



HandPunch Installation Guide



Central Time Clock

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Planning an Installation

Site Preparation

Before you begin installation, check the site blueprints, riser diagrams, and specifications for important information about the HandPunch's location and other systems that will connect to the HandPunch. Look for any existing wall preparations and wiring that other contractors may have installed for the HandPunch. A wire routing layout diagram (see Figure 3-2 on page 25) is provided to assist in planning.

HandPunch Placement

The recommended height for the HandPunch platen is 40 inches (102 cm) from the finished floor. The HandPunch should be out of the path of pedestrian and vehicular traffic, and convenient too, but not behind the door it is controlling. Avoid placing the HandPunch where users must cross the swing path of the door. **The HandPunch should be in an area where it is not exposed to excessive airborne dust, direct sunlight, water, or chemicals.**

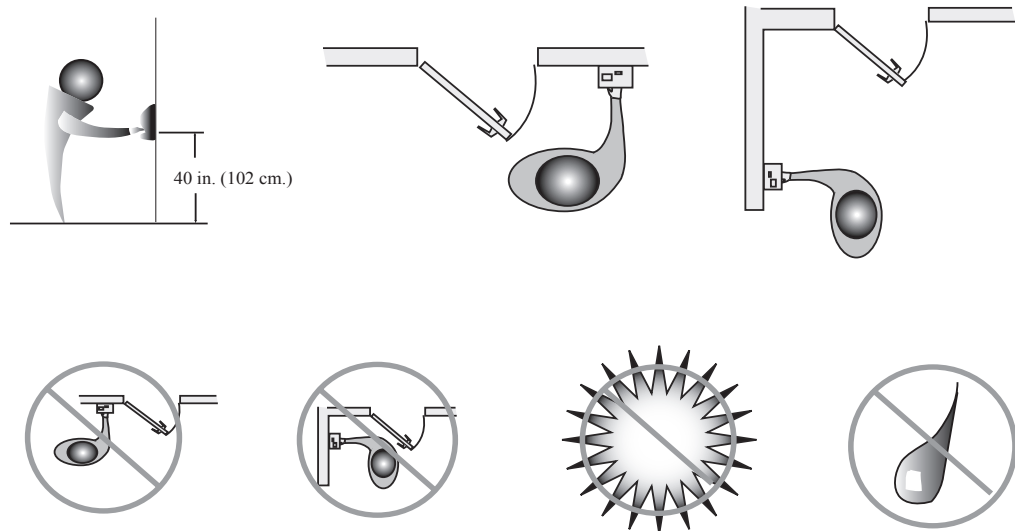


Figure 2-1: HandPunch Placement Rules

!NOTE *For the following sections, Recognition Systems does not supply hardware items such as door control relays, door locks, switches, relays, communications or power wiring.*

Mechanical Installation

Select an installation location based on the guidelines provided in the [Planning an Installation](#) section beginning on page 11.

Wall Plate Installation

NOTE *For the following instructions protect the HandPunch from the dust and debris generated during the wall plate installation process.*

1. Remove the wall plate from the packing carton. Refer to Figure 3-1 for all wall plate references in the following section.

