



***HandPunch 3000-4000  
Operations and Users' Manual***

**Recognition Systems, Inc.  
1520 Dell Avenue  
Campbell, CA 95008  
Tel: 408-364-6960  
Fax: 408-370-3679  
Email: [sales@recogsys.com](mailto:sales@recogsys.com)**

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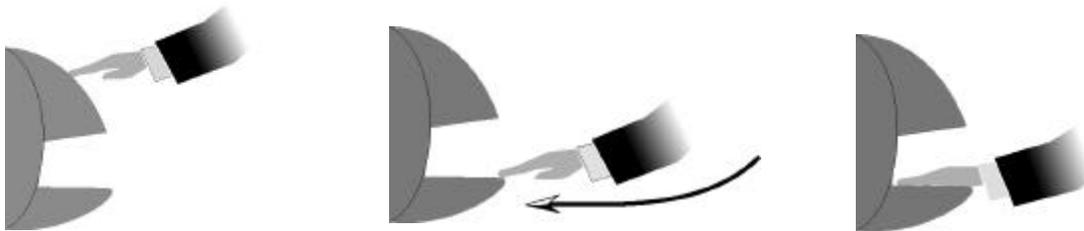
**HandPunch Technology**

HandPunch reads the size and the shape of the human hand to verify a person's identity. It does not read fingerprints or the palm. It takes over 90 measurements of the fingers and part of the hand. The hand reader uses light like the kind used in a television remote control, special optics and a CCD (chip) camera to capture a three-dimensional image of the hand. Using advanced microprocessor technology, the terminal converts the image to a template. It stores the template in database with the employee's ID number. To punch in, the employee enters his or her ID number at the terminal. HandPunch prompts the employee to place his or her hand. The terminal compares the hand on the platen with employee's unique template. If the images match, the terminal stores the punch information and uploads it to time and attendance software for processing.

It's easy to use:

ENTER ID

LAND YOUR HAND



## **Supervisor operations**

Supervisors use the command mode to add and remove users from the system, add and review user punches, and perform other system management and service operations. This section of the manual describes those commands that work group supervisors will use in daily HandPunch operations.

### **Command Mode Overview**

The Command Mode contains five different groups of commands. The supervisor must enter the group's password to enter the group.

## **COMMAND MODE STRUCTURE**

<b>SECURITY</b>	<b>ENROLLMENT</b>	<b>MANAGEMENT</b>	<b>SETUP</b>	<b>SERVICE</b>
<b>DEFAULT PASSWORD 5</b>	<b>DEFAULT PASSWORD 4</b>	<b>DEFAULT PASSWORD 3</b>	<b>DEFAULT PASSWORD 2</b>	<b>DEFAULT PASSWORD 1</b>
SPECIAL ENROLL	ADD EMPLOYEE	SUP OVERRIDE (REVIEW, ADD PUNCH, BULK OR DOLLARS)	SET LANGUAGE	CALIBRATE
	ADD SUPERVISOR	LIST EMPLOYEES	SET DATE FORMAT	STATUS DISPLAY
	REMOVE EMPLOYEE	SET USER DATA	SET TIME & DATE	
		RESTRICTIONS	SET ADDRESS	
			SET ID LENGTH	
			SET SERIAL	

### **Supervisory Functions:**

The following is an overview of the supervisory functions.

**Group 5, Special:** Supervisors with access to the SPECIAL menu can enroll persons with disabilities that prevent them from using the hand reader properly. Persons with special enrollment ID's can punch without biometric verification, therefore this function should only be used as a last resort.

**Group 4, Enrollment:** Supervisors with access to the ENROLLMENT menu can enroll and remove employees and other supervisors.

**Group 3, Management:** Supervisors with access to the MANAGEMENT menu can review punches, add bulk hours or dollars, or record a punch for the employee. They can view or print a list of the users enrolled in the hand reader terminal, set or remove time restrictions, assign user time zones or adjust the users' reject threshold (sensitivity). On HandPunch 4000, supervisors can set amnesty (temporary lifting of time restrictions).

**Group 2, Setup:** Supervisors with access to the SETUP menu can change the display language, date format, time and date, reader address, ID length and the serial communications baud rate. The time and date and ID length are normally set at the host computer, however, the supervisor can change these parameters at the reader when the setup is downloaded from the host computer.

**Group 1, Service:** Supervisors with access to the SERVICE menu can check and recalibrate the reader, check the input and output status.

### **Passwords**

Access to the Command Mode menus is controlled by passwords. Only the command choices for the specific group entered will be available for use. When the unit is shipped from the factory, the passwords are all set according to the table below. Once a system has been installed, these passwords should be changed at the host computer.

