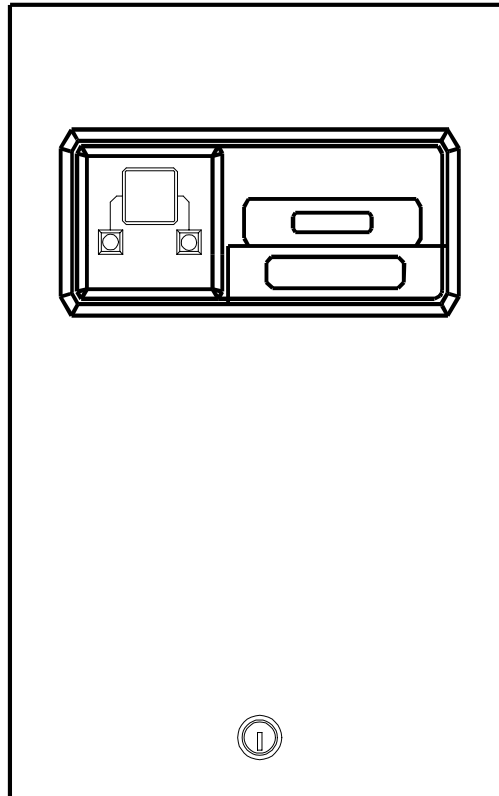


Easikey with Cutout Case Installation Instructions



Features

This product consists of an Easikey controller housed in a metal cabinet, complete with 3 Amp power supply and wiring. With the addition of Easi Readers, Electronic Keys and electric door locks, a complete two door access control system can be installed.

The assembly as supplied provides the following features:

- 18 swg Mild Steel Cabinet with lid and space for a 3Ah Battery
- 3 Amp Power Supply with Battery Backup provision (Battery not supplied)
- Easikey two door Controller
- All internal wiring provided, including fuses
- Alternative entry points for external wiring at rear and side (conduit or trunking)
- Cover secured by lock and key (supplied)
- Programming Record Sheet on inside of front cover

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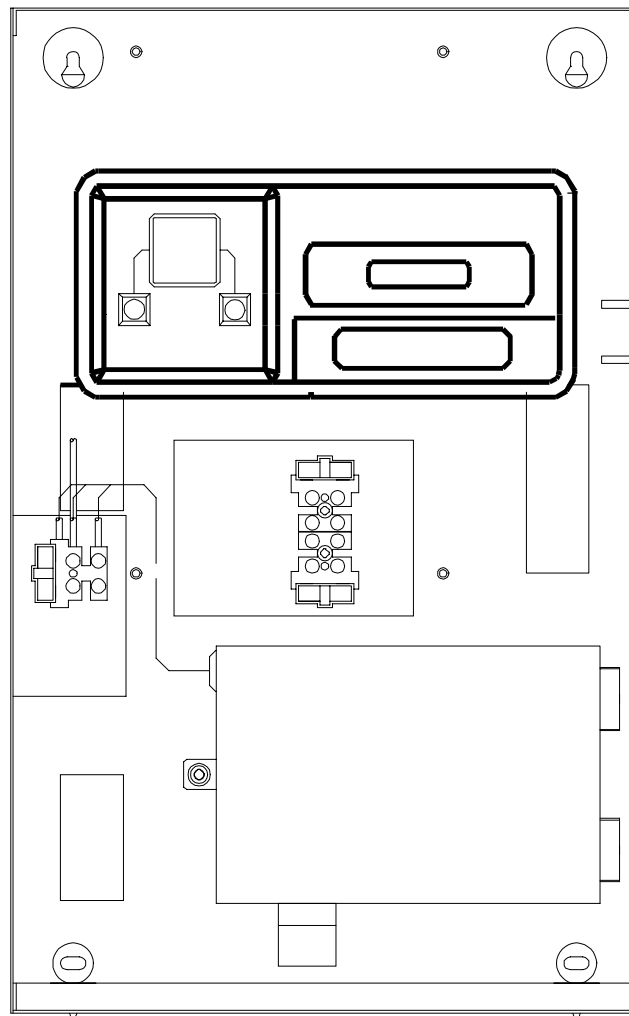
Installation

Please read the *Easikey Installation Guide* for full details on installing and programming the Easikey system, as well as these instructions.

Mounting the Cabinet

The cabinet should be mounted vertically on a flat wall. As the controller is used for administering the system you should ensure that the cabinet is located in a well lit, comfortable location allowing personnel easy access. The cabinet should be positioned so that the controller display is at about eye-level.

Using the 'keyholes' at the top as a template, temporarily hang the cabinet and then use the two lower holes as a template to mark the position of the fixing points. Use No.8 1½" self-tapping screws and appropriate fixings to attach the cabinet to the wall.



Power Supply Wiring

The cabinet already contains wiring from the power supply to the Easikey controller and to the battery wiring harness (although the battery is not supplied). Wiring is also in place bringing the lock outputs to a terminal block below the Easikey controller.

Cable Entry

A range of options are provided for cable entry into the cabinet.

- Two holes in the back of the cabinet for rear entry.
- Two 'knockouts' on the top suitable for use with 25 x 16mm trunking.
- A 20mm 'knockout' at the bottom of each side for surface mounted conduit.
- Two 20mm 'knockouts' on the bottom for surface mounted conduit.

