

# TIMEGUARD®

## Emergency Assist Alarm

### Models covered:

**EACP1** – Single Zone Plastic Control Unit  
(with battery backup **EACP1PR**)

**EASSCP1** – Single Zone Stainless Steel  
Control Unit (with battery backup **EASSCP1PR**)

**EARB1** – Plastic Reset Unit

**EASSRB1** – Stainless Steel Reset Unit

**EADF1** – Plastic Over-Door Unit

**EASSDF1** – Stainless Steel Over-Door Unit

**EAPC1** – Pull Cord Unit

**EAAB1** – Alarm Button Unit

**EAPB1** – Push Button Unit

**EACP4** – Four Zone Plastic Control Unit  
(with battery backup **EACP4PR**)

**EASSCP4** – Four Zone Stainless Steel  
Control Unit (with battery backup **EASSCP4PR**)

**EASZK** – Single Zone Plastic System Kit  
(with battery backup **EASZPRK**)

**EASSZK** – Single Zone Stainless  
Steel System Kit (with battery  
backup **EASSZPRK**)

# 1. General Information

These instructions should be read carefully and retained for further reference and maintenance.

## 2. Safety

- Before installation or maintenance, ensure the mains supply to the alarm system is switched off and the circuit supply fuses are removed or the circuit breaker turned off. Remove all power sources including battery when wiring any part of the system.
- It is recommended that a qualified electrician is consulted or used for the installation of this alarm system and install in accordance with the current IEE wiring and Building Regulations.
- Check that the total load on the circuit including when this alarm system is fitted does not exceed the rating of the circuit cable, fuse or circuit breaker.
- None of the units in the system should be subject to dripping or splashing liquids.

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## 3. Technical Specifications

- Control Unit Supply Voltage: 230V AC 50Hz
- The Control Unit is of class I construction and must be earthed
- Reserve Battery: Metal Hydride (rechargeable) PP3, 9 Volt
- Alarm Output: DC Voltage through 470 ohm resistor (Do not connect to mains voltage source)
- Maximum pull force on pull cord: 200N
- Reset button marking: Visually and with Braille
- Intensity of sounders:
  - Control Unit: 70dB at 30cm low sound or 80dB at 30cm high sound (adjustable using 'dB selector' on rear of Control Unit)
  - Reset Unit: 65dB at 30cm
  - Over-Door Unit: 8dB at 30cmSound and light are intermittent except Control Unit
- Angular Coverage of Indicator: 180° on Over-Door Unit
- LED Indicators: Green 'Power ON', Yellow 'Fault', Blue 'Alarm'

- Operating Temperature: +5°C to 40°C
- Environmental Protection: IP67 (EAPB1 Push Button Unit Only)
- User Interface: Push button, Illuminated when pressed (EAPB1 Push Button Unit Only)
- EC Directives: Conforms to latest directives
- CE Compliant
- Dimensions:

**Control Unit:**

H=85mm, W=145mm, D=33mm (Plastic)

H=85mm, W=145mm, D=35mm (Stainless Steel)

**Over-Door Unit:**

H=85mm, W=85mm, D=24mm (Plastic)

H=85mm, W=85mm, D=25mm (Stainless Steel)

**Reset Unit:**

H=85mm, W=85mm, D=12mm (Plastic)

H=85mm, W=85mm, D=13mm (Stainless Steel)

**Pull Cord Unit:**

82mm Diameter x 20mm

**Push Button Unit:**

H=73mm, W=81mm, D=67mm (Plastic only)

**Alarm Button Unit:**

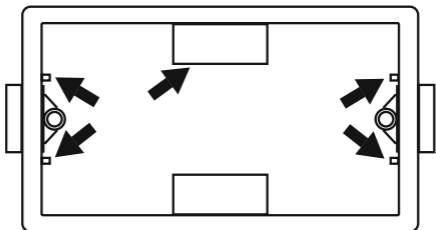
H=85mm, W=85mm, D=12mm (Plastic only)

### Wall box minimum depth requirements – All Models:

- The following products must be installed on wall boxes that meet below minimum depth requirements.

