAMETERS

Delay between notification of Ring Signs and Rings: *720 _____

Ring time notification of Ring Signs and rings *730 _____

Activate the LED notification *760 _____

SYSTEM TIME AND DATE

See Section 3.4 for information on setting the system time and date using codes *420 and *430.

SETTING THE WORKING TIME

See Section 3.5 for information on setting the following schedule using codes *450 and *460.

	Working Hours		**Break Time**	
Day	**Start**	**End**	**Start**	**End**
1 (Monday)	_____	_____	_____	_____
2 (Tuesday)	_____	_____	_____	_____
3 (Wednesday)	_____	_____	_____	_____
4 (Thursday)	_____	_____	_____	_____
5 (Friday)	_____	_____	_____	_____
6 (Saturday)	_____	_____	_____	_____
7 (Sunday)	_____	_____	_____	_____

SETTING THE OPERATIONAL MODE

Operational Mode: *400 __   Select: Day (0)/Night (1)/Holiday (2)/Auto (3)/Break (4)

This form contains the programming schedule for up to four script message. Please copy the form if you have more than four script messages.

Note: The following numbers are dedicated to specific script messages:
- *Script message number 00 to the Day Mode Opening Menu*
- *Script message number 10 to the Night Mode Opening Menu*
- *Script message number 15 to the Break Time Opening Menu*
- *Script message number 20 to the Holiday Mode Opening Menu*

The rest of the script messages (01-09, 11-14 and 16-19) may be used in all modes without limitations.

Script No. _____

0 _____
1 _____
2 _____
3 _____
4 _____
5 _____
6 _____
7 _____
8 _____
9 _____
EOM _____

Script No. _____

0 _____
1 _____
2 _____
3 _____
4 _____
5 _____
6 _____
7 _____
8 _____
9 _____
EOM _____

Script No. _____

0 _____
1 _____
2 _____
3 _____
4 _____
5 _____
6 _____
7 _____
8 _____
9 _____
EOM _____

Script No. _____

0 _____
1 _____
2 _____
3 _____
4 _____
5 _____
6 _____
7 _____
8 _____
9 _____
EOM _____

9. APPENDIX C

This section lists the AVM JR. system messages and their numbers. You can hear each of these messages in the programming mode by dialing:

*690 + language digit (0, 1 or 2) + system message number

NO.	SYSTEM MESSAGE
000	This system has not been programmed. Please refer to the installation manual for instructions. Thank you.
001	Please hang up now.
002	Please enter your password.
003	Invalid entry. Please try again.
004	Pease hold..
005	Message was received on ….
006	At...
007	Zero
008	O'clock
009	No

NUMBERS

010	One	024	Fifteen
011	Two	025	Sixteen
012	Three	026	Seventeen
013	Four	027	Eighteen
014	Five	028	Nineteen
015	Six	029	Twenty
016	Seven	030	Thirty
017	Eight	031	Forty
018	Nine	032	Fifty
019	Ten	033	Sixty
020	Eleven	034	Seventy
021	Twelve	035	Eighty
022	Thirteen	036	Ninety
023	Fourteen		

DATES

037	First	048	Twelfth
038	Second	049	Thirteenth
039	Third	050	Fourteenth
040	Fourth	051	Fifteenth
041	Fifth	052	Sixteenth
042	Sixth	053	Seventeenth
043	Seventh	054	Eighteenth
044	Eighth	055	Nineteenth
045	Ninth	056	Twentieth
046	Tenth	057	Thirtieth
047	Eleventh		

MONTHS

058	Of January	064	Of July
059	Of February	065	Of August
060	Of March	066	Of September
061	Of April	067	Of October
062	Of May	068	Of November
063	Of June	069	Of December

