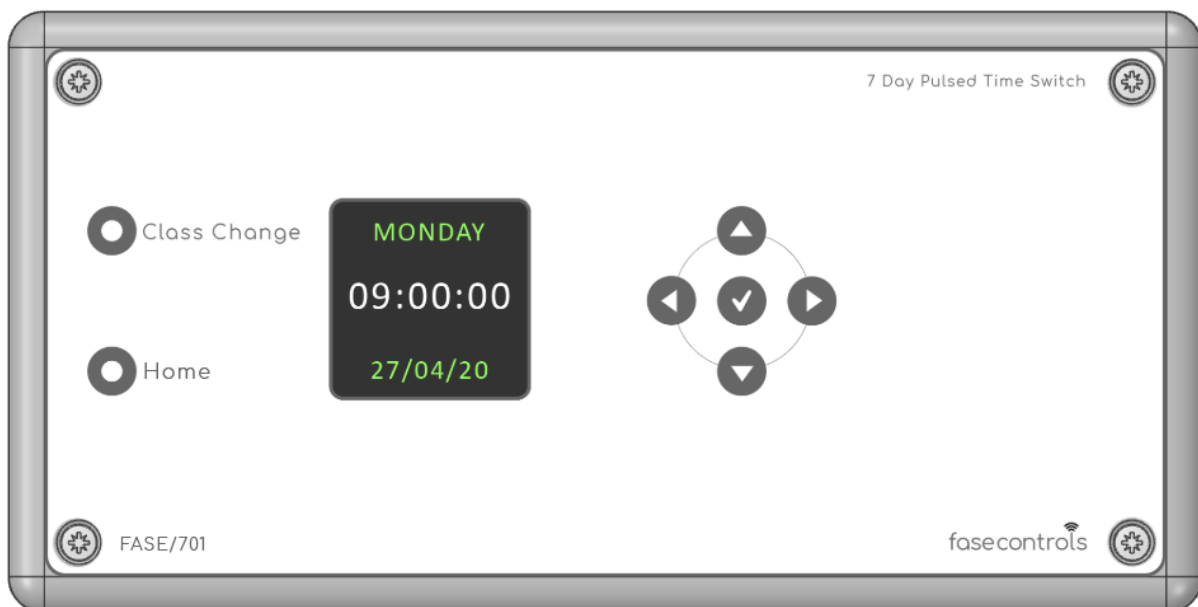


FASE/701– Class Change Time Clock



Class Change Time Clock

Engineer Installation & Programming Manual

Firmware Version: FASE 1.0

Models Covered By This Manual:

FASE/701/E - FASE/701/EXT - FASE/701/E/LP – FASE/701/E/HP

FASE/701

Engineer Installation
and Programming
Manual V1.2

Contents

1	Introduction	Page 3
2	Warnings	Page 4
3	Class Change Controller Model Overview	Page 5
4	Installation	Page 6
4.1	Dimensions	Page 6
4.2	Mounting	Page 7
5	Power Supply & Connections	Page 8
5.1	Power Supply Requirements	Page 8
5.2	Connecting To Fire Panels	Page 9
5.2.A	Conventional Fire Panels	Page 9
5.2.B	Addressable Fire Panels	Page 10
5.2.C	Driving Separate Sounder Circuits	Page 12
5.2.C.1	Switching Sounder Circuits	Page 12
5.2.C.2	Switching Bell Circuits	Page 13
6	Configuration	Page 15
6.1	Function Buttons	Page 15
6.2	Home Page & Menu Structure	Page 16
6.3	User Menu	Page 17
6.3.1	Set Time & Date	Page 17
6.3.2	Set Operating Mode	Page 17
6.3.3	Config Passcode	Page 17
7	Engineer Configuration	Page 18
7.1	Engineer Menu	Page 18
7.2	Set Class Change Alarm Times	Page 18
7.3	Copying Class Change Alarm Times	Page 19
7.4	Ringing Styles	Page 20
7.5	Options Menu	Page 21
7.6	British Summertime & Daylight Saving	Page 21
7.7	System Information	Page 21
7.8	Isolating The Buzzer	Page 21
7.9	Delete All Set Class Change Alarms	Page 21
7.10	Display Back Light Brightness Settings	Page 22
8	F.A.Q & Trouble Shouting	Page 23
9	Technical Specification	Page 24
10	Absolute Minimums & Maximums	Page 24

1. Introduction

Designed, developed & manufactured in-house by Fase Controls, the Fase/701 range of Class Change Time Clock is a highly accurate & powerful Class Change Time Clock for automatically indicating school class change events or factory shift changes. Designed to be a Class Change Time Clock from the outset, the FASE/701 range of class change time clocks switch a set of clean relay contacts at programmable times of the day to send a class change signal to a fire panel or to power and control dedicated class change sounder circuits (FASE/701/E/LP) or class change bell circuits (FASE/701/E/HP).

With a simple to navigate, yet comprehensive menu structure, the Fase/701 Class Change Time Clocks has been designed to be as user-friendly as possible and the simple programming options offered to the engineer help reduce installation & configuration times.

The Fase/701 Class Change Times Clock will allow up to 60 individual class change times per day to be programmed (depending on model). The 'Copy Alarms' feature lets the installation engineer set the required class change alarms for Monday and then copy these to all school days (Mon-Fri) or all days (Mon-Sun). All of which can then be edited as required. This not only makes programming the class change times simple; it also frees up the installation engineer for other tasks.

Once the class change alarm times have been set, the output relay can be configured to energise continuously for a selectable duration of between 1 second and 59 seconds or set to pulsed with selectable on/off pulse periods for your required duration.

2. Warnings



Under **NO** circumstances should AC voltage be switched by any output contacts on-board the Fase/701/XXX class change controller itself. Maximum voltage which should be switched via the on-board outputs is 30vdc @ 350ma. If you wish to switch an AC voltage, mains voltage or a DC current higher than 350ma then the model numbers FASE/701/E/LP (sounders) or FASE/701/E/HP (bells) should be used.

Switching AC voltage or higher loads directly through the on-board output relay may damage the Fase/701/XXX class change time clock, other 3rd party equipment and possibly promote the risk of electric shocks.

For further details, see Section 4.2.c - **Driving Separate Sounder Circuits.**

If you are unsure, stop and seek advice.



This document only covers the configuration settings of the Fase/701 range of class change time clocks. Although we do give example connection details to 3rd party equipment, we do not offer exact connection details or procedures of the connection to any 3rd party equipment. The range of Fase/701 Class Change Time Clock carries no warranty unless the unit is installed, commissioned and serviced in accordance with this manual and the relevant standards by a suitably qualified and competent person or organisation.

Do not attempt to install this equipment until you have fully read and understood this manual. Failure to do so may result in damage to the Fase/701 Class Change Time Clock or other 3rd party equipment which could invalidate any warranty.

For technical support please contact your distributor. Do not call the Fase technical support department unless your distributor has first given their advice and attempted to rectify the issue.

THIS EQUIPMENT MUST BE INSTALLED BY A SUITABLY SKILLED & TECHNICALLY COMPETENT PERSON



Always ensure that all works are completed following the recommended working practices of the equipment you are signalling to. As examples, in the UK, the wiring regulations are governed by BS7671. Fire alarm systems are governed by BS5839.

