

ELTEC

NTC-2000

USER MANUAL

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NTC-2000 FEATURES

The NTC 2000 is a state of the art 2-way paging programmable time clock. The NTC 2000 offers the user many capabilities and features that are not found in other devices.

These capabilities and features include:

- When used with Eltec's DLPRO 2000 Software the TC 2000 has the ability to both receive instructions from and send email messages to the end user via an approved paging service
- The NTC 2000 is configured for either AC or DC power source – The user simply attaches the desired power to the appropriate pins
- The NTC 2000 provides 2 independently programmable 16A 28VDC OR 120 VAC relays
- The NTC 2000 receives the entire annual program with all exceptions with one page from the end user
- The NTC 2000 stores the received programs in non-volatile memory so that on a power loss the stored program is retained
- The NTC 2000 can store 90 program steps and/or exceptions
- The NTC 2000 can store and utilize 36 exception periods - start and end date(s) are designated to run an exception program schedule
- The NTC 2000 can store and run on schedule an Alternate Program of up to 36 steps
- The NTC 2000 can store and run an Immediate Program of up to 36 steps
- The end user can program the relay to 'turn off' for a period of 1-255 seconds (Momentary Operation) – But once the momentary operation is set, the relay will always turn off after the momentary period elapses
- The NTC 2000 has a 7-day capacitive backup up – time and date are maintained during this 7 day power loss. The NTC 2000 also will reset its time from the pager service once power is restored
- The NTC 2000 compensates for both Daylight Savings Time and Leap Year. The Daylight Savings Time feature may be disabled or changed by the end user
- The NTC 2000 has a 2 line X 16 character alpha numeric lighted liquid crystal display - display light goes out after 2 minutes of inaction for power conservation
- The NTC 2000 updates time every 5 minutes when connected to paging service

TECHNICAL SUPPORT

Technical support may be obtained by calling Electrotechnics Corporation (Eltec) at 800-227-1734.

HOW TO USE THIS MANUAL

This manual uses the command number in sequence. A second index is provided which allows the user to search for the appropriate command by text. This index follows the command index.

Each command is discussed under its own listing. To find the instructions for entering a specific command refer to the table of contents for the page number. The command is initiated by pressing the keys in the order they are shown in the "Entry Sequence".

The end result of a command is described in each section under "Result". A "Remarks" section may be included and provides amplifying information concerning each command. An example is provided for each command. In the example you will find the keypad entries and the expected response from the entry as shown on the display.

If you have problems call our Technical Support at 1-800-227-1734. Any questions and/or comments welcome.

NTC 2000 GENERAL DESCRIPTION AND THEORY OF OPERATION

The NTC 2000 utilizes the latest in solid state technology. It is designed to operate relay outputs on a specified schedule. It is a 365 day multi - year programmable Time Switch. The NTC 2000 maintains time and date during power outages for up to 7 days with its rechargeable capacitive backup system. Due to its non-volatile memory, program information will be kept during power off conditions for the life of the clock. Further once the NTC 2000 is installed and active with a pager service the time and date will be updated by the pager service. It may take up to 10 minutes for the time to stabilize and correct itself.

The NTC 2000 excels in applications where multiple daily operations are required. The NTC 2000 may have up to 90 program steps and/or exceptions. A step contains information that instructs the NTC 2000 to activate or deactivate a relay(s) at a specific time and date. Each step consists of a TIME, ANY COMBINATION OF DAYS OF THE WEEK, RELAY ACTION and a PROGRAM NUMBER. A group of steps make up a Program. This program is called the default program. **THE DEFAULT PROGRAM IS ALWAYS 00.**

Normally the end user will program the NTC 2000 via the pager service. However, the end user may also program the NTC 2000 manually using the key pad on the front of the time clock. The display of the NTC 2000 provides a key word for each entry during the programming process. This key word will guide the user through each command. Once the required information is entered, the display advances to the next required entry, or returns to scrolling of DST TIME, DAY/DATE, RELAY STATUS, and PROGRAM # if all required information for that command has been entered. The Display Assisted Programming makes programming the NTC 2000 quick and easy. The NTC 2000 allows for "type-over" during the entry process for error correction. Steps do not have to be entered in order. The NTC 2000 searches its memory constantly and executes any step programmed for that time. Each step can be reviewed and/or edited without disturbing the operation of the clock.