SPECIAL GROUP	5
ENROLLMENT GROUP	4
MANAGEMENT GROUP	3
SETUP GROUP	2
SERVICE GROUP	1

### **Entering and Exiting the Command Mode**

Press CLEAR and ENTER. The LCD will display ENTER PASSWORD. Enter the appropriate command group password followed by ENTER. If the password is correct, the display will present the command for the selected Group. If display returns to ENTER ID, someone is enrolled in the reader database. If you are the system administrator and you are denied access to the command group, it may be necessary to reset the user memory if the enrolled person cannot be located. See page 19 for how to reset the memory.

Once you enter the Command Mode, the display will show one command at a time in the top line. Shown in the second line will be the prompt.

**\* NO YES #**

Pressing the # (yes) key will select the displayed command. Prompts will then appear as appropriate for the selected command.

Pressing the \* (no) key will cause the next command in turn to be displayed. Repeatedly pressing the \* key will scroll through the menus and eventually bring the display back to the first displayed command.

When the \*NO YES# prompt is shown on the display, pressing any number will exit the Command Mode and return control to the Identity Verification Mode. The “**ENTER ID**” display will reappear. This manual uses the number “5.”

## Supervisor Enrollment

The first command you will use is ENROLLMENT. It is the process of recording your ID number with the description of your hand in the hand reader's memory. To enroll, you will:

1. Access the command mode using the keypad by pressing CLEAR and ENTER at the same time.
2. Go to the ENROLLMENT mode by pressing the enrollment password (4) and ENTER.
3. Enter your ID number and place your hand on the platen. The LCD and LED displays will guide you through the process. You will place your hand on the platen at least three times during enrollment.

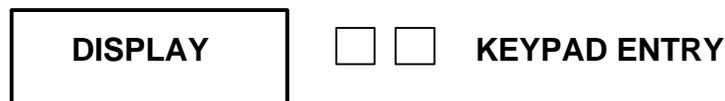


A correct enrollment makes using the hand reader easy and trouble free. Practice the following techniques before enrolling.

### CORRECT HAND PLACEMENT RULES

1. **Think of landing your hand on the reader like landing a airplane. Slide your hand forward on the platen surface, until the web post between the middle and index finger stops you. Keep your hand flat so that you feel the surface of the platen on the underside of your fingers.**
2. **Close your fingers together so that each finger touches a guide pin. The red finger pin lights go out when your fingers touch the guide pins. If a light stays on, just move that finger until it touches the guide pin.**
3. **If you wear a ring, be sure the stone is facing up in the normal position.**

The instructions in this manual show the LCD display message in the left column and the keypad entry in the right column.

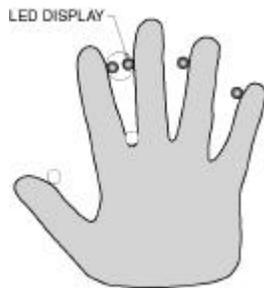


**First supervisor enrollment**

Example:

Enroll with ID number 123.

*During enrollment, the display will ask for at least three hand placements. To place the hand properly, rest the four fingers of the right hand on the front of the platen. Keeping the hand flat, slide it forward until the tall pin between the index and middle fingers stops further movement. Squeeze the fingers against the finger pins and watch the light display and hand diagram on the top panel. The lights go out when you have placed your fingers properly. If a light remains on, it a finger is not in contact with the its finger pin.*



*The first person enrolled is the only person who has access to the command menus until others are enrolled*

**Important!** After closing the enrollment menu, you must press CLEAR and ENTER, enter your ID number, place your hand and verify identity to enter the command mode.

ENTER ID (TIME) (DATE)	CLEAR + ENTER
ENTER PASSWORD	4 #
ADD EMPLOYEE *NO YES #	*
ADD SUPERVISOR * NO YES #	#
ENTER ID	1 2 3 #
PLACE HAND 1/3	
REMOVE HAND	
PLACE HAND 2/3	
REMOVE HAND	
PLACE HAND 3/3	
123 USER ENROLLED	
ADD SUPERVISOR * NO YES #	# add another 5 exit

You are now enrolled in the hand reader. You can enroll other supervisors during the first enrollment session or exit the menus. To re-enter the command mode, you must press CLEAR and ENTER at the same time, then enter your ID number and place your hand on the platen like you did during enrollment. When you successfully verify, the LCD display will show ENTER PASSWORD. Now you can enroll employees.

## **Employee enrollment**

Advanced planning and training make enrollment fast and easy. Users should know what to expect and how to place their hands before you enroll them.

### **Preparation**

- You can enroll one person or groups of people during an enrollment session.
- Each user must have a unique personal identification number (ID). It will save considerable time if you assign the ID numbers in advance.
- The hand reader will not accept two people with the same ID number.
- If you enroll people with the last four numbers of their phone or social security numbers, you may get duplications.

