

Aquila T-Tiny⁺ - T-Micro Taximeter User Guide

*Instructions in this manual refer to both T-Tiny⁺ and
T-Micro models except where indicated*

This manual describes the operation of the T-Tiny⁺ and T-Micro Taximeters once correctly installed and configured by an authorised Aquila Taximeter Dealer. Aquila Electronics Limited reserve the right to change the specification of its products without notice. If any further information is required, please contact your local dealer.

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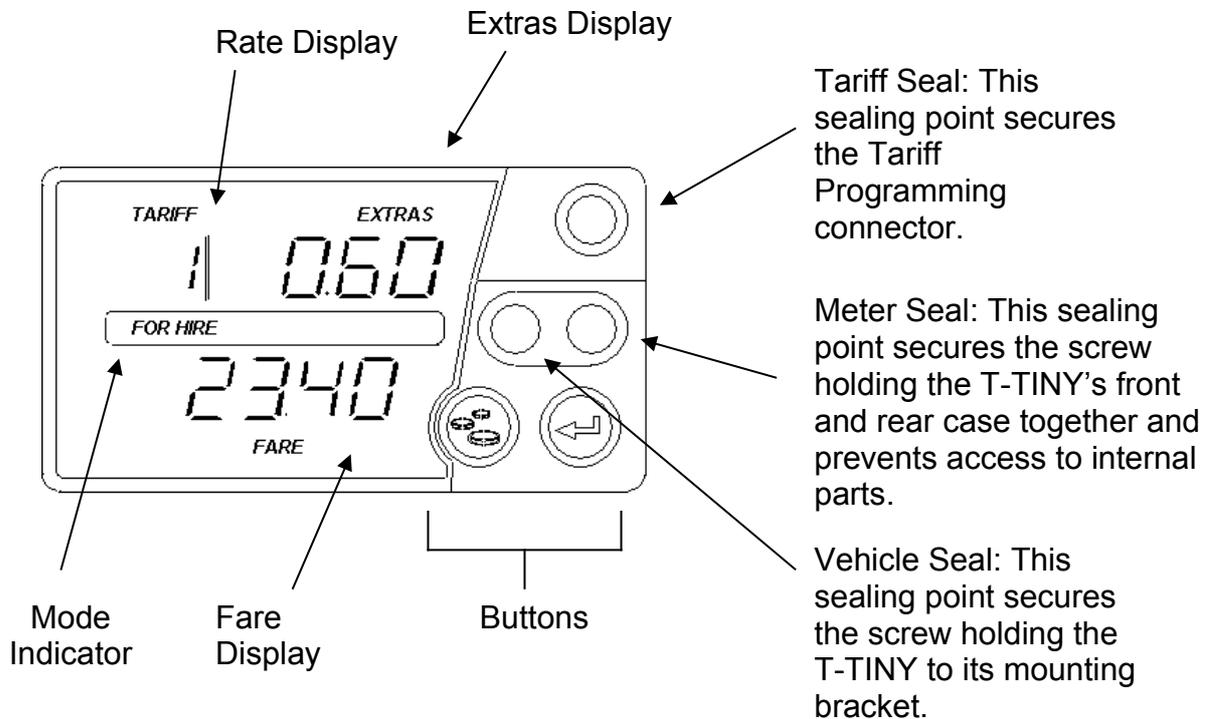
1 Differences Between the T-Tiny+ and T-Micro

The T-Micro is a lower cost version of the T-Tiny+, and it has some differences in its functional specification:

Feature	T-Tiny+	T-Micro
Serial Ports	The T-Tiny+ has 2 RS232 serial ports for printers etc.	The T-Micro has no RS232 serial ports.
Enclosure	The T-Tiny+ has a metallic painted finish.	The T-Micro has a self-colour grey finish.

The instructions in this manual mentioning “T-Tiny” refer to both models, except where there is a difference in functionality. In this case, the differences are noted.

2 The Basics of the T-Tiny Taximeter

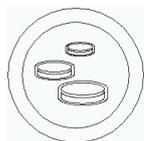


Note: The Rate, Fare and Extras displays are used for other purposes in various menus and options.

The diagram of the next page shows how the T-Tiny's basic operations work. Following this there are descriptions of each of the T-Tiny's operating modes and the functions available in each mode.

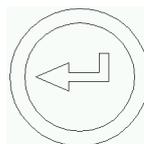
The T-Tiny's Buttons

Throughout this manual, the T-Tiny's keys are referred to as shown below. Their main functions are described.



