



**257 West Union St.
Athens, Ohio 45701
FAX: 740-592-3898
Ph: 740-593-3150**

EAS Encoder/Decoder PC EAS Setup Program

Version 1.5 - 05/18/98
Use with EAS1 V5.9 and above EPROM

NOTE: *These instructions are for the outdated DOS EAS Setup software. Please refer to the documentation for the new Windows EAS Setup software for the latest version. Contact Gorman-Redlich for details.*

1 Introduction -

The EAS Setup Program, EASETUP.EXE, is designed to run on any IBM PC or clone with using either serial port COM1 or COM2. The program runs as a DOS application on a PC using any version of DOS from 3.1 and up, or in Windows or Windows95 in DOS mode.

A serial cable with a male DB9 on one end and female DB9 on the other end may be used to connect the male DB9 on the PC port to the female DB9 on the encoder/decoder computer port. When the encoder/decoder detects the proper code sequences from the PC, it will receive a packet of setup information from the PC and store it in non-volatile memory. The setup program allows the operator to select the desired setup information from menus before downloading it to the encoder decoder.

To operate properly, the setup program requires the transmitted data to be echoed back by the encoder/decoder. However the program can be used without connection to the encoder/decoder, if a loopback connector is connected to the PC COM port. Loopback connectors can be purchased from PC supply stores, loopback connectors are often supplied with PC diagnostic programs such as Norton Utilities, or they may be fabricated from a female DB9 connector by connecting the following conductors together: 1-4-6-9, 2-3, 7-8. Pin 5 is not connected.

When requested by the customer, this program will be used by Gorman-Redlich to set up an encoder decoder with the information supplied by the customer on the order form. In this case, the unit is ready for operation when received by the customer. The setup information is supplied to the customer on a floppy disk so that the program may be used later by the customer to change or update the setup information.

2 Installation -

The EASETUP program is written to run as a DOS application so that it will be compatible with as many PC type computers as possible. On newer Windows based systems, simply go to the DOS prompt and continue with these instructions as though it were a DOS system. The program and associated files are distributed on a high density 3.5" floppy diskette, but may be ordered on other types of diskettes such as a 5.25" diskette, if desired. It may be transferred from one type of diskette to another by the user by simply using the DOS COPY command.

The simplest, although probably not the best, form of operation is to run the program directly from the floppy disk. In this case, insert the diskette into floppy drive A: or B:. Before running directly from the diskette, make a backup copy of the distribution diskette using the DOS copy command. At the DOS prompt, type A: or B: to correspond to the floppy drive containing the diskette. The DOS prompt will then show A:> or B:> corresponding to your selection. At that point type EASETUP and <ENTER> (press the ENTER key), and the program will start (the program name is EASETUP.EXE).

This form of operation is the only option for older computers with no hard drive. If a hard drive is available, much faster operation can be obtained by installing the program on the hard drive. Another advantage is that the data on the floppy drive is protected from unintended change when working from the hard drive. The installation is very simple. At the DOS prompt for the hard drive (usually C:>), make a directory for the program and associated files. If the directory name is to be EAS1, the following command: "MD EAS1 <ENTER>" (<ENTER> means to just press the ENTER key) will make the directory. The command "CD EAS1 <ENTER>" (or whatever name was used) will select the new directory. The command "COPY A:*. * <ENTER>" or "COPY B:*. * <ENTER>" (depending on whether the diskette is in floppy drive A: or B:) will copy the contents of the diskette to the hard drive. The copy is the extent of the hard drive installation. The program may be executed at any time by going to the directory ("CD EAS1 <ENTER>") and typing "EASETUP <ENTER>".

The files which are sent on the diskette are:

Filename	Contents
CTY.DEF	List of all states and counties and corresponding FIPS codes.
EVENT.DEF	A list of all EAS 3 letter event codes and text description of each.
ORG.DEF	A list of the 5 EAS 3 letter originator codes and a text description of each.
EAS.INI	Station Setup Information and PC Installation Information.
CTY.SEL	Counties selected as counties in the station's listening area.
RPSH.SEL	Required preselected header codes selected for the station.
OPSH.SEL	Optional preselected header codes selected for the station.

