

MIYOTA

MOVEMENT SPECIFICATIONS
CAL. GP SERIES ANALOG QUARTZ MOV'T
 BY CITIZEN WATCH CO., LTD.

DUAL TIME / BIG DATE / SMALL SECOND / DOUBLE RETROGRADE
 MANUFACTURED IN JAPAN

1. BASIC SPECIFICATION

(1) CAL. NO.

CALIBRE	GP00	GP01	GP30	GP10	GP11	GP50
						
	RETROGRADE DUAL TIME		BIG DATE	SMALL SECOND AND BIG DATE		DOUBLE RETRO
Ligne	12'''					
Size	Φ 27.0mm , 25.0mm(3H-9H)					
Total height	4.40mm					3.80mm
Hands	4		3			5
Date	12H	3H	12H		3H	12H RETROGRADE
Battery life	3 Year					
Battery	SR920SW or equivalent					

(2) Time standard

Type of quartz : Tuning fork type quartz crystal
Frequency : 32,768Hz
Accuracy : +/-20 s/month worn under normal circumstances

(3) Battery installed

Type of battery : Silver oxide SR920SW or equivalent

(4) Others

Driving systems : Two-pole stepping motor

(5) Balanceable weight of hand

Minute hand **Max. 1.00 $\mu\text{N}\cdot\text{m}$**
Second hand **Max. 0.08 $\mu\text{N}\cdot\text{m}$**
Retrograde hand **Max. 0.14 $\mu\text{N}\cdot\text{m}$**

(6) Additional Mechanisms

Calendar : Date disk at 12H(GP00/GP30/GP10) or 3H(GP01/GP11)
Date hand at 12H(GP50)

Calendar correction : Pull out the crown to the first click position,
turn crown clockwise.
*If the date is set between 9:00 PM and 2:00 AM,
the date may not change on the following day.

2nd time(GP00/GP01/GP50) : 24 hour hand at 6H (by Retrograde)

2nd time correction(") : Pull out the crown to the first click position,
turn crown counter-clockwise.

Power conservation switch : Pull out the crown to the second click position

Second hand stopping devi : Pull out the crown to the second click position

2. SEPARATED PARTS

* Setting stem	065-992
Length of movement center to stem end.	23.00mm
Thread.....	Φ0.9 x 10.5mm

3. Others

* Measurement of time rate

The unit(gate) time of measurement must be set at "10s " or integer fold value of 10s owing to the DFC system, and the measurement must be performed in the form of complete watch.

* Marking on movement

**MIYOTA CO. UNADJUSTED
NO JEWEL JAPAN GP****

* Typical clearance

Mov't - Caseback	minimum 200 μm or more
Top of hands - Glass	300 - 400 μm *

* depending and subject to the glass and case structure, and hand length

4. Notice Of Casing

The interval between Dial and Glass end should be 150 μ m to avoid breakage under drop.

5. Setting Instructions

(1) Setting the date (Quick change function)

Pull the crown out to the first click position and set the date by rotating the crown backward.

If the date is set between 11:00 PM and 3:00 AM, the date will not change correctly.

(2) Setting the normal time

Pull the crown out to the second click position when the second hand reaches the 12 o'clock position so that the second hand stops there.

Then set the hour and minute hands.

When setting the minute hand, put it 4 to 5 minutes earlier than the time to be set, and then turn it back to the correct time.

Note: The day is changed during the period from about 0:00 AM to about 5:30 AM.

After the time is set, push the crown back simultaneously with the time signal.

The second hand will start running at the same time.

This specifications might be changed without prior notice.

