Model NTR Series
Product Manual

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Mission Critical Applied Computing Solutions

FOREWORD

This product manual provides information to install, operate and or program the referenced product(s) manufactured or distributed by ICS Advent. The following pages contain information regarding the warranty and repair policies.

Check our Web site (*www.icsadvent.com*) for technical information, manuals, and BIOS updates. Technical assistance is also available at: **800-480-0044** (U.S.) or **858-677-0877** (international).

Customer Comments: If you experience any problems with this manual or just want to provide some feedback, please send us a message using the online "Service Form" on our Web site (*www.icsadvent.com*) under "Support." Detail any errors you find. We will correct the errors or problems as soon as possible and post the revised manual in our online Support Library. Thank you.

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Guarantee

A thirty day money-back guarantee is provided on all **standard** products sold. **Special order products** are covered by our Limited Warranty, *however they may not be returned for refund or credit. EPROMs, RAM, Flash EPROMs or other forms of solid electronic media are not returnable for credit - but for replacement only. Extended Warranty available. Consult factory.*

Refunds

In order to receive a refund on a product for the purchase price, the product must not have been damaged by the customer or by the common carrier chosen by the customer to return the goods and the product must be returned complete (meaning all manuals, software, cables, etc.) within 30 days of receipt and in an as-new and resalable condition. The **Return Procedure** must be followed to assure prompt refund.

Restocking Charges

Product returned *after* 30 days, and *before* 60 days, of the purchase will be subject to a **minimum** 20% restocking charge and charges for any damaged or missing parts. Products not returned within 60 days of purchase, or products which are not in an as-new and re-saleable condition, are not eligible for credit return and will be returned to the customer.

Limited Warranty

Effective April 1, 1998, all products carry a 2-year limited warranty. Within two years of purchase, ICS Advent will repair or replace, at our option, any defective product. ICS Advent will service the warranty for all standard catalog products for the first two years from the date of shipment. Please note: The 2-year warranty may not apply to special promotion items. Please consult the factory for warranty verification.

The limited warranty is void if the product has been subjected to alteration, neglect, misuse, or abuse; if any repairs have been attempted by anyone other than ICS Advent or its authorized agent; or if the failure is caused by accident, acts of God, or other causes beyond the control of ICS Advent or the manufacturer. Neglect, misuse, and abuse shall include any installation, operation, or maintenance of the product other than in accordance with the user's manual.

No agent, dealer, distributor, service company, or other party is authorized to change, modify, or extend the terms of this Limited Warranty in any manner whatsoever. ICS Advent reserves the right to make changes or improvements in any product without incurring any obligation to similarly alter products previously purchased.

Shipments not in compliance with this Guarantee and Limited Warranty Return Policy will not be accepted by ICS Advent.

Return Procedure

For any Guarantee or Limited Warranty return, please contact ICS Advent's Customer Service at **800-480-0044** (U.S.) or **858-677-0877** (international) and obtain a Return Material Authorization (RMA) Number. All product(s) returned to ICS Advent for service or credit **must** be accompanied by a Return Material Authorization (RMA) Number. Freight on all returned items **must** be prepaid by the customer who is responsible for any loss or damage caused by common carrier in transit. Returns for Warranty **must** include a Failure Report for each unit, by serial number(s), as well as a copy of the original invoice showing date of purchase.

To reduce risk of damage, returns of product must be in an ICS Advent shipping container. If the original container has been lost or damaged, new shipping containers may be obtained from ICS Advent Customer Service at a nominal cost.

ICS Advent owns all parts removed from repaired products. ICS Advent uses new and reconditioned parts made by various manufacturers in performing warranty repairs and building replacement products. If ICS Advent repairs or replaces a product, its warranty term is not extended.

ICS Advent will normally return your replacement or repaired items via Second Day Air. Overnight delivery or delivery via other carriers is available at an additional charge.

Limitation of Liability

In no event shall ICS Advent be liable for any defect in hardware, software, loss, or inadequacy of data of any kind, or for any direct, indirect, incidental, or consequential damages in connection with or arising out of the performance or use of any product furnished hereunder. ICS Advent liability shall in no event exceed the purchase price of the product purchased hereunder. The foregoing limitation of liability shall be equally applicable to any service provided by ICS Advent or its authorized agent.

Some *Sales Items* and *Customized Systems* are **not** subject to the guarantee and limited warranty. However in these instances , any deviations will be disclosed prior to sales and noted in the original invoice. ***ICS Advent reserves the right to refuse returns or credits on software or special order items.***

Advisories

Three types of advisories are used throughout the manual to stress important points or warn of potential hazards to the user or the system. They are the Note, the Caution, and the Warning. Following is an example of each type of advisory:

Note: The note is used to present special instruction, or to provide extra information which may help to simplify the use of the product.

CAUTION!

A Caution is used to alert you to a situation which if ignored may cause injury or damage equipment.

WARNING!

A Warning is used to alert you of a situation which if ignored will cause serious injury.

Cautions and Warnings are accented with triangular symbols. The exclamation symbol is used in all cautions and warnings to help alert you to the important instructions. The lightning flash symbol is used on the left hand side of a caution or a warning if the advisory relates to the presence of voltage which may be of sufficient magnitude to cause electrical shock.

Use caution when servicing any electrical component. We have tried to identify the areas which may pose a Caution or Warning condition in this manual; however, ICS Advent does not claim to have covered all situations which might require the use of a Caution or Warning.

You must refer to the documentation for any component you install into a computer system to ensure proper precautions and procedures are followed.

