



## *HandPunch 2000*

### *Installation and Operations Manual*

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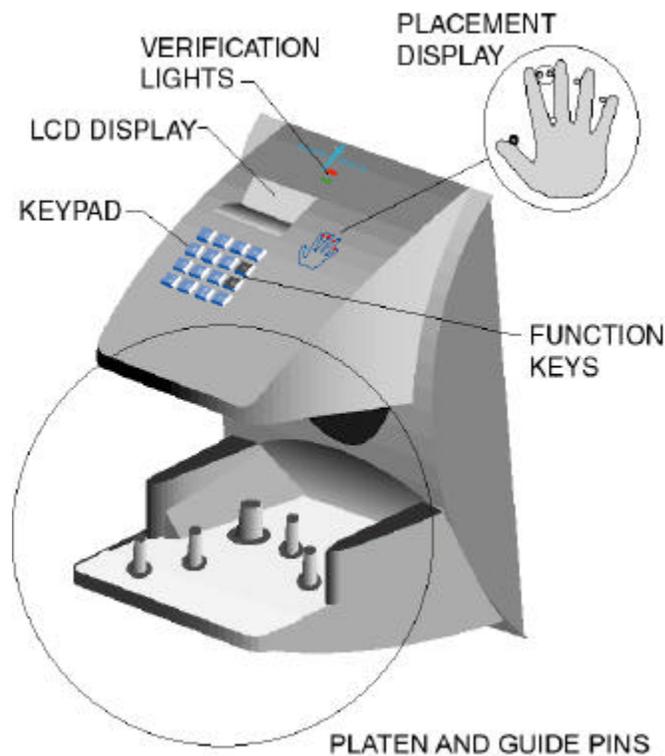
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### **HandPunch Technology**

The HandPunch uses the size and the shape of the human hand to verify a person's identity. It does not read fingerprints or the palm. The reader takes over 90 measurements of the fingers and part of the hand. The hand reader uses invisible 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 2000 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.

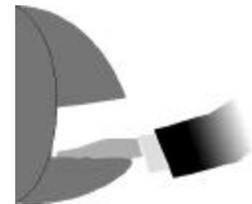


**Using the HandPunch 2000 is easy...**

**Enter your ID**



**Land your hand**



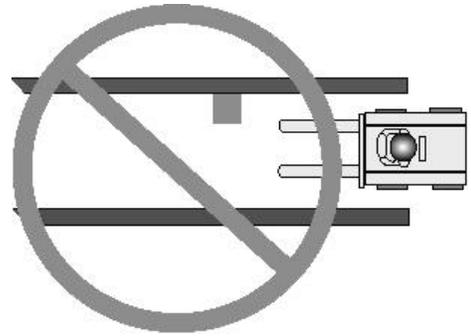
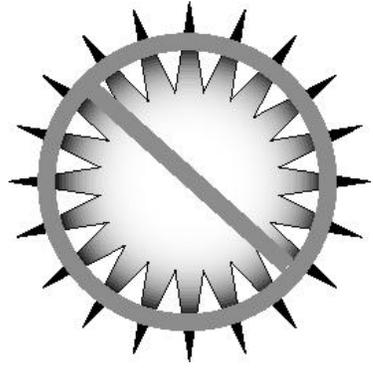
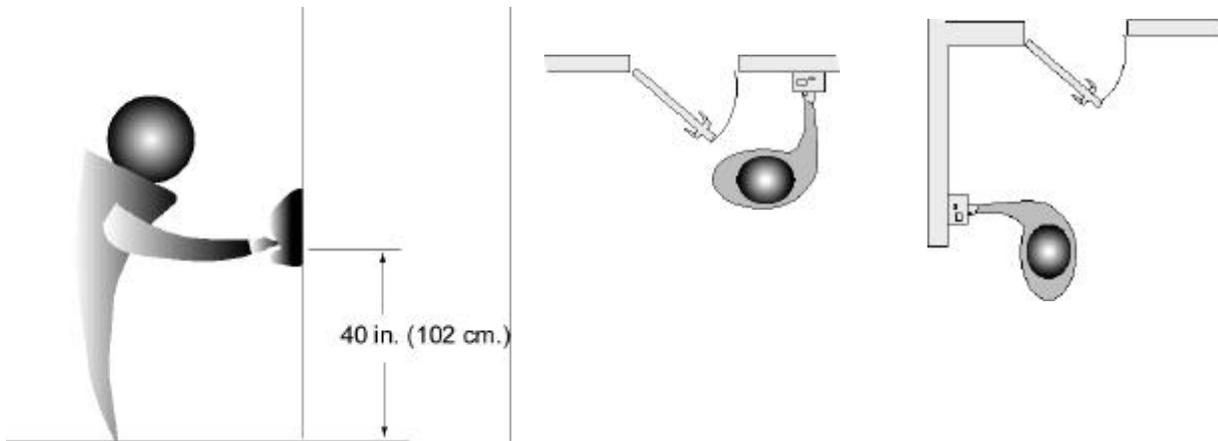
**Installation planning**

Use the following guidelines to help in installing your HandPunch.