Under no circumstance should an earth cable or any other safety circuit or device be switched by the a Fase/701 class change time clock.

If you are unsure, stop and seek advice.

3. Class Change Time Clock Models

Model	ALARMS PER DAY	SUPPLY VOLTAGE	SIGNALLING TYPE	OUTPUT RATING	OUTPUT SWITCHING	No. of OUTPUT RELAYS
FASE/701/E	20	24VDC	RESISTANCE	350MA @30VDC	SIGNAL RELAY	1
FASE/701/EXT	60	24VDC	RESISTANCE	350MA @30VDC	SIGNAL RELAY	1
FASE/701/E/LP	20	24VDC	RESISTIVE	5AMPS 30VDC	POWER RELAY	2
FASE/701/EXT/LP	60	24VDC	RESISTIVE	5AMPS 30VDC	POWER RELAY	2
FASE/701/E/HP	20	24VDC	INDUCTIVE	5AMPS 230VAC/DC	POWER RELAY	2
FASE/701/EXT/HP	60	24VDC	INDUCTIVE	5AMPS 230VAC/DC	POWER RELAY	2

Model Overview:

We offer two class change controllers: the FASE/701/E and the FASE/701/EXT.

The FASE/701/E supports up to **20** class change alarms per day, while the FASE/701/EXT supports up to **60** alarms per day.

Our other models are variations of these controllers, featuring high-power relays situated in the rear of the class change enclosure.

If a model number includes 'LP', it can switch up to 30VDC at up to 5 amps per output relay and should be used to drive sounder circuits. Models with 'HP' in the number, are capable of switching up to 230V at 10 amps AC/DC and should be used to drive motorised bells.

Model Number Legend:

FASE/701/ ¹ / ²

1)

- E = 20 Alarms Per Day.
- EXT = 60 Alarms Per Day.

2)

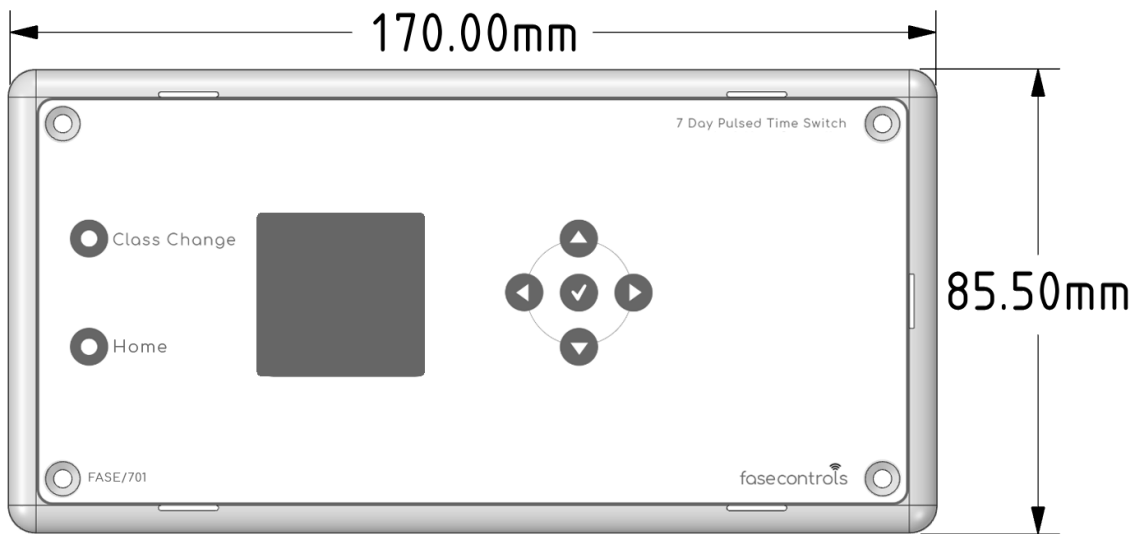
- LP = Capable Of Switching Dedicated Class Change **Sounder** Circuits Rated At 30VDC / 5amps.
- HP = Capable Of Switching Dedicated Class Change **Bell** Circuits Rated At 230AC/DC 5amps.
- EMPTY = Onboard Signal Relay Designed To Send Signal To A Fire Alarm Panel.

All controllers require a 24vdc supply.

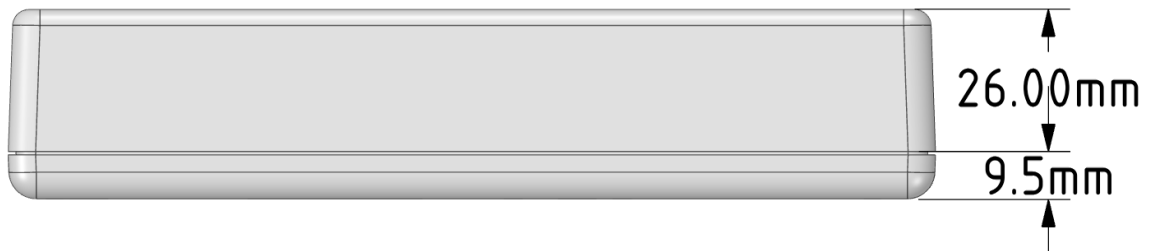
4. Installation

4.1 Dimensions

Front View



Top View - Standard Enclosure

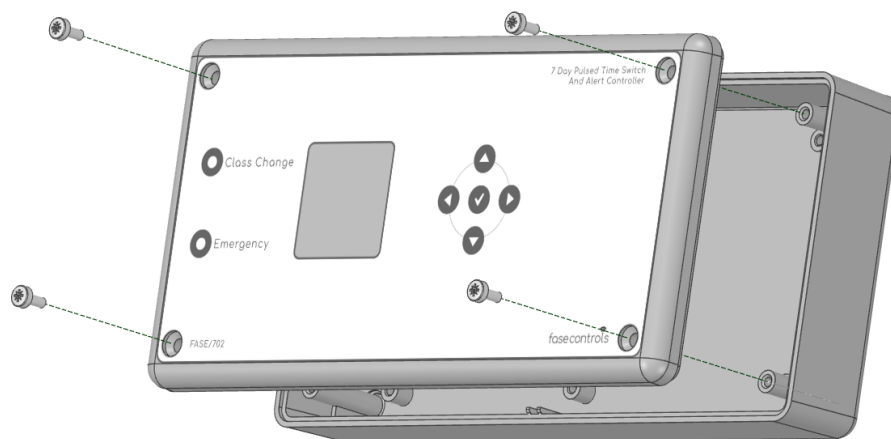


Top View - Deep Enclosure



Standard Enclosure (HxWxD) : 85.5mm x 170mm x 35.5mm

Deep Enclosure (HxWxD) : 85.5mm x 170mm x 60.5mm



Do Not Gland Cables In To The Side Of The Standard Enclosure

4.2 Mounting

There are 2 different enclosures offered with the FASE/701 range of class change time clocks. One has a standard enclosure which is designed for rear/ top or bottom cable entry, the other is the deep enclosure which is designed for cable entry & gland entry from any side. Before you continue, please ensure that you have the correct enclosure.

The Fase/701 controller should be installed in a position where it cannot be tampered with by unauthorised personnel, ideally in an office or cupboard.