The DEF files are definition files that do not change with user setup. These files must be updated as this information changes or expands. The INI and SEL files contain data that is selected for the station or PC. These files will change as the setup changes.

When the EAS setup software is started the first time on the PC, run main menu item 6 to enter the PC installation data. This will select the serial port to be used to download to the

encoder/decoder, and it will select time zone information for the PC. It should be necessary to enter this information only once after the installation.

3 Description -

The setup program allows selection and downloading of the following information:

Station Information -

- Station call letters.
- Passwords (operator and optional technician).
- State Primary.
- Station time zone.
- Station Daylight Time.
- Station originator code.

Encoder/Decoder Setup Information -

- Counties in Listening Area - Up to 31 county names and state abbreviation (plus the code for all counties in the state of license)
- FIPS codes with corresponding state abbreviations and corresponding state FIPS codes from up to 6 states.
- Counties to be sent with required monthly tests.
- Counties to be sent with required weekly tests.
- Preselected Header Codes - 4 (may be expanded to 8) required pre-selected header codes and priorities. Up to 20 optional pre-selected header codes and priorities.

Date and Time -

- Current UCT date and time from the PC.

The program keeps a copy of your setup on a disk file so that the next time you run the program, you begin with your last setup. This makes it easy to quickly make minor changes to the setup.

4 Operation -

The program is started from the DOS prompt by typing EASETUP. The first thing that the user will see is the following main menu:

```
Gorman-Redlich EAS1 Encoder/Decoder V 1.5 PC Setup Program  
Should be run on EAS1 Encoder/Decoder V 5.9 and later.
```

MAIN MENU

- 1 Enter Encoder/Decoder Setup Information
- 2 Send the data over the RS232 port
- 3 Reserved for future expansion
- 4 Reserved for future expansion
- 5 Set the Encoder/Decoder Time to the PC Time
- 6 Enter PC installation data
- q Quit this program and exit to DOS

Type the number or letter of the menu item to select it

From this main menu the selections are made by entering the corresponding numbers 1 through 6 or q to exit.

4.1 Item 1 - Enter Encoder/Decoder Setup Information

When this Item is selected, the user will be allowed to select all the necessary setup data to allow the encoder/decoder to function properly at that station and in that listening area. The following subsections will discuss the various items that are to be selected.

4.1.1 Entering Station Setup Information

In all cases, use the ARROW keys to move the cursor adjacent to the desired entry. When the cursor is beside the desired entry, strike the ENTER key. The following sections describe the manner in which each item is entered. An example of the station setup entry screen follows:

Enter Call Letters, Operator password, Technician password
Select State Primary and Station Time Zone/Daylight Time
ARROW keys - Position cursor on desired parameter
ENTER key - Make the desired selection
q key - Exit screen after selection

WOUB[FM] - Station Call Letters
1234 - Operator Password
2345 - Technician Password
Station is a State Primary
Atlantic Time Zone
Station does not go on Daylight Time in April
PEP - Primary Entry Point System

- 4.1.1.1 Call Letters - The call letters may be up to 8 characters. With the exception of '+', '-', delete character, or control characters (below 20H, 'space' character), any ASCII character may be used in the call letter field. After selecting call letter entry with the ENTER key, type all the letters of the call. If it is not 8 characters, finish it with spaces. After 8 characters and spaces have been entered, the cursor will exit the call letter field. In case of a mistake, repeat the process.
- 4.1.1.2 Station Operator Password - A 4 digit password to allow an operator to compose an alert or send an alert. The password can contain only digits from 0-9. All 4 digits must be entered. In case of a mistake, repeat the process.
- 4.1.1.3 Station Technician Password - A 4 digit password to allow a technician to set modulation levels and change other setup information on the encoder decoder. This password can be made the same as the operator password if only one password is desired. The password can contain only digits from 0-9. All 4 digits must be entered. In case of a mistake, repeat the process.
- 4.1.1.4 Station State Primary - Striking the ENTER key with the cursor beside the state primary field will toggle the selection between either "Station is a state primary" or "Station is not a state primary". Leave the entry field when the correct display is showing.
- 4.1.1.5 Station Time Zone - Striking the ENTER key with the cursor beside the time zone field will sequentially display each of the following time zones: Atlantic, Eastern, Central, Mountain, Pacific, Alaska, and Hawaii. Leave the entry field when the correct display is showing.
- 4.1.1.6 Station Daylight Time - Striking the ENTER key with the cursor beside the daylight time field will toggle the selection between either "Station goes on Daylight Time in April" or "Station does not go on Daylight Time in April". Leave the entry field when the correct display is showing.
- 4.1.1.7 Station Originator Code - Striking the ENTER key with the cursor beside the originator field will sequentially display each of the following originator codes: EAN, PEP, WXR, CIV, and EAS. Leave the entry field when the correct display is showing.

