STB

STB microtechniques SA

User's Guide

ELECTRONIC TIMELOCKS

STB 134N

Introduction
Identification of key components
Initial set up
Setting of daily opening times
"P" Functions
Part Numbers
Troubleshooting
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STB the world's only Electronic Timelock Movement Manufacturer is proud to present the 134N Electronic Movement.

In the development of this product, we have listened to our customers from around the world and produced a product offering outstanding functionality, produced to the highest standards possible, bringing the user our most flexible, easy to use Electronic Timelock movement ever.

We see this product as the only solution for upgrading all the worlds Mechanical Timelock products regardless of manufacturer.

The 134N incorporates several new features that enhance the value and versatility of this product:

- Day Time Changes can now be made without having to power down the Movement to re-program
- New P5 position, which allows the Movement to be programmed for long close periods simply by entering the total number of desired hours
- Next Opening time will be displayed automatically when the confirm signal sequence is completed
- Once the movement has completed the long close, the time is deleted automatically, and the movement reverts back to the regular programmed schedule when the movement is re-armed
- New revised battery life threshold Battery life now exceeds 70'000 plus openings
- LCD powers down 10 MINUTES after the programming has been completed, or when there is no activity, powering up automatically at the next armingReplacement of the disc and winding of the movement

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Day Banner —

Current Time —

Battery Cover —

Winding Arbour —

— LCD Display

— Trigger Pin

Programming Indicators.

Selection flashes x 2 Ready to accept Selection

Selection flashes x 3 Selection registered

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INITIALIZING THE MOVEMENT

1. Insert the top of the winding Key into the slot in the top of battery cap, turn Anti-clockwise to remove the battery cap

2. Carefully insert battery with the + facing Upwards

3. Replace cover turn Clockwise to secure

> ⚠️ **IMPORTANT!** *Never hold battery between thumb and forefinger on the + and - poles of the battery simultaneously, as this will immediately discharge the battery*

4. All available icons on the LCD screen will be displayed as a self-check, makes sure all icons are free from defect

INITIALIZING LOCAL TIME

1. Engage winding key onto the winding arbor and turn anti-clockwise until a "click" is heard, and continue to turn another 1/4 turn to make sure arming mechanism is fully engaged

2. Icon MON will flash 2 times in the top left corner of the LCD screen

3. Turn winding key Clockwise or Anti Clockwise to move curser to desired day

4. When desired day selected wait, allow Day to flash 3 times

5. Curser descends to Hour segment and flashes 2 times

6. After 2nd flash turn winding key clockwise or anti clockwise to wind hours up or down (24 Hour Format) to desired hour

7. Hour segment now flashes 3 times, and the cursor moves to the minute segment and flashes 2 times

8. After 2nd flash turn winding key clockwise or anti clockwise to wind minutes up or down to desired minute value

9. When desired minute value selected wait, allow minute to flash 3 times

10. LCD will now flash 3 times and movement will move to the open position

11. The current local time remains visible, for a period of approximately 10 minutes before shutting down and becoming blank, to spare battery life.

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1. Engage winding key onto the winding arbor and turn anti-clockwise until a "click" is heard, and continue to turn another 1/4 turn to make sure arming mechanism is fully engaged

2. The MON will flash 2 times in the top left corner of the LCD screen

3. If you wish to skip to another day, then turn the key clockwise to the desired day at this point.

4. Turn winding key Clockwise or Anti Clockwise to move curser to desired day

5. When desired day is selected wait, allow Day to flash 3 times

6. Curser descends to Hour segment and flashes 2 times

7. After 2nd flash turn winding key clockwise or anti clockwise to wind hours up or down (24 Hour Format) to desired hour

8. When desired hour selected wait, allow hour to flash 3 times

9. Cursor moves to the minute segment and flashes 2 times

10. After 2nd flash turn winding key clockwise or anti clockwise to wind minutes up or down to desired minute value

11. Minute segment now flashes 3 times, and the cursor moves to Tuesday (or following day) and flashes 3 times

12. After 2nd flash repeat operations 4 to 12, then repeat the same until day 7 (Sunday)

13. Once all the days have been programmed the programmed days will flash 3 times

14. The movement will now Cycle through the days of the week, any corrections can be made to the day that flashes.

15. If no corrections are required, allow movement to cycle through the days of the week

16. After which the LCD will now flash 3 times and movement will move to the open position

17. The current local time remains visible, for a period of approximately 10 minutes before shutting down and becoming blank, to spare battery life.