Once the FASE/701 is initially setup, minimum future interaction with the unit should be required.

The back box does not have any pre-drilled holes as each installation differs. 4 x small holes should be made for mounting screws. If the cables are being brought into the rear of the unit then a larger hole (up to 32mm) should be drilled and cables carefully brought through. If the deep enclosure is being used then holes for any glands should be drilled in positions which will not interfere with any internal components.

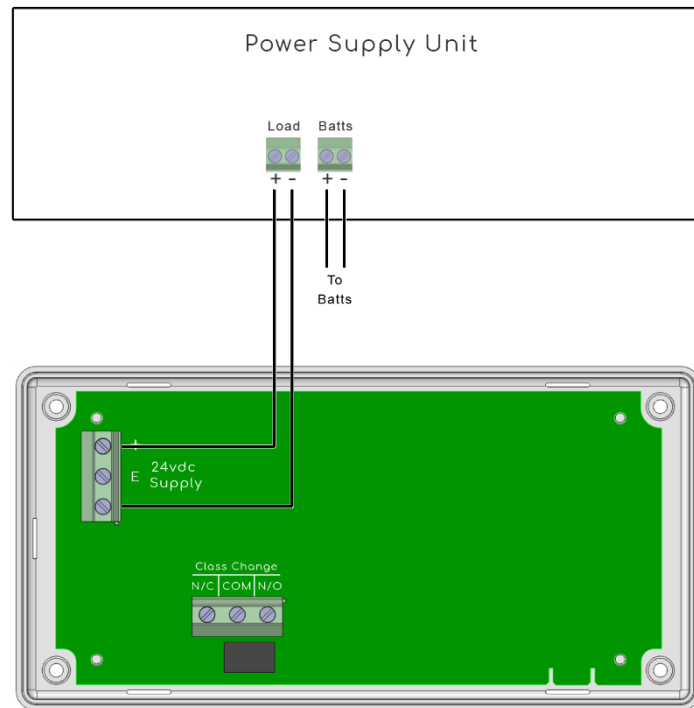


The standard enclosure has been designed to accept cables entering the rear of the unit or by mini trunking running to the top or bottom of the enclosure. Due to the positioning of internal components, no trunking or cable glands should be brought into the sides of the standard enclosure.

If you do need to gland cables to the side of the Class Change Time Clock then use the deep enclosure.

5. Power Supply & Connections

5.1 Power Supply Requirements



Having a battery backed PSU will prevent the Fase/701 Class Change Time Clock from powering down during power cuts.

3.2ah batteries will support the Fase/701 for more than 24 hours in the controller's quiescent state. If the Fase/701 Class Change Time Clock is powered down then all settings are automatically saved and the unit will not require re-configuring when re-powered.

The time and date will be remembered for approx. 1 week. Returning power to the Fase/701 unit within this 1 week window will result in the correct time being returned once power is reapplied. If power is removed for longer than 1 week then the time and date will need to be programmed again.



To guarantee that class change alarms operate reliably, even during power cuts, it is recommended that a battery backed PSU is used. Class change alarms will not operate when power is removed from the Fase/701 class change time clock.

5.2 Connecting To Fire Alarm Panels

The Fase/701 range of class change time clocks units have 2x on-board screw terminal blocks. One is for the 24v supply to the controller, the other is a set of clean relay contacts for connection to a fire alarm system.

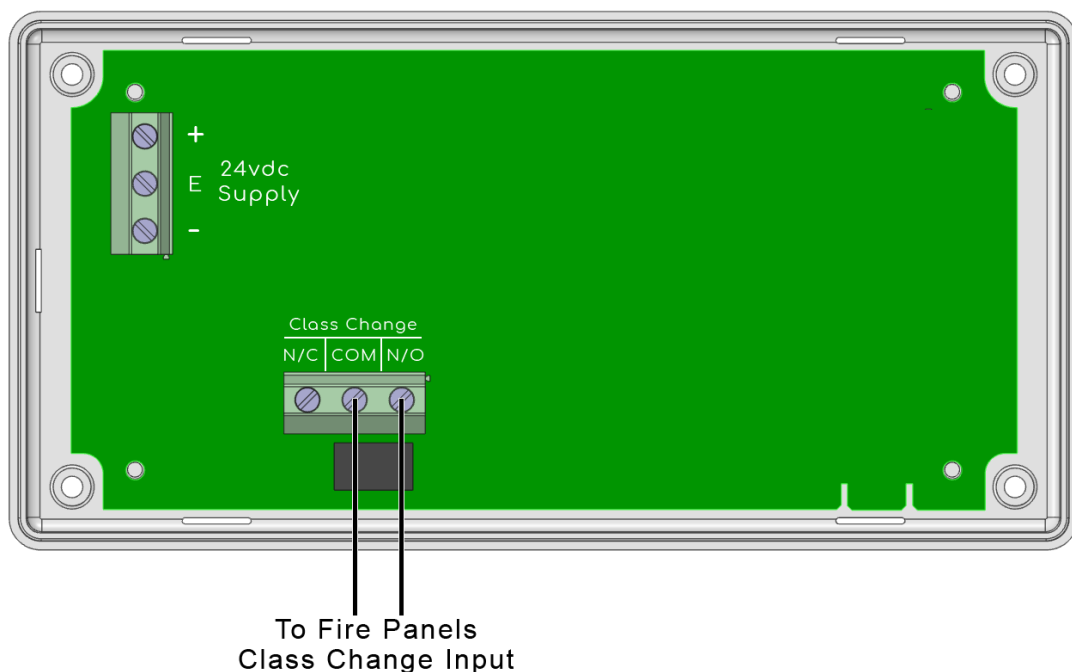
A. Signalling To Conventional Fire Alarm Panels

Most conventional fire alarm panels have an input labelled 'Class Change', 'CC' or similar which is purposely designed for connection to class change timers like the FASE/701/E or FASE/701/EXT. When the fire panel class change terminals are closed the fire systems sounders or bells will ring until this input is opened again.

A cable should be connected to the FASE/701's Class Change COM & N/O terminals and connected to the Class Change input at the fire alarm panel as shown in the below diagram.

In the 'Ring Styles' options of the FASE/701 controller, set the ringing style to 'Pulsed' and define the ringing pattern as required. As default, this will pulse on&off 3 times with an on/off pulse duration of 1 second. This ringing pattern can be configured to match your requirements.

