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## Hardware Installation for the 3350/3370

The images used are for the Mark 2 version of the clock.

### Mounting the clock

The clock must be installed on an upright surface.

1. Remove the two screws at the bottom of the clock and lift the back plate off the clock.
2. Mount the back plate as shown below and then tighten it to the mounting surface.



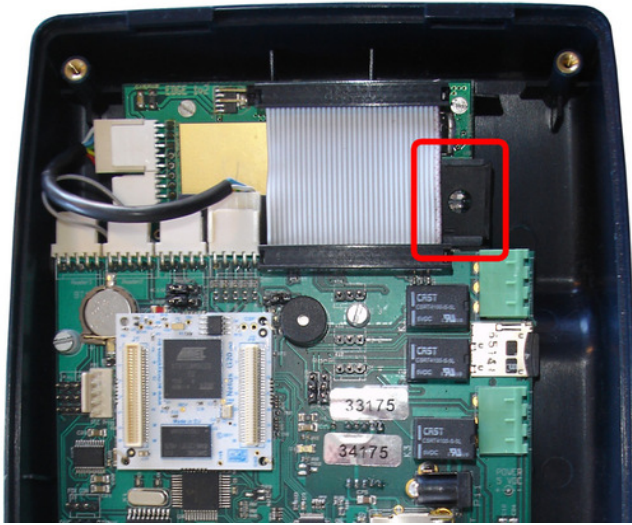
Back plate showing key holes in green and breakouts in red

3. Cables can be routed via three breakouts in the clock cover: two on the bottom and one on the back plate.

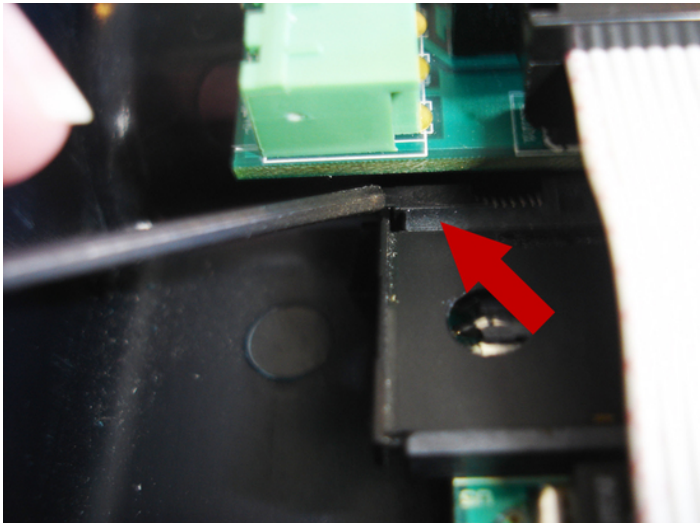
### GPRS SIM Card installation

The following instructions are only for GPRS enabled versions of the CS TimeClock.

1. To install the SIM card, remove the plate inside the clock.
2. The picture below indicates the location of the SIM card tray.



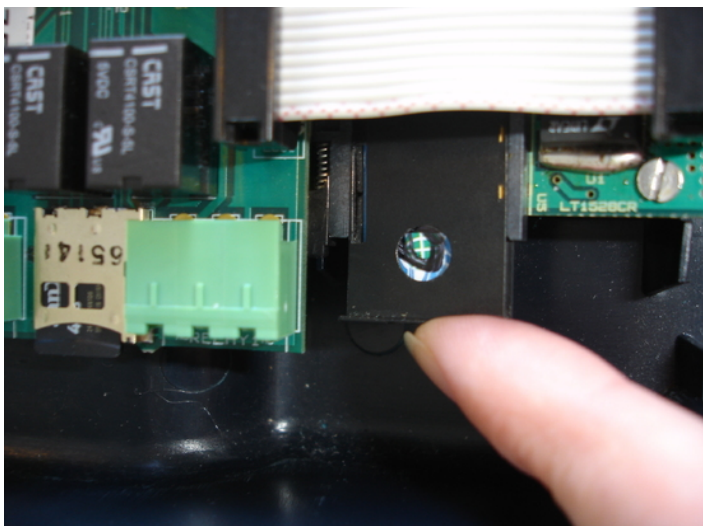
3. Remove the tray as follows: press in and hold the small lever at the bottom of the SIM tray and pull the tray out (see picture below).