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Current Revision 9B
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Chapter 1: Introduction

Features

The NTR1000-P, 2000-P, and 2100-P Network Time Reference Card are accurate and stable clock's for your PC. The NTR1000-P has a stability of ±10 seconds per month. The NTR2000-P has a stability of ±1 seconds per month. NTR-2100-P has a stability of ±5 seconds per month. Full battery back-up is provided to continue keeping accurate time when the PC is shut off or during sudden emergency loss of power.

Note: All references to NTR1000-P apply to all three cards except where noted.

The precision and stability are provided by a design based on the National Semiconductor Timer Clock Peripheral (TCP), DP8570A. Some of the features of the NTR1000-P include the following:

- Stability
- Battery back-up
- Wide operating and storage temperature range
- Software selectable update rate
- Novell drivers
- CE Compliance

How to remain CE Compliant

This device complies with CE Directives 72/23/EEC and EMC 89/336/EEC. CE compliance is based on the interaction of all the components of a system. Any modifications made to the equipment may affect the CE compliance and must be approved in writing by ICS Advent. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to claim CE compliance.

For computer systems to remain CE compliant, only CE-compliant parts may be used. Maintaining CE compliance also requires proper cable and cabling techniques. Although ICS Advent offers accessories, the customer must ensure that these products are installed with proper shielding to maintain CE compliance. ICS Advent does not offer engineering services for designing cabling systems. In addition, ICS Advent will not retest or recertify systems or components that have been reconfigured by customers.

Specifications

Stability

± 1 second per month (NTR2000-P)

± 5 second per month (NTR2100-P)

±10 seconds per month (NTR1000-P)

Note: The NTR2000-P and NTR2100-P require the board to be powered to maintain ± 1 or ± 5 second stability. Under battery power the board reverts to ± 10 sec/month.

TCXO Stability

< 1 ppm

Aging Rate

3 ppm

Temperature Range

Operating	0 to 50° C
Storage	-10° to 70° C

Interrupt Levels

Extended AT Interrupts

Agency Approvals

CE Conformity with:

EU EMC Directive 89/336/EEC

EU Low Voltage Directive 72/23/EEC

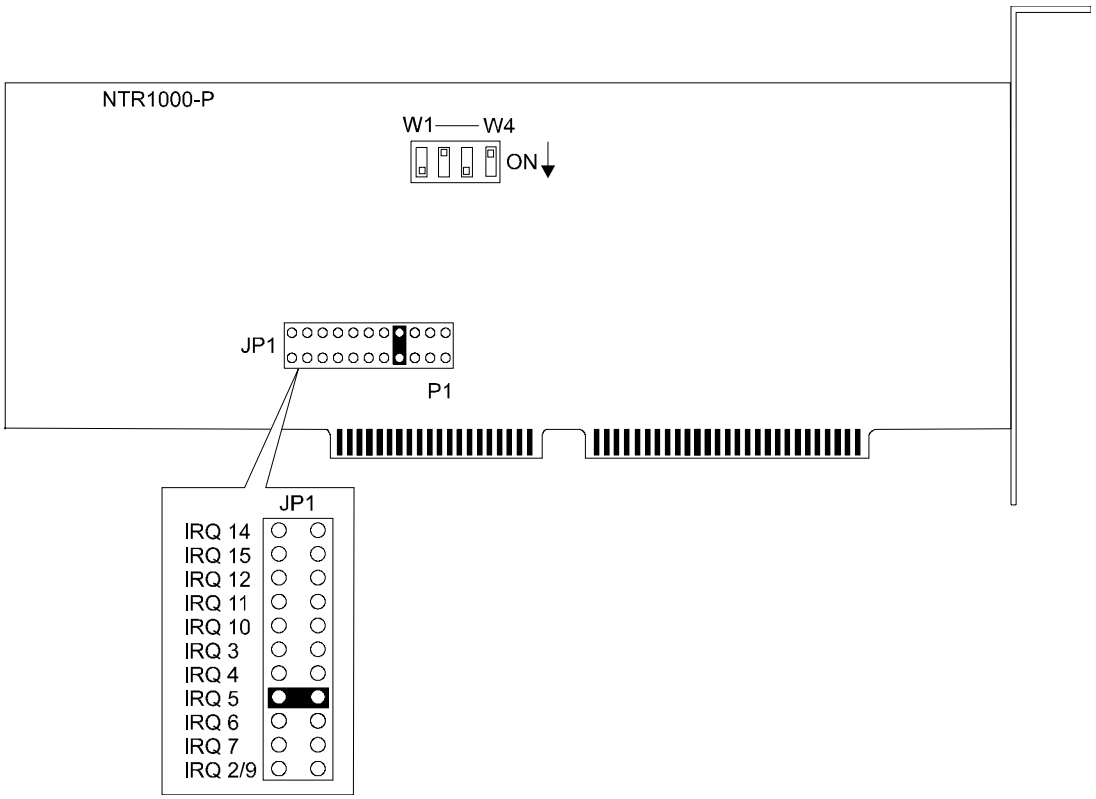


Figure 1-1: NTR1000-P Switch and Jumper Setting Drawing

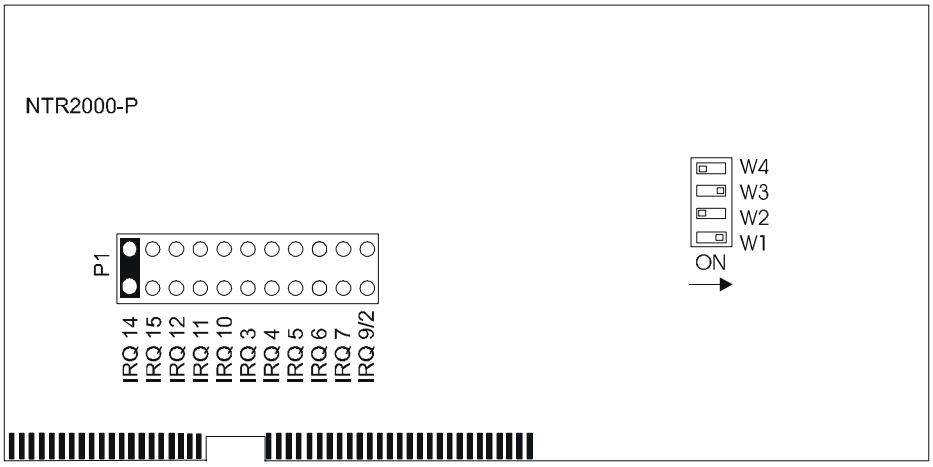


Figure 1-2: NTR2000-P Switch and Jumper Setting Drawing

Chapter 2: Configuration

Hardware Configuration

CAUTION!

