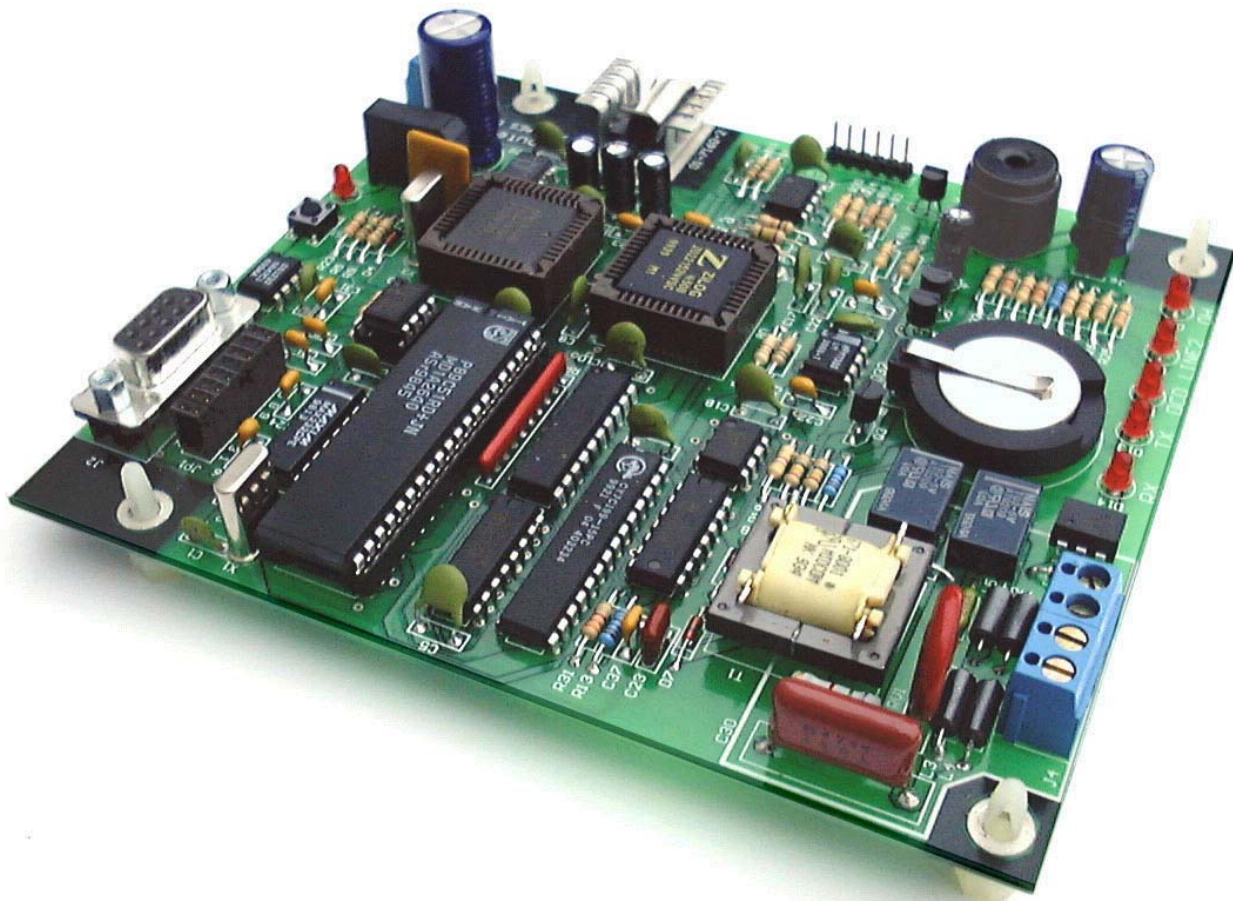


# AES · EZ-Router

Model 7160

Version 1.07



**AES IntelliNet.**

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## Introduction

This manual covers the 7160 EZ-Router in general installations, but is optimized for EZ-Router with firmware version 1.06 installed into a 7003 with firmware version 2.03.