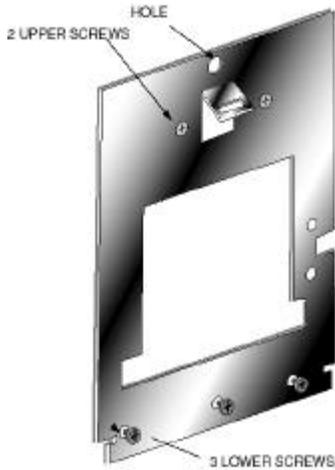
- Place the terminal where it does not interfere with pedestrian or vehicular traffic.
- The terminal platen (hand placement surface) should be 40 inches above the floor.
- The wire run between the terminal and computer must not exceed 50 feet (15 meters).
- The terminal must be within 5 feet (1.5 meters) of a 120VAC duplex outlet.
- An 8 foot (2.4 meter) cable is included with modem units. The telephone connection must be within 8 feet of the terminal to use this cable.

**Hand reader placement**

The reader should be in a convenient location where it is not exposed to water, chemicals, or direct sunlight.



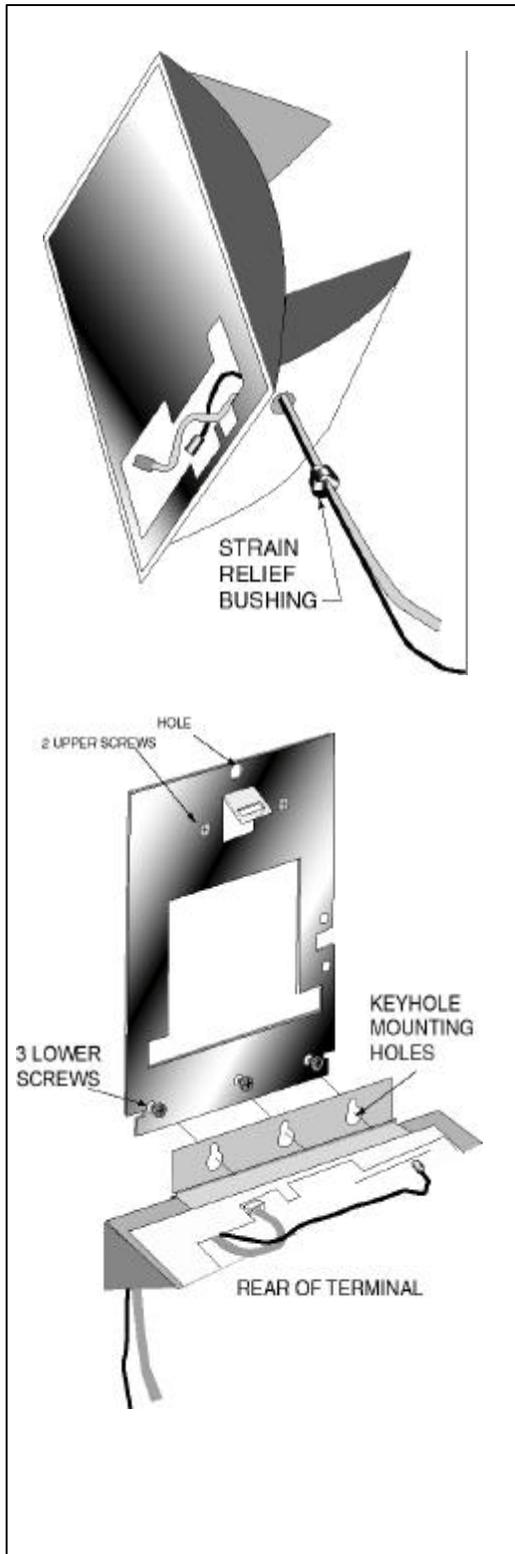
*Mark location for the wall plate*



### Installation

Select a location referring to the guidelines in the installation planning section of this manual.

- Measure 48-1/2 in. (123 cm.) to the finished floor.
- Drive a small nail into the wall or mark the location.
- Hang the wall plate from the hole located near the top or tape it in place if necessary. Check to ensure the wall plate is level.
- Using the wall plate as a template, mark the locations of the two holes near the top and three holes at the bottom.
- Remove the nail and wall plate from the wall.
- For hollow walls, use the hardware provided to fasten the wall plate to the wall. Use (2) furnished auger style fasteners for the upper bolts and (3) toggle bolts for the lower locations.
- Drill the three lower bolt locations using a 1/4 inch drill.
- Install the auger style fasteners in the two upper holes using a screwdriver. The auger will bore into the wallboard. **DO NOT OVERTIGHTEN.**
- Install the toggle bolts into the three lower bolt locations. Tighten the bolt until you feel a strong resistance. Do not over-tighten. Remove the bolts and set them aside.
- Hold the wall plate on the wall and install the two upper bolts (2 inches inch long).
- Install the bolts in the lower hole leaving approximately 1/8 in. (3mm) clearance beneath the screw heads.
- See the next section for wiring details and the completion of the mechanical installation.
- Use expansion bolts (provided) for concrete walls.