### **User education**

The hand reader is easy to use and non-threatening. However, most people have never used a biometric terminal. Training them about how it works and how to use it will eliminate most problems before they occur.

Inform users of these facts:

- It reads the shape of the hand, not fingerprints.
- It scans with light of the type used in TV remote controls.
- It does not transfer germs any more than a doorknob or money.
- It does not invade privacy; it guarantees it.

### **Enrollment training**

Train the enrollee to keep the hand flat and close fingers against the finger pins as you learned when you were enrolled. If you are enrolling large groups of people, use an enrollment trainer. It is a replica of the platen that is available through your Recognition Systems dealer.

Have the enrollee practice hand placement. The hand should not be cupped or “skewed” to the right or left. When you are satisfied that the enrollee knows how to place the hand, proceed with enrollment.

During enrollment, the "Place Hand" display is typically shown after three hand tries. If more placements are requested, one or more hand readings were not accepted and another hand reading is being requested to replace the rejected one. The hand reader may request up to 5 hand placements. The enrollment process can be terminated at any time by pressing the CLEAR key. If the display shows “SORRY, CANNOT ADD” during enrollment, the ID number you entered is already in use. Select another ID number or check your employee list and remove the ID number.

**Employee enrollment**

**Important!** To enter the command mode, you must press **CLEAR** and **ENTER**, at the same time, enter your ID and place your hand to enter the command mode. When the display shows **ENTER PASSWORD**, enter the enrollment password (4 is default) and #.

Example, Enroll user 321

Show the employee the hand placement techniques used in the **FIRST ENROLLMENT**.

The hand reader may ask for another hand placement.

If the LCD displays “**SORRY CAN'T ADD**”, another employee is likely enrolled with the same number. Also, check for improper hand placement or insufficient memory in the **LIST USERS** menu.

Press # to enroll another employee or 5 to exit menu

ENTER ID  
(TIME) (DATE)

ENTER PASSWORD

ADD EMPLOYEE  
\* NO YES #

ENTER ID

PLACE HAND  
1/3

REMOVE HAND

PLACE HAND  
2/3

REMOVE HAND

PLACE HAND  
3/3

321  
USER ENROLLED

ADD EMPLOYEE  
\* NO YES #

CLEAR + ENTER

ID 

4 #

#

3 2 1 #

# add another

\* next menu

5 to exit

This menu is SPECIAL ENROLLMENT. This is for use with employees with physical disabilities who cannot use the hand reader. Use this function only as a last resort. Employees with these ID numbers must still enter their ID and place a hand or prosthetic in the platen area.

***Special enrollment***

*ID numbers placed in the database from the SPECIAL ENROLLMENT menu will work with anyone's hand.*

*A user must place a hand or prosthetic in the reader to punch.*

Example: Enter ID 987 as a special enrollment.

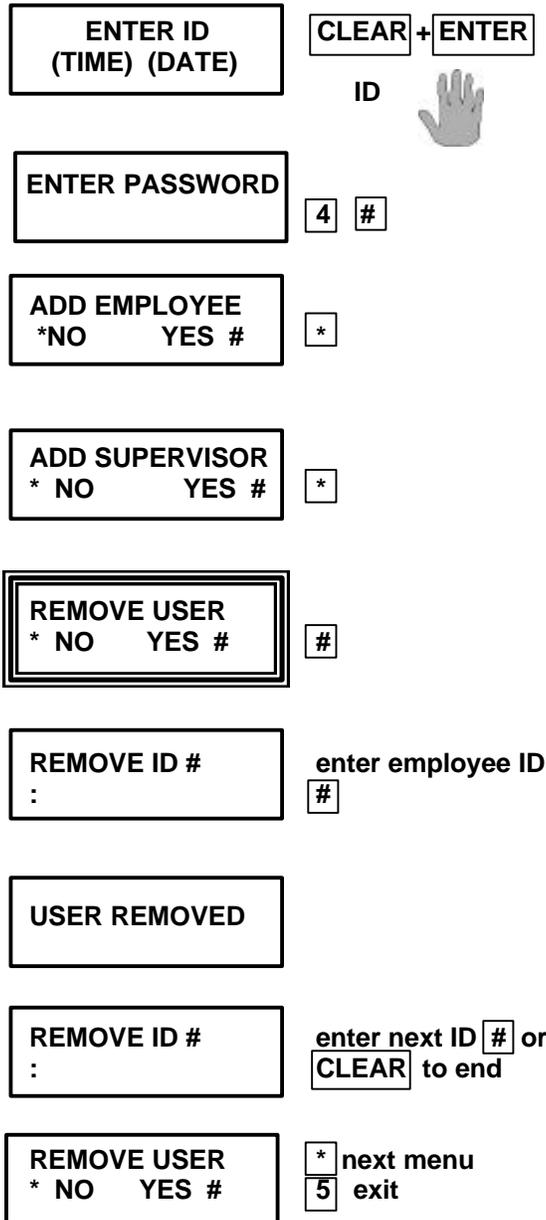
<b>ENTER ID (TIME) (DATE)</b>	<b>CLEAR + ENTER</b>
	ID 
<b>ENTER PASSWORD</b>	5 #
<b>SPECIAL ENROLL * NO YES #</b>	#
<b>ID#?</b>	9 8 7 #
<b>SPECIAL ENROLL * NO YES #</b>	# add next 5 exit