Connecting To Conventional Fire Alarm Panel Example

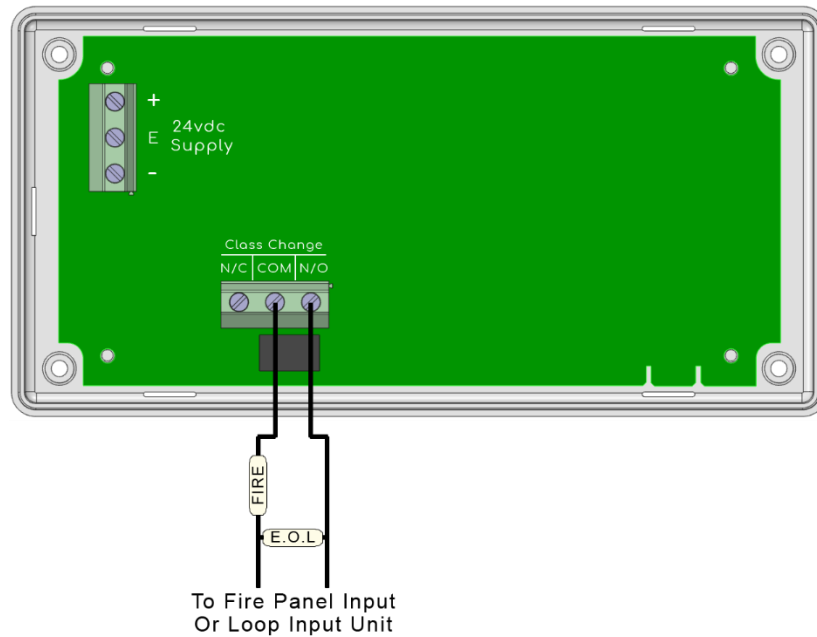


Fire panels do differ. Some class change inputs are labled 'Class Change' or 'CC' others are labelled 'Alert' or similar.

The above diagram is only given as an example only and may not suit your application.

If you are unsure then stop and seek advise.

B. Signalling To Addressable Fire Alarm Panels



Minimum Addressable Fire Alarm Panel Programming Requirements

- All alarm tones should be unique and easily identifiable from each other and set to a pattern which could not be mistaken for a fire alarm evacuation.
- Set each input as a 'None-Latch', 'General Alarm' or 'Control Signal' and let the FASE/701 control the signalling. (Depending on the fire alarm panel being connected to).
- In the 'Ring Styles' options of the FASE/701 controller, set each ringing style to 'Continuous'.

Exact connections and programming will depend on the fire alarm system which you are connecting to. Some addressable fire panels have a programmable input within the fire panel itself which is designed to accept signals from a class change timer. Other addressable fire panels require the signal from a class change timer connecting to a loop input interface. The end of line (E.O.L) and fire resistors are specified by the fire alarm or protocol manufacturer.

Dependant on which fire panel you are connecting to, this input should be set as a 'None-Fire', 'General Alarm' or 'Control Signal' type input to prevent the fire alarm system from entering a fire alarm condition when the class change signal is received. This input should also be set as none-latching.

In the 'Ring Styles' options of the FASE/701 controller, set the ringing style to 'Continuous'. This will then energise the output relay sending signal to the fire alarm system until the class change ringing pattern is complete, at which point the output relay will de-energise and remove signal from the fire alarm input.

The above diagram is provided as guidance only. Fire alarm systems do differ and the terminology changes between fire panel manufacturers or protocol. Some fire alarm panels offer only basic cause & effect programming functionality and other limitations may exist. You should speak with your fire alarm supplier or manufacturer to ensure the required programming options are available.

Once the FASE/701 is connected to fire alarm input then alteration of the fire alarm systems cause and effect programming is required to accept signal from the FASE/701 and produce the unique tones required.

Once completed, the FASE/701 and the full fire alarm system should be tested to prove everything is working as expected.

IMPORTANT. PLEASE READ



The cause & effect programming of an addressable fire alarm panel will require altering to accept input from the FASE/701/E or FASE/701/EXT Class Change Time Clock and to produce unique tones via the fire alarm system. This should only be completed by a trained and competent person or organisation.

Once the cause & effect programming has been completed, all systems and signalling should be fully tested to ensure they are operating as expected.

Space left blank intentionally for engineer's notes:

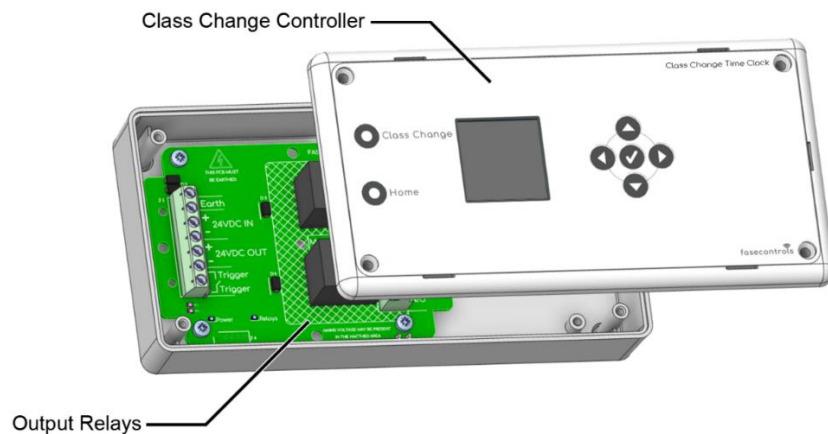
C. Driving Separate Sounder Circuits

If you are driving separate sounder or bell circuits that are totally independent from the fire alarm system, then you will need a Fase Controls Class Change Time Clock which includes either 'LP' or 'HP' in the model number. These time clocks include high-output power relays capable of switching dedicated sounder circuits (LP) or bell circuits (HP).

Use the 'LP' models to drive electronic sounders and the 'HP' to drive motorised bells.

Class Change sounders are a resistive load and class change bells are an inductive load. Our 'LP' and 'HP' relay boards have been developed to deal with these different loads. The LP relay board has been designed to switch 24v electronic Class Change sounders. The HP relay board has been designed to switch class change bells at up to 230VAC.

For further information, see section 3: Class Change Time Clock Models.



Model shown: FASE/701/EXT/LP



For a list of the available Class Change models and features then please visit the Fase Controls website at <https://fasecontrols.co.uk/>

C.1. Switching Sounder Circuits

Units with 'LP' in the model number include 2 x power relays located in the rear of the enclosure. Each relay is capable of switching 30V at up to 5amps DC via N/C, COM and N/O clean contacts (Single Pole, Double Throw).

Units with 'HP' in the model number include 2 x high power relays capable of switching 230V up to 5amps AC or DC via N/O and COM contacts (Single Pole, Single Throw – Normally Open).



Each output relay has a maximum rating which must not be exceeded. All circuits being switched via a time clock with either 'LP' or 'HP' in the model number must be fused prior to the connection to any output relay. If the model number includes 'LP', then a fuse rated no higher than 5 amps must be used. If the model number includes 'HP', then a fuse rated no higher than 5 amps must be used.