## Wiring

### For Exposed wiring,

- Route power and communication cables from the computer to the hand reader terminal.
- Route the cables to the power and communications jacks in the back of the terminal.
- Insert the barrel connector into the power socket and plug the communications cable into the RS 232 connector. If a modem is installed, plug the modem cable into the modem connector
- Attach the strain relief bushing to the power and communications and press into place in the underside of the terminal.

### Completing the mechanical installation.

- Hang the terminal from its hinge on to the three bolts at the bottom of the wall plate.
  - Tighten the three bolts.
  - Swing the terminal to the upright position while holding the cables in place. Lock the unit to the wall plate with the key provided. Turn the key COUNTER-CLOCKWISE to lock.
  - Plug the power supply into the wall outlet and check the display to verify the unit is working. After a few seconds you should see ENTER ID. If the unit does not power up, unlock the terminal and recheck the power connection. Check to assure there is power at the duplex outlet.
  - Route the communications cable back to the computer. (For a modem, plug the modem cable into the telephone jack and go to the last step).
  - Plug the end of the cable into the provided 9 pin serial port connector.
  - Plug the connector into the appropriate serial port of your computer.
  - Check the communications with the terminal using your time and attendance software package.
- The terminal has a default baud rate of 9600 bps and its default address is 1.**

**SUPERVISORS/ADMINISTRATORS OPERATING GUIDE**

The HandPunch Command Mode is used to add and remove employees from the system, and perform other system management and service operations. This section of the manual describes those commands that will commonly be used by work group supervisors in daily operations of the HandPunch. The command mode is only accessible to people who are enrolled as supervisors.

**Command Mode Overview**

The command mode has five groups of menus. Access to each group is controlled by an individual password.

**COMMAND MODE STRUCTURE**

<b>SECURITY</b> <b>DEFAULT</b> <b>PASSWORD 5</b>	<b>ENROLLMENT</b> <b>DEFAULT</b> <b>PASSWORD 4</b>	<b>MANAGEMENT</b> <b>DEFAULT</b> <b>PASSWORD 3</b>	<b>SETUP</b> <b>DEFAULT</b> <b>PASSWORD 2</b>	<b>SERVICE</b> <b>DEFAULT</b> <b>PASSWORD 1</b>
SPECIAL ENROLL	ADD EMPLOYEE	LIST EMPLOYEES	SET LANGUAGE	CALIBRATE
	ADD SUPERVISOR	SET EMPLOYEE DATA	SET DATE FORMAT	STATUS DISPLAY
	REMOVE EMPLOYEE		SET TIME & DATE	
			SET ADDRESS	
			SET ID LENGTH	
			SET SERIAL	

**Passwords**

Access to the each command group requires a password. A new and unique password can be assigned to each of the (5) Command Groups from the host computer. You must exit one command group to enter another. The factory default passwords are shown in the table below.

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

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

If no one is enrolled in the system, press the CLEAR and ENTER . The hand reader LCD will display ENTER PASSWORD. If people have been enrolled in the hand reader, the panel will display ENTER ID \*:. Enter your ID number and #. Place your hand to verify identity. You must successfully verify identity to enter the command mode. When the panel displays ENTER PASSWORD, enter the password of the group you want to access followed by pressing the ENTER key. If the password is correct the display will present the first command for the selected Group. To view other commands in the group, press the \* key. After all the command choices have been displayed, the first command will reappear. You must exit the command group you have accessed to enter another.

Once you have entered the Command Mode, the display will show a command the top line. The second line will show the prompt:

\* NO YES #

Pressing the # (yes) key will select the displayed command. Sub-menu prompts will appear.

Pressing the \* (no) key will bring up command on the display. Repeatedly pressing the \* key will bring the display back to the first command.

When the \*NO YES# prompt is shown on the display, pressing any number key will exit the Command Mode and return to the “ENTER ID” prompt.

### **Getting started**

The first command you will use is enrollment. The process is described in detail on page 8. To enroll, you will:

1. Press CLEAR and ENTER at the same time.
2. Go to the ADD SUPERVISOR menu and follow the prompts.
3. Enter an ID number.
4. Following the reader prompts, you will place and remove your hand three or more times.

You can enroll others, or exit the enrollment menu.

Begin by enrolling yourself and other supervisors. Once you are enrolled, you can set other functions of the hand reader at the host computer or begin enrolling employees immediately.

