



***Tour* ||||| SCAN[®]**

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OPERATIONS MANUAL

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WARNING: 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 FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of the equipment in a residential area is likely to cause interference, in which case, the user, at his own expense, will be required to take whatever measures may be required to correct the interference.

1.0 INTRODUCTION

This manual provides operating instructions for the TourSCAN® watchman tour monitoring system. You will quickly see how easy it is to record your guard's rounds and print reports on an external printer. The system can be further enhanced with a computer and TourSCAN® Report Generator (contact your Lathem dealer for details). Lathem is confident that this system will increase efficiency and boost your profits. Thank you for your purchase.

1.1 Inventory

The TourSCAN® is shipped with the following components:

<u>Part No.</u>	<u>Description</u>	<u>Qty.</u>
TS1	TourSCAN® Scanner (Incl. Battery)	1 ea.
VIS-2385	Wrist Strap	1 ea.
VIS-0501	Station Labels	10 ea.
VIS-0500	Tour Site Label	1 ea.
VIS-3250	Command Sheet	1 ea.
VIS-0264	Incident Booklet and Guard Labels	2 ea.
VIS-0506	Adhesive Labels	60 ea.
LIM-0251	Case Access Key	1 ea.
SAE-0352	Serial Printer Cable	1 ea.
VIE-0090	Battery Charger	1 ea.

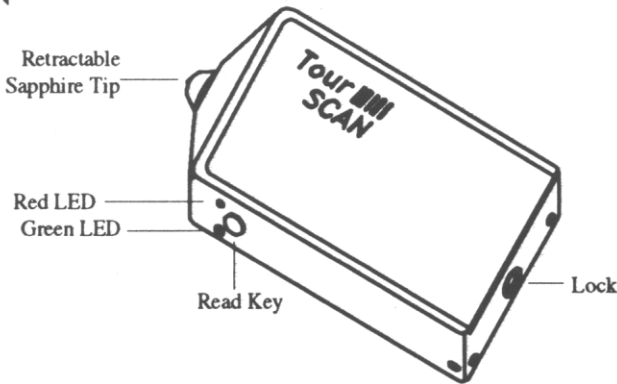
Optional accessories include:

VSI-0230	TourSCAN® Report Generator PC Software
200GX	Serial Printer
SAM-0540	Protective Station Housing
SAE-0353	Computer Cable (9-Pin Connector)
VIE-0490	9-Pin to 25-Pin Cable Adapter
VIE-0210	Rechargeable Battery

1.2 Specifications

Material	cast aluminum
Dimensions	1.3 x 2.6 x 5.2 in. (3.3 x 6.6 x 13.2 cm)
Weight	15 ounces (420 grams)
Scanning Tip	sealed, retractable sapphire tip
Optics	820nm wave length, high resolution, invisible light spectrum
Scanning Speed	5 to 50 ips
Resolution	(.0075) inch nominal narrow element width
Audio	multi-frequency signal tones
LEDs	red & green high intensity indicator LEDs
RS232 Serial Port	
Default Settings:	baud rate 9600 data bits 8 stop bits 1 parity none
Environment:	storage temperature -20° C to 43° C operating temperature 0° to 43°C rel. humidity 0 to 90% non-condensing
Power:	battery 7.2V 120mah rechargeable Ni-Cad charger type slow charger
Bar Code:	type Code 39 density 4 ½ to 5 characters/inch

Figure 1:
TourSCAN®



1.3 System Operations

The guard scans the guard label on the incident booklet to start his patrol duty, typically once per shift. The first station label is red and identifies the tour site location. This label is scanned at the start of each new tour. The station visits are recorded by scanning the black station labels. The guard makes note of unusual observations at each station by scanning first the station label then the appropriate labels in the incident booklet. When the next guard comes on duty, he scans his guard label and continues the tour. To obtain tour reports, the supervisor attaches the scanner unit to a printer and scans the "Tour Report" code on the Command Sheet.

