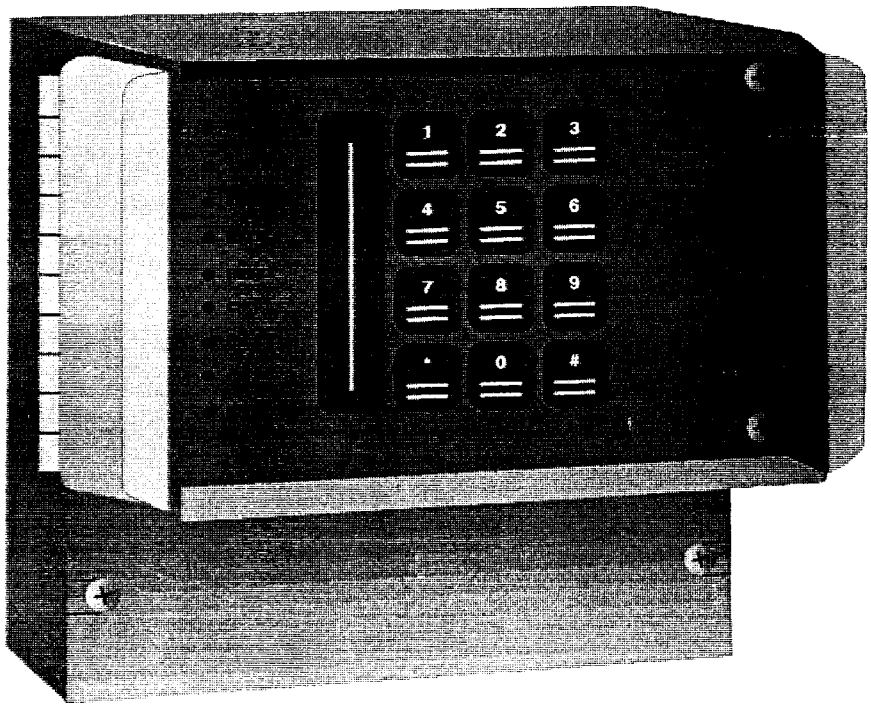
OMA-AVDS-4

OMEGAPHONE® Automatic Voice Dialer System



OMEGA®

An OMEGA Technologies Company

Operator's Manual

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An OMEGA Technologies Company

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Unpacking Instructions

Remove the Packing List and verify that you have received all equipment, including the following (quantities in parentheses):

OMA-AVDS-4 (1)
Power Supply (1)
Telephone Connection Cable (1)
Telephone Connection Box (1)
Operator's Manual (1)

If you have any questions about the shipment, please call the OMEGA Customer Service Department.

When you receive the shipment, inspect the container and equipment for signs of damage. Note any evidence of rough handling in transit. Immediately report any damage to the shipping agent.

NOTE

The carrier will not honor damage claims unless all shipping material is saved for inspection. After examining and removing contents, save packing material and carton in the event reshipment is necessary.

CUSTOMER INFORMATION

FCC RULES PART 68

This equipment complies with Part 68 of the FCC rules. On the metal cover of the circuit board of this equipment is a label that contains, among other information, the FCC registration number and ringer equivalence number (REN) for this equipment. If requested, this information and the USOC jack number required for connection, must be provided to the telephone company.

This equipment is designed to be connected to the telephone network or premises wiring using a compatible modular jack which is Part 68 compliant. See installation instructions for details.

The REN is used to determine the quantity of devices which may be connected to the telephone line. Excessive REN's on the telephone line may result in the devices not ringing in response to an incoming call. In most, but not all areas, the sum of the REN's should not exceed five (5.0). To be certain of the number of devices that may be connected to the line, as determined by the total REN's contact the telephone company to determine the maximum REN for the calling area.

If the terminal equipment "OMA-AVDS-4" causes harm to the telephone network, the telephone company will notify you, in advance, that temporary discontinuance of service may be required. But if advance notice isn't practical, the telephone company will notify you as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe this action is necessary.

The telephone company may make changes in it's facilities, equipment, operations, or procedures that could affect the operation of the equipment. If this happens, the telephone company will provide advance notice in ordr for you to make the necessary modification in order to maintain uninterrupted service.

CUSTOMER INFORMATION

This equipment cannot used on public coin service provided by the telephone company. Connection to Party Line Service is subject to state tarifffs. (Contact the state public utility commission, public service commission or corporation commission for information).

INTERFERENCE AND FCC RULES PART 15

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Re-orient or relocate your radio or TV antenna.

Increase the separation between the equipment and receiver.

Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult your dealer or an experienced radio/TV technician for help.

DEPARTMENT OF COMMUNICATIONS NOTICE

NOTICE

The Canadian Department of Communications label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operational and safety requirements. The department does not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. In some cases, the company's inside wiring associated with a single line individual service may be extended by means of certified connector assembly (telephone extension cord). The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations. Telecommunications companies do not allow their equipment be hooked up to the customer provided jacks except when the companies have a specific tariff for this type of installation.

Repairs to certified equipment should be made by an authorized maintenance facility designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cuase to request the user to disconnect the equipment.

