

Q&A for ISDNLINK™ External TA

Q1 : How to setup TA-200 on Windows 95 / NT?

A : In Windows 95.

1. Because TA-200 is a PnP device for Windows 95, please attach to PC's Com port (serial port) and make sure this port is free in the system.
2. Windows 95 will automatically detect an ISDN TA device attached to PC, please insert our installation disk or specify the subdirectory where the MDMASUTA.INF is located. An async-to-sync PPP modem (for Internet Access) will be installed automatically.

In Windows 95 and NT 4.0.

If you want to install more modems such as X.75, V.120, and MLPPP (128K), you may follow this way to install it.

3. To add proprietary modems by Start → Settings → Control Panel → Modems → Add → Select "do not detect my modem, I will select it from a list", Next → Select "Standard Modem Types", Have Disk → Input the directory which has the mdmasuta.inf, OK → Select a proprietary modem you want to install → link this modem to the serial port. These modems will automatically issue the protocol command to TA-200 when you select it to make a connection.

Q2 : How to setup TA-200 on Mac?

A : In Macintosh :

There are many applications which provide Internet Access, BBS access, or file transfer. If you want to access Internet, you need a commercial Dial-Up applications such as FreePPP, MacTCP, or Open Transport system to handle the TCP/IP. The Mac OS 8.0 contains the Open Transport as default. **If you are using Open Transport to access Internet, you should download our Mac modem script file for TA-200 from our homepage. Then you just select one of our ISDN PPP and MLPPP modems from the modem list, you can access Internet now without modifying the modem settings.** If you use FreePPP or MacTCP, you need to set the ATB4 for TA-200 to do the PPP conversion (async to sync PPP conversion). You may set ATB41 or ATB42 for 128K MLPPP connection for better performance.

If you want to do BBS or file transfer, you need QuickLink II or Zterm terminal applications. Please also set the B channel protocol for communication. The AT commands for set B channel protocol are ATB0 (HDLC), ATB1n (V.110), ATB2n (V.120), ATB3n (X.75) and ATB4n (PPP). Please refer User Manual for more detailed information.

The following statements are for how to setup TA-200 for Internet Access on Macintosh MacPPP.

Configure MAC/PPP :

1. In Control_Panel\MacTCP” dialog box, select "PPP" and click "More" for advanced TCP/IP configurations.
2. In the "Obtain Address" dialog box, if your IP address is assigned by your ISP, you have to choose the "Server" to obtain the IP address from a server. Otherwise, you have to select "Manually" and enter your IP address.
3. From "IP Address" choose “Class A” and enter the proper information about your ISP in the "Domain Name Server Information" dialog box.
4. Make sure every setting is correct then click "OK" and exit the MacTCP window.
5. Restart the Macintosh for your changes to take effect.

Configure PPP :

6. In Control_Panel\Config PPP\Port Name” dialog box, choose the "Modem Port".
7. The following settings in this dialog box are optional, such as "Idle Timeout", "Echo Interval", "Terminal Windows", "Hang up on close", and "Quiet mode", you can enable them according to your requirements.
8. For more configurations, you have to click the "Config...". Set the “Modem Init" for default settings with Internet PPP (64K), AT&FB4.
9. From the "Config" window, finish every dialog box, like
 - "PPP Server Name" (e.g. My ISP),
 - "Port Speed" (e.g. 115200bps),
 - "Flow Control" (e.g. CTS&RTS(DTR)),
 - "Dial" (e.g. Tone dial),
 - "PPP num." (your ISP's telephone number, e.g. 81722043),
 - "Modem Init"(e.g. AT&FB4),
 - "Modem connection timeout"(e.g. 90 seconds),
 - "Authentication" (Auth. ID, Password, Retries:10, timeout:3 seconds),
 - "LCP" (if your ISP will not check the PAP, then disable the local and remote's "Want&Will"),
 - "IPCP" (if your IP is assigned by your ISP, then leave all settings as default settings).
10. Make sure every setting is correct and click "Done"

How to dial :

11. Now, you are ready to connect to your ISP by clicking "Open" in the "Config PPP" window,
12. After clicking the "Open" button, the "MacPPP Status" window will be shown on the screen and begin to dial. By the way, if you have enabled to bring up the terminal window in "Config PPP" window, the "PPP terminal session"

window will appear so that you have to dial by AT command manually in this terminal window,

13. Waiting for establishing the connection, and click "OK".

Q3 : How to change the A-Law and u-Law without changing the ISDN switch type?

