

Pipo[®] Communications

High-Speed DTMF Signalling

AE-1... 2 Memories

Ideal for:

- 2-Way Radio, ANI / ENI*
- Broadcast
- Security
- Traffic Control

AE-2... 6 Memories

Ideal for:

- Multipurpose Signalling
- Fleet Management
- Telemetry



AE-1

Compatible with Motorola GP300

P-7V
12 Key DTMF Encoder
shown on radio



*ANI: Automatic Number Identification
*ENI: Emergency Number Identification

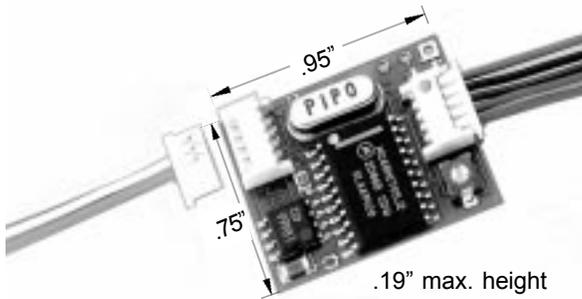
Compatible with Motorola
M1225

AE-1

Maximum Reliable Speed for Users Who Demand Performance

AE-1 and AE-2... Description & Features

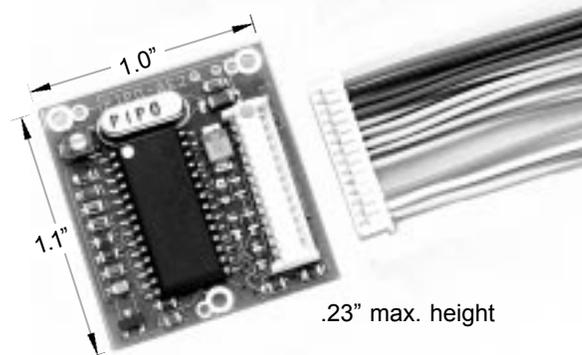
AE-1: 2 Memories, 180 digits total



AE-1 INPUT / OUTPUT

- P-1**
- Jack 1 Pin
1. BLU ANI activate low
 2. GRN GND
 3. BRN PTT out 100ma max
 4. BLK DTMF out
 5. RED 6-26 VDC
- P-2**
- Jack 2 Pin
1. YEL ENI activate low
 2. WHI MIC MUTE
 3. GRY END WAIT/STOP
 4. + 5V PGM
 5. + 5V PGM

AE-2: 6 Memories, 180 digits total



AE-2 INPUT / OUTPUT

- P-1**
- Jack 1 Pin
1. RED 6-26 VDC
 2. BLK DTMF out
 3. BRN PTT out 100ma max
 4. GRN GND
 5. Y/BRN Memory 1 activate low
 - 6 Y/ORG Memory 3 activate low
 7. YEL Memory 4 activate low
 8. Y/GRN Memory 5 activate low
 9. Y/BLU Memory 6 activate low
 10. ORG Strap for programming only
 11. ORG Strap for programming only
 - 12 GRY END WAIT/STOP
 13. WHI MIC MUTE
 14. Y/RED .. Memory 2 activate low

DESCRIPTION

The AE-1 and the AE-2 are High-Capacity MICRO MINIATURE HIGH-SPEED DTMF ENCODERS. They are designed into a microcomputer to generate the cleanest, most precise and transit-free DTMF signal...ever!

The OPTIONS and POSSIBILITIES of the AE-1 and the AE-2 are ENDLESS. Being familiar with the PIPO Ver 4.0 programming features, any DTMF string configuration of pauses, waits, xmtr ptt, speed adjustments, delays, memory connect and more is possible. The AE-1 or AE-2 is easily programmed by the factory, the PIPO AE-1 / AE-2 KEYBOARD PROGRAMMER or the AE-1 / AE-2 INTERFACE BOX. Superb engineering and surface-mount components allow these encoders to fit into the smallest radios, hand-helds and even inside a microphone.

