PALLADIO ISDN

PALLADIO Series

Mobile Data Solutions

digicom
http://www.digicom.it

CE

UP INSERT

PC Card

User's Guide
rev. 1.0 del 04/2002

> digicom
http://www.digicom.it

INDEX

digicom

PREFACE

ENVIROMENTAL CONDITIONS

ENVIRONMENTAL TEMPERATURE	**RELATIVE HUMIDITY**
from 0 to + 45°C	from 5 to 92% n.c..

Rapid changes of temperature or humidity should be avoided (0,03°C/min).
This equipment, including cables, should be installed in an area free from:
- Dust, humidity, heat from direct sun light.
- Objects which irradiate heat. These could cause damage to the container or other problems.
- Objects which produce a strong electtromagnetic field (loudspeakers, etc.)
- Liquids or chemical corrosive substances.

CLEANING THE TERMINAL
Use a clean and soft cloth. Wet the cloth with water or natural detergent if it is necessary to remove any stains.
Never use chemical products such as petrol or solvents.

VIBRATIONS OR DROPPING
Caution against vibrations and dropping

WARNING
This is a class A product.

In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

DECLARATION $C\epsilon$ OF CONFORMITY

We, Digicom S.p.A. registered office at: via Volta 39 - 21010 Cardano al Campo (Varese - Italy)
declare under our sole responsability that the products:
Name: PALLADIO ISDN satisfies the basic requirement of the below indicated Directive:
- **1999/5/CE** of March 9 1999, R&TTE as having been designed in conformity with the requirements of following Reference Standards:
- EN 55022   - EN 61000-3-2
- EN 61000-3-3 - EN 55024
- EN 60950   - ETSI TBR 3

digicom

1. GENERALITY

1

PALLADIO ISDN is an active ISDN modem for Euro-ISDN lines. It complies with several Operating Systems: Windows®, Mac® OS and Linux.

You can connect to the Internet at 64/128 Kbps, and thanks to the software available on the market, you can also carry out PC remote connections (ISDN-ISDN with V.120 or ISDN-GSM with V.110 protocol).

With the bonus Pack "RVS-COM Lite", Windows® users, can send/receive fax Gr.4 (64 Kbps), send/receive fax Gr.3 (14.4/9.6 Kbps), transfer files (X.75 Eurofile Transfer) and use voice features.

Palladio ISDN is Plug & Play, and it can be connected and disconnected when the computer is ON (Hot insertion).

Minimum requirements:
- Pc Pentium or compatible
- 1 PC Card slot
- Windows®95 / Mac® OS 8.6 / Linux
- Sound card (required for voice features with "RVS-COM lite")

As for the device installation, see the installation section referring to your Operating System.

For the use of the communication programs, see their user's manuals.

1.1. PACKAGE CONTENT

- PALLADIO ISDN
- ISDN line cable
- Quick Guide
- PDF User's Guide
- Driver for: Windows® XP/ME/2000/98
- Driver for Mac® OS 9.x, 8.6
- Bonus Pack "RVS-COM lite" for: Windows® XP/ME/2000/98

digicom

1.2. TECHNICAL FEATURES

- ISDN Connection: Basic Rate Interface Euro-ISDN
- AT commands
- Autobaud up to 115200 bit/s
- PPP/MLPPP protocols for 64/128 Kbps Internet connections
- V.120 protocol for ISDN-ISDN connections
- V.110 protocol for ISDN-GSM connections
- V.42bis data compression

1.2.1. AUTOBAUD

The modem detects the speed and the character format up to 115200 bps. The following format combinations are accepted:

CASE	START	DATA	PARITY	STOP	TOT
1	1	7	1	1	10
2	1	8	0	1	10

The modem will accept even, odd, mark, or space.

1.2.2. ADAPTATION STANDARD V.110 & V.120

Using the protocols adaptation V.110 and V.120 the Computer speed can achieve 115200 bps.

1.2.3. INTERNET & INTRANET OVER ISDN

Internet and Intranet access is performed using a powerful integrated protocol convertion from asynchronous to synchronous PPP/MLPPP.
Palladio ISDN can directly connect to remote ISDN access devices using a single B channel at 64000 bps (PPP) or both B channels achieving 128000 bps (MLPPP).
In MLPPP mode the second B channel can be configured to be issued statically or dinamically on a traffic level basis.

1.2.4. DATA COMPRESSION V.42BIS

Palladio ISDN support ITU V.42bis data compression. Two Digicom ISDN modem running V.120 protocol and V.42bis data compression can achieve up to 100.000 bps over a single B channel (64000 bps) connection, depending on file the compression ratio. This means higher performances at a lower cost.

1.2.5. FACTORY CONFIGURATION

Palladio ISDN has 4 preloaded factory configurations suitable for the most common applications. The activation is throught AT command.

1.2.6. CONFORMITY RULES

Palladio ISDN is compliant with the following technical reference:
ISDN

ETS 300 012 / I430	level 1
ETS 300 125 / Q920 - Q921	level 2
ETS 300 102 / Q930 - Q931	level 3

SAFETY
EN 41003
EN 60950
ETS 300 047-1
ETS 300 047-2
ETS 300 047-3

EMC
EN 50082-1
EN 55022

1.2.7. TECHNICAL CHARACTERISTIC

Power Comsumption:	800mW
Power requirements:	+5V from the Computer PCMCIA socket
Card size:	PCMCIA type 2.0
	Palladio ISDN is detected from the Operating System as a serial port (COMx)
PCMCIA Connection:	68pins PCMCIA connector
Computer speed:	max. 115200bps
Speed accepted in V.110:	1200, 2400, 4800, 9600, 12000, 19200, 38400bps
Speed accepted in V.120:	64.000bps

ISDN Interface

Type:	S Bus 2B+D Basic Rate Interface
Connector:	RJ45
Protocol:	Euro-ISDN

digicom

Enviromental Condition

Operative mode: from 0°C to +45°C
Storage mode: from -20°C to +80°C
Umidity: from 5% to 92% non condensing

1.3.   PRODUCT DESCRIPTION

Palladio ISDN is a PC CARD to connect over digital ISDN lines up to 64/128 Kbps.

Generally ISDN devices are called Terminal Adapter (or ISDN modem) and can connect to the digital ISDN lines to transfer data up to 64000 bps (using V.120 or PPP protocols, depending on the application) or up to 128000 bps (using MLPPP Multi-Link Point to Point Protocol).

The Internet/Intranet access is carried out through the "PPP Internet" mode.

The minimum requirement for a complete use of the device is at least 1 PC Card slot 16 bit on your portable PC.

Palladio ISDN complies with EUROISDN NET3, CTS2, I-CTR3.

1.4.   ISDN

ISDN, acronym of Integrated Services Digital Network, it's the evolution of the switched analog network even called Plain Old Telephone sistem (POTs). ISDN can deliver fast, reliable, switched digital communications to the user. A practically error free up to 128Kbps throughput and a minimal call connect time make ISDN the medium of choice for data communications.

The ISDN devices available in the market are: phone, fax, videotelephony, and terminal adaptor. The Terminal Adaptor (also called ISDN modem) is the equivalent of the analog modem, instead of make a modem modulation process, an ISDN Terminal Adaptor makes a digital codification and adaptation.

2.   HARDWARE INSTALLATION

2

Remove the modem from its package and check it is OK.

- Connect the external line adaptor to the PC card previously inserted in the Computer.

- Connect the ISDN line (BRI) to the RJ45 connector of the external line adaptor. For more details see the picture.
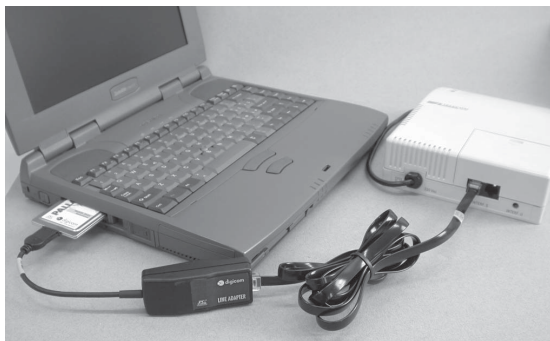
You must go on with the driver installation. In the next chapters you will find the procedure to follow for your Operating System.

digicom

3. DRIVER INSTALLATION (WINDOWS® XP)

3

Search for a free PCMCIA slot on your PC. If necessary, refer to the PC User's Manual to identify the PCMCIA slot.
Insert the card in the PCMCIA slot of your computer in the correct way up. The way up sign is on the modem sticker. (**Up-Insert**)
The Operating System will detect a new hardware.

