

# MIYOTA

## Cal. 91\*\*

### 9100, 9110, 9120, 9122, 9130, 9132



AUTOMATIC & MANUAL WINDING MOVEMENT WITH MULTIFUNCTION

#### Basic specification

|                       |                           |
|-----------------------|---------------------------|
| Ligne                 | 13-1/2'''                 |
| Overall diameter      | Φ30.2mm                   |
| Case fitting diameter | Φ25.6mm                   |
| Total height          | 5.52mm                    |
| Vibration frequency   | 28800 vibrations per hour |
| Jewels                | 26 Jewels                 |

#### Function

Automatic & manual winding  
Display by means of hands: hour, minute, second.  
Date calendar  
Day / Month / 24Hours display by means of hands  
Power reserve display  
Stop second device  
Shock-absorber device for balance staff

#### Technical characteristics

##### Balanceable weight of hands

|                    |                 |
|--------------------|-----------------|
| Second hand        | Max. 0.60μN · m |
| Minute hand        | Max. 1.25μN · m |
| Hour hand          | Max. 1.50μN · m |
| Small hand         | Max. 0.04μN · m |
| Power reserve hand | Max. 0.25μN · m |

##### Hands fitting force

|                    |          |
|--------------------|----------|
| Second hand        | Max. 30N |
| Minute hand        | Max. 50N |
| Hour hand          | Max. 50N |
| Small hand         | Max. 30N |
| Power reserve hand | Max. 30N |

**Lift angle** 51°

**Casing** Non-corresponding to "Divers' watches" defined by ISO6425

#### Time performance

|                    |                       |
|--------------------|-----------------------|
| Accuracy           | -10~30 seconds/day    |
| Posture difference | Under 40 seconds/ day |
| Running time       | More than 40 hours    |

※Accuracy of the mechanical watch is different from the daily rate of the quartz watch and the accuracy will change maximum of several ten seconds during rewinding the spring, then the accuracy of the half winding condition will be different from that of full winding condition.

#### <Time performance measurement condition>

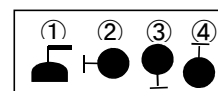
##### Accuracy

Measure within lapse of 10~60 minutes from full winding with ① posture.

##### Posture difference

Measure accuracy in 4 different postures shown on the right picture within lapse of 10 ~ 60 minutes from full winding.

※Direction of 4 postures ①Date Dial side Up ②6 o'clock side up ③9 o'clock side up ④3 o'clock side up



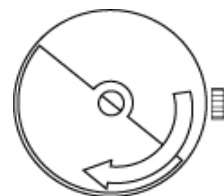
##### Running time

Measure the running time from full winding.

※The mainspring becomes fully winded by rotating the ratchet wheel 7.5 times (turning the crown 40 times).

## Automatic winding structure

**Winding direction :** Clockwise (seeing from case back side)



## Operating method

Winding the mainspring, adjusting the hand, month/day/date is done by the below procedure.

### (1) Winding the mainspring

Automatic winding watch can be also manual-winded by turning the crown in "A" position.

Wind 15 ~ 20 times clockwise until second hand starts to move naturally.

### (2) Adjusting Day

Adjust the day by rotating the crown counter-clockwise in "B" position.

### (3) Adjusting date

Adjust the date by rotating the crown clockwise in "B" position.

### (4) Adjusting time

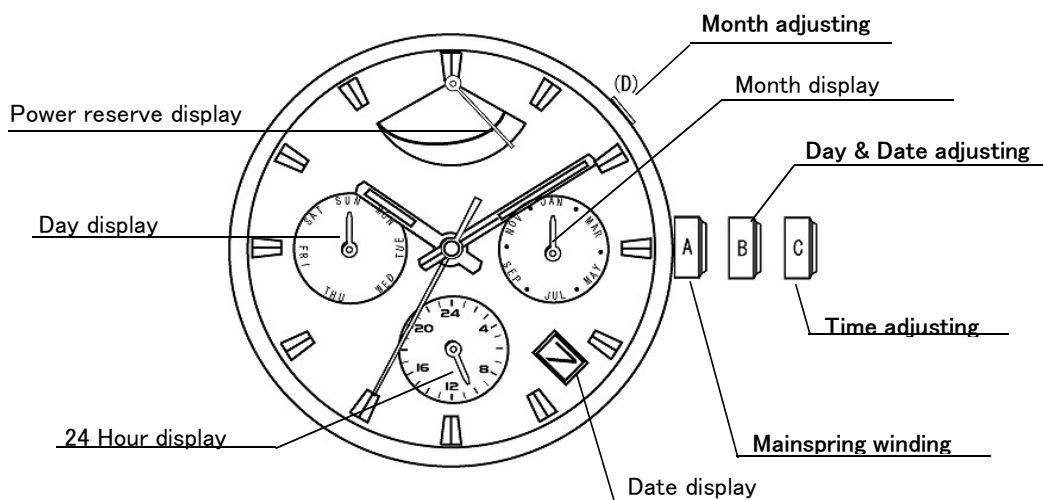
Rotate the crown in "C" position and adjust the standard time.