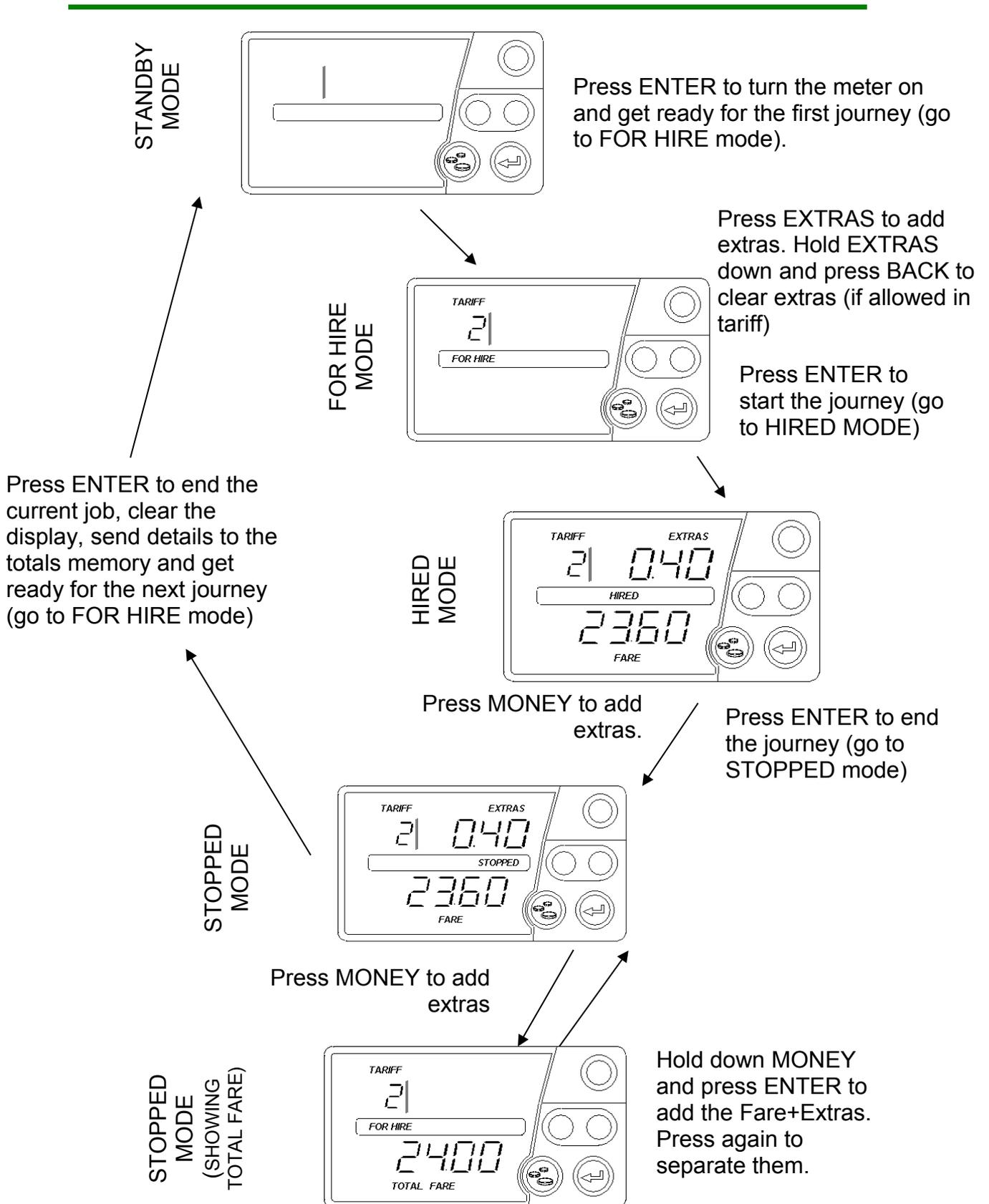
"Money" Key

Used for adding extras, navigating menus.



"Enter" Key

Used for starting and completing a hiring, and navigating menus.



Basic Operation of the T-TINY

3 Operating Modes

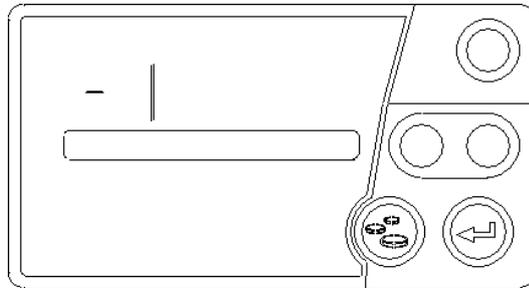
3.1 Standby Mode

When the T-TINY is first powered up, it enters STANDBY mode. The display is completely blank except for a dash which appears in the Rate Digit if the vehicle moves.

Access to the User Menu system is available from Standby mode. (See section 5)

- ✓ Optional Feature: A time of day clock may be displayed for 30 seconds if the vehicle moves.

Button functions:



Press MONEY to
enter the User
Menu System

Press ENTER to enter
FOR HIRE mode

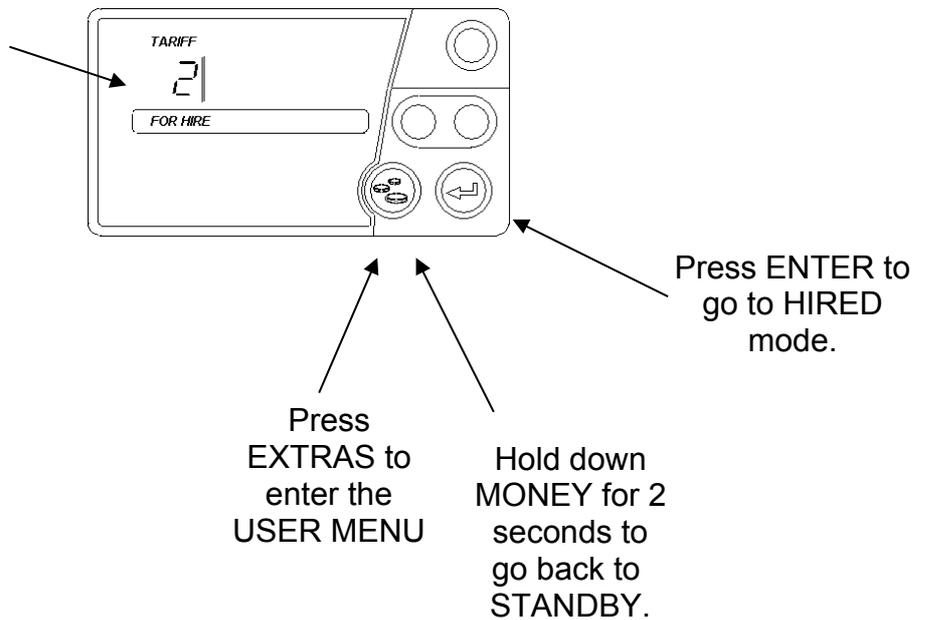
In certain circumstances, error messages may be displayed when first powering up the T-TINY.

3.2 FOR HIRE Mode

In FOR HIRE mode, the T-TINY displays the currently selected rate and allows manual rate selections to be made if these are included in the tariff.

- ✓ Optional Feature: The T-TINY may optionally display a time of day clock in the Fare Display if allowed in the tariff.

Hold down MONEY and press ENTER to select the rate the T-TINY will charge. The effect of this button depends on the tariff in the meter.



- ✓ In FOR HIRE mode, the T-TINY may illuminate the roof sign of your vehicle. This depends, however, on the tariff program in the meter, and the wiring in your vehicle.