A : Enter ATCODEC=0 for setting A-Law or ATCODEC=1 for setting u-Law. You may also enter ATCODEC? to display the current setting.

Q4 : What is the ATS37 used for?

A : In some country, the Lower Layer Compatibility (LLC) is not shown in the Call Setup packet and this field is used for compatibility checking such as V.110, V.120 and so on. But others need this LLC to be sent for identification. The ATS37 is used to control this. The default value of S37 is 0, not sending the LLC. If this LLC is needed, please enter ATS37=128 to enable ISDN driver to send this LLC out in Call Setup packet.

Q5 : How can I set the different ring pattern for POTS (analog port) 1 and 2?

A : You may use these AT commands to select the ring pattern for POTS ports. ATS55=n for POTS 1 and ATS56=n for POTS 2.

Select the ring pattern for POTS 1, n=0 to 7			
Pattern #	Ring ON	Ring Off	
0	0.5 second	0.5 second	
1	0.5	1.0	
2	0.5	1.5	
3	1.0	1.0	
4	1.0	2.0 (default)	
5	1.0	3.0	
6	2.0	2.0	
7	2.0	3.0	

Q6 : Why can I not get the 128K (MLPPP) Internet connection at the beginning, MP's LED does not light on?

A : We provide two solutions of 128K Internet connection. **The first solution** is to make a 128K call at the beginning and then fix to this rate till end of connection. You may select it by ATB41. If you can not get the second B channel, the MP's LED will not be lighted (ON).

The second solution is to make a 64K call first and then will make another call to add 64K more till the data traffic is higher than the value of register 53. The MP's LED will be lighted when data traffic higher than the value of register 53.

The default value is 4 (4* 1000 bytes). To know the value of register 53, enter ATS53? This mode can be selected by ATB42.

From other viewpoint, the second B-channel connection will be disconnected if average data flow below the value of register 53 and keep a while (default value is 5 minutes, saved at register 54). To know the value of register 54, enter ATS54?

We also provide the bandwidth dropping function for the voice call in this solution. If there is an incoming or outgoing voice call, the driver will drop one B channel first and allow the voice call to be received or transmitted. This B channel will be added for data transmission till no voice call and data traffic is higher than the value of register 53. This function is called Bandwidth on Demand (BOD).

If you do not want to be interrupted during data transmission by this method, please select the above method (ATB41). Be noticed, we provide this algorithm for bandwidth on demand after Version 1.09 or later.

Q7 : How can I set the MSN with a specified protocol such as X.75 or V.120?

A : The MSN number is used to screen the incoming call. If you want to add a protocol related with this MSN, you can use AT&Zlr=n*m*p. “n” for MSN, “m” for subaddress (option), and “p” for protocol (option). For example, if you want this ISDN line (81722043) to indicate an incoming call with X.75 Transparent protocol, please enter AT&Zl2=81722043**3 to enable this function. Please refer the Chapter 4 for more detailed information of AT command set.

Q8 : How can I set 230.4Kbps baud rate and save it into profile in TA?

A : We provide this function from firmware version 1.21.3 or later. When you use 115.2K or less speed to set 230.4K (AT%S1), this new baud rate is saved and expect to receive the data from PC at this speed. If it can not receive correct AT command from PC, the TA-200 will change to auto-baud rate detection mode and try to catch the COM port speed. After the firmware version, V1.22.4, the TA-200 can detect the baud rate up to 230.4 Kbps automatically.

Q9 : How to set the init string for some IP sharing devices or devices with COM interface?

A : If this kind of devices can not receive correct returned string from TA-200, we suggest to add this AT command into init string, AT&AB1. For example, the original init string is AT&FB4, we suggest the init string to be AT&F&AB1B4. With this AT command, TA will fix the baud rate and use it to catch data from DTE (PC) site.

Q10 : How can I do the TA-200 self test?

A : If you are using the terminal program, you may enter AT&TEST to inform the TA

to do a self test. But if you do not have PC connecting to TA, you may use a telephone set which provides the TONE dialing. Please connect this device to POTS1 or POTS2. The self test procedures are as follows.