Select **Install from a list or specific location** and click **Next**.

Select **Include this location in the search** ONLY and, with the **Browse** button, look in the Cd-Rom/Disk for the folder containing the modem drivers. The Windows® XP Palladio ISDN drivers are in digicom Cd-Rom in <Cd-rom>:\ driver\WinXP.

Click **Next**.

Click **Continue Anyway** in the **Hardware Installation** window. In the next window click **Finish**: the **Palladio ISDN Driver** installation is complete.

digicom

3.1
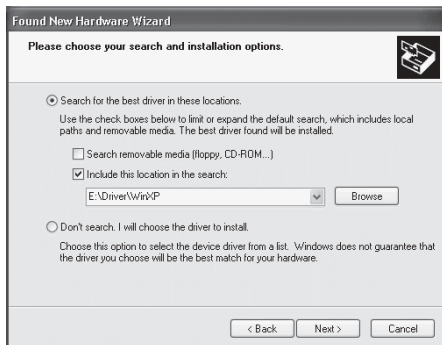
3.1. VERIFY THE DRIVER INSTALLATION (WINDOWS® XP)

After Palladio ISDN driver installation, please verify the presence of Palladio ISDN in:
Control Panel/(Classic view)/Phone and Modem Options.
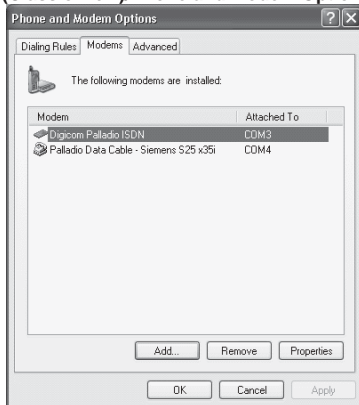
You can run Windows® diagnostic. Select **Digicom Palladio ISDN** driver and click **Properties**.
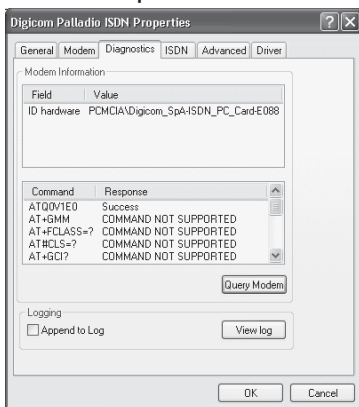
Select the **Diagnostics** folder, click **Query Modem**, then wait the modem answers (a few seconds). Now, Windows® will verify any modem information (product name, vendor name, firmware revision,…).

Please note: if the card answers COMMAND NOT SUPPORTED don't worry: the driver installation is correct.

Selecting the **ISDN** folder, you can complete Palladio ISDN configuration: insert the **First Number**, that is the telephone number to which you want to connect your modem. This parameter is necessary only if you use the Multi Subscriber Number option.
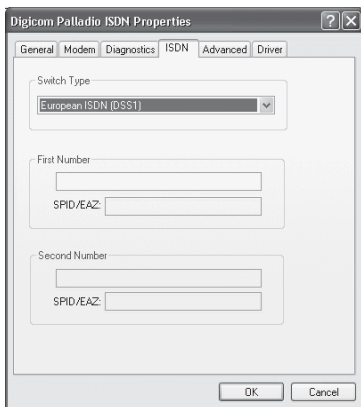
If the **First Number** is omitted, Windows® will remind you the incomplete configuration with informative windows.

In the **Advanced** folder, you can insert **Extra initialization commands**, but usually no command is required. It is important to click **Change Default Preferences** and set the **Data Protocol**.
For Internet calls, select **PPP (64K)**.

digicom

3.3

Protocol	Connection type
AUTO (2Ch)	For incoming calls (server mode)
PPP (128K) [(1)]	128Kbit/s Internet
PPP (128K,CHAP) [(1)]	128Kbit/s Internet with CHAP authentication
PPP (128K,PAP) [(1)]	128Kbit/s Internet with PAP authentication
PPP (64K)	64Kbit/s Internet
V.110 (x)	ISDN-GSM with V.110 protocol at x Kbit/s
	ISDN-ISDN with V.110 protocol at x Kbit/s
V.120 (64K)	ISDN-ISDN with V.120 protocol at 64Kbit/s

[(1)] Verify with your Internet Service Provider the authentication type.

Note: for further information, please read the INTERNET CONNECTION (Windows® XP) paragraph.

3.4

3.2. DRIVER INSTALLATION IS COMPLETED (WINDOWS® XP)

Now you can use Palladio ISDN with Remote Access or with other communication programs.
See the **Support/Help on line area** at www.digicom.it for further configuration examples.

3.3. 64/128 KBIT/S INTERNET CONNECTION (WINDOWS® XP)

To carry out Internet connections, it is necessary to use Windows® **Dial-up** and select **Digicom Palladio ISDN** driver previously installed.

Run **Control Panel/(Classic view)/Network and Dial-up connections**, select **Create a New Connection**.

In the first window click **Next**. Select **Connect to the Internet** and click **Next**.

Select **Set up my connection manually**, and click **Next**.

In **Internet Connection** window select **Connect using a dial-up modem** and click **Next**.

In the window **Select a device**, choose the modem driver to use for the Internet connection. (If Palladio ISDN is the only driver installed, it will be automatically selected).

Click **Next**.

Complete the Connection configuration inserting the following parameters in the next windows:
- Name of the Dial-up access (eg. Internet);
- Internet Provider's Telephone number (provided by ISP);
- User name and password (provided by ISP)

The new connection is over: click **Finish**.

Once the Internet Connection is configured, check the used **Modem Protocol**.

Select **Control Panel/(Classic view)/Network and Dial-up connections**, run your connection and click **Properties**.

Select **Digicom Palladio ISDN** and click **Configure**.

Connect Internet

User name: User name

Password: [To change the saved password, click here]

☑ Save this user name and password for the following users:
○ Me only
● Anyone who uses this computer

Dial: 0123456789

Dial | Cancel | Properties | Help

Internet Properties

General | Options | Security | Networking | Advanced

Connect using:
☑ Modem - Digicom Palladio ISDN (COM3)
☐ Modem - Palladio Data Cable - Siemens S25 x35i

☑ All devices call the same numbers   Configure...

Phone number
Area code: Phone number:
              0123456789   Alternates
Country/region code:

☐ Use dialing rules   Dialing Rules

☑ Show icon in notification area when connected

OK | Cancel

Modem Configuration

Digicom Palladio ISDN (COM3)

Maximum speed (bps): 115200
Modem protocol: PPP (64K)

Hardware features
☑ Enable hardware flow control
☐ Enable modem error control
☑ Enable modem compression

☐ Show terminal window
☐ Enable modem speaker

OK | Cancel

digicom

In the Modem configuration window, set the Modem protocol for ISDN connections (for Internet calls, select PPP (64K)):

Protocol	Connection type
AUTO (2Ch)	For incoming calls (server mode)
PPP (128K) [1]	128Kbit/s Internet
PPP (128K,CHAP) [1]	128Kbit/s Internet with CHAP authentication
PPP (128K,PAP) [1]	128Kbit/s Internet with PAP authentication
PPP (64K)	64Kbit/s Internet
V.110 (x)	ISDN-GSM with V.110 protocol at x Kbit/s
	ISDN-ISDN with V.110 protocol at x Kbit/s
V.120 (64K)	ISDN-ISDN with V.120 protocol at 64Kbit/s

[1] Verify with your Internet Service Provider the authentication type.

For 128 Kbit/s Internet connections it is necessary to select the PPP protocol (128K) and to insert the Provider's telephone number twice with an asterisk. (eg. 0123456789*0123456789).
The following table shows the connection speed depending on the installed driver and on the telephone number inserted:

Config.	Protocol	Format telephone number	speed
1	PPP (64K)	0123456789	64000 bit/s
2	PPP (128K)	0123456789	64000 bit/s
3	PPP (128K)	0123456789*0123456789	128000 bit/s

PLEASE NOTE: not all Internet accounts do support 128Kbit/s connections. Check with your Provider if this service is available.
After the connection, carry out a Download and check that the speed is greater of 80Kbit/s.
If your Internet account does not support 128Kbit/s connections, you have to use the 1st or the 2nd configuration in the table.
Using the 3th configuration, you will pay twice for two 64Kbit/s connections.

Check further Internet configurations with your Provider.