The menus in this manual show the LCD display message on the left and the keystrokes on the right

**LCD DISPLAY**

Keystrokes

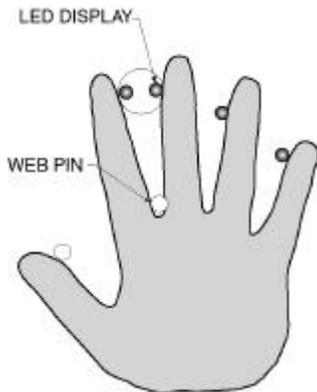
**comments**

**First enrollment (supervisor)**

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 web 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, move your finger until it contacts the pin shown on the display.*



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

**Important!** After the first person is enrolled, you must press CLEAR and ENTER, enter your ID number, place your hand and verify identity before you can enroll others.

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 * next menu 5 exit

SET LANGUAGE * NO YES #
SET DATE FORMAT * NO YES #
SET TIME AND DATE * NO YES #
SET ID LENGTH * NO YES #
SET ADDRESS * NO YES #
SET SERIAL * NO YES #

### **General Setup**

The following is a list of typical set up items needed before enrolling users. The detail for each menu follows this overview.

Note: It is not necessary to leave the command mode after each item is set as shown in the detailed descriptions.

- Set Language

- Set Date Format

The first two items in the setup menu allow the reader to be “localized” for a variety of countries.

- Set Time and Date

For units not networked to a PC it is important to set the time and date. Units networked to a PC typically receive the time and date from the PC.

- Set ID Length

Setting the ID length can reduce the number of keystrokes needed to enter the ID number by eliminating the use of the # or ENTER key to complete ID number entry.

- Set Address

The default setting (1) is typical for this application. Change only if your application requires a different address.

- Set Serial

Set the network communication baud rate. The default is 9600 bps.

***Set language***

Once you are enrolled in the hand reader, you must press CLEAR and ENTER at the same time, enter you ID number and verify before ENTER PASSWORD will appear in the display.

The default language is English. The alternate language choice is Spanish.

***Set date format***

The U.S. format MM/DD/YY is default.

AVAILABLE DATE FORMATS

- mm/dd/yy
- dd-MMM-yy
- dd-mm-yy
- dd/mm/yy
- mm-dd-yy
- MMM dd, yy
- ddMMMyyyy

***Set time and date***

The time and date is normally downloaded from the host comuter. However, the time and date can be set or adjusted at the reader for periods when the computer is off line. Set the hours in 24 hour format.

ENTER ID  
(TIME) (DATE)

CLEAR + ENTER

ID



ENTER PASSWORD

2 #

SET LANGUAGE  
\* NO YES #

#

ENGLISH  
\*NO/#YES ?:

#

\*

5

leave default  
go to Spanish  
next menu

SET DATE FORMAT  
\* NO YES #

#

mm/dd/yy  
\* NO YES #

\*

#

scroll to view  
to select format

SET DATE FORMAT  
\* NO YES #

5

\*

exit or  
next menu

SET TIME & DATE  
\* NO YES #

#

MONTH MM?

enter month (mm) #

DAY DD?

enter day (dd) #

YEAR YY?

enter year in 2  
digit format (yy) #

HOUR HH?

enter hour in  
24 hour format

MINUTE MM?

enter minute (mm)

SET TIME & DATE  
\* NO YES #

#

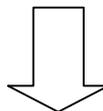
to change

5

to exit

\*

to next menu



Continued on the next page...

**Set address**

*The default address (1) is used for most applications. However, if it is necessary to change it, you can set the address from 2 to 255.*

*The ID length is typically be set at the host computer. When setting the ID length, change to the number of digits in the longest ID number to be entered in the keypad.*

**Set serial**

*9600 bps is the correct setting for most applications. The baud rates can be set from 300bps minimum to 28,800 bps maximum.*

**SET ADDRESS**  
\* NO YES #

# to change address

**RDR ADD IS 1**  
NEW?:

# to leave 1 as default)  
enter new address #

**SET ADDRESS**  
\* NO YES #

# to change  
5 to exit  
\* next menu

**SET ID LENGTH**  
\* NO YES #

# to change

**LENGTH IS 11**  
NEW?:

enter new ID length #

**SET ID LENGTH**  
\* NO YES #

# to change  
5 to exit  
\* to next menu

**SET SERIAL**  
\* NO YES #

\* leave at default 9600 bps  
# to change

**Set RS-232?**  
\* NO YES #

# to set

**9600 baud**  
\* NO YES #

# to leave default  
\* to choose  
# to select choice

**SET SERIAL**  
\* NO YES #

# to change  
\* to top menu  
5 to exit

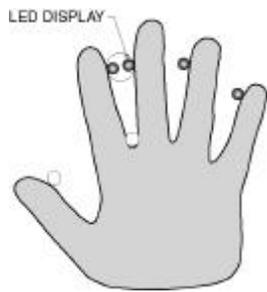
You may now complete the set up in the host computer or enroll employees. The next group of menus is for employee enrollment.