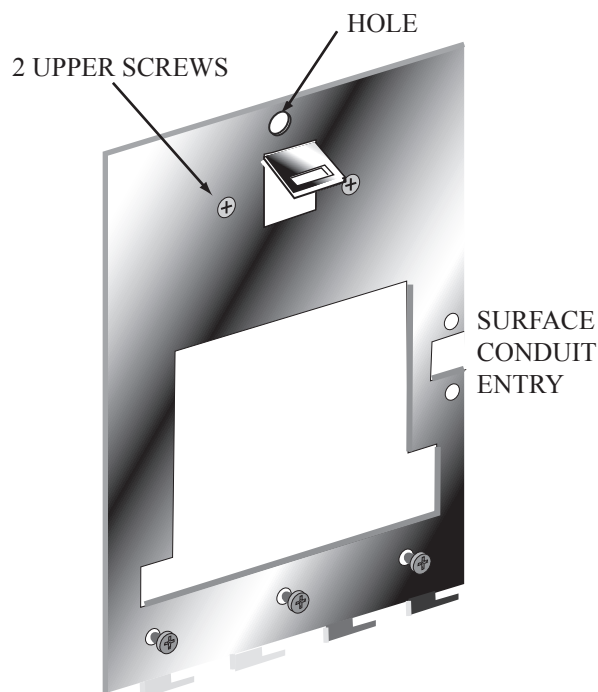


Figure 3-1: Wall Plate

2. Measure and mark a point 48 1/2 inches (123 cm) from the surface of the finished floor. This point will correspond to where the top-center point of the HandPunch should be mounted.
3. For a hollow wall, drive a small nail into the wall at the mark and hang the wall plate from the leveling hole located near the top of the wall plate.
4. For a solid wall, hold the wall plate against the wall, centering the leveling hole over the mark in the wall.

5. Align a bubble level with the top edge of the wall plate and gently rotate the wall plate until the bubble level shows that the top edge of the wall plate is level.
6. Secure the plate to the wall using heavy masking tape.
7. Using the wall plate as a template, mark the locations of the two upper screw holes and the three lower screw holes.
8. For a concealed wiring connection, trace the outline of the open area in the center of the wall plate. Identify and mark a 1/2 inch hole through which the HandPunch's wiring will be mounted.
9. For a surface conduit wiring connection, mark the two conduit clamp holes at the right side of the wall plate.
10. Remove the wall plate, masking tape, and the nail (if used).

Mounting the Wall Plate

1. For a hollow wall, use the provided hardware to mount the wall plate. Use the two auger style fasteners for the upper two mounting holes. Use the toggle bolts for the three lower mounting holes.
2. For a solid wall, use expansion bolts to mount the wall plate. For all five mounting holes, drill a 1/4 inch diameter hole, 1/4 of an inch deeper than the length of the expansion anchor.

Routing the Wiring

1. For a concealed wiring connection, drill a 1/2 inch hole in a convenient location within the open area of the wall plate. Pull the wiring to enter the HandPunch through this hole in the open area.
2. For a surface conduit wiring connection, drill a 1/4 inch diameter hole, 1/4 of an inch deeper than the length of the expansion anchor for each of the two conduit clamp holes. Route 1/2 inch conduit to the HandPunch, ending the conduit between the two conduit clamp holes. Pull the wiring to enter the HandPunch through the conduit.

