



# User Manual

## Programmer WYP-4 MINI / WYP-8



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This product might include unintentional technical or typographical errors. Changes are periodically made to the information herein to correct such errors, and these changes are incorporated into new editions of the publication.

## Important Safeguards

Read all these instructions and save them for later use

- Do not place this product on an unstable cart, stand or table. The product may fall, causing serious damage to the product and/or person.
- Slots and openings in the cabinet and the back are provided for ventilation to ensure reliable operation of the product and to protect it from overheating, these openings must not be blocked or covered. This product should never be placed near or over a heat source. This product should not be placed in a built-in installation unless proper ventilation is provided.
- Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a risk of fire or electric shock.
- If installation is required, it must only be done by appropriately skilled personnel.
- Except as explained elsewhere in the operating manual, do not attempt to service this product yourself. Removing covers may expose you to dangerous voltage points or other risks. Refer all servicing in those compartments to a service technician.
- Product that intends to be connected to mains as a permanent installation shall be connected by a readily accessible safety switch.
- Is the product equipped with a plug (grounding type) shall this be connected to an outlet that is intended for the product. The plug must be easy to disconnect without moving or dismantle the product.

**CAUTION:** this equipment must be serviced by an approved technician.  
The guarantee shall be cancelled if any modifications are made to this product.



General warning (refer to accompanying documents)

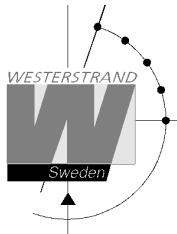


Consult instruction for use



This symbol means that according to local laws and regulations your product shall be disposed of separately from household waste. When this product reaches its end of life, take it to a recycling center designated by local authorities.





QWTIME III MASTER CLOCK  
**User Manual**

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Author: PM  
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# User Manual

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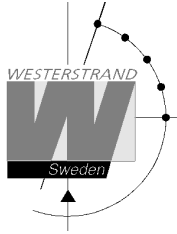
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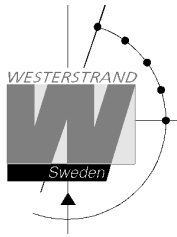
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## Technical specifications

|                              |   |
|------------------------------|---|
| Crystal Frequency:           | 4,915200 MHz.   |
| Accuracy:                    | 0,1 sec./24 hours (at +20°C).   |
| Microprocessor:              | HD6412394.  |
| Program memory:              | >100 years (EE-memory).   |
| Number of control functions: | 800.  |
| Relay outputs:               |   |
| WYP-4MINI                    | 2 changeover and 2 closing potential-free contacts.                       |
| WYP-8                        | 4 changeover and 4 closing potential-free contacts.                       |
| Max. load/relay output:      | 230 V 6A.   |
| Total load relay outputs:    | Number of relay outputs x 6A  |
| Connection voltage:          |   |
| 124308-00                    | 230 V 50 Hz -5% +10%  |
| 124309-00                    | 115 V 50 Hz -5% +10%  |
| 124306-00                    | 24 V DC -5% +20 %.  |
| Max ripple (24V DC):         | 0,7V RMS.   |
| Power consumption:           | 10-30 VA depending on model.  |
| Ambient temperature:         | Between 0°C and +40°C.  |
| Relative humidity:           | Max. 85% non-condensing.  |
| Case:                        | IP 65, light grey plastic (Polystyrol) with transparent protection cover. |
| CE-Approval, EMC             | Emission acc. to EN61000-6-3, Immunity acc. to EN61000-6-2.               |
| Art. numbers:                |   |
|                              | WYP-4MINI 124308-00 (230V AC)   |
|                              | 124309-00 (115/120VAC)  |
|                              | 124306-00 (24V DC)  |
|                              | WYP-8 124322-00 (230V AC)   |
|                              | 124320-00 (24V DC)  |

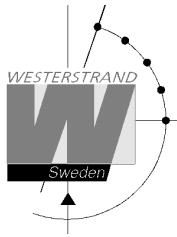
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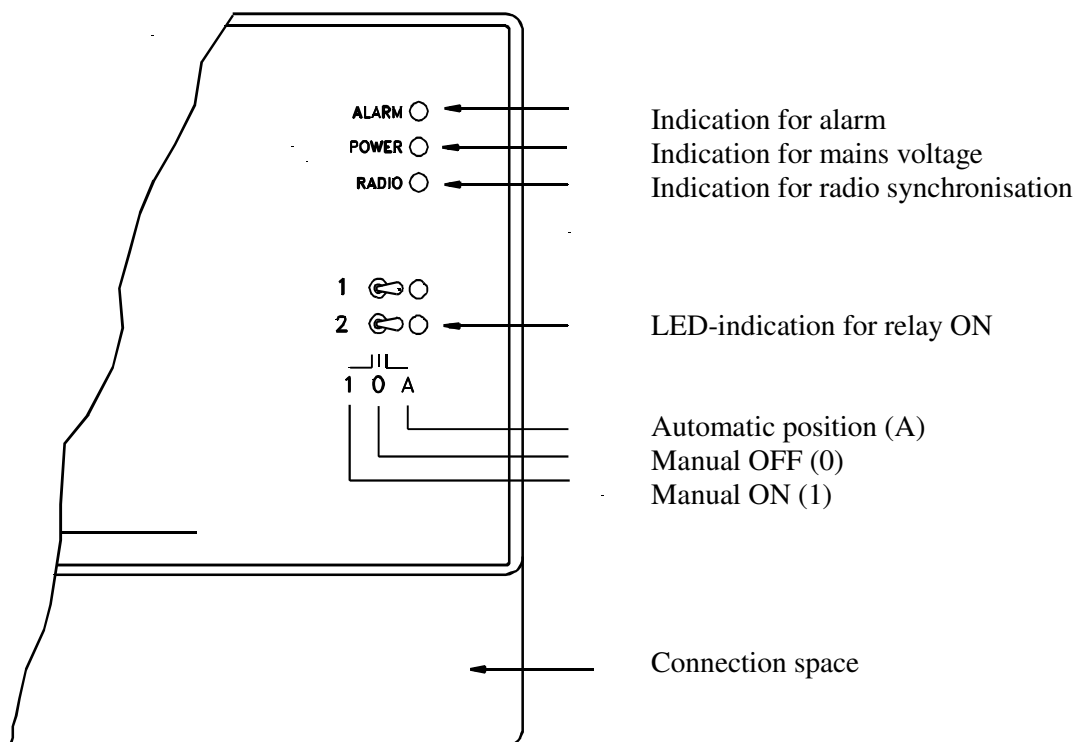
## General description

The yearly programmer is equipped with 4 alt. 8 outputs for control and regulation of various energy consumers such as electrical striking plates, buzzers for pause signalling etc,

In case of power failure the built in Real Time Clock keeps the internal time updated. (the outputs are set to position OFF). When power returns and the outputs resume their positions (ON/OFF) which were previously programmed. Entered data's are stored for at least 100 years.

The Programmer have pre-programmed fixed public holidays and summer/winter time correction (daylight saving). The clock offers full flexibility with regard to programming working days between holidays, public holidays to weekdays, holiday periods etc.

A total of 800 control functions can be programmed over 4 or 8 outputs. Repeating daily functions on a certain output only requires 1 control function.



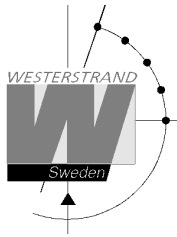
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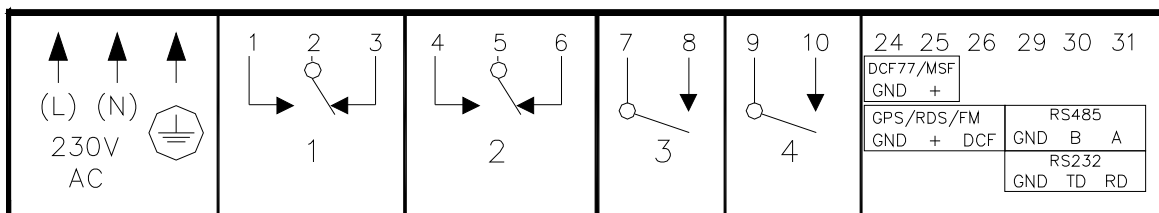


## Installation

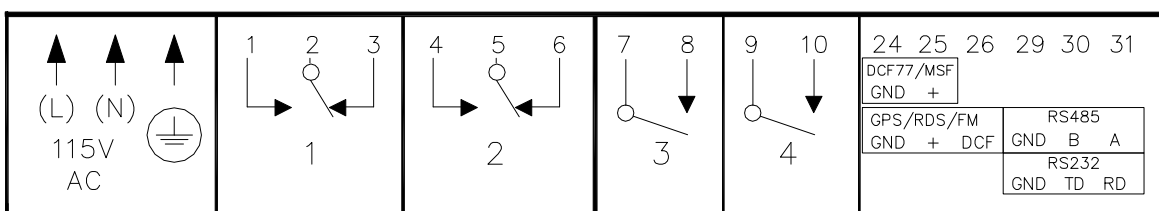
The Programmer is intended for wall mounting.

1. Screw in the upper fixing screw halfway and hang up the unit.
2. Screw in the two lower screws, accessible under the connection space cover.
3. Connect the signal line/lines (to relay contacts).  
 NOTE! For connection of signals etc., mixed voltages must not be used.  
 Therefore, choose either 115/230VAC or, for example 24VAC for connection to the relays.
4. Connect, if included, other accessories/options such as radio synchronisation, RS232 etc.
5. Connect the supply voltage.