**Employee enrollment**

**Important!** To enter the command mode, you must press **CLEAR** and **ENTER**, your ID and place your hand to enter the command mode.

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)	CLEAR + ENTER
ENTER PASSWORD	ID
ADD EMPLOYEE * NO YES #	4 #
ENTER ID	#
PLACE HAND 1/3	3 2 1 #
REMOVE HAND	
PLACE HAND 2/3	
REMOVE HAND	
PLACE HAND 3/3	
321 USER ENROLLED	
ADD USER * NO YES #	# add another
	* next menu
	5 exit

**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.

**List users**

The LIST USERS function allows you to view or print user information:

**ID number**

**Authority level** (0 and 5)

There are two authority levels:

0 = Employees

5 = Supervisors

**User Reject threshold** (sensitivity)

Default = 0

Highest security = 75

Setting for people having difficulty using the reader= 175

ENTER ID (TIME) (DATE) CLEAR + ENTER

ID 

ENTER PASSWORD 5 #

SPECIAL ENROLL \* NO YES # #

ID#? 9 8 7 #

SPECIAL ENROLL \* NO YES # # add next 5 exit

ENTER ID (TIME) (DATE) CLEAR + ENTER

ID 

ENTER PASSWORD 3 #

LIST USERS \* NO YES # #

USER SPACE XXX #

(ID) (REJ) (AUTH) MORE (#Y/\*N)? # to next ID \* to stop

DONE. PRESS KEY #

LIST USERS \* NO YES # # repeat \* next menu 5 exit

**Remove a user**

*With this menu, supervisors can remove a user at the reader. The removal remains in effect until the host computer polls the reader. To permanently remove a user, he or she must be deleted from the host computer database.*

<b>ENTER ID (TIME) (DATE)</b>	<b>CLEAR</b> + <b>ENTER</b>
	ID 
<b>ENTER PASSWORD</b>	<b>4</b> <b>#</b>
<b>ADD EMPLOYEE *NO YES #</b>	<b>*</b>
<b>ADD SUPERVISOR * NO YES #</b>	<b>*</b>
<b>REMOVE USER * NO YES #</b>	<b>#</b>
<b>REMOVE ID # :</b>	enter employee ID <b>#</b>
<b>USER REMOVED</b>	
<b>REMOVE ID # :</b>	enter next ID <b>#</b> or <b>CLEAR</b> to end
<b>REMOVE USER * NO YES #</b>	<b>*</b> next menu <b>5</b> exit

***Set user reject threshold***

*Use this group of menus to set the a user reject threshold, The reject threshold is the sensitivity of the hand reader.*

*Some users with physical disabilities may have difficulty using the reader. This menu allows you to adjust the threshold for individual users without affecting the threshold of others.*

Note: Host computer software may override this setting.

ENTER ID  
(TIME) (DATE)

ENTER PASSWORD

SET USER DATA  
\* NO YES #

SET USER REJECT?  
\* NO YES #

ID#?

REJ. AT (0)

ID#

SET USER REJECT  
\* NO YES #

SET USER DATA  
\* NO YES #

CLEAR + ENTER

ID 

3 #

#

#

enter ID #

enter new level #

enter new ID or # to end

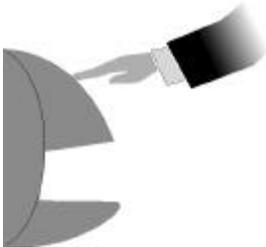
5 to exit

\* to next menu

5 to exit

**EMPLOYEES' OPERATING GUIDE.** It may be helpful to post a copy of this guide near the hand reader.

The hand reader is ready when ENTER ID shows on the LCD display. You may enter your ID number using the keypad or card reader.



To use the hand reader, enter your ID number followed by the ENTER key and watch the message displayed on the LCD display. (Some systems do not require pressing the ENTER key after your ID).

You can correct a keystroke mistake by pressing the \* key. Pressing the CLEAR key will clear the entire entry. Once a valid ID number has been entered **PLACE HAND** will appear on the display and the four finger position indicator lamps will turn on.

When **PLACE HAND** appears in the display, land your hand on the platen as you did when you were enrolled.



**Using the Data Management Keys**

There are two data management keys on the HandPunch 2000 marked F1 and F2. If your time and attendance system uses the function keys, press F1 or F2 to start the data collection as instructed by your supervisor.

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 you choose to select the default value displayed during the data collection, press the # or ENTER key to accept it as correct.

**Hand placement notes:**

**CORRECT HAND PLACEMENT**

**1. Think of landing your hand on the reader like landing a airplane. Slide your hand forward on the silver 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 post. The red finger post lights will then go out. If a light stays on, just move that finger closer to the post.**

**3. If you wear a ring, be sure the stone is facing up in the normal position.**

If **\*\* PLACE HAND \*\*** does not appear, ID number was not accepted. This may be due to an error in entry.