FEATURES

- High-Density Package
- Nonvolatile Memory
- Microminiature Jack/Plug
- CW ID Option
- 5, 10, 20 DPS or Custom Units
- Time Base
- 180 Digits Total
- Mic Mute
- PTT Output
- 1000Hz Tone Feature

EASY PROGRAMMING

- Field Programmable with AE-1 / AE-2 Keyboard Programmer
- PC Programmable with AE-1 / AE-2 PC Interface Box
- Free Factory Programming 1-5 Units
- Reprogrammable ANYTIME

SPECIFICATIONS

- DTMF SPEED...5dps (100/100ms), 10dps (50/50ms), 20dps (25/25ms), or Custom Time Base
- AE-1...2 Memories, 180 Digits Max
- AE-2...6 Memories, 180 Digits Max, 30 Digits Each
- 6-26 VDC Stby < .5ma Oper < 6ma
- AE-1 Output Level Adjustable > -10db @10K ohms
- AE-2 Output Level Adjustable > -2db @ 600 ohms
- Distortion < 3.5%
- Inputs Activate Low
- PTT Collector 100ma
- Temperature -22° +160° f

INPUTS/OUTPUTS

- Interfacing is accomplished by a MICRO JACK/PLUG, with 9" flying leads

Pipo Communications

Emphasis is on Quality & Reliability

1516 Cassil Place
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E-mail: pipo@pipo.net

Programming and Decoding



AE-1/AE-2 Keyboard Programmer

- Will Program The AE-1 or The AE-2
- Self-Contained
- Practical for Field Use
- May Be Used As a DTMF Test Generator
- Will Replicate Pipo ANI 4.0 Programming Functions
- Hi z Output
- Low z Output -2db @ 600 ohms
- Internal Sounder

Programming the AE-1 is achieved by loading the digits and string commands into the AE-1 / AE-2 Keyboard Programmer and then loading them into the AE-1. Memory position 1 of the Programmer represents ANI. Memory position 2 of the Programmer represents ENI. Each position or memory has a 30-digit capacity, but may be expanded in the ANI (memory 1) and/or ENI (memory 2) by using MEMORY CONNECT to POSITIONS 3 to 6 of the Programmer for a total of 180 digits.

Programming the AE-2 is achieved in the same manner with the exception that the AE-2 has 6 memories. The Programmer corresponds directly to the AE-2 with MEMORY 1 to 6, 30 digits each, 180 total.

AE-1/AE-2 PC Interface Box

- Interfaces With A PC Via Serial Port
- Pipo Software Supplied
- Easy To Read DTMF String Commands On Screen
- Operates From MS DOS
- Configurations May Be Saved On Disk
- Storage System For Up To 60 Configuration Files
- Files May Be Sent On Disk or Via INTERNET
- Pipo Will Assist with Programming and Transfer File Via INTERNET

Programming the AE-1 and AE-2 is achieved with Pipo-supplied software and the PC Interface Box. Programming is simplified due to on-screen display of the string commands. A convenient on-screen filing system is available to store files that belong to individual systems or applications. When reprogramming a system or making changes, the configuration is stored in a file. If help is needed with programming, Pipo will assist and can also send the file via INTERNET or on disk.



PD-822 DTMF Display Decoder

- Ideal For ANI / ENI, Fleet Management or Status Indication
- 8-Digit Display
- Decodes All 16 Digits
- Decodes .5 to 20 DPS
- Decodes 1 to 8 Digits In Length
- Audible Alarm
- Transistor Output For External Alarm
- Form-C Relay For DTMF Speaker Muting
- Wide Input Range 30-2500 mV rms
- Parallel Output Port—Interfaces Directly To Printer
- Serial Output Port—Interfaces Data To Any Computer
- Time and Date Stamp

The PD-822 is a DTMF Decoder designed to decode and display the DTMF NUMBERS being sent from the AE-1 or the AE-2. It offers a wide dynamic input range with an excellent tolerance for twist and noise. The display will show up to 8 digits at a time allowing many selective and identification options to be designed into a system. One of the special features of the PD-822 is that it is designed to detect a ROUTINE DTMF signal and an ALERT or ENI DTMF signal just by using a different prefix. For status monitoring, or managing a fleet or system, an ending digit may be displayed to indicate status or position. Using different prefixes enables the system organizer or planner to set up his fleet or system to detect multiple systems on the same frequency or input line by adding additional PD-822's. More detailed information and application ideas may be obtained by requesting a PD-822 Manual from Pipo.