Cal. GP00/GP01 : Hands Fitting Manual

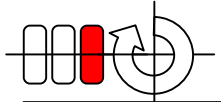
GP00 Date Dial 12H

GP01 Date Dial 3H

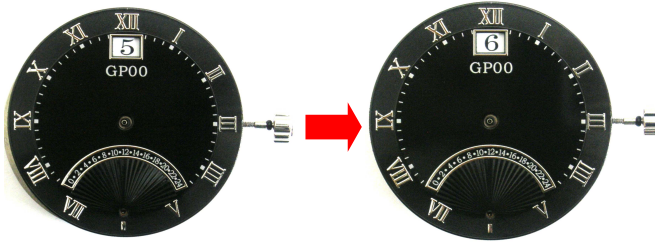
◆Hand Fitting

1) PULL THE CROWN TO 2ND CLICK POSITION AND TURN CLOCKWISE (RIGHT) TO CHANGE THE DATE.

- ROTATING CALENDAR EXP.) 5TH→6TH

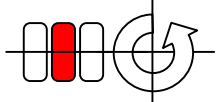


CROWN AT 2ND CLICK POSITION FOR ACTIVATING CALENDAR



CAUTION : STOP TURNING THE CROWN RIGHT AFTER THE DATE CHANGED
TURNING THE CROWN AFTER DATE CHANGING WILL CAUSE WRONG DATE CHANGING TIME.

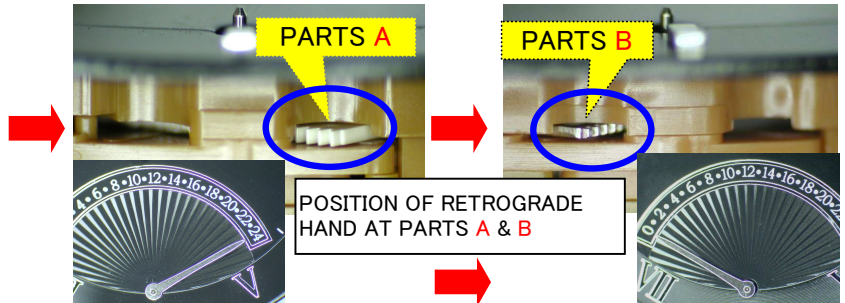
2) PULL CROWN TO 1ST CLICK POSITION FOR RETROGRADE CORRECTING. (ADJUSTING RETROGRADE HAND TO ZERO POSITION)



CROWN AT 1ST CLICK POSITION FOR RETROGRADE



LOOK AT THE SIDE FACE OF RETROGRADE HAND (6H POSITION) WHEN TURNING THE CROWN

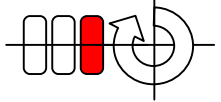


POSITION OF RETROGRADE HAND AT PARTS A & B

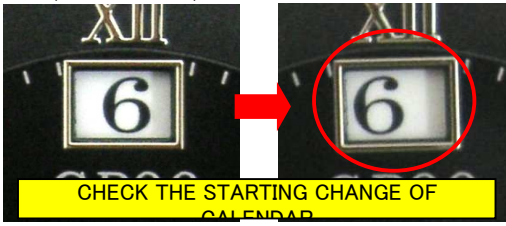
- WATCH PARTS A WHEN FLYING BACK THE RETROGRADE HAND AND CHECK THE POPPING UP OF PARTS B
- BE CAUTIOUS RIGHT BEFORE THE FLY BACK (1 CLICK=1HR MOVING). DO NOT TURN THE CROWN AFTER FLYING BACK.

CAUTION : OVERTURNING OF 1 CLICK WILL CAUSE 1 HOUR DELAY OF DATE CHANGING TIME.

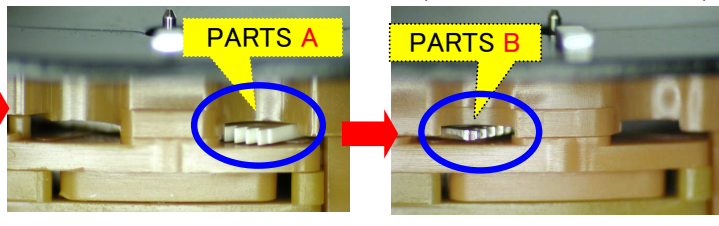
3) TURNING THE HAND (CLOCKWISE) AT THE 2ND CLICK POSITION FOR DATE CHANGING AND FLY BACK (MINIMIZING BACK-RUSH)