3.3 HIRED Mode

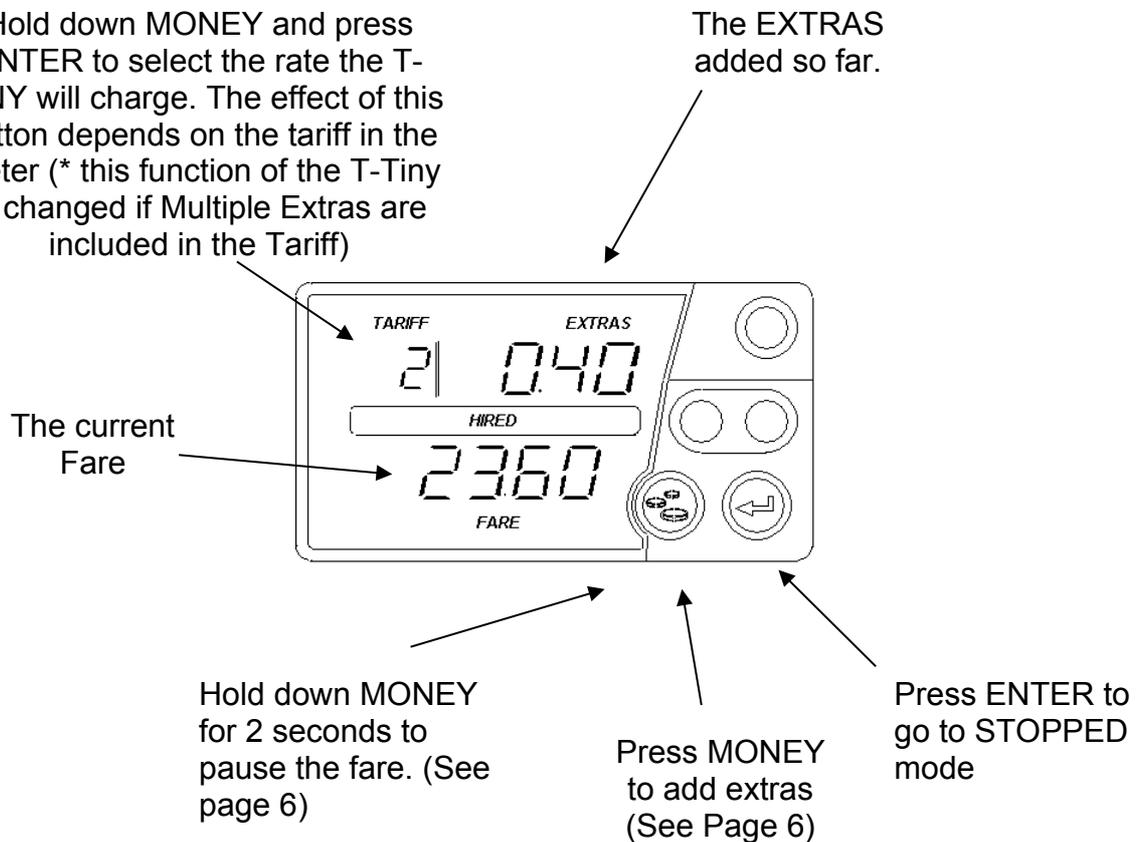
✓ HIRED mode is the mode in which the T-TINY calculates the fare based on a combination of time and distance. As soon as the meter is placed in HIRED mode, it begins to calculate the fare based on the tariff programmed into it.

There are some conditions which will prevent the T-TINY from entering HIRED mode from FOR HIRE mode. These include:

1. The absence of a tariff program
2. An external device such as a Mobile Data Terminal is connected, and it is preventing the T-TINY from entering HIRED mode.

In case of item 2, please contact your dealer for assistance.

Hold down MONEY and press ENTER to select the rate the T-TINY will charge. The effect of this button depends on the tariff in the meter (* this function of the T-Tiny is changed if Multiple Extras are included in the Tariff)



Functions in HIRED Mode

- ✓ If enabled in the tariff program, the MONEY button can be pressed and held down for 2 seconds to pause the fare calculation. In this case the fare is “frozen” until the MONEY button is pressed for 2 seconds again. To indicate that the fare is paused, the HIRED and STOPPED legends flash alternately. When re-started, the fare starts from the point at which it was paused. This feature is sometimes called “dead-stop”.

“Multiple Extras”

The Multiple Extras function of the T-Tiny allows the selection from a number of possible extras amounts, each relating to charges for different types of fare supplements.

For example, the tariff may contain a Multiple Extras table including:

<i>Item</i>	<i>Extras amount</i>	<i>Max number of items</i>	<i>Descriptive Word</i>
Luggage	£0.20	5	“LUGG”
Passengers in excess of one	£0.15	4	“PASS”
Airport Charge	£1.50	1	“AirP”

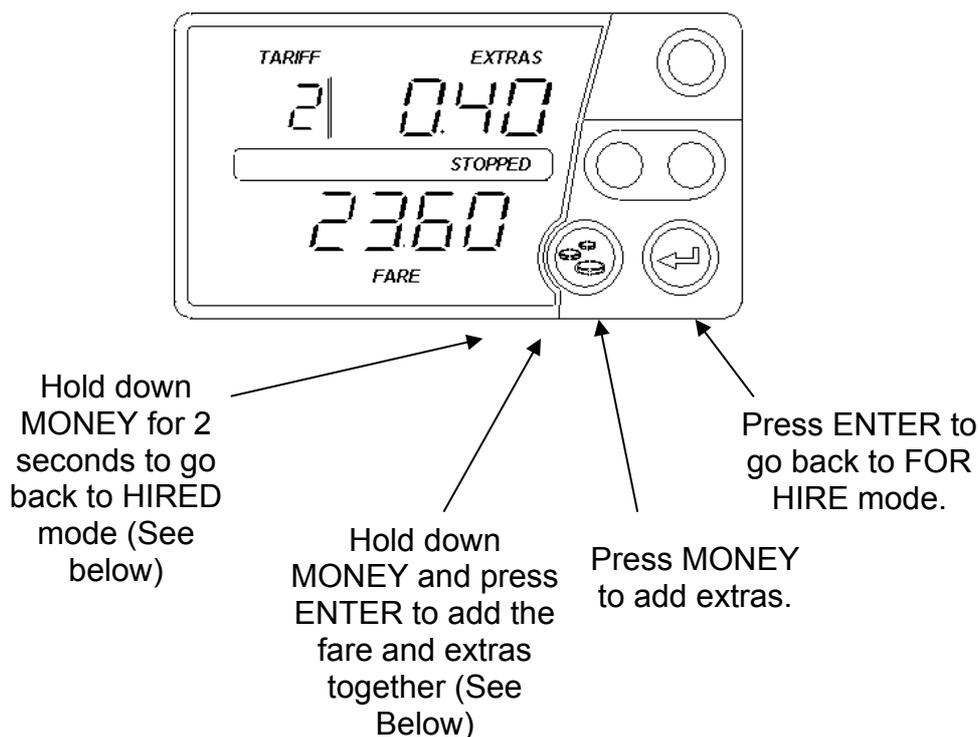
If the tariff programmed into the meter contains “Multiple Extras”, then the operation of the MONEY button is altered.