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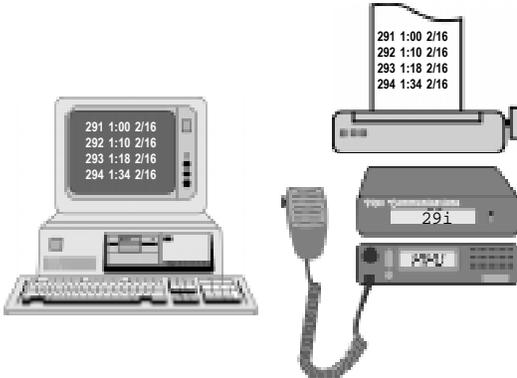
Applications

2-Way Radio / Mobile Multistatus Indicator... AE-2

EXAMPLE 1: MULTISTATUS

The AE-2 provides Multistatus Indication at the push of a button. It can be programmed for your choice of indications.

The unit is identified on a computer screen whenever the mic is keyed, followed by the unit status and the time and date. This may be printed out or stored on a computer disk.



Memory 1...ANI
 Memory 2...In Service
 Memory 3...In Route
 Memory 4...On Break
 Memory 5...Out of Service
 Memory 6...Emergency

Display 291 Time Date
 Display 292 Time Date
 Display 293 Time Date
 Display 294 Time Date
 Display 295 Time Date
 Display 296 Time Date

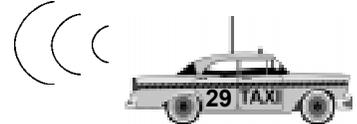
Unit 29... ANI 1291



Unit 29... In Service 1292



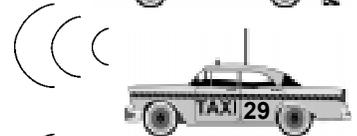
Unit 29... In Route 1293



Unit 29... On Break 1294



Unit 29... Out of Service 1295



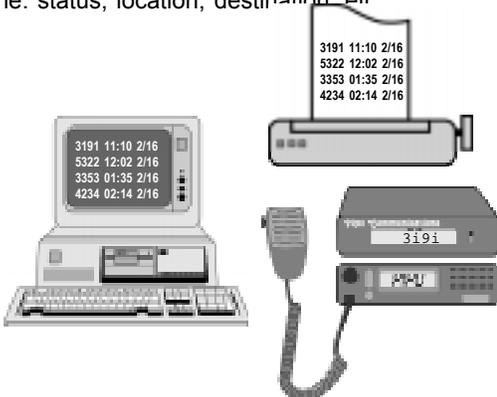
Unit 29... ENI (Emergency) #296



EXAMPLE 2: FLEET MANAGEMENT

In Fleet Management the AE-2 provides Multistatus Indication at the push of a button identifying each unit and their status. This information is displayed on the computer and may be printed out.

Each of the six memories can be programmed to send your choice of indications ie: status, location, destination, etc



Memory 1...ANI
 Memory 2...Available
 Memory 3...Busy
 Memory 4...Lunch
 Memory 5...Off Duty
 Memory 6...Emergency

Display 3191 Time Date
 Display 5322 Time Date
 Display 3353 Time Date
 Display 4234 Time Date
 Display 2215 Time Date
 Display 3336 Time Date

Unit 319... ANI 13191

Unit 532... Available 15322

Unit 335... Busy 13353

Unit 423... Lunch 14234

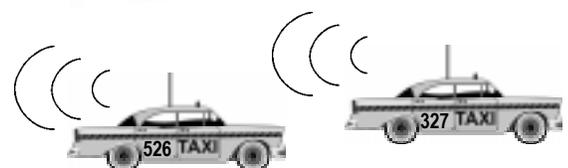
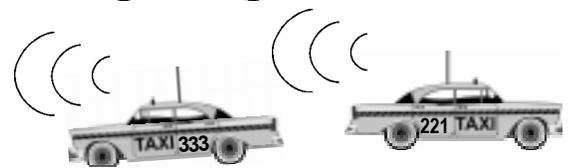
Unit 221... Off Duty 12215

