

Biodata BabylonMeta with Nera WorldCommunicator and F77

This application note describes the set-up of the Biodata BabylonMeta (BBM) used together with the Nera WorldCommunicator(NWC) and F77. For more information on the Biodata BabylonMeta see the web page: www.biodata.de . We strongly recommend that you read the BBM User's Manual before programming the unit.

This solution can be used for voice and UDI data and video-conferencing calls. Because of the Inmarsat Global Area Network set-up the UDI service must also be used for voice calls.

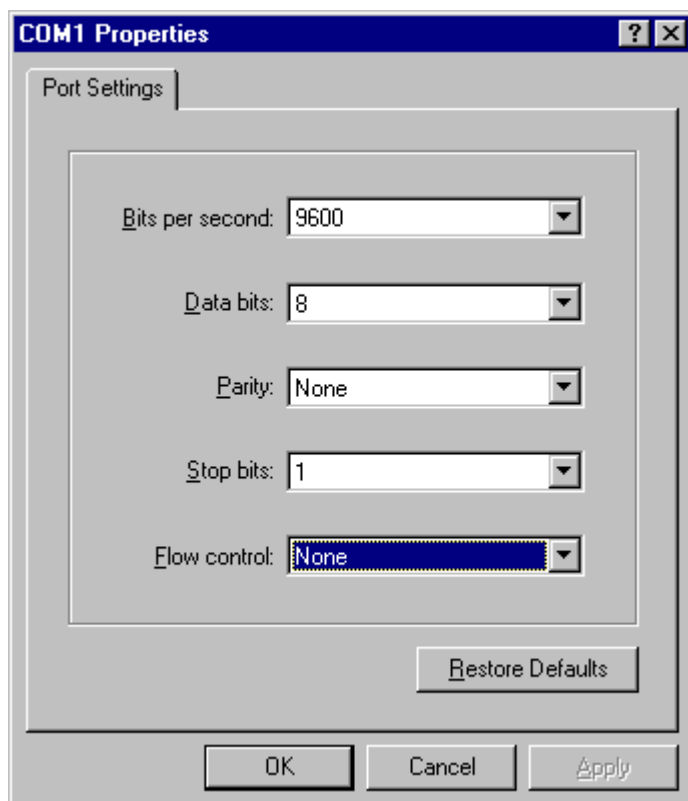
The bold text is programming input.

1. VOICE CALLS

This is a description on how the BBM can be set-up for voice calls using the NWC. Only the NWC side and not the fixed side can initiate a secure call.

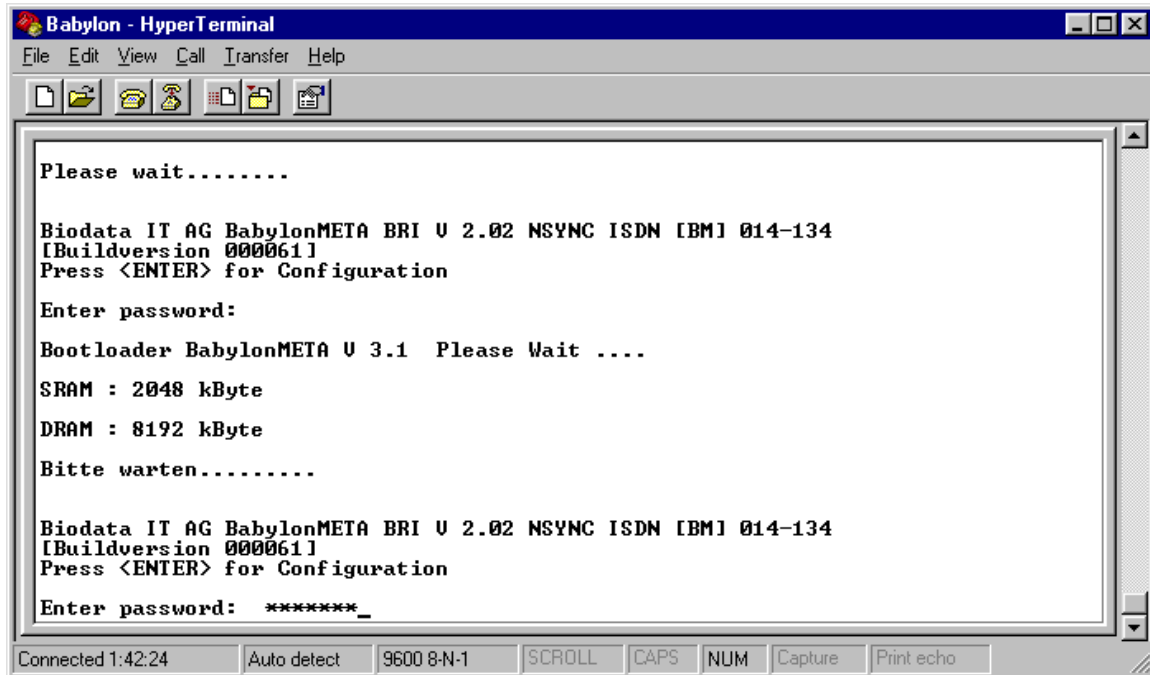
Both remote and fixed side BBM must be set-up the same.