The AES 7160 EZ-Router is a device that attaches to the automation output of an AES IntelliNet Receiver. It sends the alarm automation messages from the AES receiver's alarm port to a remote digital receiver via standard telephone lines. The EZ-Router essentially emulates a variable ID alarm panel sending Contact ID. The EZ-Router supervises the subscribers on this system. The EZ-Router removes duplicate signals, filters out unwanted signals, and sends alarm, restore, trouble and status signals to a remote digital receiver in Contact ID format.

The RF subscriber's account numbers must be within the range of 0001 to 9999. You cannot use Hex characters A-F in the Subscriber ID. Each subscriber can be supervised for 24, 12, 6 hour intervals or a user programmable time. Tests and the signals within this range can be delivered to one of four Digital Dialer Communicator Receivers. Each receiver has a primary and a backup phone number; the EZ-Router should be attached to two phone lines.

Accounts within its supervision range can be ignored completely (local acknowledged), or passed through to a receiver unfiltered (all signals sent).

Accounts that are not within the range of 0001 to 9999 will be passed through to the Digital Dialer Receiver assigned to receiver number one, unfiltered. Be advised, account numbers with Hex A will have the A changed to a 0. Therefore 10A1 will be reported as 1001.

A new ID received by the EZ-Router will automatically be enabled for supervision. All accounts within the supervision range are automatically assigned to the 24-hour supervision using receiver number one. Any account within the supervision range may optionally be assigned to a different test time and a different receiver.

Accounts may be assigned by block (a range of numbers), or individually.

Assignments and programming can be done either locally with a terminal, or remotely with a password access by calling in with a modem. Both of these methods may be accomplished with a terminal program such as: Windows Hyperterminal, Procom or Telix. Telix is provided on AES installation disks, Utility Disk or is available on the AES Technical Support web site.

## Description:

The AES Model 7160 EZ-Router connects to the RS-232 serial alarm port of an AES Receiver.

Phone Lines:	Tel Line 1: primary. J3 – extended to the RJ jack. Tel Line 2: backup. J4 – extended to the RJ jack.
Physical:	PCB - Size: 128 mm x 145mm
Power:	12VDC nominal, 250 ma current max. (Supplied by AES 7000 Receiver)
Alarm Formats:	The AES EZ-Router only supports Ademco 685 alarm output format. The communication parameters will be 1200 BPS, 7 data bits, Odd parity and 2 stop bits.

---

## Requirements:

- An AES-IntelliNet Receiver Setup: 7003 V2.03+ (Preferred)
- An Ademco emulation alarm output from an AES Receiver. EZ-Router mode if available.
- Two telephone lines (2<sup>nd</sup> is backup). Auto switches if no dial tone, fail to Ack etcetera.
- Digital central station receiver capable of receiving dial-in Contact ID signals.
- V.22 capable modem to program the EZ-Router through the phone line.
- PC with serial port and a terminal program to configure the EZ-Router locally through direct serial port connection.

## Installation of the EZ-Router:

**Bypass this procedure if the EZ-Router was factory assembled into the AES receiver for you.**

- Install the EZ-Router PCB into the provided receiver.
- Connect the J2 DB9 (RS-232 Port) of the EZ-Router to the alarm output of the AES Receiver. On a 7003, alarm output is P4 of the 7076.
- Connect the primary phone on J3. Connect the backup phone line on J4.
- Connect the power supply on J1 then push the reset bottom on the EZ-Router to initialize.
- Using Telix (start it with NETCOM.BAT) attached to the network port of the 7003 Receiver, enter the following command at the AES> prompt. EZROUTER<Enter>. Once the 7003 is in this alarm output mode, only the RRA (Reset Ram) command will reset it.

