



ES1000 - Atomic

USER MANUAL



WARNING

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of 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 or her own expense.

Caution: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

THIS DIGITAL APPARATUS DOES NOT EXCEED THE CLASS A LIMITS FOR RADIO NOISE EMISSIONS FROM DIGITAL APPARATUS AS SET OUT IN THE RADIO INTERFERENCE REGULATIONS OF THE CANADIAN DEPARTMENT OF COMMUNICATIONS.

LE PRÉSENT APPAREIL NUMÉRIQUE NÉMET PAS DE BRUITS RADIOÉLECTRIQUES DÉPASSANT LES LIMITES APPLICABLES AUX APPAREILS NUMÉRIQUES DE CLASSE A PRESCRITES DANS LE RÈGLEMENT SUR LE BROUILLAGE RADIOÉLECTRIQUE ÉDICTÉ PAR LE MINISTÈRE DES COMMUNICATIONS DU CANADA.

Information contained in this manual is company private to Acroprint Time Recorder Co., and shall not be modified, used, copied, reproduced or disclosed in whole or in part without the written consent of Acroprint.

Contents herein are current as of the date of publication. Acroprint reserves the right to change the contents without prior notice.

This manual has been carefully prepared to cover all aspects of this unit. However, if any explanations are inadequate, unclear, or difficult to understand, please contact Acroprint.

We recommend that you carefully read this manual to maximize the use of this unit.

© 2008 Acroprint Time Recorder Co. All Rights Reserved.




Table of Contents

Alert Definitions	iii
Precautions	iii
GETTING STARTED	1
Introduction	1
Features	1
Package Contents	2
Ribbon Installation	3
Power the ES1000	6
Atomic Synchronization	7
PROGRAM THE ES1000	8
Front Cover Removal	8
Programming Method	8
Front Cover Installation	9
PROGRAM SETTINGS	10
Reports	10
Timecard Maintenance (Transferring and Resetting)	10
Time Zone	10
Daylight Saving Time	11
Hour Display Format	11
Hour Print Format	11
Day Print Format	11
Language	11
Date and Time	12
Signals (Bells and Horns)	12
Enable Override Switch	16
Enable Transfer Switch	16
Pay Period Rules	16
Pay Period Type/Start	16
Overtime	17
Day Advance Time	17
Minute Print Format	17
Ribbon Color Change	18
Maximum Time on the Clock	20
Rounding	20
Auto Break Length	21
Reset To Factory Defaults	21


RESTART BUTTON	21
EMPLOYEE OPERATIONS	22
Clocking In and Out	22
Working Across the Day	22
Transfer a Timecard	22
Symbols on a Timecard	22
HARDWARE	23
Wall Mounting	23
Battery Installation	24
Signal Wiring	26
APPENDIX	29
Job Costing and Alternate Length Pay Periods	29
Troubleshooting	29
Specifications	30
PRODUCT REGISTRATION	


Alert Definitions

For your safety and the protection of the ES1000, the following alerts are used throughout this manual.

READER ALERT	MEANING
	Alerts you to supplementary information and helpful tips.
	Alerts you to possible data loss or that failure to take or avoid a specific action might result in physical harm to you or to the hardware.
	Alerts you “do not” perform an action.

Precautions

ALERT	DESCRIPTION
	<ul style="list-style-type: none"> • Insert the power plug as far as it will go. Improper insertion of the plug may result in fire or electric shock. • If any anomaly occurs, for example, heat or smoke is generated or an odor is emitted, unplug the unit immediately and contact your dealer for servicing. There is a danger that further use may cause a fire or electric shock. • If foreign matter should get in the unit (including a piece of metal, water, or liquid), disconnect the plug from the outlet immediately and contact your dealer for servicing. There is a danger that further use may cause a fire or electric shock. • Remove the line cord plug from the outlet before transferring the unit, or it may damage the cord. This may lead to a fire or electric shock. • If the unit should be dropped or the case is broken, unplug the unit and contact your dealer for servicing. Further use may lead to a fire or electric shock.

ALERT	DESCRIPTION
	<ul style="list-style-type: none"> • Do not disassemble or modify the unit. High voltage is present inside that may lead to an electric shock. • Do not use any voltage of the power source other than designated. • Do not share a single outlet with another plug. This may lead to a fire or electric shock. • Do not damage, break, or modify the power cord. • Do not put heavy objects on, pull, or forcefully bend the cord. These may damage the cord, possibly resulting in a fire or electric shock. • Do not plug or unplug the unit with a wet hand. This may lead to an electric shock. • Do not place the unit on an uneven or tilted surface. This may result in injuries due to the unit dropping or falling off. • Do not put a water-filled container or a metal object on top of the unit. If water is spilled or the metallic object slips inside, a fire or electric shock may occur. • Do not install the unit in a humid or dusty environment. This may result in damage or malfunction. • Do not place the unit near a kitchen counter or humidifier. Oil, smoke, or steam generating from them may cause fire or electric shock. • Do not yank the power cord to disconnect from the outlet. Hold the plug with your hand to do so, or the cord may be damaged. This may lead to a fire or electric shock. • Do not insert or drop any other timecard than specified into the slot. Such misuse may result in damage or malfunction. • Do not come in contact with the print head. This may result in personal injury.

GETTING STARTED

Introduction

Thank you for purchasing an Acroprint Model ES1000 Totalizing Payroll Recorder. We are confident this unit will give you full satisfaction. Items such as the time and date are preset at the factory. Acroprint recommends reading this manual before you start using this unit.



Refer to the Product Registration Card in the back of this manual to register your ES1000.