TURNING HAND AT 2ND CLICK POSITION



CHECK THE STARTING CHANGE OF CALENDAR



- WATCH THE RETROGRADE ACTION AT THE SIDE FACE OF RETROGRADE HAND (6HR POSITION) WHEN THE DATE STARTS CHANGING.
- WATCH PARTS A WHEN FLYING BACK THE RETROGRADE HAND. STOP TURNING THE CROWN AT THE SAME TIME PARTS B POPS UP.

※ UNNECESSARY TO CARE ABOUT THE DATE CHANGING AT THAT TIME. (PRIORITY TO RETROGRADE HAND)

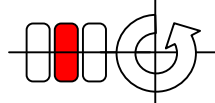
CAUTION : OVER TURNING THE CROWN AFTER RETROGRADE HAND FLY-BACK (PARTS B POPPED UP) WILL CAUSE EARLY RETROGRADE HAND'S FLY-BACK AND DATE CHANGING TIME.

4) AT 2ND CLICK POSITION, FIT THE RETROGRADE HAND AT ZERO INDEX OF RETROGRADE, HOUR HAND/MIN HAND/SEC HAND AT 2:00 AM. AFTER THAT, TO SYNCHRONIZE THE CENTRE TIME AND RETROGRADE HAND TO THE SAME TIME, PULL THE CROWN TO 1ST CLICK POSITION AND TURN ANTI-CLOCKWISE TO THE SAME HOUR OF CENTRE TIME FOR CORRECTION.

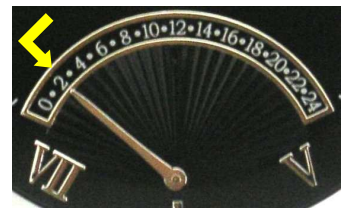
※ DATE CHANGING TIME AT 0:00 A.M. BY FITTING HAND AT 12HR.



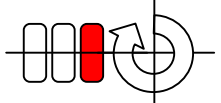
FITTING HANDS AT THE 2ND CLICK POSITION



RETROGRADE CORRECTING AT 1ST CLICK POSITION



5) PULL THE CROWN TO 2ND CLICK POSITION AND TURN THE HAND. THE INDICATION GAP BETWEEN MIN HAND AND RETROGRADE HAND SHOULD BE WITHIN +/-15 MINUTES. CHECK THE TIME (WITHIN +/- 40min of 2:00 A.M.) WHEN THE DATE IS FULLY CHANGED.



CHECK THE CALENDAR AND RETROGRADE HANDS MOVING AT 2ND CLICK POSITION



RETROGRADE FLY-BACK

- 2 MINUTES

• CHECK THE DATE CHANGING

1:58 A.M.

CAUTION : TURNING HAND (ANTI-CLOCKWISE) AT 2ND CLICK POSITION WHEN RETROGRADE HAND IS AT 0 POINT POSITION WILL CAUSE DIFFERENT TIME-LAG BETWEEN CENTRE TIME AND RETROGRADE HAND TIME.