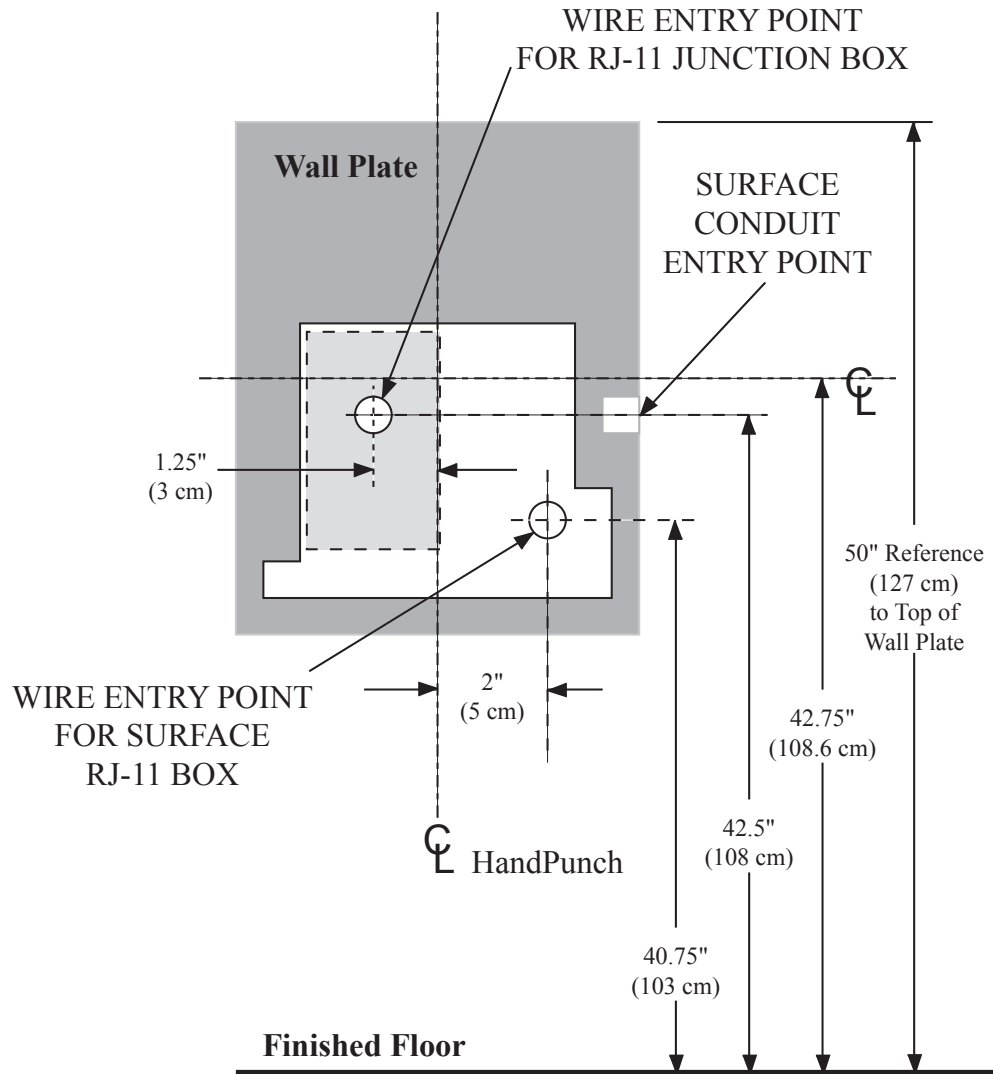


Figure 3-2: HandPunch Wire Routing Layout

Attaching the HandPunch

1. Remove the HandPunch from its carton.
2. Align the sleeves of the back plate with the pins of the wall plate and slide the HandPunch to the left as shown in Figure 3-3.