Incident Booklet: Two incident booklets with guard identification labels are furnished with your system. Each guard should have a separate booklet. The booklet contains 50 incident barcodes (01-50). Write the incident descriptions (window open, door ajar, etc.) on labels and place them in the spaces provided next to the bar codes in the incident booklet. Attach a guard label to each booklet and make a record of the guard's name, identification number, and incident numbers for future reference. Extra guard labels (01-30) are available from your Lathem dealer.

Tour Site Label: One red tour site label is furnished with your system. Install one tour site label at each physical location, and record the label number to identify the location on reports. This red label is scanned when changing tours. Additional tour site labels (01-30) are available from your Lathem dealer.

Station Label: Ten black station labels are furnished with your system. Install these labels at each point the guard is to visit during his rounds. Optional protective housings for the labels are available. The protective housings and additional station labels (01-100) are available from your Lathem dealer.

2.0 BATTERY

The TourSCAN® is shipped with a discharged Nickel-Cadmium (Ni-Cad) battery installed. A battery charger is also supplied. A standard 9-volt alkaline (non-rechargeable) battery may be substituted for the rechargeable Ni-Cad battery for longer periods of operation. Be sure to charge the battery 8-10 hours before the first use.

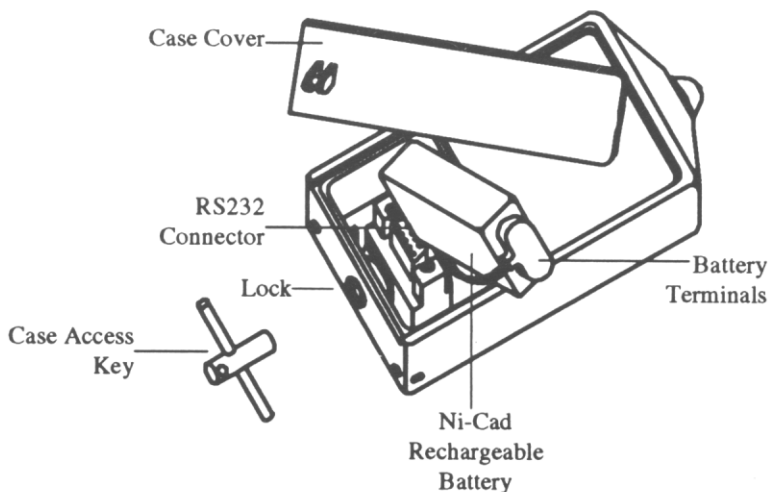
The battery is required to scan bar codes and to use RS232 communications. A fully charged Ni-Cad battery operates the scanner from 3 to 5 days depending on the number of bar code readings. To avoid unnecessary battery discharge, press the read key only when actually scanning labels, and always disconnect the cable from the scanner after communications.

2.1 Changing the Battery

Remove and recharge the battery as soon as the scanner indicates low battery. Low battery is indicated in two ways: when the read key is pressed, a low beep sounds and the red LED lights; and when printing, the print aborts with a series of beeps. To change the battery, use the case access key to unlock and remove the case cover. Disconnect the discharged battery from the terminals and reconnect a fully charged battery. Seat the battery into the reservoir, replace the case cover and relock the scanner.

Note: The unit retains memory and maintains timekeeping while the battery is removed.

Figure 2:
Battery/RS232 Compartment

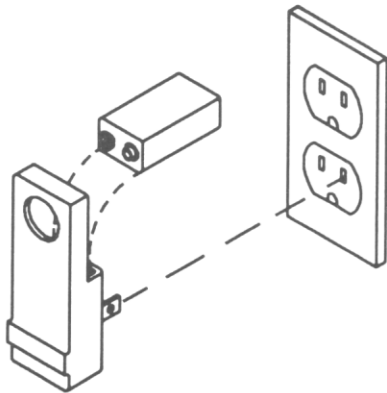


2.2 Using the Charger

Charging a fully depleted battery requires a maximum of 10 hours. You may prefer to have a second battery on hand to operate the TourSCAN® while the first battery is being charged. An internal lithium battery allows the scanner to keep time and retain the memory while the battery is not installed.