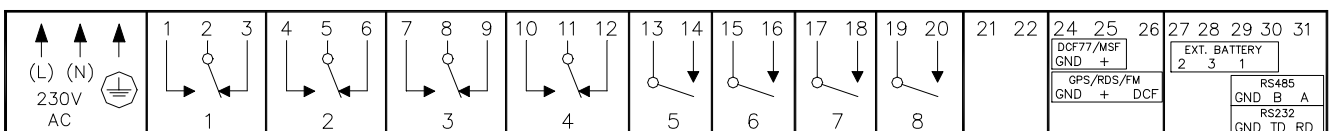
### WYP-4 MINI 124308-00



### WYP-4 MINI 124309-00



### WYP-8

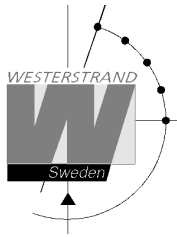


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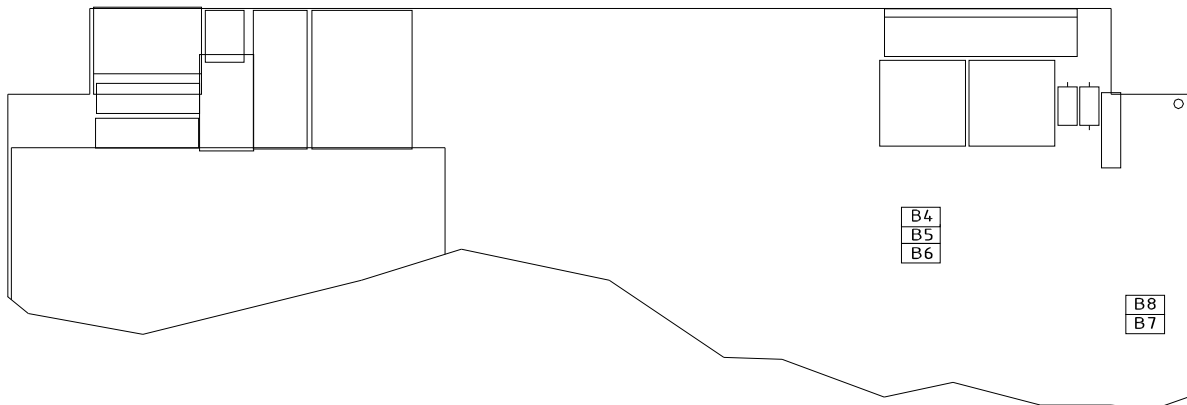
## Synchronisation input

### General

The Master Clock is equipped with a synchronisation input intended for connection to an external synchronisation source. The sync. source can be either a radio receiver type GPS, RDS, MSF, DCF77 or another Master Clock that transmits synchronisation pulses. The Master Clock is factory prepared for connection to a radio receiver. Detailed connection diagram for different radio receivers can be found in the separate manual delivered together with respectively receiver. If the Master Clock is going to be synchronised from another Master Clock it has to be reconfigured. See below.

### Synchronisation from another Master Clock

1. Turn off power.
2. Open the Master Clock by loosening the four screws holding the front panel. Lift the panel and set the jumpers B4-B6 according to the instruction below.
3. Remount the front panel and turn on the power again.
4. Set the sync. source parameter by using the special function *SETUP/SYNC.SOURCE* .
5. Connect the sync. pulses to screw terminal 25 and 26.
6. Set the master clock to correct time +/- 30 sec.
7. When the synchronisation pulses have been accepted by the master clock the colon (:) between hours and minutes in the display starts to flash.



|  | B4 | B5 | B6 |                 |
|--|----|----|----|-----------------|
| PREPARED FOR RADIO RECEIVER                        | X  | X  |    | FACTORY DEFAULT |
| PREPARED FOR SYNC. PULSE FROM ANOTHER MASTER CLOCK |    |    | X  |                 |

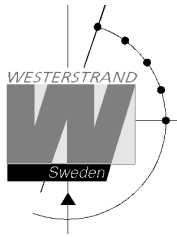
X = Closed

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## Serial port RS232/RS485

### General

The Master Clock has a serial port for connection to a PC or other similar equipment. The serial port is factory set to RS232. If RS485 connection is used the Master Clock has to be reconfigured according to the jumper instruction below.

Please see section *SPECIALFUNKTION/SETUP/RS232* for details about protocol, baudrate etc.

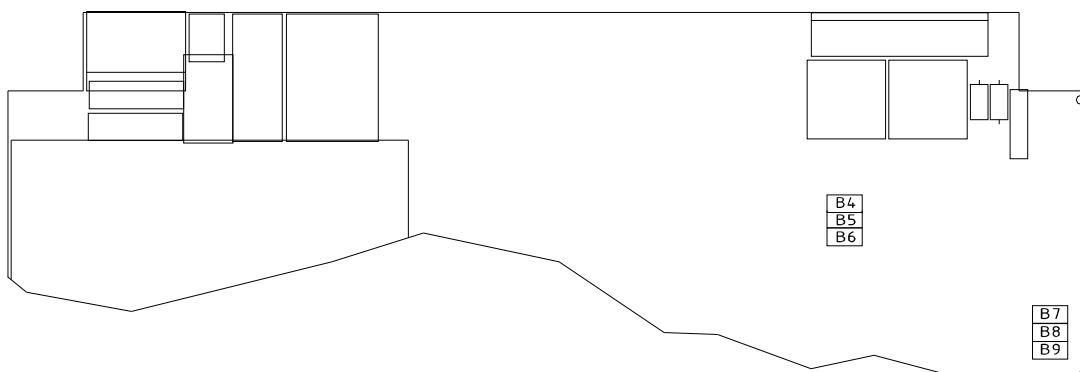
### Connection via RS232

Example:

| Master Clock   | External equipment DTE (9-polig D-sub) | (25-polig D-sub) |
|----------------|--|------------------|
| GND (29) ----- | 5 -----                                | 7                |
| TD (30) -----  | 2 -----                                | 3                |
| RD (31) -----  | 3 -----                                | 2                |
|                | ┌ 1                                    | ┌ 7              |
|                | └ 4                                    | └ 8              |
|                | ┌ 6                                    | └ 20             |
|                | └ 7                                    | ┌ 4              |
|                | ┌ 8                                    | └ 5              |

### Connection via RS485

1. Turn off power.
2. Open the Master Clock by loosening the four screws holding the front panel. Lift the panel and set the jumpers B7-B9 according to the instruction below.
3. Remount the front panel and turn on the power again.
5. Connect the RS485 signal to screw terminal 29, 30 and 31.



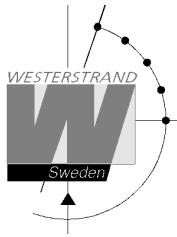
|                    | B7 | B8 | B9 |                 |
|--------------------|----|----|----|-----------------|
| PREPARED FOR RS232 | X  |    | X  | FACTORY DEFAULT |
| PREPARED FOR RS485 |    | X  |    |                 |

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## Programming

### General

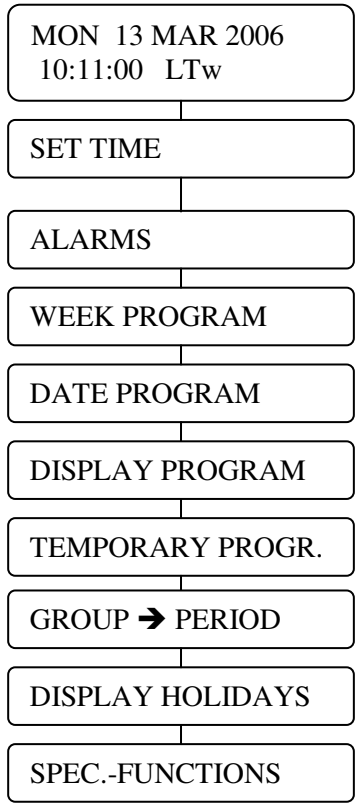
Using 6 buttons and a 2-row 16-character display carries out all programming.  
Programming is self-instructive and to simplify the dialogue Yes/No questions are used.

### Running mode

When the Yearly Programmer is in operation it shows date and time in the display.  
This is called *running mode* in this documentation.  
LTs = Local Time summer.  
LTw = Local Time winter.

MON 13 MAR 2006  
10:11:00 LTw

- |                              |     |
|------------------------------|-----|
| 1- Select function           | ↑↓  |
| 2- Enter programming mode    | YES |
| 3- Move sideways             | ← → |
| 4- Change/scroll             | ↑↓  |
| 5- Accept                    | YES |
| 6- Cancel / Leave prog. mode | ←   |

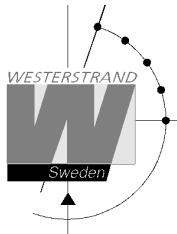


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### Start up

STARTING

LANGUAGE  
ENGLISH?

When the Yearly Programmer is connected for the first time correct/requested language has to be entered. Press **NO** until requested language occurs in the display e.g. English. Accept with **YES**.

COUNTRY  
DEU ?

Press **NO** until correct country code occurs.  
For Germany, select DEU. Accept with **YES**.