<b>Model Number</b>	<b>Minimum Depth Requirement</b>
EACP1 Single Zone Control Unit	26mm
EACP1PR Single Zone Control Unit with Battery Backup	26mm
EASSCP1 Single Zone Control Unit Stainless Steel	35mm
EASSCP1PR Single Zone Control Unit Stainless Steel with Battery Backup	35mm
EACP4 Four Zone Control Unit	35mm
EACP4PR Four Zone Control Unit with Battery Backup	35mm
EASSCP4 Four Zone Control Unit Stainless Steel	45mm
EASSCP4PR Four Zone Control Unit Stainless Steel with Battery Backup	45mm
EAPC1 Pull Cord Unit	26mm
EADF1 Over-door Flasher	26mm
EASSDF1 Over-door Flasher Stainless Steel	35mm
EARB1 Reset Unit	16mm
EASSRB1 Reset Unit Stainless Steel	26mm
EAAB1 Alarm Button Unit	16mm

- Features inside moulded dry lining back boxes may cause interference with the product, the diagram below illustrates where these may occur.
- In the event of interference, the problem feature should be carefully trimmed with a blade or cutters. To ensure correct installation an MK or Centaur deep dry line box should be used.



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### 4. Installation

**Important:** Connect the extra low voltage wiring first.  
Connect the mains wiring last.

When using the Control Unit with a 26mm deep box choose the fixing holes to ensure clearance between the screw heads and the rear of the control unit.

- Ensure the mains supply is switched OFF and the circuit supply fuses are removed or the circuit breaker turned OFF.
- An isolating switch should be installed to enable the power to be switched ON and OFF for maintenance purposes. (Fuse 3A BS1362).
- For PERMANENTLY CONNECTED APPARATUS either provided with an all-pole MAINS SWITCH or an all-pole circuit breaker, the installation shall be carried out in accordance with all applicable installation rules.
- Where an all-pole MAINS SWITCH or and all-pole circuit breaker is used as the disconnect device, it shall have contact separation of at least 3mm in each pole and shall disconnect all pole simultaneously.

## 4.1 Control Unit

### Mains Wiring

**Important:** This should be sited (following the recommendations of the BS8300) where it can best attract the attention of an appropriate person/member of staff.

An example of this is near a reception desk in view of a receptionist.

- Having located the site, install a flush or surface mount double gang wall box (see Wall box minimum depth requirements for details).
- Pass the 230V AC 50Hz mains supply cable (1mm<sup>2</sup> twin and earth) into the wall box.
- Terminate the cables into the Control Unit marked 'L' and 'N' ensuring correct polarity is observed and that all bare conductors are sleeved (See section 5. Mains Voltage Wiring).
- Connect the incoming earth wire as follows;

NOTE: This is a class 1 apparatus if a metal box is used and therefore the earth wire MUST be connected to the earth terminal of the metal box itself. If a plastic box is used, connect the earth wire to the Earth connector marked on the Control board. On the stainless steel version, connect the earth wire to the Earth connector on the Control board. The metal box will be earthed via the stainless steel screws provided.

### Extra Low Voltage Wiring

**Important:** Ensure that the low voltage wiring is kept well away from mains wiring. The low voltage wiring must be tied to each other using the tie wrap provided to overcome clearances and creepage distances if any wire becomes detached.

- Pass the extra low voltage two core cable into the wall box and connect to the terminals marked 'OUTPUT TERMINAL' (See section 6. Extra Low Voltage Wiring). The system is not polarity conscious.
- Connections are as above for a the single zone system, the four zone system is similar except that the four zone Control Unit has 4 outputs, each one being used will have a Pull Cord Unit, an Over-Door Unit and a Reset Unit connected in the same way as the single zone system. Any unused outputs should be left unconnected.

Note: In the cases where one of the zones is not required, a 33k ohm resistor will need be fitted across the 2 'OUTPUT TERMINALS' for the zone not used. This will clear any fault lights that will appear.

- The interconnections should be made with two core cable of at least 7/0.2mm copper conductors (bell flex is suitable).
- Insert the supplied PP3 9 Volt battery into the battery holder on the rear side of the Control Unit (available for EACP1PR, EASSCP1PR, EACP4PR and EASSCP4PR battery backup Control Units only see section 5. Battery for extra details).
- If the reset button on the Control Unit is not required, move the 'Reset selector' switch to the OFF position.
- Fit the Control Unit to the wall box and secure using the two fixing screws provided.