User should ensure for his own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

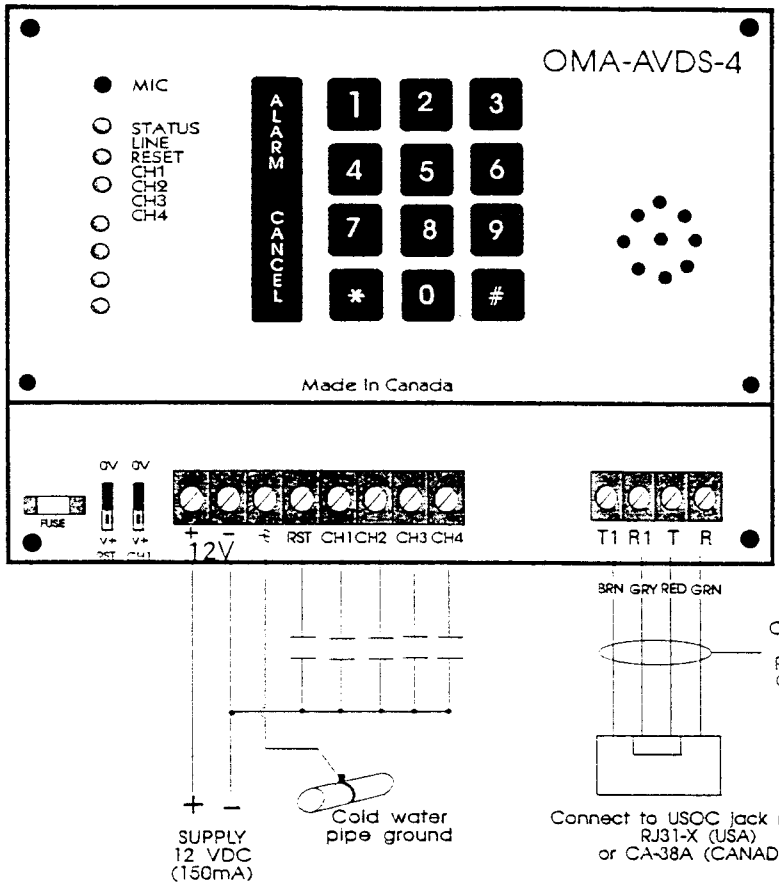
CAUTION

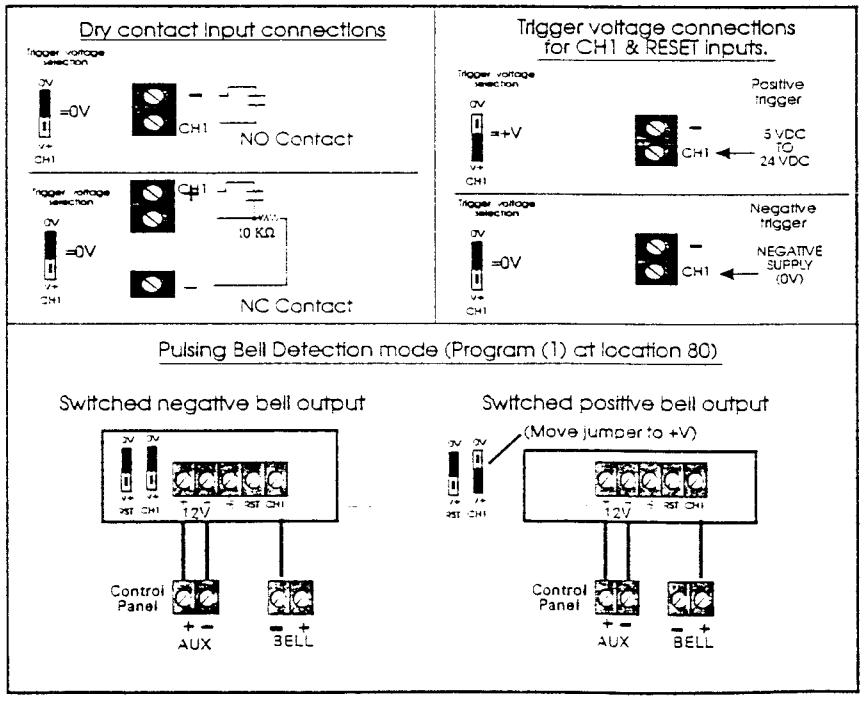
Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician as appropriate.

The Load Number (LN) assigned to each terminal device denotes the percentage of the total load to be connected to a telephone loop which is used by the device, to prevent overloading. The termination on a loop may consist of any combination of devices subject only to the requirement that the total of the Load Numbers of all devices does not exceed 100.

The Load Number of this device is 1.

WIRING


OMA-AVDS-4
MIC
STATUS
LINE
RESET
CH1
CH2
CH3
CH4
ALARM
CANCEL
1 2 3
4 5 6
7 8 9
* 0 #
Made In Canada
FUSE
0V 0V
12V
RST CH1 CH2 CH3 CH4
T1 R1 T R
BRN GRY RED GRN
CA-38A
OR
RJ31-X
CORD
SUPPLY
12 VDC
(150mA)
Cold water
pipe ground
Connect to USOC jack number
RJ31-X (USA)
or CA-38A (CANADA)


Dry contact Input connections
=0V
CH1
NO Contact
10 KΩ
NC Contact
Trigger voltage connections
for CH1 & RESET inputs.
=+V
Positive
trigger
5 VDC
TO
24 VDC
Negative
trigger
NEGATIVE
SUPPLY
(0V)
Pulsing Bell Detection mode (Program (1) at location 80)
Switched negative bell output
Switched positive bell output
(Move jumper to +V)
12V
Control
Panel
AUX
BELL

INSTALLATION

If the OMA-AVDS-4 is to be installed in a noisy location, connect the power adaptor temporarily and do the programming and recording in a quiet area before installation (All programming and voice messages will be retained when the power is disconnected afterwards). Have the telephone company install the line seizure type modular jack (CA38A or RJ31X) prior to the installation time. Make sure that the corresponding cable and modular plug is available (keep with the unit or in a safe location).