POSITION  
007E 052N

Now the question: POS 007E 052N. (7° East, 52° North)  
Accept using **YES** or change to other position. See concept description under "Astr." for further information (page 13).

SET TIME  
060313 09:07

Set, by using the arrows, the right time format i.e. year, month, day and hour but a few minutes in advance.  
Wait for the right time and synchronise using **YES**.

MON 13 MAR 2006  
09:07:00 LT<sub>w</sub>

The Yearly Programmer is now in running mode.

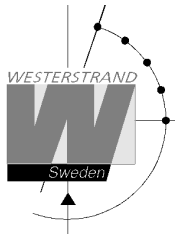
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## Set time when in operation

MON 13 MAR 2006  
09:07:00 LT<sub>w</sub>

Select function using ↓.

SET TIME

Enter the programming mode with YES.

SET TIME  
060313 10:13

Set, by using the arrows, the right time.  
Format; year, month, day and hour but a few minutes in advance.  
Wait for the right time and synchronise using YES.

SET TIME

Leave programming mode by pressing ← several times.

MON 13 MAR 2006  
10:13:00 LT<sub>w</sub>

The Yearly Programmer is now back in running mode.

## Summer to winter ( Day light saving )

Resetting between summer and wintertime is fully automatic and does not need programming.

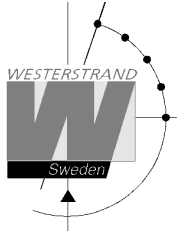
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## Alarms

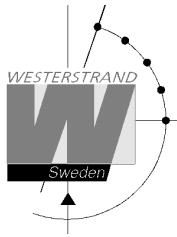
The Yearly Programmer is equipped with several supervision facilities to detect functional disturbances. When a functional disturbance is detected the following will happen:

- Red alarm LED is lit.
- Alarm relay\* is activated.
- An alarm message is displayed in function ALARM.

The function ALARM is used to display and erase (clear) alarm messages.

| Type of alarm     | Indication   | Reason for alarm   | Action   |
|-------------------|--|--|--|
| <b>NO RADIO</b>   | Red alarm LED lit.<br>Alarm relay activated.   | The radio receiver is not working.                                       | Check the radio receiver.<br>If OK, clear the alarm. |
| <b>POWER DOWN</b> | Red alarm LED lit.<br>Alarm relay activated<br>Works only if the Yearly Programmer is equipped with batteries for running reserve. | By some reason the power to the Yearly Programmer has been switched off. | Check the mains.<br>If OK, clear the alarm.          |

\* One of the relay output can be used as an alarm relay. This function is as default disabled but can be enabled via SPECIAL FUNCTION/ SETUP/ ALARM RELAY/YES.



ALARMS- DISPLAY

To show the alarms

ALARMS- ERASE

To erase the alarms

### Example 1, display alarms

MON 13 MAR 2006  
09:07:00 LT<sub>w</sub>

Select function using ↑↓.

ALARMS

Accept with YES.

ALARMS- DISPLAY

Press NO until the wished function is shown.  
Accept with YES.

09MAR 15:52  
NO RADIO

The alarm is displayed.  
Press ↑↓ to see next alarm.  
Return to running mode press ←.

ALARMS- DISPLAY

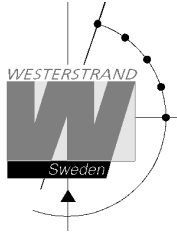
←.

ALARMS

←.

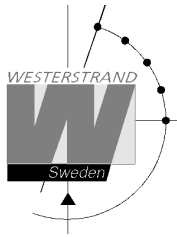
MON 13 MAR 2006  
09:07:00 LT<sub>w</sub>





### Example 2, erase (clear) alarms

|   |  |
|---|--|
| MON 13 MAR 2006<br>09:07:00 LT <sub>w</sub> | Select function using ↑↓.  |
| ALARMS                                      | Accept with YES.   |
| ALARMS- ERASE                               | Press NO until the wished function is shown.<br>Accept with YES. |
| 09MAR 15:52<br>NO RADIO                     | The alarm is displayed.<br>Press YES to erase the alarm.         |
| ERASE?                                      | Accept with YES.   |
| ALARMS- ERASE                               | Return to running mode press ←.                                  |
| ALARMS                                      | ←.   |
| MON 13 MAR 2006<br>09:07:00 LT <sub>w</sub> |  |



## Week Program & Date Program

Using these two functions, programming of the outputs is made.

### Concept description

- Program** A "program" refers to programming an output to a certain time. The word program represents a single time event and several programs are defined as a *group* of programs.  
For example: output 2 switches on every working day (Monday-Friday) at 8.00.
- Week program** A week program is a program, which is repeated every week. You can for each program choose for which days of the week it shall be valid:  
Individual or block programming.  
M = Monday  
T = Tuesday  
W = Wednesday  
T = Thursday  
F = Friday  
S = Saturday  
S = Sunday
- Date program** A date program is a program, which is valid for a specific date.
- Group** A group of programs, signal events.
- Type of signals** There are some different kinds of signals, depending on how the relay output is to be used.
- ON/OFF** Is used when a longer lasting switching ON is required, e.g. for controlling fans, door locks, lighting etc.
- 01s** Is used when a short pulse is required, e.g. for bells/buzzers.  
Pulse duration selectable from 1-99 seconds.
- Astr.** Astr. (Twilight) is a function which closes/opens a predestined relay at sunrise resp. sunset. Which day and month of the year it is, and where the Yearly Programmer is located geographically, define the time of the sunrise resp. sunset. The sunrise resp. sunset are calculated in the software.  
The geographic position of the Yearly Programmer is entered at starting up.  
A map indicating latitude (Enorth) and longitude (Eeast) is enclosed.
- Mask** A program that is repeated f. ex every hour is easily entered by the use of mask program.  
XX.15.00 ; the program is repeated every hour att minute 15.  
08.XX.00 ; the program is repeated every minute between 08.00 and 09.00.  
XX.XX.00 ; The program is repeated every minute.

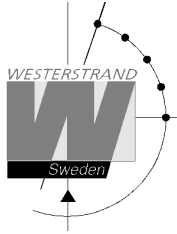
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# QWTIME III MASTER CLOCK

## User Manual

Document: 1763en06.doc  
Author: PM  
Date: 2013-05-22  
Page: 15 of 55

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To simplify programming 3 sub menus are used:

WEEK PROGRAM  
**NEW** GROUP A

To enter new programs.

WEEK PROGRAM  
**ERASE** GROUP A

To erase a separate existing program.

WEEK PROGRAM  
**CHANGE** GROUP A

To change existing programs.

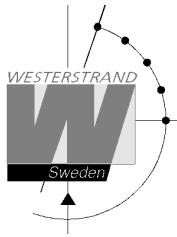
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Author: PM  
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## Week Program, example 1 (New program)

Example: Outputs No. 2 shall switch on Monday – Friday at 09.00 and off at 17.00.

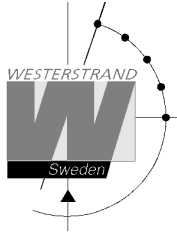
|  |   |
|--|---|
| MON 14 MAR 2005<br>09:07:00 LTW        | Select function using $\uparrow\downarrow$ .  |
| WEEK PROGRAM                           | Enter programming mode using YES.   |
| WEEK PROGRAM<br><b>NEW</b> GROUP A     | Select new program using YES.   |
| WEEK PROGRAM<br>NEW GROUP <b>A</b>     | Select group of programs using $\uparrow\downarrow$ , accept using YES.   |
| <b>OUTPUT 2</b> ON<br>----- 08:00:00   | Select output using $\uparrow\downarrow$ . Move to the right using $\rightarrow$ .  |
| OUTPUT 2 <b>ON</b><br>----- 08:00:00   | State type of signal using $\uparrow\downarrow$ .   |
| OUTPUT 2 ON<br><b>MTWTF--</b> 08:00:00 | State the days the program shall function using $\uparrow\downarrow$ .<br>Move to the right using $\rightarrow$ .   |
| OUTPUT 2 ON<br>MTWTF-- <b>09:00:00</b> | State the time of the program using $\uparrow\downarrow$ .<br>Move to the right using $\rightarrow$ .<br>Accept using YES.<br>If the program is approved the text "Program saved" is displayed quickly. |
| OUTPUT 2 OFF<br>MTWTF-- 17:00:00       | Continue with programming OFF for the same output or leave programming by pressing $\leftarrow$ several times.  |
| WEEK PROGRAM                           |   |
| MON 14 MAR 2005<br>09:07:00 LTW        |   |

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## Week Program, example 2 (Change program)

Example: A signal on output 1, Monday – Friday at 08.00, shall be changed to 08.15. Signal length is 5 seconds.

```
MON 14 MAR 2005  
09:07:00 LTW
```

Select function using  $\uparrow\downarrow$ .

```
WEEK PROGRAM
```

Enter programming mode using YES.

```
WEEK PROGRAM  
CHANGE GROUP A
```

Select change program using YES.

```
WEEK PROGRAM  
CHANGE GROUP A
```

Select group of programs using  $\uparrow\downarrow$ , accept using YES.

```
OUTPUT 2 05S  
MTWTF-- 08:00:00
```

Select output using  $\uparrow\downarrow$ . Move to the right using  $\rightarrow$ .

```
OUTPUT 2 05S  
MTWTF-- 08:00:00
```

Step forward to the program, which is to be changed using NO and YES.