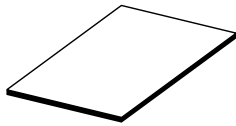
Features

- Atomic Synchronization Sets Time and Date Automatically
- Automatic Daylight Saving Time (DST)
- Automatic Date, Month Year Change to 2099
- Durable Snap-in Ribbon Cartridge
- Prints in three languages
- Two-color printing, showing early and late punches
- Prints in standard AM/PM hours or 24-hour format with date or day of week
- Totals are formatted to minutes or 1/100 hours
- Calculates actual/rounded time
- Automatically calculates time between punches and totals time
- Calculates weekly and daily overtime
- Handles up to 100 employees on weekly, bi-weekly, semi-weekly or monthly pay periods
- Automatically deducts break time from totals
- Signal control for external bells or horns
- Available reports from payroll recorder:
 - o Hours Summary
 - o Clock Rules
 - o Timecards in Use
- Desktop or Wall Mount
- Optional battery backup for printing during power outages
- Requires ES1010 timecard

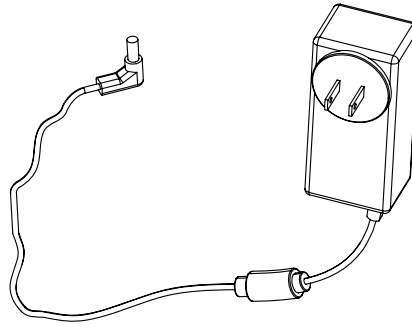
Package Contents

Unpack the ES1000 and check its contents to ensure the time recorder and all accessories shown below are included. If equipment has been damaged in transit, immediately report the extent of damage to the transportation company and to Acroprint. Order replacement equipment, if necessary.

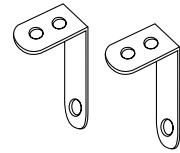
Equipment



ES1000 Manual (1)



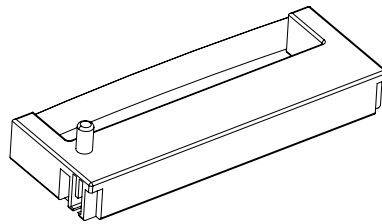
Power Supply (1)



**Wall-Mount Screws,
Brackets and
Template**

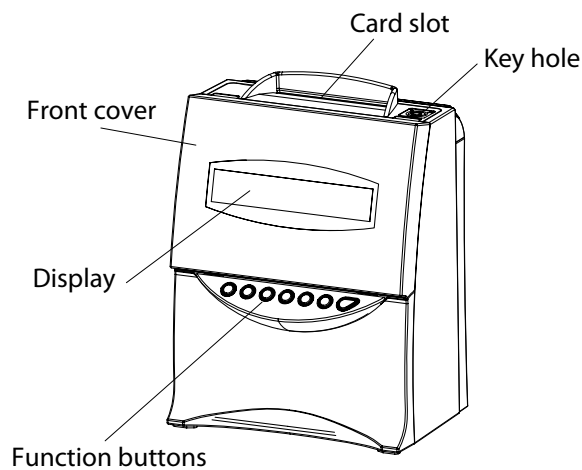


Keys (2)

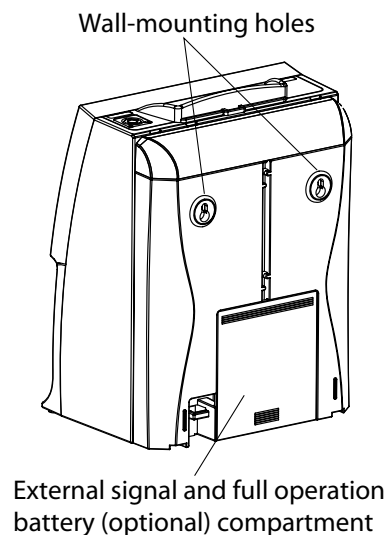


**Ribbon Cassette (1)
(may be installed)**

ES1000



Front View



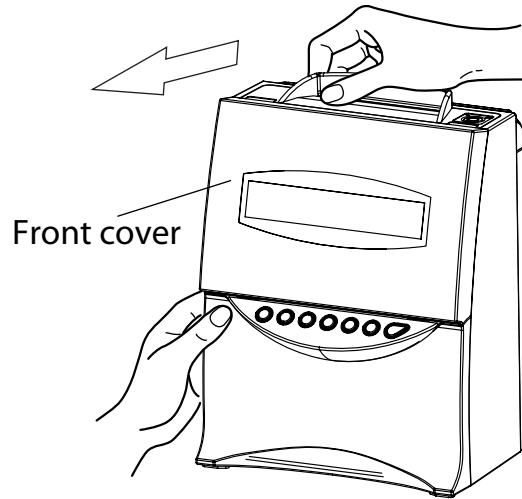
Back View

Ribbon Installation

1. Insert key and turn counter-clockwise to unlock. Pull top of card slot up and towards you.

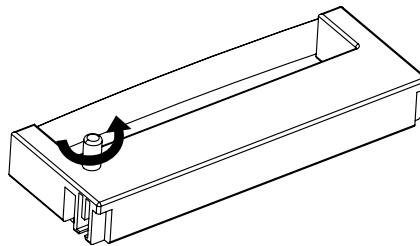


The ribbon may be pre-installed in the ES1000.



Open Unit

2. Turn the knob on the cassette as indicated and tighten.

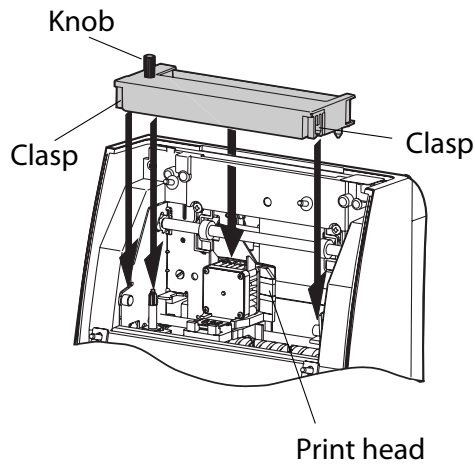


Make Ribbon Taut



Only turn the knob counter-clockwise or the ribbon may be damaged.