Do not try to adjust the clock frequency by adjusting C1. This is a factory adjustment only. If the clock does not keep time to ±10 seconds per month, ± 1 sec for the NTR2000-P and ± 5 sec for the NTR2100-P, contact ICS Advent.

The NTR1000-P and NTR2000-P Network Time Reference cards have a four position DIP switch for setting the board's address and an eleven position jumper for setting the IRQ level. The default port (I/O address) is 340H and the default IRQ is 5. Note that the loadable device driver settings must be changed if you change the board's default setting. Refer to the following section for software configuration information.

The NTR2100-P has one jumper position that is only used for initial testing. No user settings are required.

When setting the hardware address and the IRQ, make sure that they do not conflict with boards already installed in your computer. If two boards with the same address or IRQ are installed in the same machine, system conflicts will result and the system will not operate properly. The board uses 32 bytes of address space.

Refer to Table 2-1 for the hardware hex addresses and their settings on the DIP switch. Refer to Table 2-2 for the address lines, their binary and hex values, and the corresponding DIP switch settings. See Figure 1-1 for an example of how to set the IRQ jumper.

	W4(A8)	W3(A7)	W2(A6)	W1(A5)
200H	ON	ON	ON	ON
220H	ON	ON	ON	OFF
240H	ON	ON	OFF	ON
260H	ON	ON	OFF	OFF
280H	ON	OFF	ON	ON
2A0H	ON	OFF	ON	OFF
2C0H	ON	OFF	OFF	ON
2E0H	ON	OFF	OFF	OFF
300H	OFF	ON	ON	ON
320H	OFF	ON	ON	OFF
340H	OFF	ON	OFF	ON
360H	OFF	ON	OFF	OFF
380H	OFF	OFF	ON	ON
3A0H	OFF	OFF	ON	OFF
3C0H	OFF	OFF	OFF	ON
3E0H	OFF	OFF	OFF	OFF

Table 2-1: Address Settings

Addess Line	**A1**	**A1**	**A9**	**A8**	**A7**	**A6**	**A5**	**A4**	**A3**	**A2**	**A1**	**A0**
Binary Representation	**0**	**0**	**1**	0	0	0	0	**0**	**0**	**0**	**0**	**0**
Hex Representation	2			0				0				
Switch Label				W4	W3	W2	W1					
Switch Setting				ON	ON	ON	ON					

Table 2-2: Address Values and Switch Settings

Note: All references to NTR1000-P apply to all three cards except where noted. However, the software for all models functions the same. NTR1000 is used in command line statements and in file names exclusively.

Software Configuration for DOS

The NTR1000-P Network Time Reference Card software configuration is accomplished by means of a loadable driver that is on the disk that ships with the board. The device driver for the NTR1000-P Network Time Reference Card is called **NTR1000P.SYS**. Load this driver from the CONFIG.SYS file using the DEVICE= or the DEVICEHIGH= statements.

Note: It has been documented that a conflict arises between the NTR1000-P driver and the DOS program **VERIFY.EXE**. This conflict only occurs when using the **/D:** option of the NTR1000 device driver, and the DOS **VERIFY ON** command. It prevents the DOS **DATE** and **TIME** commands from properly accessing the NTR1000-P hardware registers to set the date or time. This combination should be avoided both at the DOS prompt as well as in your **AUTOEXEC.BAT**.

Note: Only the NTR1000-P and the NTR2000-P have support for DOS.

CONFIG.SYS File Syntax

```
DEVICE=d:\PATH\NTR1000P.SYS[/P:PORT][/U:UPDATMIN][/H:UPDATEHR][/I:IRQ][/C:][/D:]
```

`[/P:PORT]`	NTR1000-P Board Base Address in hex (200 to 3E0 on 20H increments)
`[/U:UPDATEMIN]`	Update rate in minutes (Range 1 - 59 minutes)
`[/H:UPDATEHR]`	Update rate in hours (Range 1 - 1000 hours)
`[/I:IRQ]`	NTR1000-P Board Interrupt Jumper Settings
`[/C:]`	Will update both CMOS and DOS time and date according to the update rate setting. Use **SETDATE** and **SETTIME** commands to set up the boards.
`[/D:]`	Will cause the NTR1000 driver to take over all DOS Date/Time calls (both Read and Write). Using this option requires using **DATE** and **TIME** instead of **SETDATE** and **SETTIME** to access the NTR1000-P board.

System Software Default

The system default settings are as follows:

PORT is set to 340 (hexadecimal).

IRQLEVEL is set to 5 (IRQ 5).

UPDATEMIN is set to 1 (1 minute between updates).

Initial Setup

After you have installed the board and the driver (refer to the sections above for information on configuring the hardware and the driver), reboot your computer to initialize the board. There will be an "RTC" oscillator failure the first time you power up the board. This is normal; it will not occur again once the board has been initialized with the correct date and time. Finally, set the date and time using the DOS **DATE** and **TIME** functions, or the **SETTIME** and **SETDATE** commands.