## 4.2 Pull Cord Unit

**Important:** The BS8300 (code of practice for the design of buildings and their approaches to meet the needs of disabled people) recommends that this should be sited on the ceiling such that for a toilet it can be operated from the W.C. and an adjacent floor area. The lower handle should be set 100mm above the floor (knot and trim off any excess cord) and the upper handle should be set between 800 and 1000mm above the floor (knot the cord at required height).

- Using the back plate as a template on the ceiling, mark the position of the mounting holes. Drill the holes. Insert the correct size rawl plugs into the holes for the mounting screws.
- Pass the extra low voltage two core cable from the Control Unit through the back plate and prepare for termination into the 'Input' terminals.
- Bring a further extra low voltage two core cable through the back plate and prepare for termination into the 'Output' terminals.
- Fix the back plate to the ceiling. Take care not to overtighten the mounting screws to prevent damage to the back plate. If using a power screwdriver, use the lowest torque setting.
- Terminate the extra low voltage cable coming from the Control Unit into the terminals marked 'Input' (See section 6. Extra Low Voltage Wiring).

- Terminate the second extra low voltage cable into the terminals marked 'Output'.
- Fit the front cover to the back plate and secure using the two fixing screws provided.
- Attach the two handles to the pull cord as described at the beginning of this section 4.2.

### 4.3 Over-Door Unit

**Important:** This should be sited to attract appropriate personnel to the area where assistance is required. An example of this is above the toilet cubicle door.

- Having located the site, install a flush or surface mount single gang wall box (see wall box minimum depth requirements for details).
- Pass the extra low voltage two core cable from the Pull Cord through the wall box and connect to the terminals marked 'Input' (See section 6. Extra Low Voltage Wiring).
- Bring a further extra low voltage two core cable into the wall box and connect to the terminals marked 'Output'.
- Fit the Over-Door unit to the wall box and secure using the fixing screws provided.
- Fix the W.C. sticker to the cubicle door.

### 4.4 Reset Unit

**Important:** The BS8300 recommends that this should be sited on a wall such that for a toilet it can be reached from the W.C. and a wheelchair. The recommended height is between 750 and 1200mm above the floor and horizontally it must not be mounted closer than 350mm to any corner.

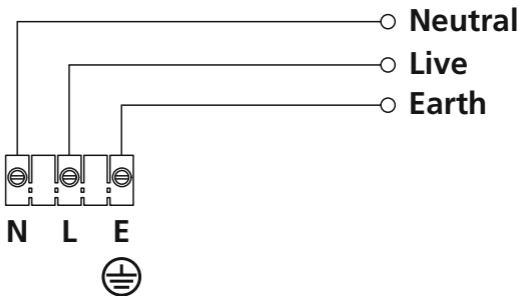
- Having located the site, install a flush or surface mount single gang wall box (see wall box minimum depth requirements for details).
- Pass the extra low voltage two core cable from the Over-Door Unit through the wall box and connect to the terminals marked 'Input' (See section 6. Extra Low Voltage Wiring).
- Fit the Reset Unit to the wall box and secure using the fixing screws provided.




## 5. Mains Voltage Wiring

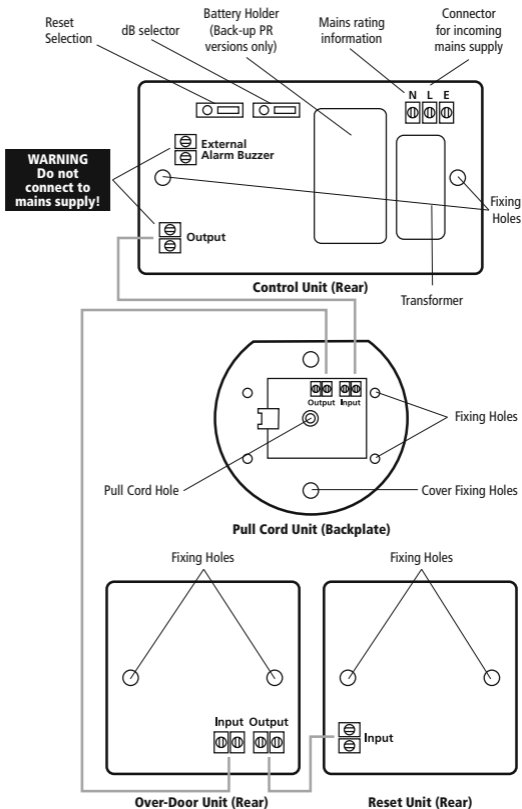
- Connect the 230V AC 50Hz mains supply cable to the control board terminals as marked below;