3.4. HOW TO REMOVE PALLADIO ISDN (WINDOWS® XP)

Run **Control Pannel** and **Phone and Modem Options**, select **Modem** folder, select **Digicom Palladio ISDN** driver and click **Remove**.

4.   DRIVER INSTALLATION (WINDOWS® 2000)

4

Search for a free PCMCIA slot on your PC. If necessary, refer to the PC User's Manual to identify the PCMCIA slot.
Insert the card in the PCMCIA slot of your computer in the correct way up.
The way up sign is on the modem sticker (**Up-Insert**).
The Operating System will detect a new hardware.

In the first window click **Next**. Select **Search for a suitable driver for my device** and click **Next**.

Select ONLY **Specify a location** and click **Next**.

With the **Browse** button, look in the Cd-Rom/Disk for the folder containing the modem drivers. The Windows® 2000 Palladio ISDN drivers are in digicom Cd-Rom in < C d - rom>:\driver\Win2000. Click **OK**.

digicom
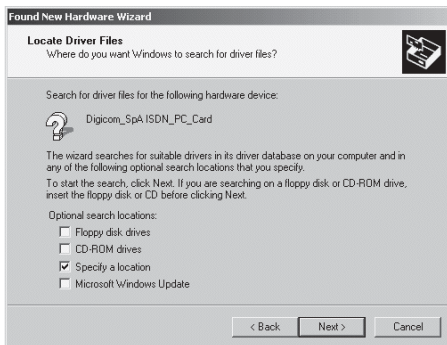
Check the driver is the correct one and click **Next**.

Press **YES** in the windows concerning the digital signature.
Press **Finish** to end the installation.

4.1. VERIFY THE DRIVER INSTALLATION (WINDOWS® 2000)

After Palladio ISDN driver installation, please verify the presence of Palladio ISDN in: **Control Panel/Phone and Modem Options**.
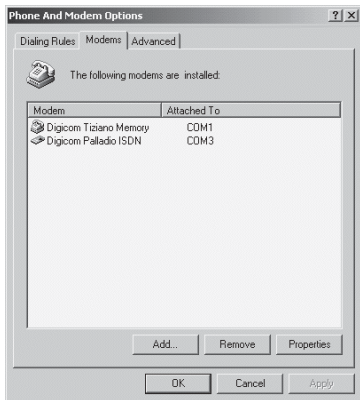
Windows® could inform you the ISDN card configuration is not complete. Press OK. Then further information about this informative window will be given.
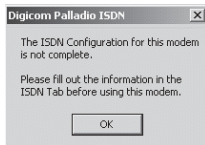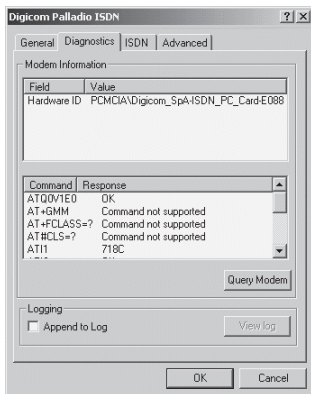
Select the **Diagnostics** folder, click **Query Modem** and wait for the modem answer (a few seconds).

Windows® will ask the modem for some information (product name, manufacturer's name, firmware release,...).

Attention: the modem could answer NOT SUPPORTED COMMAND for some commands; don't worry; the installation is correct.

Selecting the **ISDN** folder, you can complete Palladio ISDN configuration: insert the **First Number**, that is the telephone number to which you want to connect your modem. This parameter is necessary only if you use the Multi Subscriber Number option.

If the **First Number** is omitted, Windows® will remind you the incomplete configuration with informative windows.

digicom

4.3

In the **Advanced** folder, you can insert **Extra initialization commands**, but usually no command is required. It is important to click **Change Default Preferences** and set the **Data Protocol** for ISDN connections. For Internet calls, select **PPP (64K)**.

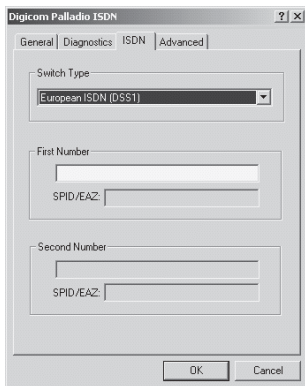| Protocol	Connection type
AUTO (2Ch)	For incoming calls (server mode)
PPP (128K) [1]	128Kbit/s Internet
PPP (128K,CHAP) [1]	128Kbit/s Internet with CHAP authentication
PPP (128K,PAP) [1]	128Kbit/s Internet with PAP authentication
PPP (64K)	64Kbit/s Internet
V.110 (x)	ISDN-GSM with V.110 protocol at x Kbit/s
	ISDN-ISDN with V.110 protocol at x Kbit/s
V.120 (64K)	ISDN-ISDN with V.120 protocol at 64Kbit/s

[1] Verify with your Internet Service Provider the authentication type.
Note: for further information, please read the INTERNET CONNECTION (Windows® 2000) paragraph.

4.2. DRIVER INSTALLATION IS COMPLETED (WINDOWS® 2000)

Now you can use Palladio ISDN with Remote Access or with other communication programs.
See the **Support/Help on line area** at www.digicom.it for further configuration examples.

4.4

4.3. 64/128KBIT/S INTERNET CONNECTION (WINDOWS® 2000)

To carry out Internet connections, it is necessary to use Windows® **Dial-up** and select **Digicom Palladio ISDN** driver previously installed.

Run **Control Panel/Network and Dial-up connections**, select **Create a New Connection**.
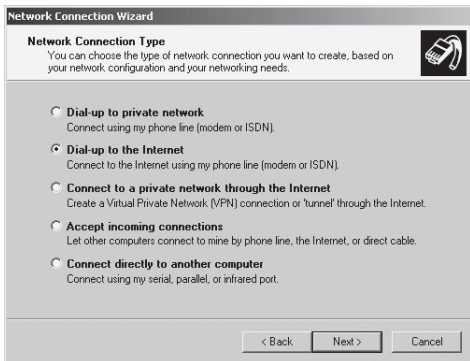
In the first window press **Next**. Then select **Dial-up to the Internet** and press **Next**.

Select **I want to set up by Internet connection manually**, and click **Next**.

Select **I connect through a phone line and a modem** and click **Next**.

In the **Choose Modem** window, select the modem driver to use for the Internet connection. (If Palladio ISDN is the only driver installed, it will be automatically selected).
Press **Next**.

digicom
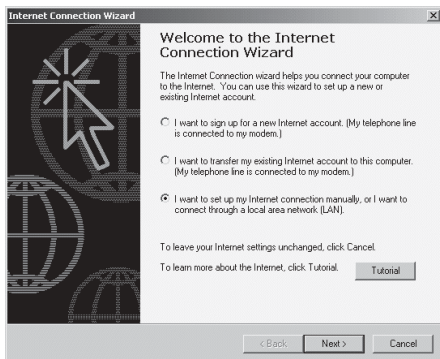
In the next windows insert the following parameters:
- Internet Provider Telephone number (provided by ISP);
- User name and password (provided by ISP)
- Name of the Dial-up access (eg. Internet);

To complete Internet Connection configuration, in the **Set up your Internet Mail Account** window select **NO** and press **Next**, then **Finish**.
If you want to configure the e-mail account too, select **YES** and go on with the configuration following Windows® instructions.

Once the Internet Connection is configured, check the used **ISDN Protocol**.

Select **Control Panel/(Classic view)/Network and Dial-up connections**, run your connection and click **Properties**.

Select **Digicom Palladio ISDN** and click **Configure**.

4.6

Internet

General | Options | Security | Networking | Sharing

Connect using:

☑ 🖳 Modem - Digicom Palladio ISDN (COM3)
☐ 🖳 Modem - Digicom Tiziano Memory (COM1)

☐ All devices call the same numbers   [Configure...]

Phone number for Digicom Palladio ISDN

Area code: Phone number:
         0123456789   [Alternates]

Country/region code:

☐ Use dialing rules   [Rules]

☑ Show icon in taskbar when connected

[OK]   [Cancel]

Modem Configuration

Digicom Palladio ISDN (COM3)

Maximum speed (bps):   115200
Modem protocol   PPP (64K)

Hardware features
☑ Enable hardware flow control
☑ Enable modem error control
☑ Enable modem compression

Initialization
☐ Show terminal window
☐ Run script:
                    [Edit...]   [Browse...]