Example

In the following example, the NTR1000-P driver is configured to use port 220H, IRQ11 and provides an update rate of once every 24 hours.

```
DEVICEHIGH=C:\NTR1000P\NTR1000P.SYS /P:220 /I:11 /H:24
```

The statement causes DOS to load the driver high with the following settings.

PORT is set to 220 (hexadecimal).

IRQLEVEL is set to IRQ11.

UPDATEHR is set to 24 hours

Note that if you don't use the default settings you must also change the board settings. If they don't match, the board won't work correctly. In the above example, the NTR1000-P Network Time Reference board settings for the DIP switch would have to be set to W4 - ON, W3 - ON, W2 - ON and W1 - OFF in order to select 220H.

Setting the Date and Time

There are two ways to set the date and time on the NTR1000-P Network Time Reference Card.

When using the /D: driver option, simply use the DOS **DATE** and **TIME** commands. Remember to specify AM or PM when setting the time.

When using the /C: option, use the **SETTIME** and **SETDATE** utilities, shipped on the NTR1000-P diskette, to set the date and time.

Check your DOS manual for more information or command syntax.

Verifying Operation

A utility program called **DOSCLK.EXE** is provided on this distribution disk. This program allows you to verify that the NTR1000-P Network Time Reference Card is working correctly. To use the **DOSCLK.EXE** program, type `DOSCLK` at the DOS prompt and press the Enter key (remember to change to the subdirectory or to the distribution diskette containing the **DOSCLK.EXE** program before trying to start the application). If you have changed the base address of the NTR1000-P to something other than the default (340H), use the command **DOSCLK XXX**. (Replace the XXX with your new hex address.)

Two timers will appear on the screen in separate windows. One is the DOS clock and the other is the NTR1000-P clock. The DOSCLK application causes the DOS clock to run twice as fast as normal. This ensures that the two clocks will not have the same time when the update is performed. This program updates the DOS clock every 10 seconds. When the DOS clock is updated, both clocks should show the same time. This application allows you to verify that the NTR1000-P card is updating the DOS clock. If it isn't updating the DOS clock, check your address and IRQ settings. Be sure you have no system conflicts and make sure the driver is installing without errors.

NTR1000-P, NTR2000-P, and NTR2100-P Driver for Windows 95

This driver allows Windows 95 to keep accurate time by updating its internal clock with the time provided by the NTR1000-P card. The update interval can be specified between one minute and 49 days. These updates should have no significant impact on Windows 95 performance. The driver package consists of three parts: a Win95 VXD driver, a helper application similar to an NT service, and a control panel applet. The applet is for setting the time, date, and update interval. Once the driver is installed, system time must be set via the NTR1000-P control panel applet. If the time is set via the normal Windows NT time setting applet, the time will be overwritten by the NTR1000-P service at the next update interval.

Note: There is an API in Win32 specifically for synchronizing the system time with a time source on the network. Do not use any software that uses this API on the computer with the NTR1000-P driver running. The NTR1000-P service will overwrite the time at each update interval. Since your NTR1000-P equipped PC will most likely be the source for network time, this should not be a problem.

Note about Hardware Installation

Because the driver operates in a polled fashion, the interrupt of the NTR1000-P is not used. The NTR1000-P jumper for interrupt selection should be removed to prevent spurious interrupts from crashing your PC.

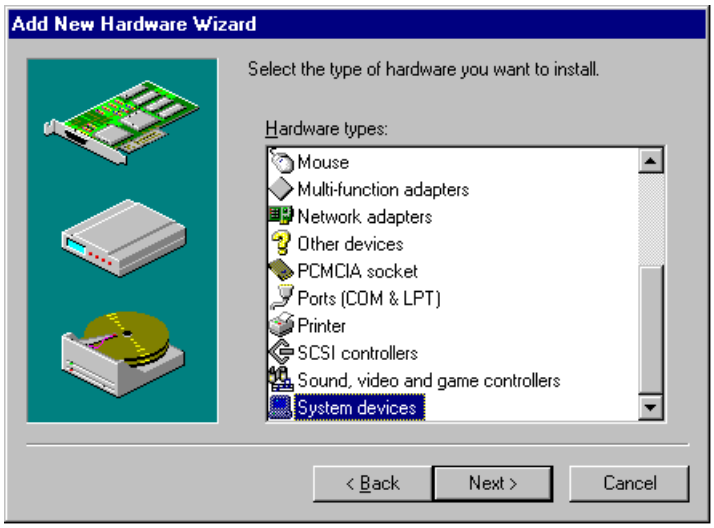
Installing the Windows 95 NTR1000-P Driver

From the Start Menu, select Settings->Control Panel.

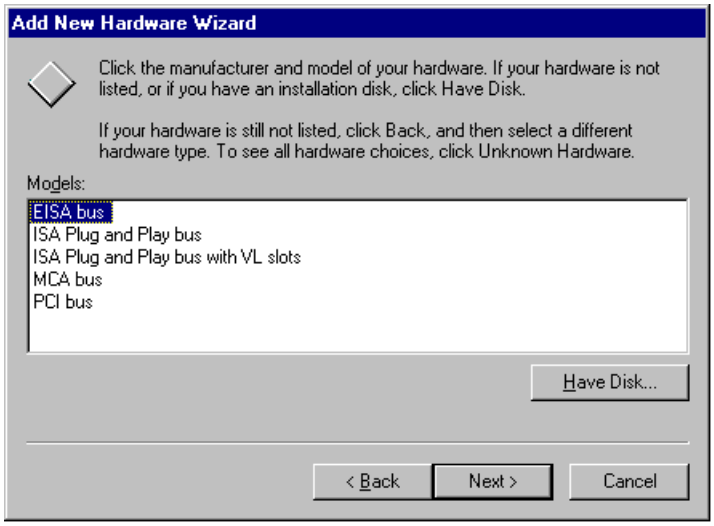
From the Control Panel, select Add New Hardware.