### 230V AC 50Hz MAINS SUPPLY



Live Supply (Brown or Red) to	<b>L</b>
Neutral Supply (Blue or Black) to	<b>N</b>
Earth Connection (Green/Yellow) to	

## 6. Extra Low Voltage Wiring



## 7. Battery

**Important:** Replace only with same type of NIMH rechargeable battery. There is a danger of explosion if the battery is incorrectly connected. Ensure battery is inserted with correct polarity. Do not force battery onto contacts.

- A battery is provided with the following control units and kits – EACP1PR, EASSCP1PR, EACP4PR or EASSCP4PR and cannot be fitted to other types.
- To fit the battery, firstly remove it from the holder and turn it around. Check you have the correct polarity matched, and simply push the battery back into the connector.
- The battery takes 48 hours to fully charge from when first connected to the control unit (when mains voltage is turned ON).
- **WARNING Batteries shall not be exposed to excessive heat such as sunshine, fire or heat.**

### Full Battery Reserve Capabilities

- Single Zone System: Typically 4 days on standby with a 2 hour continuous alarm.
- Four Zone Systems: 1 day on standby with a 30 minute continuous alarm (1 zone only).

### Battery Disposal

- When the battery has reached end of useful life, insulate the terminals and consult your local authority about disposal.
- Do not attempt to dispose of the battery in a fire.

## 8. Commissioning

- Switch on the 230V AC 50Hz mains supply to the Control Unit and check the left hand 'Supply On' indicator (green) is illuminated. The 'Fault' (yellow) and 'Alarm' (blue) indicators should be OFF.
- If the 'Fault' indicator is illuminated this almost certainly indicated that there is an open or short circuit in the extra low voltage wiring. Assuming the 'Fault' indicator is OFF pull the Pull Cord and the system should behave as described in section 9 Operation.
- Having observed this to be the case press the Reset Button on the Control Unit to send the alarm.
- Pull the Pull Cord again and verify each unit is performing correctly then press the reset button on the Reset Unit to end the alarm.

## 9. Operation

- When the pull cord, mounted adjacent to the W.C., is pulled, the red LED on the Pull Cord Unit is activated until the system is reset, assuring the disabled person in distress that the system has been activated.
- The sounder and the light on the Over-Door Unit outside the cubicle are activated intermittently.
- At the Reset Unit inside the cubicle, the light and sounder are activated intermittently and will both be further reassuring the person in distress.
- At the Control Unit the alarm light and the sounder are activated continuously.
- Either the Over-Door Unit or the Control Unit will attract the attention of an appropriate person either directly or indirectly and that person will note the zone in alarm, press the reset button at the Control Unit clearing the alarm and then investigate the toilet cubicle in question.

Note: The Reset button at the Control Unit can be disabled by moving the reset selection switch to the OFF position.

- At any time if the difficulty is resolved the person in distress can clear the alarm by pressing the reset button in the cubicle.

# 10. Typical Single Zone System

- Available as the EASZK kit



**Fused Spur  
(not supplied)**



**Single Zone Control Unit**



**Pull Cord Unit**



**Over Door Unit**



**Reset Unit**

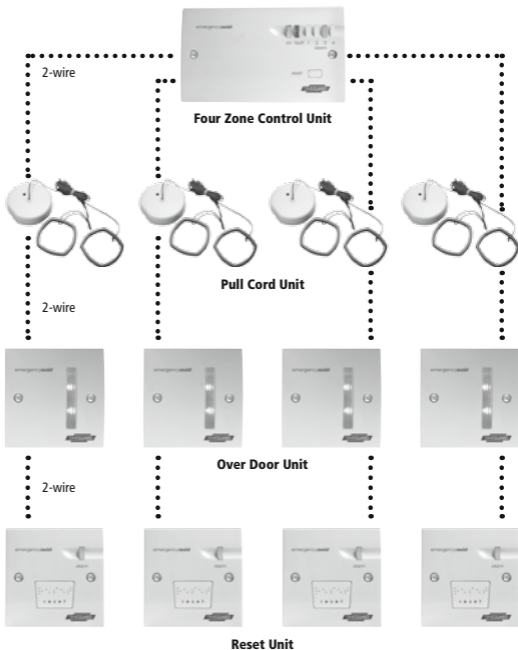
2-wire

2-wire

2-wire

# 11. Typical Four Zone System

- There are no four zone kits, but two to four zones can be accommodated by using any of the four zone Control Units in combination with the appropriate number of Reset Units, Over-Door Units and Pull Cord Units.