### Removing a user

This menu describes removing an employee's ID number and template from the hand reader memory. This function can be performed at the hand reader to immediately prevent an employee from punching. If the removal is to be permanent, the employee's ID number should also be removed at the host computer.

#### **Remove a user**

*With this menu, supervisors can remove a user at the reader. To permanently remove a user, he or she must be deleted from the host computer database.*



### **Using the hand reader**

Using the hand reader is easy. Enter your ID number in the keypad\* or an external card reader, if used. The LCD will display PLACE HAND and the LED lights on the top panel will go on. Land your hand on the platen like you did during enrollment. Keep it flat and close your fingers against the pins until the LED lights go out. When you successfully verify, the reader will beep once and display OKAY, SCORE IS \_\_. A score under 30 means you placed your hand correctly.



\* When ID numbers are of different lengths, it is necessary to press the ENTER key after the ID number.

### **Data Management Keys**

There are two function keys HandPunch 3000 and 10 function keys on HandPunch 4000 for data management. They are marked "F" with the function number. To use the data management function, press a function to start the data collection.

Typically, you will be asked to enter your ID number and place your hand right away. After you verify, follow the prompts on the display.

The function keys may prompt you to enter your ID number and hand place your hand after data collection. The \* key may be used as a backspace key during data entry. The # or ENTER key enters the data.

If the default value displayed during the data collection is correct, press the # or ENTER key to accept it.

### ***Display messages during verification:***

<b>ID VERIFIED</b>	You are verified, proceed.
<b>REMOVE HAND</b>	Remove your hand and place it again. Slide the hand and keep it flat.
<b>TRY AGAIN</b>	Your attempt was rejected. Repeat verification keeping your hand flat.
<b>ID REFUSED</b>	Your rejections exceeded the maximum number of tries. Wait until others have verified and try again or call your supervisor.
<b>ENTER ID</b>	You entered your number incorrectly or your access is time restricted.

If the display shows **\*\* TRY AGAIN \*\*** you not verified. You may have made an error entering your ID number or placing your hand. Re-enter your ID number and try again, taking care to place your hand properly. If you wear rings, be sure that the stone is facing up in the normal position.

If it displays **TIME RESTRICTION**, you are not authorized to punch in at the this time. If this seems in error, see your supervisor about time restrictions.

After a pre-programmed number of denied attempts, ID number will no longer be accepted, and the display will show:

**ID INVALID  
TEMPORARILY**

This is called a “lockout.” Before the rejected number can be used again, another employee or a supervisor must successfully verify at the reader.

If you enter an ID number, but do not place your hand on the platen, the unit will time out in about 25 seconds. You can reset the unit by pressing CLEAR.

The LCD display, the audible beeper, and verification lights on the top panel show data entry and acceptance information:

**Audible beeps and red/green light display**

<b>Operation</b>	<b>Beeps</b>	<b>Red light/Green light</b>	<b>Meaning</b>
During keypad entry	1/stroke	None	Keypad stroke accepted
After ID entry	None	None	OK, proceed
After ID entry	2	None	ID number not in database
After hand placement	1	Green	ID Verified
After hand placement	2	Red	ID not verified, try again
After hand placement	1 long	Red	ID refused

### **Management Group Commands**

The Management Group Commands are used for general employee management operations.

### **Supervisor Override**

Supervisor override operations allow the supervisor to review when any user punched, and to add punches of various types for any user.

### **Review User Records**

The display shows the time, date and code for the most recent punch for a specific user. The second line shows how to scroll through employee punches. Pressing the \* key will show a previous punch, pressing the # key will show the next more recent punch, and pressing the 0 key will show any additional data associated with the punch and also allow you to exit from the review function.

The time and attendance code shown at the end of the first line of the displays explicit punch information. The explicit punch codes are shown with the detailed programming information.

### **Add Punch**

This menu allows a supervisor to add a punch for an employee.

### **Add Bulk**

Choosing the Add Bulk option from the Supervisor Override Add Punch menu allows you to add or subtract bulk hours or dollars for an employee or other supervisor.

Amnesty

**Supervisor override, review punches**

*This menu allows supervisors to review employees' punches. The punch information includes the time, date and explicit punch information. Using the \* and # keys, the supervisor can scroll through the punch history.*

Example: Employee (whose ID you entered) punched in at 8:00 A.M. on January 25<sup>th</sup>, 1999.