INSTALLATION

1) Remove the lower cover to gain access to the lower mounting holes and the terminal blocks.

2) Mount the unit on the wall in a suitable location near the telephone line connection jack and a source of 120VAC power. The AC power outlet must be always energized, ie., not connected to a switch or to a circuit breaker which may be shut off to control lights or other equipment.

3) Connect the channel input wiring, the telephone modular cable, and the low voltage DC power wiring to the corresponding terminals.

4) Plug the power adaptor into the 110 - 120VAC outlet.

5) Program the unit if this was not already done before installation.

6) Test the operation of the unit.

7) Unplug the power adaptor to remove power from the unit.

Remove the 4 screws which retain the keypad faceplate.

Remove the faceplate, holding it so as to avoid placing strain on the wiring and connectors.

INSTALLATION

8) Plug the connector from the battery on to the two battery input pins, observing polarity: The red wire should be connected to the pin marked " + ".
Reversing the battery connection will cause the protective fuse to blow!

9) Replace the faceplate and secure with the 4 screws. The unit should now be powered from the battery connection, in the same way as it will be during a power failure.

10) Test the unit on battery power only, before plugging the power adaptor back into the 110 - 120VAC outlet.
Do not leave the battery connected, without the AC power present, any longer than necessary.

Note:

If you have a spare channel not required for emergency reporting, you can program it to call a local phone number (eg., yourself) with a test message. This channel can then be used to make most of the initial tests, and regular periodic tests, without disturbing the emergency response people. The test can be activated from the OMA-AVDS-4 keypad. A key switch or other momentary switch can also be connected to this test channel to facilitate test activation.

IMPORTANT

Do not install the OMA-AVDS-4 near voltage cables or electrical installations. Induction can cause the unit to operate erratically.

CHANNEL INPUTS

The OMA-AVDS-4 has 4 channel inputs labelled "CH1" to "CH4", plus a reset input labelled "RST". All inputs are designed to be connected to either:

a) Normally Open Dry Contacts which close to activate the input or, if necessary

b) a negative (0V) trigger, with + 4 to 24VDC as the idle (normal) condition. Connection to a burglary panel programmable output which switches to negative will also work if the panel negative (-) and the OMA-AVDS-4 (-) are connected together.

Normally Closed contacts can be handled by adding a 10K resistor to (+) on each channel to be converted. (See the wiring diagram for more information).

CH1 and RST are special inputs designed to also accept a positive (+) voltage trigger for more flexibility. Each of these two inputs has a plug-in jumper to choose between normal operation (0V position) and + trigger operation (+V position). These two jumpers are located to the left of the terminal block. Move the jumper from the normal "0V" position only when positive voltage is being used to activate the input, with low voltage (0 to 1V) being the idle (normal) state.

RST INPUT

Activating this input will stop and reset all call sequences. Connect a NO/NC switch or use a programmable output from the burglar alarm system to activate the reset function.

CAUTION

Do not bundle input wiring with high voltage power cables. Failure to observe this caution could allow high voltage to be inductively coupled to the input wiring and possibly damage input circuitry or result in false operation.

PULSING BELL DETECTION MODE (PBDM)

The 80# programming location allows the user to set the OMA-AVDS-4 inputs to operate in Standard Detection Mode (SDM) or in Pulsing Bell Detection Mode (PBDM). PBDM provides a simple way to connect CH1 of the Dialex to the Bell/Siren output of a Burglary/Fire control panel. This bell output is usually steady for burglary alarm and pulsing for fire alarm. With this option enabled, the OMA-AVDS-4 can distinguish between a steady or pulsing signal applied to CH1. The steady signal triggers the CH1 response in any case. However, the OMA-AVDS-4 will react to the pulsing signal as if it came from an extra input channel, numbered one more than the highest real hardware input. For the 4 channel OMA-AVDS-4, a pulsing signal applied to CH1 will trigger channel 5 and the OMA-AVDS-4 operation will be what is programmed in the CH5 locations.

Many control panels actually switch the negative side of the Bell Output, while positive is always present on the + bell terminal. In this case, the CH1 jumper must be left in the normal "0V" position, and CH1 should be connected to the negative (-), active, side of the bell output. If the control panel switches the positive, then move the CH1 jumper to the "+V" position and connect Bell + to the CH1 input.

INSTALLATION

If the control panel minimize bell output is (or may be later) connected to a sounding device which generates electrical noise, such as an electro-mechanical bell or horn, extra precautions may be required. Connect a suppression device such as a 0.1mf 250V capacitor or a diode across the sounder to minimize the noise interference and a 0.1mF capacitor between the CH1 input and (+) for negative trigger, or (-) for positive trigger.

Input CH2, CH3 and CH4 on OMA-AVDS-4 always has the standard SDM characteristics and operates the same way regardless of whether CH1 is configured as "Bell" PBDM or "Standard" SDM. However, CH2, CH3 and CH4 must be activated for at least 6 seconds in some operating modes to start a call procedure, when the CH1 input is configured as PBDM.

STANDARD DETECTION MODE (SDM)

In SDM, all inputs operate in the same manner: Activating a channel will start a call procedure corresponding to the triggered input.