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The "P" function positions in the programming are considered as the utility parts of the program setup, allowing the user to modify fundamental functionality of the product to be able to respond closer to the user and local operating conditions.

It is strongly advised that the "P" functions be read carefully and fully understood before using these functions

It should be noted that the "P" positions can only be accessed once the Movement has been armed.

Care must be taken when setting up any of the time lock functions, especially the long close function.

Once programmed and the door of the container is shut, the container cannot be opened until the program has completed its run time.

P1   Allows the Movement to be "Short Closed" 1-9 Hours. Once programmed no further Hour changes can be made until the Hour has passed.

P2   Allows the user to remove previously programmed days during a 7-day roll over period. After 7 days, the original set-up days and time will be re-instated automatically without having to power down the Movement

P3   Allows the user to change local Summer/Winter Time (this is a manual not automatic function)

P4   Allows the user to program a long close accurately by the desired number of hours. Once the run down is completed the Movement reverts automatically back to the pre-programmed opening schedule, no need to power down the movement

P5   Allows the creation /deletion/change of daily openings without having to power down the Movement. This is a Master change operation. It will alter the original programmed Schedules, and reset the P2 entered changes

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1. Take the key and insert onto the Winding arbor and turn anti-clockwise until a "click is heard, then turn another 1/4 turn to make sure the arming mechanism is fully engaged.

2. After the movement "clicks" turn Winding Key clockwise several times until the "P1" is displayed in the LCD Screen

3. After the "P1" is displayed, it will flash 2 Times followed by 2 flashes of the hour position

4. Enter anew Hour value, after which the Hour will flash 3 Times and the Minutes value will be displayed and flash 2 times.

5. Enter the required minutes after which the minutes will flash 3 times, and the movement will disarm

6. Re-arming the movement will start the time delay.

Note: *The minimum value that can be entered is 1 Hour more than the current time displayed*

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1. Take the key and insert onto the Winding arbor and turn anti-clockwise until a "click" is heard, then turn another 1/4 turn to make sure the arming mechanism is fully engaged.

2. After the movement "clicks" turn Winding Key clockwise several times until the "P2" is displayed in the LCD Screen.

3. After the "P2" is displayed, it will flash 2 times followed by the day of the week value with a black bar icon at the top of the LCD Screen.

4. If you wish to delete the day turn the key clockwise, the black icon will be deleted, after which the day curser will move to the next programmed black bar icon. A maximum of 6 days can be deleted, but never 7

5. If the next opening day is to remain unchanged, then allow the day curser to move to the subsequent day opening automatically, do not turn the key.

6. Once the desired changes have been made the days will flash 3 times as confirmation, and the movement will disarm

7. Each day will flash until Sunday, Once the desired days have been removed, the program will flash the 7 days of the week as verification of the changes made, then return to the current day

8. Once this cycle is completed the LCD will then flash 3 times all the days of the week simultaneously, showing active and non-active days, after which the movement will disarm.

> ✏️ **Note:** *It is impossible to delete all the programmed openings, one valid opening will always remain, to prevent a total container Lockout.*

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1. Take the key and insert onto the Winding arbor and turn anti-clockwise until a "click" is heard, then turn another 1/4 turn to make sure the arming mechanism is fully engaged.

2. After the movement "clicks" turn winding key clockwise several times until the P3 is displayed in the LCD Screen

3. "P3" Flashes 2 times in the LCD Screen after which the Hour flashes 2 times

4. After the Hour has flashed 2 times, turn the key either 1 hour forward or 1 hour back of the current local time

5. The new current time will now flash 3 times after which the movement will disarm

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1. Turn the Winding Key anti-clockwise until it CLICKS

2. After the movement CLICKS, turn Winding Key clockwise several times until the "P4" is displayed in the LCD Screen.

3. "P4" Flashes 2 times in the LCD Screen after which the MONDAY flashes 2 times.