Connect the BBM to a PC and start HyperTerminal or a similar terminal SW. The serial port must be set to the following:



1.1 Entering set-up of the BBM

When the BBM is power up it will through it set-up. When it is finished, press Enter to open the configuration.



```
Babylon - HyperTerminal
File Edit View Call Transfer Help

Please wait.....

Biodata IT AG BabylonMETA BRI U 2.02 NSYNC ISDN [BM] 014-134
[Buildversion 000061]
Press <ENTER> for Configuration

Enter password:

Bootloader BabylonMETA U 3.1 Please Wait ....

SRAM : 2048 kByte
DRAM : 8192 kByte

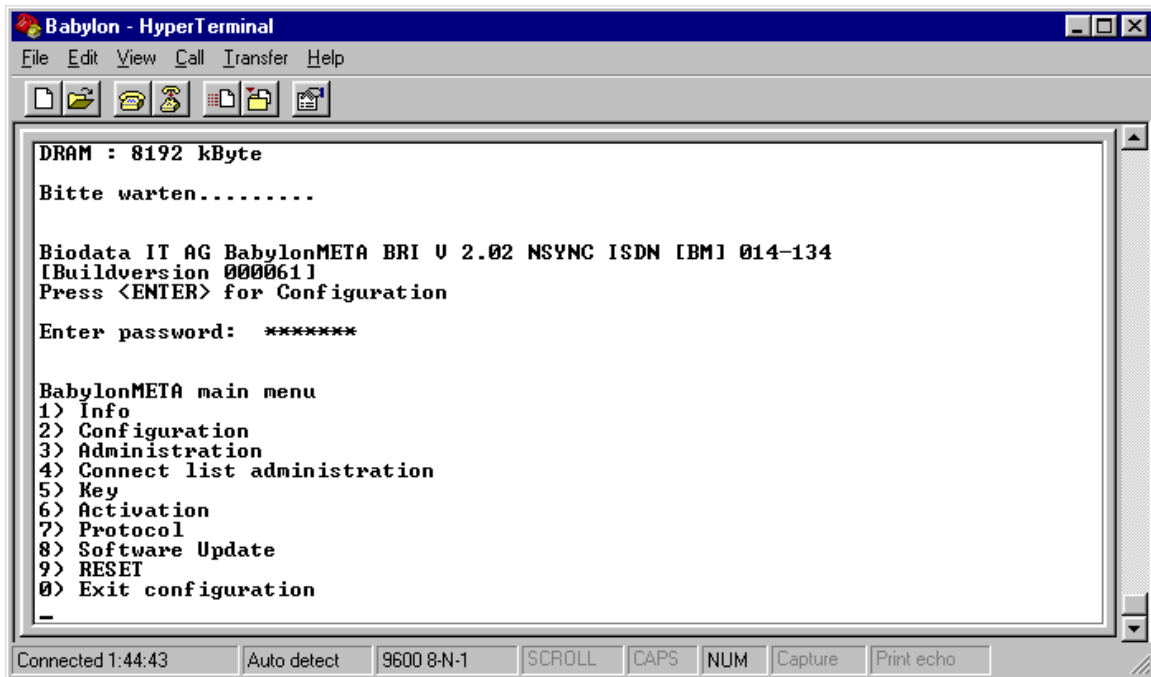
Bitte warten.....

Biodata IT AG BabylonMETA BRI U 2.02 NSYNC ISDN [BM] 014-134
[Buildversion 000061]
Press <ENTER> for Configuration

Enter password: *****_

Connected 1:42:24 Auto detect 9600 8-N-1 SCROLL CAPS NUM Capture Print echo
```