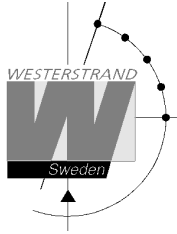
```
OUTPUT 2 05S  
MTWTF-- 08:15:00
```

Change the time to 09.15 using the arrows.  
Accept using YES.

```
WEEK PROGRAM
```

Leave the programming by pressing  $\leftarrow$  several times.

```
MON 14 MAR 2005  
09:07:00 LTW
```



## Week Program, example 3 (Erase program)

Example: A signal on output 1, Fridays at 16.30 shall be deleted. Signal length is 5 seconds.

```
MON 14 MAR 2005  
09:07:00 LTW
```

Select function using  $\uparrow\downarrow$ .

```
WEEK PROGRAM
```

Enter programming mode using YES.

```
WEEK PROGRAM  
ERASE GROUP A
```

Select erase program using YES.

```
WEEK PROGRAM  
ERASE GROUP A
```

Select group of programs using  $\uparrow\downarrow$ , accept using YES.

```
OUTPUT 1 ON  
MTWTF-- 09:00:00
```

Select output using  $\uparrow\downarrow$ . Move to the right using  $\rightarrow$ .

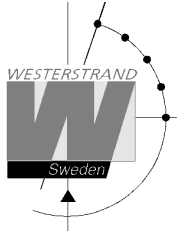
```
OUTPUT 1 05S  
----F-- 16:30:00
```

Step forward to the program that is to be erased using NO and YES.  
Accept using YES.

```
WEEK PROGRAM
```

Leave the programming by pressing " several times.

```
MON 14 MAR 2005  
09:07:00 LTW
```



## Week Program, example 4 (Astronomical function)

Example: Output No. 1 shall switch ON all sunset All days and switch OFF at sunrise.

MON 14 MAR 2005  
09:07:00 LTW

Select function using  $\uparrow\downarrow$ .

WEEK PROGRAM

Enter programming mode using YES.

WEEK PROGRAM  
**NEW** GROUP A

Select new program using YES.

WEEK PROGRAM  
NEW **GROUP A**

Select group of programs using  $\uparrow\downarrow$ , accept using YES.

**OUTPUT 2** ON  
MTWTF-- 08:00:00

Select output using  $\uparrow\downarrow$ . Move to the right using  $\rightarrow$ .

OUTPUT 2 **ASTR**  
MTWTF--

State type of signal using  $\uparrow\downarrow$ .

OUTPUT 2 ASTR  
**MTWTF--**

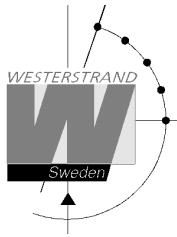
State the days the program shall function using  $\uparrow\downarrow$ .  
Accept using YES.

If the program is approved the text "Program saved" is displayed quickly.

WEEK PROGRAM

Leave the programming by pressing  $\leftarrow$  several times.

MON 14 MAR 2005  
09:07:00 LTW



## Week Program, example 5 (Block program)

Example: Outputs No. 2 shall switch on Monday, Wednesday and Friday at 09.00.

MON 14 MAR 2005  
09:07:00 LTW

Select function using  $\uparrow\downarrow$ .

WEEK PROGRAM

Enter programming mode using YES.

WEEK PROGRAM  
**NEW** GROUP A

Select new program using YES.

WEEK PROGRAM  
NEW **GROUP A**

Select group of programs using  $\uparrow\downarrow$ , accept using YES.

**OUTPUT 2 ON**  
----- 08:00:00

Select output using  $\uparrow\downarrow$ . Move to the right using  $\rightarrow$ .

OUTPUT 2 **ON**  
----- 08:00:00

State type of signal using  $\uparrow\downarrow$ .

OUTPUT 2 ON  
**M-W-F--** 08:00:00

State the days the program shall function using  $\uparrow\downarrow$ .  
Move to the right using  $\rightarrow$ .

OUTPUT 2 ON  
M-W-F-- **09:00:00**

State the time of the program using  $\uparrow\downarrow$ .

Move to the right using  $\rightarrow$ .

Accept using YES.

If the program is approved the text "Program saved" is displayed quickly.

OUTPUT 2 OFF  
M-W-F-- 09:00:00

Continue with programming OFF for the same output or leave programming by pressing  $\leftarrow$  several times

WEEK PROGRAM

MON 14 MAR 2005  
09:07:00 LTW

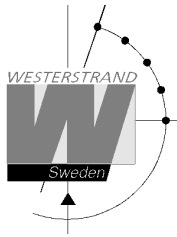
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## Week Program, example 6 (Mask program)

Example: Outputs No. 2 shall switch on for 5 seconds every hour at minute 15, all days in the week.

```
MON 14 MAR 2005
09:07:00 LT
```

Select function using  $\uparrow\downarrow$ .

```
WEEK PROGRAM
```

Enter programming mode using YES.

```
WEEK PROGRAM
NEW GROUP A
```

Select new program using YES.

```
WEEK PROGRAM
NEW GROUP A
```

Select group of programs using  $\uparrow\downarrow$ , accept using YES.

```
OUTPUT 2 ON
----- 08:00:00
```

Select output using  $\uparrow\downarrow$ . Move to the right using  $\rightarrow$ .

```
OUTPUT 2 05S
----- 08:00:00
```

State type of signal using  $\uparrow\downarrow$ .  
05S = Pulse with 5 seconds length.

```
OUTPUT 2 05S
MTWTFSS 08:00:00
```

State the days the program shall function using  $\uparrow\downarrow$ .  
Move to the right using  $\rightarrow$ .

```
OUTPUT 2 05S
MTWTFSS **:15:00
```

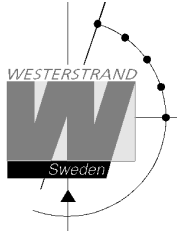
State the time of the program using  $\uparrow\downarrow$ . \*\* = every hour.  
Move to the right using  $\rightarrow$ .  
Accept using YES.

If the program is approved the text "Program saved" is displayed quickly.

```
WEEK PROGRAM
```

Leave programming by pressing  $\leftarrow$  several times.

```
MON 14 MAR 2005
09:07:00 LT
```



## Date Program, example (New program)

Example: Outputs No. 1 shall switch on the 1st of August at 12.00.

|                                       |   |
|---------------------------------------|---|
| MON 14 MAR 2005<br>09:07:00 LTW       | Select function using $\uparrow\downarrow$ .  |
| DATE PROGRAM                          | Enter programming mode using YES.   |
| DATE PROGRAM<br><b>NEW</b>            | Select new program using YES.   |
| <b>OUTPUT 1 ON</b><br>AUG 01 08:00:00 | Select output using $\uparrow\downarrow$ . Move to the right using $\rightarrow$ .  |
| OUTPUT 1 <b>ON</b><br>AUG 01 08:00:00 | State type of signal using $\uparrow\downarrow$ .   |
| OUTPUT 1 ON<br><b>AUG 01</b> 08:00:00 | State the date the program shall function using $\uparrow\downarrow$ .<br>Move to the right using $\rightarrow$ .   |
| OUTPUT 1 ON<br>AUG 01 <b>12:00:00</b> | State the time of the program using $\uparrow\downarrow$ .<br>Move to the right using $\rightarrow$ .<br>Accept using YES.<br>If the program is approved the text "Program saved" is displayed quickly. |
| OUTPUT 1 OFF<br>AUG 01 12:00:00       | Continue with programming OFF for the same output or leave programming by pressing $\leftarrow$ several times.  |
| DATE PROGRAM                          |   |
| MON 14 MAR 2005<br>09:07:00 LTW       |   |

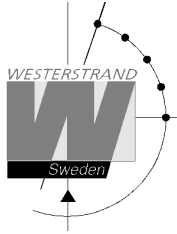
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## Display Program

MON 14 MAR 2005  
09:07:00 LTW

Select function using  $\uparrow\downarrow$ .

DISPLAY PROGRAM

Enter display program using YES.

GROUP **A**  
OUTPUT ALL

Select program group using  $\uparrow\downarrow$ , accept with YES.

GROUP A  
OUTPUT **ALL**

Select output to be displayed using  $\uparrow\downarrow$ , accept with YES.

OUTPUT 2 ON  
MTWTF-- 08:00:00

Step forwards alt. Backwards using  $\uparrow\downarrow$ .

DISPLAY PROGRAM

Leave the function display program by pressing  $\leftarrow$  several times.

MON 14 MAR 2005  
09:07:00 LTW

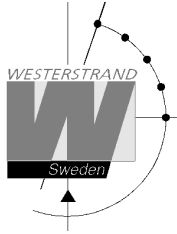
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## Temporary Program, example

Example: Outputs No. 2 shall switch on immediately 15.35.00 and turn off according to normal week program. The temporary program will automatically be erased when the event has been effected.

MON 14 MAR 2005  
09:07:00 LTW

Select function using  $\uparrow\downarrow$ .

TEMPORARY PROGR.

Enter programming mode using YES.

**OUTPUT 2 ON**  
15:35:00

Select output using  $\uparrow\downarrow$ . Move to the right using  $\rightarrow$ .

OUTPUT 2 **ON**  
15:35:00

State type of signal using  $\uparrow\downarrow$ .  
Accept using YES

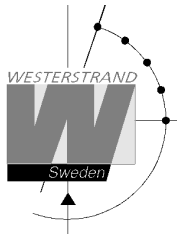
OUTPUT 2 ON  
**15:35:00**

Accept using YES or change the time of the program using  $\uparrow\downarrow$ .