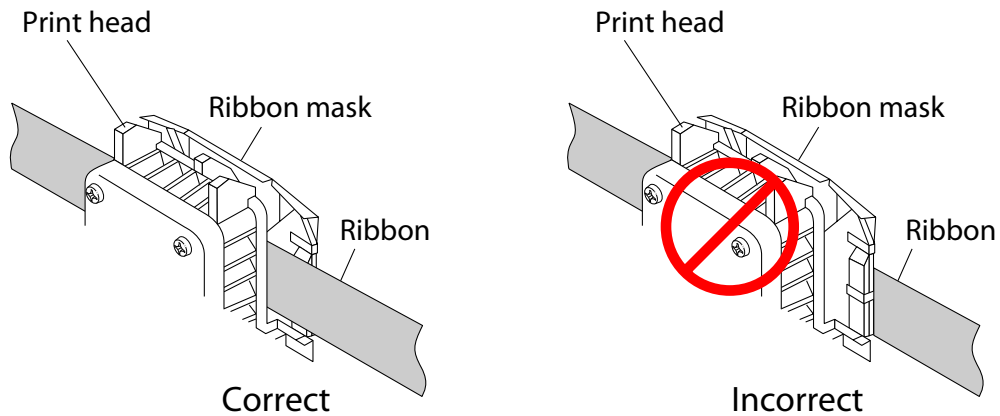
-
-
3. Install the ribbon cassette by threading the ribbon between the print head and ribbon mask. Insure the ribbon is fully seated by pressing and snapping into place.



Install Ribbon Cassette

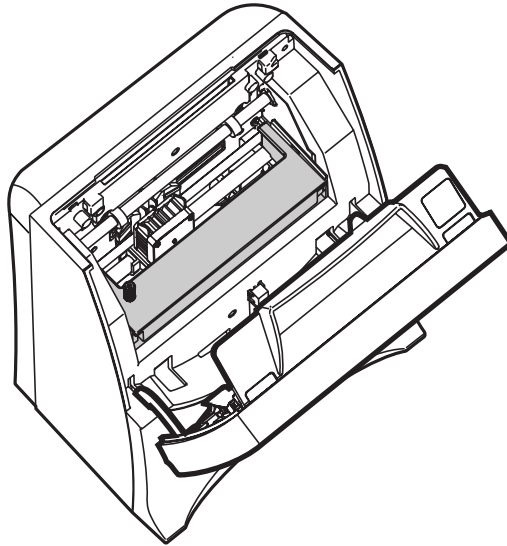


If it is difficult to insert the ribbon cassette, insert it while turning the knob.



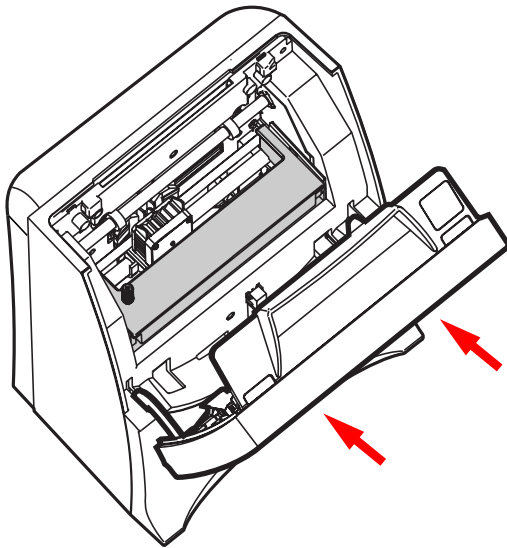
Install Ribbon Cassette

4. Turn the knob of the ribbon cassette counter-clockwise to tighten.



Tighten the Ribbon

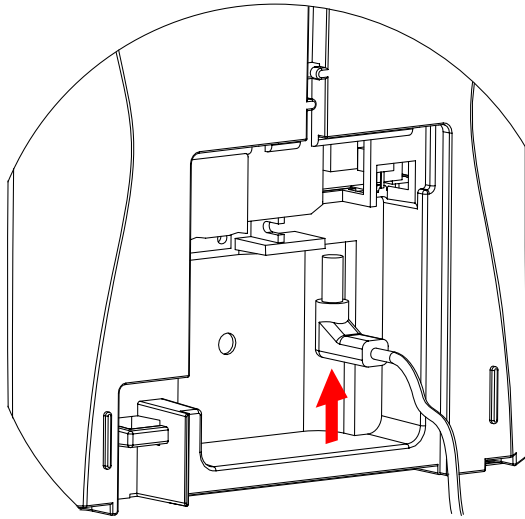
5. Close the cover letting it snap into place.



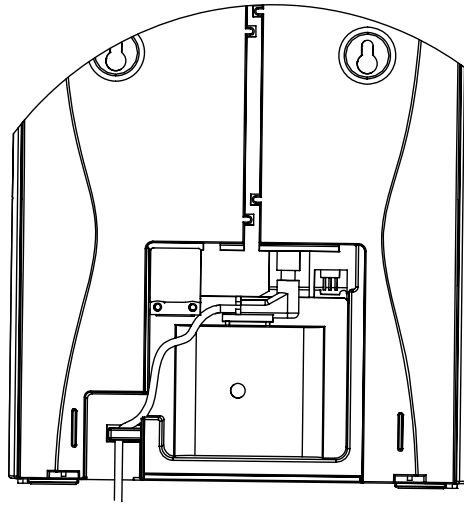
Close Unit

Power the ES1000

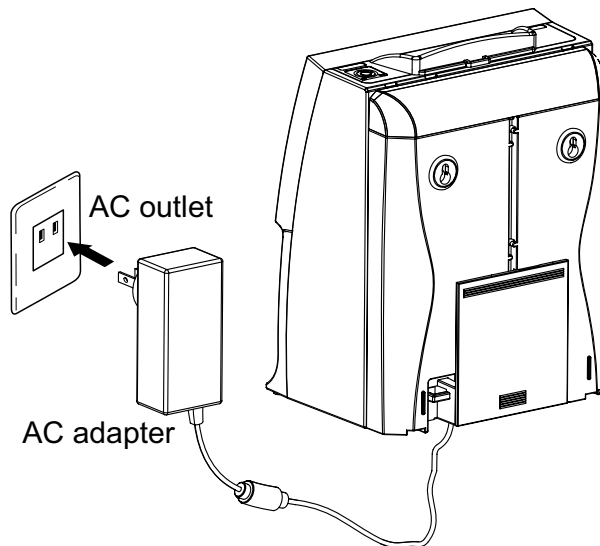
Remove cover to insert jack into the ES1000 and route the wire as shown. Replace cover and plug the transformer into the AC outlet.