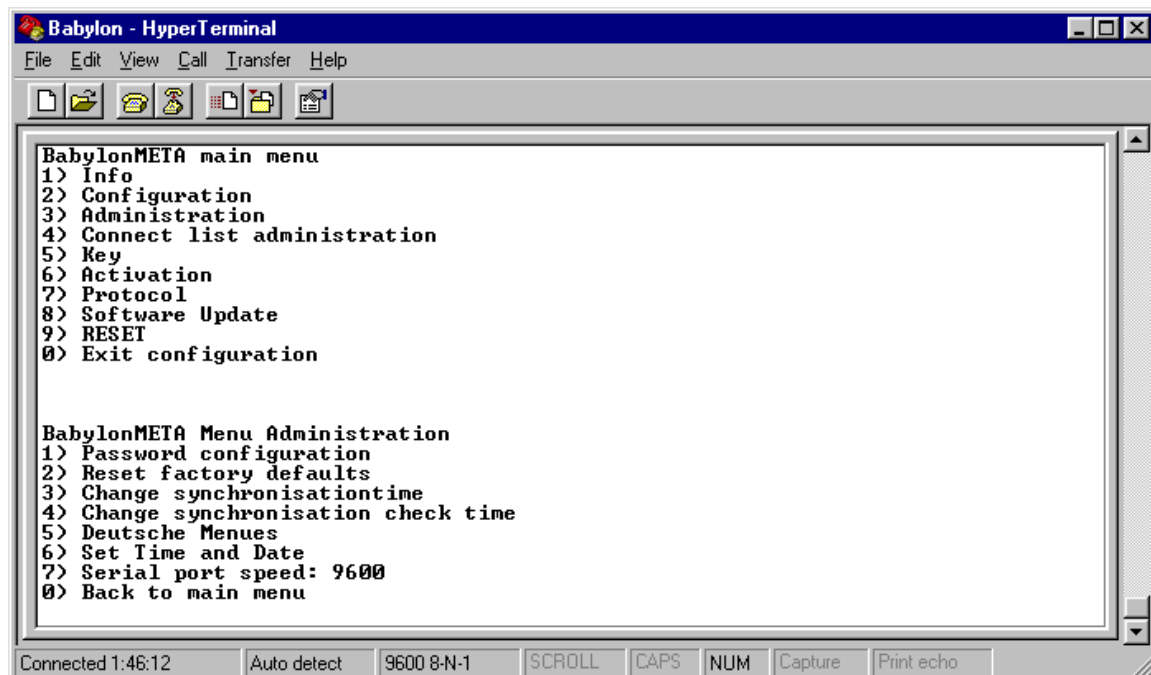
Type in the default Password: **Babylon** and **Enter**. This password can be changed. Refer to the BBM user's manual.