4. When the MONDAY Flashes turn the Winding Key clockwise, the Day Cursor will skip to the desired Start Day

5. At the desired Start Day allow to flash 2 times and now enter a value of 1-9 by turning the key Clockwise or Anti Clockwise (remember this value is in 100's) I.E the value of 1 equals 100 Hours

6. After the 100 HOUR value has been entered it will flash 3 times and move to the next value window and flash 2 times

7. Once the LCD flashes 2 times enter a value of 1-99 by turning the key clockwise

8. A value of 1 equal 1 hour, while a value of 44 would be 44 Hours

9. Once the desired value has been entered the display will flash 3 times.

Note: It is strongly advised that this sectioned be thoroughly understood before starting to program the movement.

Warning! NEVER SHUT THE CONTAINER DOOR BRFORE THE PROGRAMMING HAS BEEN VERIFIED 100%.

An error in the desired number of hours will secure the container until the count-down has completed, creating a possibility of a premature or seriously delayed opening, either way compromising normal operation.

LCD Value Hours shows 100		Closed Hours
	100	100
	200	200
	300	300
	400	400
Maximum	900	900

In the second column it's 1-99 Hrs

	1	1
	2	2
Maximum	99	99

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10. After which the next opening time and the opening day will be flashed

11. Then the display will revert to the current time

Example:

We want to set 240 Hours closing:

First, we set the far-left display to 2 indicating a value of 200 Hrs. After it will Flash 3 times confirming the entry and move to the next level

Where it will flash 2 times indicating it is ready to accept the next hour value. in this case 40 hours. Turn the key clockwise until 40 hours appears.

2	0	0

The display will now flash 3 times confirming the value of 40 Hours has been confirmed

2	4	0

After which the next opening time after the 240 hours has expired will be displayed and the day of the next opening

The unit will then disarm.

> **Note: If the first 100's hour value is not required enter no value after the 100's hour value flashes 2 times, then allow the 100's hour to flash 3 times, after which it will move automatically to the 10's hour display and flash 2 times**
>
> **The long close will start from the previously programmed opening time.**

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1. Turn the Winding Key ANTI-CLOCKWISE until it CLICKS

2. After the movement CLICKS turn Winding Key CLOCK-WISE several times until the "P5" is displayed in the LCD Screen

3. "P5" Flashes 2 times in the LCD Screen after which the DAY flashes 2 times

4. After the DAY flashes 2 times the days can be skipped by turning the Winding Key CLOCK-WISE

5. Once the desired day is selected, the HOUR will flash 2 times

6. After the Hour has flashed 2 times, enter the desired HOUR value after which the Hour will flash 3 times and move to the MINUTES display

7. After the MINUTES display has flashed 2 times enter the desired Minutes value.

8. After the MINUTES has flashed 3 times, the Days of the week the day being changed and the Black Icon over the changed day flash 3 times, indicating a successful opening time change, without having to power down the Movement.

9. The Movement will disarm, and the current Day/Time will be displayed.

> **Note: Any day change effected in this P 5 will change the original set-up schedules. Even if you have programmed a P2 days to be deleted they will appear in this P function. If a day is to be deleted completely from the original set-up schedule, then a value of Zero must re-entered for the hours and minutes under the desired day.**

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PRODUCT PART NUMBERS

Designation	Ordering P/N
Movement	10.0004
Mounting Screws.	40.0761
Battery Cap	40.6071
#4 Standard Multi-Key	40.1047
Locking Ratchet	40.1530
Drive Train Field Repair Kit	40.1499

BATTERIES

Batteries required are the following:

Lithium 3V, Type 1/3N (IEC CR11108), Established brands such as Varta, and Duracell is preferable.

As in some countries these batteries may be hard to source, STB offers a battery pack that can hold 2 standard AA batteries.

