



CAD Option B

Serial to Ethernet Adaptor for Midian's CAD Series Products

Manual Revision: 2010-07-07

Covers Software Revisions:
CADNet Jr: 1.20 & Higher

HARDWARE SPECIFICATIONS

Operating Voltage	9 VDC
Operating Current	300 mA
Operating Temperature	0 - +40 C

SYSTEM REQUIREMENTS

Operating System:	Windows 2000, XP SP2 and higher, Vista (32 bit), 7 (32 bit)
Processor:	Pentium 2 or Higher
Hard-Drive Space:	Minimum 20 MB
RAM:	Minimum 256 MB

INSTALLATION OVERVIEW

1. Test the radio for functionality.
2. Connect the CAD modem to the radio per the Hardware Installation Section of this manual.
3. Program the CAD software and modem per the Product Programming Section of this manual.

* Midian is not responsible for any damage/loss resulting from the use of Midian's products.

GENERAL INFORMATION

Midian's CAD Option B works with Midian's CAD-100, CAD-200, CAD-400, CAD-500, CAD-600 and CAD-MF to decode and display ANI and Emergency ANI. However, rather than the standard serial or USB interface the CAD Option B offers an Ethernet interface for networking the CAD modem. Currently this restricts the CAD products to decode only. When using the CAD Option B the CADNet Jr software is used instead of the regular CAD program.

HARDWARE INSTALLATION

The CAD Option B comes with the Serial to Ethernet adaptor box, a 9V power supply and a DB9 Female to DB9 Female cable. The DB9 cable plugs into the P2 (DB9) connector on the CAD modem box and the DB9 connector on the CAD Option B.

The following are the pins used on the Female DB-9 straight through cable between the CAD modem and the Serial to Ethernet adaptor box.

P2-2 – TX Output

P2-3 – RX Input

P2-5 – Ground

There is an Ethernet port on the CAD Option B for a CAT5 or CAT6 cable (not included) to plug into.

SOFTWARE INSTALLATION

Insert the CD into the CD-ROM drive and close the drive. The CD will auto-run. Click on the side menu bar for miscellaneous software and select the CADNet Jr software. Follow the set-up procedures. The software by default will install into the following location:

C:\Program Files\Midian\CADNetJr_v1_20

In the installation location of the CADNet Jr software (C:\Program Files\Midian\CADNetJr_v1_20 by default) there will be several ini files (CADNetJr.ini, Modem_01.ini, etc.). The CADNetJr.ini file controls the display of the Main screen with the following parameters:

```
[Form_Params]
Top=195
Left=358
Height=307
Width=425
Title=CADNet Jr.
Min_Height=185
Min_Width=400

[Column_Params]
col_Dispname_Name=Name
col_Dispname_Unit_ID=ANI
col_Dispname_Type=Type
col_Dispname_Date=Date
col_Dispname_Time=Time
col_Dispname_Channel=Channel
col_Name=1
col_ANI=1
col_Type=1
col_Date=1
col_Time=1
col_Channel=1

[Communication_Params]
IP_Port=1021
```

Top: The default of this field is 195 (pixels). This sets the number of pixels from the top line of the monitor down towards the middle that the top side of the main screen will be positioned.

Left: The default of this field is 358 (pixels). This sets the number of pixels from the left side of the monitor in towards the middle that the left side of the main screen will be positioned.

Height: The default of this field is 307 (pixels). This field cannot be lower than the Min_Height.

Width: The default of this field is 425 (pixels). This field cannot be lower than the Min_Width.

Title: The default of this field is CADNet Jr. This title is shown in the top bar of the Main screen.

Min_Height: The default of this field is 185 (pixels). Midian does not recommend going lower than this value.

Min_Width= The default of this field is 400 (pixels). Midian does not recommend going lower than this value.

col_Dispname: These fields control the column titles displayed in the Main screen. These names can be changed into different languages. For example col_Dispname_Name=Name can be changed to col_Dispname_Name=Nombre for Spanish speaking users. When this change occurs the column will be titled "Nombre" instead of "Name".

col_Name, col_ANI, col_Type, col_Date, col_Time, col_Channel: If set to a 1 the column will be visible on the Main screen. If set to a 0 the column will not be visible.

IP_Port: This is the server software listening and transmit port. The default of this field is 1021 and should not be changed unless instructed to by your network administrator.

The following parameters are for the Modem ini files (i.e. Modem_01, Modem_02, Modem_03, Modem_04).

```
[Communication_Params]
IP_Addr=192.168.1.141
IP_Port=1021
COM_Port=0
Port_Type=2
Modem_Type=5
Alias=CH01
```

IP Address: This should be set with the CAD Option B's IP address.

IP Port: This is the server software listening and transmit port. The default of this field is 1021 and should not be changed unless instructed to by your network administrator.

COM Port: This should be left as 0 when using UDP. When using serial enter the COM Port to which the modem is connected.

Port Type: Enter a 1 for a serial and a 2 for UDP. **Note:** When using UDP, verify with your network administrator that broadcast UDP packets will be allowed to pass through routers and bridges.

