FX-2000 Programming Security Introduction

Mircom is pleased to introduce full security to all ESDs who want to secure the programming of the FX-2000 with the introduction of phase II Software, each ESD will require a security key. Older software versions can be updated to the new software release and then they will require a security key to communicate between the panel and the configurator (laptop).

Security Key Benefits and Options

Each security key contains the following information:

Serial Number	Pre-programmed number, which uniquely identifies a key.
Firm Code	Company code assigned to Mircom (All of the FX-2000 security keys will have this number).
Primary User Code	A unique number, which will be used to identify the ESD (if full security is choosen).
Technician Number	Used to distinguish keys with the same ESD "0" being the Master Security Key (same primary user code).
User PIN	Similar to your bankcard PIN number, used to validate the key's user.
Meter Number	Down counter, which can limit the number of times the key can be used to configure an FX-2000.
Expiry Date	Key will not be able to be used after this date without updating on the Mircom Technologies Ltd. Web site (compared to the PC clock and the FX-2000 clock).
Date Last Used	Date of the last time the security key was used to send or get data from a FX- 2000 (from PC clock).

The Firm Code is programmed onto the security keys when they are distributed by Mircom to the ESD. The other items, with the exception of the serial number, which is programmed by the security key manufacturer, will be updated by the ESD remotely through the Mircom Web site.

ALL KEYS WILL HAVE TO BE ACTIVATED USING THE WEB SITE. (Zero or Full Security Types)

When using Security the first key that is activated by the ESD will be technician #0 and will be the ESD's Master Security Key. Whenever the ESD wishes to set any of his parameters he must have this technician #0 Master Security Key installed on his computer. All additional security keys will be numbered technician #1 and up to the last number issued.

Security Key Maintenance

The ESD will update his or her security key by accessing our special Mircom Security Web site. This site will be password protected and the ESD must have his technician #0 Master Security Key installed on the computer so Mircom can verify his Master Security Key identity.

From our Mircom Web site they can perform the following functions:

- Activate your new Security Key or Re-activate a expired Key
- Update Meter Number and Expiry Date
- Order Additional or replacement Security Keys

Questions and Answers

How Does this Security Key Protect The ESD?

<u>Using Zero Key (No Security Protection)</u>

When a new panel is shipped from Mircom, it will have factory configuration software loaded into the panel. The time and date can be changed from the front panel. The panel can be connected to the configurator, as long as there is a Zero Security key connected to the laptop. The program can be 'sent' to the panel and got without providing any security. This will allow anyone with a "Zero" key to get and send the program contained in this panel.

<u>Using Full Security Key</u>

When a new panel is shipped from Mircom, it will have factory configuration software loaded into the panel. The time and date can be changed from the front panel. The panel can be connected to the configurator, as long as there is a security key connected to the laptop. Once a program is 'sent' to the panel the Primary User Code will be stored in the panel. This means that only the correct security key can connect to an FX-2000 once the system has been programmed with that key.

Once an FX-2000 has been programmed with a security key the panel time can be changed from the front panel, but to change the panel date, a laptop with the correct security key must be used. This is to prevent the date on a panel from being changed to a date prior to the expired date on a security key.

What happens if a security key is lost?

The security key will not work unless the PIN number is entered and the laptop with the security key is connected to a panel that this key has previously programmed.

What happens if the security key is stolen?

The longest expiry date that can be set by the ESD for his security keys is one year. If the ESD does not reset this expiry date, all of the ESD's security keys will become invalid. The ESD will have to access the Mircom Security Web site to re-validate their security keys at a self determined interval. In addition, the ESD can set the expiry time for any amount of time up to the yearly expiry date set by Mircom. For example, it could be set to expire weekly, meaning a stolen key would only be good for seven days. The ESD determines how much protection he wants with his security keys settings. Any panel dates that are after the expiry date on the security key can no longer be accessed with that security key. The panel software can be changed as long as the expiry date has not expired. Expired Keys can be re-activated at any time with the use of the Master Key.

What is the cost to the ESD or Service Company?

The individual ESD can decide to use the security or not. If not he will be provided with one "0" Security Key a no cost, which he must use; it will allow him to use the Configurator on all his panels without the security as described. He must use a Zero Security Key; the Key can be provided as either the parallel port version (LPT) or the USB version (Please specify when ordering). He may purchase additional keys of either type at a nominal cost.

If the individual ESD decides to use the security, he must purchase a Security Master Key Kit, which he will use. It will allow him to use the Configurator on all his panels and will provide security as described above. The Security Key Kit will contain one parallel port version (LPT) and one USB version. You may use either one of these keys to become the Master Security Key by choosing it when they are activated on the Mircom Security Web site. This Key will then be used as the Master Security Key for all communication with the Mircom Security Web site.

All companies certified to work on a FX-2000 system will be set up in Mircom's Security Registry and will have a unique company code assigned exclusively to them. This unique company code will be used on all of the security keys that the particular ESD uses.

The Security Master Kit (Part number SKEY_KIT) will include the set up, assignment of a company unique code and two Security Keys (one parallel port type (LPT) Part number SKEY-PAR and one USB type Part number SKEY-USB). Additional security keys of either type can be ordered at an additional cost.

The Security Key simply plugs into one of the ports on the computer and when connection is made to an FX-2000 panel the configurator checks for the security key and that it matches the information stored in the panel. If you are using the USB version, you must have more than one USB ports if you intend to have additional technician keys (this is required for programming purposes). In addition, you can mix USB and LPT types of keys if you wish.