Insert Jack



Route Cable



Power the ES1000

Atomic Synchronization

The ES1000 receives the NIST WWVB Signal which will automatically set the time and date.



For more information about the WWVB Radio Signal (Atomic Signal), visit NIST's website at: www.boulder.nist.gov.

When the ES1000 is searching for the Atomic Signal, the following characters will alternate on the display:



When the ES1000 has found the Atomic Signal and set the time and date, the Atomic Symbol will remain on:



If the Atomic Symbol is not on and steady, try repositioning the ES1000 for better signal reception. If no symbol is on, you will need to set the time and date manually.



Set your time zone (refer to “Time Zone” on page 10) for the Atomic Synchronization to perform properly.



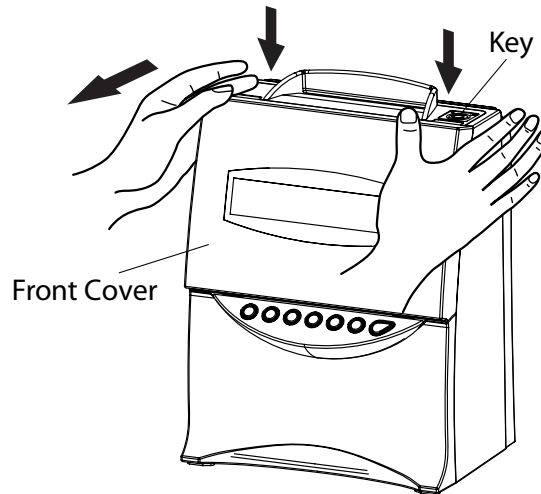
The Atomic Synchronization will automatically adjust for the Daylight Saving Time (DST).

PROGRAM THE ES1000

Front Cover Removal

You must remove the front cover to change settings.

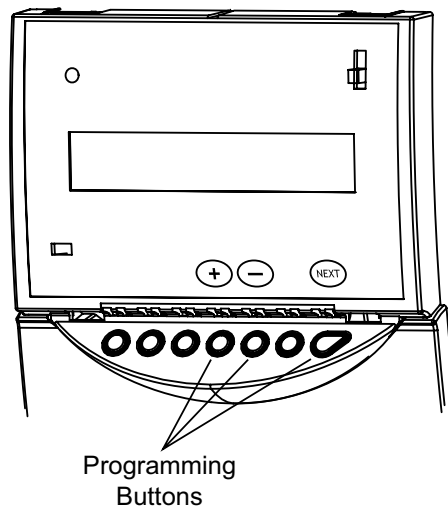
1. Insert key and turn counter-clockwise to unlock.
2. Remove Front Cover as shown.



Remove Front Cover

Programming Method

The three buttons used to program the ES1000 are:



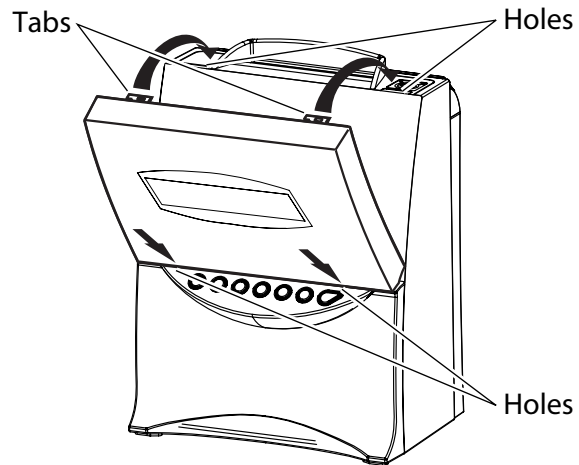
The **+** and **-** buttons change the value of the setting. The **NEXT** button scrolls to the next setting.



Reinstall the cover at anytime to return to normal operation.

Front Cover Installation

Fit the tabs on the bottom of the cover into the holes on the ES1000. Press the top of the cover closed as shown.



Replace Front Cover

PROGRAM SETTINGS

The ES1000 provides on-screen guidance for programming. We have summarized the settings and how they can be useful to your business. When needed, additional details are provided.

Reports

Press **+** so the display shows **YES**. Press **NEXT** to scroll through the options.

The following reports are available:

- **Current Hours Summary:** Prints a summary of active timecards.
- **Previous Hours Summary:** Prints a summary of timecards that have been closed out.
- **Timecards in Use Report:** Provides a list of the timecard numbers that are active.
- **Clock Setup Report:** Provides a summary of the current settings in the ES1000.



In the Previous Report, all timecards are marked with a “P” except an individual timecard that was reset during the current pay period.

Timecard Maintenance (Transferring and Resetting)

Press **+** so the display shows **YES**. Press **NEXT** to scroll through the following options:

- **Transfer a Timecard:** Allows you to move data from a full, lost or damaged card to a new card.
- **Reset a Timecard:** Allows you to manually reset the timecard so that it can be reused.
- **Reset All Timecards:** Can be used with alternate length pay periods or job costing.

Time Zone

Select your time zone for the Atomic Clock Synchronization.

Example Time Zones

DISPLAY TIME ZONE	DESCRIPTION
-04	Atlantic Standard Time
ES-05 (Default)	Eastern Standard Time
CS-06	Central Standard Time
-07	Mountain Standard Time
PS-08	Pacific Standard Time
AS-09	Alaska Standard Time
HS-10	Hawaiian Standard Time

Daylight Saving Time

The following Daylight Saving Time options are available:

- **Automatic:** The Atomic Feature of the ES1000 will automatically adjust for Daylight Saving Time.
- **Manual:** If you are not receiving the Atomic Signal, this option allows you to manually set Daylight Saving Time. The ES1000 uses a perpetual calendar and will not need to be reset each year. Press **NEXT** to enter the start/end date for DST.
- **Off:** If you do not observe Daylight Saving Time, this option turns DST off.



An “*” is printed after the daily total when Daylight Saving Time affects this total.

Hour Display Format

The hour can be displayed as:

- AM/PM
- 24 Hour Format

Hour Print Format

The hour can be printed as:

- AM/PM
- 24 Hour Format

Day Print Format

The day can be printed as:

- Day (of week)
- Date

Language

The Display and Timecard Print will show the selected language.