☑ Enable modem speaker

[OK]   [Cancel]

digicom

4.7

In the **Modem configuration** window, set the Modem protocol for ISDN connections (for Internet calls, select PPP (64K):

Protocol	Connection type
AUTO (2Ch)	For incoming calls (server mode)
PPP (128K) [1]	128Kbit/s Internet
PPP (128K,CHAP) [1]	128Kbit/s Internet with CHAP authentication
PPP (128K,PAP) [1]	128Kbit/s Internet with PAP authentication
PPP (64K)	64Kbit/s Internet
V.110 (x)	ISDN-GSM with V.110 protocol at x Kbit/s
	ISDN-ISDN with V.110 protocol at x Kbit/s
V.120 (64K)	ISDN-ISDN with V.120 protocol at 64Kbit/s

[1] Verify with your Internet Service Provider the authentication type.

For 128 Kbit/s Internet connections it is necessary to select the PPP protocol (128K) and to insert the Provider's telephone number twice with an asterisk. (eg. 0123456789*0123456789).
The following table shows the connection speed depending on the installed driver and on the telephone number inserted:

Config.	Protocol	Format telephone number	Speed
1	PPP (64K)	0123456789	64000 bit/s
2	PPP (128K)	0123456789	64000 bit/s
3	PPP (128K)	0123456789*0123456789	128000 bit/s

PLEASE NOTE: not all Internet accounts do support 128Kbit/s connections. Check with your Provider if this service is available.
After the connection, carry out a Download and check that the speed is greater of 80Kbit/s.
If your Internet account does not support 128Kbit/s connections, you have to use the 1st or the 2nd configuration in the table.
Using the 3th configuration, you will pay twice for two 64Kbit/s connections.

Check further Internet configurations with your Provider.

4.4. HOW TO REMOVE PALLADIO ISDN (WINDOWS® 2000)

Run **Control Pannel** and **Phone and Modem Options**, select **Modem** folder, select **Digicom Palladio ISDN** driver and click **Remove**.

5. DRIVER INSTALLATION (WINDOWS® ME)

5

Search for a free PCMCIA slot on your PC. If necessary, refer to the PC User's Manual to identify the PCMCIA slot.
Insert the card in the PCMCIA slot of your computer in the correct way up. The way up sign is on the modem sticker (**Up-Insert**).

The Operating System will detect a new hardware.

Select **Specify the location of the driver** and click **Next**.

Select ONLY **Specify a location**, and with the **Browse** button, look in the Cd-Rom/Disk for the folder containing the modem drivers. The Windows® ME Palladio ISDN drivers are in digicom Cd-Rom in <Cd-rom>:\driver\WinME. Click **Next**.

If you want to use Palladio ISDN for Internet connections, then select **The updated software aggiornato (Digicom Palladio ISDN Internet 64K)**, and press **Next**.

digicom

5.1

Otherwise select **One of the other packages** and press **View list** to install a different driver:
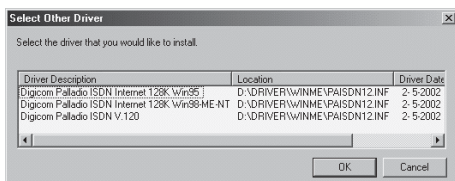
Driver	Connection type
Digicom Palladio ISDN Internet 64K	64Kbit/s Internet
Digicom Palladio ISDN Internet 128K Win98-ME	128Kbit/s Internet
Digicom Palladio ISDN V.120	ISDN-ISDN with V.120 protocol at 64Kbit/s

Note: for further information, please read the INTERNET CONNECTION (Windows® ME) paragraph.

Click Next then **Finish**. The installation is over.

5.1. VERIFY THE DRIVER INSTALLATION (WINDOWS® ME)

After Palladio ISDN driver installation, please verify the presence of Palladio ISDN in: **Control Panel/Phone and Modem Options**.

5.2
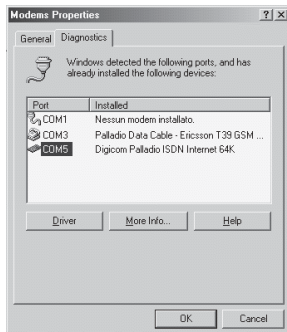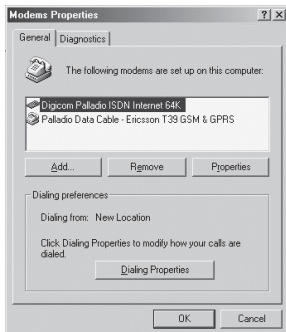
Select the **Diagnostics** folder and the COM port associated to Palladio ISDN, press **More Info** and wait for the modem answer (a few seconds).
Windows® will ask the modem for some information (product name, manufacturer's name, firmware release,…).

Attention: the modem could answer ERROR for some commands; don't worry; the installation is correct.
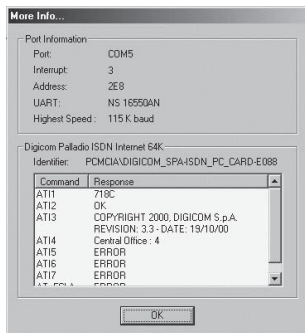
5.2. DRIVER INSTALLATION IS COMPLETED (WINDOWS® ME)

Now you can use Palladio ISDN with Remote Access or with other communication programs.
See the **Support/Help on line area** at www.digicom.it for further configuration examples.

digicom

5.3

5.3. 64/128KBIT/S INTERNET CONNECTION (WINDOWS® ME)

To carry out Internet connections, it is necessary to use Windows® **Dial-up** and select **Digicom Palladio ISDN** driver previously installed.

Run **Control Panel/Network and Dial-up connections**, select **Create a New Connection**.
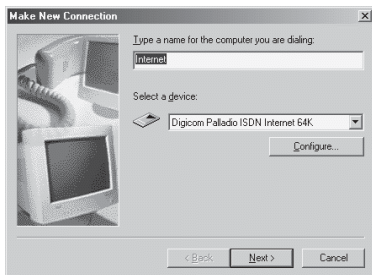
In the first window insert the connection name (eg. Internet) and select the driver previously installed.

In the second window insert the telephone number of your Internet Provider.

Complete the Internet Connection with **Finish**.

For 128 Kbit/s Internet connections it is necessary to select the MLPPP protocol (128K) and to insert the Provider's telephone number twice with an asterisk. (eg. 0123456789*0123456789).

The following table shows the connection speed depending on the installed driver and on the telephone number inserted:

Config.	Driver	Telephone number format	Speed
1	Digicom Palladio ISDN Internet 64K	0123456789	64000 bit/s
2	Digicom Palladio ISDN Internet 128K	0123456789	64000 bit/s
3	Digicom Palladio ISDN Internet 128K	0123456789*0123456789	128000 bit/s

PLEASE NOTE: not all Internet accounts do support 128Kbit/s connections. Check with your Provider if this service is available.
After the connection, carry out a Download and check that the speed is greater of 80Kbit/s.
If your Internet account does not support 128Kbit/s connections, you have to use the 1st or the 2nd configuration in the table.
Using the 3th configuration, you will pay twice for two 64Kbit/s connections.

Check further Internet configurations with your Provider.
Click **Finish**.

5.4

Once the Internet Connection is configured, to modify the settings, select **Control Panel/Network and Dial-up connections**. Then select the connection to modify and select the **File/Properties menu**.
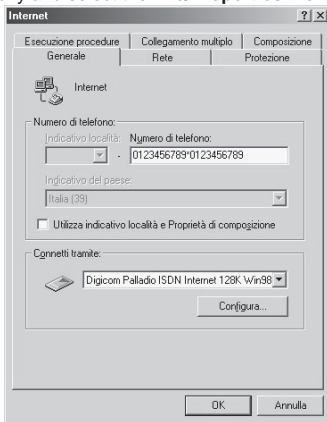
Check further Internet configurations with your Provider.

5.4. HOW TO REMOVE PALLADIO ISDN (WINDOWS®, ME)

Run **Control Panel** and **Phone and Modem Options**, select **Digicom Palladio ISDN** driver and click **Remove**.

digicom

5.5

6.   DRIVER INSTALLATION (MACINTOSH®)

6

Insert the card in the PCCard slot of your computer in the correct way up.
The way up sign is on the modem sticker. (**Up-Insert**)
If necessary refer to the MAC manual to identify the PCCard slot.

Insert the Cd-Rom, search for the **Driver\Installers\Palladio ISDN** folder
and run the **Palladio ISDN Installer**. Then go on following the instructions of
the installation utility.
The installer will automatically copy the modem script necessary for the use
of the modem into the **System Folder\Extensions\Modem Script**.
Furthermore on your desktop the **Modem Digicom** folder will be created.
The content of this folder is to be used in case the automatic installation is
not correctly completed.