4. Insert the SIM card into the SIM tray (bottom first). The SIM card must protrude from the tray.



5. Push the tray back into its frame.

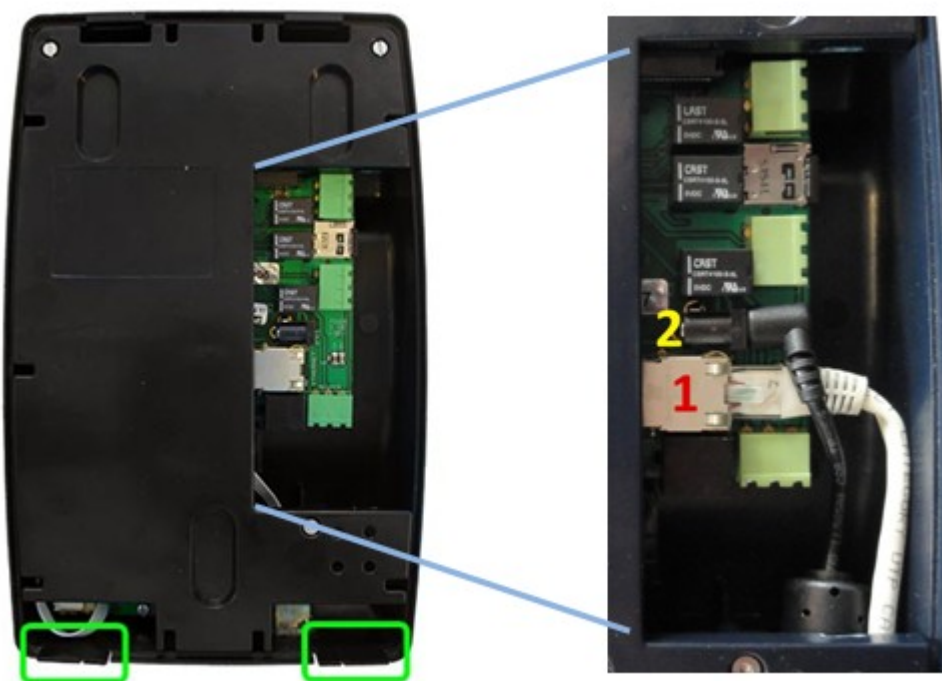


### Connecting power

1. Connect the 5 Volt power supply (supplied) to the TimeClock's 5 Volt connector (no 2 below).
2. The supplied power supply must be connected to the power main via a normal figure-8 power cable (not supplied).

### Connecting to a network

1. Connect the network fly lead cable to the TimeClock's RJ-45 connector (connector no 1 below).



### Connecting a siren or electronic locks

1. The TimeClock provides a trigger connector to a siren interface: Relay 1 (shown in the picture below on the left). The Siren Relay Trigger Connector pin connectors as seen from in the picture from top to bottom are:
  - Pin 1 and 2 – Normally Closed connection

- Pin 2 and 3 – Normally Open Connection



2. The trigger connector is rated for 12 Volts DC.

Place the front cover on the back plate and clip the top end in. Lower the bottom of the casing onto the back plate and fasten the two screws at the bottom of the clock.



## Connection Options

## Using a USB drive - no network connection

In this case you will not connect a network cable to the clock. Employee clockings and hours are [downloaded via a USB drive](#).