Choose from the following languages:

- English
- Spanish
- French

Date and Time

If the ES1000 is unable to receive the “Atomic Synchronization” signal, you will need to set the time and date manually.



Plug in the ES1000 and set the Time Zone (refer to “Time Zone” on page 10). Leave the ES1000 plugged in overnight. If the Atomic Symbol is showing steady in the morning, the time and date are set correctly.

Signals (Bells and Horns)

The signal menu schedules the ringing of bells or sounding of horns. Up to 48 signals can be set with different times, durations and days of the week.

SIGNAL MENU
= NO

- Press **+** to select **YES**.
- Press **NEXT**.

SIGNAL #01
OFF



At this point, if you press **+** or **-**, you will scroll through each of the Signals and view their current settings.

- Press **NEXT**.

SIGNAL #01 DURATION
= OFF

- Press **+** or **-** to select the number of seconds (1-9).
- Press **NEXT**.

SIGNAL #01 DAYS
= _MTWTF_

- Press **+** to turn the day on and **-** to turn the day off. As you press **+** or **-**, you will scroll through each day.
- Press **NEXT**.

SIGNAL #01 TIME
HOUR = 12AM

- Press **+** or **-** to select the hour of the signal.
- Press **NEXT**.

SIGNAL #01 TIME
MINUTE = 00

- Press **+** or **-** to select the minute of the signal.
- Press **NEXT**.

NEXT SIGNAL
= YES

- Press **+** or **-** to select **YES** or **NO**. Select **YES** to continue to add signals or **NO** to exit and continue with other settings.



You can scroll through the signals with **+** or **-** and press **NEXT** to edit the settings.

The following table may be helpful in laying out your Signal Schedule:

Signal Schedule

SIGNAL #	TIME	DURATION	DAYS OF WEEK
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			

SIGNAL #	TIME	DURATION	DAYS OF WEEK
25			
26			
27			
28			
29			
30			
31			
32			
33			
34			
35			
36			
37			
38			
39			
40			
41			
42			
43			
44			
45			
46			
47			
48			

Enable Override Switch

The Override button (OVR) allows employees who have worked past the “Day Advance Time” to punch out on the same line and have their time totaled for the previous day. A “V” is printed after the out punch for Override.

Enable Transfer Switch

The Transfer button allows employees to change timecards without losing their time totals. This feature is useful for full cards, damaged cards, and job cost tracking.

Pay Period Rules

The following options are in the Set Pay Period menu:

- “Type of Pay Period”
- “Start of Pay Period”
- “Week Overtime Threshold”
- “Daily Overtime Threshold”
- “Day Advance Time”
- “Minute Print Format”
- “Ribbon Color Change”
- “Maximum Time on the Clock”
- “Rounding Type”
- “Rounding Unit”
- “Auto Break Length”
- “Auto Break Elapsed Time”
- “Reset To Factory Defaults”



Changing these options will reset your timecards. These options should be set before using the clock or before the start of the next pay period.

Type of Pay Period

Set the pay period to one of the following choices:

- Weekly
- Bi-Weekly
- Semi-Monthly
- Monthly
- Off – This option allows the clock to be used for alternate length pay periods or job costing.

Start of Pay Period

- **Weekly:** Set the day of the week the pay period starts.
- **Bi-Weekly:** Set the start date of the pay period.
- **Semi-Monthly:** Set the start date of the first pay period and set the start date of the second pay period. You may select the last day of the month by selecting LAST; there are also options for LAST -1 through LAST -5.
- **Monthly:** Set the start date of the pay period start. You may select the last day of the month by selecting LAST; there are also options for LAST -1 through LAST -5.

Week Overtime Threshold

Set the total regular hours worked per week after which the hours are calculated as overtime (typically 40 hours, time over this setting is calculated as overtime).

Daily Overtime Threshold

Set the total hours worked per day after which the hours are calculated as overtime (typically 8 hours, time over this setting is calculated as overtime).

Day Advance Time

Allows you to change the time when the day advances to the next day. Punches after the Day Advance Time are new punches; open punches from the previous day will not be totaled. This is useful if you have shifts/employees who work through the night.

Minute Print Format

Controls hows the totals are printed:

- Minutes
- Hundredths



Hundredths print allows for simpler payroll calculations; however, it can be confusing to employees.

Ribbon Color Change

The Ribbon Color Change menu sets up color changes that help identify irregular punches. Up to 12 color changes can be set.

RIBBON COLOR CHANGE
MENU = NO

- Press **+** to select **YES**.
- Press **NEXT**.

COLOR CHANGE #01
OFF



At this point, if you press **+** or **-**, you will scroll through each of the Color Changes and view their current settings. Press **NEXT** to edit the settings.

- Press **+** or **-** to select **RED**, **BLACK**, or **OFF**.
- Press **NEXT**.

RIBBON COLOR #01 TIME
HOUR = 12AM

- Press **+** or **-** to select the hour of the color change.
- Press **NEXT**.

RIBBON COLOR #01 TIME
MINUTE = 00

- Press **+** or **-** to select the minute of the color change.
- Press **NEXT**.

NEXT COLOR CHANGE
= YES

- Press **+** or **-** to select **YES** or **NO**. Select **YES** to continue to add color changes or **NO** to exit and continue with other settings.



You can scroll through the color changes with **+** or **-** and press **NEXT** to edit the settings.

Use the following table to set-up Color Changes:

Color Change Schedule

COLOR CHANGE #	RED/BLACK	TIME
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		

Maximum Time on the Clock

Limits the total hours an employee can be clocked in before applying it as a missed punch. If the Maximum Time on the Clock is exceeded, the punch is moved to the next line as an “In” punch and the previous line is not totaled.

Rounding Type

The following options are available:

- Punch – To calculate the total time, each punch is rounded and then totaled.
- Hours – To calculate the total time, the punches are subtracted and the total is rounded.