4.1.2 Selecting Counties in the Station's Listening Area

After the station information is entered, the county codes must be selected. The state selection screen will appear to show what states are presently selected as in the following example:

This is county and state selection. You may have up to 6 states.

ARROW keys - Position cursor to desired option
ENTER key - Select option
DELETE key - Remove the state the cursor is on
q key - Exit county and state selection

```
- Display current selected states and counties
  Add a new state
  Edit OH
  Edit PA
  Edit WV
```

From this screen it is possible to:

- 1) display the currently selected counties and associated state,
- 2) add a new state and selected counties from it,
- 3) edit (add or delete counties) for any of the currently selected states.
- 4) delete the state and all its county selections.

The cursor will initially appear on the line with "Display current selected states and counties". The cursor may be moved up or down to the other lines to make selections. Once the cursor is positioned on the line for the desired operation, the <ENTER> key is pressed to make the selection. In the case of the "Edit" lines, the DELETE key may be pressed to delete the state and its selected counties. Whenever the state and county selections are satisfactory, pressing the "Q" key will exit the county selection screen.

When the first item is selected, county codes previously selected are displayed on the screen. This screen may be exited back to the state selection screen by pressing any key. By using this function, it is easy to determine whether the selections are satisfactory. If so, the county selection function may be exited with the "Q" key. The following screen is an example of this display:

```

From OH:
009 Athens          045 Fairfield      049 Franklin      053 Gallia
073 Hocking         079 Jackson        089 Licking       105 Meigs
167 Washington
From PA:
001 Adams           003 Allegheny     005 Armstrong     007 Beaver
009 Bedford        001 Berks         013 Blair         015 Bradford
017 Bucks          019 Butler
From WV:
107 Wood

```

If it is necessary to add counties from a state other than the states shown selected, the first item "Add a new state" must be selected. In this case, the state abbreviation must first be entered to access the counties for that state (for instance: OH for Ohio). If it is only necessary to add or delete counties from one of the states already selected, move the cursor down to that state and press <ENTER>. Whether a new state is being added or an existing state is to be edited, the county selection screen is used. The following screen is an example of the county selection screen:

```

Choose from OH. Use arrows, pg-up/down, <ENT> to select, q to quit
*****
* 001 Adams          023 Clark          »045 Fairfield     067 Harrison      *
* 003 Allen          025 Clermont      047 Fayette       069 Henry          *
* 005 Ashland        027 Clinton       »049 Franklin     071 Highland      *
* 007 Ashtabula      029 Columbiana    051 Fulton        »073 Hocking       *
* »009 Athens        031 Coshocton     »053 Gallia       075 Holmes         *
* 011 Auglaize       033 Crawford      055 Geauga         077 Huron          *
* 013 Belmont        035 Cuyahoga      057 Greene         »079 Jackson       *
* 015 Brown          037 Darke         059 Guernsey      081 Jefferson      *
* 017 Butler         039 Defiance     061 Hamilton       083 Knox           *
* 019 Carroll        041 Delaware      063 Hancock        085 Lake           *
* 021 Champaign     043 Erie          065 Hardin        087 Lawrence       *
*****
 9 Athens           OH 45 Fairfield    OH 49 Franklin    OH 53 Gallia      OH
73 Hocking         OH 79 Jackson     OH 7 Alfalfa      OK> 8 Atoka       OK
 9 Beaver          OK 10 Beckham     OK 11 Adams       NE 12 Antelope    NE
13 Arthur          NE 14 Banner      NE 15 Brooke      WV 16 Aurora      SD
17 Entire State   OH