TEMPORARY PROGR.

Leave the programming by pressing " several times.

MON 14 MAR 2005  
09:07:00 LTW



## Group => Period

Each program group can be associated to one or several *time periods*. A time period can consist of one or several dates. Maximum 99 time periods can be used. Program group **A** is as default associated to a time period covering the complete year, 1/1-31/12.

Example:

A school has one group of programs that are used during the school season and another used during school holidays. School season = Group **A**, School holidays = Group **B**.

Text within brackets (A) indicates the group of programs that just now are activated.

The school holidays are at the following dates: 1/5, 10/6-15/8, 23/9 and so on...

MON 14 MAR 2005  
09:07:00 LTW

Select function using  $\uparrow\downarrow$ .

GROUP => PERIOD

Enter programming mode using YES.

GROUP **B** (A)

Select group of programs using  $\uparrow\downarrow$ , accept using YES.

GROUP B  
02: \_\_\_\_\_ - \_\_\_\_\_

Time period **2**, accept using YES.

GROUP B  
02: **MAY01** - \_\_\_\_\_

State the date when the period shall begin.  
Move to the right using  $\rightarrow$ .

GROUP B  
02: MAY01 - **MAY01**

State the date when the period shall end.  
Accept with Yes.

GROUP B  
03: \_\_\_\_\_ - \_\_\_\_\_

Continue with next time period.

GROUP B  
03: **JUN07** - \_\_\_\_\_

GROUP B  
03: JUN07 - **AUG15**

Accept with YES.

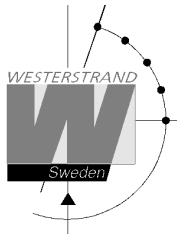
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GROUP => PERIOD

Continue with next time period or leave programming by pressing ← several times.

MON 14 MAR 2005  
09:07:00 LTW

## Display Holidays

This function is used to display the public holidays that are stored.

Example:

MON 14 MAR 2005  
09:07:00 LTW

Select function using ↑↓.

DISPLAY HOLIDAYS

Enter display program using YES.

DISPLAY HOLIDAYS  
1: 01Jan

Scroll using ↑↓.

DISPLAY HOLIDAYS

Leave the programming by pressing ← several times.

MON 14 MAR 2005  
09:07:00 LTW

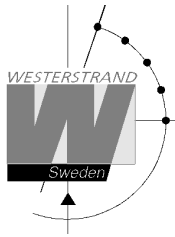
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## Spec.-Functions

The special functions contain functions used during setup and configuration of the Yearly Programmer. If the default settings are used no configuration is needed.

|   |   |
|---|---|
| MON 14 MAR 2005<br>09:07:00 LT <sub>w</sub> | Select function using ↓ .   |
| SPEC.-FUNCTIONS                             | Accept with YES.  |
| SPEC.-FUNCTIONS<br>STATUS                   | Press NO until wished function is shown.<br>Accept with YES.                        |
| STATUS                                      | Show status information of the different output/ input in the Yearly Programmer.    |
| KEYLOCK                                     | Keylock and password function.  |
| LANGUAGE                                    | Language selection.   |
| COUNTRY                                     | Country selection.  |
| POSITION                                    | Selection of position for astronomical function.                                    |
| SETUP                                       | Setup / configuration of the different impulse system, type of synchronisation etc. |
| HOLIDAYS                                    | Change holidays   |
| DISPLAY FORMAT                              | Display format in running mode.   |
| SOFTWARE VERSION                            | Present software version.   |
| SPEC.-FUNCTIONS<br>STATUS                   | Return to running mode press ←.   |
| MON 14 MAR 2005<br>09:07:00 LT <sub>w</sub> |   |

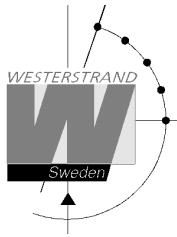
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## Status

With this function each input/output status can be checked.

Example:

Check the status of the radio receiver.

|   |  |
|---|--|
| MON 14 MAR 2005<br>09:07:00 LT <sub>w</sub> | Select function using ↓ .  |
| SPEC.-FUNCTIONS                             | Accept with YES.<br>Press NO until wished function is shown.                                     |
| SPEC.-FUNCTIONS<br>STATUS                   | Accept with YES.   |
| STATUS<br>SYNC.SOURCE                       | Press NO until wished input/output is shown.<br>Accept with YES.                                 |
| DCF77           60%<br>13MAR 19:59:00       | The radio receiver has accepted 60% of the radio messages.<br>Last reception was 14/10 19:59:00. |
| STATUS<br>SYNC.SOURCE                       | Return to running mode press ←.  |
| SPEC.-FUNCTIONS<br>STATUS                   | ←  |
| SPEC.-FUNCTIONS                             | ←  |
| MON 14 MAR 2005<br>09:07:00 LT <sub>w</sub> |  |

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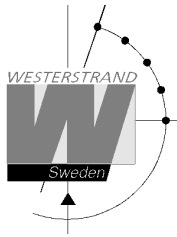
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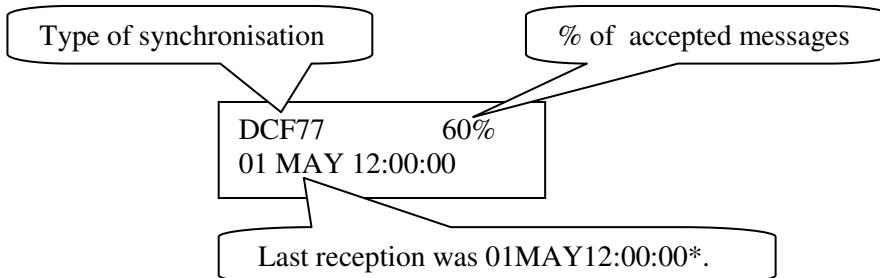
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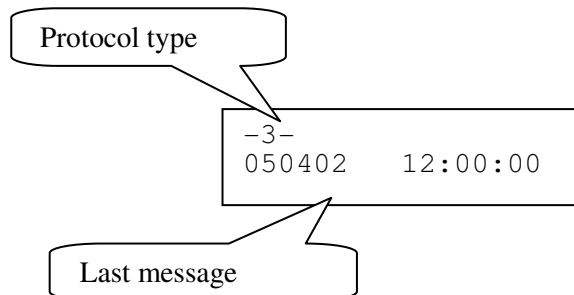


### Status sync. source

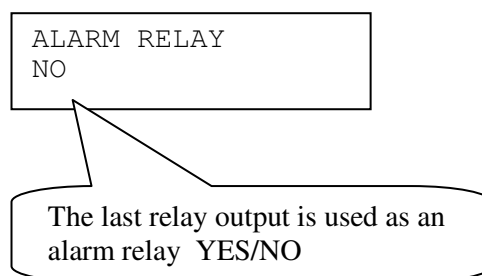


\*Remark: The marked position always shows the actual second. This information is updated every other second.

### Status RS232/RS485-port



### Status Alarm relay



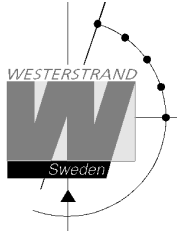
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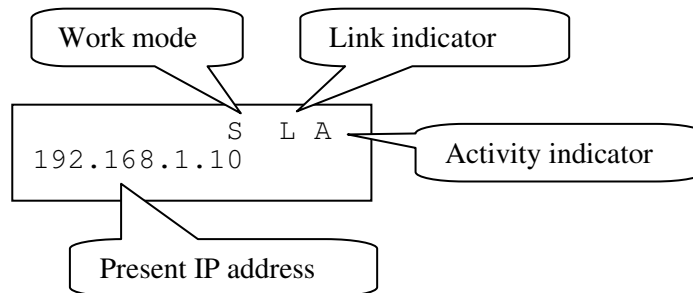
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## Status IP



**Work mode** S = Server. The Yearly Programmer is configured to work as an NTP Time Server.  
C = Client. The Yearly Programmer is configured to work as an NTP Time Client.

**Link indicator** L = Link activated. The Yearly Programmer is connected to a network.  
= No link. The Yearly Programmer is not connected to a network.

**Activity indicator** A = The Yearly Programmer is accessed via the network.

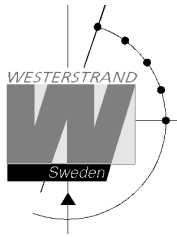
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## Keylock

With this function it is possible to lock the keyboard. When activated the keylock will lock all buttons in the Yearly Programmer.

There are two levels of keyboard protection.

1. Low level protection  
Keylock **ON** : Keyboard locked, press ← YES to open.
2. High level protection  
Keylock with **Password** : Keyboard locked, enter password to open.