## System Installation:

- Install the AES Receiver following instructions provided with the Receiver.
- Refer to section "Setup of the EZ-Router:" later in this manual. You must program the receivers phone numbers. At least receiver number one must be programmed, as this is the default receiver used for new ID's for which signals are received.
- You should also program the "Central Station ID Alias". This is the ID that is used by the EZ-Router when sending messages received from the AES Receiver. The Receiver ID is actually 0000 which most digital receivers will not accept. Therefore an alias ID needs to be created to handle receiver messages. 8000 is recommended, as this is not a usable ID in Net7000 program.
- Clear all accounts from database to default. Although AES should have performed this during assembly it is still recommended you perform it again. See Utility menu. Clear a block starting at 0000 and ending at 9999.
- Remember that any signals received from an ID will cause the EZ-Router to automatically enable that account for supervision at 24 hour Check-In. This means if no signal is received in 26.7 hours an exception or failed to test message will be sent to the assigned receiver.
- Review the menus for other settings that may need to be changed.
- Connect the jack on the receiver to the two phone lines. The center pair of connections in the RJ jack is phone line 1 and the outer pair is phone line 2.

## IntelliTap Note:

- If you will be using *IntelliTap* or *IntelliTap* like modules, and the alarm panel ID is different than the Subscriber, you must configure that account for "Pass-Through Mode". This will disable supervision and allow all signals produced by that ID to be sent to the assigned receiver without causing a fail to test message when a check-in is not received in 26.7 hours.

---

## **Layout of EZ-Router in an AES 7003 Receiver:**

---

## Setup of the EZ-Router:

There are several methods for configuring the EZ-Router. In any case you need to initiate the Setup routine built into the EZ-Router. You can gain access to the EZ-Router setup menu directly from the network port of the 7003 (V2.04+) Receiver. You can also connect directly to the J2 DB9 connector on the EZ-Router module inside the receiver. Finally you can dial into the EZ-Router using a PC with a modem configured for V.22.

Refer to “Remote Setup, using a dial in modem connection” later in this manual for information on using a dial in V.22 modem.

The EZ-Router will not echo your typed characters back to you so you should enable local echo. In Telix you press <Alt> E to enable local echo.

### Direct connection to EZ-Router through the Network Port of the 7003:

The 7003 with version 2.03 and up, firmware will allow programming the EZ-Router through its Network port. The communication parameters are the same as the Network port itself, even though the communication parameters on the EZ-Router port are different. The conversion is performed internal to the 7003's main board. Parameters are 4800 Baud, No parity, 8 data bits, 1 stop bit.

These instructions assume you are using Telix on the same PC as the Net7000 program. It also assumes your 7003's Network port is connected to COM2 of the computer.

Put the Receiver in Standby. This will prevent the generation of any new signals while you initiate the setup routine. New signals may cause the EZ-Router to initiate communication with a digital receiver delaying access to the setup routine until that process completes or fails.

Exit the Net7K program if running, press <Alt> X and then <Enter>.

From the DOS command prompt change to the Telix directory by entering “CD \TELIX<CR>”. If no one has installed the AES utilities, you may not have a TELIX directory or the batch commands to start Telix with the communication parameters for the AES Receivers. Install the AES utilities to use Telix.

At the “C:\TELIX>” prompt, type “NETCOM<Enter>”. This should start Telix with communication parameters for the Network port of the 7003 using Com2 of the PC.

Enter the following command without the quotes to initiate the EZ-Router setup routine. “<Ctrl-J><Space><Space>PAS<Enter>”. This will put the 7003 in pass through mode allowing commands to be passed to the attached EZ-Router module.

Response should be: “ENTERING PASSTHRU MODE. RECEIVER IS OFFLINE”.

**While in pass through mode, the 7003 will be off line and will not acknowledge any packets (signals). It is best to perform this on the backup or Standby Receiver if you have one.**

This means the receiver is not able to receiver any RF signals. On an active and busy network, it would be better to program the EZ-Router using a modem and dialing into the active phone line. This would allow the receiver and the EZ-Router to remain on line.