T&A CODE	MEANING
1	In.
2	Back From Lunch.
3	Out.
4	Department Code
5	Back From Break.
6	Not Used.
7	Called Back To Work.
8	Supv. entered hours.
9	Supv. entered dollars.
15	Supv. entered catagory

ENTER ID (TIME) (DATE)	CLEAR + ENTER	ID
ENTER PASSWORD	3 #	
SUP OVERRIDE * NO YES #	#	
1-REVIEW 2-ADD #-END	1	
ENTER ID	enter employee ID #	
08:00 01/25/99 * - # + CLEAR=EXIT	*	previous
(TIME) (DATE) * - # + CLEAR= EXIT	#	next
(TIME) (DATE) * - # + CLEAR=EXIT	#	
NO MORE PUNCHES	CLEAR	
1-REVIEW 2-ADD #-END	#	
SUP. OVERRIDE * NO YES #	5	

<p><b>Supervisor override, add bulk hours or dollars</b></p>	<p>ENTER ID (TIME) (DATE)</p>	<p>CLEAR + ENTER</p>
<p><i>Supervisors can add or subtract hours or dollars to employees' punch records.</i></p>	<p>ENTER PASSWORD</p>	<p>ID </p>
<p>Example: Add 8 hours to employee 321's punch record effective March 15, 2001 at 4:15 P.M.</p>	<p>SUP OVERRIDE * NO YES #</p>	<p>3 # #</p>
<p>(select 2, ADD, 1 BULK)</p>	<p>1-REVIEW 2-ADD #-END</p>	<p>2</p>
<p>(enter effective time and date) 16:15 03-15-01 #</p>	<p>1-BULK HRS/DLRS 2-PUNCH #-END</p>	<p>1</p>
<p>(select 1, HOURS)</p>	<p>ENTER 24 HR TIME (TIME) (DATE)</p>	<p>repeat # to leave default or enter new time &amp; date #</p>
<p>(enter hours to add) 0800 #</p>	<p>ENTER CATEGORY</p>	<p>#</p>
<p>(add or subtract) # (to add)</p>	<p>1-HOURS 2-DOLLARS ?</p>	<p>select 1 or 2</p>
<p>(enter employee ID) 321 #</p>	<p>HOURS?: HH:MM ? 00:00</p>	<p>DOLLARS \$\$\$\$CC 0000.00</p>
	<p>enter bulk hours # or</p>	<p>enter bulk dollars #</p>
	<p>*- SUBTRACT + ADD-# (HOURS/\$)</p>	<p># or * to add or subtract hrs. or \$</p>
	<p>ENTER ID:</p>	<p>enter employee ID number #</p>
	<p>ENTER ANOTHER?</p>	<p># to add another * finished</p>
	<p>1-REVIEW 2-ADD #-END</p>	<p># to exit</p>
	<p>SUP OVERRIDE * NO YES #</p>	<p>* to next menu 5 to exit</p>

***Supervisor override, add punch***

*With this menu, supervisors can punch for employees at the present time, or enter a different time into the punch record.*

Example: Add a punch for employee 321 on January 15, 1999 at 5:30 P.M.

(select 2 to add a punch)

(enter the effective time and date of the punch )

17 50 01 15 99 #

(enter employee's ID number)

321 #

ENTER ID  
(TIME) (DATE)

CLEAR + ENTER



ENTER PASSWORD

3 #

SUP OVERRIDE  
\* NO YES #

#

1-REVIEW 2-ADD  
#-END

2

1-BULK HRS/DLRS  
2-PUNCH #-END

2

ENTER 24 HR TIME  
(TIME) (DATE)

repeat # for present time or enter new time

ENTER ID:

enter employee ID number #

ENTER ANOTHER ID?  
\* NO YES #

# to punch for another ID

\* to finish

1-REVIEW 2-ADD  
#-END

# to exit sub-menu

SUP OVERRIDE  
\* NO YES #

\* to next menu

5 to exit

## List User Information.

This menu allows you to display or print a users' ID number, individual reject threshold level, and time restrictions.

<p><i>List users</i></p> <p>The LIST USERS function allows you to view or print user information:</p> <p><b>ID number</b>  <b>Authority level</b> (0 and 5)</p> <p>There are two authority levels:</p> <p>0 = Employees                      5 = Supervisors</p> <p><b>User Reject threshold</b> (sensitivity)</p>	ENTER ID (TIME) (DATE)	CLEAR	+	ENTER	
	ENTER PASSWORD	3	#		ID 
	LIST USERS * NO YES #	#			
	USER SPACE XXX	#			
	(ID) (REJ) (AUTH) MORE (#Y/*N)?	#			to next ID
	DONE. PRESS KEY	#	*		to stop
	LIST USERS * NO YES #	#			repeat
		*		next menu	
		5		exit	

## Set user data

### Changing A Users Reject Threshold

The reject threshold determines the sensitivity of hand geometry comparison. If the threshold is too low, a person may find it difficult to achieve a successful hand read. If it is too high, system security may be compromised. If an individual is having a problem, their threshold can be set to a higher value (say 160) without compromising the security of the system.