Remark: "PASSWORD --" means that no password is used

### Example 1:

Activate keylock without password

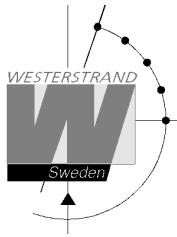
|                                   |  |
|-----------------------------------|--|
| MON 14 MAR 2005<br>09:07:00 LT    | Select function using ↓ .                                    |
| SPEC.-FUNCTIONS                   | Accept with YES.<br>Press NO until wished function is shown. |
| SPEC.-FUNCTIONS<br>KEYLOCK        | Accept with YES.   |
| KEYLOCK <b>OFF</b><br>PASSWORD -- | Change to keylock ON.  |
| KEYLOCK <b>ON</b><br>PASSWORD --  | Accept with YES.   |
| KEYLOCK <b>ON</b><br>PASSWORD --  | Accept with YES.   |
| SPEC.-FUNCTIONS<br>KEYLOCK        | Return to running mode press ←.                              |
| MON 14 MAR 2005<br>09:07:00 LT    |  |

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Example 2:  
Activate keylock with password

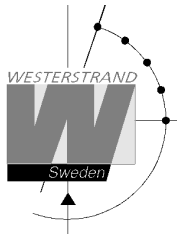
|                                |   |
|--------------------------------|---|
| MON 14 MAR 2005<br>09:07:00 LT | Select function using ↓.  |
| SPEC.-FUNCTIONS                | Accept with YES.<br>Press NO until wished function is shown.        |
| SPEC.-FUNCTIONS<br>KEYLOCK     | Accept with YES.  |
| KEYLOCK OFF<br>PASSWORD --     | Change to keylock ON.   |
| KEYLOCK ON<br>PASSWORD --      | Accept with YES.  |
| KEYLOCK ON<br>PASSWORD 99      | Enter, by using the arrows, a 2-digit password.<br>Accept with YES. |
| SPEC.-FUNCTIONS<br>KEYLOCK     | Return to running mode press ←.                                     |
| MON 14 MAR 2005<br>09:07:00 LT |   |

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## Language

With this function the language be selected.

Example:

|                                |   |
|--------------------------------|---|
| MON 14 MAR 2005<br>09:07:00 LT | Select function using ↓ .   |
| SPEC.-FUNCTIONS                | Accept with YES.<br>Press NO until wished function is shown.          |
| SPEC.-FUNCTIONS<br>LANGUAGE    | Accept with YES.  |
| LANGUAGE<br>ENGLISH?           | Select, by using the arrows, the wished language.<br>Accept with YES. |
| SPEC.-FUNCTIONS<br>LANGUAGE    | Return to running mode press ←.                                       |
| MON 14 MAR 2005<br>09:07:00 LT |   |

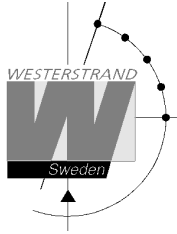
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## Country

With this function the Country can be selected.

Example:

MON 14 MAR 2005  
09:07:00 LT

Select function using ↓ .

SPEC.-FUNCTIONS

Accept with YES.  
Press NO until wished function is shown.

SPEC.-FUNCTIONS  
COUNTRY

Accept with YES.

COUNTRY  
D49 ?

Select, by using the arrows, the wished country.  
Accept with YES.

SPEC.-FUNCTIONS  
COUNTRY

Return to running mode press ←.

MON 14 MAR 2005  
09:07:00 LT

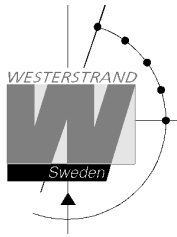
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## Position

Enter the geographic position of the Yearly Programmer.

This information is needed for the signal type "Astr." (Twilight), in order to make it possible for the software to calculate the time of sunset and sunrise.

Example:

MON 14 MAR 2005  
09:07:00 LT

Select function using ↓.

SPEC.-FUNCTIONS

Accept with YES.  
Press NO until wished function is shown.

SPEC.-FUNCTIONS  
POSITION

Accept with YES.

POSITION  
07E 052N

Press buttons ↓ and ↑ until requested longitude occurs.  
Press →. State latitude. Accept with YES.

SPEC.-FUNCTIONS  
POSITION

Return to running mode press ←.

MON 14 MAR 2005  
09:07:00 LT

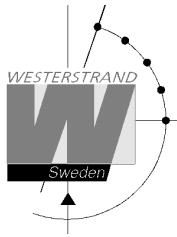
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## Setup

With this function the different output and input can be configured. If the default setup is used no configuration is needed.

Example:

Set the alarm limit for *radio alarm* to 1 hour. (Default setting is 12 hours.)

|                                |  |
|--------------------------------|--|
| MON 14 MAR 2005<br>09:07:00 LT | Select function using ↓ .  |
| SPEC.-FUNCTIONS                | Accept with YES.<br>Press NO until wished function is shown.     |
| SPEC.-FUNCTIONS<br>SETUP       | Accept with YES.   |
| SETUP<br>SYNC SOURCE           | Press NO until wished input/output is shown.<br>Accept with YES. |
| DCF77<br>AL.LIMIT --h -- m     | Set, by using the arrows, the alarm limit to 1 hour (01h).       |
| DCF77<br>AL.LIMIT 01h 00 m     | Accept with YES  |
| SETUP<br>SYNC SOURCE           | Return to running mode press ←.                                  |
| SPEC.-FUNCTIONS<br>SETUP       | ←  |
| SPEC.-FUNCTIONS                | ←  |
| MON 14 MAR 2005<br>09:07:00 LT |  |

---

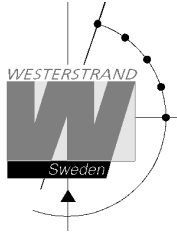
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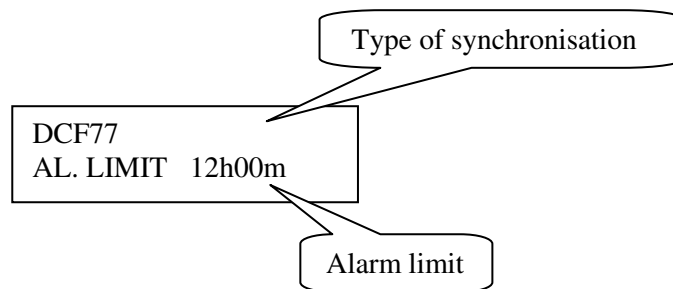
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## Setup sync. source

Below is a description of the different configuration parameters available in the setup menu for *sync. source*. Please remark that if default settings are used no configuration is needed.



### Type of synchronisation

State type of external synchronisation. The following time sources can be selected:

|            |                                      |
|------------|--------------------------------------|
| -----      | No external synchronisation.         |
| DCF77      | Radio synchronisation DCF77.         |
| RDS        | Radio synchronisation RDS.           |
| GPS        | Radio synchronisation GPS.           |
| MSF        | Radio synchronisation MSF/RUGBY.     |
| 1/1M SYNC  | Polarised 1/1-minute impulse, sync.  |
| 1/2M SYNC  | Polarised 1/2-minute impulse, sync.  |
| 1/1M SLAVE | Polarised 1/1-minute impulse, slave. |
| 1/2M SLAVE | Polarised 1/2-minute impulse, slave. |
| TC         | Time code type hard wired DCF.       |

### Alarm limit

The configuration parameter *Alarm limit* specifies the time delay before the radio alarm is activated. Default setting is that the radio alarm is inactivated, AL.LIMIT --h--m.

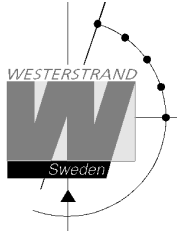
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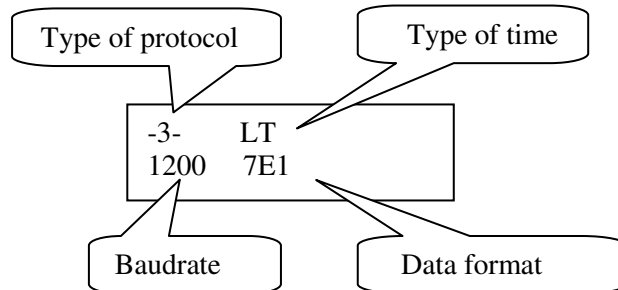
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## Setup RS232/485 port



### Type of protocol

Name of the transmission / reception protocol used in the module. The following protocols are available.

- 1 : General 2-way-communication protocol.
- 2, 3, 5 and 7 : Automatic time message protocols.

### Type of time

Type of time received or transmitted.

LT = Local Time.

NT = Normal Time (winter time).

UTC = Universal Time Coordinated.

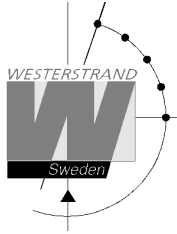
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# QWTIME III MASTER CLOCK

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### Baudrate

Available speeds:

300, 600, 1200, 2400, 4800, 9600, 19200, 38400 baud.

### Data format

Data format of message received or transmitted.

No. of data bits, 7 or 8.

Type of parity, non, odd or even.

No. of stop bits, 1 or 2.

Available formats:

7N1, 7N2, 7O1, 7O2, 7E1, 7E2, 8N1, 8N2, 8O1, 8O2, 8E1, 8E2,

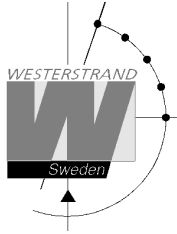
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## Protocol description

### Protocol 2

The message has length 20 bytes according to:

```
STX F G W 20 YY MM DD HH MM SS ETX BCC
```

#### F - Flag bits

```
7          =0
6          =1
5          =0
4          =0 Winter time, =1 summer time
3          =1 Synced from Radio source, e.g. DCF77
2          =1 Synced from timeserver
```

```
1  0      Type of time
OFF OFF   UTC
OFF ON    LOC
ON  OFF   NOR
```

#### Example:

Assume wintertime time, synched from radio source, synchronized from timeserver, local time:  
Bits 6, 3, 2 and 0 are set: 0100 1101 = 4Dh = 'M'

G - UTC offset during wintertime from letter 'P' in 1/2 hour steps.