Examples

Punch Rounding with a Five Minute Rounding Unit

OUT 12:02PM ^{Rounds} **→ 12:00PM**
IN 7:53AM **→ 7:55AM**
4:05 Total

Hours Rounding with a Five Minute Rounding Unit

OUT 12:02PM
IN 7:53AM
4:09 **→ 4:10 Total**
_{Rounds}

Rounding Unit

You may select from the following Rounding Units:

- None
- 5 Minute
- 6 Minute
- 10 Minute
- 15 Minute

The time rounds forward if the time is greater than half the rounding interval; otherwise, the time rounds back.

Six Minute Examples

5:01, 5:02, 5:03 rounds to 5:00

5:04 and 5:05 rounds to 5:06

Auto Break Length

When an employee has been punched in for at least the Auto Break Elapsed Time or longer, the Auto Break Length will be subtracted from the worked time total.

When an Auto Break is taken, an "*" will print next to the resulting day total.

Example

Auto Break After = 6 Hours
Auto Break Length = 60 Minutes

<u>IN</u>	<u>OUT</u>	<u>DAILY TOTAL</u>
8:00A	5:00P	8:00*

Reset To Factory Defaults

Restores the ES1000 settings to the factory defaults.



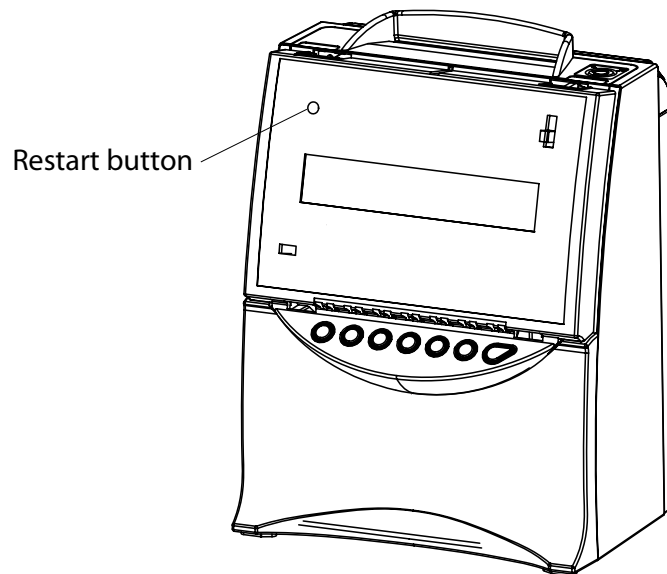
You will lose all programming and timecard data.



If the clock malfunctions and you would like to restart the ES1000 without losing the program settings and timecard data, press the **Restart Button** as shown on the next page.

RESTART BUTTON

If the ES1000 malfunctions, press the **Restart Button**. This will restart the ES1000, but you will not lose your settings and the timecard data.



Restart Button

EMPLOYEE OPERATIONS

Clocking In and Out

Typically, the employee can clock In and Out by simply dropping their timecard into the slot.

However, if an employee forgets to punch Out for lunch or In for the day, they may want to force their next punch to an In or Out. To accomplish this, the employee must press **IN** or **OUT**, then insert their timecard.

Override

It is a special case when an employee works across the Day Change. If this occurs, the employee must press **OVR**, then insert their timecard to punch Out. A “V” will print next to the Out punch to indicate Override.



The Override feature must first be enabled in setup.

Transfer a Timecard

If an employee’s timecard is full prior to the end of the Pay Period, they can extend punching to a new card. Select **TRANSFER**, insert the original full card, then insert the new timecard. The timecard totals will transfer to the new timecard.



The Transfer feature must first be enabled in setup.

Symbols on a Timecard

Symbols are used on the timecard to indicate certain features.

A “V” is printed after the Out punch for Override.

An “*” is printed after the Daily Total for Auto Break. The “*” is also used when Daylight Saving Time effects the total.

HARDWARE

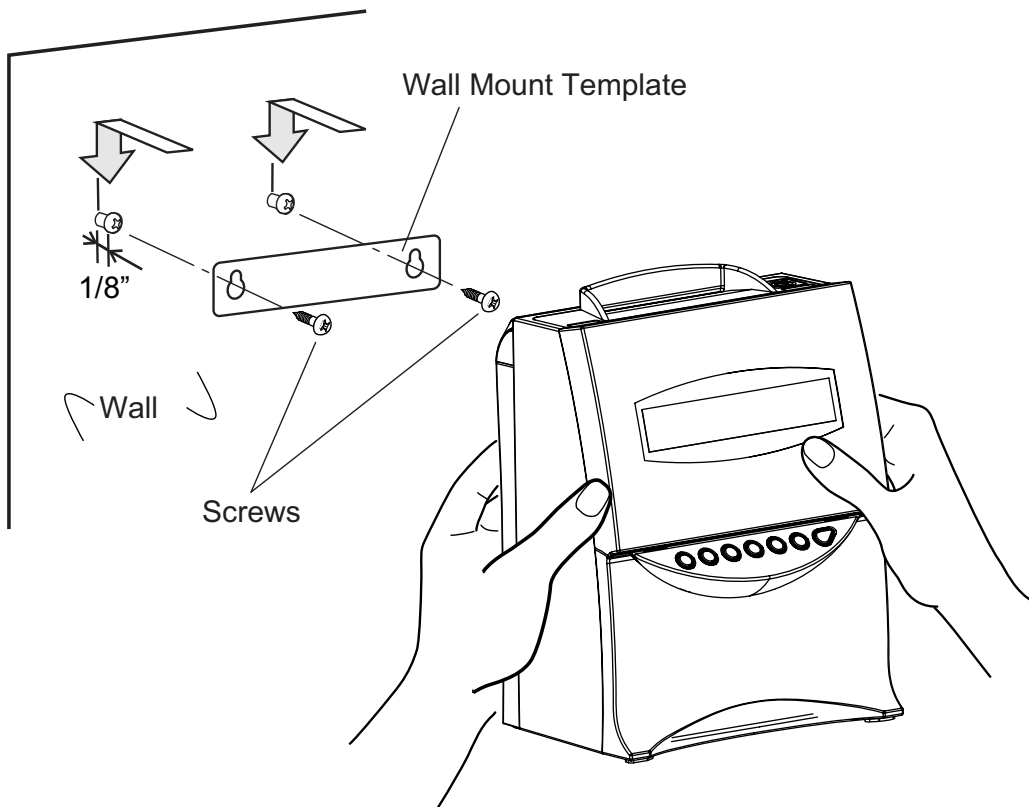
Wall Mounting

WARNING *The ES1000 should be mounted on 1/2 inch drywall using two ST4x20 screws and fasteners.*

1. Install two of the supplied wall anchors and long screws into a wall 10 cm apart using the template. The recommended height from the floor to the bottom of the unit is 45".