Click the Next button.

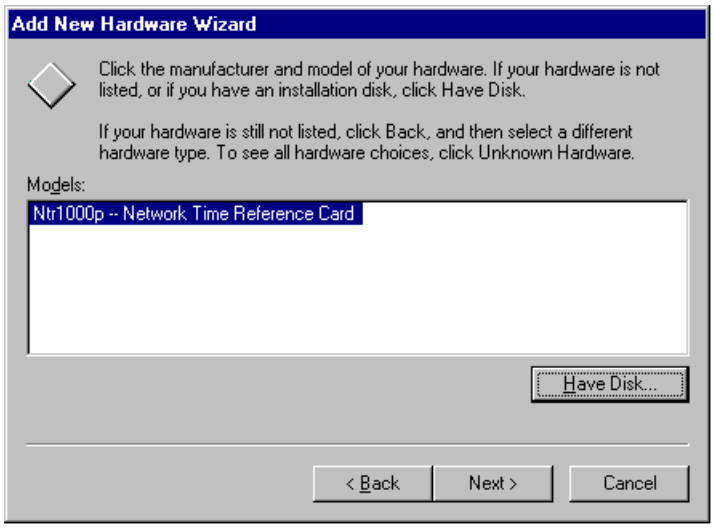
Answer “No” to the question, “Do you want Windows to search for you new hardware?” Press the Next button.



Scroll the hardware types list down and select the “System devices” type.
Press the Next button.

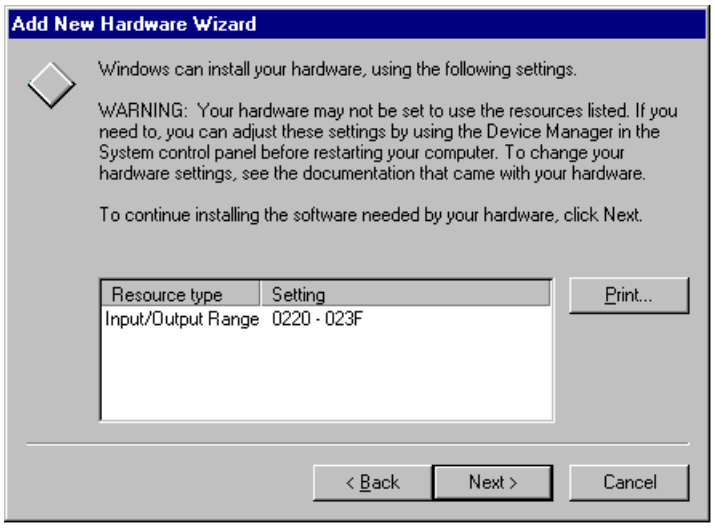


Press the Have Disk button.
Insert your disk labeled “NTR1000-P Driver Disk.”
Make sure “A:\” is selected as the source.
Press OK.



The model “NTR1000-P – Network Time Reference Card” should be selected in the Models box.

Press the Next button.



Note the port address range Windows 95 selected for you. If this is not the port address that the NTR1000-P card is set for (via dip switches), you will need to correct this on a later screen (see below).

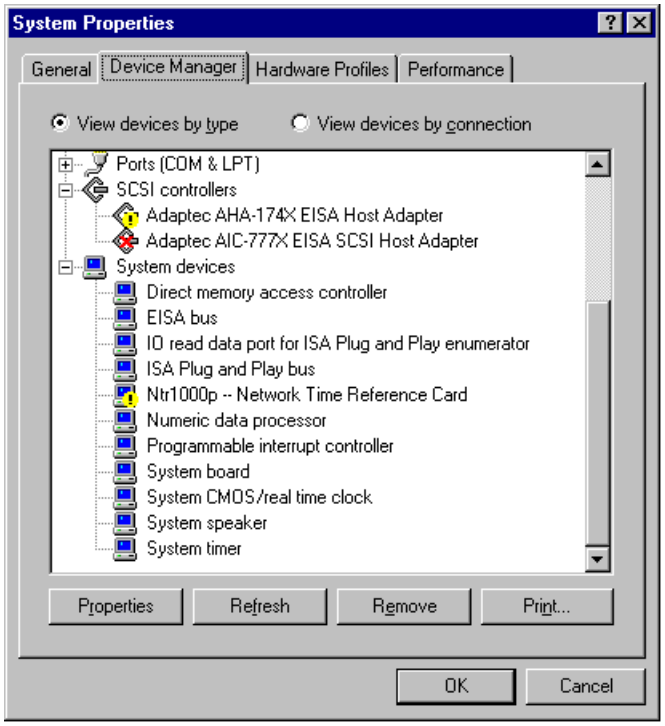
Press the Next button.

Windows 95 will copy the driver’s files onto your system.

Press the Finish button.

At this point, Windows 95 will prompt you to shutdown your machine. If the port address Windows 95 selected for you was correct, proceed to reboot your machine. Otherwise, follow these directions:

From the Control Panel, select the System icon.

