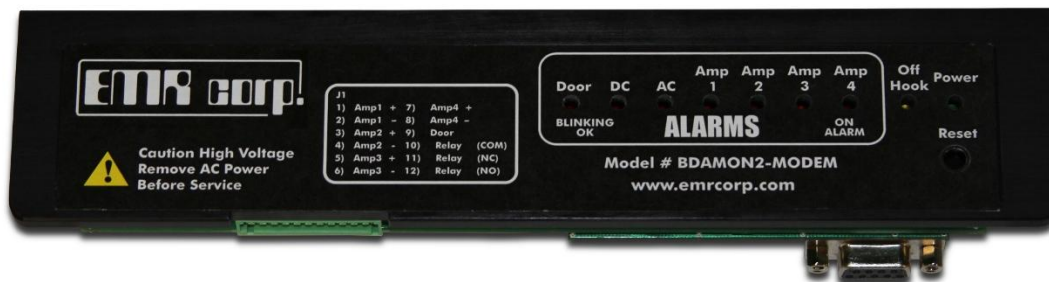




BDAMON02-MODEM

Bi-Directional Power Amplifier Monitor



USERS MANUAL

V3.F

EMR CORPORATION

17431 N. 25th Avenue - Phoenix, Arizona 85027

Phone: (623) 581-2875 - Toll Free: (800) 796-2875 - Fax: (623) 582-9499

info@emrcorp.com – www.emrcorp.com

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Introduction

The EMR BDA Monitor (Model #BDAMON02-MODEM) is a microprocessor-controlled unit capable of monitoring the Primary AC, Power Supply/Battery DC Voltage, and the DC Current for up to four RF amplifiers used in any EMR Signal Enhancement System. BDA monitoring features vary depending on the relevant hardware configuration. This documentation covers features which are common to most users.



Product Features:

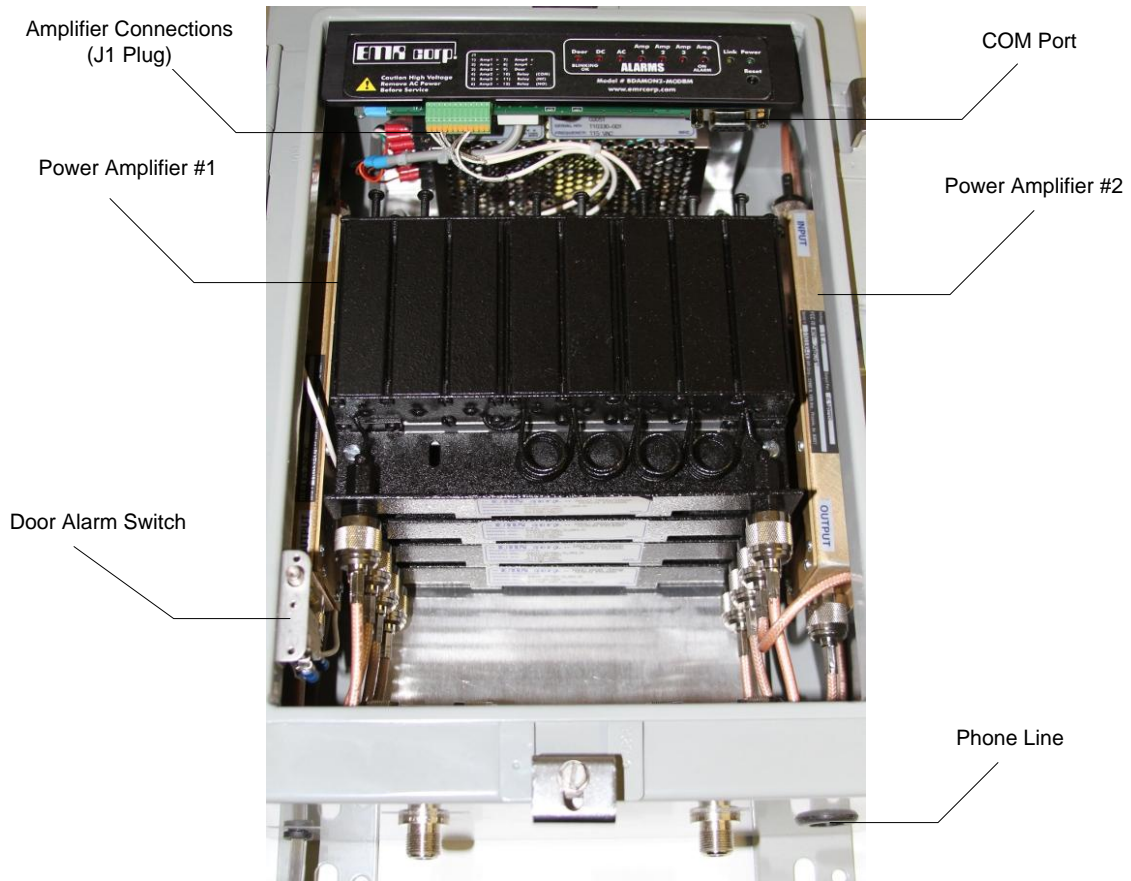
- Monitoring for up to four RF Power Amplifiers
- Programmable using a standard terminal program direct or modem
- User programmable alarm set points
- 1 Relay Output Contact Closure
- Auto Dialer and 9600 Baud Modem
- LED Status Indicators
- AC Alarm
- Door Alarm