In SDM, CH1 input can be configured to detect a positive voltage signal by moving its jumper, but cannot distinguish between steady and pulsing signals.

TELEPHONE LINE CONNECTIONS

The OMA-AVDS-4 provides line seizure capability and should be connected as the first device after the telephone line enters the building. The telephone line is connected to the "T" and "R" terminals. The line continuing on to the building telephones, or other telephone equipment, is connected to "T1" and "R1". When properly connected in this way, the OMA-AVDS-4 can disconnect any telephone left off hook or telephone equipment in use, in order to call out in an emergency. This requirement for line seizure is taken care of by using the proper CA-38A (Canada) or RJ31-X (USA) modular cord with the corresponding telephone company installed jack.

The wires from the RJ31X or CA-38A telephone jack are connected to the terminals in the following way:

From CA-38A (RJ31-X) cord	To terminals
Green Wire	T
Red Wire	R
Brown Wire	T1
Gray Wire	R1

Do not connect DC POWER until all other wiring has been connected. Then open face plate to connect the standby battery.

POWER CONNECTIONS

The OMA-AVDS-4 is a stand alone Digital voice dialer. The plug in power supply which is included with the Dialer is a 14Vdc unit supplying 17-18Vdc at 150mA.

INSTALLATION

POWER ON PROCEDURE

Note: On power up, each channel input already activated will start a calling sequence.

(1) Connect the plug-in power supply into the wall outlet.

(2) The Status LED should flash every 2 seconds. All other LEDS must be off in ready mode. The RST and channel lights indicate an activated input when they are lit. Remove the alarm condition to enter ready mode.

If the STATUS light is on steady (indicating call procedure in operation), activate the RST input.

(3) When in ready mode, start programming. You cannot enter programming if the OMA-AVDS-4 is not in ready mode.

PROGRAMMING

PROGRAMMING PROMPTS

AUDIBLE TONES

The following tones will guide you as you program the system:

One short tone:	Acknowledges programming access. (Ready to accept programming option)
Two short tones:	OMA-AVDS-4 exits programming and saves the parameters programmed
One long tone:	Access or function denied, incorrect entry

PROGRAMMING LED INDICATIONS

STATUS LED flashes slowly when you are in programming mode.

STATUS LED flashes quickly when record or playback function is in use.

PROGRAMMING OVERVIEW

During programming, all the data required by the OMA-AVDS-4 to perform its desired functions will be entered in a step by step process. Data will be entered and voice messages recorded, using the incorporated keypad, microphone and speaker. These instructions show the numbers to be entered, by pressing keys on the OMA-AVDS-4, in square brackets, for example: [1 1 #]. A 2 digit number, followed by [#], will be entered to open each programming location. To make it easy to remember, the first digit is the step number, ie., the type of programming. The second digit is related to the programming, for example, the channel number.

First, a list of up to 8 telephone numbers will be entered. This list, called the "Telephone Number Directory" is used by the OMA-AVDS-4 to look up specific numbers to dial, when it is time to call out to report a channel activation.

Next the format choice of either "Voice Message" or "Pager code message" is entered for each of the phone numbers in the directory. Typically, some phone numbers will be answered by a human listener expecting a voice message. One other number (or more than one) could be the phone number of a pager system which will display the DTMF digits sent to it on the user's portable pager screen.

PROGRAMMING

The third programming step links the input channels to the Telephone Directory. It tells the OMA-AVDS-4 which of the available numbers should be called, and in what order, for each of the possible input channels. Since the inputs may be triggered by different conditions requiring different people to respond, this programming step provides all the required flexibility of how many people, or pagers, who, and in what priority order will be called for each activation type.

Next, the common identification voice message and the individual channel messages are recorded for the human listeners.

If one or more phone numbers have the pager format, then the numerical messages to be displayed by the pager(s) for each channel are entered.

Next, some communications choices and the input mode choice are entered.

After the programming is completed, or after each step if desired, the data programmed can be displayed by a flashing LED light for verification. The operation of the unit can be tested, for each channel, by entering activation codes or triggering the inputs.

PROGRAMMING STEPS

Step 1	Telephone Numbers
Step 2	Communication Format
Step 3	Call List, Priority Order
Step 4	Not required and not functional on the OMA-AVDS-4
Step 5	Emergency Message Recording
Step 6	Digital Pager Messages
Step 7	Communication Options
Step 8	Input Detection Mode
Step 9	Programming check and testing

PROGRAMMING PROCEDURE

GENERAL

To enter programming mode, the system must be in ready mode. Otherwise, access to programming will be denied. The programming process follows a simple sequence such as:

1) Enter the Location number followed by [#]
   ex: [1 1 #] for Location 11
   The OMA-AVDS-4 will acknowledge by one short "beep" if accepted or one long "beep" if a wrong key or unknown location has been entered.
2) Enter the programming parameters followed by the [#] key if needed. The ending [#] is omitted only when:
   a) All possible digits are entered, such as a Call List Priority Order, with 8 numbers
   b) For locations where you must enter the specified number of digits.
   ex: [60][#][08] Pager wait always 2 digits
   The OMA-AVDS-4 will acknowledge by 2 short "beeps"
3) The location is now programmed. You are back in ready mode and able to access a new location.

4) You have to enter the location code followed by [#] within 5 seconds. Otherwise, the system will exit programming and go back to ready mode. After 30 seconds (once entered in a location) without pressing a key, the OMA-AVDS-4 will return to the ready mode and will not save the (incomplete) programming of the last location.