If you were enrolled with the left hand, palm up, you must also punch using left hand by placing your palm up on the platen. If the finger position lights located at the hand outline drawing do not go out, the fingers are not properly positioned at the indicated pin. The reader will not accept your hand unless the fingers are in the proper position. Remember to close all fingers on their guide pins.

You must hold your hand on the platen briefly, until the message **\*\*PLACE HAND\*\*** disappears. The display will show the results of the verification attempt. If the verification was successful, it will display **OKAY XXX . XXX** is the ID number. If it was not, it will display **\*\* TRY AGAIN \*\***.

If it displays **\*\* TRY AGAIN \*\*** , and you are authorized to punch, it may mean you made an error entering your ID number or in placing your hand on the platen. 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 REFUSED**.

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**.

## **Programmers guide**

The operating modes of the HandPunch are very flexible. It can be configured to meet almost any time and attendance situation. This section presents the configurable items of the HandPunch and describes how they would be specified using Recognition Systems' PunchNet-G polling software.

The host computer downloads configuration data to the HandPunch terminal. You can use Recognition Systems PunchNet-G software or a 3rd party software package. In either case, the requirement for configuration planning and specification remains the same. It is only the details of how this configuration information is sent to the HandPunch that may vary. 3<sup>rd</sup> party software may not support all configuration options. Refer to the documentation that comes with the 3<sup>rd</sup> party software for configuration options that the software supports. When using PunchNet G software, refer to the manual for how HandPunch configuration data is entered into the system.

## **Punch Menus**

The HandPunch can be configured to operate in several different data entry modes to meet the requirements of different applications.

**No T&A menu**

**Explicit Punch menu**

**Request Department Code**

**Explicit Punch and Department Code**

When an employee uses the terminal and does not select a T&A menu, the terminal records the time, date, employee ID number and HandPunch address r for use by the Time and Attendance system.

If the explicit punch menu is enabled, the following screen will be displayed when the employee enters his ID number.

**1-IN 2-OUT**

**3-BACK**

If the employee selects BACK (3) the terminal displays an additional menu:

**1-LUNCH 2-BREAK**

**3-CALL BACK**

The employee can choose the appropriate response from the menus. The terminal will record the choice code as part of the punch record.

If *Request Department Code* is enabled, the terminal will request a department code each time an employee punches. The employee may enter any number up to 8 digits in length. The terminal will record the department code as part of the punch record.

If *Request Department Code* is not enabled, the employee may bring up the Department Code prompt by pressing the # key once before entering an ID number. The terminal will only request a department code if the employee specifically requests it.

### **HandPunch 2000 Punch Menus**

In the HandPunch 2000, the default punch menus described above are available and function in the same manner. In addition, the employees may define the explicit punch menus to meet their specific needs. This is accomplished by defining the F0/Explicit Punch key in a “data management key definition file”. When F0 is defined:

1. The default explicit punch menus are disabled.
2. The employee may bring up the Department Code prompt by pressing the # key once before entering his or her ID number.

A employee defined explicit punch menu can function like any of the data management keys. See below for a general overview. Please refer to RSI’s [Function Key Compiler Employees Manual](#) for the details on creating this menu.

### **Data Management Keys**

You can define the two data management keys on the HandPunch 2000 to meet a variety of data collection tasks. For the details describing how to create the data collection sequences, refer to your time and attendance documents.

Below is a general description of the capabilities of the data management keys. RSI’s key definition architecture is simple to set up and offers considerable flexibility. You can assemble two basic operations that to define what happens when a data management key is pressed. They are:

1. Collect Data
2. Display a menu

You can define up to 100 operations and store them in the terminal. Up to 20 pieces of data may be collected per use.

### **Collect Data**

You can create your own data collection displays. The first line of the LCD display will accept a prompt of up to 16 characters. The second line displays up to 8 digits of an employee’s data entry. The following is an example of a department transfer data collection:

**ENTER DEPT:  
?**

The employee would enter the department code followed by the # key to enter the data. The \* key acts as a backspace key.

You can define a default value. For example, if the most common department transfers were for departments 100 and 200, the F1 key may have the default value of 100. Pressing the F1 key enters the default value of 100.

**DEPT TRANSFER  
100**

Pressing the # key will confirm the entry.