```

16 Counties selected from 5 States

When the county selection screen is entered, the first 44 counties for that state will be displayed in alphabetical order. These counties may be selected or de-selected by moving the cursor with the arrow keys to a county and pressing the ENTER key. When a county is selected, it will have a >> symbol beside it, and it will be included in the selected county list that is being built in the bottom portion of the screen. If a county is mistakenly selected, simply move the cursor to the county again, press enter, and the >> symbol will disappear, and it will be

removed from the list. Counties for that state beyond the 44 shown on the display, may be accessed by the use of the page up and page down keys. The selected county list at the bottom of the screen shows all counties currently selected along with their state abbreviations. In addition, the prompt at the bottom reports the number of counties and states currently selected.

When all desired counties have been selected, press the "Q" key on the PC to exit back to the state selection screen. The second item, "Display current selected states and counties" may again be selected to review the county selections. The process of adding or editing states and counties and reviewing selections is continued until the selections are satisfactory, and then the state selection screen is exited by the "Q" key.

4.1.3 Entering County of License

Upon exiting the selection of counties in the station's listening area, it is possible to enter the county of license. Since the county of license must be one of the counties in the listening area, this selection must come after selecting the counties in the listening area. The selection screen will appear as follows:

Select your County of License.

ARROW keys - Position cursor on desired county

ENTER key - Select or Deselect a county

q key - Exit screen after selection

1 Adams	OH	2 Allen	OH	3 Ashland	OH	4 Athens	OH
5 Vinton	OH	> 6 Adair	OK	7 Alfalfa	OK	8 Atoka	OK
9 Beaver	OK	10 Beckham	OK	11 Adams	NE	12 Antelope	NE
13 Arthur	NE	14 Banner	NE	15 Brooke	WV	16 Aurora	SD

If a county was previously selected as the county of license, it will be indicated with the >. If the counties in the listening area have been changed, make sure that the county of license indicated is the one that you want. When counties in the listening area change, the county of license defaults to the first county in the list.

Select the county of license in the same manner as the counties in the listening area were selected - by moving the cursor to the desired county and pressing <ENTER>. The software will allow only one county to be selected, but one county must be selected before exit. When the desired county has been selected, exit this screen by pressing the "Q" key.

4.1.4 Entering Counties for Required Monthly Tests

Upon exiting the selection of counties in the station's listening area, it is possible to enter the counties to be sent with an outgoing, and checked for an incoming, required monthly test. Since these counties must be among the counties in the

listening area, this selection must come after selecting the counties in the listening area. The selection screen will appear as follows:

```
Select counties for Required Monthly Test:
ARROW keys - Position cursor on desired county
ENTER key  - Select or Deselect a county
a key     - Select all counties
q key     - Exit screen after selection
 1 Adams      OH  2 Allen      OH  3 Ashland      OH  4 Athens      OH
> 5 Vinton    OH> 6 Adair      OK> 7 Alfalfa    OK> 8 Atoka      OK
 9 Beaver     OK 10 Beckham    OK 11 Adams      NE 12 Antelope   NE
13 Arthur     NE 14 Banner     NE 15 Brooke     WV 16 Aurora     SD
17 Entire State OK
```

Any counties previously selected to go out with an RMT will be indicated with the >. If the counties in the listening area have been changed since the last RMT counties selection, make sure that the counties indicated are the ones that you want. If counties in the listening area have been changed, RMT county selections revert to the default which is all counties selected. Select or deselect these counties in the same manner as the counties in the listening area were selected - by moving the cursor to the desired county and pressing <ENTER>. When the desired counties have been selected, exit this screen by pressing the "Q" key.