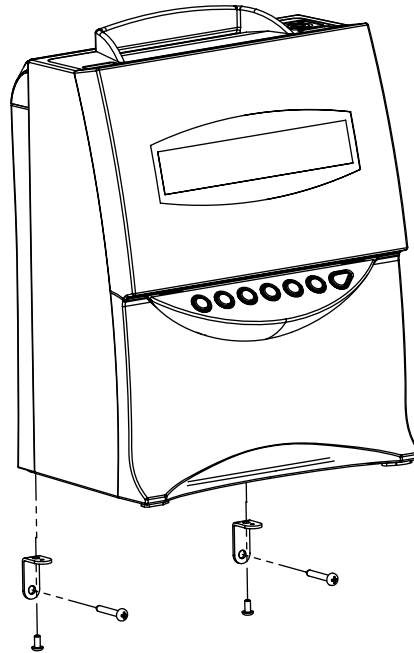


Be sure to keep 1/8 inch of the screw head away from the wall.



Install Wall-Mount Screws

-
-
2. Install the wall mount brackets to the base of the unit with the two short screws. Hang the unit on the wall and secure the brackets to the wall with the remaining wall anchors and long screws.

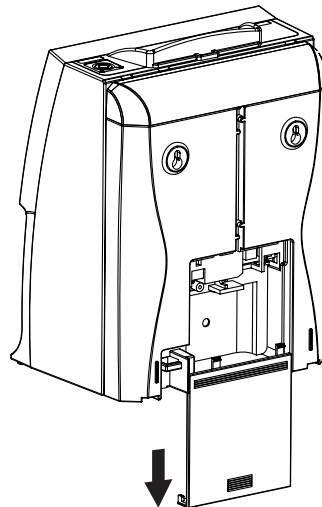


Mount Wall Mount Brackets

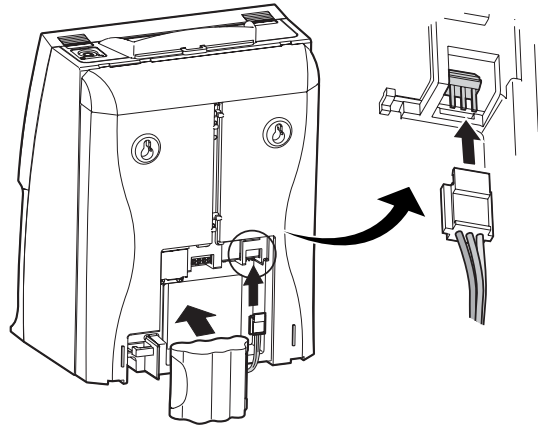
Battery Installation

This option allows printing in the event of a power failure.

Optional Battery Pack – Acroprint Part Number 58-0108-000



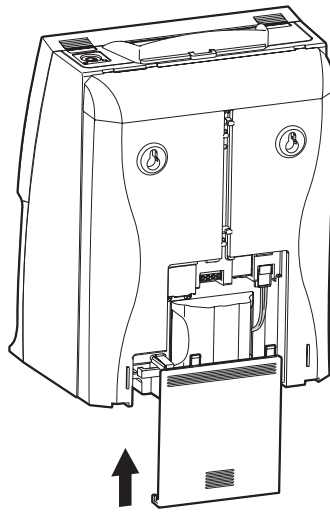
Remove Battery Compartment Cover



Position Battery/Attach the Connector



Make sure the wires are not caught when replacing the cover.



Replace Cover

Signal Wiring

Connecting an External Bell or Horn Relay

If external signal(s) are required, the addition of a relay (not supplied) will be necessary.

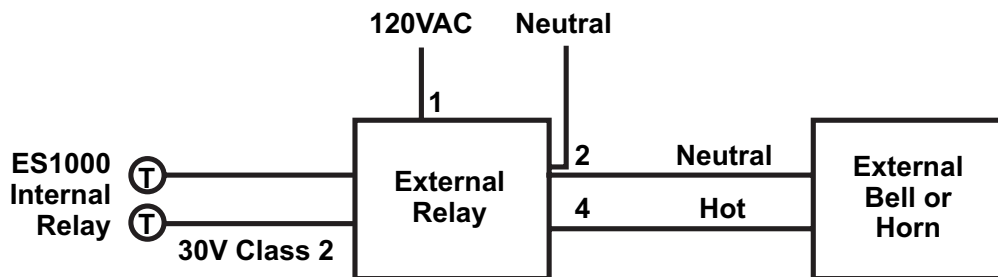


Please consult your local electrician for installation, safety, and compliance to local codes and regulations.

When a signal is activated, the internal contacts close completing the circuit. These internal contacts are “dry” and supply no voltage. Voltage applied to these contacts must **not** exceed 30 volts. An external relay must be used to activate signaling devices.

Acroprint Relay

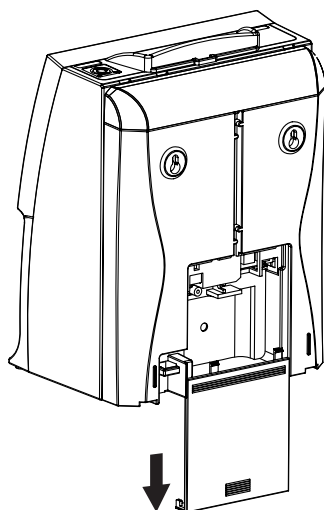
An Acroprint Relay Part Number 01-0230-000 should be used for external signal(s).