To charge a battery, simply insert it in the recharge unit and plug the unit into a wall receptacle.

Figure 3:
Battery Charger



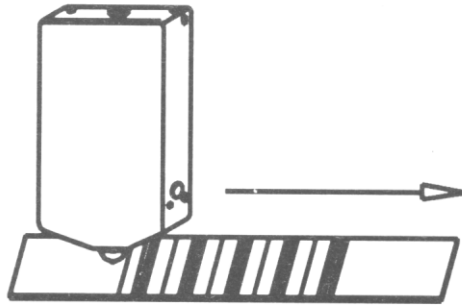
3.0 OPERATING THE SCANNER

The scanner will hold a maximum of 1500 four-character records. If longer bar codes are used, fewer records can be stored in the scanner. A charged battery is required to operate the scanner.

3.1 How to Scan a Bar Code

To scan a bar code, press and hold the read key, and with a constant sweeping motion, slide the scanner tip along the label from one end to the other (either direction). Do not hesitate in the middle of the scan. The best scan rates are obtained when holding the scanner at a slight angle. A good scan is indicated by two beeps and a momentary display of green light. Release the read key after a good scan is indicated.

**Figure 4:
Scanning A
Bar Code**



3.2 Audio/Visual Indicators

The TourSCAN[®] uses audible and visible means to indicate good scans, low battery, full memory, and improper bar codes.

- Good Scan: Double beep with a momentary green light.
- Low Battery: Pressing the read key - short beep with a red light.
While printing - aborted print with a series of double beeps.
- Memory 99% Full: Three double beeps and a flashing green light.
- Memory Full: Series of double beeps and a constant green light.
- Improper Bar Code Type: No beeps and no lights.
- Improper Bar Code Length: One long beep and a red light.

4.0 USING THE COMMAND SHEET - Initial Scanner Set-up

The Command Sheet is used by the supervisor to set time and date, scanner ID number, time format (12 or 24 hour) and baud rate. The supervisor also uses it to erase memory, print a status report and print a tour report.

Figure 5:
Command
Sheet

Latham Tour IIII SCAN
COMMAND SHEET

USE THESE CODES FOR INITIAL SET-UP OF SCANNER

Set Command Date	Set Command Time	Set Scanner ID	Set Print Format
Scan 0-9-00-00 (Date MM/DD/YYYY)	Scan 0-9-00-00 (Time HH:MM) Use 24 Hour Format	Scan 0-9-00-00 (Scanner ID) Factory 000	Scan 0-9-00-00 (Toggle on each side)
1	2	3	To activate a scanner, encipher the sequence and start over with one of the above commands.
4	5	6	
7	8	9	
		0	

USE THESE CODES TO SET BAUD RATE ON SCANNER TO MATCH PRINTER OR COMPUTER

300 BAUD	1200 BAUD	3000 BAUD	9600 BAUD

USE THESE CODES AFTER CONNECTING SCANNER TO PRINTER TO ACTIVATE REPORTS

Scanner Status Report	Tour Report

USE THIS CODE TO ERASE SCANNER MEMORY ONLY AFTER OBTAINING ALL REPORTS

Erase Memory

Part Number Y055000 DS
Printed in U.S.A.

4.1 Set Scanner ID

If you have more than one **Tour Scan[®]**, use the command sheet to assign each unit a different 3-digit identification number. The ID number appears in all report headers and is factory preset to 000. To change the scanner ID, press and hold the read key, then scan the "Set Scanner ID" code and the three numbers (0-9) for the ID. Include leading zeros. Release the read key after the last digit of the ID has been scanned.

Example: set the scanner ID number to 025

- Press and hold the read key.