Once the 7003 Receiver is in pass through mode, it can only return to normal when it receives the exit response from the EZ-Router board or a reset. The exit response from the EZ-Router is “+++Bye”. To reset either push the reset button on the receiver board inside the receiver or remove power by disconnecting the power and data cables from the rear panel for about 10 seconds the restore power.

---

Turn on local echo, which is <Alt> E in Telix. If you see no typed characters on your display it may be because the EZ-Router is not echoing the typed characters back. This is why local echo should be on.

Next type "SETUP<Enter>". The EZ-Router main menu should appear. If the EZ-Router does not respond, it may be busy attempting to call a receiver to pass on signals. Remove & restore power to reset.

When you exit the Setup routine, the 7003 will be automatically reset and be put back online with pass through disabled.

Return the Receiver to Active if it was put into Standby during the programming process.

### Direct connection to J2 on the EZ-Router Module:

For direct connection to the EZ-Router module in a non-7003 configuration, remove the cover of the receiver to gain access to the J2 DB9 connector on the EZ-Router PCB.

Disconnect the cable from J2 of the EZ-Router that connects to the alarm output port of the receiver.

Connect a standard RS-232 serial cable between the J2 DB9 of the EZ-Router and a serial port of the PC you are using to configure the EZ-Router.

Start your terminal program and configure the communication parameters. If you are using the AES provided Telix, then start Telix with the DOS batch command ALMCOM. If you are connected to a COM port other than 1, press <Alt> P and select the correct port.

Press the reset button on the EZ-Router and watch the screen for the response that displays the firmware version information and instructs you to type Setup to Configure. You may see a message that indicates it is initializing the database. You must wait for this process to complete before you can configure.

Type SETUP<Enter>. The main menu should appear. When you exit reconnect cables as they were.

## Configuration Menus of the EZ-Router:

This is the main menu seen when the EZ-Router accepts the Setup command. The 4<sup>th</sup> item (S) or (C) depends on the setting.

--- EZ-Router V1.06 Setup Menu ---

```
(R)eceivers Phone Numbers
(A)ssign and Display Account Assignments
(U)tility/Filters
(S)et Remote Dialer Backup Mode          CAUTION! Special purpose, do not press S.
Change Current (P)assword
AES Central (I)D Alias is 8000          Used to send receiver related messages.
(Q)uit Setup. Return to Monitoring.     Alias of 8000 is default if configured.
```

Enter Selection R,A,U,S,P,I, or Q : A

OR

--- EZ-Router V1.06 Setup Menu ---

Menu when in Remote Dialer Backup Mode.

```
(R)eceivers Phone Numbers
(A)ssign and Display Account Assignments
(U)tility/Filters

(C)lear Remote Dialer Backup Mode          CAUTION! Special purpose, press C.
* Warning Remote Dialer Backup Mode Selected.  ←
* No Supervision, or Supervisory Signals      ←

Change Current (P)assword
AES Central (I)D Alias is 8000          Used to send receiver related messages.
(Q)uit Setup. Return to Monitoring.
```

Enter Selection R,A,U,C,I, or Q : Q

This is the Receiver Phone Number menu, seen when you press R<CR> from the main menu. Enter phone numbers as shown without any "-". You must have valid phone numbers configured for 1<sup>st</sup> receiver before you attempt to connect the EZ-Router to phone lines.

Receiver Phone Number Setup

```
(1)st Receiver Phone# 18005551234, Backup# 18005551230
(2)nd Receiver Phone# xxxxxxxxxxxx, Backup# xxxxxxxxxxxx
(3)rd Receiver Phone# xxxxxxxxxxxx, Backup# xxxxxxxxxxxx
(4)th Receiver Phone# xxxxxxxxxxxx , Backup# xxxxxxxxxxxx
(Q)uit to Setup Menu
```

Enter 1,2,3,4 or Q : 1

Seen after pressing 1<CR>.