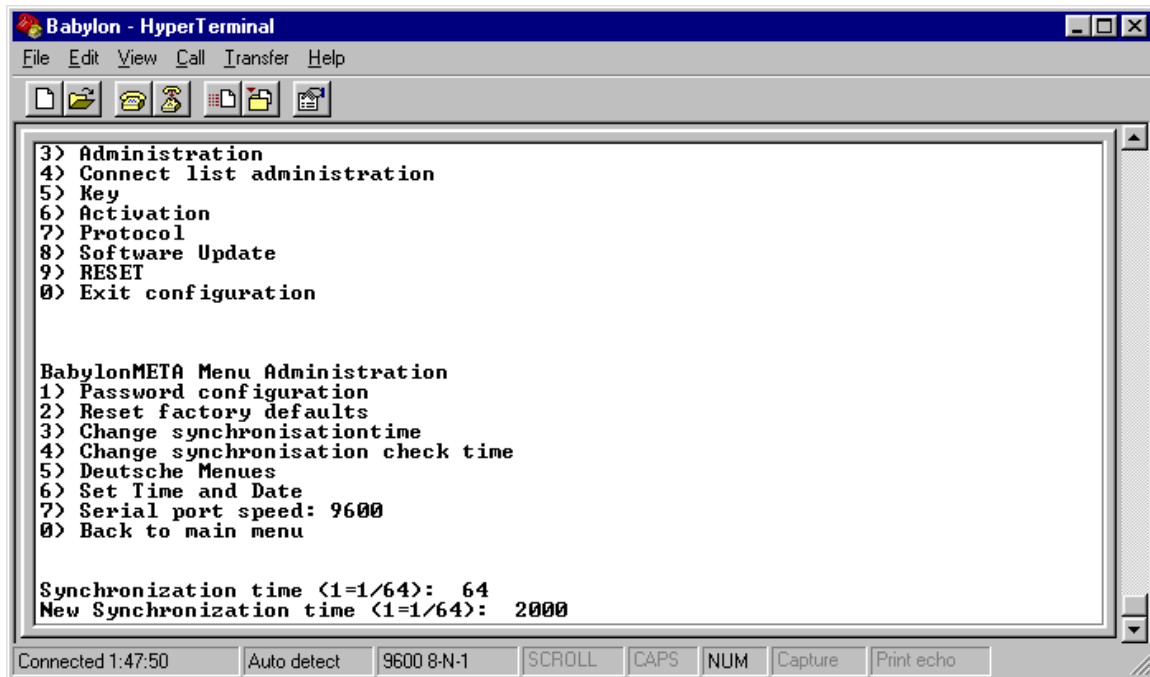
This is the main menu.

1.2 Synchronisation time

Because of the satellite delay we have to change the synchronisation time. Enter the Administration menu by typing 3.



To enter the Change Synchronisationtime type 3.