## 12. Omitting Zones/Units

### Zones

- If one or more zones are not used a Yellow 'Fault' light will appear. In order to clear the fault light, a 33k Ohm resistor will need to be trimmed and fitted across the terminals for each unused zone.

### Individual Units

- If you do not wish to use the Reset Unit, you will need to trim and fit one 47K ohm resistor across the Output terminals of the Over-Door Unit. This will clear the Yellow 'Fault' light on the Control Unit.
- If you do not wish to use both the Reset Button and Over-Door Unit (when using the Pull Cord Unit only), you will need to trim and fit one 33K ohm resistor across the Output terminals of the Pull Cord Unit. This will clear the Yellow 'Fault' light on the Control Unit.

## 13. Accessories

### 13.1 Alarm Button Unit

#### Introduction

- The Alarm Button Unit, EAAB1, can be used as an alternative to or in series with the Alarm Pull Cord Unit; EAPC1. It is compatible in the single zone or four zone systems and can be used in the plastic or stainless steel versions.
- When the button is pressed, the LED will illuminate. The system will go into alarm until the reset button on the Control Unit (if enabled) or the Reset Unit is pressed.

#### Installation

- Having located the site, install a flush or surface mount single gang wall box (see wall box minimum depth requirements for details).
- Pass the extra low voltage two core cable from the Control Unit through the back plate and terminate into the 'Input' terminals marked on the Alarm Button Unit (See section 13.3. Alarm Button Unit Wiring).
- Bring a further extra low voltage two core cable through the back plate and terminate into the same 'Input' terminals as marked on the Alarm Button Unit.
- Fit the Alarm Button unit to the wall box and secure using the fixing screws provided.

- Connect the second extra low voltage two core cable wires to the Over-door Unit as shown (See section 13.4. Alarm Button Unit Wiring).
- If an additional Alarm Button or Pull Cord is required, connect the second extra low voltage two core cable wires to the additional unit and then connect two wires from the additional unit to the Over-door unit.

## 13.2 Push Button Unit

### Introduction

- The Push Button Unit, EAPB1, can be used as an alternative to or in series with the Alarm Pull Cord Unit; EAPC1. It is compatible in the single zone or four zone systems and can be used in the plastic or stainless steel versions.
- When the push button is pressed, the blue LED on the Push Button Unit will turn on and the system will go into alarm until the reset button is pressed on the Control Unit (if enabled) or is the Reset Unit is pressed.