Supervisors can change an employee's reject threshold by entering Command Mode Management Group (Level 3) and choosing the SET USER DATA option.

### Changing an employee's or supervisor's time zone.

Time Zones are used to limit the hours during which an employee may operate the HandPunch. If the employee attempts to clock in or out outside of the time permitted by the assigned Time Zone, the HandPunch display will show the message: TIME RESTRICTION.

**Set user data, user reject**

This menu allows the setting of the user's reject threshold (sensitivity). A higher value reduces the number of rejected verification attempts. A lower value reduces the possibility that one employee can punch for another. The default setting (100-125) is ideal for most applications.

This menu also allows supervisors to assign time zones (set in the host computer) to employees. When restrictions (also in the supervisor override menu) are set, employees can only punch within their assigned time zones.

Time zones are set at the host computer and given a number.

*Time zones:*

- 0 Always
- 1 Never

2 through 60 programmed at the host computer.

ENTER ID (TIME) (DATE)	CLEAR + ENTER
ENTER PASSWORD	ID 
SUP. OVERRIDE * NO YES #	<input type="text" value="3"/> #
LIST USERS * NO YES #	<input type="text" value="*"/>
SET USER DATA * NO YES #	<input type="text" value="*"/>
SET USER REJECT? * NO YES #	<input type="text" value="#"/>
ID#?	enter employee ID <input type="text" value="#"/>
REJ. AT (0)	<input type="text" value="#"/> to leave default 100 or enter new reject threshold <input type="text" value="#"/>
ID#	enter another ID or <input type="text" value="#"/> to next menu
SET USER TZ * NO YES #	<input type="text" value="*"/> to next menu <input type="text" value="#"/> to assign time zone to employee
ID#	enter employee ID <input type="text" value="#"/>
NEW TZ (0)	<input type="text" value="#"/> leave default 0 or enter TZ number <input type="text" value="#"/>
ID#	enter another ID or <input type="text" value="#"/> to exit sub-menu
SET USER REJECT? * NO YES #	<input type="text" value="5"/> to exit sub-menu
SET USER DATA * NO YES #	<input type="text" value="5"/> exit menu group <input type="text" value="*"/> next menu

**Amnesty (Model HP-4000 only)**

The AMNESTY function allows supervisors to remove employee time restrictions for a specific number of punches.

Employees can punch at any time for as many times as the supervisor specifies.

Example: Authorize employee number 321 to make three amnesty punches.

ENTER ID (TIME) (DATE)	CLEAR + ENTER
	ID
ENTER PASSWORD	3 #
SUP OVERRIDE * NO YES #	*
LIST USERS * NO YES #	*
SET USER DATA * NO YES #	#
SET USER REJECT? * NO YES #	*
SET USER TZ? * NO YES #	*
SET AMNESTY * NO YES #	#
ID#	enter employee ID number 3 2 1 #
Enter amnesty	enter number of amnesty punches 3 #
ID #	enter another ID or # to exit sub-menu
SET USER REJECT? * NO YES #	* to next sub-menu 5 to exit sub-menu
SET USER DATA * NO YES #	* to next menu 5 to exit menu group

**Turning All Time Restrictions On Or Off**

It may be necessary to turn all Time Restrictions on or off, such as early closure due to inclement weather.

**Restrictions**

*This menu allows supervisors to turn time restrictions for all users off or on. It is typically used when employees must punch outside their assigned time zone, such as early closure of the business.*

ENTER ID (TIME) (DATE)	CLEAR + ENTER
	ID 
ENTER PASSWORD	3 #
SUP. OVERRIDE * NO YES #	*
LIST USERS * NO YES #	*
SET USER DATA * NO YES #	*
RESTRICTIONS * NO YES #	#
RESTRCTN'S ON TURN OFF? (N/Y#)	RESTRCTN'S OFF TURN ON? (*N/Y#)
# to turn restrictions off # to turn restrictions on	
RESTRICTIONS * NO YES #	* to top menu
	5 to exit