NO.	SYSTEM MESSAGE
070	…and….
071	You have…
072	…New messages
073	…New message
074	…Messages
075	To retrieve messages, press 1. To change mailbox settings press 2. To send a message to press 8. To return to the main menu, press 9.
076	You have no messages.
077	Message saved. Please hold.
078	To skip this message, press 1. To replay press 2. To save press 3. To forward press 4. To reply to message sender, press 5. To delete the message, press 8. To return to previous menu, press 9.
079	Message saved.
080	Message deleted.
081	Please enter a new four digit password.
082	To delete skipped messages, press 8. To save all messages, press 9.
083	…Yesterday…
084	…Today…

NO.	SYSTEM MESSAGE
085	Please enter your Mailbox number.
086	Invalid Mailbox number. Please try again.
087	Incorrect password. Please try again.
088	Please record your personal greeting after the tone. Press the pound key when you have finished.
089	Please record your name after the tone. Press the pound key when you have finished.
090	Calls will be transferred to your extension.
091	Calls will not be transferred to your extension.
092	Please enter the mailbox number.
093	You have reached the mailbox of…
094	You have reached the mailbox number…
095	Please leave a message after the tone. When you are finished press star for further options or simply hang up.
096	The dialed extension is busy. To reach another extension, dial '1' and the extension number. To hold, dial '2'. To leave a message, dial '8'. To reach the operator, dial '0'. To return to the Main Menu, dial '9'.
097	There is no answer from the extension.. To reach another extension, dial '1' and the extension number. To leave a message, dial '8'. To reach the operator, dial '0'To return to the Main Menu, dial '9'.
098	The mailbox is currently unavailable.
099	The system is busy. Please wait.

NO.	SYSTEM MESSAGE
100	A.M.
101	P.M.
102	You have a call.
103	The dialed extension is busy. To try another extension, press 1 followed by the extension number. To hold press 2. To transfer to the operator, press 0. to return to the main menu, press 9.
104	The dialed extension is busy. To try another extension, press 1 followed by the extension number. To hold press 2. To transfer to the operator, press 0. to return to the main menu, press 9
105	You have exceeded the maximum message length. The message will be transferred as is.
106	Sunday
107	Monday
108	Tuesday
109	Wednesday
110	Thursday
111	Friday
112	Saturday
113	O (i.e., eight-O-two for 8:02)
115	Please leave your comments after the tone. Dial the pound key at the end.

NO.	SYSTEM MESSAGE
116	To change the remote notification mode, dial '1'. To enter your remote phone number, dial '2'. To hear the current remote phone number, dial '3'. To return to the previous menu, dial '9'.
117	Remote Notification is disabled.
118	Remote Notification is enabled.

119   You have a new message. Please dial '1' to receive your messages.

120   Please enter your remote phone number. Dial the pound key at the end.

121   Your call to the requested extension cannot be completed at the moment. To reach the operator, dial '0'. To reach another extension, dial '1' and the extension number. To leave a message, dial '8'. To return to the main menu, dial '9'.

122   Invalid extension number. Please try again.

123   Unsaved messages are deleted.

124   To hear the current recording, dial '1'. To record, dial '2'. To delete the current recording, dial '8'. To return to the previous menu, dial '9'.

125   The recording does not exist.

126   The Busy On-Time is…

127   The Busy Off-Time is…

128   To hear your current password, dial '1'. To change your password, dial '2'. To return to the previous menu, dial '9'.

129   The message was received…

130   For Pager notification, press 1. To enter the pager number, press 2. To listen to the pager number, press 3. To return to the previous menu, press 9.

131   Pager notification is disabled.

NO.	SYSTEM MESSAGE

132   Pager notification is enabled

133   Please enter your pager number. Press the pound key when you are finished.

134   …saved messages

135   …saved message

136   That mailbox is currently unavailable

137   Storage space is nearing capacity

138   For…

139   …press…

140   To return to the previous list, press 7.

141   For additional listings, press 8.

142   To enter another name, press 0. To return to the main menu, press 9.

143   No directory listing is available.

144   To record your greeting, press 1. To record your name, press 2. To access directory listing options, press 3. To change your password, press 4. To change external notification, press 6. To change pager notification, press 7. To return to the previous menu, press 9.