- Scan the codes:

Set Scanner ID	0	2	5
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- Release read key.

4.2 Set Current Time and Date

Use the command sheet to set time and date. To set time, press and hold the read key, then scan the “Set Current Time” code and the four numbers in HH:MM 24 hour format) for the current time. The red light remains lit until the sequence is complete. Release the read key after the last number is scanned.

Example: set current time to 3:45PM

- Press and hold the read key.
- Scan the codes:
- Release read key.

Setting date is similar, except six numbers are required. Use the format MM/DD/YY (i.e., 010392 for January 3, 1992).

4.3 Set Print Format (12 or 24 Hour)

The TourSCAN[®] is factory set to print tour reports in 24 hour (0-23) format. If you prefer 12 hour (1-12AM/PM) format, scan the “Set Print Format” code on the command sheet. Each scan of this code toggles between 24 and 12 hour format.

4.4 Set Baud Rate to Match Printer (or PC)

The baud rate must be set the same for the TourSCAN[®] and the printer (or PC) to communicate. The default TourSCAN[®] setting is 9600 baud. To change the baud rate, scan the code on the command sheet for the desired setting. Choices are 300, 1200, 2400 and 9600 baud.

5.0 PRINT REPORTS AND ERASE MEMORY

An 80-column, serial printer (must support X-ON/X-OFF) is required to print reports. Make sure the scanner is connected to the printer and the printer is ready to print before using the print commands. The report will print immediately after scanning the print code. To avoid battery discharge, disconnect the communications cable from the TourSCAN® immediately after the reports complete printing.

5.1 Print Status Report

The Status Report is a list of current TourSCAN® settings (time, date, print format, scanner ID), number of records in memory, percent memory used, baud rate, and program version. To start the report, scan "Scanner Status Report" on the command sheet.

5.2 Print Tour Report

The Tour Report is a listing of all rounds made of each tour site. To start the report, scan the "Tour Report" code on the command sheet. You may print this report as many times as you wish.

5.3 Erase Memory

After all desired reports have been printed, erase the TourSCAN® memory to prepare for new records. To erase the memory, scan the "Erase Memory" code on the command sheet. The scanner will beep twice and flash the green light after the memory is erased. Release the read key. You may wish to print a status report to make certain that memory was erased.

6.0 PRINTER OR PC COMMUNICATION

A communications cable is supplied with the TourSCAN[®] for use with most serial printers. A computer cable is furnished separately with the optional TourSCAN[®] Report Generator PC software. To keep the battery from discharging, always disconnect the printer or PC cable from the scanner after communications are complete. Default communication protocol is RS232, 9600 baud, 8 data bits, 1 stop bit, no parity.

6.1 Printer Cable Connections

Unlock and remove the cover of the scanner. Connect the 9-pin connector to the socket inside the scanner (see Figure 2). Connect the 25-pin connector to your printer socket.

6.2 PC Software Instructions

Using the TourSCAN[®] with a computer allows you to generate a wider range of reports with more detail than the reports from the command sheet. Reports can include names for guards, tour sites, stations, and incidents. The software allows you to customize your reports by selecting which items you wish to include. Contact your Latham dealer for more information on the optional PC software.

7.0 INSTALLING TOUR SITE AND STATION LABELS

The Tour Site and Station labels are ½ x 3 ½ inches. These labels can be attached to any surface. Their small size allows you to mount the labels in inconspicuous locations such as on door jambs. For outdoor use, protective station housings (Figure 6) are recommended for the labels. The bar codes are hidden under a film mask for security purposes. Tour site labels are hidden by a red mask and station labels are hidden by a black mask.

Figure 6:
Protective
Station Housing



Install one tour site label at each physical location. Install one station label at each point the guard visits during his rounds. Record the label numbers for reference when reviewing reports.