Then check if it is morning or afternoon and adjust correctly.

### (5) Adjusting month

Push the button "D" and adjust the month.

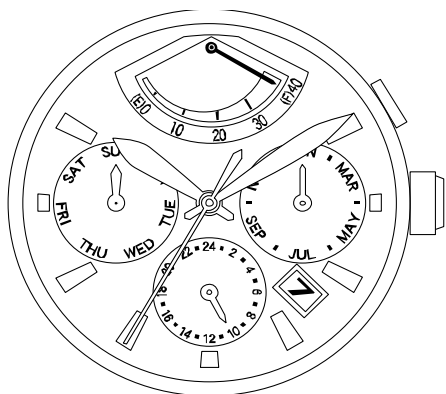
※If the button is not pushed to the end, the month is not changed perfectly.



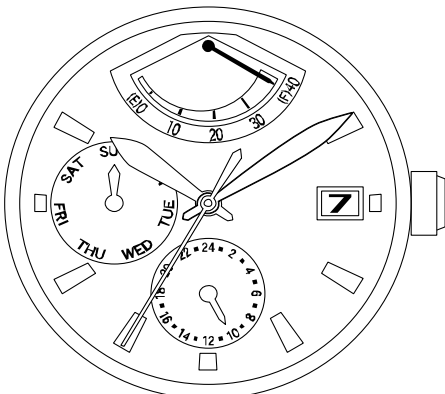
## Separated parts

|                         |             |
|-------------------------|-------------|
| Plastic movement holder | 500-002 x 1 |
| Winding stem            | 065-A05 x 1 |

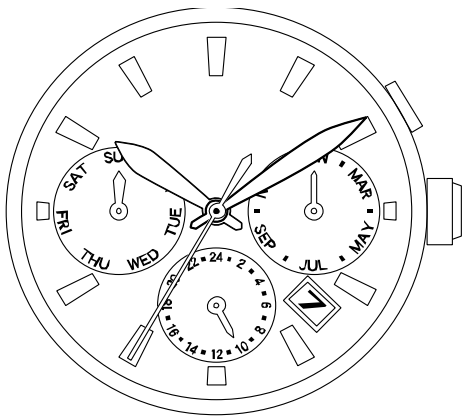
Variation



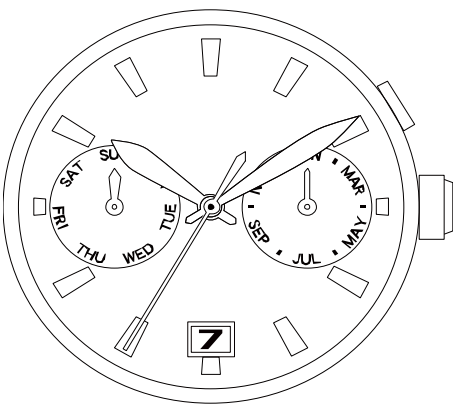
9100



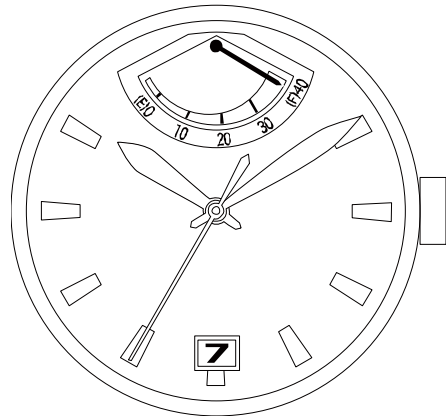
9110



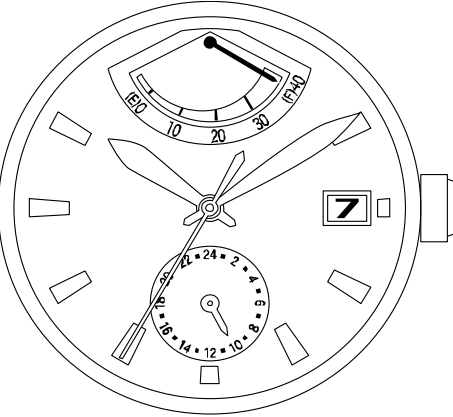
9120



9122



9130



9132

Feature

|               | 9100 | 9110 | 9120 | 9122 | 9130 | 9132 |
|---------------|------|------|------|------|------|------|
| Hour          | ○    | ○    | ○    | ○    | ○    | ○    |
| Minute        | ○    | ○    | ○    | ○    | ○    | ○    |
| Second        | ○    | ○    | ○    | ○    | ○    | ○    |
| Date          | ○    | ○    | ○    | ○    | ○    | ○    |
| Day           | ○    | ○    | ○    | ○    | —    | —    |
| Month         | ○    | —    | ○    | ○    | —    | —    |
| 24 Hour       | ○    | ○    | ○    | —    | —    | ○    |
| Power Reserve | ○    | ○    | —    | —    | ○    | ○    |

These specifications might be changed without prior notice.

CITIZEN WATCH CO., LTD.