Each relay of the NTC-2000 can be set for a pulsed output of up to 255 seconds. This "pulsed" output is called a Momentary. Once a relay has been assigned for momentary operation, the relay is turned ON by a program step and automatically turned OFF at the end of the momentary time; therefore no OFF step is required.

Exception Periods are provided for any period of time that requires a schedule other than the schedule assigned to program 00. During an Exception Period program 00 will be suspended and an Exception Program will take over. The user may enter up to 36 Exception Periods that are useful for scheduling holidays, summer school, early outs, special events, and summer vacation, etc.

An Exception Program is any program schedule which is different from the one assigned to program 00, program 37, or program 38. It can be a truncated version of the schedule in program 00 or it can be altogether different

POWER

The NTC-2000 uses 2 SPDT (Form C) relays rated at 16A 120 VAC or 16A 28 VDC. If a larger load requirement exists, use of interposing relays is recommended.

Note: Relay contacts are "DRY". User must supply power to be switched to the relay contacts. All relays are de-energized during power outages.

The NTC-2000 comes with a CPC connector installed along with an 8 wire 18" cable. The NTC-2000 uses either 115VAC or 12V AC/DC unit as determined by the wiring selected by the user.

The NTC 2000 comes with a CPC connector installed along with an 8 wire 18" cable. The connections are:

CPC PIN	WIRE COLOR	DESCRIPTION
1	Black	Line
2	White	Neutral
3	Green	Chassis Ground
4	Red	Relay 1 Common
5	Yellow	Relay 1 Normally Closed
6	White/Brown	Relay 2 Common
7	White/Violet	Relay 2 Normally Open
8	Not Installed	
9	Brown	12V DC Common
10	White/Yellow	Relay 1 Normally Open
11	Not Installed	
12	Not Installed	
13	Not Installed	
14	Orange	+ 12VDC
15	Not Installed	
16	Violet	Relay 2 Normally Closed

KEYPAD DESCRIPTION

The NTC 2000 utilizes a 16 key telephone style keypad. The NTC-2000's Display Assisted Programming will guide you through the programming process by use of the [A] key along with a set of numbers. The information on front of the NTC 2000 helps to remind you of the entry sequence required to initiate a command.

The [A] key is the 'ATTENTION' key. It is used to alert the NTC 2000 that you are about to "Call" a command. When a command is entered, the NTC 2000 display will assist the user in responding by providing a key word for each required entry. The user needs only to key in the required data and press B. The NTC 2000 display will advance to the next required entry, or return to TIME, DAY/DATE, RELAY STATUS display if all required information for that command has been entered. The C key clears the entry without saving it to memory.

Below is a list of the keys and their functions.

Number legend for days of the Week.

- 1 = Sun
- 2 = Mon
- 3 = Tue
- 4 = Wed
- 5 = Thu
- 6 = Fri
- 7 = Sat
- 8 = Every day of week
- 9 = Week days
- 0 = Weekend days

ELTEC NTC17E4AC
4 RELAYS 120V AC

1	2	3	A
4	5	6	B
7	8	9	C
*	0	#	D

KEY FUNCTION

REMARKS

- [A] ATTENTION Used to "Call" commands. [A] is used in conjunction with another key or set of keys. [A] will "call" a command and cue the user for specific information to be entered in a required sequence.
- [B] ENTER Used to store information in memory. Pressing the [B] key causes the NTC 2000 to store the information displayed.
- [C] CANCEL Used to exit the command without saving it to memory. Pressing the [C] key allows the user to escape the command without saving it. The display returns to scrolling.
- [D] EXECUTE Used to execute the command when pressed as opposed to storing it. When the [D] key is pressed it will execute the command that was entered.

NTC 2000 SETUP

Before you use the NTC 2000 for the first time, you should enter the following commands to insure no previously entered data (from factory testing or otherwise) still remains in the NTC 2000 memory:

Enter [A] 90 to set the NTC 2000 up with the following parameters:

- Password OFF (0000)
- Relays set for maintained operation
- No Program Steps
- Time Mode = 12 hr format
- DST ON according to current DST law
- No Exception Periods

The user must use the keypad to enter the following information prior to installing the unit in the field. While this information can be installed in the field, Eltec recommends that it be done prior to field installation. This information includes **Group Number, Unit Number, and Time Zone.**

Enter [A] 51 XX [B] to enter the group number. XX represents the group number the end user assigns to the NTC 2000 time clock being programmed.

