



# Programming

Switch on the system. The display will briefly show “8.8.8.” followed by the version number(eg “1.03”) and then go blank. During normal operation the display remains blank except for a decimal point which flashes every few seconds.

**Do not present any *TinyTags* to the system until you have read the section “The Master *TinyTag*”.**

The EAS999 incorporates a proximity-ID or ‘Prox’ reader, which means that the *TinyTags* (electronic keys) can be read without physical contact. The reader is the radio interface of the system and has a maximum reading range of 60mm. *TinyTags* must be offered up to, or presented to, the reader in order to be read by the system. Best performance is normally obtained when the *TinyTag* is pointed directly at the front face of the reader. When presenting a *TinyTag*, point it directly at the front face of the reader, bringing it closer until a successful read is achieved. *TinyTags* cannot be read if they are presented to the display or any other part of the system other than the reader.

## The Master *TinyTag*

Before any *TinyTags* can be used with your EAS999 they must be registered with it, including the Master. One of the *TinyTags* supplied with your system will have a keyring attached indicating that it is the Master; present this one to the reader first, this becomes the **Master** for your system. The Master may have already been registered with your unit at the factory. Once presented, **the Master is permanently registered with your EAS999 and cannot be de-registered or changed, for security reasons, and no other Master will operate your system. Store it in a safe place - if you lose the Master you will no longer be able to maintain your system.** The Master cannot be used as an Everyday *TinyTag*. For convenience, the same Master can be registered with any number of EAS999 controllers, provided it is the first *TinyTag* presented to each.

## Add mode - Registering Everyday *TinyTags*

Everyday *TinyTags* are those issued to users for everyday use. The controller will grant access only to *TinyTags* that have been registered with it. Your EAS999 has a user capacity, or *TinyTag* capacity, of 999.

Briefly present the Master *TinyTag* to the reader. The controller will display the number of *TinyTags* currently registered. Withdraw the Master from the proximity of the reader. The controller changes to ‘Add’ mode and will display “Add”.

Present the *TinyTags* you wish to register to the reader one at a time. You must present each within approximately 5 seconds of presenting the last (or the Master). As each *TinyTag* is presented it becomes registered with the controller, and the controller will display a number – this is the index where the *TinyTag* is stored within the controller. This index is also displayed whenever a registered *TinyTag* is subsequently used.

Before issuing each Everyday *TinyTag*, make a note of its index against the name of the person it is being issued to. This will allow you to de-register the particular *TinyTag* in the future if you need to.

## Delete mode - De-registering Everyday *TinyTags*

A controller will deny access to anyone who uses a *TinyTag* that has been de-registered from it. You cannot de-register the Master *TinyTag*, for security reasons. The procedure for de-registering *TinyTags* requires both the Master *TinyTag* and any Everyday *TinyTag*; this makes it almost impossible to de-registering *TinyTags* accidentally.

In ‘Add’ mode (see ‘Registering Everyday *TinyTags*’), briefly present an Everyday *TinyTag*. Withdraw it and immediately present the Master *TinyTag* (*within half a second*). The display will show “dE1”. Withdraw the Master, the controller is now in delete mode and will start cycling through the registered *TinyTag* indices. To de-register a *TinyTag*, it is necessary to first set-up the corresponding index on the display.

### **De-registering Everyday *TinyTags* when the highest index used is less than 10**

Follow the above procedure to enter delete mode. Then, with the Master withdrawn, you will see the display cycle through the *TinyTag* indices. When the desired index is reached, present the Master continuously, for 5 seconds; The display flashes the selected index during this time and at the end of the 5 seconds the display will go blank and the *TinyTag* at the selected index will be de-registered. Withdraw the Master; the controller returns to normal mode.