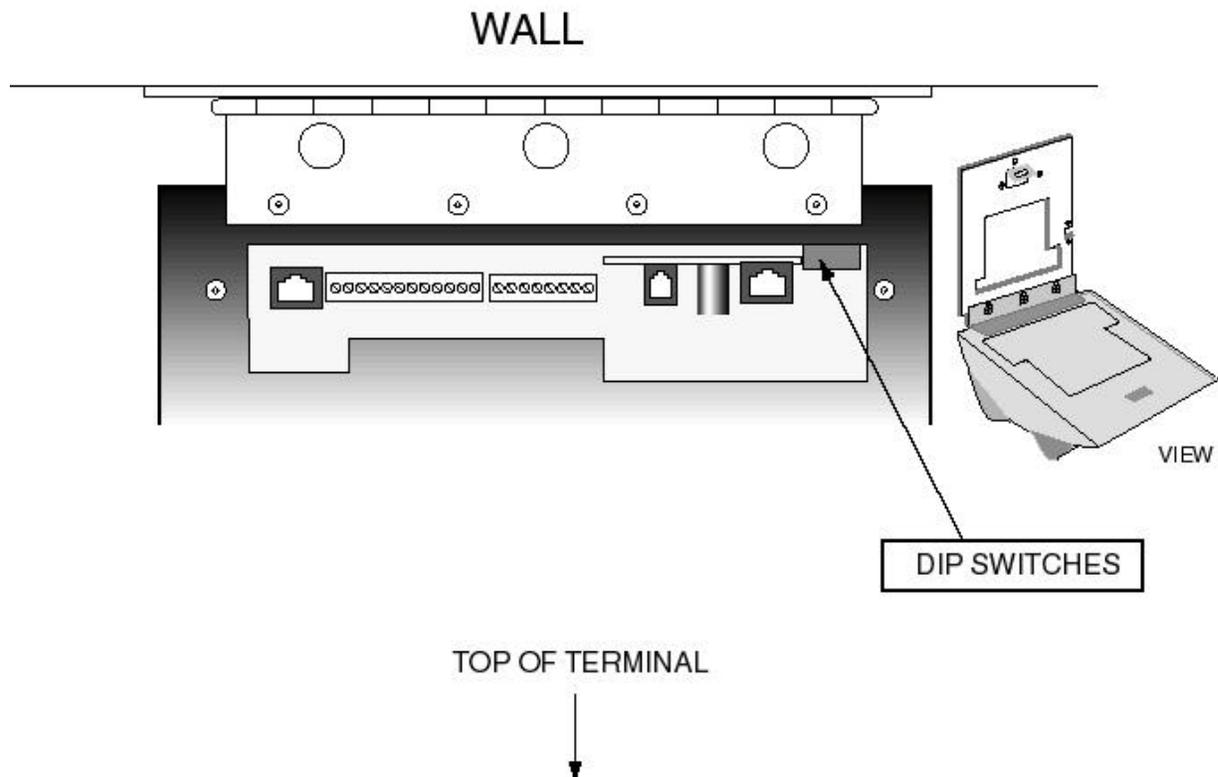
## Maintenance

To maintain optimum performance, inspect and clean the hand reader regularly. Clean the platen, side mirror and reflector, and the window above the platen using a cloth dampened with ordinary window cleaner. **DO NOT SPRAY CLEANING FLUID DIRECTLY INTO OR ON THE HAND READER.** Check users' scores (shown on the LCD display when they verify). Scores should average under 30. Occasionally a user will score above 30. This is not an indication of poor performance. If scores average over 30, clean the reader and check again. If scores remain high, or if users are experiencing frequent rejections, run the CALIBRATION mode.



## Memory reset

The memory-reset dip switches (4 and 5) are factory set in the "off" position. The reader maintains setup and user memory in the event of power failure. To reset the setup programs to factory default without erasing the user database, switch 4 on, remove and reapply power. To erase the user memory and reset the setup programs to factory default (total reset), set switches 4 and 5 on, remove and reapply power. **Important! set switches 4 and 5 to the "off" position after reapplying power and putting the terminal back in service.**



**Calibration**

This menu is a performance indicator. It checks the camera alignment and exposure values.

It also has a recalibration function that realigns the camera after you have serviced or cleaned the terminal.

It is not necessary to recalibrate the terminal as regular maintenance. However, If the reader frequently rejects authorized users, check the calibration values.

Thoroughly clean the platen, side mirror and window with window cleaner on a cloth.

Run RECAL to electronically recalibrate the hand reader.

Normal operating values

Row "r"        0 +/- 3  
 Column "c"    0 +/- 3  
 Exposure: 80 to 140

If the displayed values fall outside of these limits, the reader may be damaged and require factory service.

ENTER ID (TIME) (DATE)	<input type="button" value="CLEAR"/> + <input type="button" value="ENTER"/>
ID	
ENTER PASSWORD	<input type="button" value="1"/> <input type="button" value="#"/>
CALIBRATE * NO YES #	<input type="button" value="#"/>
r-0 c-1 e-100 RECAL(Y#/NO#)	<input type="button" value="*"/> if not required <input type="button" value="#"/> to recalibrate
PLEASE WAIT	
CALIBRATE * NO YES #	<input type="button" value="*"/> to status display <input type="button" value="5"/> to exit

**Set status display**

Setting the status display allows you to check the status of:

- The tamper switch
- The door monitor switch
- Auxiliary input(s)
- Request to exit switch

The score of the last person that used the hand reader

To turn off the status display, press # when the panel displays STATUS DISPLAY OFF.