145   To listen to your directory listing, press 1. To enter your directory listing, press 2. To delete your directory listing, press 8. To return to the previous menu, press 9.

146   Operation successful.

147   Using your keypad, please enter the first 3 letters of your last name. For Q press 7 for Z press 9.

NO.	SYSTEM MESSAGE

148   Using your keypad, please enter the first 3 letters of the person's last name. For Q press 7 for Z press 9.

149   Using your keypad, please enter the first 3 letters of your first name. For Q press 7 for Z press 9.

150   Using your keypad, please enter the first 3 letters of the person's first name. For Q press 7 for Z press 9.

151   Your call is being transferred to…

152   To join the directory listing, please make sure your name is recorded.

153   Product version is…

154   To try another extension, press 1 followed by the extension number. To transfer to the operator, press 0. To return to the main menu, press 9.

155   This value has not been set.

156   To change mailbox settings, press 2. To send a message, press 8. To return to the main menu, press 9.

157   To skip this message, press 1. To replay, press 2. To save, press 3. To forward, press 4. To delete, press 8. To return to the previous menu, press 9.

158 To record your greeting, press 1. To record your name, press 2. To access directory-listing options, press 3. To change your password, press 4. To return to the previous menu, press 9.

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10. APPENDIX D

SMDR E

When using the SMDR-E unit with either the KSX-32 or KSX-128 you should do the following:

- Connect the RS-232 cable from the AVM JR. to the RS-232 Com 2 connector on the SMDR-E (labeled P1).

Note: *If you are attaching a caller id unit or InnFone call accounting system to the SMDR along with the voicemail you must remove pin 3 from the DB-9 connector that attaches to the SMDR RS-232 port. However, please contact technical support before doing this to verify your application*

- Set the dip switches as follows:
  1. Set to On (voicemail integration)
  2. Set to OFF (remote programming)
  3. Does Not Matter (serial call record output)
  4. Does Not Matter (print intercom calls)
  5. Does Not Matter (print alarm calls)
  6. Set to Off (remote programming type)
  7. Not Used
  8. Not Used
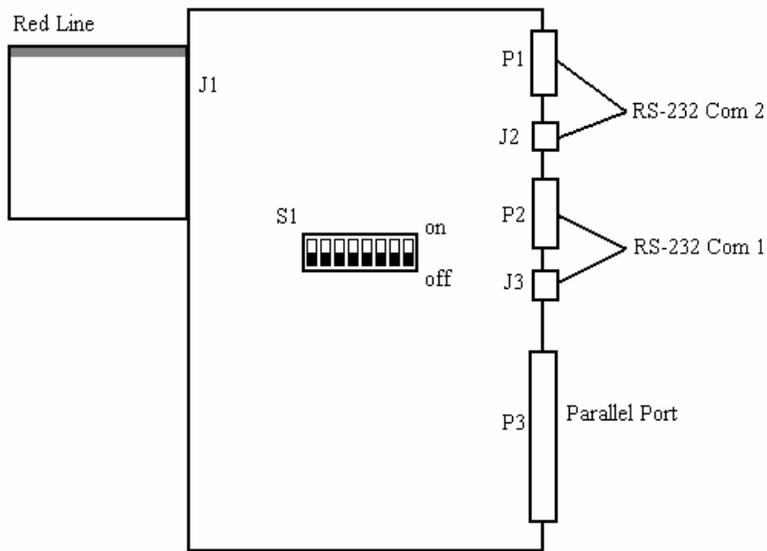
Figure 10-1 SMDR-E Diagram

SMDR-64/256

When using the SMDR in either the KSX-64 or KSX-256 you should do the following:

- Connect the RS-232 cable from the AVM JR. to the DB-9 to modular converter (supplied with the SMDR). Connect DB-9 to modular connector to J3 on the SMDR using a six wire modular cord.