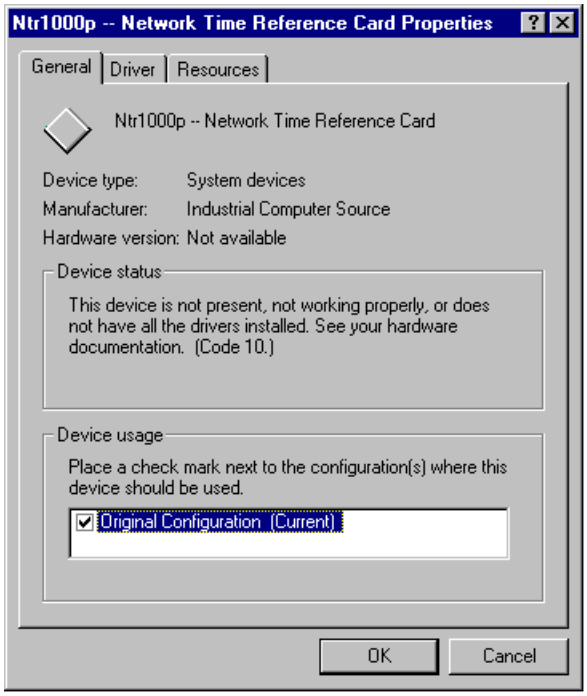


Press the “Device Manager” tab.

Scroll down to the “System devices” type. Click on the “+” symbol on the left if the type isn’t already expanded.

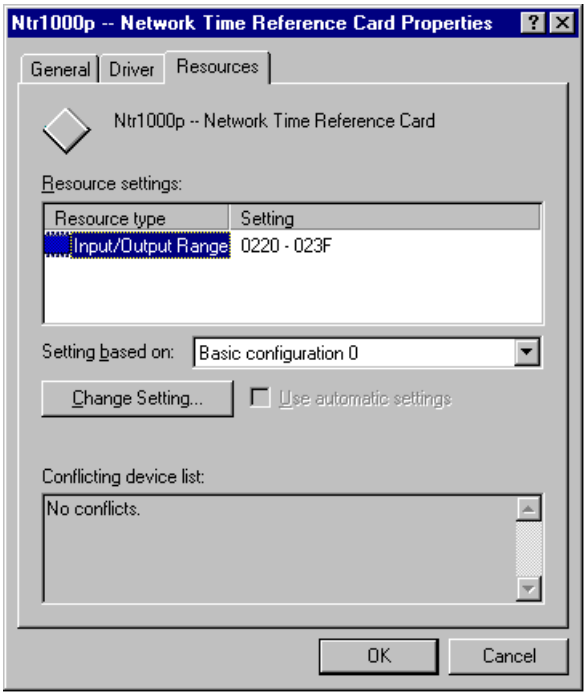
Find the “NTR1000-P – Network Time Reference Card” item. If the port address was in fact wrong, there should be a small yellow exclamation point next to this item.

Select the item, then press Properties.



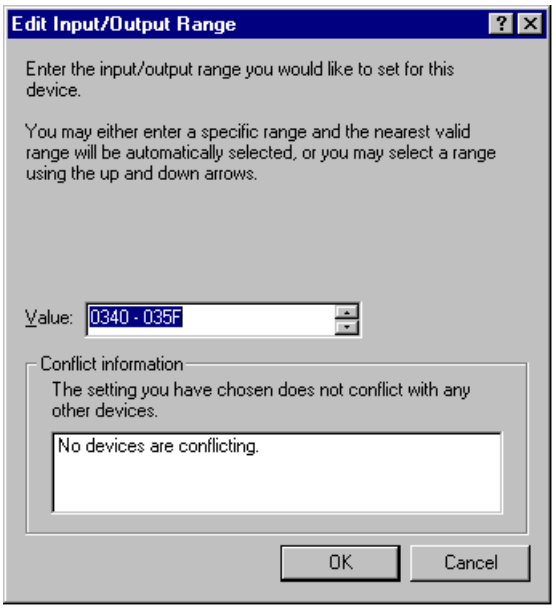
Note that “Device Status” shows the device is not working properly.

Press the “Resources” tab.



Note that the I/O port setting to the right of “Input/Output Range” is incorrect.

Press the “Change Setting…” button.



Use the up/down arrows to select the correct value for your NTR1000-P board.

Verify in the conflict information window that no devices are conflicting. If there are other devices at the same port address as your NTR1000-P board, you will have to either change the setting on your NTR1000-P or that of the other hardware.

Press OK.

Press OK.

Press Done.

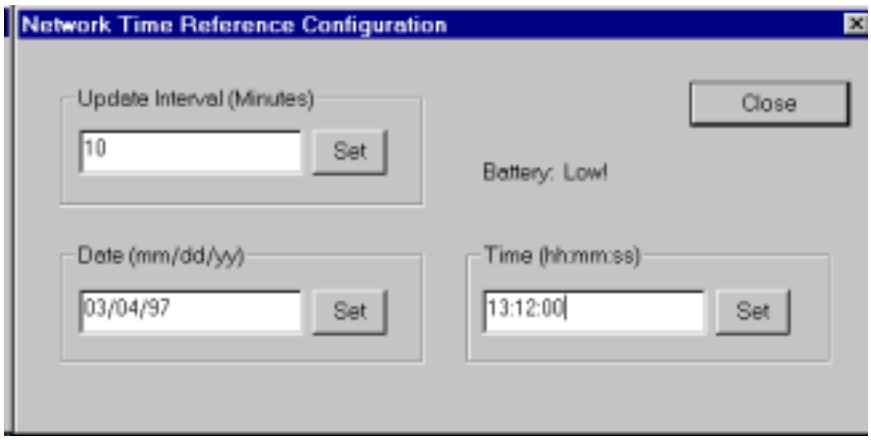
Answer Yes when asked if you wish to restart your machine.

Setting NTR1000-P Time

System time must be set via the NTR1000-P control panel applet. Time set with the standard system tool will be overwritten at the next update interval.

From the Start Menu, select Settings->Control Panel.