6.1.   VERIFY THE DRIVER INSTALLATION (MACINTOSH®)

After the installation of the ARA/OpenTransport driver for Palladio ISDN, verify
the presence of the modem script and the card detection from: **Apple Menu/
Control Panel/Modem**

In **Connect via** you will be able to
select Palladio ISDN.

In **Modem** you will be able to
select the following modem script:
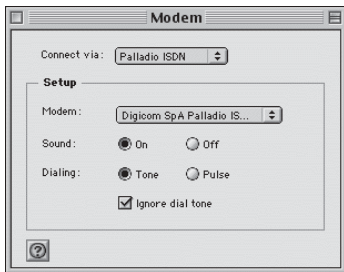
digicom

Modem script	Connection type
Digicom SpA Palladio ISDN MLPPP	128Kbit/s Internet
Digicom SpA Palladio ISDN PPP	64Kbit/s Internet
Digicom SpA Palladio ISDN V110	ISDN-GSM with V.110 protocol at 19,2 Kbit/s
	ISDN-ISDN with V.110 protocol at 19,2 Kbit/s
Digicom SpA Palladio ISDN V120	ISDN-ISDN with V.120 protocol at 64Kbit/s

Note: for further information, please read the INTERNET CONNECTION (Macintosh®) paragraph.

If these modem scripts are not listed, it means the installer has not found the path **System Folder\Extensions\Modem Script** on your hard disk. This may occur when the language of the MAC®OS installed doesn't match with the selected installer. You will need to manually copy the modem scripts: open the **Modem Digicom** folder on the desktop, select the content of the "Driver CCL" folder and drag the modem scripts on the System Folder. The System will copy the files in the correct position.

6.2. DRIVER INSTALLATION IS COMPLETED (MACINTOSH®)

Now you can use Palladio ISDN with Remote Access or with other communication programs.
See the **Support/Help on line area** at www.digicom.it for further configuration examples.

6.3. 64/128 KBIT/S INTERNET CONNECTION (MACINTOSH®)

To carry out Internet connections it is necessary to use **Remote Access** and select the modem script previously installed.

From the **Apple Menu**, select **Control Panel** and **Remote Access**.

Select Registered User, and complete the configuration inserting:
- User name
- Password
- Telephone number of the Internet Provider
(The Information are supplied by the Internet Provider).
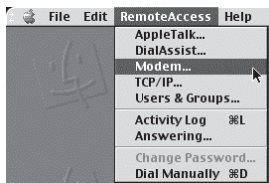
To complete the configuration, select the **Remote Access menu** and **Modem**.
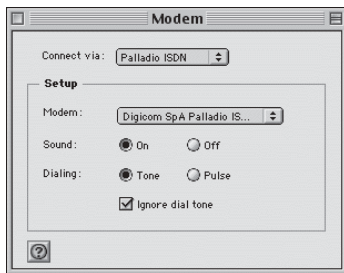
In the Modem window, select **Connect via: Palladio ISDN**.

In **Modem** select the script for your application:

digicom

6.3
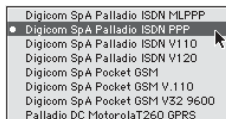
For 128 Kbit/s Internet connections it is necessary to select the modem script Palladio ISDN MLPPP and to insert the Provider's telephone number twice with an asterisk. (eg. 0123456789*0123456789).

The following table shows the connection speed depending on the installed driver and on the telephone number inserted:

Config.	Modem script	Telephone number format	Speed
1	Digicom SpA Palladio ISDN PPP	0123456789	64000 bit/s
2	Digicom SpA Palladio ISDN MLPPP	0123456789	64000 bit/s
3	Digicom SpA Palladio ISDN MLPPP	0123456789*0123456789	128000 bit/s

PLEASE NOTE: not all Internet accounts do support 128Kbit/s connections. Check with your Provider if this service is available.
After the connection, carry out a Download and check that the speed is greater of 80Kbit/s.
If your Internet account does not support 128Kbit/s connections, you have to use the 1st or the 2nd configuration in the table.
Using the 3th configuration, you will pay twice for two 64Kbit/s connections.

Further configurations supplied by the Internet Provider must be inserted from the **Remote Access Menu: TCP/IP**.
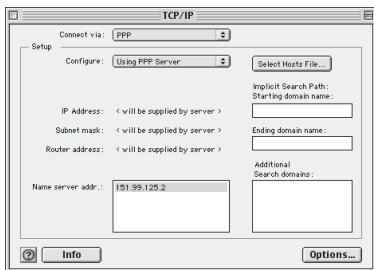
7.   AT COMMAND SET DESCRIPTION

7

AT   Attention

All the characters following the letters 'AT' are commands. In AT command mode ISDN modem automatically detects the Computer speed and parity format. The ISDN modem will response using the same speed and parity format of AT command.

Default= n/a

A/   Repeat last command

Cause ISDN modem to repeat the last AT command. This command is neither preceded by AT nor followed by CR

Default= n/a

A   Answer incoming data call

Cause ISDN modem to go off-hook and attempt a handshake in answer mode

Default= n/a

D   Dial

Instruct to go off-hook and execute the phone number.

- D 0-9   Dial the dial string.
- DS=0-3   Dial the dial string associated to the memory location (from 0 to 3) stored using &Z command
- Dn1*n2   Dial two number (n1 and n2) for MLPPP at 128Kbps. If the service access at 128Kbps is over a single telephone number the n1 is equal to n2.
  Example: ATD0331702611*0331702611

See also the command AT%A2 for MLPPP activation

Default= n/a

E   Echo commands ON/OFF

Enable or disable echo of commands from the Computer to ISDN modem.

- E0   Command echo disabled
- E1   Command echo enabled

Default= E1

H   Hang up

Hang up the ISDN modem from the ISDN network.

- H0   Hang up ISDN modem from the ISDN network (off-line). This command is accepted only in Escape mode.

Default= n/a

digicom

7.1

I	**Product Information**	
	I0	Model.
	I1	Checksum calculation, the result is displayed in Hexadecimal digit.
	I2	Compare the checksum calculation with the stored value, the response will be OK or ERROR.
	I3	Revision level.
	I4	Display Central office

Default= n/a

N	**Select the speed adaptation (V.110 or V120)**	
	N0	**In Originate mode**: ISDN modem makes the connection at the speed fixed from register S37
		In Answer mode: ISDN modem accepts incoming call in accordance with the set-up of the command AT%A2 and the register S37.
	N1	**In Originate mode**:ISDN modem makes the connection at the speed detected at the last autobaud.
		If this value is greater than 19200bit/s, the connection will be established at 19.200bit/s.
		For speed detection below 19.200bit/s, the connectionwill be established at the line speed.
		In Answer mode:ISDN modem handshake the standard and the speed in accordance with the Bearer Capability information sent from the remote user

Default= N1

O	**Go On-line from Escape**	
	ISDN modem returns in On-line from the Escape status	
	O	Go On-line.

Default= n/a

Q	**Returns code**	
	Enable or disable the return codes from ISDN modem to the Computer.	
	Q0	Messages transmission enabled
	Q1	Messages transmission disabled

Default= Q0

7.2

S   S Registers

Show and change the contect of "r" register(see S register description)

Sr=xxx   Store the number xxx, in the "r" register (from 0 to 255).
Sr?   Display the value of "r" register

Default= n/a

V   Numeric and Verbose Messages

Select the type of the return code from ISDN modem to the Computer. Can be selected the numeric mode to manage ISDN modem by a PC and the verbose mode to manage ISDN modem by an operator.

Using the numeric mode the return codes are followed by the <CR> char.
Using the verbose mode the return codes are preceded and followed by the <CR> and <LF> characters.

V0   Return codes displayed in numeric mode
V1   Return codes displayed in verbose mode

Default= V1

X   Select Return Codes

Select the return code types.