- The first time the MONEY button is pressed, the T-Tiny displays the Descriptive Word from for the presently selected Multiple Extras item, eg, “LUGG” for “Luggage”.
- To scroll through the list of Extras items, keep holding down the MONEY button and press the ENTER button until the required item is reached.
- To add the Extras Amount, release the EXTRAS button, and then press and release it again.
- ✓ The T-Tiny will only allow the permitted number of Extras increments to be added (ie: up to 5 “Luggage” charges in the above example).
- ✓ If Multiple Extras are in use, manual selection of rates are not available in HIRED mode.

Note: Since the T-TINY (in common with most taximeters) includes time in the fare calculation in HIRED mode, it is not appropriate to do in-vehicle distance related accuracy testing in HIRED mode. STOPPED mode should be used for this purpose.

3.4 STOPPED Mode

The T-TINY is normally placed in STOPPED mode at the end of the journey and left there until the passenger has paid the fare. In this mode, the time element of the fare calculation is stopped, but the taximeter continues to calculate the fare on the basis of distance only.



- ✓ If the T-TINY is programmed to do so, holding the MONEY button down and pressing ENTER in STOPPED mode will cause the fare and extras to be added together and the legend "TOTAL FARE" to be illuminated. The exact behaviour of this feature has several possible options. If you require any further information, please contact your dealer.

Since the T-TINY continues to calculate the fare on a distance basis only, STOPPED mode may be used for in-vehicle testing.

4 Tariffs and Options

This section explains some basic principles as they apply to the T-TINY Taximeter.

4.1 Tariffs

A taximeter needs to be programmed with a *tariff* in order for it to charge the correct fares and comply with the needs of your business and local regulations.

The T-TINY is programmed with a tariff by your dealer. As well as the charging information, the tariff also includes:

- Information about calendar dates, times and days of the week for so-called “calendar” tariffs.
- The dates and times to change the clock forwards and backwards for Summer and Winter time.
- Configuration of options such as the totalling of the fare and extras in stopped mode
- Configuration of the circuits used to activate the roof sign lamp(s) on the vehicle.

Because of this, the behaviour of an T-TINY can change greatly depending on the tariff programmed into it. If you require any help with the operation of your taximeter, please contact your local dealer.

4.2 Tariff Code

Tariff programming information is generated by staff at Aquila Electronics in conjunction with local dealers. In order to keep an accurate record of the large number of programs written, and to assist in the diagnosis of problems, every Aquila tariff is uniquely numbered. This number can be displayed in the “Info” user menu (See section 5.3.4).

If given this number, staff at Aquila can quickly find out how your T-TINY has been programmed and answer any queries you may have.

4.3 Receipt Programs

The T-TINY can optionally be programmed with one or more receipts for printing on a suitable Receipt. Like the tariff program, the Receipt Program has a unique code number which can be used to identify it to your dealer.

Printers are not supported by the T-Micro, so it will not accept receipt programs.

5 The User Menu

The T-TINY's user menus allow:

- Information to be read out of the meter, including the totals information
- Certain functions of the meter and meter/vehicle interface to be tested
- Certain features of the meter to be enabled, disabled or configured

The User Menus are available when the T-TINY is in FOR HIRE or STANDBY modes. To access the menu system, press the MONEY button in either of these modes (see Sections 3.1 and 3.2).

The User Menus include the following sections:

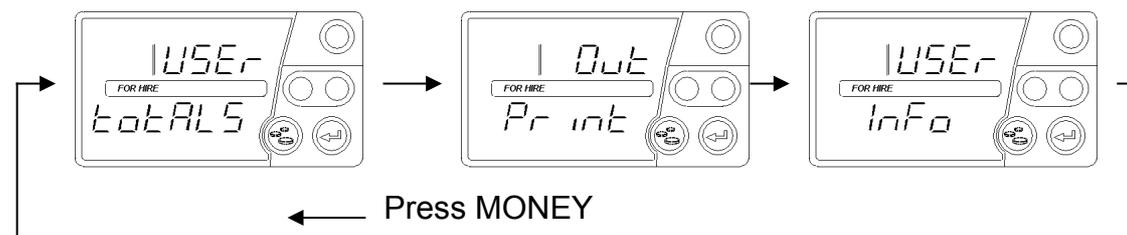
Section	Description
Totals	Allows access to read the meter's totals information. The meter's totals may also be configured and reset in this section.
Print Out	This section is available if the T-TINY has a receipt program in place, and is used to print out receipts on an optional printer. (This option is not available on the T-Micro, as it does not support receipt printers)
Info	Allows access to various "Information" items and settings.

- To move between the sections, press the MONEY button.
- To select one of the sections, press ENTER
- To move between the sub-menus, press MONEY

To back out of an item, press MONEY for 2 seconds. To exit completely, press MONEY for 2 seconds repeatedly.

