DAILY AUTOMATIC TIME CORRECTION (function Fn 103)

In stand alone clocks the time count is normally controlled by a 5 to 20 ppm internal crystal that may result in up to a minute, or so, error per month.
In order to correct a small time error that is always present when there is no other external time reference, like for instance a GPS or an NTP server time, an additional programmable feature allows the clock to automatically introduce a small daily time correction.
Such time errors may be particularly prevalent in clocks with DC supply, where there is no possibility of correcting the time errors by monitoring the AC power line frequency as a reference.

In a new clock such additional time correction has a default value set to -1.5 seconds (per day). The clock will automatically perform the correction at 00:30:02 hours each day or at a XX:30:02 hours at any time after the clock is powered up.

However, the correction value is user adjustable within a +/-3.0 seconds range in 0.1 second steps.

The daily time correction is enabled by enabling the function Fn103.

The correction value re-adjustment may be made by enabling the function **Fn102** and pressing the SET key on the IR remote, and then setting the desired correction value with the UP or DN keys.
NOTE: Make sure that all other functions that affect the operation of the “SET” key on the remote are disabled before this re-adjustment is performed.

Note that during the re-adjustment the display will show the correction value multiplied by 10 and around the number 30.
So, for instance a correction value set to 18 means that the actual correction will result in -1.2 seconds ((30-18)/10) per day.
A correction value set to say 46 will result in the correction of +1.6 seconds ((46-30)/10) per day, etc...

After the manual value re-adjustment is made, the function **Fn102** should be disabled, but leave the **Fn103** enabled.

Practically it is best to monitor the time error for several days in order to determine what would be the best correction value.

If for any reason the correction option is not performing as expected, it may be deactivated by disabling the function Fn103 at any time or by setting the correction value to 30.

Note, that the correction option has been designed to take under account any period of the supply power down up to 255 days, assuming that the internal, self-recharging backup is still charged enough or a Lithium backup is installed, or an additional , external backup is connected .

So, each time the clock is powered up, it will determine for how many days it has been powered down and calculate the required total correction. Then the correction will be performed at the nearest XX:30:02 hour of the time.
Therefore, after the clock has been powered down for several days, the user should wait till the nearest XX:30:02 hour before making any manual adjustments of the clock's time, as the clock may readjust itself automatically.