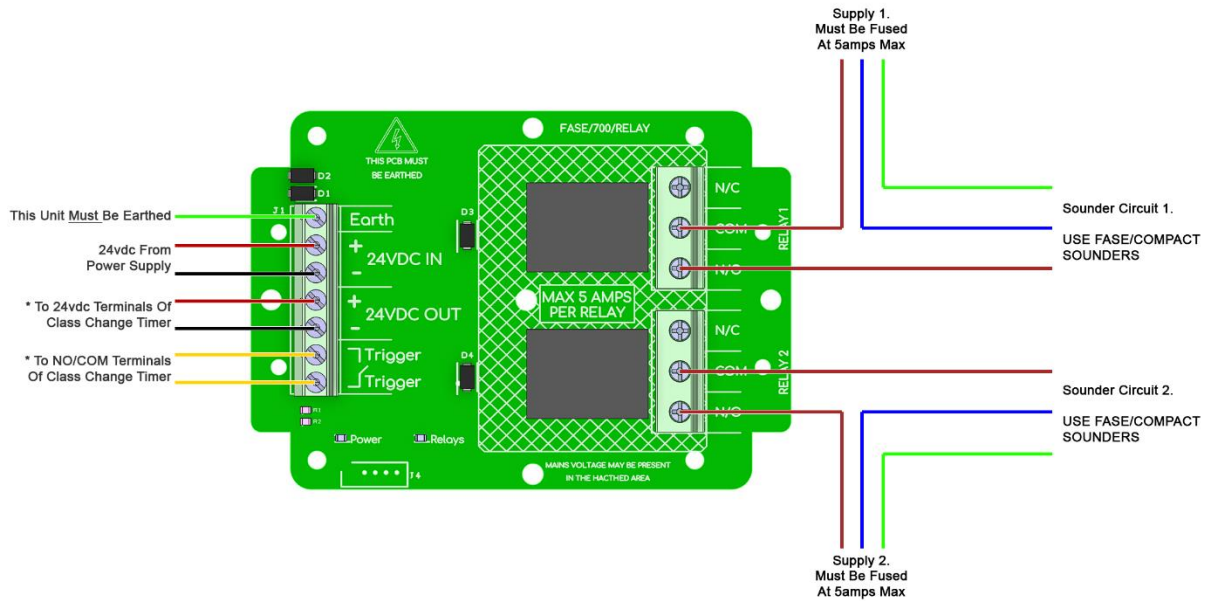
Switching voltages or current higher than the rating of the relevant model will cause damage and increase the chance of an electrical shock.



The output relay board and all circuits being switched **MUST** be earthed.

Mains wiring (if used) should comply with the latest edition of the IET Wiring Regulations, 18th Edition (BS 7671:2018), or adhere to the applicable national wiring standards.

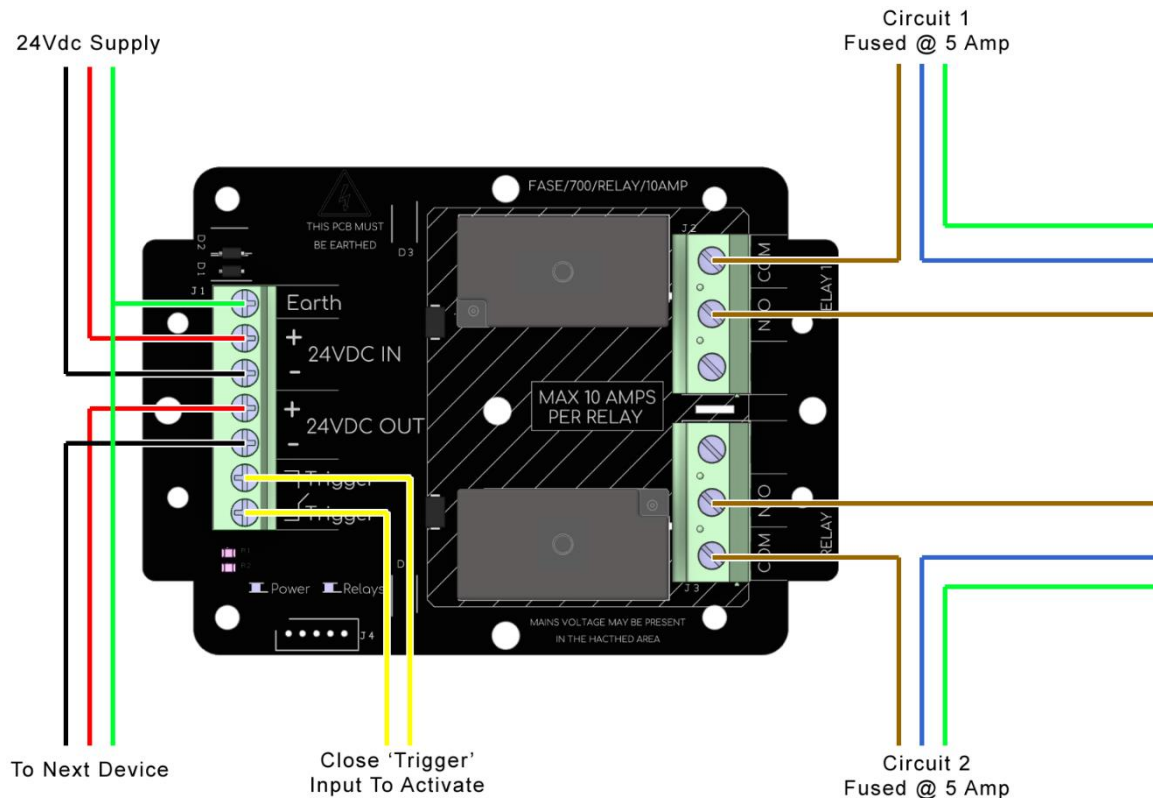
A Fase Controls Class Change Time Clock with 'LP' in the model number includes power relays capable of switching 2 sounder circuits at up to 30VDC at up to 5amps per circuit. The 'LP' relay board are not suitable for switching mains voltage.



This includes model number FASE/701/E/LP and FASE/701/EXT/LP.

C.2. Switching Bell Circuits Up to 5amps AC or DC.

A Fase Controls Class Change Time Clock with 'HP' in the model number includes power relays capable of switching 2 sounder or bell circuits at up to 230VAC at up to 5amps per circuit and are capable of switching mains voltage.



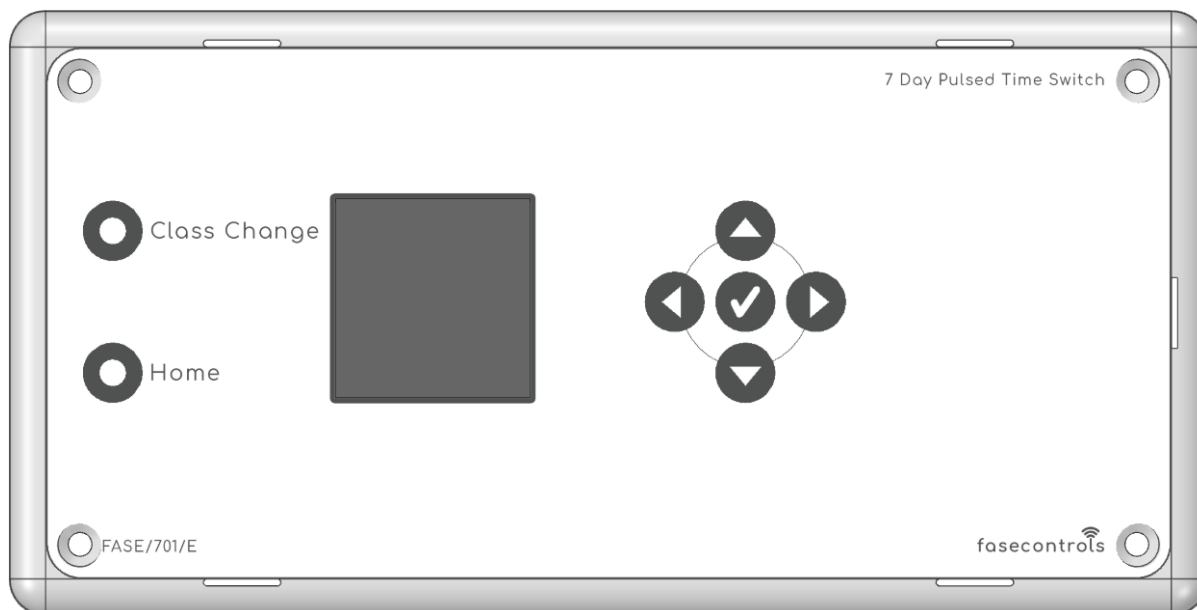
This includes model numbers FASE/701/E/HP and FASE/701/EXT/HP.