Enter Receiver# 1 Primary Phone Number : Insert your Number as above

Enter Receiver# 1 Backup Phone Number : Insert your Number as above



**This is the account assignments menu, seen when you press A<CR> from the main menu. Select "R" (Receiver) and "T" (Test Time/Mode) of these menus to configure each account. You can configure single accounts or perform the configuration in Blocks of accounts.**

```
--- Account Assignments ---
(D)isplay Account Assignments.
(S)how Accounts That Exist in Database.
(R)eceiver Assignments.
(T)est Time/Mode Assignments.
(Q)uit Return to Setup Menu.
```

Enter D, R, T, or Q : Q

**This is the display account assignments menu, seen when you press D<CR> from the Account Assignments menu.**

```
-- Display Account Assignments --
(S)ingle Account Review.
(B)lock of Accounts Review.
(Q)uit. return to Account Assignment Menu.
```

Enter S, B, or Q : B

**Seen after pressing B<CR>.**

Enter Start of Block Number : 0001

**Enter starting ID of block.**

Enter End of Block Number : 0008

**Enter ending ID of block.**

**A possibility seen after entering block 0001 to 0008**

```
ID, (F)ailed Checkin, Rcvr#, Supervision, Exists Y/N Checked In Y/N
0001,+,R1,24HrNN    0002,+,R1,24HrNN    0003,+,R1,24HrNN    0004,+,R1,24HrNN
0005,+,R1,24HrNN    0006,+,R1,24HrNN    0007,+,R1,24HrNN    0008,+,R1,24HrNN
```

**Each ID found will display the following information:**

The four digit decimal Account ID.

"+" or "F" where F means a failure to test has been reported and "+" is a place holder.

Receiver R1, R2, R3 or R4 for receiver number 1, 2, 3 or 4.

One of the following "Automatic Test Supervision" periods: 24Hr, 12Hr, 6Hr, Usr, Pass, Acks, Err.

Unit exists where Y means the ID was received and an N means a signal was not received since last cleared.

Unit tested during test this test period where Y means it has tested and N means it has not tested.

**This is the Show Accounts That Exist in Database, seen when you press S<CR> from the Account Assignments menu.**

Scanning Entire Database for Accounts that Currently Exist

```
ID, (F)ailed Checkin, Rcvr#, Supervision, Exists Y/N Checked In Y/N
0100,+,R1,24HrYY    0333,+,R1,24HrYY    2222,+,R1,24HrYY    2223,+,R1,24HrYY
3333,+,R1,24HrYY    7003,+,R1,24HrYY    9910,+,R1,24HrYY    9911,+,R1,24HrYY
  8 Accounts Exist Press Enter to Return to Menu
```

See above for explanation of response.

---

**This is the Assign Accounts to Receivers menu, seen when you press R<CR> from the Account Assignments menu.**

--- Assign Accounts to Receivers ---  
(1)st Receiver (default.)  
(2)nd Receiver.  
(3)rd Receiver.  
(4)th Receiver.  
(Q)uit Return to Assign Accounts Menu.

Enter 1,2,3,4, or Q : 1

**Here you assign accounts to the receivers, either single or in blocks of account numbers.**

Assign a (B)lock of Accounts on Receiver #1  
Assign a (S)ingle Account on Receiver #1  
(Q)uit Back to Receiver Select Menu

Enter B, S, or Q : B

**Seen after pressing B<CR> (Block).**

Enter Start of Block Number : 0001  
Enter End of Block Number : 0001  
Setting 1 Accounts to Receiver 1.  
done!  
(B)lock Assign of Accounts to 12 Hour Test  
(S)ingle Account on Receiver to 12 Hour Test  
(Q)uit Back to Receiver Select Menu

Enter starting ID of block.  
Enter ending ID of block.