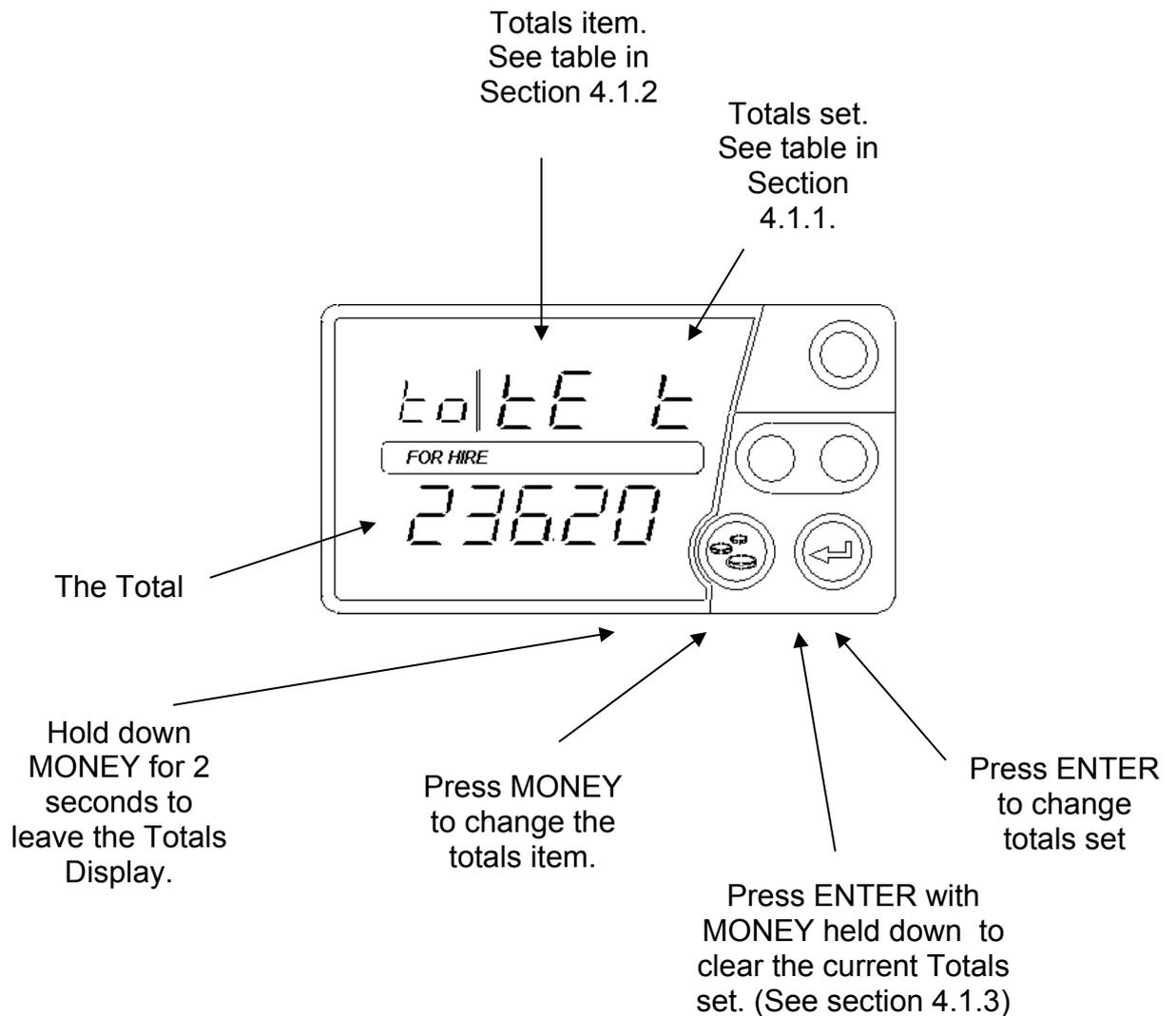
If no button is pressed for a continuous period of 10 seconds or 30 seconds (depending on the tariff program), the T-TINY automatically leaves menu system and goes back to the previous mode.

Most of the menu items also time-out in a similar way.



5.1 User Menus: Totals

The T-TINY stores running totals of your earnings and other journey information for later recall. To access the totals, press ENTER from the "Totals" prompt.



5.1.1 The 3 Sets of Totals

Three separate sets of totals are stored:

Display	Description
t	“Temporary Totals”. These may be reset by any user.
p	“Permanent Totals”.
L	“Last Journey” totals. This set represents the last journey only.

5.1.2 Items in each set of Totals

Each set of totals includes the following items:

Display	Description	Included In Last Journey Totals
tE	Total Earnings = Fares + Extras + Tips	✓
F	Fares	✓
E	Extras	✓
Hr	Hirings	✗
td	Total Distance travelled including between hirings	✓
pd	Paid Distance: Distance travelled while hired.	✓ (Paid distance during last Journey)
Ud	Unpaid Distance: Distance while not hired	✓ (Unpaid distance since last recorded journey)
PU	“Power Ups”: Count of number of times power has been applied to the T-TINY	✓

In the case of the “Last Journey” totals, the “Hirings” total is absent. Some of the other items have the meanings a indicated in the table above.

5.1.3 Clearing a Totals Set

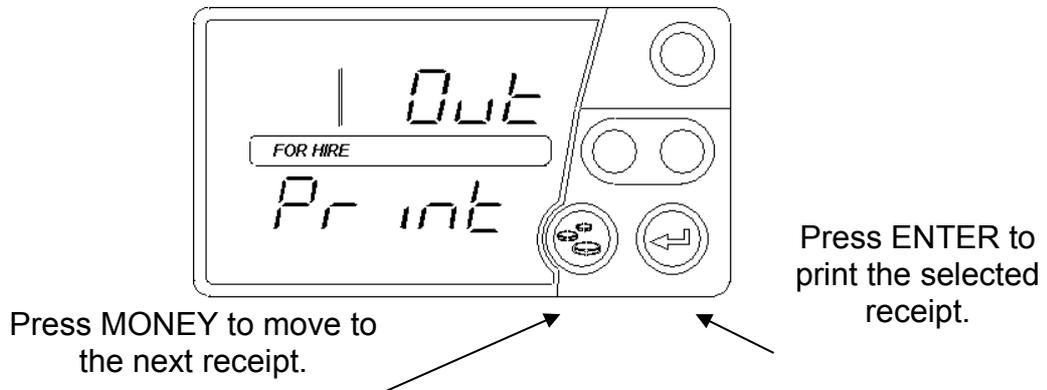
- ✓ It is possible to clear the “Temporary” totals set by holding down MONEY and pressing ENTER.
- ✓ The “Last Journey” or “Permanent” totals set may not be cleared.