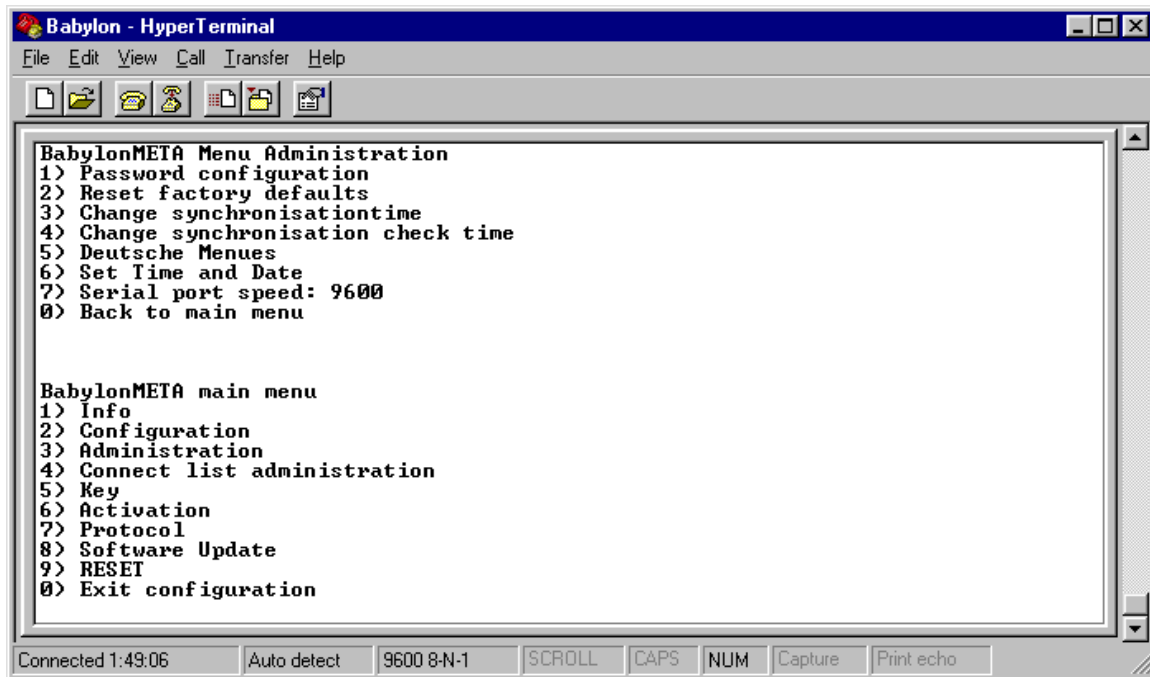


Type in **2000** and **Enter**. To return to the Main menu type **0**.

1.3 Connect list administration

The following must be done to make the NWC dial out using the UDI service. If this is not done properly, the NWC will dial out using the default speech function.

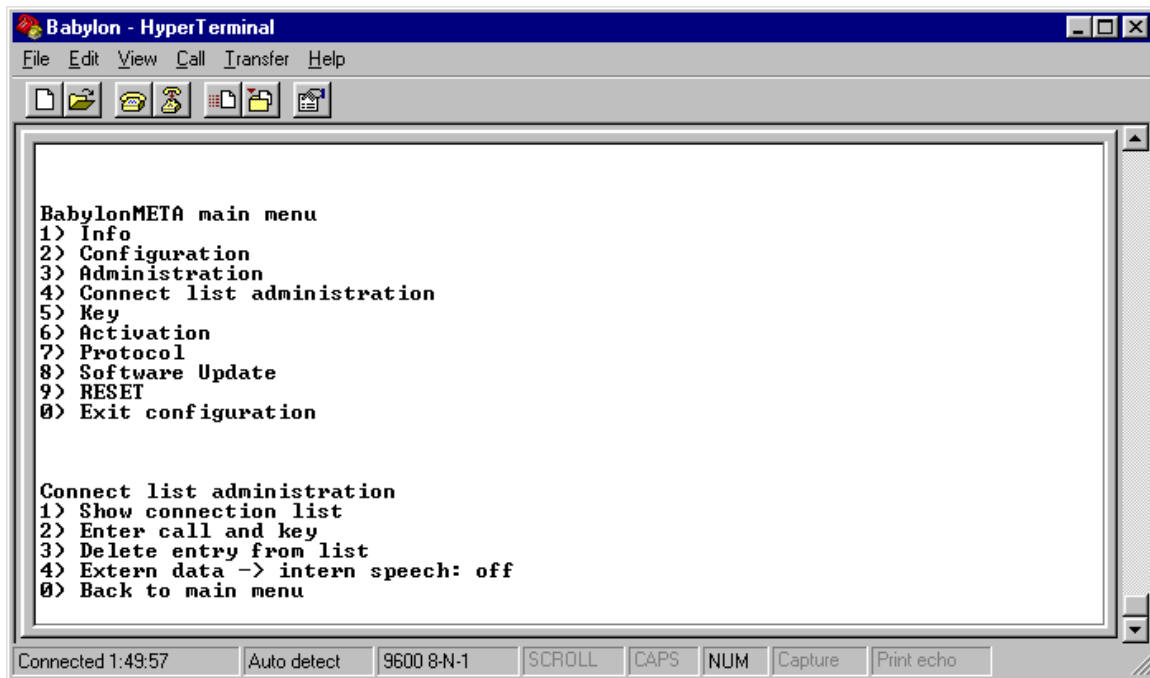
Type **4** to enter the Connect list administration.



```
Babylon - HyperTerminal
File Edit View Call Transfer Help
[Icons]
BabylonMETA Menu Administration
1) Password configuration
2) Reset factory defaults
3) Change synchronisationtime
4) Change synchronisation check time
5) Deutsche Menues
6) Set Time and Date
7) Serial port speed: 9600
0) Back to main menu

BabylonMETA main menu
1) Info
2) Configuration
3) Administration
4) Connect list administration
5) Key
6) Activation
7) Protocol
8) Software Update
9) RESET
0) Exit configuration

Connected 1:49:06 Auto detect 9600 8-N-1 SCROLL CAPS NUM Capture Print echo
```



```
Babylon - HyperTerminal
File Edit View Call Transfer Help
[Icons]
BabylonMETA main menu
1) Info
2) Configuration
3) Administration
4) Connect list administration
5) Key
6) Activation
7) Protocol
8) Software Update
9) RESET
0) Exit configuration

Connect list administration
1) Show connection list
2) Enter call and key
3) Delete entry from list
4) Extern data -> intern speech: off
0) Back to main menu

Connected 1:49:57 Auto detect 9600 8-N-1 SCROLL CAPS NUM Capture Print echo
```