Enter B, S, or Q : Q

**This is the Assign Accounts to Test Time/Mode menu, seen when you press T<CR> from the Account Assignments menu.**

Assign Accounts to Which Test Time/Mode.  
(1) 24 Hour Test. Reports in 26.7 Hrs (default)  
(2) 12 Hour Test. Reports in 13.5 Hrs  
(3) 6 Hour Test. Reports in 6.9 Hrs  
(4) User Test Time. Reports in 6 Minutes.  
(5) Pass-Thru Mode. (Sends All Signals, Without Supervision.)  
(6) Ignore/Block Mode. (Doesn't Send Any Signals, and No Supervision.)  
(S)et User Test Time (2..1440) Minutes.  
(Q)uit Return to Assign Accounts Menu.

Enter 1,2,3,4,5,6,S, or Q : 1

**Select Block or Single accounts to assign to Test Time/Mode.**

(B)lock Assign of Accounts to 24 Hour Test (default)  
 (S)ingle Account on Receiver to 24 Hour Test (default)  
 (Q)uit to Receiver Select Menu

Enter B, S, or Q : B

Note: It takes 0.18 Sec for Each, 3 Minutes for All

Enter Start of Block Number : 0001

**Enter starting ID of block.**

Enter End of Block Number : 0002

**Enter ending ID of block.**

Setting 2 Accounts to 24 Hour Test (default) .  
 done!

(B)lock Assign of Accounts to 12 Hour Test  
 (S)ingle Account on Receiver to 12 Hour Test  
 (Q)uit to Receiver Select Menu

Enter B, S, or Q : q

**This is the Utility/Filter menu, seen when you press U<CR> from the Main menu. Factory defaults are shown on the right side of the page beside to each item. Here you configure many of the parameters that have a global affect on all signals received.**

--- Utility Menu ---

**Factory Defaults**

(S)et Real Time Clock	
(D)isplay Test Times, and Real Time Clock Sun 14:46:58 Feb 08 2004	
(N)umber of Signals per Phone Call (1..18) 8	8
(R)emove Duplicates Signals if within (0..240) 130	130 Seconds
(C)lear a Block of Accounts from Database to default.	N/A
Send a Test (M)essage (1234 Checkin) to Receiver 1	N/A
Global Send Delayed (A)cknowledgements Yes.	No
Global Send (P)rior Reported/Old Alarms Yes.	No
Sends System (W)atchdog Resets No.	No
Reinstate/(O)verwrite Current Password with default Password	
(V)erbose Debug Mode (Trace Debug Logging Only) Off.	Off
(Q)uit to Setup Menu	

Enter S, D, N, R, C, M, A, P, W, V, O or Q : q

**Displayed when you press Q<CR> from the Main menu.**

+++Bye

## Supervision Choices: (Test Time/Mode)

Subscriber supervision choices include these options:

- “Local” Supervision, where the EZ-Router does the supervising. Failures to check-in (exceptions) are dialed into the central station. Available choices are:
  - 24 Hour Test or 1X / day, Subscriber set to 24 Hour Check-In
  - 12 Hour Test or 2X / day, Subscriber set to 12 Hour Check-In
  - 6 Hour Test or 4X / day, Subscriber set to 6 Hour Check-In
  - User time. Subscriber set to a Check-In that is less than the User time. Add a grace period to the Check-In to allow signals a minimal delay.
- “Pass-Through” or “Remote” supervision, where all signals including check-in signals for a given subscriber are dialed into the central station. EZ-Router is not supervising.
- “Ignore/Block” no supervision: Check-In signals are not recorded. Fail to check is not reported. No signals sent to Central Station. All signals are discarded.