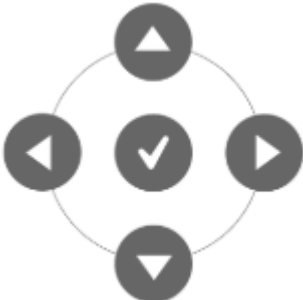
Care should be taken. If mains voltage is being switched via the relay board then mains voltage will be present in the hatched area of the PCB and also the cables connected to the output terminals.

If you are unsure, stop and seek advice.

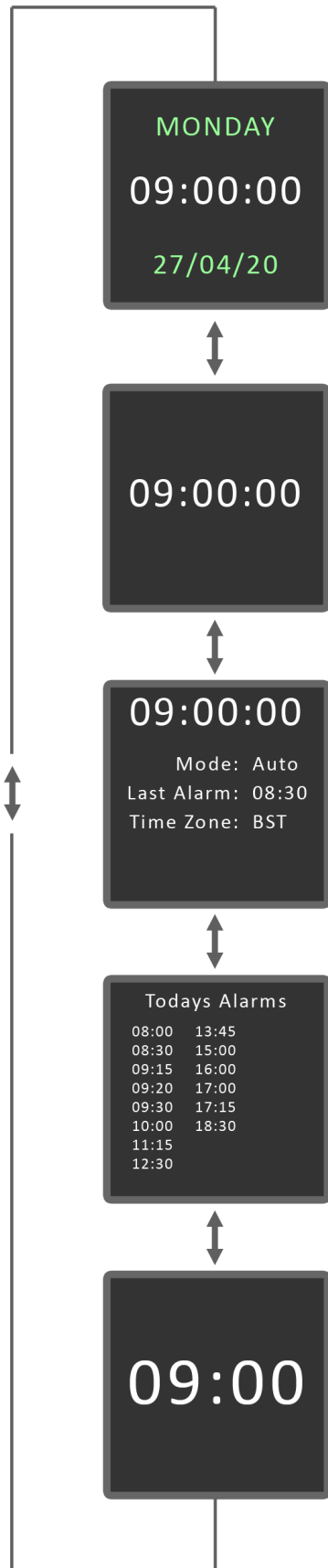
6. CONFIGURATION



6.1 Function Buttons

Button	Function
 Class Change	<p>Manual Class Change. This button will operate the class change output when pressed. This produces a continuous output and does not follow any set pulsed ringing styles. This feature only works when in Automatic or Holiday mode.</p> <p>This button has no function when the operating mode is set to 'Off'.</p>
 Home	<p>Home Button. Pressing this button will return the LCD back to the controller's home screen. The home screen displays the Time & Date and will automatically dim if no buttons are pressed on the controller.</p> <p>Pressing this button whilst already on the home screen will brighten the display for 5 seconds before dimming again.</p>
	<p>Menu Buttons. Used to navigate the menu structure and alter settings.</p> <p>Up, down, left(back), right(forward) and enter buttons.</p> <p>The enter and right menu button can be used to select an option and the left button used to return to the previous page.</p> <p>The up and down buttons are used to toggle through options.</p>

6.2 Home Page & Menu Structure



a. Home Page

The home page is the start page of the menu structure and serves to display the basic system information like the current set time & date and other status information.

The home page is the default page and all menus return back to this page by pressing the home button or by pressing the back button until this page is shown. There is also a logout timer which will automatically return to this page after 180 seconds if no buttons are pressed.

The information shown on the home page can be changed by pressing the up or down button when this page is shown. The available options are shown to the left.

b. Menu Structure

A context-driven, cursor selection menu structure is used to navigate around the menu system, automatically prompting you with the relevant options for your Access Level.

The menus can be navigated by using the up and down buttons to move the selection arrow to the required option and then pressing either the right button or the enter button to gain access to the selected option.

Once on a configurable option the up and down buttons may be used to toggle through the available options or to set the time and date etc.

Where more than one option is shown on the display then the option which is currently selected is shown in white font.

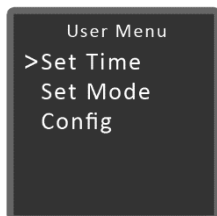


When on the Home Page, press either the enter button or right menu button to enter the menu structure.

6.3 User Menu

The User Menu is the 1st page of the menu structure and is used to set basic options. This page is not password protected and can be accessed by pressing either the enter or right menu button when on the home page.

6.3.1 Set Time



This allows the time and date to be adjusted. Select the Set Time option from the User Menu and then use the up/down buttons to change the time and date as required. Changes are saved as each digit is changed.

Press the right button or enter button to move onto the next option. Once the time and date are set then the display will return to the home page.

Set Time Options;

> Set Time	→	Set HH:MM	→	Set Date DD/MM/YY	→	Set Day
------------	---	-----------	---	-------------------	---	---------

6.3.2 Set Mode

The Set Mode option selects the operating mode of the Class Change function.

There are 3 operating modes available: Automatic, Holiday and Off.

a. **Automatic Mode**

When set to Automatic Mode, the class change will follow the set alarms and will automatically ring at the times set within the engineer section. This is the default operating mode and should be used to indicate the class change alarms.

b. **Holiday Mode**

When in Holiday Mode the set alarms will be ignored and the unit will not ring at the times which the alarms have been set. Pressing the 'Class Change' button on the front of the controller will ring the Class Change. Use this mode during half terms or summer holidays.

c. **Off**

When the operating mode is Off then the Class Change output is isolated and the Class Change cannot be rung. The front 'Class Change' button is isolated in this mode.



Pressing and holding the 'Home' button when on the Home Page will jump to the 'Set Mode' page.

6.3.3 Config

Selecting the 'Config' option from the User Menu will let an engineer log-in to the controller and allow configuration of the alarm times, ringing styles, outputs and other operational options.

The correct 4-digit pass code (1000) should be entered on this page to allow the engineer to log-in. An engineer will be automatically logged out if a button is not pressed for 180 seconds.