The required monthly test counties can include any up to all of the counties in the listening area. At least one location must be selected in order that a valid RMT header will be sent. If it is attempted to deselect all locations, the county of license will be automatically selected.

In addition to the individual counties, there is a code available for the entire state of the county of license (in this example, Oklahoma). If this selection is made, the decoder will respond to the code for all counties in the state of license. However, the encoder will not include that code with the list of counties in an outgoing header. To use that code in an outgoing RMT header, the header must be composed rather than using the RMT key.

4.1.5 Entering Counties for Required Weekly Tests

Upon exiting the selection of counties for the required monthly test, it is possible to enter the counties to be sent with an outgoing required weekly test. Since these counties must be among the counties in the listening area, this selection must come after selecting the counties in the listening area. The selection screen will appear as follows:

Select counties for Required Weekly Test:

ARROW keys - Position cursor on desired county

ENTER key - Select or Deselect a county

a key - Select all counties

q key - Exit screen after selection

1 Adams	OH	2 Allen	OH	3 Ashland	OH	4 Athens	OH
5 Vinton	OH	> 6 Adair	OK	7 Alfalfa	OK	8 Atoka	OK
9 Beaver	OK	10 Beckham	OK	11 Adams	NE	12 Antelope	NE
13 Arthur	NE	14 Banner	NE	15 Brooke	WV	16 Aurora	SD

Any counties previously selected to go out with an RWT will be indicated with the >. If the counties in the listening area have been changed since the last RWT counties selection, make sure that the counties are shown correctly. If counties in the listening area have been changed, RWT county selections revert to the default which is, only the county of license selected. Select or deselect these counties in the same manner as the counties in the listening area were selected - by moving the cursor to the desired county and pressing <ENTER>. When the desired counties have been selected, exit this screen by pressing the "Q" key.

The required weekly test counties can include any up to all of the counties in the listening area. At least one location must be selected in order that a valid RWT header will be sent. If it is attempted to deselect all locations, the county of license will be automatically selected.

4.1.6 Entering Pre-selected Header Codes

The four mandatory pre-selected header codes for EAN, EAT, RWT, and RMT, are built-in and do not need to be entered in this step.

Up to 20 optional preselected header codes may be selected. Each of the pre-selected header codes contains three parts:

- 1) Event.
- 2) Priority.
- 3) Counties in the station's listening area which are affected.

Initially, the preselected header codes are summarized in the main preselected header code screen. The first 10 preselected header codes are shown initially. By pressing the PAGE DOWN key, the next 10 will be shown. Pressing the PAGE UP key will return to the first 10. An example of this screen is as follows:

Select your Optional Preselected Header Codes.
 PAGE keys - Switch to another 10 preselected header codes
 ARROW keys - Position cursor on desired entry
 ENTER key - Edit or add an entry
 DELETE key - Delete an entry
 q key - Exit the Optional Preselected Header Code Selection

Entry	Event	Priority	Counties
_1	TOA	Send this alert in 10 minutes	All
2	SVA	Send this alert in 15 minutes	Some
3	SVS	Send this alert in 5 minutes	Some
4	FFA	Send this alert in 10 minutes	None
5	Not Used		
6	Not Used		
7	Not Used		
8	Not Used		
9	Not Used		
10	Not Used		

Current Preselected Header Codes

The cursor is initially positioned by the first entry. It may be moved up and down from entry 1 to entry 10 by using the arrow keys. The entry selected by the cursor may be deleted by pressing the DELETE key. When an entry is deleted, "Not Used" will appear in the Event field.

The cursor may be positioned beside a "Not Used" entry and <ENTER> pressed to add a new entry. Likewise, it may be positioned beside an existing entry and <ENTER> pressed to edit or review an existing entry. In either case a selection screen for selecting events and priorities and a selection screen for selecting associated counties in the station's listening area will be entered.