Mains Power

Mains power, 240v AC, should be supplied to the controller through an illuminated, unswitched spur. Use the following colour code:

Blue	Neutral
Green/Yellow	Earth
Brown	Live

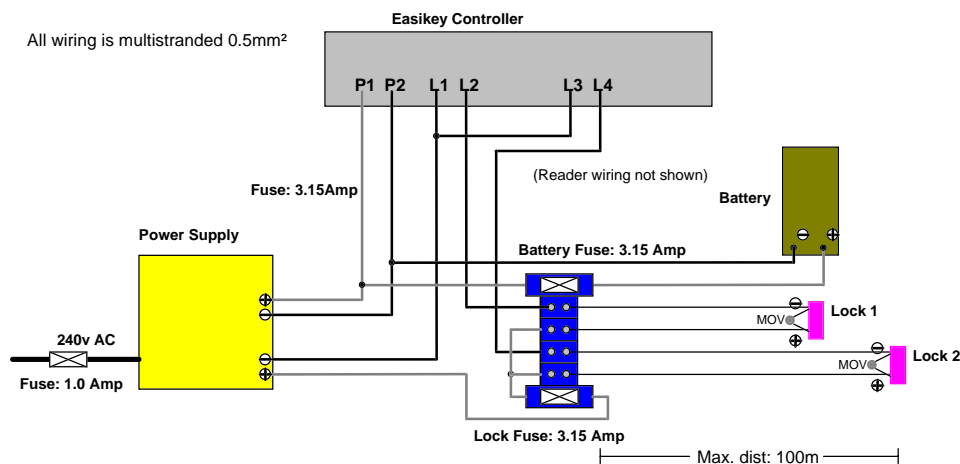
Fuses

Location	Type	Rating
Mains Terminal Block	20mm glass, Slow Blow	1 Amp
Lock Supply *	20mm glass, Slow Blow	3.15 Amp
Battery Lead *	20mm glass, Slow Blow	3.15 Amp

* The Lock Supply and Battery fuses are located in a terminal block below the Easikey controller.

Internal Power Wiring

The diagram below describes the wiring provided inside the cabinet. This provides for battery backup through a harness capable of connecting two batteries, and two lock 12v lock outputs through a terminal block.



Reader Wiring

See the *Easikey Installation Guide* for instructions on reader wiring. In summary, the cable, 4 or 6 core 0.22mm² up to 100m in length, from one or both readers is connected to the removable terminal blocks on the Easikey controller.

Lock Wiring

Use at least 0.5 mm² cable from the terminal block to the locks, the cable length should not exceed 100m. Each lock should have the MOV supplied with every Easikey reader fitted across its terminals.

Both fail-safe (power to lock) and fail-secure (power to unlock) locks are supported by the Easikey system. The type of operation is set by programming the Easikey. See the *Easikey Installation Guide* for full details on setting lock release times and mode of operation.

Checking the System

With the mains supply connected, power up the system with no locks or readers connected. Using a multimeter set to DC volts, measure the voltage across the P1 and P2 terminals of the Easikey controller, it should read between 13.5 and 13.8v DC.

If you are using battery backup, then power up with the battery connected, again measure the voltage between P1 and P2, this should still be between 13.5 and 13.8v DC. Now disconnect the mains supply, the voltage should now be approximately 12.5 v DC from a fully charged battery. Continue with the procedure for checking the system described in the *Easikey Installation Guide*. Finally, repeat the checks described above but with a fully working system complete with locks and readers.

Power Supply Specification

The power supply is capable of supplying a maximum of 3 Amps. This should be sufficient to power the Easikey controller, one or two Easikey readers, one or two electric locks and provide charging current for the battery.

Use the following table to ensure you do not overload the power supply:

Item	Current (mA)
Easikey Controller	190
Easikey Reader 1	90
Easikey Reader 2	90
Lock 1	
Lock 2	
Charging Current	500
Safety Margin	500
Total	

The total current should not exceed 3A (3000mA). This leaves approximately 1600mA available for supplying the locks on a two door system.

Battery Backup

There is room in the cabinet for a single 3Ah battery. The length of time this will last depends on the power consumption of the system. The main factor in this calculation is the power consumption of the locks. A *fail-safe* lock draws current continuously and therefore you can simply add the continuous current to the total. A *fail-secure* lock, however only draws current when it operates. In this case you need to estimate how often the lock will operate and use the following equation to estimate hourly consumption:

$$\text{Lock Current(mA)} \times (\text{no. of operations per hour} \times \text{lock release time (secs)}) / 3600$$

For instance a 500 mA lock operating 20 times an hour for 5 seconds would use $500 \times (20 \times 5) / 3600 = 13.9\text{mA}$ per hour.

Once the total power consumption has been estimated then it can be calculated how long the fully charged battery will last. The Ah rating of batteries is actually given as a 10 hour discharge rate. If the battery discharges over a shorter period of time it will last for less than their apparent capacity.

Example: an Easikey with two readers and two continuous (fail-safe) locks each drawing 250mA would consume $190 + 90 + 90 + 250 + 250 = 870\text{mA}$. A fully charged 3Ah battery would last $3 / 0.870 = 2.61$ hours.

Other Easikey Items

Part Number	Description
21020	Electronic Key
20377	Easi Mullion Reader - Black
20387	Easi Mullion Reader - Black
20378	Easi Vandal Resistant Reader - Stainless Steel
20388	Easi Vandal Resistant Reader - Brass
20421	Easi Panel Mount Reader
925	Request to Exit switch

Declaration of Conformity	
Application of Council Directives	73/23/EEC
Standard(s) to which conformity is declared	EN55022-B, EN55082-1, EN60950.
Manufacturer's Name	PAC International Ltd.
Manufacturer's Address	1 Park Gate Close, Bredbury, Stockport, U.K. SK6 2SZ.
Type of Equipment	Access control systems
Product Equipment	Easikey Series
I, the undersigned, hereby declare that the equipment specified above conforms to the above directive(s) and standard(s).	
Signed	<i>Vanda Murray</i>
Full Name	Vanda Murray
Date	1st September 1995
Position	Managing Director