STEP 1 TELEPHONE NUMBER DIRECTORY

Location [#] Telephone number [#]
[1 1] [#] Phone number 1 [#]
.....
[1 8] [#] Phone number 8 [#]

ex: To program 555-4444 as phone number 1
[1 1] [#] [5 5 5 4 4 4 4] [#]

Special digits: Special digits can be programmed by first entering [*]. To program a 4 seconds pause during dialing, enter [* 4] (Actually, entering [*] followed by any number other than "*" or "#" will provide the same 4 seconds pause).

To program an "*", enter [* *]
To program a "#", enter [* #]

STEP 2 COMMUNICATION FORMAT

Choose a communication format for each phone number of the directory. If not all phone numbers are used, 8 digits must still be entered.

[2 0] [#] [8 digits]

The 1st digit is the communication format of the 1st phone number.
.....
The 8th digit is the communication format of the 8th phone number

Enter [0] to set a voice phone number
Enter [1] to set a pager number

example: To program the first six numbers as voice phone telephone numbers and the last two as pager numbers.
[2 0] [#] [0 0 0 0 0 0 1 1]

STEP 3 CALL LIST, PRIORITY ORDER

You have already programmed your OMA-AVDS-4 unit with a telephone directory of up to 8 telephone numbers. Now, for each channel, program as the directory positions, the list of telephone numbers in the order they will be called.
[3 1] [#] [Priority list of channel 1] [#]
...
[3 5] [#] [Priority list of channel 3] [#]

You can enter up to 8 digits which are the directory positions of up to 8 phone numbers. Program a blank for each channel not used.
example: To call the 1st, the 2nd and the 5th phone number for channel 1, in that order, program:
[3 1] [#] [1 2 5] [#]
If channel 2 is not used, program: [3 2] [#] [#]

STEP 4 NOT REQUIRED AND NOT FUNCTIONNAL ON THE MODEL OMA- AVDS-4

PROGRAMMING

STEP 5 EMERGENCY MESSAGE RECORDING

The OMA-AVDS-4 has a total recording time of 60 seconds. This time is split between the 6 messages. The first message is the ID message (Name, address, ...) and the following messages are assigned to channel 1, channel 2, etc...

You must record all messages in the right order. Begin with the ID message, followed by the channel 1 message, the channel 2 message
etc. The recording procedure requires you to record all messages even though they are not needed for your application. Record a short blank for an unused message. The status LED will flash very fast during recording. Talk clearly into the microphone from a distance of 12 inches.

RECORDING PROCEDURE
Prepare a written script of what you want to say, to help avoid mistakes and unwanted pauses.
[5 0] [#] Begin ID message recording.
[#] Stop ID message recording, then wait 1 second.
[1] Begin channel 1 message recording.
[#] Stop recording, then wait 1 second.
[2] Begin channel 2 message recording.
[#] Stop recording, then wait 1 second.
[3] Begin channel 3 recording.
[#] Stop recording, then wait 1 second.
[4] Begin channel 4 recording.
[#] Stop recording, then wait 1 second
[5] Begin channel 5 recording
[#] Stop recording and end of recording procedure.

NOTE: ***[#] or [1] can be entered every time in place of [1], [2], [3], [4] or [5] to begin recording the next message. Use [1] instead of [#] to end recording of each message when the dialex calls a voice pager.Messages can be tested by entering [050] for the ID message, [051] for the channel 1 message, [052] for the channel 2 message, etc.***

STEP 6 DIGITAL PAGER MESSAGES

Digital messages are used to call pagers which accept only digital encoding usually provided by the keypad of any Touch Tone™ telephone. Then, if a phone number is programmed as a pager format number in step 2, a digital message will be sent instead of a voice message.

Location [6 0] [#] allows the user to enter 2 digits to program the delay that the OMA-AVDS-4 will wait for the end of the pager central voice prompt. After that wait time, the OMA-AVDS-4 will send its digital message.

If "Call Progress" is selected at location 70, 2nd and 3rd digits, this Pager Transmission Delay will start after the OMA-AVDS-4 hears the voice prompt start. Otherwise this Pager Transmission Delay is added to the "Delay Before Transmission" to make the total delay from the time dialing ends to the time the OMA-AVDS-4 sends its pager message.

You must enter 2 digits. Usually the delay should be around 8 seconds.
example: To set a wait time of 8 seconds, program
[6 0] [#] [0 8]
A digital message can have up to 8 digits. Program the message for each channel at locations 61 - 65.
[6 1] [#] [Channel 1 digital message] [#]
.....
[6 5] [#] [Channel 5 digital message] [#]
Special characters can be programmed within the digital message (see step 1)
example: To send the message [1 2 8 6 0 1] (address and channel 1) to a digital pager, program:
[6 1] [#] [1 2 8 6 0 1] [#]

STEP 7 COMMUNICATION OPTIONS

GENERAL OPTIONS

[7 0] [#] [D1, D2, D3, D4, D5] (5 digits)

D1 DBD/DTD (Delay Before Dialing / Dial Tone Detection)
Enter [1] to [9] to set a waiting time of 1 to 9 sec. before the OMA-AVDS-4 dials out after picking up the line.
Enter [0] to activate the dial tone detection function. The OMA-AVDS-4 will dial out as soon as the dial tone is detected. If no dial tone is detected during 2 trials, the unit will dial out within 10 seconds.