Unit 333... ENI #3336

Unit 327... Available 13272

Unit 526... Busy 15263

Unit 130... Lunch 11304



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Applications

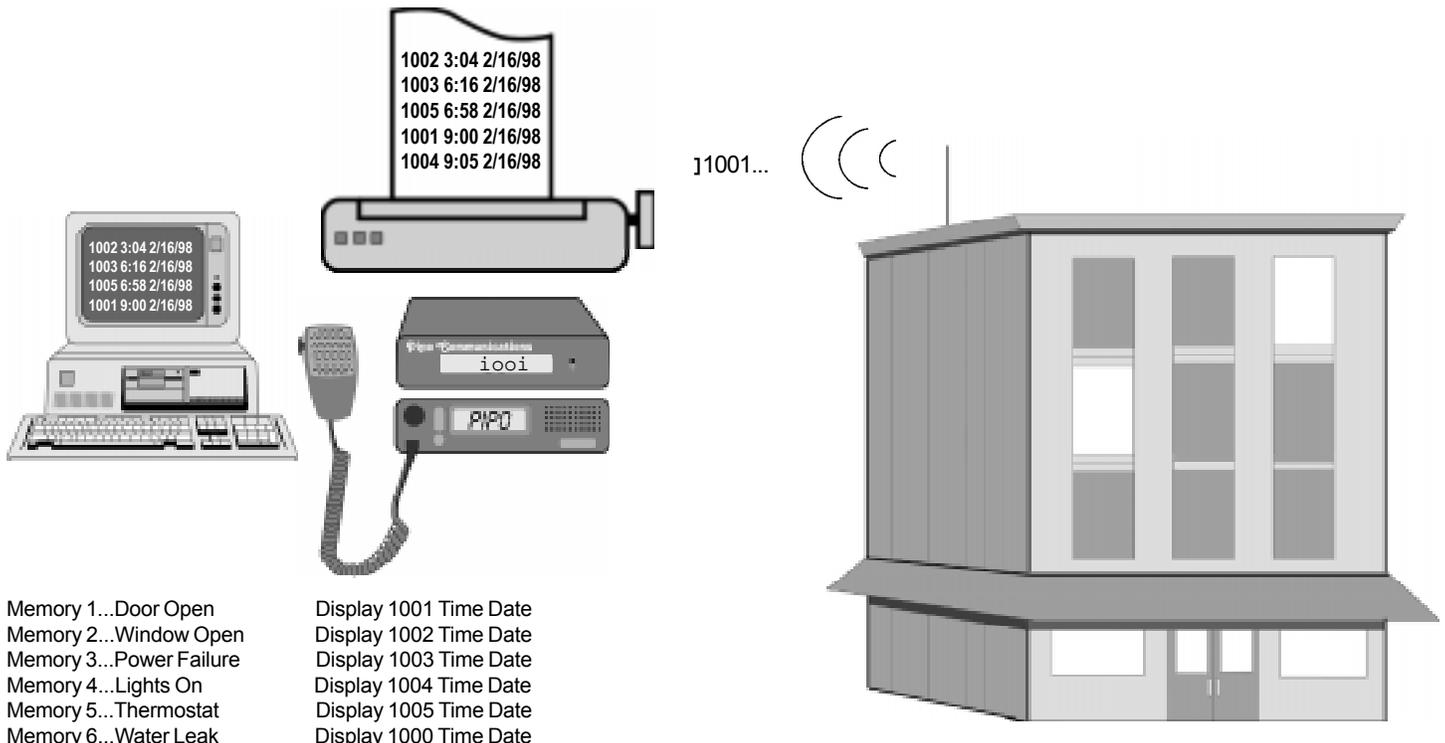
Broadcasting / Master Control Panel: DTMF String... AE-2

Six different buttons or inputs may trigger the AE-2 to send a DTMF string with any speed or spacing desired for a particular application, i.e. a control panel or a satellite command.



Security... AE-2

Six different inputs to detect a momentary low are ideal for sending information from a remote site via radio or microwave to monitor a function, i.e. door open, window open, thermostat, water flow, power failure, etc.



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