See network status display chart below.

ENTER ID  
(TIME) (DATE)

CLEAR

+

ENTER

ID

ENTER PASSWORD

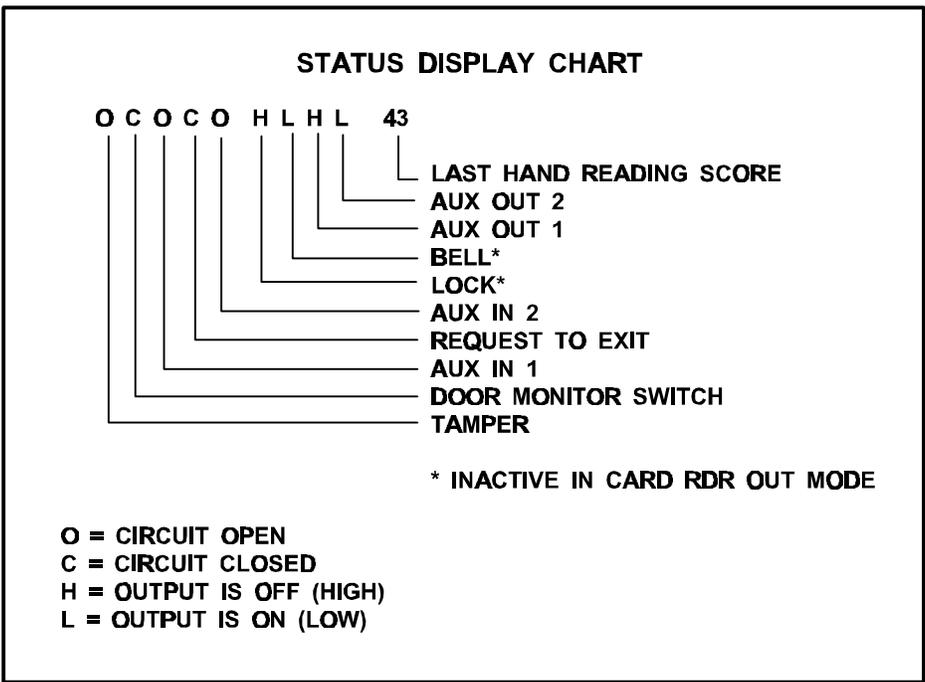
CALIBRATE  
\* NO YES #

STATUS DISPLAY  
\* NO YES #

STATUS DISPLAY  
ON \*NO/#Y ?:

STATUS DISPLAY  
\* NO YES #

ENTER ID  
C0000 LLLL ##



## **LIMITED WARRANTY**

Recognition Systems, Inc. (the "Company") warrants to the original user the products manufactured by the Company (the "Product") to be free of defects in material and workmanship for a period of one year from the date of purchase by such user or 15 months from the date of shipment from the factory, whichever is sooner, provided:

1. The Company has been notified within such period by return of any alleged defective product, free and clear of all liens and encumbrances, to the Company or its authorized dealer, transportation prepaid; and
2. The Product has not been abused, misused or improperly maintained and/or repaired during such period; and
3. Such defect has not been caused by ordinary wear and tear; and
4. Such defect is not the result of voltage surges/brownouts, lightning, water damage/flooding, fire, explosion, earthquakes, tornadoes, acts of aggression/war or similar phenomenon; and
5. Accessories used as integral to the Product have been approved by the Company.

The company shall, at its option, either repair or replace, free of charge, the Product found, upon the Company's inspection, to be so defective, or if agreed upon, refund the purchase price, less a reasonable allowance for depreciation, in exchange for the Product.

**THE COMPANY MAKES NO OTHER WARRANTY AND ALL IMPLIED WARRANTIES INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE LIMITED TO THE DURATION OF THE EXPRESSED WARRANTY PERIOD AS SET FORTH ABOVE.**

**THE COMPANY'S MAXIMUM LIABILITY THEREUNDER IS LIMITED TO THE PURCHASE PRICE OF THE PRODUCT, IN NO EVENT SHALL THE COMPANY BE LIABLE FOR ANY CONSEQUENTIAL, INDIRECT, INCIDENTAL OR SPECIAL DAMAGES OF ANY NATURE ARISING FROM THE SAME OR THE USE OF THE PRODUCT.**

Recognition Systems reserves the right to make changes in the design of any of its products without incurring any obligation to make the same change on units previously purchased.

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause

harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

This Class A digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la classe A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

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