System Requirements:

- EMR Signal Enhancement Bi-Directional System
- IBM compatible computer with Com Port
- HyperTerminal or similar communication software package
- Standard Serial Cable

Physical Connectivity

The BDA monitor comes pre-installed in an EMR Bi-Directional Amplifier (BDA) system. When the BDA system is plugged into a reliable power source the power indicators on the monitor unit will light/glow. Connect the telephone line included to the RJ11 cable to the port located at the base of the BDA enclosure.



The door alarm switch triggers an audible and LED alarm as the door opens. The alarm must be reset from the web interface or reset button on the front of the monitoring unit before the door is closed and the hysteresis period has lapsed.

Programming the BDA Monitor

Open your communications software such as HyperTerminal in your computer. Set up a COM port at 19200 baud 8, n, 1 flow control: none. Connect a serial cable from the COM port of your computer to the DB-9 port of the BDA Monitor.

The BDA Monitor's programming proceeds through a hierarchy of menus.

Press <Enter> once on your computer. The following screen should appear:

```
Enter Password >
```

Fig. 1

The default password is "123456". Enter this to load the Main Menu screen.

```
*****  
EMR Corp.  BDAMON2MODEM  V1.021  
*****  
  
Main Menu  
Select The Following  
A>> Com Port Setup  
B>> Alarm and Misc. Setup  
C>> Auto Dialer Setup  
D>> Modem Setup  
E>> View Current Readings & Alarms  
F>> Reset Alarms  
G>> Clock Setup  
X>> Exit  
  
>
```

Fig. 2

Using Menus

A menu option is selected by pressing the corresponding letter. For example to load the Alarm and Misc. Setup Menu, press “B” in the “Main Menu”. In the “Setup Menu” press “X” to return to the “Main Menu” screen.

Programming the Com Port

Press “A” from the “Main Menu” to display the “Com Port Menu”. Fig. 3 indicates the current Baud Rate as 19200.

```
*****  
EMR Corp.  BDAMON2MODEM  V1.021  
*****  
  
Com Port Menu  
  
Select The Following  
  
A>> Current Baud Rate: 19200  
  
X>> Exit  
  
>
```

Fig. 3

Choose the desired Baud rate. By pressing “A” the Baud Rate will change to 9600.

```
A>> 9600 Baud  
B>> 19200 Baud  
Enter New Setting [X to Exit] >
```

Fig. 4

Note: The current Baud rate remains until the user exits the programming mode.

Press “X” to exit and return to the main menu.