**Warning! The overuse of the Remote Supervision could get expensive and potentially cause the EZ-Router to delay messages.**

## System Supervision / Link Test.

One subscriber unit needs to be designated as the system test unit. This unit must Check-In at an interval decided by the EZ-Router administrator and Monitoring facility. The default is once a day. The unit must be programmed in the EZ-Router for “Pass-Through or “Remote” supervision so that the Check-In signals are dialed into the central station. In this way, the AES radio network, the radio receiver, the EZ-Router, the telephone lines and the dialer receiver are tested completely at least once each day to assure system integrity. The monitoring facility would notify the EZ-Router administrator that the designated system test unit did not send its Check-In signal and that the EZ-Router may be down.

## Number of signals per call.

The EZ-Router can be configured to send only a certain number of signals per call. This is intended to prevent the Receiver from believing it has a runaway condition. The range is 1 to 18 signals per call with the default value set to 8. The EZ-Router will attempt to stay on line for several seconds to enable the sending of any additional messages that may be received. Many Receivers will hang up if additional messages are not started in one or two seconds. Therefore the EZ-Router may not always be successful at sending multiple messages in one call.

## Duplicate Messages from the Receiver are discarded.

The EZ Router will remove duplicate messages received from the Alarm output, if they are received within the specified time. The range is 0 to 240 seconds. It will look back through the last 20 messages received.

## Clear a Block of Accounts from Database.

This function will clear all attributes for the selected account(s) to the default value. This will disable the supervision of the accounts until a new signal for the account is received. It will assign the account to 24-Hour test and assign the account to 1<sup>st</sup> Receiver.

## Send a Test Message.

While in the EZ-Router setup you can generate a test message for account number 1234 to test communication to 1<sup>st</sup> Receiver. This function will generate a Check-In message.

## Handling of the “Acknowledgment Delay” message.

The administrator decides if this message is dialed into the central station. This programming is global. The selection applies to all subscriber units. The Contact ID message for an Acknowledge Delay is E307 00 C903.

## Handling of “Old Alarm” messages.

The administrator decides if these messages are dialed into the central station. This programming is global. The selection applies to all subscriber units. An Old alarm has the event qualifier of “P”. Old alarms are generated during Status or Check-In reports, if a zone on the Subscriber has not restored to normal and remains in an alarm condition.

## Send System Reset.

If configured, the EZ-Router will send a message to 1<sup>st</sup> Receiver if it detects that a “System Reset” has occurred. Message generated is for AES Central alias account (8000 is default alias ID), Event code 305 Group 01 and Zone 000.

## Programming of Dial-In Central Station.

Four dial-in central stations can be programmed.

Each central station can have two telephone numbers, one primary and one secondary. If there is no secondary number repeat the primary number for the secondary.

## Programming of Subscriber Unit / Account Numbers.

Subscriber unit ID's must use 4 decimal digits, no hex. This allows for 9,999 possible numbers. Although the subscriber units can be programmed with hex numbers, *only* decimal numbers are recognized by the 7160 EZ-Router. The EZ-Router will attempt to pass through any signals received that include hexadecimal characters. This could cause problems if the central station receiver will not accept them. The Receiver will not get an acknowledgment from the EZ-Router and will continue attempting the signal until it does.

## Dialer Formats:

- All messages are dialed into the central station in Contact ID format.
- 4+2/4+1/3+1 pulse codes are converted to message in Contact ID format.

- The conversion is as follows. If the 1<sup>st</sup> character of the zone is between 0 and A then an E140 event code is generated. 1<sup>st</sup> character B generates an opening R400. C converts to a closing E400. D is an abort R406. E generates an R140. F is a trouble E300. The zone is also dropped into the last two positions of the zone information.
- Example: AAAA 18 EEEE 01 C0zz. AAAA is ID from the message. zz contains original zone information. EEEE is set as described above.

## **“Block” Programming of Subscriber Unit ID Numbers.**

To simplify installation, the operator can assign “blocks” of numbers to conform to specific programming. The blocks are preprogrammed for one type of supervision and one particular central station. Any subscriber coming into the system with a number within the assigned block will automatically be assigned the attributes.