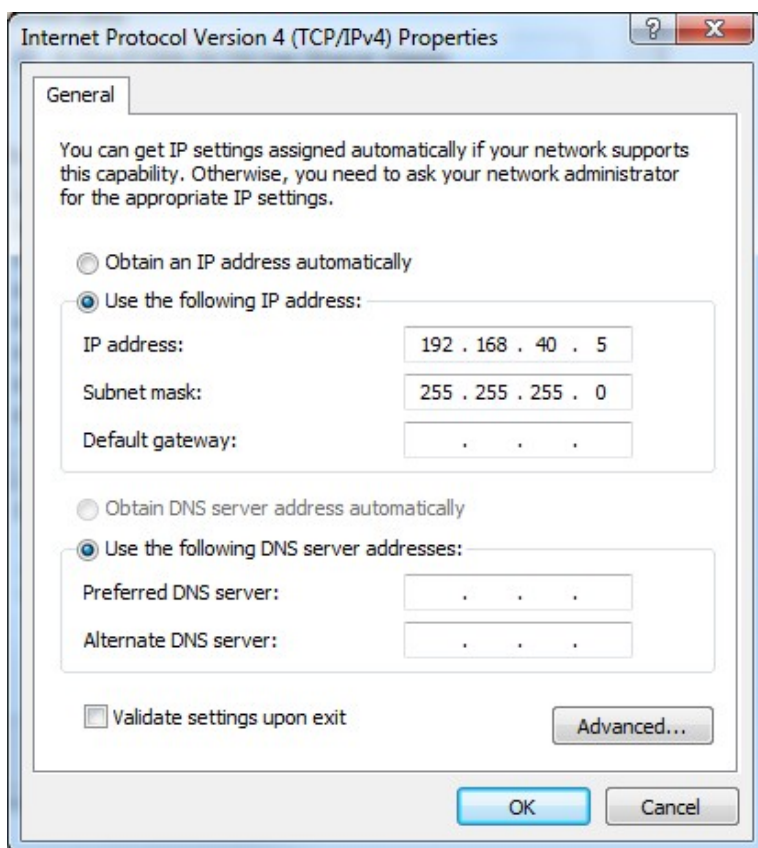
## Direct connection to a computer

The network cable from the clock is plugged into the network port of a computer.

In this case it is important that fixed IP addresses are used.

*Example:*

In the properties of the network connection used I have changed the properties of the Internet Protocol Version 4 (TCP/IPv4) item to:



Using the [instructions](#) below I set the clock to:

IP address: 192.168.40.6

Subnet: 255.255.255.0

Gateway: 192.168.40.6

To access the clock's web interface I use <http://192.168.40.6> in the web browser address bar.

## Connection to a LAN / WAN / Internet

Please contact your IT administrator for assistance to connect the clock to your company's network. The network cable from the clock will be plugged into a network point / switch / hub / router.

If there is a DHCP Server on the network, the easiest will be to select the DHCP option when changing the network settings on the clock. After the clock has rebooted you can view the clock's network settings by pressing #, 2, 2 and waiting for a few seconds until the IP address, subnet and gateway settings are displayed. You can then use that IP address to connect to the clock's web interface; or, if you have Mark 2 clocks, you can use the clock's serial number to connect to it e.g. <http://CSTC29356>.

When using a fixed IP address on the network, please check that the address is not already in use and that it falls outside of the DHCP pool.

To connect the clock to the internet in order to access the web interface:

1. The clock must have the correct gateway address. On smaller networks this is normally the IP address of the internet router.
2. Port 80 on the clock's IP address must be forwarded on the router to the same or a different port number. See [www.portforwarding.com](http://www.portforwarding.com) on how to do port forwarding on your make of router. The clock's web server port can be changed in the [Clock Setup](#) option in the web interface.
3. If receive a dynamic internet IP address from your ISP you would need a DNS service to provide a hostname like myclock.com in order to access your clock from the internet. When this option is available you will access the clock by typing in the hostname followed by the port number. If you have a fixed internet IP, you simply type in the IP address followed by the port number which you have forwarded on your router.

*Example:*

On the local network the clock's IP address has been set to 192.168.40.6 and the web server port is the default port 80. On the router port 80 is already used by another web server so the above IP address is forwarded to external port 25625. The router receives a dynamic IP address from the ISP and therefore a DNS service is used to resolve the IP address to a hostname.

**Important:** If you have a proxy server on your LAN, please exclude the IP addresses of your CS TimeClocks. A proxy server can slow down the communication between the clocks to such an extent that anti-passback and pathing will not work affectively.

### Network Port Summary

The following ports can also be port forwarded for optional services:

**22:** telnet connection for support

**37:** keep the clock's time and date up to date using an internet time server

**443:** firmware web updates

**5123:** communicates with time and attendance software like TNA

**5124:** used for the replication of employee direction and access area between clocks

If you have any security concerns or want more information about the use of the above network ports, download and have a look at the [CS TimeClock Network Specification](#) document.

## GPRS

The SIM card must be active and data enabled for the clock to connect to the mobile network automatically when available.

The clock will receive an IP address from your mobile network service provider. *No additional network configuration is required unless the clock is also connected to a LAN.*

You can find the IP address of the clock as follows:

1. Press #, 2, 2 on the clock keypad. Press # repeatedly until “Mobile Network Settings” is displayed on the screen. The IP address and signal strength will be displayed thereafter.
2. If the clock is online, open your browser and enter the following address:  
<http://myclock.cstimeclocks.com/<your clock serial number>>  
 e.g. if your clock serial number is 24500 then the address will be <http://myclock.cstimeclocks.com/24500>.