Procedure : Off-Hook and press Flash*0#

1. Off-hook ;
2. Enter FLASH, you will see the T1 or T2 LED will flash in 0.2 sec. ON and 0.2 sec. OFF ;
3. Enter *0# (three digits) ;

If the system is working fine, the T1 and T2 LEDs will flash in 0.5 ON and 0.5 OFF and you will also hear the dial tone. If the system is BAD, the T1 and T2 LEDs will flash in 0.1 ON and 0.1 OFF and you will also hear the busy tone.

Q11 : Why do I lose the TA configuration parameters every time if I upgrade to a new firmware.

A : In the previous version (V1.21.3 and previous versions), it will erase the EEPROM containing the system parameters if upgrade to a new version. From the Version 1.21.4, the system parameters will not be erased if there is a specified flag in the EEPROM. This means the system parameters (configuration) will not be deleted after Version 1.21.4 if upgrade to a new version.

Q12 : Why can I not get any response from TA-200 if I get an error in upgrade procedure?

A : When you get an error in upgrade procedure, the TA is in upgrade mode now. You will see the AA LED flashing. At this time, you can use a terminal program and configure the COM port as 115200, N, 8, 1 to get the response from TA. When the TA be powered on and find itself is in UPGRADE mode, TA will set the UART (com port) to 115200, N, 8, 1 as default. The COM port of terminal program should be configured the same value to continue the upgrade job.

Q13 : Why do the connection be terminated after approximate 4 minutes with ZyxEL ISDN router, even there is traffic in the B channel?

A : Please take a look at the parameter settings on the routers, and found a setting named, Recv Authen, which is a password/security option. If it is NONE, please set it to PAP. Then this case will not happen again.

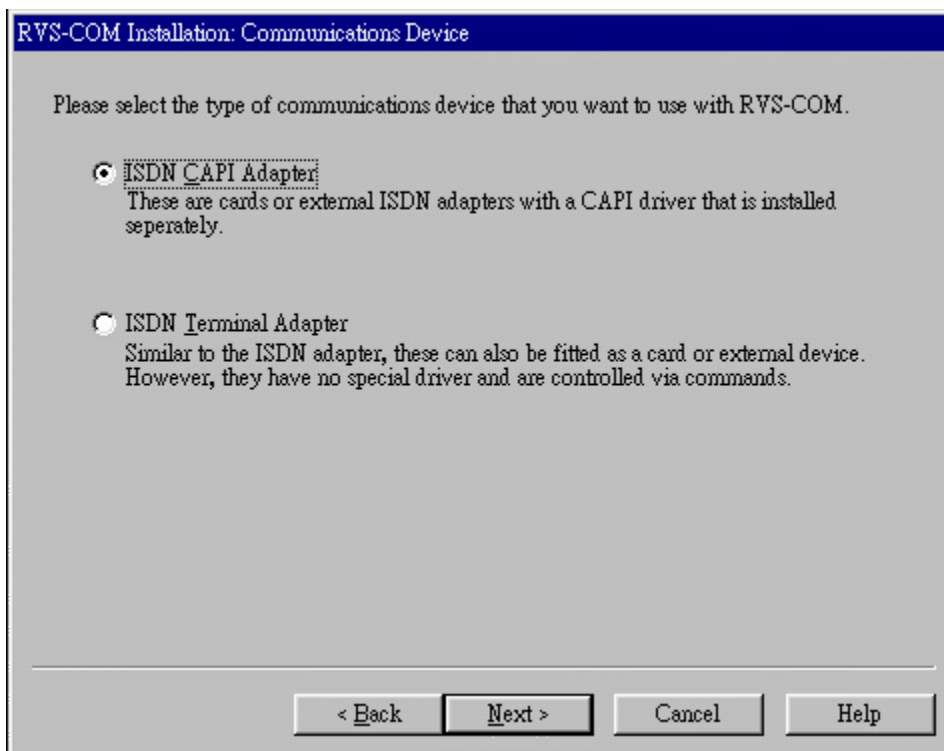
Q14 : Why is the ISDN monitor in sleep mode (no message displayed in the monitor window), even the TA-200 is in active mode?