Double-click on the NTR1000-P config icon. The NTR1000-P Config dialog looks like this:



To set the update interval, enter a new value (in minutes) into the Update Interval edit box, and press the Set button.

To set the date, enter the date (mm/dd/yy) into the Date edit box, and press the Set button.

To set the time, enter the time (hh:mm:ss, or hh:mm) in 24 hour format into the Time edit box, and press the Set button.

NTR1000-P/2000-P/2100-P Driver for Windows NT

This driver allows Windows NT to keep accurate time by updating its internal clock with the time provided by the NTR1000-P/2000-P/2100-P (referred to as NTR hereafter) card. The update interval can be specified between one minute and 49 days. These updates should have no significant impact on Windows NT performance. The driver package consists of three parts: an NT kernel mode driver, an NT service, and a control panel applet. The applet is for setting the time, date, and update interval. Once the driver is installed, system time must be set via the NTR control panel applet. If the time is set via the normal Windows NT time setting applet, the time will be overwritten by the NTR service at the next update interval.

Note: There is an API in Win32 specifically for synchronizing the system time with a time source on the network. Do not use any software that uses this API on the computer with this driver running. The NTR service will overwrite the time at each update interval. Since your NTR equipped PC will most likely be the source for network time, this should not be a problem.

Note About Hardware Installation for NTR1000-P/2000-P

Because the driver operates in a polled fashion, the interrupt of the NTR is not used. The jumper for interrupt selection should be removed to prevent spurious interrupts from crashing your PC.

Installing the Windows NT NTR1000-P/2000-P/2100-P Driver

Under Windows NT 3.51:

- From the Program Manager, click on File->Run.
- Type a:\setup and press OK.

From Windows NT 4.0

- From the Start Menu, select Run.
- Type a:\setup and press OK.

The InstallShield installer will initialize and run. Follow the on-screen instructions. You will need to provide three pieces of information:

- The type of NTR board (1000-P/2000-P or 2100-P*).
- The destination path for the driver files.
- The NTR I/O port address (ISA only).

When the files are transferred, you will be asked if you want to reboot the computer. The drivers will not work until after a reboot. The NTR2100-P replaced the obsolete NTR3000-P.

*All driver software that ran on NTR3000-P runs as is for NTR2100-P.

Setting NTR Time

System time must be set via the NTR control panel applet. Time set with the standard system tool will be overwritten at the next update interval.

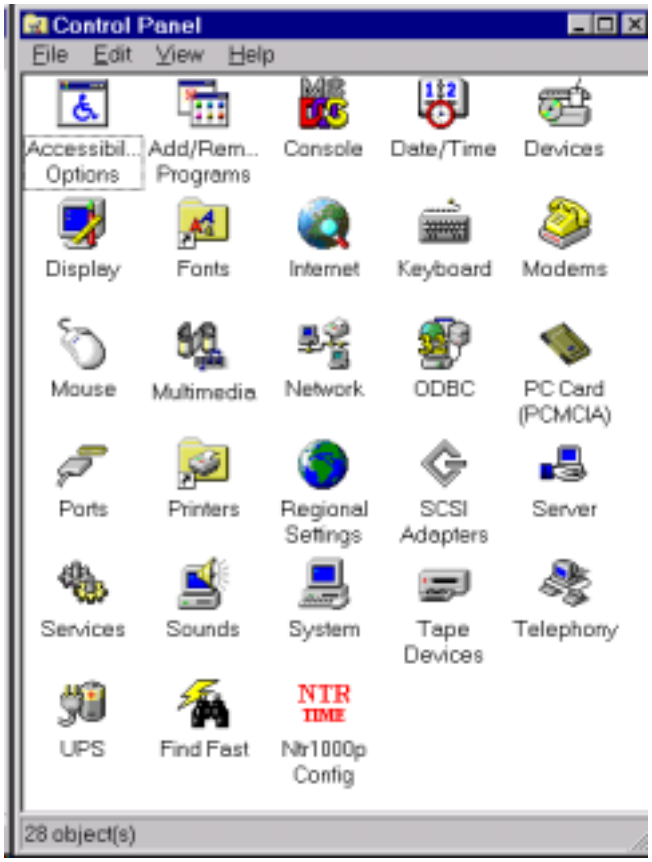
Under Windows NT 3.51:

- From the Program Manager, run the Control Panel from the Main group.

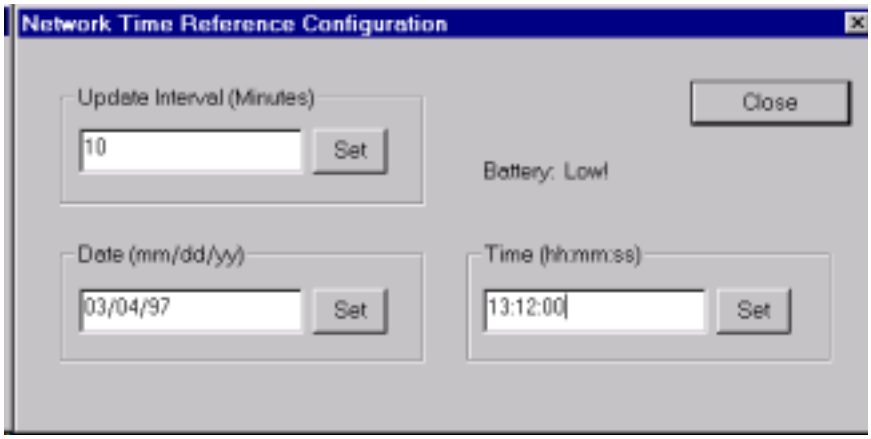
From Windows NT 4.0

- From the Start Menu, select Settings->Control Panel.