Make sure the Extern data -> intern speech function is off. If it is on, type **4** and it will be turned off. We also have to enter the number we are going to call on the fixed side. Type in **2**.

Type in the following:

Comment: **Any Name**

Please enter call number: **004766779070#** (It is important that the number you are going to dial is exactly the same as the one you are dialling, including #. On the fixed side the number would be

0087X6000XXXX and have to be the number corresponding with the MSN number programmed on the ISDN telephone.)

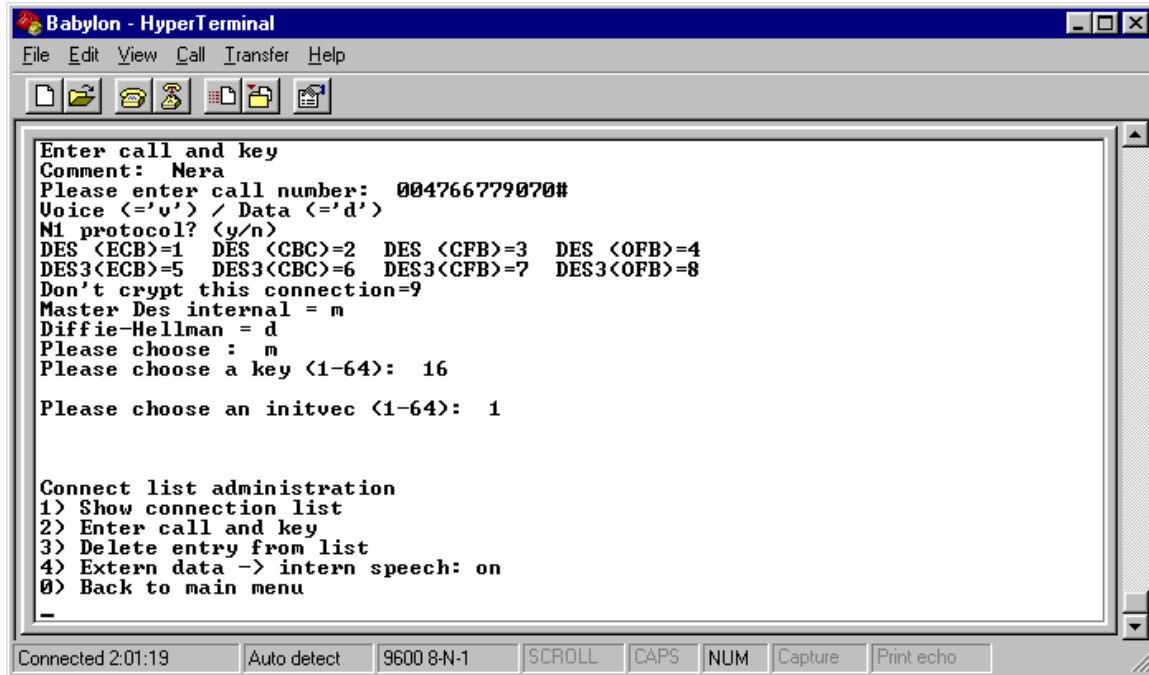
Voice (= 'v') / Data (= 'd'): v

N1 protocol? (y/n): n

Please choose: **m** (For this set-up are we using the Master Des internal key. If you want to use a different key, refer to the BBM user's guide.)