A : The ISDN monitor is based on CAPI interface to communicate with TA-200, but it will not setup a link with TA-200 automatically. Therefore if there is no CAPI application alive, the ISDN monitor is not alive too. This ISDN monitor may just

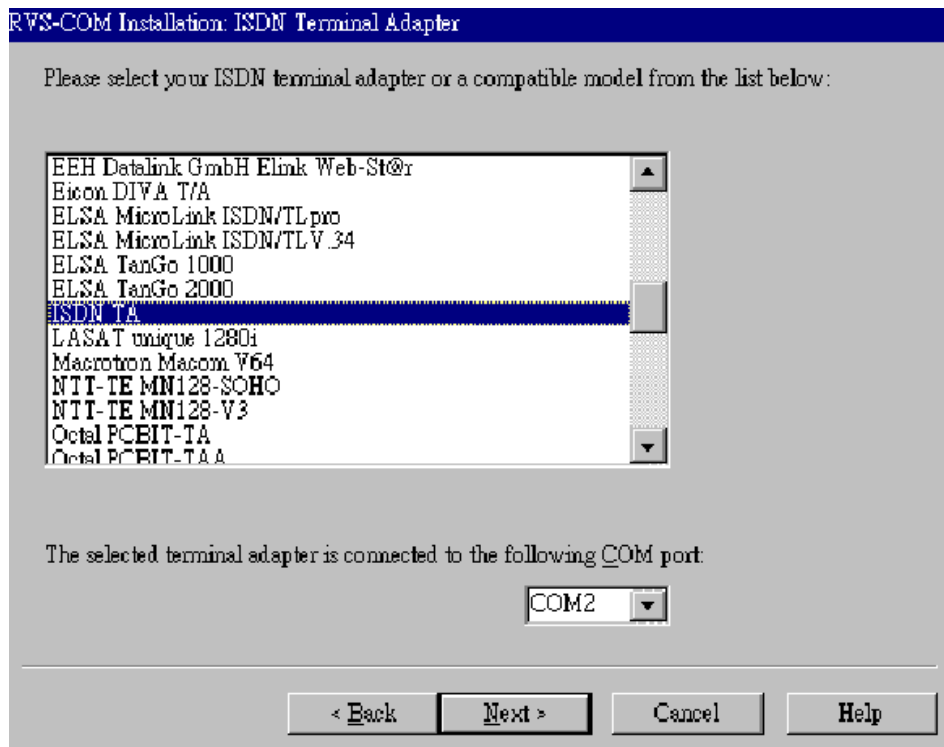
find the TA-200 and goes into sleep mode. If there is a CAPI application alive, the D, B1, B2, and CAPI messages will be shown in the ISDN monitor. If the application leaves, the ISDN monitor goes into sleep mode again (release the physical COM port to other applications).

Q15: Can I use TA-200 to send G3Fax or other voice services?

A: Yes, you can. We bundle an OPTION software, RVS-COM Lite. With this software, you have Software G3FAX, voice mail, and others. But if the RVS-COM Lite version is less than 1.36, you need to install our CAPI driver for TA-200 first, then install the RVS-COM Lite, and check the “installing CAPI adapter”. Then these voice applications will work fine.

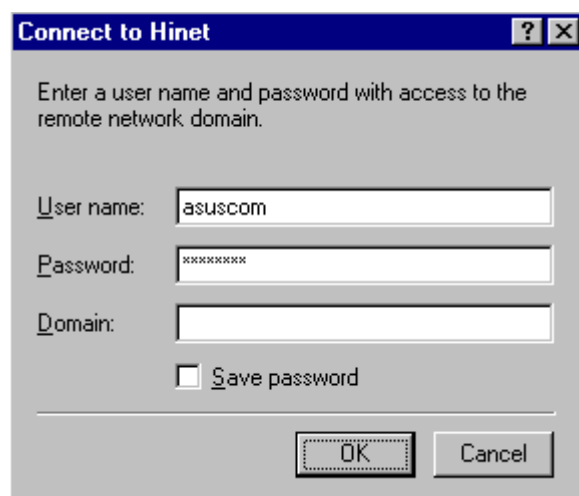


If the RVS-COM Lite is version 1.36 or later, you can check “installing ISDN terminal adapter” to install RVS-COM Lite and do not need to install CAPI driver for TA-200. Then you may select the “ISDN TA” from the modem selection list as our modem model and follow the instructions to install RVS-COM Lite. For RVS-COM Lite information, you may access <http://www.rvscom.com> for more detailed information.