#### Example:

Germany 2 x 1/2 = 1 hour, so 'P'+2 = 'R'

```
W          Weekday          '1' Monday .. '7' Sunday
YY         Year             '00'..'99'
MM         Month            '01'..'12'
DD         Day of month     '01'..'31'
HH         Hour             '00'..'23'
MM         Minute           '00'..'59'
SS         Second           '00'..'59'
ETX        03h
BCC        Exclusive or of bytes F..ETX
```

The message is transmitted each second

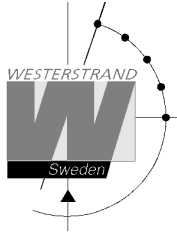
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### Protocol 3

At second 56 this message will be transmitted:

HH:MM:00 SP DD/MN/YY SP NNN SP W CR LF (25 bytes)

HH = Hour '00' - '23'.  
: = 3AH  
MM = Minute '00' - '59'.  
SP = Blank 20H.  
DD = Date '01' - '31'.  
/ = 2FH  
MN = Month '01' - '12'.  
YY = Year '00' - '99'.  
NNN = Daynumber '001' - '365' (3 bytes).  
W = Weekday '1' - '7'.  
CR = 0DH.  
LF = 0AH.

At second 60 (0) a synchronisation sign SUB (1AH) is transmitted.

Remark: The message transmitted at second 56 is *next* minute.

Example:

At 09:07:56 is a message transmitted. The time included in this message will be 09:08:00.

### Protocol 5

T:YY:MN:DD:WW:HH:MM:SS CR LF (24 bytes)

T = T  
: = 3AH  
YY = Year 00....99  
MN = Month 01....12  
DD = Day 01....31  
WW = Day of week 01....07  
HH = Hour 00....23  
mm = Minutes 00....59  
ss = Seconds 00....59  
CR = Carriage return 0Dh.  
LF = Line feed 0Ah.

The time message is sent out each minute or each second.

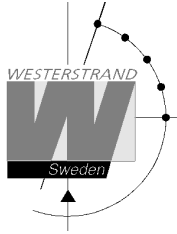
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## Protocol 7

STX WW VV YYYY MN DD HH MM SS F G BCC ETX (24 bytes)

STX = 02h (1 byte).

WW = Week number '01'-'53'  
VV = Weekday '01'-'07'  
YYYY = Year '2003-2099'  
MN = Month '01'-'12'  
DD = Day '01'-'31'  
HH = Hour '00'-'23'  
MM = Minute '00'-'59'  
SS = Second '00'-'59'

F = '0' Winter-time.  
= '1' Summer-time.

G = Offset to UTC for winter-time according to (1 byte):  
' ,' (2Ch) -2 hours, '.' (2Eh) -1 hour, '0' (30h) 0 hour.

BCC = Checksum; Exclusive OR of bytes WW..F G in hexadecimal ascii format (2 bytes). Byte STX is NOT included!.

ETX = 03h (1 byte).

This message is sent out each second.

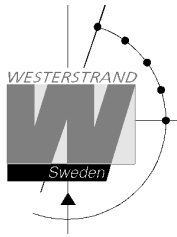
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## Setup Alarm Relay

One of the relay outputs can be used as an alarm relay. This function is as default disabled but can be enabled via this special function.

Enable alarm relay:

|                                 |   |
|---------------------------------|---|
| MON 13 MAR 2006<br>09:07:00 LTW | Select function using ↓.  |
| SPEC.-FUNCTIONS                 | Accept with YES.<br>Press NO until wished function is shown.      |
| SPEC.-FUNCTIONS<br>SETUP        | Accept with YES.  |
| SETUP<br>ALARM RELAY            | Press NO until the text ALARM RELAY is shown.<br>Accept with YES. |
| ALARM RELAY<br>NO               | Change to YES by pressing ↓.                                      |
| ALARM RELAY<br>YES              | Accept with YES.  |
| SETUP<br>ALARM RELAY            | Return to running mode press ←.                                   |
| SPEC.-FUNCTIONS<br>SETUP        | ←.  |
| SPEC.-FUNCTIONS                 | ←.  |
| MON 13 MAR 2006<br>09:07:00 LTW |   |

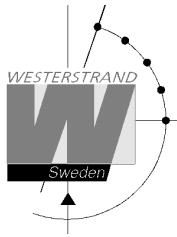
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## Setup IP

This function can be used to give the Yearly Programmer an IP address if it is equipped with option Ethernet. Please note that IP address as well as all other network parameters can be configured via an external PC using Telnet. See separate manual for this.

Example:

Give the Yearly Programmer IP address 192.168.1.100.

|   |   |
|---|---|
| MON 13 MAR 2006<br>09:07:00 LT <sub>w</sub> | Select function using ↓.  |
| SPEC.-FUNCTIONS                             | Accept with YES.<br>Press NO until wished function is shown.                                |
| SPEC.-FUNCTIONS<br>SETUP                    | Accept with YES.  |
| SETUP<br>IP                                 | Press NO until the text IP is shown.<br>Accept with YES.                                    |
| IP<br><b>192</b> .168.013.199               | Set the first digit group of the IP address using ↑↓.<br>Move to the right using →.         |
| IP<br>192. <b>168</b> .013.199              | Continue with the second digit group. Change digits using ↑↓.<br>Move to the right using →. |
| IP<br>192.168. <b>001</b> .199              | Continue with the third digit group. Change digits using ↑↓.<br>Move to the right using →.  |
| IP<br>192.168.13. <b>100</b>                | Continue with the fourth digit group. Change digits using ↑↓.<br>Accept with YES.           |
| SETUP<br>IP                                 | Return to running mode press ←.   |
| SPEC.-FUNCTIONS<br>SETUP                    | ←.  |
| SPEC.-FUNCTIONS                             | ←.  |
| MON 13 MAR 2006<br>09:07:00 LT <sub>w</sub> |   |

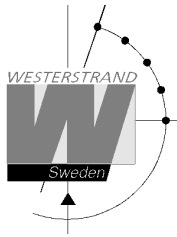
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## Holidays

Normal public holidays are pre-programmed and the following year's public holidays are calculated automatically at the turn of the year.

There are two different types of holidays:

- Holidays with *fixed date*; holidays that is appearing at the same date year after year.
- Holidays with *variable date*; holidays that is changing date from year to year.

It is possible to change the existing, pre-programmed holidays.

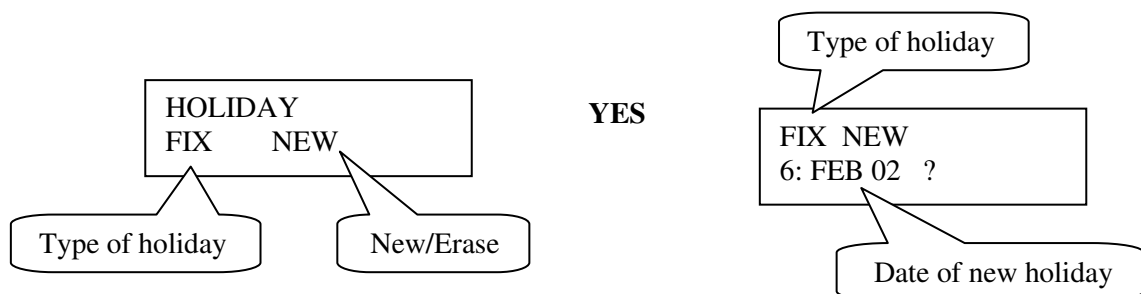
- *Fixed date holiday* can be inserted (NEW) or deleted (ERASE).
- *Variable date holidays* can be *enabled* or *disabled*. Disabled means that the holiday is deactivated until it is manually enabled again.

## Fixed holidays

Example of fixed holidays:

JAN01 New Year's day

DEC25 Christmas day



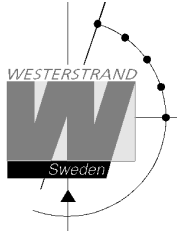
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## Variable holidays

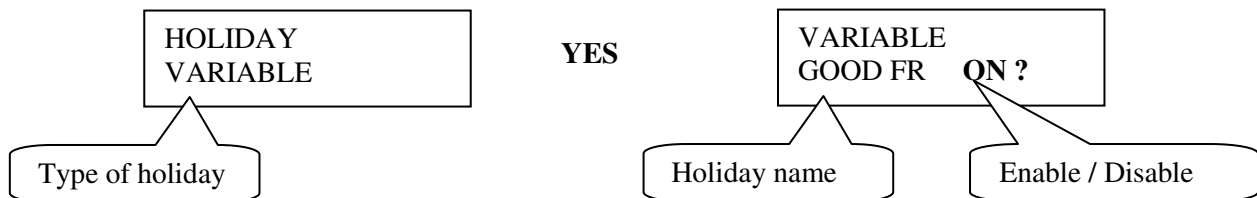
Example of variable holidays:

Good Friday

Easter Monday

Holiday abbreviations used

| Language English |                  | Language French |  | Language German |  |
|------------------|------------------|-----------------|--|-----------------|--|
| EAST. TH         | Easter Thursday  |                 |  |                 |  |
| GOOD FR          | Good Friday      |                 |  |                 |  |
| EAST. MO         | Easter Monday    |                 |  |                 |  |
| ASCENS.          | Ascension        |                 |  |                 |  |
| COR CH           | Corpus Christi   |                 |  |                 |  |
| PENT. MO         | Pentecost Monday |                 |  |                 |  |
| PRAY DAY         | Pray Day         |                 |  |                 |  |
| JOH. EVE         |                  |                 |  |                 |  |
| JOH. DAY         |                  |                 |  |                 |  |
| ALL ST.          | All Saints Day   |                 |  |                 |  |
| WED NOV          | Bank holiday     |                 |  |                 |  |
| MO MAY           | Bank holiday     |                 |  |                 |  |
| MO JUN           | Bank holiday     |                 |  |                 |  |
| MO AUG           | Bank holiday     |                 |  |                 |  |
| MO OCT           | Bank holiday     |                 |  |                 |  |



## Enable/disable

OFF = This holiday is disabled (not used)

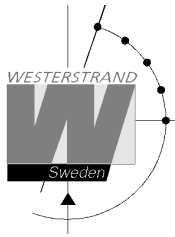
ON = This holiday is enabled (used)

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## Holidays, example 1, insert a new fixed holiday

Insert January 25 as a new fixed holiday.