D2, D3 DBT/CPF (Delay Before Transmission / Call Progress Function)
Enter [01] to [19] to set a waiting time of 1 to 19 seconds between the end of dialing out and the begining of playing back messages.
Enter 00 to activate call progress tone detection. In this case, the OMA-AVDS-4 quickly skips busy numbers and begins playback only when someone answers the phone. On some telephone lines, this feature may not work consistently, depending on signal and noise levels.

D4 REP (Message Repeat)
Enter a number between [1] to [0] to set 1 to 10 message repeats on every call.

D5 Dialing Mode
Enter 0 to dial out in DTMF mode
Enter 1 to dial out in pulse mode

ex: The telephone line is capable of DTMF dialing and you want to use the dialer with maximum efficiency. So you chose DTD and CPF and program the message to be repeated 3 times. You set it to dial out in DTMF.
Program: [7 0] [#] [0 0 0 3 0]

CALL OPTIONS

The call options allow you to set the number of call sequences after which the system will automatically reset (first digit). The second option (D2, D3) sets the redial delay in minutes (delay between the end of a call sequence and the begining of a new one).
[7 1] [#] [D1 D2 D3] (3 digits) channel 1 option
.....
[7 5] [#] [D1 D2 D3] (3 digits) channel 5 option

D1 Number of call sequences (Numbers of times that the list of phone numbers is called)
1 to 9 Set an automatic reset after 1 to 9 call sequences
D2, D3 Redial delay
00 to 99 Set the time to wait in minutes before trying the sequence again, except "00" = 30 seconds

ex: On channel 1, you want the OMA-AVDS-4 to stop after 5 call sequences if no one acknowledges the system by pressing "0" on a Touch Tone phone (Remote Reset) and you want to set a redial delay of 2 minutes.
Program: [7 1] [#] [5 0 2]

STEP 8 INPUT DETECTION MODE

CH1 input detection mode can be set to Standard Detection Mode (SDM) or Pulse Bell Detection Mode (PBDM)

[8 0] [#] [1 digit]
0 Set SDM Operation
1 Set PBDM Operation

ex: You want to use the OMA-AVDS-4 in standard detection mode.
Program [8 0] [#] [0]

PROGRAMMING

STEP 9 TEST FUNCTION

When the following locations are accessed, the OMA-AVDS-4 will start a call procedure on the assigned channel. Entering one of these test codes has the same effect as activating the corresponding input.

[9 1] [#] Initiate Channel 1 call procedure.
.....
[9 5] [#] Initiate Channel 5 call procedure.

If tested using the programming telephone and if call progress is set in Step 7, press a touch tone button 2 or 3 times after the phone number is dialed, to simulate ring and called party answering.

PROGRAMMING VERIFICATION

The user can read the programming of a location by entering [0] before the location number. It is not necessary to enter a "#" after the location number. The OMA-AVDS-4 will display the programming content of that location, by flashing the value of each digit:

Number	Status LED Flashes:
1	Once
2	Twice
...	
9	9 times
0	10 times
*	11 times
#	12 times
Pause	13 times

ex: To check the first phone number, enter
[0 1 1]

The Status LED will flash for each digit with a delay of 1 second between digits: once for 1, twice for 2, ... ten times for 0, etc.

OPERATION

READY STATE

The unit is in ready mode when all red lights are off and the green status LED flashes every 2 seconds.

RESET

There are three ways to reset the OMA-AVDS-4:

1) Remote Tone Reset, by pressing "0" between messages
2) Automatic Reset, after the programmed number of sequences
3) Manual reset by pressing the red "alarm cancel" button.

DON'T FORGET

In hardware reset state, the OMA-AVDS-4 is disabled and no function can operate.

OPERATION

LED STATUS INDICATORS		
ID	ACTION	DESCRIPTION
STATUS	Flashes every 2 seconds Flashes slowly Flashes quickly Steady ON Steady OFF	Ready mode Programming mode Record or playback message Call mode Stand-by mode: Channel(s) activated and already reported
LINE	Steady on Intermittent flash	OMA-AVDS-4 is "off-hook" (Connected to the phone line) Flash while dialing out
RST	Steady on	RST input is activated
CH1, CH2 to CH5	Steady on	Channel input is activated
BATTERY	Steady on Flashes OFF	Battery voltage and fuse OK Battery defective, fuse blown, battery disconnected or bad connection AC main power is present, power supply OK Battery voltage low, or battery defective, or bad connection AC main power NOT present

REMOTE TONE RESET

The OMA-AVDS-4 can be reset by phone from a remote location. This function is used to acknowledge an alarm call and stop the calling sequence. The called party can invoke this function by pressing the [0] telephone dial key. This option works only with a Touch Tone telephone.

REMOTE RESET

Use the [0] key to acknowledge and stop calling sequences. The OMA-AVDS-4 accepts remote reset only at the end of the message. There is a 4 second pause before the message plays back again, during which time the [0] key can be detected.

AUTOMATIC RESET

The OMA-AVDS-4 will perform 1 to 9 calling sequences, according to the number programmed at location 71 to 75 for channels 1 to 5. It will reset itself after the last call.