The browser should open the clock web interface with the clock IP address in the address bar. For additional information on the clock, go to the following address

<http://whoami.cstimeclocks.com/getclockdata?serial=<your clock serial number>>.

To check the GPRS signal strength, press 945# on the clock keypad. The clock will disconnect from the mobile network to test the signal strength and will reboot thereafter. The strength will be displayed in dbm and visually with a number of bars:

5 bars : >= -59 dbm  
 4 bars : >= -89 dbm  
 3 bars : >= -97 dbm  
 2 bars : >= -103 dbm  
 1 bar : > -109 dbm  
 0 bars : <= -109 dbm

The signal strength range is between -51 dbm and -113dbm. For more information on deciding on the location of the clock see [this](#) document.

## Network Setup

**Please note:** When entering an IP address from the clock menu a total of 12 digits must be entered e.g. 192.168.1.12 needs to be entered as 192168001012.

1. Press # to view the clock menu.
2. To cancel at any time press \*.
3. Press 7 to select “Device”.
4. Press 2 to select “Network Settings”.
5. “Enter Administrator Card, PIN or Finger” is displayed on screen.
6. Enter 9970#. “Admin Demo User” is displayed for about 2 seconds.
7. “Use DHCP?” will be displayed on screen. If you select Yes (#) the procedure will end as all the network settings will be updated from your DHCP server. If you select No (\*) “Enter IP address” with 192.168.0.111 displayed as the default IP address.
8. Type in the required IP address. Press # to accept the displayed IP address.
9. “Enter Netmask” will be displayed next. Type in the netmask IP address or press # to accept the displayed address.



10. “Enter Gateway” will be displayed next. Type in the gateway address or press # to accept the displayed address.
11. “Enter DNS1” will be displayed next. Type in the new DNS address or press # to accept the displayed address. Repeat the process for DNS2, DNS3 and DNS4.

At the end of the procedure the clock will display “Network Settings Successful” and may display “Clock Inactive” for a short while.

## Setting the Time, Date and Time Zone

1. Press # to view the clock menu.
2. Press 6 to select “Time”
3. To cancel at any time press \*.

### Setting the time from the Internet

- i. Press 1 (“Get Internet Time”). “Enter Administrator Card, PIN or Finger” is displayed on screen.
- ii. Enter 9970#. “Admin Demo User” is displayed for about 2 seconds followed by “Get Internet Time Process started in background”.

### Setting the Time manually

- i. Enter the “Time” menu as in 1.
- ii. “Enter Administrator Card, PIN or Finger” is displayed on screen.
- iii. Enter 9970#. “Admin Demo User” is displayed for about 2 seconds followed by “Time: (hh:mm:ss)” and the current time below that.
- iv. Where you are entering the time, the key sequence for 09:21:00 will be: 092100  
“Successful” will be displayed when the time have been set.

### Setting the Date manually

- i. Enter the “Time” menu as in 1.
- ii. Press 3 (“Set Date”). “Enter Administrator Card, PIN or Finger” is displayed on screen.
- iii. <p.>Enter 9970#. “Admin Demo User” is displayed for about 2 seconds followed by “Date: (dd/mm/yyyy)” and the current date below that.</p.>
- iv. Where you are entering the date, the key sequence for 01 June 2009 will be: 01062009  
“Successful” will be displayed when the date have been set.

### Setting the Time Zone

- i. Enter the “Time” menu as in 1.
  - ii. Press 4 (“Set Time Zone”). “Enter Administrator Card, PIN or Finger” is displayed on screen.
  - iii. Enter 9970#. “Admin Demo User” is displayed for about 2 seconds followed by “Enter New TimeZone”.
  - iv. Enter your [Time zone code](#) followed by #.
- “Set Time Zone Successful” “Will BOOT when done” will be displayed and the clock will reboot.

## Enrolling Employees

1. Press # to view the clock menu.
2. Press 3 to select “Employee”.
3. To cancel at any time press \*.

### Adding an Employee

- i. Press 1 (“New Employee”). “Enter Supervisor Card, PIN or Finger” is displayed on screen.
- ii. Enter 9970#. “Supervisor Demo User” is displayed for about 2 seconds followed by “Enter Employee Number”.
- iii. Enter the employee number followed by #.