8.0 PREPARATION / USE OF INCIDENT BOOKLETS

The TourSCAN[®] system includes two incident booklets and guard labels. To prepare each booklet, apply the guard barcode label to the front of the booklet. Write the guard's name on a write-on label and apply to guard label where indicated. Do not cover the barcode. Write the incidents (light on, door unlocked, etc.) on the labels provided and place them next to the bar codes in the booklet. Record the guard's name and number and the incident numbers for reference when reviewing reports.

Each guard carries his booklet when making rounds. When his patrol duty starts, he scans his guard label on the booklet, typically once per day. During his round, the guard uses his Incident booklet to record any unusual observations at the station

9.0 CARING FOR YOUR TourSCAN®

The TourSCAN® requires no maintenance. If it becomes necessary to clean the exterior of the scanner, use a slightly damp cloth to wipe the case and tip clean of any debris. Failure to clean the sapphire tip could result in a poor scan rate.

10.0 PRINTING YOUR OWN BAR CODE LABELS

One of the most important factors affecting successful bar code scans is the bar code label itself. To obtain the best scan rates, use high quality bar codes. Factors such as contrast, definition, ink color (reflectivity) and background determine the quality of the signal developed by the bars and spaces.

Preprinted bar code labels provide a higher quality resolution than those prepared on a personal computer. If you print your own labels, use a high density (400DPI) laser printer. Labels made with dot matrix printers have a poor scan rate and those made with thermal transfer printers deteriorate quickly. The bar code must be Code 39 and have a print density of 4 ½ to 5 characters per inch.

To provide more detail on Tour Scan reports, you can add a description field to the bar codes for Tour, Guard, and Incident labels. Use the format shown in Table 1 when printing your bar code labels. Positions 1 through 4 are required on every bar code.

**Table 1:
Bar Code
Format**

L A B E L - T Y P E	CHARACTER POSITION				
		1	2-4	5	Description Field
	Tour	T	001-999	/	27 chars. max
	Guard	G	001-999	/	15 chars. max
	Incident	I	001-999	/	27 chars. max
	Station	0001-9999		Not Applicable	

11.0 TERMS OF SIX MONTH WARRANTY

This Lathem product is warranted against defects in material and workmanship for a period of six months from date of original purchase. The conditions of this warranty and the extent of the responsibility of Lathem Time Corporation ("Lathem") under this warranty are as follows:

1. This warranty will become void when service, performed by anyone other than an approved Lathem warranty service dealer, results in damage.
2. This warranty does not apply to any product which has been subject to abuse, neglect, or accident, or which has had the serial number altered or removed, or which has been connected, installed, adjusted or repaired other than in accordance with instructions furnished by Lathem.
3. This warranty does not cover dealer labor cost for removing and reinstalling the machine for repair, or any expendable parts that are readily replaced due to normal use.
4. The sole responsibility for Lathem under this warranty shall be limited to repair of this product, or replacement thereof, at the sole discretion of Lathem.
5. If it becomes necessary to send the product or any defective part to Lathem or any authorized service dealer, the product must be shipped in its original carton or equivalent, fully insured, with shipping charges prepaid. Lathem will not assume responsibility for loss or damage incurred in shipping.
6. **WARRANTY DISCLAIMER: LIMITATION OF LIABILITY. EXCEPTION ONLY THE LIMITED EXPRESS WARRANTY SET FORTH ABOVE, THERE ARE NO WARRANTIES, EXPRESSED OR IMPLIED, REGARDING THIS PRODUCT. LATHEM SPECIFICALLY DISCLAIMS THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT WILL LATHEM BE LIABLE FOR ANY DIRECT, SPECIAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF OR IN CONNECTION WITH THE DELIVERY, USE OR INABILITY TO USE, OR PERFORMANCE OF THIS PRODUCT.**
7. Proof of date of purchase will be required for warranty service.
8. This warranty grants specific legal rights. Additional legal rights, which vary from state to state may also apply.
9. Should any difficulties arise with the performance of this product during warranty, or with any Lathem authorized service centers, contact:

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