Please choose a key (1-64): **16** (This is the factory default key)

Please choose an initvec (1-64): **1** (This is the factory default initvector)



```
Babylon - HyperTerminal
File Edit View Call Transfer Help
Enter call and key
Comment: Nera
Please enter call number: 004766779070#
Voice (<='v') / Data (<='d')
N1 protocol? (y/n)
DES (ECB)=1 DES (CBC)=2 DES (CFB)=3 DES (OFB)=4
DES3 (ECB)=5 DES3 (CBC)=6 DES3 (CFB)=7 DES3 (OFB)=8
Don't crypt this connection=9
Master Des internal = m
Diffie-Hellman = d
Please choose : m
Please choose a key (1-64): 16
Please choose an initvec (1-64): 1

Connect list administration
1) Show connection list
2) Enter call and key
3) Delete entry from list
4) Extern data -> intern speech: on
0) Back to main menu
-
Connected 2:01:19 Auto detect 9600 8-N-1 SCROLL CAPS NUM Capture Print echo
```

Exit by typing **0** and **0** again to exit the set-up. If you do not exit properly the set-up will not be saved.

1.4 Programming the ISDN telephone

During our test we used the Siemens Profiset 30. The MSM number programmed in the telephone must be a UDI MSN, like 60. When dialing out key in the number you want to dial and the lift the handset. It is important that the number you want to dial is programmed in the BBM.

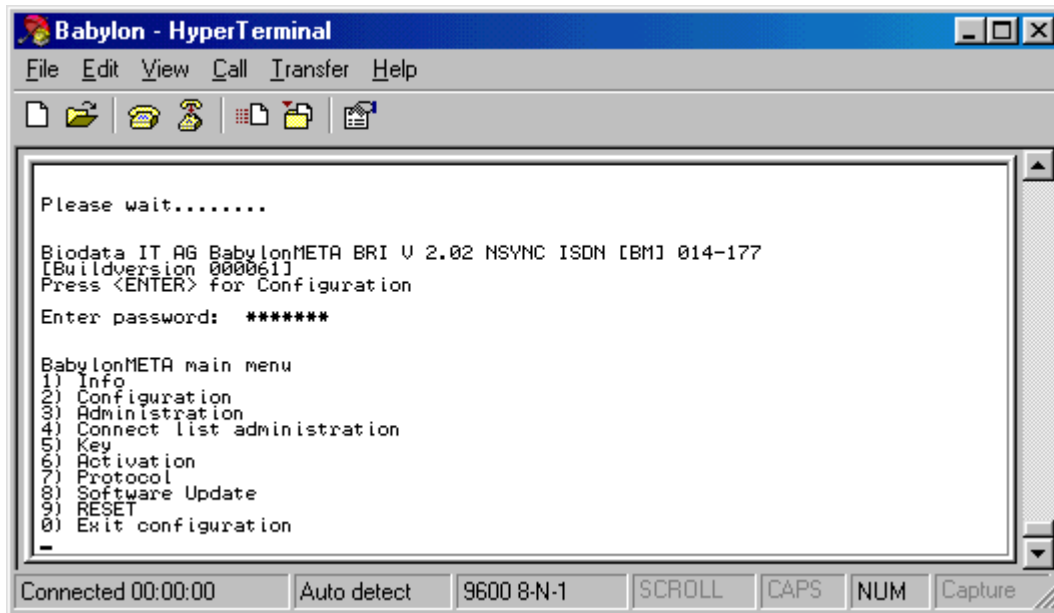
2. DATA CALL

Getting the BBM to work using data with the NWC is much easier than for voice calls. To use the default key all you have to change is the sync. time, see chapter 1.2.