X0   Enable return codes from 0 to 4
X1   Enable all return codes

Default=X1

Following the table including all the result messages in numeric and verbose mode:

NUMERIC	VERBOSE		NUMERIC	VERBOSE
0	OK		56	CARRIER 38400
1	CONNECT		59	CARRIER 64000
2	RING		60	CARRIER 128000
3	NO CARRIER		83	PROTOCOL: V120
4	ERROR		84	PROTOCOL: V110
6	NO DIALTONE		85	PROTOCOL:V120 COMPRESSION
7	BUSY		86	PROTOCOL:PPP
5	CONNECT 1200		87	PROTOCOL:MLPPP
10	CONNECT 2400		46 84	CONNECT 1200/V110
11	CONNECT 4800		47 84	CONNECT 2400/V110
12	CONNECT 9600		48 84	CONNECT 4800/V110
14	CONNECT 19200		49 84	CONNECT 7200/V110
28	CONNECT 38400		50 84	CONNECT 9600/V110
18	CONNECT 57600		51 84	CONNECT 12000/V110
20	CONNECT 115200		52 84	CONNECT 14400/V110
46	CARRIER 1200		54 84	CONNECT 19200/V110
47	CARRIER 2400		56 84	CONNECT 38400/V110
48	CARRIER 4800		59 83	CONNECT 64000/V120
49	CARRIER 7200		59 85	CONNECT 64000/V120COMP
50	CARRIER 9600		59 86	CONNECT 64000/PPP
54	CARRIER 19200		60 87	CONNECT 128000/MLPPP

W   Protocol result code

Enable protocol result code (see ATX command)

> W0   Partial result code. When the connection is established, ISDN modem send the connection message CONNECT followed the interface speed.

> W1   Complete result code. When the connection is established, ISDN modem send these connection messages:
> CARRIER "line speed"
> PROTOCOL "protocol"
> CONNECT "port speed"

> W2   Complete result code. When the connection is established, ISDN modem send these connection messages:
> CONNECT "Line Speed"/"Protocol"
> like   CONNECT 64000/V120

This command is connected with the ATV and ATX command.

Default= W1

7.4

AT Command Set

Z Load user configuration

Reset ISDN modem and load a user configuration stored in non volatile memory.

Z0   Load user configuration n. 0

Default= n/a

&C C109 (DCD) Control

Determine how the state of the C109 relates to the data call status.

&C0   C109 is always ON.
&C1   C109 goes ON only when a call is established.

Default=&C1

&D C108 (DTR) Control

Determine how the DTR is interpreted by ISDN modem.

&D0   C108 is ignored.
&D1   If DTR drops while ISDN modem is on-line, the effect is the same as if the escape sequence is received, forcing ISDN modem into command mode without dropping the connection. When ISDN modem is in off-line status DTR drops are ignored.
&D2   DTR comply with ITU-T C108.2; while DTR is Off ISDN modem will not answer a call. If DTR drops while ISDN modem is on-line, the call is immediately terminated.
&D3   As for AT&D2 except that the transition of the DTR from ON to OFF loads the user configuration improved with AT&Y command.

Default= &D2

&F Load factory profile

Load as active profile the factory profile.

&F0   Load as active profile the factory profile 0
&F1   Load as active profile the factory profile 1
&F2   Load as active profile the factory profile 2
&F3   Load as active profile the factory profile 3

To have more details regarding the different configurations, please referring to "FACTORY CONFIGURATIONS" chapter.

Default= &F0

digicom

7.5

&K   Flow control

Define the flow control options

	&K0	NO flow control.
	&K3	Hardware RTS/CTS flow control
	&K4	Bi-directional software XON/XOFF (ISDN modem —> Computer and Computer —> ISDN modem) flow control. The ISDN modem doesn't trasmit to the remote the XON/XOFF chars received from the Computer.
	&K8	Unidirectional software XON/XOFF (ISDN modem —> Computer) flow control. The ISDN modem doesn't recognize the XON/XOFF chars received from the Computer
	&K12	Bi-directional software XON/XOFF (ISDN modem —> Computer and Computer —> ISDN modem) flow control. The ISDN modem transmit to the remote the XON/XOFF chars received from the Computer.
	&K16	Software XON/XOFF ISDN modem <—> ISDN modem flow control. (V.110 only). In this mode there is flow control between local and remote ISDN modem.There is no flow control on the Computer interface.
	&K20	Software XON/XOFF Computer <—> ISDN modem and ISDN modem <—> ISDN modem flow control. (V.110 only).

Default= &K3

&S   C107 (DSR) control

Establish how the C107 (DSR) will operate.

	&S0	C107 (DSR) is always ON.
	&S1	C107 (DSR) function as standard; DSR is ON when the connection is established and will be OFF when ISDN modem hangs-up.

Default=&S0

&T   Enable or disable Loop test

Allow to select the of loop test.

	&T0	Terminates test modes
	&T1	Enable local loopback (loop 3).
	&T3	Enable on the B1 channel the local digital loopback (V.110 only). To activate this test, follow these steps:

                - Make a connection with a remote ISDN modem

                - Go in Escape mode with "+++" command

                - Send the AT&T3 loop test

                - All the data trasmitted from the remote ISDN modem, are resended on the line to the local ISDN modem

7.6   *Default= n/a*

&U Data compression

Select the data compression mode.

&U0   Disable data compression.
&U1   Enable propietary V42bis data compression. This command is only meaningful when ISDN modem is set in V.120 mode.

Default= &U0

&V Display active profile

&V0   Display the active profile, the user configuration and the 4 stored phone number.
&V2   Display every stored phone number.
&V3   Display the supplementary services profile (MSN, Subaddress ecc..)

Default=n/a

&W Store user configuration

Store the active configuration to the user memory from 0 to 3.

&W0   Store active configuration to user memory 0.

Default= n/a

&Z Store a phone number

Store a phone number (max lenght 35 chars) into a memory location from 0 to 3.

&Zn=xxx Store the phone number "xxx" into the "n" memory location.
&Zn?   Display the phone number stored into the "n" memory location.

Default= n/a

*E Call-Back and Short Message Transfer

This command allows, using the D channel, two special features:the Call-Back and the Short Message Transfer. The D channel utilization is normally free of charge.

For security reasons, the Call-Back can be with password authorization.

The password is loaded in the 2 devices (originate and answer) through the command: AT!N5="my password".

The Call back number is loaded in the Originate device with the command: AT!N6="0123456789"

The Short Message Transfer allows to send a string of characters (up to 130) without establish a real connection.

This command must be setted in the 2 devices (originate and answer).

*E0   Call-Back and Short Message Transfer disable
*E1   Call-Back enable (short message transfer disable)
*E3   Short Message Transfer enable (call-back disable)

7.7   *Default= *E0*

*I   Caller Identification function (CALLER ID)

The CALLER ID function is used to identify the originate of an incoming call. In order for this feature to work, both the originate and the answer ISDN modem must have their CALLER ID feature enable. Enabling the CALLER ID at the originate, allows the transmission of the originator's telephone number. Enabling the CALLER ID at the answer, allows the caller's telephone number to be displayed on the receiver terminal.

The message CALLER ID appears on the screen as follows:

*I0	RING
*I1	Ring: calling
*I2	Ring: called
*I3	Ring
	FM: calling
*I4	Ring
	TO: called
*I5	Ring
	FM: calling TO: called

To insert the CALLER ID number into ISDN modem, please make reference to the AT!N1 command.

ATTENTION

The memorized telephone number in the called ISDN modem, is imputed directly by the customer with the !N1 command.

Therefore this number can also in varous occasion, not match with the true called ISDN modem number; examples when the user wants to keep his/her number reserved or if the number has not been memorized correctly.

*Default= *I0*

*M   MultiSubscriber Number function (MSN)

The MultiSubscriber Number permits the association of maximum 8 consecutive numbers to a BRI access of the national plan number.

The called ISDN modem checks the incomming called party number with the number stored in its memory with the AT!N2 command; if the two numbers matched then it answer the call, otherwise it does not.

In order for this feature to work, the receiver ISDN modem must have the MSN feature enable.

*M0	MultiSubscriber number function disable
*M1	MultiSubscriber number function enable

To insert the MultiSubscriber number into ISDN modem, please make reference to the AT!N2 command.

ATTENTION
The MultiSubscriber is an option feature: verify with your Telecom operator to enable it.
Default=*M0

*S   Subaddress function

The Subaddressing mode allows the identification of the 8 ISDN modem connected to the same BRI interface for the multinumber. This feature is managed only by the local and remote ISDN modem. The ISDN network only allows for the delivery of the subaddress field.

The called ISDN modem send telephone number followed the Subaddress field (ATDnnn+sss where "nnn" is the telephone number and "sss" is the Subaddress field with a maximum of 4 alphanumeric characters); the calling ISDN modem compares the received Subaddress to the stored Subaddress. If there's a match then it answer the call, otherwise it does not.