For example, the operator can set aside a block of numbers from 1001 to 2000 for his/her commercial accounts. (It is not unusual for a Central Station to assign a number set like this.) The operator can define that block to have 12-hour check-in, and assign it to dial into 2<sup>nd</sup> Receiver. As the operator installs units in the field, he need not come back to the central receiver to program each account; he knows that newly installed unit number 1123 will automatically be assigned to these pre-defined parameters. The EZ-Router will not begin supervising an ID until the first signal is received.

## **Individual Programming of Subscribers.**

Any individual subscriber unit (even if it’s number falls within a previously pre-defined block defined above) can be individually programmed for Supervision and Receiver number.

## **Any Message Counts as a Check-In Message.**

All messages from an account unit are considered as a check-in message.

## **Remote Setup, using a dial in Modem Connection.**

You can also configure the EZ-Router by dialing into the active phone line with a PC/Modem running a terminal program. The EZ-Router has a built-in V.22 Modem. The active phone line is usually line one. If line one has had a fault or failure the EZ-Router may have switched to line 2.

This method allows the receiver and the EZ-Router to remain on line. The EZ-Router will continue processing signals. If the EZ-Router needs to communicate a signal to a digital receiver it will disconnect the programming session and begin communication for the new signal.

The connection is password protected. The default password is EC4A 9AZ2 16F3 YCAW. Once the password is known you can change it to whatever you wish from the main EZ-Router Setup menu. The password can be changed back to the default password from the Utility menu in Setup. You may have to attach directly to the EZ-Router through the Network port of the 7003 or to the J2 connector on the EZ-Router module itself.

Your PC Modem must be configured for pure V.22 operation. Review your Modem’s documentation, which might be on CD-ROM, for information on setting your Modem for V.22 Mode. If you can’t figure out how to select V.22 Mode, try turning off all data compression and error correcting Protocols. Set your communication program to 1200 baud, 7 data bits, odd parity, and 2 stop bits.

---

## Remote Setup, using a dial in Modem Connection. (Continued)

Example: Configuring a US-Robotics 56K Faxmodem.

This Modem is a V.90 56K Faxmodem. From its documentation we find S register 15 controls V.22 and ARQ/MNP for V.22. S Registers are usually bit-mapped commands.

- S15 bit 0 is for disabling ARQ/MNP for V.22
- S15 bit 1 is for disabling ARQ/MNP for V.22bis
- S15 bit 2 is for disabling ARQ/MNP for V.32/V.32bis/V.32terbo
- S15 bit 3 is for disabling MNP handshake
- S15 bit 4 is for disabling MNP level 4
- S15 bit 5 is for disabling MNP level 3

Therefore we want to set bits 0 through 5 to 1. That equals 00111111 in binary or 63 in decimal.

First turn off, and then turn back on the US-Robotics modem. This is to reset the modem back to its default configuration.

Set your modem control (Terminal/Communications) program (Telix etc.) for:  
1200 7 O 2. That is 1200 baud, 7 data bits, Odd parity, and 2 Stop bits.

Now type "ATS15=63" and press Return.

Look for the OK response from the modem.

Now call the EZ-Router on its active phone line. Type the Modem command ATDT then the phone number. Example: ATDT18005551004. The ATDT command tells the US-Robotics modem to touch-tone dial the phone number 1-800-555-1004 if you don't have touch-tone Dialing service, type ATD plus the phone number.

When the EZ-Router answers it will respond with:

"Hello I'm the AES EZ-Router who are you. Enter Password "

Enter your Password followed with the <Enter> key.

If your password was correct, and you entered it within 25 Seconds, the main setup menu will be displayed on your terminal screen.

Note: The EZ-Router doesn't echo the characters that you type back to you. Therefore you may wish to turn on local echo at your terminal program. In Telix you type ALT+E.

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