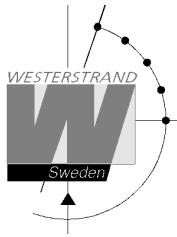
|                                 |   |
|---------------------------------|---|
| MON 13 MAR 2006<br>09:07:00 LTW | Select function using ↓.  |
| SPEC.-FUNCTIONS                 | Accept with <b>YES</b> .<br>Press <b>NO</b> until wished function is shown.       |
| SPEC.-FUNCTIONS<br>HOLIDAY      | Accept with <b>YES</b> .  |
| HOLIDAY<br>FIX                  | Press <b>NO</b> until the text HOLIDAY FIX is shown.<br>Accept with <b>YES</b> .  |
| HOLIDAY<br>FIX NEW<br>-         | Press <b>YES</b>  |
| FIX NEW<br>6 : <b>JAN</b> --    | Press buttons ↓ and ↑ until requested month occurs.<br>Move to the right using →. |
| FIX NEW<br>6 : JAN <b>25</b>    | Press buttons ↓ and ↑ until requested day occurs.<br>Accept with <b>YES</b> .     |
| FIX NEW<br>7 : -----            | Leave this function by pressing ←.  |
| HOLIDAY<br>FIX                  | ←   |
| SPEC.-FUNCTIONS<br>HOLIDAYS     | ←   |
| MON 13 MAR 2006<br>09:07:00 LTW |   |

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## Holidays, example 2, erase fixed holiday

Erase the fixed holiday January 01.

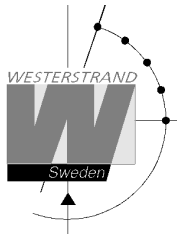
|                                 |  |
|---------------------------------|--|
| MON 13 MAR 2006<br>09:07:00 LTW | Select function using ↓ .  |
| SPEC.-FUNCTIONS                 | Accept with <b>YES</b> .<br>Press <b>NO</b> until wished function is shown.      |
| SPEC.-FUNCTIONS<br>HOLIDAY      | Accept with <b>YES</b> .   |
| HOLIDAY<br>FIX                  | Press <b>NO</b> until the text HOLIDAY FIX is shown.<br>Accept with <b>YES</b> . |
| HOLIDAY<br>FIX ERASE<br>-       | Press <b>NO</b> until the text FIX ERASE is shown.<br>Press <b>YES</b> .         |
| FIX ERASE<br>1:JAN01 ?          | Press button ↑ until requested holiday occurs.<br>Accept with <b>YES</b> .       |
| FIX ERASE<br>1:JAN01 ERASE?     | Accept with <b>YES</b> .   |
| FIX ERASE<br>1:JAN01 OK         | The holiday Jan 01 is erased.  |
| FIX ERASE<br>2:MAY01            | Leave this function by pressing ←.   |
| HOLIDAY<br>FIX                  | ←  |
| SPEC.-FUNCTIONS<br>HOLIDAYS     | ←  |
| MON 13 MAR 2006<br>09:07:00 LTW |  |

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### Holidays, example 3, disable a variable holiday

Disable holiday Good Friday.

MON 13 MAR 2006  
09:07:00 LTW

Select function using ↓.

SPEC.-FUNCTIONS

Accept with **YES**.  
Press **NO** until wished function is shown.

SPEC.-FUNCTIONS  
HOLIDAY

Accept with **YES**.

HOLIDAY  
VARIABLE

Press **NO** until the text HOLIDAY VARIABLE is shown.  
Accept with **YES**.

VARIABLE  
EAST . TH OFF?

Press → until the text GOOD FR is shown.

VARIABLE  
GOOD FR **ON**?

Change **ON** to **OFF** by pressing button ↑.

VARIABLE  
GOOD FR **OFF**?

Accept with **YES**.

VARIABLE  
EAST MO ON?

Press ←.

VARIABLE  
SAVE ?

Accept with **YES**.

HOLIDAY  
VARIABLE

←

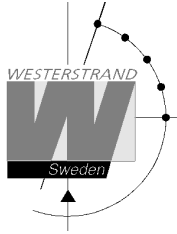
SPEC.-FUNCTIONS  
HOLIDAYS

←

HOLIDAYS

←

MON 13 MAR 2006  
09:07:00 LTW



# QWTIME III MASTER CLOCK User Manual

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## Software version

This function shows the software version for the Time Base module.

|                                     |   |
|-------------------------------------|---|
| MON 14 MAR 2005<br>09:07:00 LT      | Select function using ↓ .   |
| SPEC.-FUNCTIONS                     | Accept with YES.<br>Press NO until wished function is shown.                  |
| SPEC.-FUNCTIONS<br>SOFTWARE VERSION | Accept with YES.  |
| QW3-A031<br>123342-00 11m           | The software version is QW3-A031.<br>11m = Uptime for this Yearly Programmer. |
| SPEC.-FUNCTIONS<br>SOFTWARE VERSION | Return to running mode press ←.   |
| SPEC.-FUNCTIONS                     | ←   |
| MON 14 MAR 2005<br>09:07:00 LT      |   |

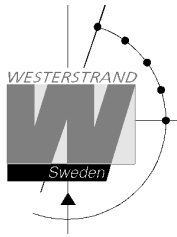
---

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## Display format

With this function the display format in running mode can be selected.

The following two formats can be selected:

MON 14 MAR 2005  
10:11:00 LTw

Standard format, default format.  
LT = Local Time. (LTs when summer time)  
NT = Normal Time (Winter time).  
UTC = Universal Time Coordinated.

MON 12 DEC 2001  
LTw

Format 2, used for test / fault finding.

Example:

MON 14 MAR 2005  
09:07:00 LT

Select function using ↓.

SPEC.-FUNCTIONS

Accept with YES.  
Press NO until wished function is shown.

SPEC.-FUNCTIONS  
DISPLAY FORMAT

Accept with YES.

DISPLAY FORMAT  
STANDARD

Select, by using the arrows, the wished display format.  
Accept with YES.

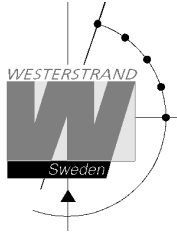
SPEC.-FUNCTIONS  
DISPLAY FORMAT

Return to running mode press ←.

MON 14 MAR 2005  
09:07:00 LT







QWTIME III MASTER CLOCK  
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## Map

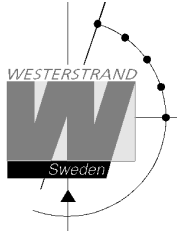
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## Fault tracing

*The display is blank*

- A. The green LED “POWER” is light?
  - A1. No.
    - A1A. Check the supply voltage.
    - A1B. Power supply wires connected correctly?
  - A2. Yes.
    - A2A. Restart the Yearly Programmer by switching the supply voltage off and on.

*Relay outputs are programmed but nothing happens.*

- C1. The switch on the front panel is in position **0**. Correct position is **A**.
- C2. Check that the output is working when the switch is in position **1**.
- C3. Different program types have different priority. E.g. a programmed holiday overrides a signal point in a week program.  
Priority order (1=highest, 4=lowest):  
1) Date program 2) Holiday 3) Group 4) Week program

*Alarm messages*

- D2. “Memory full”  
  
The Yearly Programmer is out of memory, probably due to incorrect programming. Use week program for repetitive signals or group for a certain period. See the programming instructions in this manual.
- D3. “Exists”  
  
The signal point is already programmed.
- D4. “Not programmed”  
  
When trying to change a non-existing signal point.

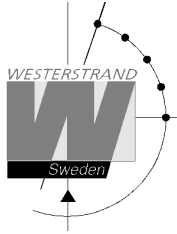
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### RADIO

*Radio synchronisation is not working (DCF)*

Check that the LED in the antenna is flashing in second's rhythm. The antenna should be mounted in the clear, with the arrow on the box aiming south. Check that the LED "Radio" on the Yearly Programmer is flashing in second's rhythm.

Use special functions "Radio Stat" and "Radio Last" for information on the reception quality.

Accepted radio reception is shown by a flashing colon (:) between hours and minutes in the display.

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