5.2 User Menu: “Print Out” (Not supported on T-Micro Model)

The “Print Out” menu option is only available if a receipt programme has been inserted into the T-TINY. Its correct use also requires the connection of a suitable Receipt Printer.

Assuming that a receipt printer is connected to the T-TINY and switched on, a receipt may be printed:

- ✓ If only one receipt choice is available, pressing ENTER will print it.
- ✓ If more than one receipt choice is available, pressing ENTER gains access to a menu of the choices.

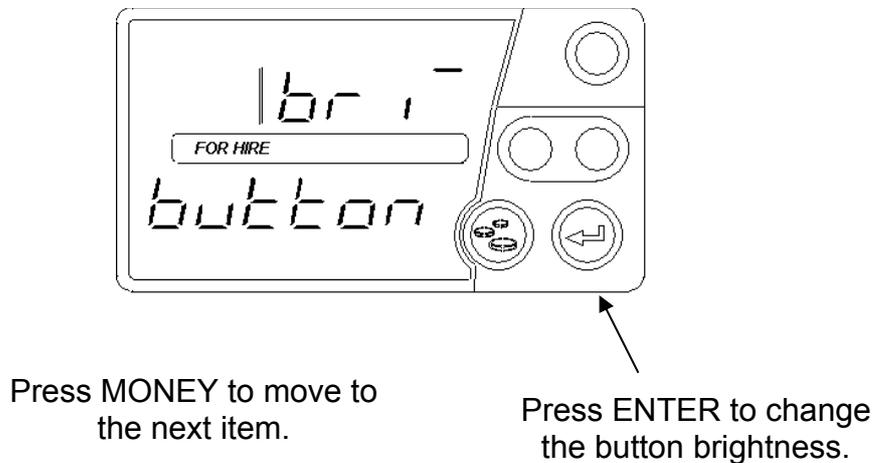


5.3 User Menu: Info

The info menu contains a series of items giving information about the meter and its status, and allows some of the meter’s settings to be changed.

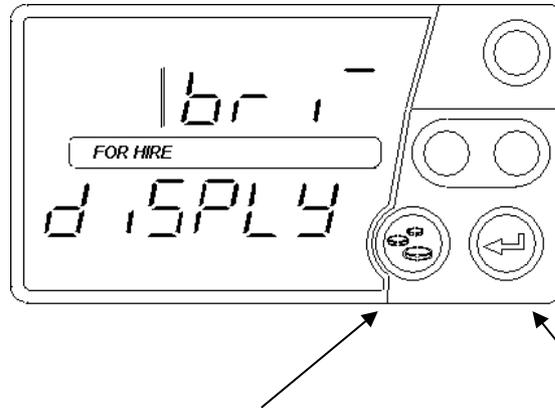
5.3.1 Button Brightness

This menu entry allows the brightness of the button backlights to be changed.



5.3.2 Display Brightness

This menu entry allows the brightness of the button backlights to be changed.

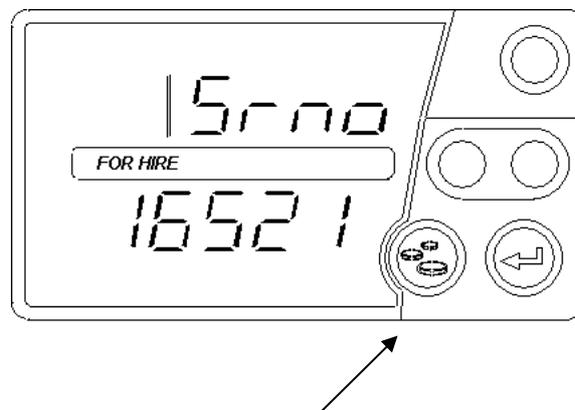


Press MONEY to move to the next item.

Press ENTER to change the display brightness.

5.3.3 Serial Number

This entry shows the T-TINY's serial number which should match the number printed on the front panel.



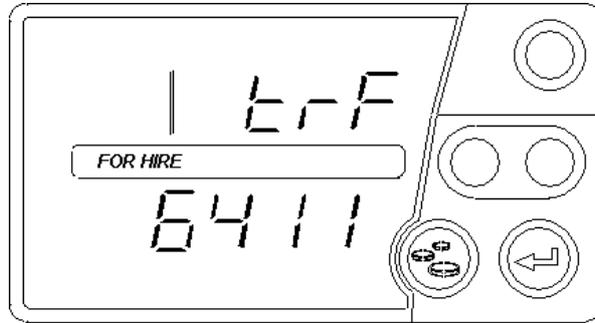
Press MONEY to move to the next item.

5.3.4 Tariff Number

See sections 4.1 and 4.2 for details of the tariff numbering scheme.

This item shows the Tariff Number of the tariff currently programmed into the T-TINY. If there is no tariff installed, "no trF" is shown.

Pressing ENTER at this point displays the “Tariff Event Counter”, which gives a count of the number of times the tariff has been re-programmed.

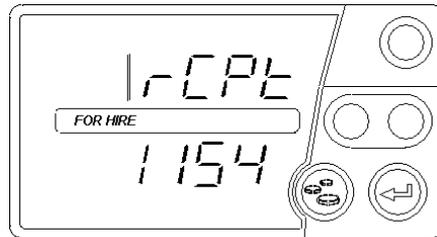


Press MONEY to move to the next item.

Press and hold ENTER to view event counter.

5.3.5 Receipt Number (Not Supported on T-Micro Model)

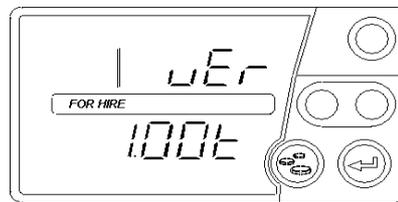
See section 4.3 for details of the receipt number.



Press MONEY to move to the next item.

5.3.6 Software Version

This item shows the version of the software in the T-TINY. The software checksum can also be shown.