- Set the dip switches as follows:
  1. Set to On (voicemail integration)
  2. Set to OFF (remote programming)
  3. Set to OFF (serial call record output)
  4. Does Not Matter (print intercom calls)
  5. Does Not Matter (print alarm calls)
  6. Set to Off (remote programming type)
  7. Not Used

8. Not Used
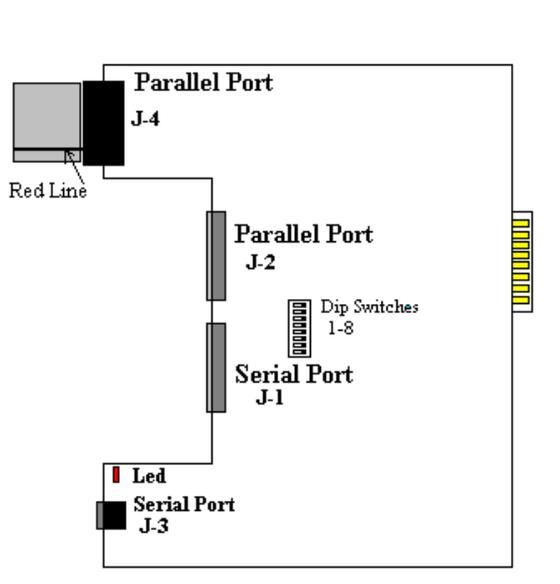
Figure 10-2 KSX 64/256 SMDR

SMDR-U (KDX-500)

When installing the AVM JR. on a KDX-500 you should do the following:

- Connect the RS-232 cable from the AVM JR. to the DB-9 connector labeled CN10 (Com 3) on the right hand side of the main cabinet.
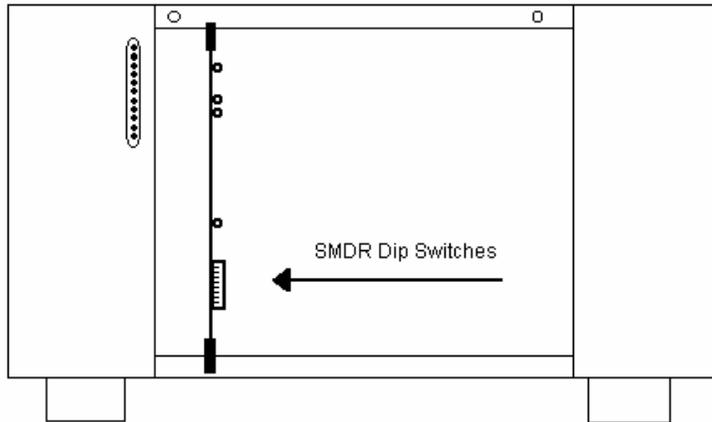
Figure 10-3 KDX-500 SMDR Dip Switches
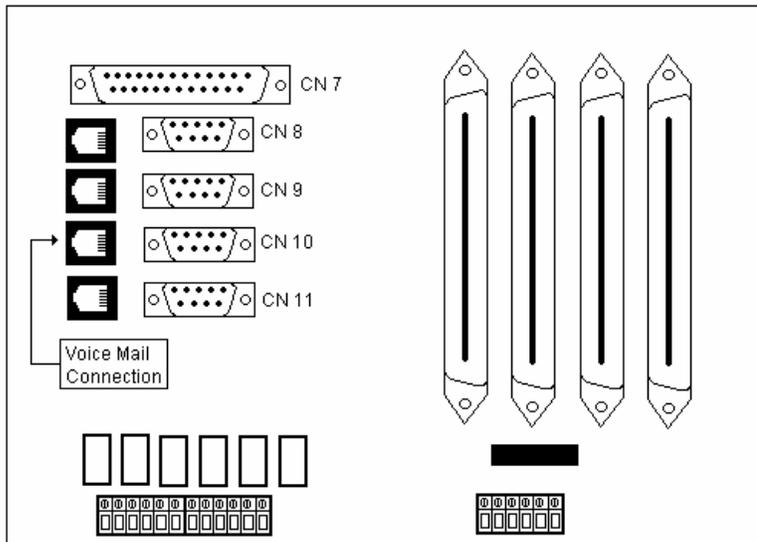
Figure 10-4 KDX-500 Side Connections

11. APPENDIX E

E.1   KSX-32/64/128/256 Detailed Programming

E.1.1   Programming Voicemail Ports

1. Enter system programming from any display telephone by dialing "**PROG, PROG, 1, 2, 3, HOLD.**"

    The display should show the following:

    > M:.
    > Enter Mode No.