Setup Menu

Pressing “B” from the “Main Menu” displays the “Setup Menu”. This menu displays the following options:

- Change Alarm Set points
- Change Miscellaneous Settings
- Change the Password

```

*****
EMR Corp.  BDAMON2MODEM  V1.021
*****

Setup Menu
Select The Following

A>> Alarm Menu
B>> Misc. Menu
C>> Password Setup
D>> Modem Setup
E >> Current Readings & Alarms
F >> Reset Alarm
G>> Clock Setup

X>> Exit

```

Fig. 5

Alarm Menu

Pressing “A” from the “Setup Menu” displays the “Alarm Setup” menu (Fig. 6). This menu the displays the following options:

- Change the four Amp Low and High Current Alarms
- Change the DC Voltage Low and High Alarms
- Enable or Disable the AC Sense Alarm
- Enable or Disable the Door Alarm
- Enable or Disable the Audible Alarm

```

*****
EMR Corp.  BDAMON2MODEM  V1.021
*****

Alarm Setup
Select The Following

A>> Amp #1 Current Low  Alarm = Disabled
B>> Amp #1 Current High Alarm >=Disabled
C>> Amp #2 Current Low  Alarm = Disabled
D>> Amp #2 Current High Alarm >=Disabled
E>> Amp #3 Current Low  Alarm = Disabled
F>> Amp #3 Current High Alarm >=Disabled
G>> Amp #4 Current Low  Alarm = Disabled
H>> Amp #4 Current High Alarm >=Disabled
I>> DC Voltage Low Alarm <=12.00 Vdc
J>> DC Voltage High Alarm >=14.90 Vdc
K>> AC Alarm =Disabled
L>> Door Alarm=Disabled
M>> Audible Alarm=Disabled
X>> Exit
>

```

Fig. 6

Alarm Menu (continued)

From this screen the user can either view the current settings or edit.

For example, to change the “Amp #1 Current Low Alarm” press the “A” key and the “Current Amp #1 Low Alarm” is displayed followed by the “Enter New Setting” prompt.

```
Current Amp #1 Low Alarm <= 0.20 Amps
Enter New Setting
[D to Disable E to Enable X to Exit] >
```

Fig. 7

To disable or enable a port press “D” to disable the alarm or “E” to enable.

Enter the new setting and press <Enter> or “X” to Exit.

Misc. Menu

Press “B” from the “Setup Menu” to display the “Misc. Setup” menu (Fig. 8). This menu displays the following options:

```
*****
EMR Corp. BDAMON2MODEM V1.021
*****

Misc. Setup
Select The Following

A>> Recalibrate Unit

B>> Recalibrate Counter = 0

C>> TP-1 Voltage = 13.60

D>> Hysteresis (0 to 255) = 10

E>> Data String = Disabled

X>> Exit

>
```

Fig. 8

Note: Options A, B & C are factory settings and not user changeable.

Data String

Changing the “E” Data String line to “Enabled” will send a comma delimited string in the following format out the Com Port.

Time: Date, Door, Door Alarm, DC Voltage, DC Alarm, AC, AC Alarm, Port#1 Current, Port#1 Alarm, Port#2 Current, Port#2 Alarm, Port#3 Current, Port#3 Alarm, Port#4 Current, Port#4 Alarm

For Example:

14:42:9/28/2010, 0, 0, 13.80, 0, 0, 0, 0.25, 0, 1.20, 0, 0.27, 0, 0.00,1

Translates to:

14:42:9,9/28/2010, Door Closed, no alarm, 13.80 VDC, no alarm, AC on, no alarm, 0.25 Amps on Amp #1, no alarm, 1.20 Amps on Amp #2, no alarm, 0.27 Amps on Amp #3, no alarm, 0.00 Amps on Amp #4, alarm on

Password Menu

Press “C” from the “Setup Menu” to display the “Password Setup” menu (Fig. 9). This menu displays the following option:

```

*****
EMR Corp.  BDAMON2MODEM  V1.021
*****

Password

Select The Following

A>> Password = 123456

X>> Exit

```

Fig. 9

Press “A” to change the password.

Auto Dialer Menu

Press “C” from the Main Menu to display the “Auto Dialer Setup” (Fig. 10). This menu displays the following options:

- Change the Auto Dialer telephone numbers (2 available)
- Disable telephone #1 or telephone #2 or both telephone numbers
- Set the length of call from 15 to 60 seconds
- Enable or Disable Hourly Alarms

```

*****
EMR Corp.  BDAMON2MODEM  V1.021
*****

Auto Dialer Setup
Select The Following

A>>Telephone Number 1 = 7678900

B>>Telephone Number 2 = 7671111

C>>Length of Call = 15

D>> Redial Hourly Alerts = Disabled

X>> Exit

>

```

Fig. 10

Note: To dial a numeric pager use “,” to pause the output for 2 seconds before the next digit is sent. For example: 1-555-555-5555,,,,,12345 dials 1-555-555-5555 then waits 10 seconds then dials 12345.