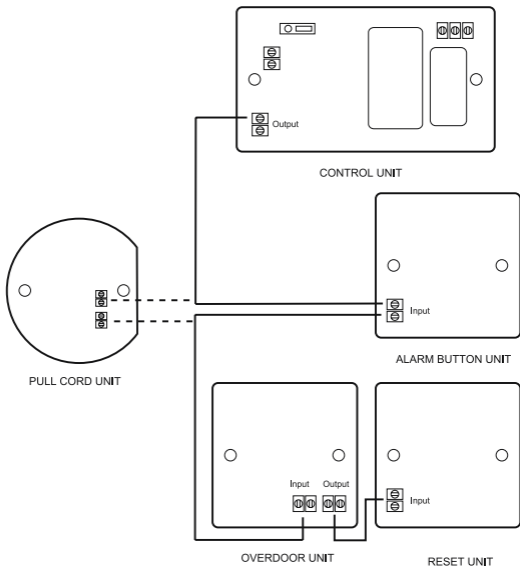
### Installation

- With the top off, hold the base enclosure in position and mark the four fixing holes. Drill the holes. Insert the correct size rawl plugs into the holes for the mounting screws.
- Knock out one or more of the cable entries located on either side of the base enclosure.
- Pass the extra low voltage two core cable from the Control Unit through the cable entry (using the appropriate watertight conduits) and prepare for termination into the 'Input' terminals.
- Bring a further extra low voltage two core cable through the cable entry and prepare for termination into the 'Output' terminals.
- Fix the base enclosure to the wall. Take care not to overtighten the mounting screws to prevent damage to the base enclosure. If using a power screwdriver, use the lowest torque setting.
- Terminate the extra low voltage cable coming from the Control Unit into the terminals marked 'Input' (See section 13.4. Push Button Unit Wiring).
- Terminate the second extra low voltage cable into the terminals marked 'Output'.

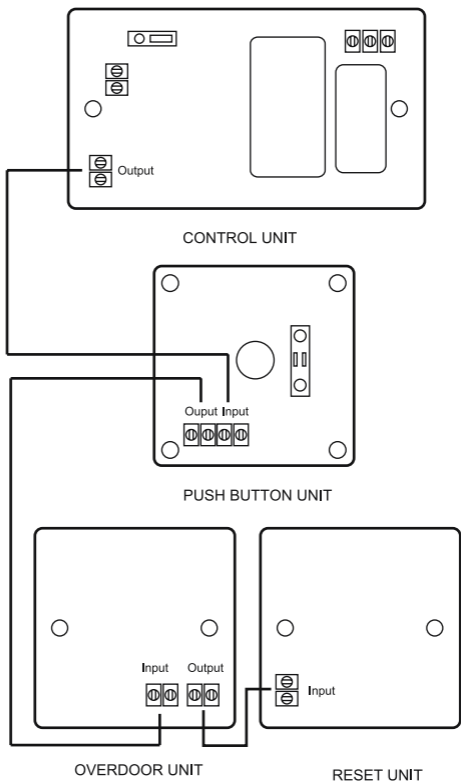


- Place the top cover onto the base enclosure and secure using the four fixing screws provided.
- Connect the second extra low voltage two core cable wires to the Over-door Unit as shown (See section 13.4. Push Button Unit Wiring).

### 13.3 Alarm Button Unit Wiring



## 13.4 Push Button Unit Wiring



# 14. Troubleshooting

## Problem

## Solution

- The Green (Supply ON) LED on the Control Unit is OFF. The mains supply is not connected, check the mains wiring.  
The mains is switched OFF, switch back ON.
- The Yellow (Fault) LED on the Control Unit is ON. Some of the units in the system are not properly connected, check the 2 wire extra low voltage cable in all of the units are properly secured in the connectors.  
The Battery is not fully charged, if the system is running on backup battery then check that it is fully charged (leave for 48 hours to fully charge).  
If one or more zones/unit has not been used, refer to section 12. Omitting Zones/Units and fit the correct resistors to clear the fault light.
- The Blue (Alarm) LED on the Control Unit is continuously ON and cannot be reset. The 2 wire extra low voltage cable is shorting, check there is not short circuit in any of the units.  
The battery is too low, check the 2 wires are not touching and check mains supply is present to re-charge
- The alarm cannot be reset from the Control Unit. Use the 'Reset selector' on the rear side of the Control Unit. Switch the power OFF and move to the OFF position. Power ON then OFF. Move the 'Reset selector' to the ON position and turn the power ON then test.
- Pull Cord does not initiate an alarm. The Pull Cord is not connected or inserted properly, check the connections to the Pull Cord unit.

## 3 Year Guarantee

In the unlikely event of this product becoming faulty due to defective material or manufacture within 3 years of the date of purchase, please return it to your supplier in the first year with proof of purchase and it will be replaced free of charge. For the second and third years or any difficulty in the first year telephone the helpline on 020 8450 0515.

Note: A proof of purchase is required in all cases. For all eligible replacements (where agreed by Timeguard) the customer is responsible for all shipping/postage charges outside of the UK. All shipping costs are to be paid in advance before a replacement is sent out.

If you experience problems, do not immediately return the unit to the store.

Telephone the Timeguard Customer Helpline;

HELPLINE

**020 8450 0515**

or email [helpline@timeguard.com](mailto:helpline@timeguard.com)

Qualified Customer Support Co-ordinators will be on-line to assist in resolving your query.



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