2. Enter Mode 03 by dialing "**03**"

3. Enter the first port number that you are attaching to the voicemail. (01-32 for KSX-32, 0-64 for KSX-64, 001-128 for KSX-128 and 001-256 for KSX-256)

4. Dial 5 to select the Voice Mail Port option.

5. Press the "**FLASH**" key followed by the "**CONF**" key followed by the "**HOLD**" key. **(Only do this for the first time not on the following ports).**

6. Press the "**MSG**" key followed by the "**HOLD**" key to enable the port as a voicemail port.

    The display should show the following:

    > M:03 XX 5   YES
    > VOICE MAIL PORT

7. Press the "**DATA**" key and then follow the above steps for the rest of your voicemail ports. **(Be sure to exclude step 5).**
8. Press the "**RLS**" key to exit out of programming.

E.1.2   Programming the Station Group

1. Enter system programming from any display telephone by dialing "**PROG, PROG, 1, 2, 3, HOLD.**"

    The display should show the following:

    > M:.
    > Enter Mode No.

2. Enter mode 67 by dialing "**67**"

3. Dial the station group number you wish to assign your voicemail to (1-8).

4. Dial the first position number of that station group (1 for KSX-32 and 01 for KSX-64/128/256).

---

5. Dial the port number of the first port of voicemail.

The display should show the following:

```
M:67  XX  XX      XX
ST HUNT GROUP
```

6. Press the **"HOLD"** key followed by the **"TRF"** key to save the entry and move to the next position in the group.

7. Dial the next port number being used for voicemail and repeat **STEP 6** until you have entered all your ports (be sure to press **"HOLD"** after your last port is entered).

8. Press the **"RLS"** key to exit out of programming.

E.1.3   Programming Direct Ring

Use this programming procedure to program the voicemail to answer all incoming calls immediately.

1. Enter system programming from any display telephone by dialing "**PROG, PROG, 1, 2, 3, HOLD."**

The display should show the following:

```
M:.
Enter Mode No.
```

2. Enter mode number (39 for Day ringing or 40 for Night ringing)

3. Enter the trunk number that you wish to have the voicemail answer (1-8 on KSX-32 or 01-24 on KSX-64/128/256).

4. Enter the station group number that you assigned to the voicemail (1-8).

The display should show the following:

```
M:39  1            1
ST GP RING - DAY
```

            or

```
M:40  1            1
ST GP RING - NIT
```

5. Press the **"HOLD"** key to save changes.

6. Press the **"DATA"** key and repeat steps 1-6 until you have entered all the trunks that you wish to ring immediately to voicemail.

7. Press the **"RLS"** key when finished.

E.1.4   Programming Delayed Ringing

1. Enter system programming from any display telephone by dialing "**PROG, PROG, 1, 2, 3, HOLD."**

The display should show the following:

```
M:.
Enter Mode No.
```

2. Enter mode number by dialing **"47"** for day or **"48"** for night.

3. Enter the first position of common ring by dialing **"01"**.

    The display should show the following:

    ```
    M:47  01
    COMM RING - DAY
    ```

4. Press the **"MSG"** key to program a station group.

5. Dial the station group number that you assigned your voicemail to (1-8)

6. Press the **"HOLD"** key to save your changes.

7. Press the **"DATA"** key to enter a new mode number.

8. Enter mode number 46 by dialing **"46"**.

9. Enter the time in seconds that you wish to have the voicemail delay answer.

    NOTE: When programming on the KSX-64/128/256 with version 400 software you must enter a trunk number before you enter the delay time. This value can be from 01-24. This will allow you to program certain trunks for a longer delay.