Note:
- **Lithium batteries are not provided anymore form STB as customs restrictions are in place**

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TROUBLESHOOTING

This Section is intended as a first level reference to resolving operational issues that may occur with the unit. If the problem cannot be resolved contact your nearest STB support center or STB Customer Support

LCD Remains blank	Check Battery Insulator has been removed Remove Battery and ground Battery contact to top plate, to reset movement electronics then re-install battery or replace battery Check battery retaining spring in cap is present
Movement won't arm	Replace battery as above Turn winding Key Anti clockwise, if no click is heard then problem is mechanical, the movement should be returned to an approved STB service center for repair
LCD is faint or Number	Check Battery Condition, Electronic board grounding issue
Icons are malformed or missing	Circuit Board ground failure, the movement should be returned to an approved STB service center for repair

Technical Support: +41 (0) 32 756 10 30 info@stbmicro.com

Notes:
- **The 134N Movement will show a battery icon on first time power up and when the battery is approaching a change requirement.**
- **When the battery level reaches the lowest operating level possible, the LCD will power down automatically and the movement will not arm, forcing an immediate battery change. If the battery is changed within a 10 second time span all programming data will be retained by the unit.**
- **If the movement detects no activity after 5 minutes, it will power down to maximize battery life**

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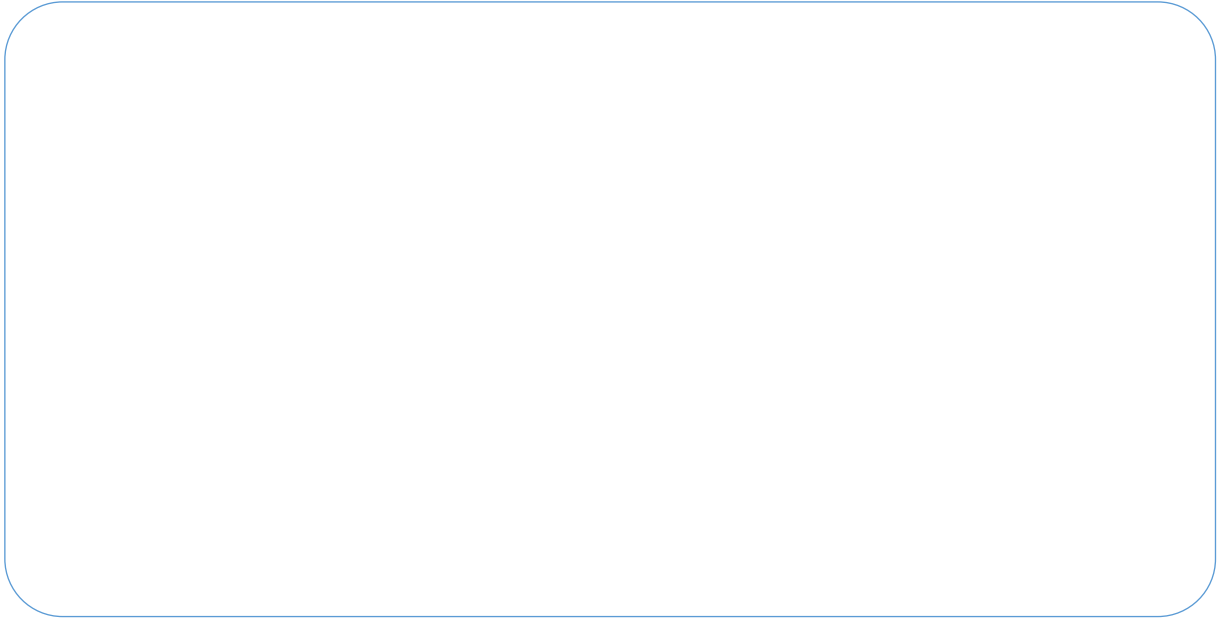
WARRANTY

Unless otherwise specified, STB Microtechniques model 114, 117 or 104 mechanical Timelock movements are warranted for two years to be free from manufacturing defect.

Any movement which proves to be defective during this time period should be returned to the place of purchase, freight paid, with a complete explanation of the failure. At the option of the manufacturer, the movement will be repaired or replaced at no cost to the original purchaser.

Customer abuse, neglect or unauthorized modifications, service, repair, act of war, acts of nature are not covered by this warranty. Consequential damages which may arise through the use or misuse of these products shall not be borne by the manufacturer or his agents.

Except as noted herein, there is no other warranty expressed or implied. The manufacturer reserves the right to amend, alter, extend or deny warranty coverage at his option without prior notice.

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NOTES

SERVICE

For more information and quality service, please contact your dealer listed below:

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