Modem Type: Enter the type of CAD modem that is connected to the Port. For the CAD-100 and CAD-200 enter a 1, for the CAD-200E enter a 2, for the CAD-400 enter a 4, for the CAD-500 enter a 5, for the CAD-600 enter a 6 and for the CAD-MF enter an 8. When set to a 0 then this modem input is disabled.

Alias: This is a 4 character name to identify the modem.

Alias Database:

In order to create an alias database in the CADNet Jr, you will need to access the Alias_List.recs file using Notepad or a similar text editor. The format uses the following format for entering aliases:

```
{1234},{John Smith},{MDC-1200},{0x0001}
```

The first bracket is the unit ID, the second bracket is the desired Alias, the third bracket is and the fourth bracket uses a Hex Code from the table below to determine which modem(s) will support the unit ID. Note that each field is separated by a comma. Once a alias has been entered, press the Enter key before starting a new alias. Note: The braces ({ }) must be included.

Desired Modem Channels	Hex Code
Modem 1	0x0001
Modem 2	0x0002
Modem 3	0x0004
Modem 4	0x0008
Modem 1, 2	0x0003
Modem 1, 3	0x0005
Modem 1, 4	0x0009
Modem 1, 2, 3	0x0007
Modem 1, 2, 4	0x000B
Modem 1, 3, 4	0x000D
Modem 1, 2, 3, 4	0x000F
Modem 2, 3	0x0006
Modem 2, 4	0x000A
Modem 2, 3, 4	0x000E
Modem 3, 4	0x000C
Any Modem Channels	0xFFFF
No Modem Channels	0x0000

OPERATION

Main Window:

The Main Grid Display (shown below) will show the latest decoded information inserted at the top of the grid. If an Alias database is included upon the startup of the application, the Name column will be displayed. If the Alias database is not included or has configuration errors, the Name column will not be displayed.

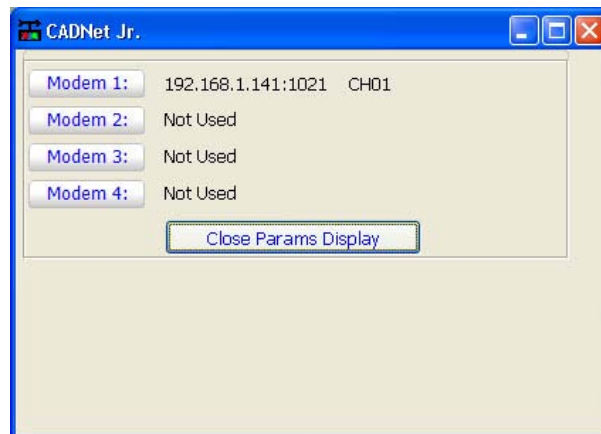


Name	ANI	Type	Date	Time	Channel

Each column can be adjusted for size and the columns can be arranged in a desired order of display. When the application is shut down, the column size and display order are automatically saved and reloaded when the application is started again. The binary file that stores this information is named `cad_cols.bin`. This file is located in the installation folder of the application. If this file should become corrupted, it can be deleted and a new one will be created with default settings when the application is restarted.

To Hide or Show a column, right click with the mouse in the Header section of the grid. As shown above, this will bring up a popup menu allowing the desired display selection. This information will be saved when the application is shut down and restored when the application is restarted. The parameters used to Hide and Show columns is stored in a text file named `CadNetJr.ini`. This file is located in the installation folder of the application.

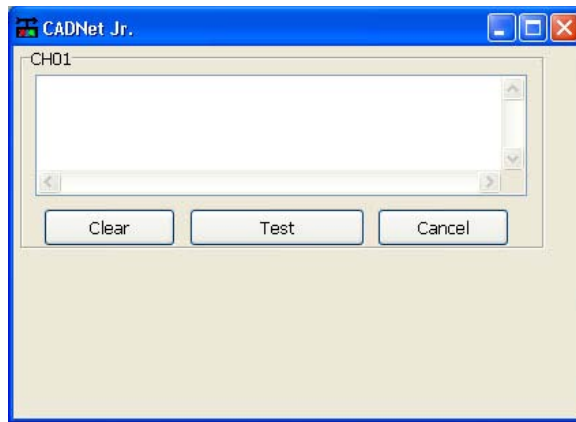
To access the Operating Parameters Display, place the mouse pointer in the middle of the display grid and right click the mouse. Left click with the mouse on the menu entry labeled "Show Params." The snapshot below is a sample of what may be displayed:



Modem 1:	192.168.1.141:1021 CH01
Modem 2:	Not Used
Modem 3:	Not Used
Modem 4:	Not Used

Close Params Display

To return to the Main Display Grid, press the button labeled "Close Params Display." To perform a quick test for CAD Modem communication, left click on one of the Modem buttons to the left of the summary information. As shown above. After clicking on the desired Modem button, a Communication Test Window is presented.



The purpose of this window is to perform a quick communications check with the attached CAD Modem. Below is a brief summary of the button functions:

Clear: Clears the Test Window.

Test: Issues a soft reset to the CAD Modem which in turn the CAD Modem should respond with a Sign On Message indicating that data transmission and reception are working.

Cancel: Will close the Communication Test Window and re-display the Operating Parameters window.

TECHNICAL NOTES

International Windows Versions: Even though Midian has worked to make this product internationally compliant, Midian recognizes that there may be additional issues to be resolved.

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