- iv. If this is a new employee “Employee not found” “Add Employee?” will be displayed. Press # to add the employee number. If you press \* (No) the procedure will be canceled. If the Employee exists on the system and is currently terminated, “Employee Terminated” “Unterminate?” will be displayed. To reinstate that employee press # or press \* to cancel the procedure.
  - v. “Enter Card Number” will be displayed. Enter the employee PIN number or swipe the employee card. If the number is not yet in the clock database “Card not found” “Add Card?” will be displayed. Press # to add the number or \* to cancel. If the card has been assigned to another employee “Reassign Card?” will be displayed. Press # to reassign the card to this employee or \* to select another card number.
- “Assign Card”, “Successful” will be displayed at the end of the successful completion of the process.

## Enrolling a Fingerprint

- i. Enter the “Employee” menu as in 1.
- ii. Press 3 (“Add Fingerprint”). “Enter Supervisor Card, PIN or Finger” is displayed on screen.
- iii. Enter 9970#. “Supervisor Demo User” is displayed for about 2 seconds followed by “Enter Card Number”.
- iv. Enter the employee’s card number followed by #.
- v. “Swipe Finger” will be displayed. The employee must place her / his finger **firmly** on the fingerprint reader with the top crease of the finger placed on the ridge.



- vi. “Enroll Finger in Progress” will be displayed after which the finger can be removed from the reader.

The process will be completed once “Enroll Successful” has been displayed.

## Adding a Supervisor

1. Press # to view the clock menu and then press 5 (“Admin”).
2. Press 2 (“Employee Level”). “Enter Administrator Card, PIN or Finger” is displayed on screen.
3. Enter 9970#. “Supervisor Demo User” is displayed for about 2 seconds followed by “Enter Employee Num”.
4. Enter the employee number of the supervisor followed by a #.
5. <p>“Is Supervisor?” will be displayed. Press # for “Yes” and \* for “No”.</p>
6. “Is Administrator?” Press # for “Yes” and \* for “No. Please note: only one employee can be assigned the level of administrator i.e. 9970 will not be accepted as the administrator card from this point onwards.

“Set Employee Level Successful” will be displayed after successful completion of the process.

## General Use

## Clocking on the CS TimeClock

Clocking on the CS TimeClock is quite simple. To clock using proximity cards or tags, hold the centre of your employee card or tag in close proximity to the “Tag Here” circle on the clock. To clock using a PIN number, type the number on the clock keypad and press #. If the fingerprint reader is setup to use identification, the employee must firmly place their enrolled finger on the fingerprint reader. If fingerprint verification is used, the employee must first swipe their card or enter their PIN and then place the finger enrolled on that card / PIN on the fingerprint reader.

The employee name, access area and TNA direction will be shown on the clock display. For an IN clocking the clock will beep twice and light a green LED. For an OUT clocking the clock will beep once and light a red light.

## Exporting data to the USB Thumb Drive

Only supervisors and the administrator can access this option.

1. Plug a USB Thumb drive into an available USB port on the clock.
2. Press # to enter the clock menu and then press 4 (“Super”).
3. Press 3 (“Export to USB/Excel”). “Enter Supervisor Card, PIN or Finger” is displayed on screen.
4. Enter your supervisor card number and press # or swipe your supervisor card. “Days to Export?” will be displayed.
5. Enter the number of days you wish to export clockings and hours information for and press # to continue.
6. “Export to Excel Successful” will be displayed on screen when the process is complete. You can now unplug the USB drive from the clock.

The clock will write two files to the USB drive: dhrsexportXXXXX.csv (clockings and daily hours) and phrsexportXXXXX.csv (payroll hours) where XXXXX is the serial number of the clock. The hours are exported as decimal hours to allow easy manipulation in Excel.

## Backing up the database to USB Drive

Backups are essential for any electronic data system and can only be done by the clock administrator.

1. Plug a USB Thumb drive into an available USB port on the clock.
2. Press # to enter the clock menu and then press 7 (“Device”).
3. Press 1 (“Backup Database”). “Enter Administrator Card, PIN or Finger” is displayed on screen
4. Enter your administrator card number and press # or swipe the administrator card.
5. “USB Backup in Progress” will be displayed while the database is written to the drive.

“USB Backup Successful” will be displayed when the backup is complete after which you can remove the USB Thumb drive.

Permalink: <http://tinyurl.com/3nnkfd>