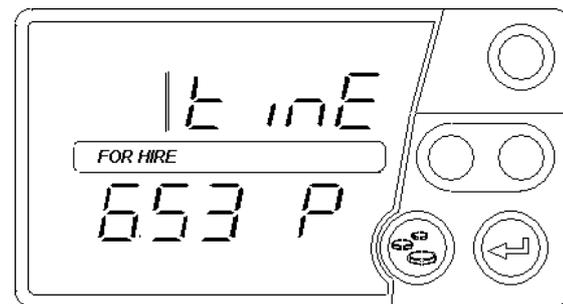
Press MONEY to move to the next item.

Press and hold ENTER to display the software checksum.

You may need to tell your dealer the software version in the event of a query.

5.3.7 Time of Day

You can change the time between 12hour and 24hour format here. You can also make minor adjustments to the time to allow for the accuracy of the T-TINY's clock.

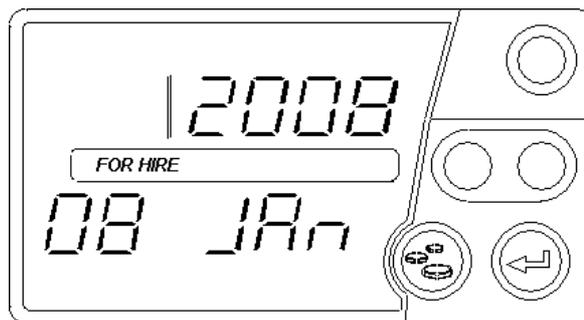


Press MONEY to move to the next item.

Press MONEY while holding down ENTER to adjust the clock.

Hold down ENTER for 2 seconds to change between 12 and 24 hour clock.

5.3.8 Date



Press MONEY to move to the next item.

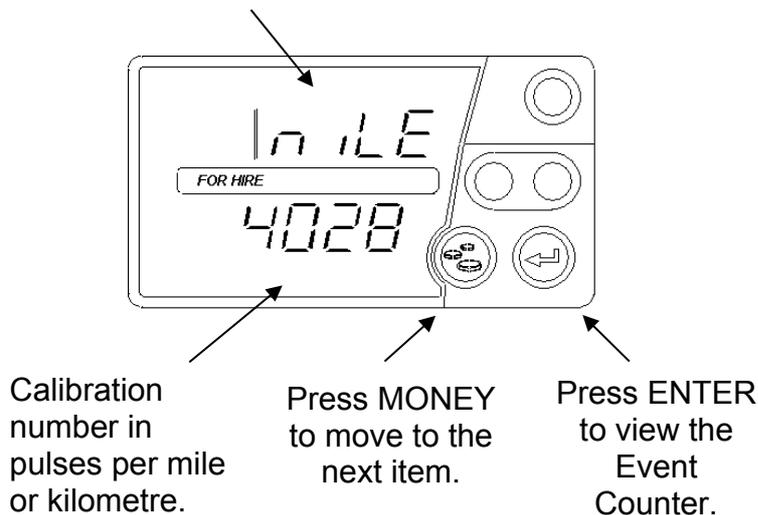
5.3.9 Calibration

The T-TINY is programmed by your dealer with a number of *pulses per mile/kilometre*. This item allows you to check the value.

Pressing ENTER at this point displays the “Calibration Event Counter”, which gives a count of the number of times the calibration has been re-programmed.

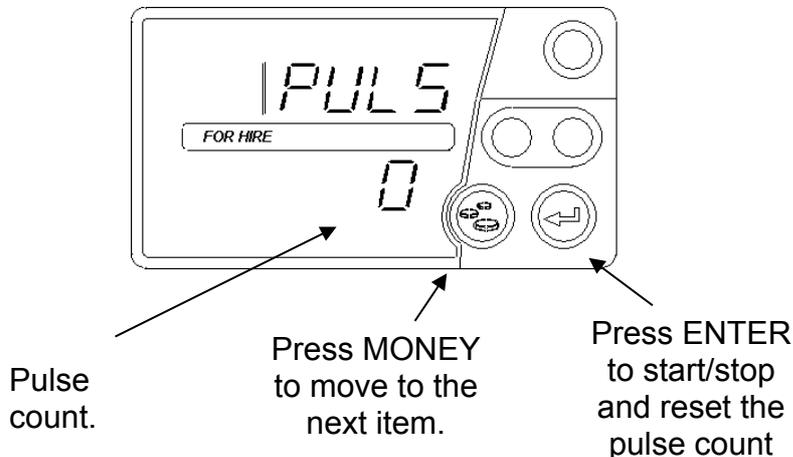
You may need to provide this information to your dealer in the case of a query.

Display shows “CAL/miLE” or “CAL/metr” (“Metric”).



5.3.10 Info Menu: Pulse Count

This item is a test facility for verifying that the pulse signal used to provide distance information to the T-TINY is working correctly. The pulse count facility displays a continuous count of pulses received.



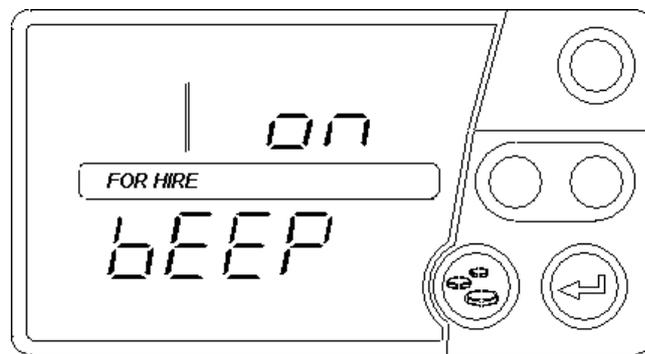
The initial display shows a pulse count of “0” with the text “PULS”.

- To start the pulse count, press the ENTER button.
- To stop the pulse count, press the ENTER button
- To clear the pulse count back to “0”, press ENTER again.

When the Pulse Count is in the active “counting” condition, it will not time-out after 10 or 30 seconds. To exit, hold down MONEY for 2 seconds.

5.3.11 Beep On/Off

The T-TINY’s sounder can be turned on and off using this item.



Press MONEY to
move to the next
item.

Hold down the
ENTER button for 2
seconds to turn the
beep on/off.

6 Power Interruptions

If power to the T-Tiny is interrupted, it saves its status and resumes operation when the power is restored as described here.