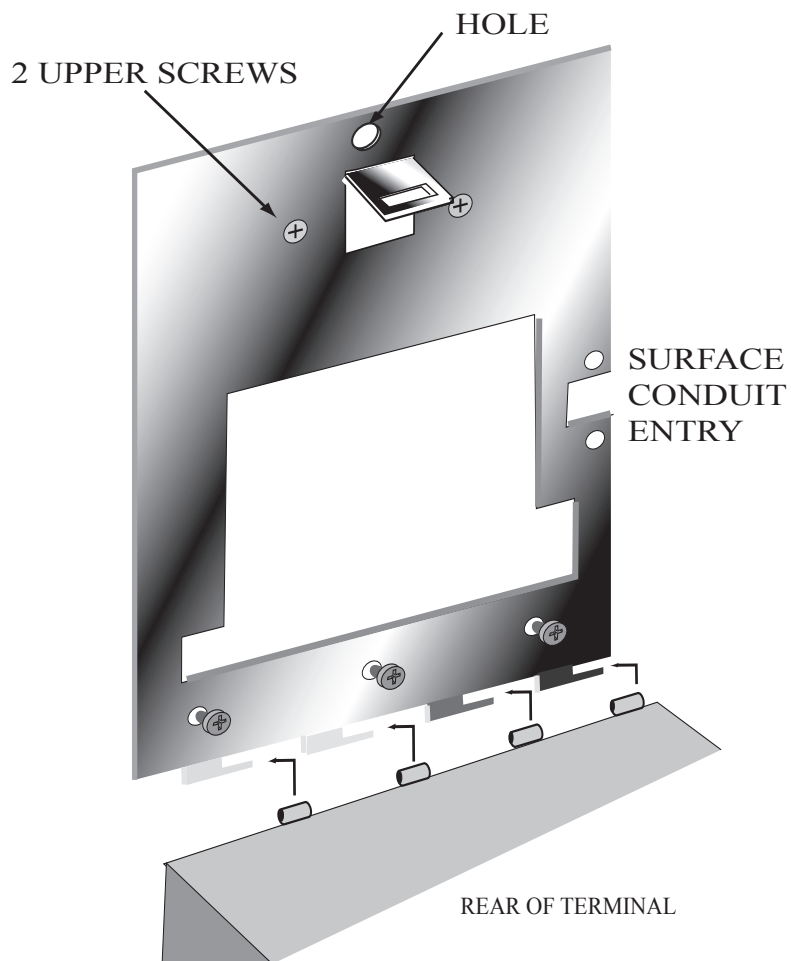


Figure 3-3: Attaching the HandPunch to the Wall Plate

3. The HandPunch is now ready for its wiring connections.

Wiring Connections

Once the HandPunch is attached to the wall plate the wiring connections to the HandPunch can be made (see Figure 4-1).

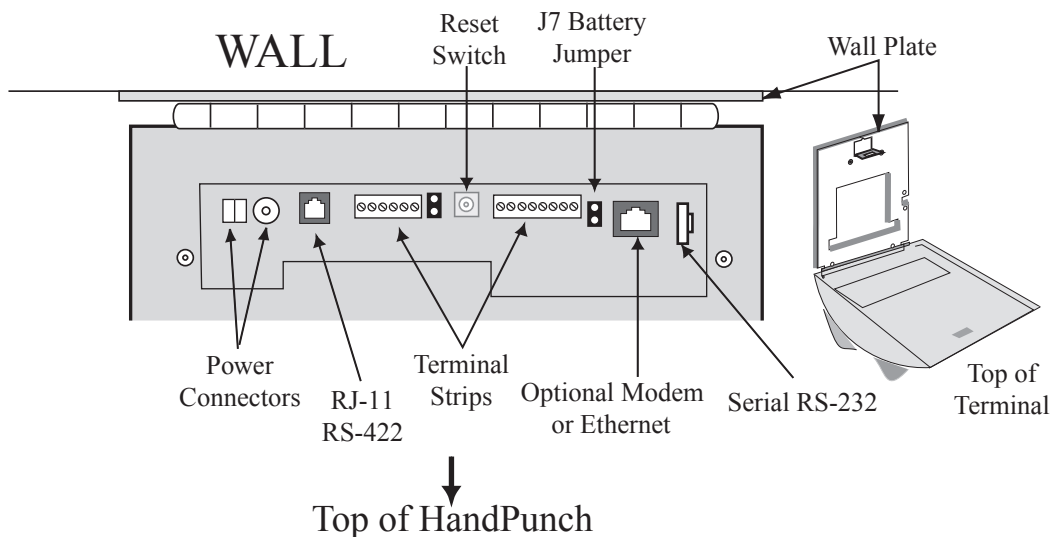


Figure 4-1: Wiring Connections

Wiring Examples

The following Tables provide the pin outs for the terminal strips on the HandPunch.

- Table 2 on page 30 provides the pin outs for TS-2: Input Connections.
- Table 3 on page 30 provides the pin outs for TS-3: Card Reader and Output Connections.
- Table 4 on page 30 provides the pin outs for the Serial RS-232 Connection.
- Table 5 on page 31 provides the pin outs for the RS-422 HandPunch to HandPunch Network Connection

The following Figures provide the pinout diagrams for the RJ-11 and RS-232 connectors

- Figure 4-2 on page 31 provides the pinouts for J3, the RJ-11/RS-422 Network Connection
- Figure 4-3 on page 32 provides the pinouts for J8, the RS-232 Serial Printer Connection.