### **De-registering Everyday *TinyTags* when the highest index used is 10 or higher**

Your EAS999 has a user capacity, or *TinyTag* capacity, of 999. To allow any index in this range to be readily specified, the digits of the index are set individually. After entering delete mode, one of the digits will cycle, restarting at zero each time through the cycle; Which digit cycles first depends on the highest occupied *TinyTag* index. The Master is used to set-up each digit in turn, to change which digit cycles, and finally, to de-register the *TinyTag* at the selected index. When the Master is presented to the reader the cycling stops and the digit that was cycling starts

flashing. If the Master continues to be presented for about half a second, the flashing will move on to the next digit (in a clockwise fashion, ie hundreds to tens to units and back to hundreds), indicating the digit that will cycle next when the Master is withdrawn. If the Master continues to be presented, all illuminated digits will start flashing and after a total of 5 seconds, the display will go blank and the *TinyTag* at the index flashing will be de-registered. Withdraw the Master; the controller returns to normal mode.

If the controller has *TinyTags* residing in indices all with a value less than 10, it will display and cycle the units digit only, irrespective of how many times the Master is presented. Similarly, if the controller has *TinyTags* residing in indices higher than 9, but all with a value less than 100, it will cycle the units and tens digits only. For convenience, the controller will not cycle through excessive unused indices. Also, if the controller has *TinyTags* residing in indices all with a value less than 10, it will cycle through only those indices containing registered *TinyTags*.

If any digit is allowed to cycle completely twice without the Master being presented, the controller will return automatically, and harmlessly, to normal mode. A *TinyTag* can be de-registered only if the Master is presented continuously for 5 seconds.

During each cycle, the display will always cycle through zero. Even though this isn't always necessary to create a valid index, it is a visual aid. Zero is not a valid *TinyTag* index. If you try to de-register from an empty index, or index 0, nothing will happen. One display digit will flash while the Master is presented and the controller will alternate the flashing digit, indefinitely.

### Setup Mode

Setup mode allows the settings for the active output state and active time to be both examined and changed. It also allows all Everyday *TinyTags* to be deleted at once. In 'Add' mode (see 'Registering Everyday *TinyTags*'), briefly present an Everyday *TinyTag*. Withdraw it and immediately present the Master (within half a second). The display will show "dEI". Continue to present the Master for 5 seconds. The display will change to "Etc". Withdraw the Master; the controller is now in setup mode and the display immediately changes to "d.All". After a short delay the display shows "A", followed by the active output state, then "t", followed by the time the output is active for. After another brief delay the display will go blank and the controller returns to normal mode.

### De-registering All Everyday *TinyTags*

Enter Setup mode. As soon as the display shows "d.All", re-present the Master; the display starts flashing but continues to show "d.All". Continue to present the Master for 5 seconds, after which the display goes blank and ALL Everyday *TinyTags* are de-registered. Withdraw the Master; the controller returns to normal mode.

### Active Output State

The EAS999 can be configured to drive a wide range of locking and control systems. It has 3 selectable active output states: "on", "off", and "tog", which can be used to change the behaviour of the "Lock" output when an authorised Everyday *TinyTag* is presented.

Active Output State	Example use
on	Fail secure release
off	Fail safe release / maglock
tog – the output toggles each time a <i>TinyTag</i> is presented	Barrier systems, shutters, gates, etc.

Example: To make the EAS999 output toggle each time a *TinyTag* is presented: Enter Setup mode and wait until the display shows "A". Re-present the Master; the display starts flashing and changes to show the currently selected active output state. Withdraw the Master. Wait until the display shows "tog", and then re-present the Master; the display will flash "tog". Continue to present the Master for 5 seconds, after which the display goes blank and the "tog" setting is saved. Withdraw the Master; the controller returns to normal mode.

### Active Output Time

When a *TinyTag* is presented, the output will activate for the Active Output Time. This time may be set within the range 0.1 to 120 seconds. To change the setting: Enter Setup mode and wait until the display shows "t". Re-present the Master; the display starts flashing and changes to show the currently selected active output time. Withdraw the Master. Wait until the display shows the desired time and then re-present the Master; the display will start to flash the selected time. Continue to present the Master for 5 seconds, after which the display goes blank and the setting is saved. Withdraw the Master; the controller returns to normal mode.

NOTE: If the Active Output State has been set to "tog", the Active Output Time is ignored.