Modem Setup Menu

Press “D” from the Main Menu to display the “Modem Setup” (Fig. 11). This menu displays the following options:

- Select a Modem Baud Rate from 1200, 2400,4800 and 9600.
- Auto Answer from 0 to 255 Rings. Inputting “0” turns off auto answer.

```

*****
EMR Corp.  BDAMON2MODEM  V1.021
*****

Modem Setup
Select The Following

A>> Modem Baud Rate = 9600 Baud
B>> Auto Answer = 1 Ring
X>> Exit

>

```

Fig. 11

View Current Readings & Alarms

Press “E” from the Main Menu to display “Current Readings & Alarms”.

```

*****
EMR Corp.  BDAMON2MODEM  V1.021
*****
Current Readings & Alarms

Door = Closed   | Door Alarm = Off
DC Volts = 12.31 | DC Alarm = Off
AC = Off       | AC Alarm = ON
Amp #1 Current = 1.30 Amps | Alarm = Off
Amp #2 Current = 1.32 Amps | Alarm = Off
Amp #3 Current = 0.00 Amps | Alarm = Off
Amp #4 Current = 0.00 Amps | Alarm = Off

First Alarm at: 12:59:28 9/28/2010

Press [E] or [V] To View again [X] to exit

```

Fig. 12

Resetting Alarms

Press “F” from the Main Menu to reset all alarms.

```

Reset Alarm.
Are You Sure? [Y] or [N] > Y
Alarms are reset.

```

Fig. 13

To reset all alarms press the reset button on the unit.

Clock Setup

Press “G” from the Main Menu to display the “Clock Setup” menu. This menu displays the following options:

- Change/View the Time
- Change/View the Date
- Refresh the Menu to see current time/date.

```

Clock Setup
Select The Following

A>> Time 15:26:07

B>> Date 09/28/2010

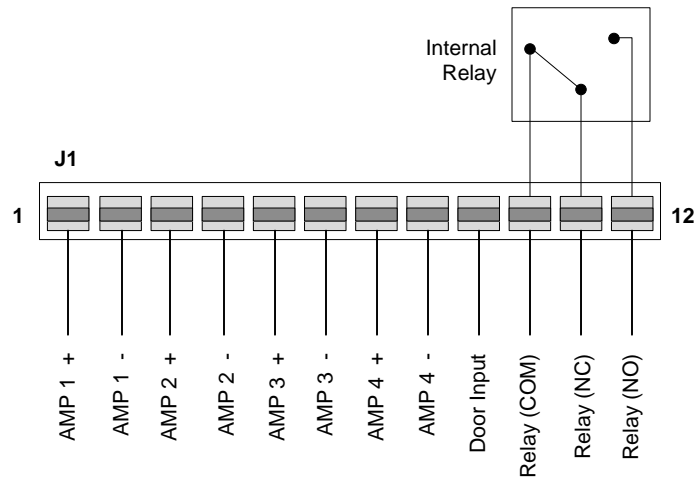
C>> Refresh Menu

X>> Exit

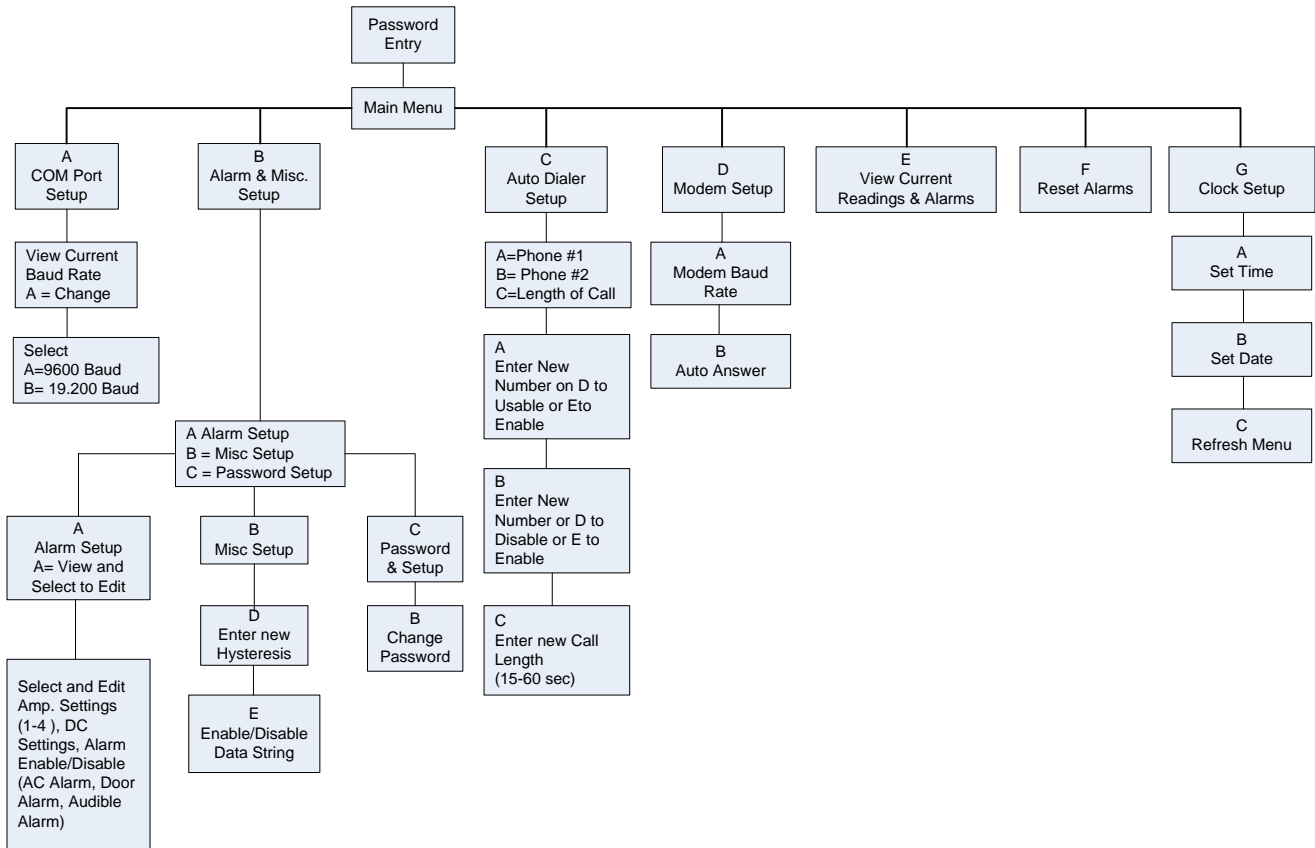
```

Fig. 13

Hookup Diagram



Programming Flow Chart



U.S. FCC Part 68 Statement

This equipment complies with Part 68 of the FCC Rules. On this equipment is a label that contains, among other information, the FCC registration number, and Ringer Equivalence Number (REN) for this equipment. You must, upon request, provide this information to your telephone company.

The REN for this product is part of the registration number that has this format:

[US: 3A4MM00BTM]

The digits shown after MM are the REN without the decimal point. (e.g., 00 is a REN of 0.0).

A plug and jack used to connect this equipment to the premises wiring and telephone network must comply with applicable FCC Part 68 rules and requirements adopted by the ACTA.

If your telephone equipment causes harm to the telephone network, the Telephone Company may discontinue your service temporarily. If possible, they will notify in advance. But, if advance notice is not practical, you will be notified as soon as possible. You will be informed of your right to file a complaint with the FCC.

Your telephone company may make changes in its facilities, equipment, operations, or procedures that could affect proper operation of your equipment. If they do, you will be notified in advance to give you an opportunity to maintain uninterrupted telephone service.

The FCC prohibits this equipment to be connected to party lines or coin-telephone service. In the event that this equipment should fail to operate properly, disconnect the equipment from the phone line to determine if it is causing the problem. If the problem is with the equipment, discontinue use and contact your dealer or vendor.

The FCC also requires the transmitter of a FAX transmission be properly identified (per FCC Rules Part 68, Sec. 68.381 (c) (3)).



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