

HandPunch 3000-4000 Operations and Users' Manual

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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.

| SECURITY DEFAULT PASSWORD 5 | ENROLLMENT DEFAULT PASSWORD 4 | MANAGEMENT DEFAULT PASSWORD 3 | SETUP DEFAULT PASSWORD 2 | SERVICE DEFAULT PASSWORD 1 |
|-----------------------------------|-------------------------------------|---|--------------------------------|----------------------------------|
| 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 | |

COMMAND MODE STRUCTURE

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.





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.



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.



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.



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:

| ID VERIFIED | You are verified, proceed. |
|--------------------|--|
| REMOVE HAND | Remove your hand and place it again. Slide the hand and keep it flat. |
| TRY AGAIN | Your attempt was rejected. Repeat verification keeping your hand flat. |
| ID REFUSED | Your rejections exceeded the maximum number of tries. Wait until |
| | others have verified and try again or call your supervisor. |
| ENTER ID | 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:

| Operation | Beeps | Red light/Green light | Meaning |
|----------------------|----------|-----------------------|----------------------------|
| 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 |

Audible beeps and red/green light display

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







List User Information.

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



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.





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.



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 the 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.









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 numerique de la classe A respecte toutes les exigences du Reglement sur le materiel brouilleur du Canada.

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