The event and priority section screen is as follows:

Preselected Header Code number: 1. Select both event and priority.
 ARROW keys - Position cursor on Event or Priority
 ENTER key - Select an Event or Priority
 q key - Exit screen after selection
 Select from these events:

>1 TOA Tornado Watch	2 TOR Tornado Warning
3 SVA Severe Thunderstorm Watch	4 SVR Severe Thunderstorm Warning
5 SVS Severe Weather Statement	6 SPS Special Weather Statement
7 FFA Flash Flood Watch	8 FFW Flash Flood Warning
9 FFS Flash Flood Statement	10 FLA Flood Watch
11 FLW Flood Warning	12 FLS Flood Statement
13 WSA Winter Storm Watch	14 WSW Winter Storm Warning
15 BZW Blizzard Warning	16 HWA High Wind Watch
17 HWW High Wind Warning	18 HUA Hurricane Watch
19 HUW Hurricane Warning	20 HLS Hurricane Statement
21 RWT Required Weekly Test	22 RMT Required Monthly Test
23 CEM Civil Emergency Message	24 DMO Demo Message
25 ADR Administrative Message	26 EVI Evacuation Immediate
27 TSW Tsunami Warning	28 TSA Tsunami Watch
29 NPT National Periodic Test	30 NIC National Information Center
31 EAN Emergency Action Notification	32 EAT Emergency Action Termination

Select from these priorities for pre-selected header codes:

> 1 Never send this alert	2 Send this alert in 15 minutes
3 Send this alert in 10 minutes	4 Send this alert in 5 minutes
5 Send this alert immediately	

A selection arrow will appear beside any selections that may have been made previously. By pressing the arrow keys the cursor may be moved to any event, and <ENTER> pressed to select that event. Selecting one event deselects any other event had been selected for this code number. After selecting the desired event, use the arrow keys to move the cursor down to the priority section at the bottom and select the desired priority in the same manner. When the selection for this entry is complete, exit by pressing the "Q" key. This screen cannot be exited until both an event and priority have been selected.

When the event/priority selection screen is exited, the counties affected must be entered in the preselected header code county entry screen. A screen similar to the following will appear:

Select counties for Preselected Header Code number: 1

ARROW keys - Position cursor on desired county
 ENTER key - Select or Deselect a county
 a key - Select all counties
 q key - Exit screen after selection

> 1 Athens	OH> 2 Fairfield	OH> 3 Franklin	OH> 4 Gallia	OH
> 5 Hocking	OH> 6 Jackson	OH> 7 Licking	OH> 8 Meigs	OH
> 9 Washington	OH>10 Adams	PA>11 Allegheny	PA>12 Armstrong	PA
>13 Beaver	PA>14 Bedford	PA>15 Berks	PA>16 Blair	PA
>17 Bradford	PA>18 Bucks	PA>19 Butler	PA>20 Wood	WV

Only the counties in the station's listening area that have previously been selected will be shown. In this example all counties have been selected. Any of these counties may be de-selected by moving the cursor to the left of them and pressing <ENTER>. In addition to selecting or de-selecting individual counties with <ENTER>, pressing "A" will select all counties. When the desired selections have been made, press "Q" to exit this screen back to the main preselected header code screen.

If the counties in the listening area have been changed since the preselected header codes were last entered, review the existing selections carefully and make changes as necessary. It is likely that these selections will now be incorrect, if the counties in the listening area were changed.

When all entries are completed, press "Q" in the main preselected header code screen to exit the preselected header code entry section and return to the main menu screen. The Encoder/Decoder Setup Information entry is now complete. It may be reviewed and/or changed by again entering main menu item 1.

4.2 Item 2 - Sending the Data over the RS232 port

With the RS232 cable connected to both the PC and the Encoder/Decoder as described in the introduction, the data just entered may be transferred from the PC to the Encoder/Decoder. Insure that the Encoder/Decoder is powered up and in the normal display with the Decoder Scanning and the Encoder Ready (ie: not in a setup menu, processing an alert, sending a message, etc.), and the RS232 cable is connected from the computer port of the encoder/decoder to the correct PC COM port. Press the 2 key, and the data will be sent to the Encoder/Decoder. The data being sent is displayed at the bottom of the PC screen during transfer. When the transfer is complete, the screen returns to the main menu display.