You can link collection functions together creating multiple level data entry. For example, you can link the entry of a department and job code to a single data management key:

**ENTER DEPT:?**

After the department code entry the display shows

**ENTER JOB CODE:  
?**

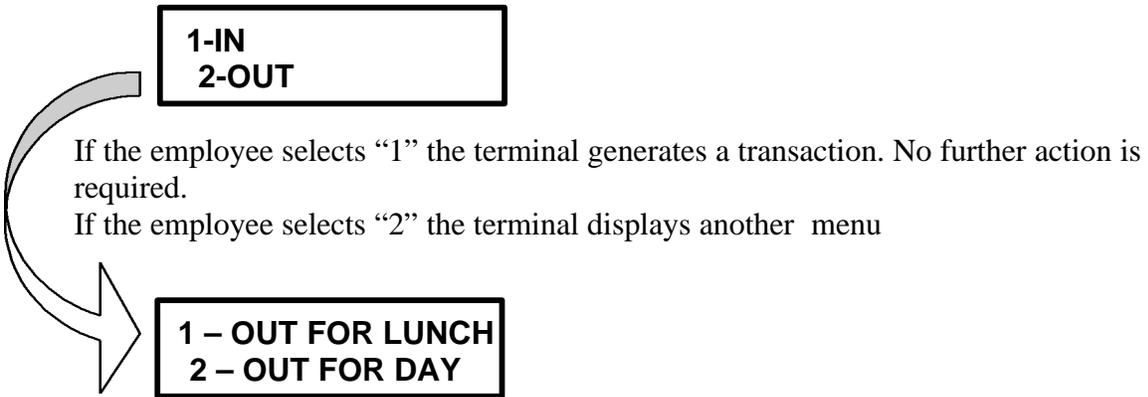
### **Display a menu**

You can define menus that allow employees to select from a set of choices. You can link any of the choices to further operations or simply terminate. You can offer up to 4 choices per menu and define text of up to 2 lines with 16 characters per line. For example, a menu that terminates immediately may be as follows:

**1 - IN  
2- OUT**

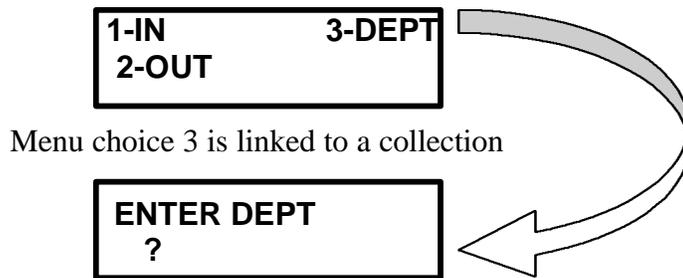
You can define the choice to generate a transaction containing an employee defined TA code.

You can establish links to other menus or data collection. The following is an example of linking to another menu:



The choice of a 1 or 2 will generate transactions with employee defined TA codes. You can link menus and collection together.

For example one could display:



You can define the type of data to be collected. This allows a display format that is that is helpful to the employee. For example, if collecting information that involves money, the decimal point would be shown after the second digit.



**HandPunch Configuration Items (typically set at the host computer)**

HandPunch configuration specifies the operating parameters of each hand reader. Any parameters not specified for a hand reader will be set to the default values given below.

<b>HANDPUNCH 2000 CONFIGURATION ITEMS TABLE</b>											
<b>(Typically set at host computer)</b>											
<b>PASSWORDS</b>	The passwords for operating levels 5 (Special) through 1 (Service) must be specified. Each password may be up to 10 digits long. The default values are 5 for PW5 through 1 for PW1. These should be changed as soon as the system is operational in order to maintain system security.										
<b>REJECT THRESHOLD</b>	Specifies the HandPunch reject threshold. Permitted values are 40 through 200. The default is 100.										
<b>KEYPAD BEEPER</b>	Specifies the hand reader beeper mode. 0 specifies off and 1 specifies on. The default is ON.										
<b>ID NUMBER LENGTH (Can also be set at reader)</b>	Specifies the ID number length. Permitted values are 1 through 10 digits. Shorter ID's require the # key after ID entry. Set the ID length to the longest ID number.										
<b>ACCESS TRIES</b>	Specifies the number of times a employee is permitted to retry hand readings without lockout. The default is 6.										
<b>DAYLIGHT SAVINGS TIME</b>	Specifies the time at which the hand reader clock is advanced or retarded one hour for daylight saving time. Specifies the month, day, hour, and minutes when daylight saving time starts stops. If daylight saving start and stop times are not defined, no automatic adjustment of the hand reader clocks will be made.										
<b>TIME DISPLAY</b>	Specifies 12 or 24 hour clock display. If a 0, 24 hour clock is displayed. If a 1, a 12 hour clock is displayed. The time can also be set at the reader.										
<b>PUNCH MODE</b>	<p>Selects an operating mode as follows:</p> <table style="margin-left: 40px;"> <thead> <tr> <th style="text-align: left;"><u>Set n to</u></th> <th style="text-align: left;"><u>For This Mode</u></th> </tr> </thead> <tbody> <tr> <td>0</td> <td>No T&amp;A menu</td> </tr> <tr> <td>1</td> <td>Explicit Punch menu</td> </tr> <tr> <td>2</td> <td>Request department code</td> </tr> <tr> <td>3</td> <td>Both options 1 and 2</td> </tr> </tbody> </table>	<u>Set n to</u>	<u>For This Mode</u>	0	No T&A menu	1	Explicit Punch menu	2	Request department code	3	Both options 1 and 2
<u>Set n to</u>	<u>For This Mode</u>										
0	No T&A menu										
1	Explicit Punch menu										
2	Request department code										
3	Both options 1 and 2										