3. VIDEO-CONFERENCING

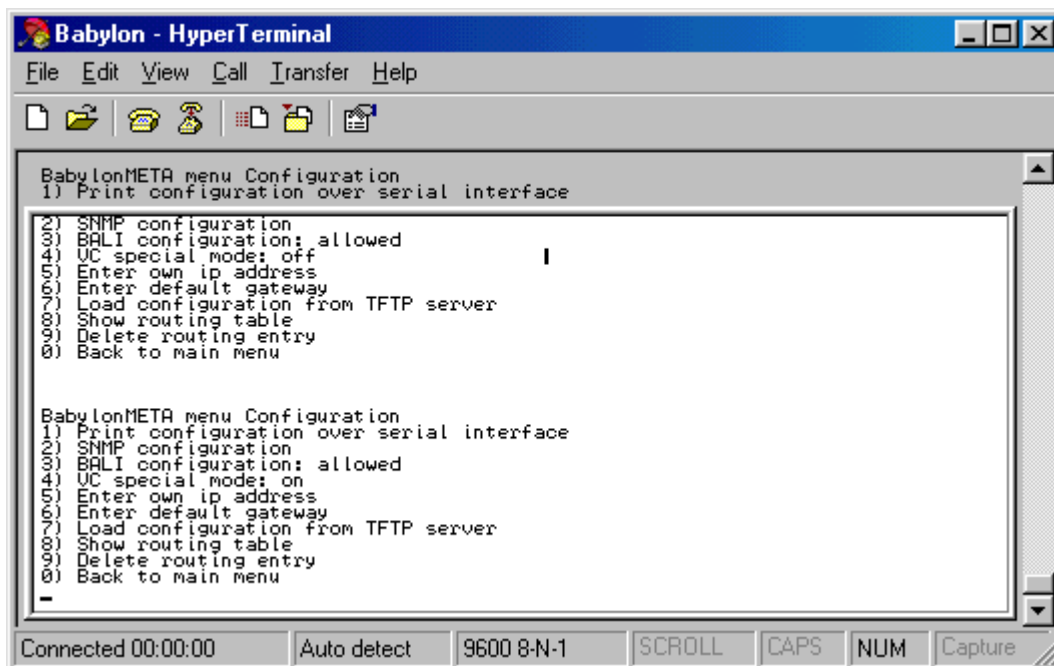
Due to longer call sync. time for VC equipment, Biodata have developed a special function for video-conferencing. This function is set as follows:

From the main menu enter the Configuration menu by typing **2**.



```
Babylon - HyperTerminal
File Edit View Call Transfer Help
Please wait.....
Biodata IT AG BabylonMETA BRI V 2.02 NSYNC ISDN [BM] 014-177
[Buildversion 000061]
Press <ENTER> for Configuration
Enter password: *****
BabylonMETA main menu
1) Info
2) Configuration
3) Administration
4) Connect list administration
5) Key
6) Activation
7) Protocol
8) Software Update
9) RESET
0) Exit configuration
```

In the Configuration menu type **4** to enable the VC special mode



```
Babylon - HyperTerminal
File Edit View Call Transfer Help
BabylonMETA menu Configuration
1) Print configuration over serial interface
2) SNMP configuration
3) BALI configuration: allowed
4) VC special mode: off
5) Enter own ip address
6) Enter default gateway
7) Load configuration from TFTP server
8) Show routing table
9) Delete routing entry
0) Back to main menu
BabylonMETA menu Configuration
1) Print configuration over serial interface
2) SNMP configuration
3) BALI configuration: allowed
4) VC special mode: on
5) Enter own ip address
6) Enter default gateway
7) Load configuration from TFTP server
8) Show routing table
9) Delete routing entry
0) Back to main menu
```

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