Enter [A] 52 YY [B] to enter the unit number. YY represents the unit number the end user assigns to the NTC 2000 time clock being programmed.

Enter [A] 53 ZZ [B] to enter the time zone. ZZ represents the time zone in which the NTC 2000 time clock will be used. The time zones and designations are:

ZZ	Time zone
05	Eastern Time Zone
06	Central Time Zone
07	Mountain Time Zone
08	Pacific Time Zone

Other time zone designations are incremented from the above information.

If the user is not in an area that does not utilize Daylight Savings Time (DST), the user will need to disable DST. The user accomplishes this by using the [A] 91 command.

NTC 2000 PROGRAMMING INSTRUCTIONS

Note: The NTC 2000 time clock will periodically check for page messages and/or perform time checks. If the user is in the middle of a command sequence when this happens the command information is lost. The effect is the same as if the user had entered a 'C' or cancel command at the keypad. Should this happen the user must restart the command sequence.

SET TIME [A] 11:

Entry Sequence: [A] 11, TIME, A or D, [B]

Example: Set system time to 8:00 AM

Steps: [A] 11 08 00 A [B]

Result: Display will return to scrolling. Time should read '08:00 AM'.

SET DATE [A] 21:

Entry Sequence: [A] 21, Date, [B]

Example: Set system date to April 30, 2004

Steps: [A] 04 30 04 [B]

Result: Display will return to scrolling. Date should read 'Thu 04/30/04'. The day of the week is filled in automatically.

MANUAL RELAY CONTROL [A] 31

Entry Sequence: [A] 31, relay number(s), [B]

Example: Turn relay 1 'ON'

Steps: [A] 31 1 [B]

Result: Relay 1 will be energized. Display will return to scrolling. Display will read 'Relays On = 1'.

Example: Turn relay 1 'OFF'

Steps: [A] 31 1 [B]

Result: Relay 1 will be de-energized. Display will return to scrolling. Display will read 'Relays On = '.

EDIT/REVIEW MOMENTARY [A] 37

Entry Sequence: [A] 37, 000 for maintained operation or 001 - 255 (seconds) for momentary output, [B]

Example: Set momentary operation for maintained operation.

Steps: [A] 37 000 [B] [B]

Result: Relay 1 will be set for maintained operations. Relay 1 will not de-energize until after it receives a command from the stored program or an [A] 31 command is received. The display returns to

scrolling.

Example: Set momentary operation for 5 seconds operation.

Steps: [A] 37 005 [B] [B]

Result: Relay 1 will be set to de-energize 5 seconds after being energized. The display returns to scrolling.

Example: Set relay 1 with momentary output of 10 seconds and relay 2 for 200 seconds.

Steps: [A] 37 010 [B] 200 [B]

Result: Relay 1 will be set to de-energize 10 seconds after being energized and relay 2 will be set to de-energize 200 sets after being energized. The display returns to scrolling.

ENTER /EDIT GROUP NUMBER [A] 51

Entry Sequence: [A] 51, group number, [B]

Example: Set the group number to Group 01.

Steps: [A] 51 01 [B]

Result: The TC 2000 time clock will be assigned to and identified as part of Group 1. The display returns to scrolling.

ENTER /EDIT UNIT NUMBER [A] 52

Entry Sequence: [A] 52, unit number, [B]

Example: Set the unit number to Unit 01.

Steps: [A] 52 01 [B]

Result: The TC 2000 time clock will be assigned to and identified as Unit 1. The display returns to scrolling.

ENTER/EDIT TIME ZONE [A] 53

Entry Sequence: [A] 53, time zone number, [B]

Example: Set the time zone to Eastern Time.

Steps: [A] 51 05 [B]

Result: The time zone will be set to Eastern Time. The next time the TC 2000 updates time, the time will reflect Eastern Time. The display will show Daylight Savings Time (DST) in DST is in effect and standard time if DST is not in effect. The display returns to scrolling.

Remarks: The numbers for US time zones are: Eastern Time - 05; Central Time – 06, Mountain Time – 07, Pacific Time – 08. The default time zone for the TC 2000 time clock is Central Time.

GET PAGER SERIAL NUMBER [A] 54

Entry Sequence: [A] 54, [B]

Example: Have the display show the pager transceiver serial number.