Closing the HandPunch

Before closing the HandPunch clear all dust and debris away from the HandPunch. With the wall mount latch in the unlocked position, swing the body of the HandPunch up and lock the latch into place with the key provided with the HandPunch (see Figure 6-1).

NOTE *Dust and debris surrounding the HandPunch can drastically affect the terminal's operation. It is important to ensure the HandPunch is free from dust and debris before closing the terminal.*

NOTE *Do not force the HandPunch onto the wall mount latch when the latch is in the locked position.*

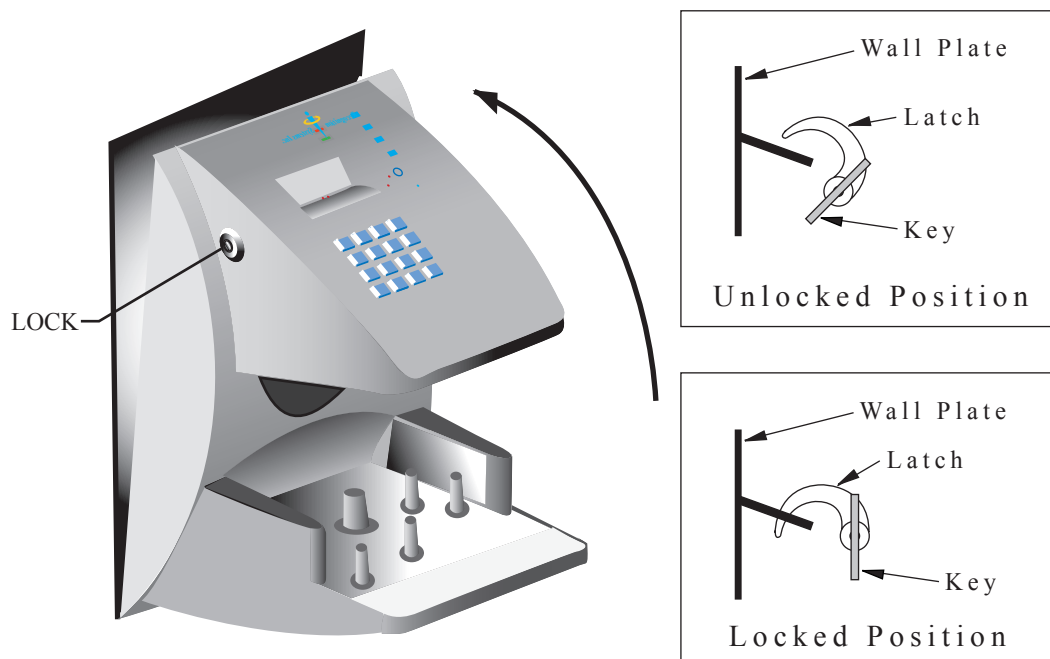


Figure 6-1: Closing the HandPunch

Appendix A

Tips for a successful Installation

HandPunch

- Think of the HandPunch as a camera
- Clean the HandPunch before it gets dirty
- Use non-abrasive cleaners such as glass cleaners and non-abrasive and clean cloths
- Make cleaning the HandPunch part of Janitorial program
- Do not remove the foam backing from the wall mounting plate
- Seal any holes made in the wall for wire routing, so that dust will not blow into the HandPunch

Location

- Mount all HandPunchs in a network so that the top of the platen is 40” off of the floor
- If an enrollment HandPunch is used make sure that it is placed with the top platen 40” off of the floor and not sitting directly on top of a desk, this will help to eliminate “bad enrollments”
- Mount the HandPunch so that it is not difficult or dangerous to verify then open the door
- It is not recommended to mount the HandPunch in an area where there is airborne dust, in the path of direct sunlight, or where the HandPunch can be exposed to water or corrosive gasses