CALL MODE

The OMA-AVDS-4 is in call mode when the STATUS LED is on steady. If the LINE LED is also on, the OMA-AVDS-4 is presently "off hook" (Connected to the phone line). In the wait period of call redial mode, just the STATUS LED stays on after the last call of each sequence. While the OMA-AVDS-4 is doing a call procedure, it will not see the activation of any other channel, except for CH1. CH1 can be detected during the redial wait time (between sequences of numbers called). If CH1 is activated then, the OMA-AVDS-4 will immediately start the call procedure for CH1. When the CH1 call procedure has finished, the OMA-AVDS-4 will restart the call procedure for the channel originally activated.

CHANNEL BY-PASS

When one or more channel inputs are not in use, by-pass these channel inputs by programming in a blank in the calling priority list:

ex. To by-pass channel input #2, program:
[3 2] [#] [#]

AUDIBLE TONES

The called party may hear two different series of audible tones. When he answers a call from the AVDS-4, he hears a special alert tone before the message playback. Secondly, a distinct series of "Beeps" can be heard after pressing the [0] key (Remote Reset) to acknowledge the reset.

BUSY LINE

During a call sequence, the AVDS-4 can detect a busy line or no answer if "call progress" is chosen at location 70. In either case, it will hang up and call the next number.

RECORDING TIME

The OMA-AVDS-4 provides up to 60 seconds of recording time and 4 channel inputs.

CALL PROGRESS

This feature may not work well on some telephone lines, depending on signal and noise levels. In that case, use a time delay instead, programmed at digits 2 and 3 of location 70. Test the operation as programmed before completing the installation.

BATTERY LED INDICATOR

The battery indicator LED should normally be ON steadily. Every few seconds for a bref instant, the main regulated supply/charger is "cut back", to test battery presence and voltage. If the battery LED flashes at this time, it means that the battery voltage is not sufficient. This may be due to a missing or not connected battery, blown fuse or because the battery is no longer usable and needs to be replaced. If the battery connection was accidentally reversed during installation, this will blow the fuse that protects the unit. After a long power failure causing deep discharge of the battery, the battery indicator LED may "flash" until the battery becomes sufficiently charged. Under power failure conditions, the unit is operating continuously and only from the battery, and the battery indicator LED should be ON steadily. It will turn accidentally off once the battery voltage falls below a set level indicating that most of the battery capacity has been used.

SPECIFICATIONS

SPECIFICATIONS	OMA-AVDS-4
Power requirement	17 to 20VDC from adaptor and 12V, 1.2amp hr rechargeable gel type battery
Stand-by Current	30mA
Maximum Current Draw	130mA maximum
Fuse F1	500mA, 2AG, "Small" Size
Operating temperature	0°C to 50°C
Input Detection Capability	All channels: N.O. Contacts, switch to (-) or N.C. with resistor added CH1: As above and also selectable for Positive (+) Voltage Trigger
Dialing Mode	DTMF or pulse
Telephone Interface	CA38A (Canada) or RJ31X (USA) connection
Telephone Numbers	8 (16 digits long)
Telephone Priority list	Individual for each channel
Communication Option	Communication delays, call progress function, message repeat ...
Call Options	Automatic reset after 1 to 9 call sequences and redial delay of 30 seconds or 1 to 99 minutes
Enclosure	1 NEMA-12
Dimensions (W x H x D)	19.4cm x 16cm x 13.4cm (7.64" x 6.3" x 5.28")
Weight	1250 gr (2.81 pounds)
Channel Inputs	4
Voice Messages	5 + 1 ID Message
Total Recording Time	60 seconds
Pager Messages	5

PHONE NUMBERS DIRECTORY

1	1	#																#	Phone # 1
1	2	#																#	Phone # 2
1	3	#																#	Phone # 3
1	4	#																#	Phone # 4
1	5	#																#	Phone # 5
1	6	#																#	Phone # 6
1	7	#																#	Phone # 7
1	8	#																#	Phone # 8

COMMUNICATION FORMAT (FOR EACH OF THE 8 TELEPHONE NUMBERS)

2	0	#									0 = Speech	1 = Pager Enter 8 digits

CALL LIST, PRIORITY ORDER

3	1	#									#	Channel 1 list
3	2	#									#	Channel 2 list
3	3	#									#	Channel 3 list
3	4	#									#	Channel 4 list
3	5	#									#	Channel 5 list

EMERGENCY MESSAGE RECORDING

5	0	#		#	ID Message (Name, Adress, etc.)
Pause		1		#	Channel 1 Message
Pause		2		#	Channel 2 Message
Pause		3		#	Channel 3 Message
Pause		4		#	Channel 4 Message
Pause		5		#	Channel 5 Message

PAGER MESSAGES

6	0	#			Pager Transmission Delay						
6	1	#								#	Pager Message Channel 1
6	2	#								#	Pager Message Channel 2
6	3	#								#	Pager Message Channel 3
6	4	#								#	Pager Message Channel 4
6	5	#								#	Pager Message Channel 5

COMMUNICATION OPTIONS

7	0	#					

1st digit	Delay Before Dialing (0 = Dial Tone Detect Instead of a Delay)
2nd & 3rd	Delay Before Starting Message (00 = Call Progress Detect Instead of a Delay)
4th	No. of Message Repetitions, 1 to 0 for 1 to 10 repetitions
5th	Dialing Type Pulse = 1 Tone = 0

CALL OPTIONS

7	1	#				Channel 1 Option
7	2	#				Channel 2 Options
7	3	#				Channel 3 Options
7	4	#				Channel 4 Options
7	5	#				Channel 5 Options

CH1 INPUT OPTION

8	0	#		0 = Standard (SDM) 1 = Detect Pulsing Bell on CH1 (PBDM)

TEST FUNCTION

9	1	#	Initiate Channel 1 Call Procedure
9	2	#	Initiate Channel 2 Call Procedure
9	3	#	Initiate Channel 3 Call Procedure
9	4	#	Initiate Channel 4 Call Procedure
9	5	#	Initiate Channel 5 Call Procedure

NOTES

NOTES

Where Do I Find Everything I Need for Process Measurement and Control? OMEGA...Of Course!