7. Engineer Configuration

7.1 Engineer Menu

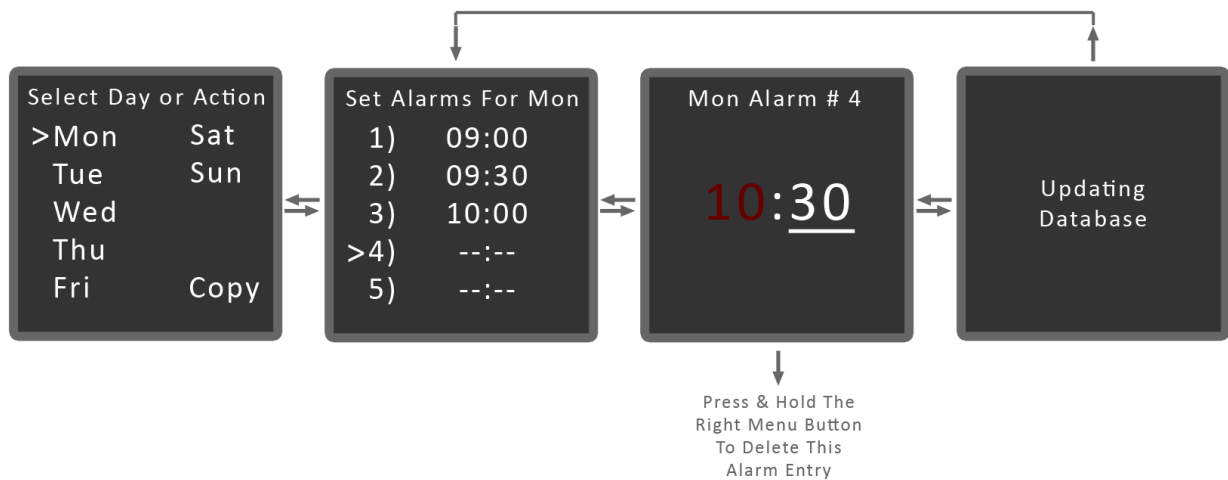


The Engineer Menu allows the configuration of alarm times and ringing styles amongst other options.

All settings should be entered/alterd with care and the operation of the FASE/701/E controller should be fully tested after any change to ensure all is operating as expected.

7.2 Set Alarms

The Class Change times are referred to as alarm times. All alarm times for each day can be set in this option.



a. **Select Day or Action**

When you enter the 'Set Alarms' option you are offered a list of days from Monday to Sunday. Use the Up/Down menu button to select a day then press enter. You are now setting alarms for your selected day.

b. **Set Alarms For 'XXX'**

Up to 20 alarms can be set for each day and each set alarm will be displayed on this page. Use the Up/Down button to select an alarm slot and then press enter.

c. **'XXX' Alarm Number**

This page allows you to set the time which this class change alarm will ring. Set this in the 24-hour HH:MM format and press enter once the correct time has been set. 'Updating Database' will display whilst saving your new alarm time.

The digit being altered is displayed as white text. Press the Up/Down button to select the required hour or minute. To select the next digit, press the Right menu button.

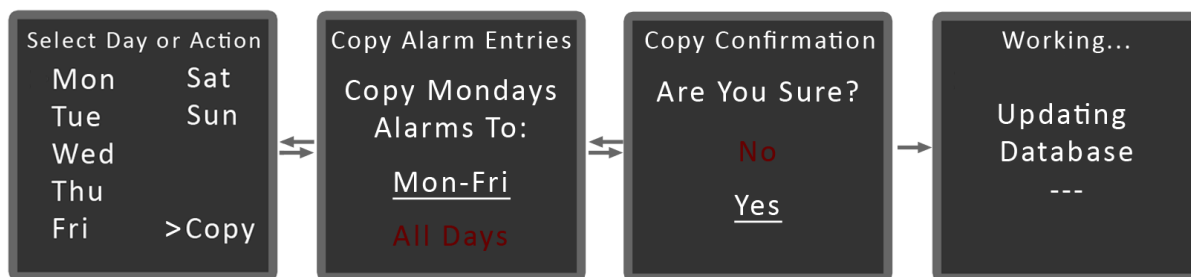
d. **Deleting an Alarm**

An alarm can be deleted by pressing and holding the Right menu button when on the alarm time set page.

Setting an Alarm For Midnight

When setting an alarm time, the default time shown is '00:00' but if you press the enter or the back button then this alarm will not be saved. To save a time for midnight simply change a digit (either the hour or minute digit) from zero and then back again. This will then save your alarm at midnight.

7.3 Copying Alarm Times to Other Days



More often than not, the alarm times will be the same for each school day.

To help keep programming time down it is possible to copy all of the class change alarms set for Monday to other days.

To achieve this, set Mondays alarms as required then return to the 'Select Day or Action' screen where there is an option called 'Copy'.

Move the cursor to the 'Copy' option and press enter.

You are offered the option to copy Monday's alarms to either Monday to Friday or to All Days. Selecting 'Mon-Fri' will copy all of Monday's alarms to Tuesday to Friday resulting in all school day alarms being the same. You can edit all alarm times independently after copying.

Selecting 'All Days' will do the same but Mondays alarms will also be copied to Saturday and Sunday as well.



Monday's alarms must be set before copying alarms to other days. If no alarms are set for Monday then you will be given a 'No Entries Found' message.

Enter Monday's alarms before running the copy function.



Take care when using the Copy Alarms function as all previously programmed alarm times will be deleted during this process.

7.4 Ringing Styles

The FASE/701/E controller is highly configurable and allows you to set the ringing style, on/off pulse durations and total duration of the Class Change alarm.

The class change tone should be unique and set to a pattern which could not be mistaken for a fire alarm evacuation.

The ringing styles set how the output relay behaves when a class change alarm is rung. By default, the class change is set to pulse on and off for 5 seconds (3 pulses) with each on and off pulse lasting 1 second.

Default Ringing Styles



At the start of each new minute the processor checks the current time and compares it with the alarms set for that day. If an alarm time matches the current time then the Class Change will ring by following how the Class Change ringing style has been configured. Once the ringing pattern is complete then the Class Change tone will stop and wait until the start of the next new minute before checking again.

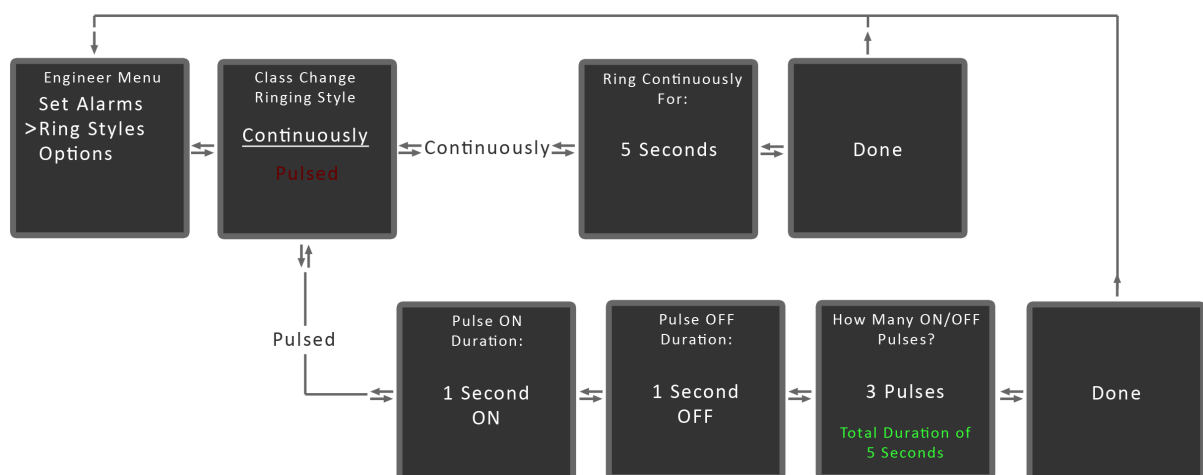
The Class Change output can be set to ring continuously for between 1 second and 59 seconds or to pulse with programmable on/off periods for between 1 second and 29 seconds.