In order for this feature to work, both the originator and the receiver ISDN modem must have their Subaddres feature enable.

    *S0   Subaddress function disable
    *S1   Subaddress function enable

To insert the Subaddress field into ISDN modem, please make reference to the AT!N3 command.

Default=*S0

%A2   Define the protocol type

Define the rate adaption protocol to be used on the B channel

    %A2=1   V.110 protocol.
    %A2=2   V.120 protocol.
    %A2=5   PPP protocol at 64Kbps
    %A2=6   MLPPP protocol at 128Kbps

Default=%A2=1

%A3   Select Data Channel

    %A3=2   Preferred B1 channel. If busy, ISDN modem try to use the B2 channel
    %A3=3   Forced B1 channel. If busy, ISDN modem hangs-up the communication
    %A3=4   Preferred B2 channel. If busy, ISDN modem try to use the B1 channel
    %A3=5   Forced B2 channel. If busy, ISDN modem hangs-up the communication

Default=%A3=2

digicom

%Z1   Master reset

Master reset and load the configuration specified by the &Y command.

Default=n/a

/T   TEI defination

This command defines if the TEI is fix (point to point) or variable (multipoint).

   /T=xx   TEI is fix and the variable xx is a number between 00 to 63. This value ,defined by the Telecom operator, normaly is 00

   /T=99   TEI is variable.

After this command ISDN modem must be powered on.

Default=/T=99

/Z   Delete RAM

This command delete the ISDN modem RAM and load the factory configuration 0. Any other user configurations and telephone number will be erased.

After this command the ISDN modem must be powered ON.

   /Z=0000   Erase the RAM

Deault=n/a

!B0   MLPPP Authentification for Client Side

!B0=0	CHAP is nacked, PAP is suggested
	It' s the suggested option for Windows 98 Client
!B0=1	Tintoretto ack the CHAP requestes on the ISDN PPP link and it requests PAP on the Async link (to the Computer). It' s the suggested option for Windows 98 Client, becouse this OS is not able to manage CHAP over the 2nd B channel in MLPPP

!B1   MLPPP Authentification for Server Side

!B1=0	Default value: the authentification is make for the 2 channels
!B1=1	The authentification is make only for the 1st channel. This setting is suggested for Windows 95 Client in CHAP authentification procedure.

!D   Caller ID Display Format

This command adapts the Caller ID display format in case of National incoming call.

The ISDN PABX or Publich Excange can erase or leave the digit 0 in front of the area code of the Caller ID. This command allows to maintain a display format in accordance with the user's application.

The Incoming call defined "International" are always displayed adding 00 in front of the country code.

7.10

AT Command Set

!D0   The Caller ID number is displayed without any modification for Incoming call defined "International".

!D1   Only for National incoming Call, the Caller ID number is displayed adding a 0 in front of the area code.

Default=!D1

!E   Type of number used in the Calling Party Number field

!E0   Type of number defined "Unknown"

!E1   Type of number defined "National"

Default=!E0

!I   V.110 Intermediate Rate

This command enable or disable the V.110 Intermediate Rate information in Setup message. In case of Outgoing call to GSM we suggest to enable this feature.

!I0   Intermediate Rate for enable

!I1   Intermediate Rate for disable

Default=!I1

!N1=   Store Caller Identification number (CALLER ID)

This command enable to store the telephone number for the CALLER ID function.

!N1="nnnn" where "nnnn" is the telephone number

!N1?   show the stored telephone number

To enable the CALLER ID function, please also make reference to the AT*I command.

Default= n/a

!N2=   Store MultiSubscriber number (MSN)

This command enable to store the own telephone number for the MultiSubscriber Number function.

!N2="nnnn" where "nnnn" is the telephone number

!N2?   show the stored MultiSubscriber number

To enable the MultiSubscriber Number function, please also make reference to the AT*M command.

Default= n/a

digicom

!N3=   Store Subaddress number

This command enable to store the Subbaddres field for the Subaddress function.

> !N3="ssss" where "ssss" is the Subaddress field with a maximum of 4 alphanumeric characters (0, 1, 2, 3, 4, 5, 6, 7, 8, 9, A, B, C, D, *, #).

> !N3?   show the stored Subaddres field

To enable the Subaddress function, please also make reference to the AT*S command.

Store: yes   *Default= n/a*

!N5   Call-Back Password

This command is used to load the Call-back password in the Originate and Answer devices (see also AT*E)

!N5="xxxxxxxx"

where x are up to 8 alpha numeric characters.

Default=n/a

!N6   Call-back Phone number

This command is used to load the Call-back Phone number in the Originate device (see also AT*E)

!N6="xxxxxxxx"

where x are up to 35 numeric characters.

Default=n/a

!N7   Short Message Transfer

This command is used to load a Short Message (up to 130 characters) to send using the Short Message Transfer feature (see also AT*E)

!N5="xxxxxxxx"

where x are up to 130 alpha numeric carachters

7.1. S REGISTERS

REG.	DESCRIPTION	STORED	NOT STORED
S0	Number of ring to answer on	●	
S1	Ring count		●
S2	Escape sequence character	●	
S3	Carriage return character		●
S4	Line feed character		●
S5	Back-space character		●
S7	Wait time for connection	●	
S12	Escape prompt delay	●	
S25	DTR control	●	
S34	Pointer for Autologon and Call-Back services	●	
S37	DCE speed	●	
S80	Double call character		

7.1. S REGISTERS DESCRIPTION

S0 Number of ring to answer on

Value	Unit	Function
0	RING	No auto answer
1-5	RING	Yes auto answer; ISDN modem answers after the number of ring selected

Default=1

S1 RING count

Number of ring in a period of 8 seconds.

Value	Unit	Function
0	RING	No ring in a period of 8 seconds
1-5	RING	RING count

Default=0

S2 ESCAPE sequence character

Value	Unit	Function
0-127	ASCII	Contain the ESCAPE sequence character. If the value is greater then 127, escape sequence is disabled.

Default=43

S3 CARRIAGE RETURN character

Value	Unit	Function
0-127	ASCII	Contain the CARRIAGE RETURN character

Default=13

digicom

7.13

S4   LINE FEED character

Value	Unit	Function
127	ASCII	Contain the LINE FEED character

Default=10

S5   BACKSPACE character

Value	Unit	Function
0-127	ASCII	Contain the BACK SPACE character

Default=8

S7   Wait time for connection

Value	Unit	Function
0-255	sec.	In originate maximum amount of time to wait between end of dialing and the connection.

Default=25

S12   Escape prompt delay

Value	Unit	Function
0	ms	No escape prompt delay
0-255	20ms	Define escape prompt delay before, during, and after the ESCAPE sequence, so that the escape sequence can be valid.

Default=50

S25   DTR control

Value	Unit	Function
0-255	sec/100	Sets the length of time that the modem will ignore DTR for before hanging up.

Default =5

S34   Pointer for Autologon and Call-Back services

Establishes selection of the memory location the modem uses to initiate Autologon or Call-Back procedure.

0 - 3   phonebook location for Autologon or Call-Back procedure.
20   phonebook scroll
255   function disable

Default =255

S37   DCE speed

Select the speed connection through the selected V.110 rate adaption protocol (see ATN command).

0, 255 Last AT command speed
4   = 600 bps
5   = 1200 bps
6   = 2400 bps
15   = 4800 bps
16   = 7200 bps
17   = 9600 bps
18   = 12000 bps
19   = 14400 bps
27   = 19200 bps
50   = 38400 bps (asyncronous only)
   Default =0

S80   Double call character

Value	Unit	Function
0-255	ASCII	Contain the character used in a double call (MLPPP)

   Default=42   *Type:Storable*

7.2.   ISDN MODEM FACTORY CONFIGURATION

CONFIGURATION N° 0 (loadable with AT&F0)

This configuration permits to make a connection using the V110 CCITT protocol.

COMMAND	DESCRIPTION
AT%A2=1	V110 protocol set
ATS0=1	Auto Answer enable at 1 Ring
AT&C1	DCD (C109) interface circuit controlled
AT&D2	DTR (C108) interface circuit controlled
AT&K3	RTS/CTS flow control enable

digicom

CONFIGURATION N° 1 (loadable with AT&F1)
This configuration permits to make a connection using the V120 CCITT protocol.