TEMPERATURE

- Thermocouple, RTD & Thermistor Probes, Connectors, Panels & Assemblies
- Wire: Thermocouple, RTD & Thermistor
- Calibrators & Ice Point References
- Recorders, Controllers & Process Monitors
- Infrared Pyrometers

PRESSURE/STRAIN FORCE

- Transducers & Strain Gages
- Load Cells & Pressure Gauges
- Displacement Transducers
- Instrumentation & Accessories

FLOW/LEVEL

- Rotameters, Gas Mass Flowmeters & Flow Computers
- Air Velocity Indicators
- Turbine/Paddlewheel Systems
- Totalizers & Batch Controllers

pH/CONDUCTIVITY

- pH Electrodes, Testers & Accessories
- Benchtop/Laboratory Meters
- Controllers, Calibrators, Simulators & Pumps
- Industrial pH & Conductivity Equipment

DATA ACQUISITION

- Data Acquisition and Engineering Software
- Communications-Based Acquisition Systems
- Plug-in Cards for Apple, IBM & Compatibles
- Datalogging Systems
- Recorders, Printers & Plotters

HEATERS

- Heating Cable
- Cartridge & Strip Heaters
- Immersion & Band Heaters
- Flexible Heaters
- Laboratory Heaters

ENVIRONMENTAL MONITORING AND CONTROL

- Metering & Control Instrumentation
- Refractometers
- Pumps & Tubing
- Air, Soil & Water Monitors
- Industrial Water & Wastewater Treatment
- pH, Conductivity & Dissolved Oxygen Instruments

M2274/0695

WARRANTY

OMEGA warrants this unit to be free of defects in materials and workmanship and to give satisfactory service for a period of **13 months** from date of purchase. OMEGA Warranty adds an additional one (1) month grace period to the normal **one (1) year product warranty** to cover handling and shipping time. This ensures that OMEGA's customers receive maximum coverage on each product. If the unit should malfunction, it must be returned to the factory for evaluation. OMEGA's Customer Service Department will issue an Authorized Return (AR) number immediately upon phone or written request. Upon examination by OMEGA, if the unit is found to be defective it will be repaired or replaced at no charge. However, this WARRANTY is VOID if the unit shows evidence of having been tampered with or shows evidence of being damaged as a result of excessive corrosion; or current, heat, moisture or vibration; improper specification; misapplication; misuse or other operating conditions outside of OMEGA's control. Components which wear or which are damaged by misuse are not warranted. These include contact points, fuses, and triacs.

OMEGA is glad to offer suggestions on the use of its various products. Nevertheless, OMEGA only warrants that the parts manufactured by it will be as specified and free of defects.

OMEGA MAKES NO OTHER WARRANTIES OR REPRESENTATIONS OF ANY KIND WHATSOEVER, EXPRESSED OR IMPLIED, EXCEPT THAT OF TITLE AND ALL IMPLIED WARRANTIES INCLUDING ANY WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY DISCLAIMED.

LIMITATION OF LIABILITY: The remedies of purchaser set forth herein are exclusive and the total liability of OMEGA with respect to this order, whether based on contract, warranty, negligence, indemnification, strict liability or otherwise, shall not exceed the purchase price of the component upon which liability is based. In no event shall OMEGA be liable for consequential, incidental or special damages.

Every precaution for accuracy has been taken in the preparation of this manual; however, OMEGA ENGINEERING, INC. neither assumes responsibility for any omissions or errors that may appear nor assumes liability for any damages that result from the use of the products in accordance with the information contained in the manual.

SPECIAL CONDITION: Should this equipment be used in or with any nuclear installation or activity, purchaser will indemnify OMEGA and hold OMEGA harmless from any liability or damage whatsoever arising out of the use of the equipment in such a manner.

RETURN REQUESTS / INQUIRIES

Direct all warranty and repair requests/inquiries to the OMEGA ENGINEERING Customer Service Department. BEFORE RETURNING ANY PRODUCT(S) TO OMEGA, PURCHASER MUST OBTAIN AN AUTHORIZED RETURN (AR) NUMBER FROM OMEGA'S CUSTOMER SERVICE DEPARTMENT (IN ORDER TO AVOID PROCESSING DELAYS). The assigned AR number should then be marked on the outside of the return package and on any correspondence.

FOR **WARRANTY** RETURNS, please have the following information available BEFORE contacting OMEGA:

1. P.O. number under which the product was PURCHASED,
2. Model and serial number of the product under warranty, and
3. Repair instructions and/or specific problems relative to the product.

FOR **NON-WARRANTY** REPAIRS OR **CALIBRATION**, consult OMEGA for current repair/calibration charges. Have the following information available BEFORE contacting OMEGA:

1. P.O. number to cover the COST of the repair/calibration,
2. Model and serial number of product, and
3. Repair instructions and/or specific problems relative to the product.

OMEGA's policy is to make running changes, not model changes, whenever an improvement is possible. This affords our customers the latest in technology and engineering.

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