If the FASE/701/E controller is being connected to an addressable fire alarm panel then the Class Change ringing pattern should be set to continuous for your required duration.

If the FASE/701/E controller is being connected to the Class Change input of a conventional fire alarm panel then the ringing pattern should be set to pulsed.

Section 16.2.1 of BS5839-1:2017 does state that any audible class change tone should not exceed 5 seconds.

Class Change Ringing Style Menu Options



7.5 Options Menu

The Options Menu offers further configuration options and information for the FASE/701/E controller.

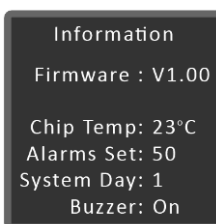
7.6 Bst / Dst



Bst = British Summer Time / Dst = Daylight Saving Times.

This option allows for British summer time and if set 'ON' then the clock will automatically add an hour during the summer months. British summer time starts at 01:00 on the last Sunday of March and ends at 02:00 on the last Sunday of October. **Please note that the British summer time feature is not available on early versions of this time clock.**

7.7 Information



This page shows basic information regarding the controller's system and includes firmware version, chip temperature and the amount of Class Change alarms which are currently set.

The 'Chip Temp' is the temperature of the onboard components and not the room temperature.

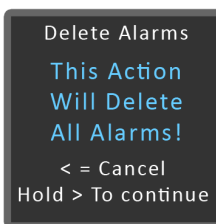
The 'System Day' is the numeric value of the current day and is used by the system to load the required Class Change alarm times. If 0 equals Sunday, then 1 equals Monday, and so on.

7.8 Isolating the Buzzer

By default, the system buzzer is enabled and will sound at every class change event.

To Isolate the buzzer, navigate to the information screen and hold the right navigation button until 'Buzzer: Off' is shown on the display. Repeat these steps to re-enable the buzzer.

7.9 Delete Alarms



This option will delete all set Class Change alarm times. Continue with care.

Use this option if you need to delete the alarm times. Press and hold the right menu button for approx. 3 seconds until the 'Updating Database' message is shown.

Once the Class Change alarm times have been deleted then the Class Change will not ring until times are re-entered in the 'Set Alarms' page. See section 6.2 for further details.

To delete an individual Class Change alarm then see section 6.2.d.

7.10 Display

The colour IPS TFT display is quite power hungry and the brighter the backlight is set then the more power the display will draw. If you are powering the time clock from a fire alarm panel then we would recommend that the backlight be set to a low level.

The backlight has 2 settings options. The 1st option will set the brightness of the backlight once the menu structure has been entered. The second option will set the brightness of the backlight when the menus are not entered and the time clock is on the Home page.

When on the Home page the LCD backlight will fade to its set level 180 seconds after the last button press or 5 seconds after pressing the 'Home' button.



The LCD menu backlight can be set by moving the selector using the <> buttons. Once set, press the enter button to save this brightness level.

Pressing the UP button will test the buzzer and invert the screen for 3 seconds.

Pressing the enter button will return to the Options Menu.

Pressing the Down button will go to the Backlight brightness setting of the Home page.



The Home page backlight brightness setting can be set to either High/Med/Low.

Use the Up / Down buttons to toggle between these settings then press Enter to save this setting.

8. FAQ & Trouble Shooting

I want to switch dedicated 24vdc sounder circuits.	Use either the FASE/701/E/LP (20 alarms per day) or the FASE/701/EXT/LP (60 alarms per day).
I want to switch dedicated bell circuits at up to 230vac.	Use either the FASE/701/E/HP (20 alarms per day) or the FASE/701/EXT/HP (60 alarms per day).
How accurate is the real time clock?	We use an extremely accurate TCXO crystal with an Accuracy of $\pm 5\text{ppm}$ from 0°C to +40°C for time keeping purposes. This will keep time within ± 5 minutes per year; however, this may vary slightly with age and extreme or fluctuating temperatures.
What is the passcode to enter the engineer menu?	The passcode to enter the engineer menu is 1000.
Can I switch voltage through the relay contacts?	The on-board relays are signal relays and not power relays. No more than 350ma @30vdc should be switched through any contact. This is fine for signalling to fire alarm inputs but not for switching higher voltages or loads. If you want to switch higher loads or voltages then use a time clock with either 'LP' or 'HP' in the model number. See Section 5.2.C.
Can I switch AC through the relays?	No. Under no circumstances should AC voltage be switched by the onboard relay contacts. If you want to switch AC then a time clock with 'HP' in the model number must be used. See Section 5.2.C.
I need to switch higher voltage/current. How do I do this?	A time clock with 'LP' in the model number is capable of switching 30vdc at up to 5amps. A time clock with 'HP' in the model number is capable of switching up to 230v AC or DC.
Which type of power supply should I use?	We recommend that a battery backed, 24vdc power supply unit is used.
Can I power the Fase/701 controller from the fire alarm panel?	Many fire alarm panels do have a 24vdc output and most are EN54 certified. The controller can be powered from the fire panels 24vdc output but the extra load should be incorporated into the fire panels battery calculations.
I need to remove the power. Do I need to enter the alarm times and settings again?	All settings and alarm times are saved to Eeprom memory and will be saved if power is removed. The real time clock uses a super capacitor to keep time during the removal of power. If power is removed for more than 1 week then the time and date will need to be re-set but all other settings are permanently saved.
The time has not switched to/from British Summer Time. (British Summer Time / Daylight Saving Time)	By default, the Fase/701 will automatically adjust the clock to allow for British Summer Time each spring and autumn when the clocks change. This option must be switched ON in the Config > Options > BST / DST page. *Not available on this firmware version.
The Class Change alarm does not ring at the set times.	This must be set to Automatic in the Set Mode page.
Can I turn off the display?	It is not possible to turn off the display completely but the brightness of the LCD can be reduced. Go to Config>Options>Display then press the Down button and set the 'Home Page Backlight' to Low. See Section 6.10. Pressing the 'Home' button will force the backlight to reduce.

9. Technical Specification

Supply Voltage:	24v to 28v DC
Nominal Current Draw at 24v:	Quiescent: <60ma – Energised: <200ma.
Maximum Switching Current:	30vdc, Max 350ma per contact
Standard Enclosure:	Width: 170mm – Height: 85.5mm – Depth: 35.5mm
Deep Enclosure:	Width: 170mm – Height: 85.5mm – Depth: 60.5mm
IP Rating:	IP40
Operating temperature:	-0°C to +40°C.
Real Time Clock Accuracy:	±5ppm

10. Absolute Minimums / Maximums

Minimum Supply Voltage:	22v DC
Maximum supply Voltage:	28.9v DC
Maximum Output Relay Load:	30vdc, 350ma max via the onboard output relay
FASE/701/E/LP & FASE/701/EXT/LP Output Relay Load:	30vdc, 5amps max per relay
FASE/701/E/HP & FASE/701/EXT/HP Output Relay Load:	230v AC/DC, 5amps max per relay



For further information please

Visit <https://fasecontrols.co.uk>

Support British Manufacturing