Steps: [A] 54 [B]

Result: The display shows the pager transceiver serial number.

Remarks: The end user will probably never require the pager transceiver serial number. After displaying the pager transceiver serial number, the display will return to scrolling.

GET STATUS [A] 55

Entry Sequence: [A] 55 [B]

Example: Have the display show the pager transceiver status.

Steps: [A] 55 [B]

Result: The display shows the pager transceiver status. The end user may refer to appendix A to obtain the meanings for all numbers/letters displayed. Transceiver status will appear for about 5 seconds and then the display returns to scrolling.

Remarks: Most pager status is displayed in the top line of the display. The normal status display is: '0 0 0 1 1'. This means that the transceiver is registered, on line, and registered with the pager network. When the first character is 'C', it means that the transceiver has sent an email to the pager service and is awaiting an acknowledgement from the pager service that it has delivered the email. If the last 2 characters of the display is not '1 1', then the pager is out of range of a tower and can not transmit a message to the pager service.

SEND MESSAGE [A] 56

Entry Sequence: [A] 56 [B]

Example: Force the TC 2000 time clock to transmit an email to the pager service.

Steps: [A] 56 [B]

Result: The display will show the message '*Sending email to the pager service*'. The display will return to scrolling.

Remarks: The scrolling display will be interrupted from time to time by messages regarding status of the pager service delivering the email message. The message '*Pager service has delivered the email*' when the process is complete. The message will only be shown in the display for about 5 seconds.

DELETE AN EXCEPTION PERIOD [A] 73

Entry Sequence: [A] 73, Exception Number, [D]

Example: Delete exception number 03.

Steps: [A] 73 03 [D]

Result: Exception 3 will be deleted. The display will return to scrolling.

DELETE ALL EXCEPTION PERIODS [A] 75

Entry Sequence: [A] 75, D

Example: Delete all exceptions in memory.

Steps: [A] 75 [D]

Result: All exceptions will be deleted from memory. The display will return to scrolling.

ENTER EXCEPTION PERIOD [A] 76

Entry Sequence: [A] 76 PGM number [B] Date [B] Date [B]

Example: Program an exception period to run program 01 (holiday/no school) on Sep 6, 2004.

Steps: [A] 76 01 [B] 09 06 04 [B] 09 06 04 [B]

Result: A program exception has been entered in memory to run program 01 on Sep 6, 2004. The NTC 2000 time clock will run program 1 only on Sep 6, 2004. The display will return to scrolling.

Remarks: An exception program is exactly what the name defines, an exception to the default program (program 00). If the NTC 2000 identifies an exception period and program number, it runs that program (in our example program 01) rather than the default program (program 00). An exception program can be any number except 00. An exception program can have 1 step as in a no school program or have multiple steps as in an early dismissal program. Exception programs can be defined for any number of reasons including no school, school holiday (same as no school), early dismissal, late start, sporting event, summer school schedule, et al.

Example: Program an exception period to run program 02 (early dismissal) on Nov 10, 11, and 12, 2004.

Steps: [A] 76 02 [B] 11 10 04 [B] 11 12 04 [B]

Result: A program exception has been entered in memory to run program 02 on Nov 10, 11, and 12, 2004. The NTC 2000 time clock will run program 2 on Nov 10, 2004 through and including Nov 12, 2004. The display will return to scrolling.

EDIT/REVIEW EXCEPTION PERIODS [A] 77

Entry Sequence: [A] 77 Exception Number [B] Program Number [B] Date [B] Date [B]

Example: Review exception periods for all exceptions.

Steps: [A] 77 01 [B] [B] [B]. The user enters [C] to exit the review process.

Result: The example allows the user to scroll through and review all exceptions in sequence. Once the exception number is entered along with [B], the exception number and program number is displayed. By entering [B], the start date for the exception will be displayed. Entering [B] again displays the end date for the exception will be displayed. Entering [B] one more time causes the message 'Saving Exception' to be displayed followed by the next exception number and program number. The user continues to follow this sequence until all exceptions have been reviewed. To

exit the review process the user enters [C] on the key pad. The display will return to scrolling.

Remarks: The user may review all exceptions, any exceptions in sequence that the user desires, or a specific exception. The user must always enter [C] on the key pad to exit the review process. To review a specific exception the user enters that exception number in the entry process rather than the '01' in the example. Exceptions are always entered as 2 digits.