There are two types of data errors that may occur during attempts to download to the encoder/decoder - timeout errors and echoed data errors. Each character that is transmitted to the encoder/decoder from the PC is echoed back to the PC by the encoder/decoder. The EASETUP program then compares the echoed character to the original character, and it reports an error if they are different. A timeout error occurs when the PC waits longer than a few seconds for the echoed character from the PC. When either error occurs, the download is aborted, and the software returns to the Main Menu. Once the cause of the error is found and the error cleared, the download may be attempted again. Typical causes for the errors are: RS232 cable not connected, encoder/decoder not powered up, encoder/decoder not in main display (ie: in some menu function or otherwise busy), and PC set to wrong COM port. If no problem is found, re-boot the encoder/decoder, and try again.

4.3 Item 3 - For future expansion

4.4 Item 4 - For future expansion

4.5 Item 5 - Set the Encoder Time to the PC Time

Pressing 5 will result in the following display:

EAS Time Setting Function

```
EST:          12/12/96 19:13:00  
UCT:          12/13/96 00:13:00
```

Press <ENTER> to download time to Encoder/Decoder

The display will show the PC local time and UCT (Universal Coordinated Time or Greenwich Mean Time). The times are displayed so that the user can check to make sure they are correct. The difference in hours for UCT - Local Time is: AST=4, EST=5, CST=6, MST=7, PST=8, AST=9, HST=10; ADT=3, EDT=4, CDT=5, MDT=6, PDT=7, ADT=8, and HDT=9.

If the PC clock contains the correct local time, and the correct PC time zone and daylight time information has been entered (see next section), then the UCT time will be correct. The PC local time may be corrected using the standard DOS and/or Windows time setting functions. On the date that the time change occurs, most PCs will not change the time automatically, and this must be done manually. However, if this is done and the PC is reading the correct local time, the program will display these two times correctly.

Insure that the Encoder/Decoder is powered up and in the normal display with the Decoder Scanning and the Encoder Ready (ie: not in a setup menu, processing an alert, sending a message, etc.) and the RS232 cable is connected from the computer port of the encoder/decoder to the correct PC COM port. By pressing <ENTER>, the UCT time will be downloaded to the encoder/decoder. If the encoder/decoder has been given the correct station time zone and daylight time information (see sections 4.1.1.5 & 4.1.1.6), then the encoder decoder will display the correct local time after this download.

There are two types of data errors that may occur during attempts to download to the encoder/decoder - timeout errors and echoed data errors. Each character that is transmitted to the encoder/decoder from the PC is echoed back to the PC by the encoder/decoder. The EASETUP program then compares the echoed character to the original character, and it reports an error if they are different. A timeout error occurs when the PC waits longer than a few seconds for the echoed character from the PC. When either error occurs, the download is aborted, and the software returns to the Main Menu. Once the cause of the error is found and the error cleared, the download may be attempted again. Typical causes for the errors are: RS232 cable not connected, encoder/decoder not powered up, encoder/decoder not in main display (ie: in some menu function or otherwise busy), and PC set to wrong COM port. If no problem is found, re-boot the encoder/decoder, and try again.

4.6 Item 6 - PC Installation Data

The serial port to be used in downloading must be selected, if this has not been done in previous sessions. Selecting item 1 will allow selection of either COM1 or COM2. This selection should be made based upon which physical PC port to which the DB9 cable will be connected.

The time zone for the PC, and whether the PC time zone changes to daylight time in April, must be entered for the downloaded times to be correct. Note that the information is not asking whether the PC is currently on daylight time. It only needs to know whether the PC ever goes on daylight time. Given this information, it can check as to when it needs to be on daylight time.

The following is an example of the installation screen:

Select PC COM Port, PC Time Zone Daylight Time

ARROW keys - Position cursor on desired parameter

ENTER key - Make the desired selection

q key - Exit screen after selection

- COM1 is the selected PC COM port
- Central Time Zone
- PC does not go on Daylight Time in April

4.7 Item q - Exiting to DOS

When finished with the setup program, it may be exited to return to the DOS operating system by pressing the 'q' key. The familiar DOS '>' prompt will then be seen o