Q16 :Why do I always get failure in authentication if I try to connect to Internet?

A : Please check the Domain name of Dialup-Networking. Usually you do not need to input Domain Name into this field, otherwise this is a part of User Name when you try to logon Internet. Then you will get the failure in user name and password authentication procedure. If you do not need this option, please leave it blank as below.



Q17 :Why can not access the COM port to TA-200 after install the CAPI20 driver for TA-200? Window system shows "Comport used by another application".

A : First, there is only one physical com port attached with TA-200. Therefore, when the CAPI driver is active and there is an application accessing the CAPI driver. The comport will be occupied by CAPI driver. That is way other applications can not access the comport. The easy way is to release the control from CAPI application. This means to turn off (leave) the application such as RVS-COM ComCenter, not uninstall it. You will see the Z sign in the system tray of our ISDN monitor icon. At this time, the comport is released from our CAPI driver, CAPI driver is still active but not communicate with TA-200. Now the comport is free for any application.

Q18 :Why the performance slows in the Linux?

A : This problem is fixed from the firmware of V1.23.2. Please visit our homepage, <http://www.asuscom.com.tw> to download the updated firmware.

Q19 :How to set up the MSNs for POTS port?

A : This function can be done with AT&ZI command. Please refer below example to meet your local environment.

Example:

I have two MSNs, one is 81722043 and the other is 81723019. I would like to set the POTS1 to accepting incoming voice call with 81722043, and set the POTS2 to accepting incoming voice call with 81723019.

Configuration:

Please open a terminal program connecting to our external ISDN TA. Enter AT&ZI0=81722043 and AT&ZI1=81723019, then ISDN TA will accept the incoming call with these two numbers.

BUT,

1. You need to make sure the ISDN phone company send the 81722043 in the incoming SETUP packet. If not, you will not be able to pick up call. The incoming call will be filtered. Some of the ISDN phone companies just send the last 4 digits (2043 or 3019) only. In this case, you just need to set last four digits.
2. Some of ISDN phone companies may not send the major MSN in the incoming SETUP packet. Therefore if you set as example and the incoming call without MSN, the TA will not ring any device. In this case, you need to use another AT command (AT#T).

AT#T0=0 (disable to ring analog device attaching to POTS1 when the incoming voice call does not contain MSN information in SETUP packet)

AT#T0=1 (enable, to ring analog device attaching to POTS1 when the incoming voice call does not contain MSN information in SETUP packet, DEFAULT)

AT#T1=0 (disable to ring analog device attaching to POTS2 when the incoming voice call does not contain MSN information in SETUP packet)

AT#T1=1 (enable, to ring analog device attaching to POTS2 when the incoming voice call does not contain MSN information in SETUP packet, DEFAULT)

Therefore, if 81722043 is the major MSN number, ISDN phone company does not send this number in the incoming packet, and you hope to ring POTS1 analog device only, then please enter AT#T1=0.

Q20 : How to set the auto-dial with DTR signal function?

A : After Ver1.23.4 firmware for TA-200, we provide the auto-dial function using DTR signal.

The configuration procedures are:

1. AT&Z0=nnnn: save telephone number, nnnn is the telephone number you want to auto-dial out.
2. AT\$D1: enable DTR dialing (AT\$D0: disable DTR dialing, default)

TA will auto-dial the telephone number if DTR ON and will disconnect if DTR OFF. The DTR signal is pin 4 of DB9-connector, or pin 20 of DB25-connector.

Q21 : How to setup the speed dialing function?

A : After Ver1.23.4 firmware for TA-200, we provide the speed dialing (two sets) function.

The configuration procedures are:

1. AT&Z0=nnnn: save telephone number 0, nnnn is the telephone number
2. AT&Z1=nnnn: save telephone number 1, nnnn is the telephone number
3. AT&Zr?: display the speeding dialing setting, r =0 or 1
4. ATDSr: speed dialing stored telephone number r, r=0 or 1.