Example: Edit exception 04. Exception 04 is programmed to run exception program 01 on Nov 24 and Nov 25, 2004 and the user desires to edit it so that it runs program 01 on Nov 25 and Nov 26, 2004.

Steps: [A] 77 04 [B] 11 25 04 [B] 11 26 04 [B]. The user enters [C] to exit the editing process.

Result: The start date for exception 04 has been changed to start on Nov 25, 2004 instead of Nov 24, 2004 and the end date has been changed to end on Nov 26, 2004 instead of Nov 25, 2004. After entering [B] again, the display will read 'Exception Saved' and 'Exception 05' and 'Program XX' where XX is the specified program number for exception 5. If the user only has 4 exceptions, then the display will read 'Exception Saved' and 'Exception 01' and 'Program XX' where XX is the specified program number for exception 1. The user enters [C] to exit the edit exception process. After entering [C], the display will return to scrolling.

Remarks: The user may edit all exceptions, any exceptions in sequence that the user desires, or a specific exception. The user must always enter [C] on the key pad to exit the edit process. To edit a specific exception the user enters that exception number in the entry process rather than the '01' in the example. Exceptions are always entered as 2 digits. Exceptions are entered by simply overtyping with the keypad. If, in any display, no data needs to be edited, simply enter [B] and the display moves to the next screen. Editing makes entering data for the next school year easier. Editing can be done at any time to reflect changes in exception period dates or to correct incorrect data.

DELETE A STEP [A] 83

Entry Sequence: [A] 83 Step Number [B]

Example: Delete step 003 from the program stored in memory of the NTC 2000.

Steps: [A] 83 003 [D]

Result: Step 3 is deleted from the program in memory. Step numbers remain the same as before the deletion. The display returns to scrolling.

Remarks: When a step number is deleted, it becomes available for reprogramming. If an invalid step number is chosen the display shows 'Step not defined'.

DELETE ALL STEPS [A] 85

Entry Sequence: [A] 85 D

Example: Delete all steps stored in memory.

Steps: [A] 85 [D]

Result: All steps are deleted from the memory of the TC 2000 time clock.

ENTER A STEP [A] 86

Entry Sequence: [A] 86 Program Number [B] Time and [A] or [D] [B] Relay Number for on or No Entry for Off [B] Day(s) of week [B]

Example: Enter a step into step 001 of the annual default program 00 to turn relay 1 on at 7:00 AM every weekday.

Steps: [A] 86 00 [B] 0700 [A] [B] 1 [B] 9 [B]

Result: The annual default program (program 00) now has step 1 defined. Step 1 will execute at 7:00 AM every day of the week and will turn relay 1 'ON' (energize relay 1). The NTC 2000 will display step 2, program 00 and wait for the next step to be entered. The display will stay in the 'Enter Step' mode until [C] is entered to cancel the next step.

Remarks: The user may continue entering steps until all desired steps have been entered. If a relay is to be turned 'OFF', the number of the relay is left blank so that the display reads '*Relays On =* '. When the last step has been entered the display will still show a new step number. The user simply enters [C] to cancel this step and to exit the 'Enter Step' mode. The user may refer to page XX for the number to enter for each day or multiple days of the week. The default program will run every day of the week unless an exception program overrides it.

Example: Enter a step into step 009 of the early dismissal program 02 to turn relay 1 off at 12:00 PM every weekday.

Steps: [A] 86 02 [B] 1200 [D] [B] [B] 9 [B]

Result: The early dismissal program (program 02 which is part of the annual program) now has step 9 defined. Step 9 will execute at 12:00 PM (Noon) every day of the week and will turn relay 1 'OFF' (de-energize relay 1). The NTC 2000 will display step 10, program 02 and wait for the next step to be entered. The display will stay in the 'Enter Step' mode until [C] is entered to cancel the next step.

Remarks: The programming example has defined program 02 as the early dismissal program. The user may or may not use program 02 for an early dismissal program but may select a program number of their choice as long as it is not used as part of any other program. The early dismissal program (Program 02) will not run unless it is schedule to run as an exception (refer to command A 76 for entering exceptions).