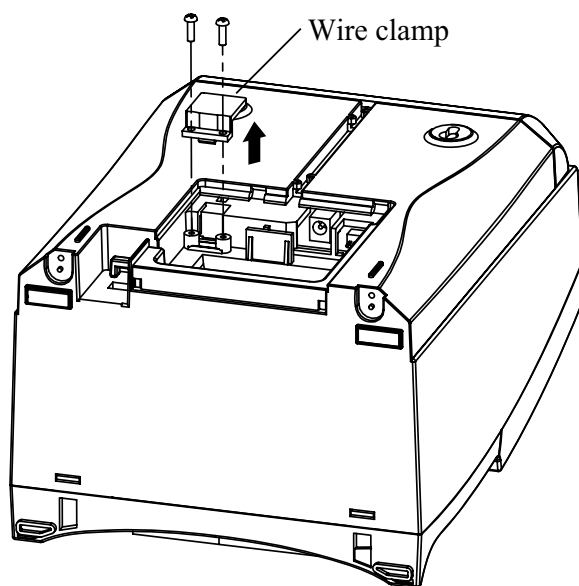
Connections Shown for Acroprint Relay Part Number 01-0230-000



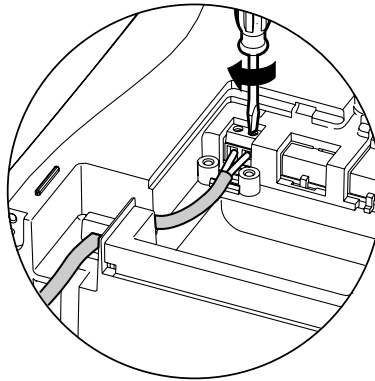
Be sure to unplug the unit from the wall outlet before wiring. Improper connection may cause a malfunction of the unit. Also make sure to secure wires with the wire clamp.



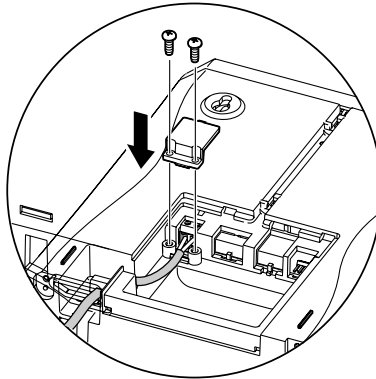
Remove Battery Compartment Cover



Remove Two Screws Holding Wire Clamp



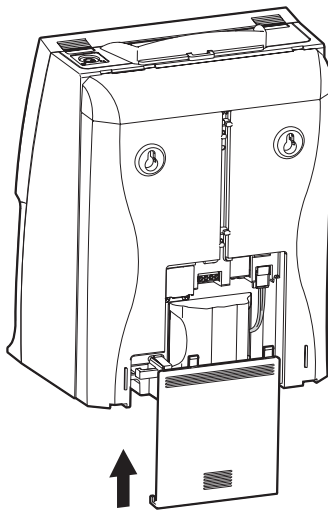
Insert Wires/Tighten Screws/Tuck Cord



Secure Wire Clamp with Screws



Make sure the wires are not caught when installing the cover.



Replace Cover

APPENDIX

Job Costing and Alternate Length Pay Periods

When Pay Periods is turned OFF, the timecards will no longer periodically reset.

For Alternate Length Pay Periods, use the “Reset All Timecards” in Timecard Maintenance at the end of the Pay Period.

You can also reset an individual timecard. This is helpful when using timecards to represent jobs with independent durations.

Troubleshooting

ERROR MESSAGE	CORRECTIVE ACTION
ERROR REVERSE CARD	Insert the card correctly.
MISFEED TRY AGAIN	Insure the card is aligned properly and try inserting the card again.
ERROR SAVING DATA SEE MANUAL	Call Acroprint at (800) 334-7190 (USA).
ERROR: CARD SENSOR CHECK RIBBON	Remove ribbon, turn knob counter-clockwise to insure no jamming, reinstall properly.
ERROR: PRINT MOTOR CHECK RIBBON	
ERROR: COLOR CHANGE CHECK RIBBON	
ERROR: CARD MOVEMENT CHECK RIBBON	
ERR: PRINT HEAD MOTOR CHECK RIBBON	
ERROR BAD CARD	Check timecard for damage; retry card; if error persists, transfer card.
ERROR DUPLICATE PUNCH	Wait at least one minute before punching Out.
MEMORY FULL RESET UNUSED CARDS	Reset one or more unused cards to free up memory.
CARD IS FULL TRANSFER TO NEW CARD	Use the Transfer feature to move Totals to a new card.
ERROR NOT CURRENTLY IN	The employee is either not In or has exceeded Maximum Time. Press Out to force an Out punch and manually calculate the time.
ERROR MAXIMUM HOURS	Change to a new timecard or reset timecard.

Specifications

Clock Accuracy	Monthly accuracy \pm 15 sec. (at room temperature)
Calendar	Year up to 2099. No adjustment required for Leap Year, Start or Month or Daylight Saving Time.
Printing System	Dot matrix, 9 Pin.
Power Failure Compensation	Three years of cumulative power failure hours after the date of shipment.
Print at Power Failure	Optional battery, 100-time printing or 24 hours Acroprint part number 58-0108-000
Battery Back-up	Internal Lithium
Timecards	Acroprint timecard (Form Number: ES1010) (Part Number: 09-9111-000)
External Bell/Horn Control	External time signal Dry Relay Contacts (no voltage supplied), 30 V, Class 2, Settings Duration from 1-9 seconds
Operating Environment	Temperature: -5° to $+45^{\circ}\text{C}$, $+25^{\circ}$ to $+113^{\circ}\text{F}$ Humidity: 20 to 80%, no condensation The unit operates at temperatures of 5°C (25°F) or below, but the print density and display are inferior to those at normal temperature operation.
Dimensions	7.17" (w) x 9.53" (h) x 5.51" (d) 182 (w) x 242 (h) x 140 (d) mm
Weight	Approx. 4.9 lbs. (2.2 kg)
Rating	The ES1000 is rated 12 VDC, 4 W. The external power supply rating is typically 100-240 VAC, 50-60 Hz, 0.55A Input and an Output of 12 VDC, 2A.