    10. Press the **"HOLD"** key to save your programming.

    11. Press the **"RLS"** key to exit programming.

E.2   KDX-500 Detailed Programming

E.2.1   Programming Voicemail Ports

1. Enter system programming from any display telephone by dialing "**PROG, PROG, 1, 2, 3, HOLD."**

    The display should show the following:

    ```
    PROGRAM SECTION
    ```

2. Enter the Station Programming section by dialing **"2"**.

3. Enter the Voicemail port Programming mode by dialing **"34"**.

4. Enter your first port of voicemail (001-400).

5. Press the **"FLASH"** key followed by the **"CONF"** followed by the **"HOLD"** key to clear out any existing ports as voicemail ports. **(Do this step only for the first port of voicemail.)**

6. Press the **"MSG"** key followed by the **"HOLD"** key to activate that port as a voicemail port.

7. Press the **"DATA"** key and repeat steps 2-6 until all of your voicemail ports are programmed. **(Be sure not to follow step 5, as this will erase the programming you have just done.)**

8. Press the **"RLS"** key when you are finished

E.2.2 Programming the Station Hunt Group

1. Enter system programming from any display telephone by dialing "**PROG, PROG, 1, 2, 3, HOLD."**

The display should show the following:

PROGRAM SECTION

2. Enter System Programming mode by dialing **"3"**.

3. Enter Voicemail Station Hunt Group mode by dialing **"50"**.

4. Enter the first position of the hunt group by dialing **"01"**.

5. Enter your first port of voicemail (001-400).

6. Press the **"HOLD"** key to save that port.

7. Press the **"TRF"** key to move to the next position in that hunt group.

8. Enter your next port of voicemail (001-400).

9. Repeat steps 6-8 until all of your voicemail ports are programmed in your hunt group.

10. Press the **"RLS"** key to exit out of programming when you are finished.

E.2.3 Programming Direct Ringing

1. Enter system programming from any display telephone by dialing "**PROG, PROG, 1, 2, 3, HOLD."**

The display should show the following:

PROGRAM SECTION

2. Enter Trunk Programming mode by dialing **"1"**.

3. Enter Trunk Station Hunt Group Ringing mode (65 for day or 66 for night).

4. Enter Trunk Number to program for direct ringing (01-96)

5. Press the **"9"** key to assign this trunk to ring station group 9 (this is your voicemail group).

6. Press the **"HOLD"** key to save changes.

7. You can either press the **"TRF"** key to advance to the next trunk and repeat steps 5-6 or you may press the **"DATA"** key and repeat steps 3-6 until all of the trunks you wish to ring directly to voicemail are programmed.

8. Press the **"RLS"** key when you have finished programming.

E.2.4 Programming Delayed Ringing

1. Enter system programming from any display telephone by dialing "**PROG, PROG, 1, 2, 3, HOLD."**

   The display should show the following:

   PROGRAM SECTION

2. Enter Trunk Programming Mode by dialing **"1"**.

3. Enter Common Ring Mode (74 for day or 76 for night).

4. Enter the first programming position by dialing **"01"**.

5. Press the **"MSG"** key to program a station group.

6. Press the **"9"** key to enter your voicemail station group.

7. Press the **"HOLD"** key to save your programming.

8. Press the **"DATA"** key to enter a new mode number.

9. Enter the Common Ring Delay mode corresponding to the programming you just saved (73 for day or 75 for night).

10. Enter the trunk number that you wish to delay ring to voicemail (01-96).

11. Enter the time in seconds that you wish the delay to be.

12. Press the **"HOLD"** key to save your programming.

13. Press the **"TRF"** key to go to the next trunk and then follow steps 11 and 12 or press the **"DATA"** key and follow steps 9-12.

14. Press the **"RLS"** key when you are finished programming.