EDIT/REVIEW STEPS [A] 87

Entry Sequence: [A] 87 Step Number [B] Program Number [B] Time [A] or [D] [B] Relay Number for ON or No Entry for Off [B] Day(s) of week [B]

Example: Review steps periods for all steps in the program.

Steps: [A] 87 001 [B] [B] [B]. The user enters [C] to exit the review process.

Result: The example allows the user to scroll through and review all steps in sequence. Once the step number is entered along with [B], the step number and program number is displayed. By entering [B], the time for the step will be displayed. Entering [B] again displays the relay ON/OFF command. Entering [B] again displays the days of week that the step will execute. Entering [B] one more time causes the message '*Saving Step*' to be displayed followed by the next step number and program number. The user continues to follow this sequence until all steps have been reviewed. To

exit the review process the user enters [C] on the key pad. The display will return to scrolling.

Remarks: The user may review all steps, any steps in sequence that the user desires, or a specific step. The user must always enter [C] on the key pad to exit the review process. To review a specific step the user enters that step number in the entry process rather than the '001' in the example. Steps are always entered as 3 digits.

Example: Edit Step 04 to turn relay 1 off at 3:20 PM. Step 04 is programmed turn on relay 1 at 3:15 PM.

Steps: [A] 87 04 [B] 03 20 [D] [B] 1 [B] 9 [B]. The user enters [C] to exit the editing process.

Result: Step 04 has been changed to turn off relay 1 every day of the week (but not the weekend days) at 3:20 PM. Entering [B] after entering the days of the week, will cause the display to read 'Step Saved' and 'Step 005' and 'Program XX' where XX is the specified program number for the next step. If the user only has 4 steps, then the display will read 'Step Saved' and 'Step 001' and 'Program 00'. This result assumes that the first step in the user's program is step 1 of the default program, program 00. The user enters [C] to exit the edit exception process. After entering [C], the display will return to scrolling.

Remarks: The user may edit all steps, any step in sequence that the user desires, or a specific step. The user must always enter [C] on the key pad to exit the edit process. To edit a specific step the user enters that step number in the entry process rather than the '004' in the example. Steps are always entered as 3 digits. Steps are edited by simply overtyping with the keypad. If, in any display, no data needs to be edited, simply enter [B] and the display moves to the next screen. Editing makes entering data for the next school year easier. Editing can be done at any time to reflect changes in steps or to correct incorrect data.

RESET TO FACTORY SETTINGS [A] 90

Entry Sequence: [A] 90 [D]

Example: Reset the NTC 2000 time clock to factory default settings.

Steps: [A] 90 [D]

Result: Upon execution of command [A] 90, the NTC-2000 parameters are automatically set to the factory default settings. These settings are: 1) Password Off, 2) Time Mode set to 12 hour format, 3) All Relays set for maintained operation, 4) Daylight Savings Time (DST) ON (which means that DST will be in effect from the first Sunday in April to the last Sunday in October), 5) The group ID is set to 00 6) The unit ID is set to 00. Further [A] 90 erases all steps and exceptions in the memory of the NTC 2000. Additionally [A] 90 resets the time zone to Central Time (Time Zone 6), the email address to company@elteccorp.com, and the baud rate to 9600 baud.

Remarks: If the user is programming the NTC 2000 by the key pad rather than using DLPRO 2000 PC software and the pager service, he/she may want to reset the NTC 2000 to factory defaults to ensure the removal of any program residing in memory. All group and unit ID must be reentered into the NTC 2000 for it to be responsive to pages. The time zone must be reset to the correct time zone for the NTC 2000 to reflect the correct time.

DELETE/EDIT/REVIEW DST [A] 91

Entry Sequence: [A] 91 Start Week [B] Month [B] End Week [B] Month [B]

Example: Disable Daylight Savings Time (DST).

Steps: [A] 91 0 [B] [B] [B] [B]

Result: Daylight Savings Time (DST) will be disabled and the NTC 2000 will not change time when DST changes. Display returns to scrolling.

Example: Change Daylight Savings Time (DST) to start the first week of October rather than the last week of October.

Steps: [A] 91 [B] [B] 1 [B] [B]

Result: Daylight Savings Time (DST) will be set to begin on the first Sunday of the month of October.

DISPLAY ENCRYPTED PASSWORD [A] 92

Entry Sequence: [A] 92

Example: Display the encrypted password.