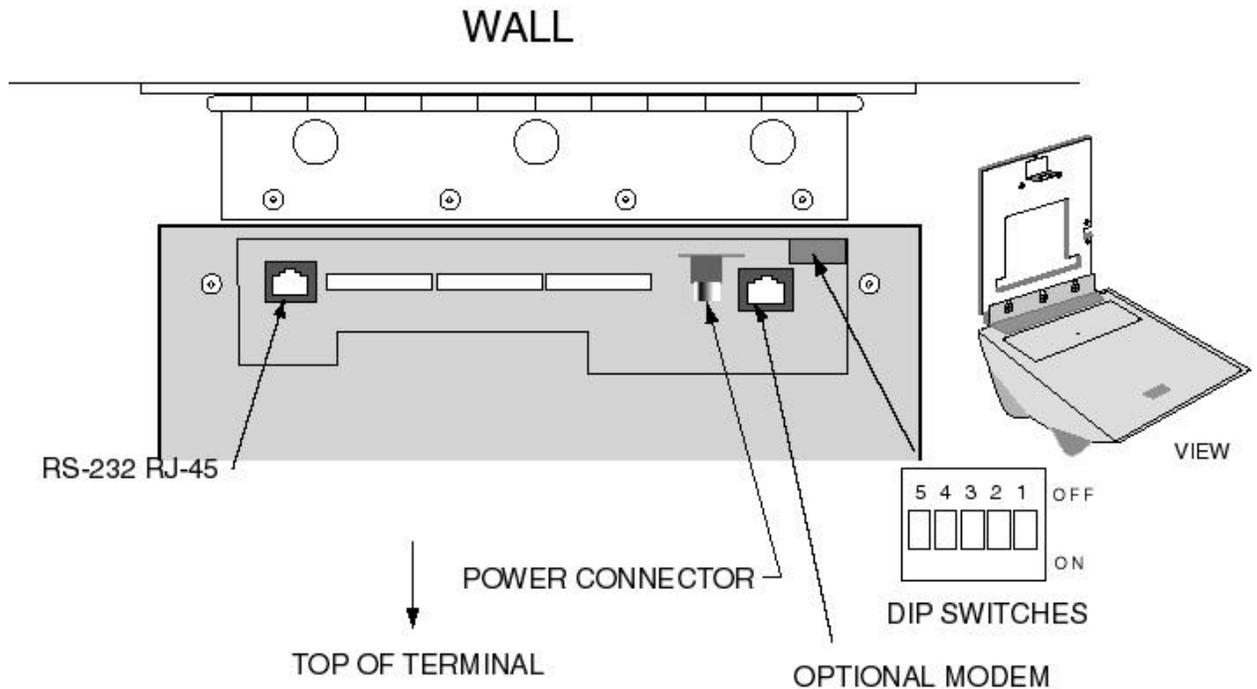
## Maintenance

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. By setting STATUS, you can view the last employee's score and the status of the tamper switch.



## 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.



**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 120

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

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

**5**

**ENTER ID  
C0000 LLLL ##**

**NETWORK STATUS DISPLAY**

CCCCC LLLL 43

← Last hand reading score

← These codes are not used.

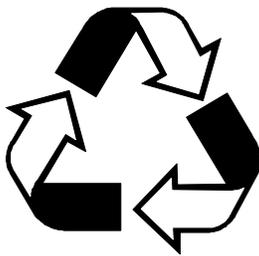
**Specifications:**

Size: 8.85 in. (22.3 cm) wide  
11.65 in. (29.6 cm) high  
8.55 in. (21.7 cm) deep  
Power: 12-24VDC or 12-24 VAC  $\sim$  50-60 Hz  
Weight: 6 lbs. (2.7 kg)  
Verification time: 1 second or less  
Memory retention: 5 years via a standard internal lithium battery  
Transaction buffer: 5187 Transactions  
ID number length: 1 to 10 digits  
Baud rate: 300 – 28.8K bps  
Communications: RS-232  
User capacity: 512 Users

**Recommended European Power Supply:**

Ault Inc.  
7300 Boone Ave. North  
Minneapolis, MN 55428 USA  
612-493-1900  
Email: [info@aultinc.com](mailto:info@aultinc.com)

Part number D48-121000-A040G  
230VAC Input 12VDC 1 Amp output unregulated  
CE approved, Ault style #41 connector (barrel plug)



**RECYCLABLE**

## **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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