Enrollment

- Educate the Enrollee on Hand Geometry
- Explain enrollment process
- Train Enrollee on hand placement
 - Practice placing hand on platen
 - Make sure hand is flat on platen
 - Close finger towards the center of hand
 - Fingers gently touch finger pins
- Let the enrollee enter in their own ID number during the enrollment process, this forces the Enroller to step aside allowing the Enrollee to stand in front of the HandPunch helping to eliminate “bad enrollments”

HandPunch Initial Setup & Enrollment Instructions

Before you start: How to Install clock

- Install clock so bottom of clock is 40 inches above the ground at waist height
 - Connect CAT-5 cable from clock's network port & connect other end to network hub or router
- Plug in reader to standard power outlet (110/120 Volts), 4 ft cable provided (Don't hard wire)
- Program IP Address, Subnet Mask & Default Gateway into clock (Select 2# & then Set Serial)
- Activate clock by calling Clock Support at Ph# 718-784-4900
- After clock is activated you may begin enrolling users

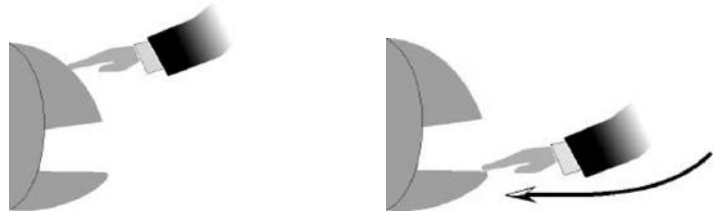
Enroll yourself as Supervisor

- To get entry to menus, press: **Clear** and **Enter**
- Enter password followed by # key: **4#**
- To enroll Supervisor press(*) to skip add employee:
Press *
- Enroll Supervisor: Press #
- Enter the supervisor ID, followed by the Enter key: **XXX** then **Enter**
- Place Hand 1/3 (remove hand)
- Place Hand 2/3 (remove hand)
- Place Hand 3/3 (remove hand)
- The supervisor is now enrolled



Enroll your employees

- To get entry to password level Press: **Clear** and **Enter**
- Enter your Supervisor ID, followed by the Enter key: **XXX** then **Enter**
- Place your hand for verification
- Enter password followed by # key: **4#**
- Enroll Employee: Press #
- Enter the Employee ID, followed by the Enter key: **XXX** then **Enter**
- Place Hand 1/3 (remove hand)
- Place Hand 2/3 (remove hand)
- Place Hand 3/3 (remove hand)
- The employee is now enrolled



Demonstrating Tips To Ensure Best Enrollment

- Demonstrate how an employee would punch prior to enrolling them
 - This allows the person to see how the hand is placed into the reader correctly
- Repeat employee's unique pin number to them before they try to punch
- There are green & red indicator lights on clock to highlight if punch was recorded successful
- The score that appears after a punch indicates the accuracy of hand placement (0 = Perfect)

HandPunch Initial Setup & IP Address Setup Instructions

Set IP Address

- To get entry to password level Press: **Clear** and **Enter**
- Enter your Supervisor ID, followed by the Enter key: **XXX** then **Enter**
- Place your hand for verification
- Enter password followed by # key: **2#**
- Press (*) to skip set language
- Press (*) to skip set date format
- Press (*) to skip set date and time
- Press (*) to skip set address
- Press (*) to skip set id length
- Set Serial: Press #
- Verify/Enter IP Address (make sure to use all 3 numbers in each octet)
Example: 192.168.001.105
- Verify/Enter Gateway (make sure to use all 3 numbers in each octet)
Example: 192.168.001.001
- Verify/Enter Host Bit
- 9600 Baud: Press #

Clock Activation Instructions:

Once the clock is installed with the proper Static IP Address info configured in the clock and the CAT-5 network patch cable is connected from the clock to DSL Modem please give Central Time Clock a call at Ph# 718-784-4900 and ask for HandPunch support to test communication. Once the clock is activated you will be able to start enrolling new users and begin punching.