Below is an example of what the control panel will look like. Under NT 3.51, the control panel looks slightly different:



Double-click on the NTR config applet. The NTR1000-P Config dialog looks like this:



To set the update interval, enter a new value (in minutes) into the Update Interval edit box, and press the Set button.

To set the date, enter the date (mm/dd/yy) into the Date edit box, and press the Set button.

To set the time, enter the time (hh:mm:ss, or hh:mm) in 24 hour format into the Time edit box, and press the Set button.

Installation in a Novell Server

A driver is included that will allow the NTR1000-P to be used in a Novell environment to provide accurate time in the server. As a client logs on, the client PC is updated with the correct time. This driver is compatible with Netware versions 3.12 and 4.01 to 4.10

The necessary file is titled **NTR.NLM**. This file must be copied to the server's **SYS:SYSTEM** directory from another workstation. When the server has been started, at the server prompt, enter the following command:

```
Load ntr.nlm port=xxxx /d:mm/dd/yy /t:hh:mm:ss /u:mm / h:hhh
```

xxxx	NTR1000-P base port address
mm	month (1-12)
dd	day (1-31)
yy	year (95 is 1995, 79 is 2079)
hh	hours (0-23)
mm	minutes (0-59)
ss	seconds (0-59)
u:mm	update minutes (1-59)
h:hhh	update hours (1-999)

Note: The /u and /h options may be specified together, and the total time of both becomes the update period.

The load statement can also be included in the AUTOEXEC.NCF file. If you decide to unload the driver, you must first modify the AUTOEXEC.NCF file (if the load statement is included) and then reboot the system.

Once the time and date have been specified, when the NLM is loaded, it is not necessary to specify them again, as they will be retrieved from the clock card.

It is not recommended that the update time be set at less than 10 minutes. The NetWare console gets a message everytime the server time is changed.

Error Messages

The following messages may be displayed on the server console screen if an error should occur:

```
NTR1000P: Card not responding at selected port address
NTR1000P: Card functions disabled
```

This message is displayed when the card stops responding after the driver has been operating successfully with the card.

```
NTR1000P:  Oscillator  Failure  -  check  date  and  time!
NTR1000P:  Card  functions  disabled
```

This message is displayed when the card stops responding after the driver has been operating successfully with the card.

```
NTR1000P: Warning - Battery is Low!
```

This message is displayed when the card's battery level becomes low after the driver has been operating successfully with the card.

```
NTR1000P: Resource Tag allocation failure!
Module initialization failed.
Module NTR.NLM NOT loaded
```

The server does not have enough memory to function properly.

```
NTR1000P: CLIB version too old!
Module initialization failed.
Module NTR.NLM NOT loaded
```

The version of CLIB.NLM loaded on the server is not recent enough. Obtain a current version from Novell and copy it to the SYS:SYSTEM directory. The server must be shut down in order to load the newer version of CLIB.

```
NTR1000P: Port usage conflict!
Module initialization failed.
Module NTR.NLM
```

The operator has designated a port address which is already in use in the server.

```
NTR1000P: Card not responding at selected port address!
Module initialization failed.
Module NTR.NLM NOT loaded
```

The server did not "see " the card at the specified address.

```
NTR1000P: Oscillator Failure - check date and time!
NTR1000P: Battery is Low!
Module initialization failed
Module NTR:NLM NOT loaded
```

The driver was not loaded because the battery level is already indicated as being low.

```
NTR1000P:Invalid  command  line  options/syntax!
syntax:  load  ntr.nlm  port=xxx  /d:mm/dd/yy  /t:hh:mm:ss  /u:mm  /h:hhh
   where:/d=date,/t=time(24-hr),/u=update  minutes,  /h-update  hours
         if  port  is  omitted,  operator  will  be  prompted
         if  /d  or  /t  is  omitted,  values  come  from  card
         if  /u  and  /h  omitted,  default  is  10  minutes
   Module  initialization  failed.
   Module  NTR.NLM  NOT  loaded
```

The operator did not follow the syntax as indicated above. Please note that once the correct date and time is established in the NTR1000-P card, it is only necessary to enter one of the following:

`load ntr`	prompts for port, uses default update every 10 minutes, takes existing time and date from card.
`load ntr port=340`	uses default update, every 10 minutes, takes existing time and date from card
`load ntr port=340 /u:20`	specified update every 20 minutes, takes existing time and date from card
`load ntr port=340 /h:1`	specified update every hour, takes existing time and date from card

Declaration of Conformity

Information Technology Equipment

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San Diego, CA 92121-4371
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The product(s) covered by this declaration:

NTR1000-P, NTR2000-P, and NTR2100-P

The European Union directives covered by this declaration:

EMC Directive 89/336/EEC and Low Voltage Directive 73/23/EEC

The basis on which conformity is declared:

EN 50081-1:1992 Emissions, Generic Requirements
-EN 55022 Limits and Methods of Measurement of Radio Disturbance Characteristics of Information Technology Equipment

EN 50082-1:1992 Immunity, Generic Requirements
-EN61000-4-2:1995 Electrostatic Discharge (ESD) Immunity
-EN61000-4-3:1995 Radiated RF Field Immunity
-EN61000-4-4:1995 EFT Immunity for AC and I/O Lines

EN 60950:1992 Safety of Information Technology Equipment

The technical documentation required to demonstrate this product meets the requirements of the EMC Directive and the Low Voltage Directive has been compiled by ICS Advent and is available for inspection by the relevant enforcement authorities. The CE mark was first applied in 2000.

Attention

The attention of the specifier, purchaser, installer, or user is drawn to special measures and limitations for use which must be observed when the product is taken into service to maintain compliance with the above directives. Details of these special measures and limitations are in the product manual.

Mr. Jim Jameson
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