6.1 Short Power Interruptions (Less than 19 seconds)

If the T-Tiny was in HIRED or STOPPED when power was removed, the existing journey is resumed when power is restored.

If the T-Tiny was in FOR HIRE or STANDBY modes, then the meter powers up in STANDBY mode.

There is a delay of approximately 1 second after power is restored for the display to reappear.

6.2 Longer Power Interruptions (19 seconds or more)

If the T-Tiny was in HIRED or STOPPED mode, the fare, extras etc are added to the totals, and the meter enters FOR HIRE mode.

The "Power Ups" total is also incremented in this case.

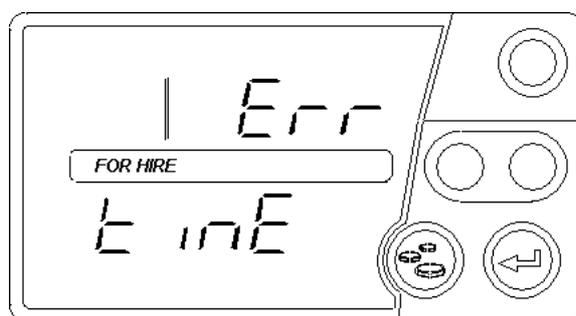
If the T-Tiny was in FOR HIRE or STANDBY modes, then the meter powers up in STANDBY mode.

7 The T-TINY's Battery and Clock

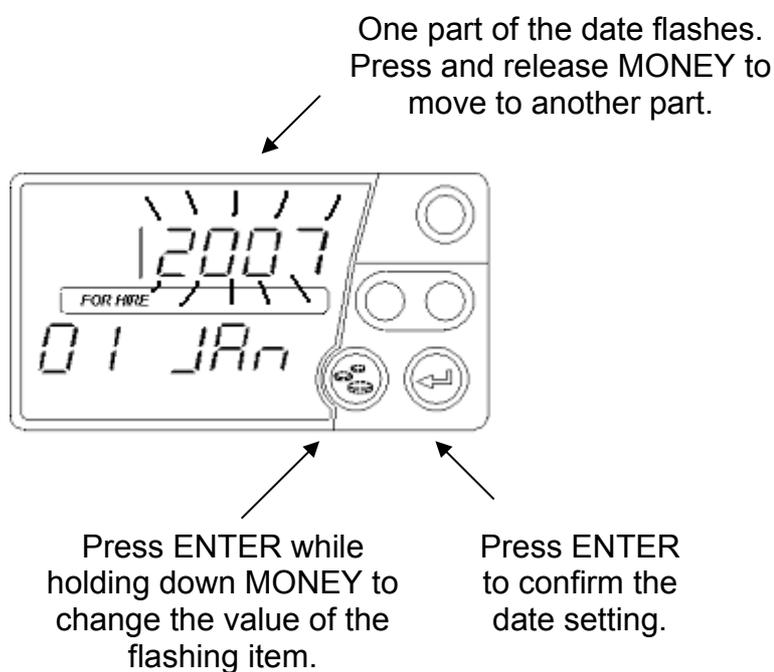
Since the T-TINY has a “real time clock”, it has an internal “battery” which maintains the clock when the meter is removed from a source of power. The T-TINY clock will continue to keep time for a period of over 12 months.

7.1 Setting the Clock

If the T-TINY's battery is discharged, the clock should be set when it is first connected to power. If the clock needs to be set, the T-TINY shows:

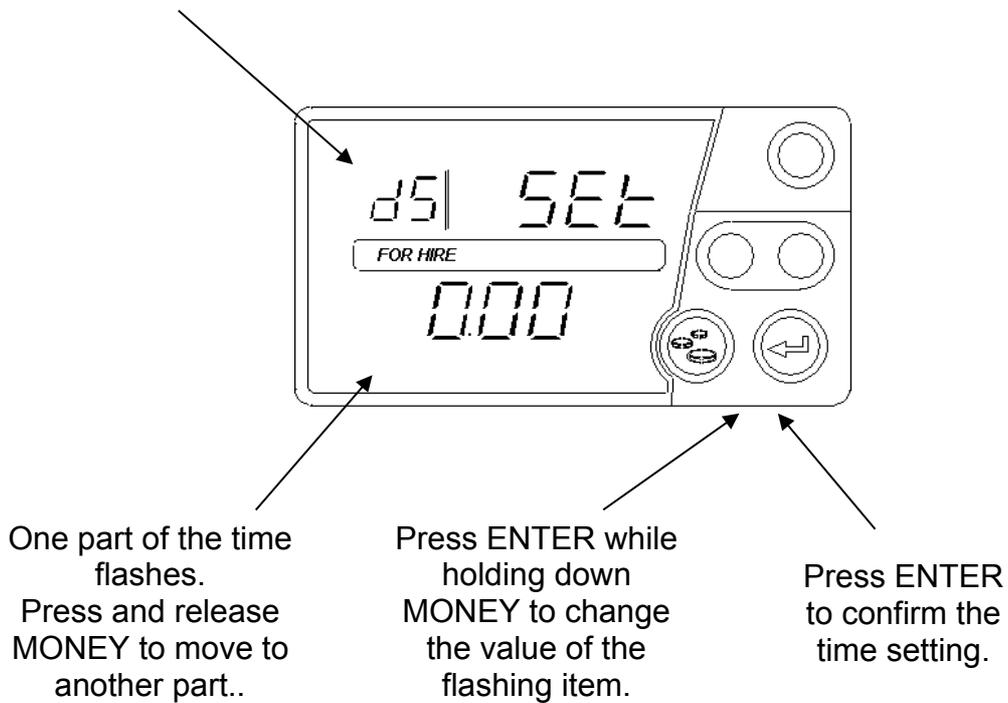


After the message has disappeared, set the current date using the buttons:



Once the date has been confirmed, the time of day must be set:

“Daylight Saving” –
See below for details.



Note: if the letters “dS” are shown in the rate window, the time shown takes account of “daylight saving”. This means that the tariff program includes adjustments for Winter and Summer time and that such an adjustment is in force on the date you have entered.
Once the date and time have been entered, the T-TINY enters STANDBY mode as normal.

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