COMMAND	DESCRIPTION
AT%A2=2	V120 protocol set
ATS0=1	Auto Answer enable at 1 Ring
AT&C1	DCD (C109) interface circuit controlled
AT&D2	DTR (C108) interface circuit controlled
AT&K3	RTS/CTS flow control enable
AT&U0	Data compression disable

CONFIGURATION N.2 (loadable with AT&F2)
With this configuration it is possible to carry out connections using the V120 CCITT protocol and V.42bis compression.

COMMAND	DESCRIPTION
AT%A2=2	V120 protocol set
ATS0=1	Auto Answer enabled at 1 Ring
AT&C1	DCD (C109) interface circuit controlled
AT&D2	DTR (C108) interface circuit controlled
AT&K3	RTS/CTS flow control enabled
AT&U1	Data compression enabled

CONFIGURATION N.3 (loadable with AT&F3)
With this configuration it is possible to carry out connections using the V110 CCITT protocol at 38400 bit/s.

COMMAND	DESCRIPTION
AT%A2=1	V110 protocol set
ATS0=1	Auto Answer enabled at 1 Ring
AT&C1	DCD (C109) interface circuit controlled
AT&D2	DTR (C108) interface circuit controlled
AT&K3	RTS/CTS flow control enabled
ATN0	The connection speed is fixed by S37
ATS37=50	The connection speed is fixed at 38400 bit/s

8. DIAGNOSTIC

8

8.1. TEST ON LINE

&T120
Enable the test of the ISDN line for the call set-up phase in data mode.
After this command if you make a call with ATD, on the monitor of your Computer will appear the status of the line.
The &T120 is disable in the new call.

&T121
Enable the test of the ISDN line for the call set-up phase in voice mode.
After this command if you make a call with ATD, on the monitor of your Computer will appear the status of the line.
The &T121 is disable in the new call.

&T122
Exit from the test without make any call.

Example:
AT&T120
OK
ATD0

If the ISDN line works fine, on the Computer monitor will appear:
>DIGITAL CALL: DIGITAL CALL REQUEST
>DIGITAL CALL:ISDN CALL OK (SETUP_C)

If the ISDN line does not work fine, on the Computer monitor will appear:
>DIGITAL CALL: DIGITAL CALL REQUEST
>DIGITAL CALL:CONNECTION PROBLEM(SETUP_I)
>NO CARRIER

digicom

9. TROUBLESHOOTING

9

Here some suggestions in case of problems.

9.1. DEVICE DOES NOT MAKE O RECEIVE CALL

Check list:
- Check the Telecom NT1. Normally the NT1 istalled by your Telecom provvider has a simple LED to indicate the ISDN 1st level status.
- Verify the S/T bus cable from the NT1 to your device.
- Verify if the TEI value setted on your device is compliance with the Telecom requested
  Usual value are: TEI99 or Automatic.
- Verify the Multinumber setting and make your modification with the commands !N2 and *M
- Check the configuration of your device in accordance with the remote.
- In case more devices are connected on your S/T Bus, verify that the bus is available for a new connection. No more than 2 connection are available in the same time.

9.2. PROBLEMS DURING DATA TRANSFER

Check list:
- Verify the speed of the Computer in accordance with the characteristic of your connection
  Ex: 115,2Kbps in PPP, V.120 o Buffer Mode to reach the maximum performances
- Verify the setting of your ISDN device

digicom

10. RVS-COM LITE® INSTALLATION

10

Using RVS-COM Lite with Palladio ISDN, you will be able to:

- Send/Receive Fax up to 14000 bit/s Gr.3
- Send/Receive Fax at 64000 bit/s Gr.4
- Digital Answering Machine
- Speakerphone

Before starting with **RVS-COM Lite** installation, verify which COM port is associated to Palladio ISDN.
Select **Control Panel/ Phone** and **Modem Options** (in this example it has been installed on the COM3).
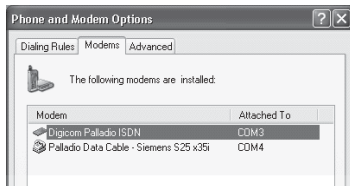
Now go on with the installation: insert the Cd-Rom, wait for a few seconds the browser runs, otherwise run the Index.htm file.
Choose the language, select **Software**, and start with the installation of RVS-COM Lite. Select **Run this program from its current location or Open**, then confirm eventual protection messages.

Digit the personal key for the installation. The KEY is on the label on the Cd-Rom. Write the key exactly as written on the label. Then press Next. If the Next button doesn't enable, it means the key hasn't been written correctly: be careful not to confuse the zero with the capital letter O.

digicom
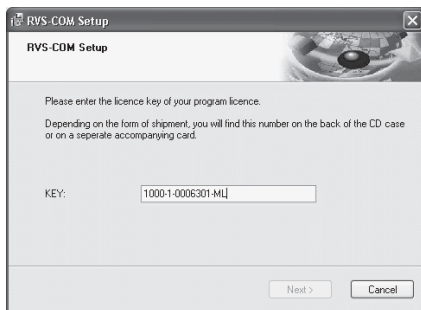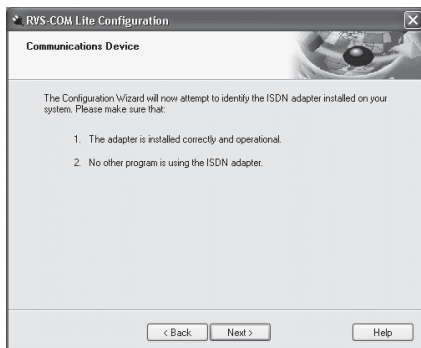
Select **Complete** and press **Next**.
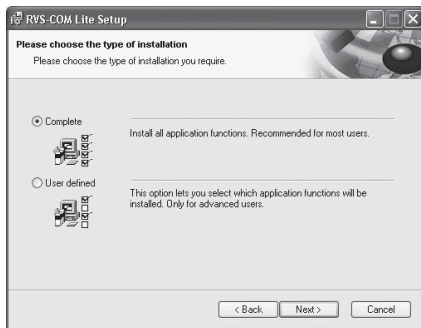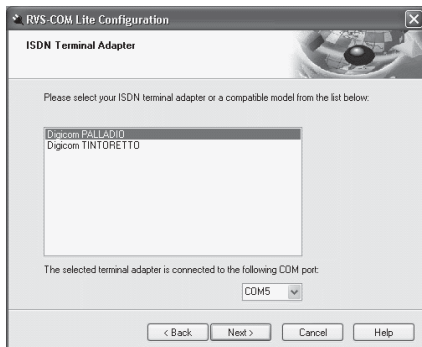

Follow the instructions that display.
When the installation is over, the **RVS-COM Lite Configuration** will be automatically started.
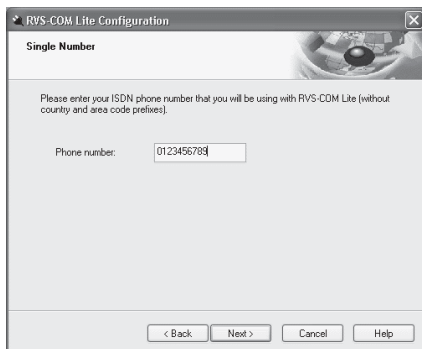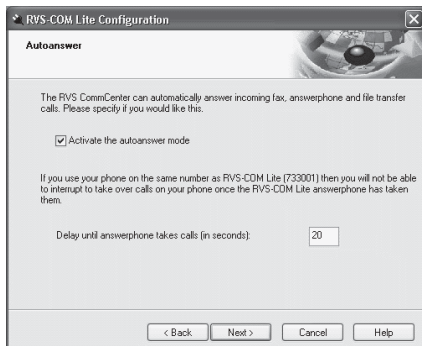
Click **Express configuration main line**.

Now the software will start the automatic search of Palladio ISDN.
In case RVS-COM Lite does not find the modem automatically, it will be necessary to select it manually.

digicom

Select **Digicom PALLADIO** and serial port (eg. COM3).

Insert the telephone number to which Palladio ISDN is connected **Next**.

Select **Activate the autoanswer mode** if you want to enable the calls automatic detection. Then set the answer time. Press **Next**.

To install the additional softwares, select the proper setting. Otherwise press **Finish**.

Press **Continue Anyway** in the Windows® informative window.

digicom

For further information concerning the software, refer to the RVS-COM Lite online manual.

In case you want to use a different Fax/Voice software, you have to install RVS-COM Lite anyway to manage the analog functions of Palladio ISDN. After the installation, in **Control Panel/ Modem Options** you will find virtual drivers: **RVS ISDN Fax, RVS ISDN Modem analog**; configure the favourite Fax/Voice software setting these virtual drivers.