Steps: [A] 92

Result: The encrypted password will be displayed in the display as a four (4) digit number. Providing this number to Eltec allows us to decipher it and give you the password stored in the NTC 2000. The password will show for about 10 seconds then the display will return to scrolling.

Remarks: This process is only required if the user has entered a password into the NTC 2000. Most users do not use passwords. Eltec will need to validate that the user is an authorized representative of the end customer and is allowed to receive the password.

SET/EDIT PASSWORD [A] 93

Entry Sequence: [A] 93 XXXX [B] where XXXX is the 4 digit numeric password.

Example: Change the password from default (0000) to 4955.

Steps: [A] 93 4955 [B]

Result: The password will be changed to 4955. The user will have to enter the password to make any changes to the parameters stored in the NTC 2000.

Remarks: The new password will not take effect until power has been re-cycled or a restart (A) 98) has been conducted. Before the user can now change the password, the old password must be entered.

Example: Change the password from 4955 to default 0000.

Steps: [A] 93 4955 0000 [B]

Result: The password will be changed to the default value 0000.

SET TIME DISPLAY MODE [A] 94

Entry Sequence: [A] 94 [D]

Example: Change the time display mode from 12 hours to 24 hours or vice versa.

Steps: [A] 94 [D]

Result: The time display mode will be changed from 12 hour display (with AM and PM) to 24 hour or vice versa.

CLOCK RESET [A] 98

Entry Sequence: [A] 98 [D]

Example: Resets the clock to factory defaults but does not change any stored programs.

Steps: [A] 98 [D]

Result: The NTC 2000 time clock will reset time and date but does not change group number, unit number, or programs stored in the time clock.

Remarks: The only visible display change that the user will see is the date and time change. As soon as the time clock stabilizes the time and date will be updated from the pager service. The relays will all be off until a program or user action turns them on.

DISPLAY SOFTWARE VERSION [A] 99

Entry Sequence: [A] 99

Example: Displays the installed version of the NTC 2000 software.

Steps: [A] 99

Result: The NTC 2000 time clock will display the version of installed software. The display will return to scrolling.

*****FCC NOTICE*****

This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instruction manual, may cause interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to subpart J of part 15 of the FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference in which the user at his own expense will be required to correct the interference.

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*****LIMITED WARRANTY*****

Electrotechnics Corporation (ELTEC) warrants this device to be free of defects in material and workmanship for a period of 12 months from date of purchase by original purchaser or for a period of 15 months from date of manufacture, whichever comes first. Additionally, the capacitor device utilized in the NTC-2000 Time Switch for back-up power requirements is warranted for a total of five (5) years. ELTEC will repair or replace any unit returned prepaid to us within the qualifications above so long as there is no evidence that the unit has been misused, abused, damaged by input over-voltage, output overloads, lightning or water or altered in any manner without the expressed written permission of ELTEC. ELTEC disclaims any warranties expressed or implied, including warranties or merchantability and/or fitness for a particular purpose. In no event shall ELTEC be held liable for incidental or consequential damages. Warranty repairs will be handled during normal working hours and returned prepaid by surface transportation. Units requiring warranty service may be shipped prepaid to:

ELECTROTECHNICS CORPORATION
Customer Service Department
1310 Commerce St.
Marshall, TX 75672
Phone: 1-800-227-1734
FAX: 1-903-938-1977

Be sure to include the following information:

- 1) Description of problem
- 2) Model number and serial number
- 3) Return Address
- 4) Telephone number and name of contact person

APPENDIX A

FUNCTION A 55 WILL DISPLAY THE FOLLOWING SCREEN

a = transmit message flag 0 = Ready for new transmit message

C or D = Transmit in progress

8 or 9 = Transmit was successful

b = device busy status 0 = Not busy

1 = Busy

c = Out of range status 0 = in range (of pager system)

1 = Out of range

d = Transmitter status 0 = Off (transmission not allowed)

1 = On (transmission allowed on demand)

e = Registration status 0 = Not registered (with Pager system)

1 = Registered (with Pager system)

					a		b		c		d		e			
					↓		↓		↓		↓		↓			
S	T	A	T	=	0	0	0	0	1	1						
0	0	0	H	H	M	M	D	D	M	M	Y	Y				
↑		↑					↑									
f		g					(time of day and date)									

f = Number of messages currently residing in pager transceiver

g = Number of unread messages currently residing in pager transceiver