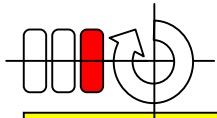
GP00 / GP01 : 装针事项

GP00 12点位日历窗

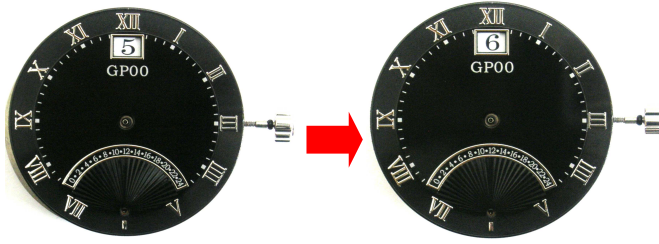
GP01 3点位日历窗

◆ 装针方法

1) 把柄头拉到2段位置，顺时针转动调整日历。



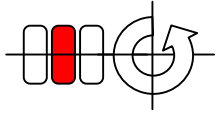
把柄头拉到2段位置后，带动日历工作



· 日历调整
比如) 5日→6日

注意事项：一旦日历板完成换日后，立刻停止转日历。因为如果多转的话，会引起今后的换历早于正常时间。

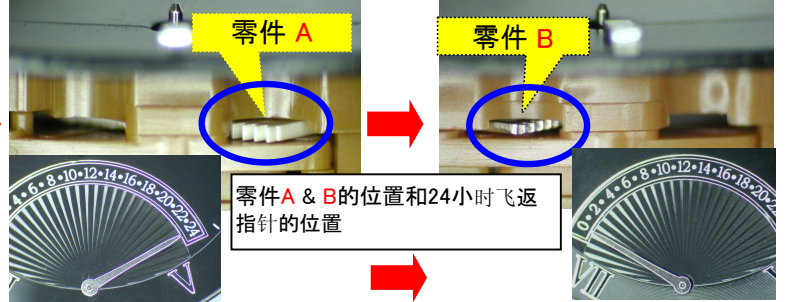
2) 把柄头拉到1段位置，快调24小时飞返指针，使之回到0位置。



把柄头拉到1段位置，调整24小时飞返指针



从6点位置的侧面边观察边转动柄头

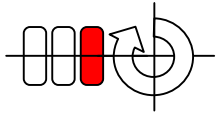


零件A & B的位置和24小时飞返指针的位置

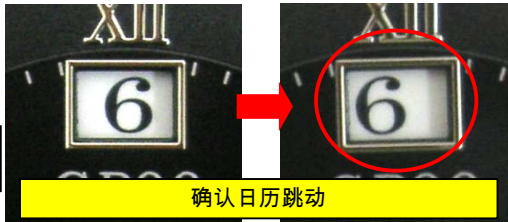
- 一边看着A零件一边调整24小时飞返指针直到 B 零件从里面出来
- 在指针回到0位置之前的瞬间，请轻轻拨动柄头(一卡嗒声表示一个小时)。一旦回到0位置后就停止拨针。

注意事项：飞返针多走一声卡嗒，换历就晚一个小时

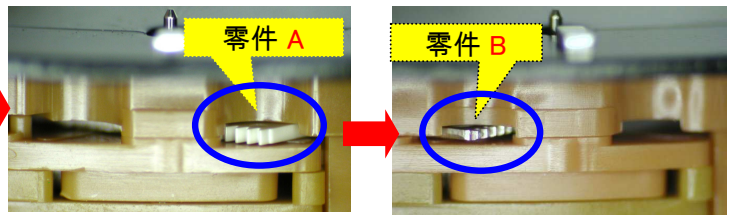
3) 把柄头拉到2段位置，顺时针转动，调日历并再次作24小时飞返指针的归零调整。(为了削除轮齿间隙)



把柄头拉到2段位，顺时针转动



确认日历跳动



- 在日历开始跳动的时候，从6点位置的侧面观察飞返指针的动作过程
- 看着 A 零件转动柄头使24小时飞返指针归零，在 B 零件从机芯里出来的同时停止转柄头。

※ 这时，如果日历没有更换也没有关系。(优先考虑飞返指针的归零)

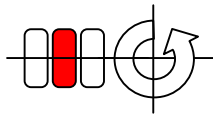
注意事项：飞返指针一旦归零(B零件从机芯里出来)后，如果继续拨针的话，会造成今后换历早于正常时间

4) 把柄头拉到2段位置，把飞返针装在0位置，把时针、分针和秒针装在2点位置。然后，为了削除飞返针和中心表针的时差，把柄头推回1段位置，逆时针转柄头，快速修正飞返针，把飞返指针拨到2点。

※ 如果需要在凌晨0点换历的话，把时针、分针和秒针直接装在12点上。



把柄头拉到2段位置后装针

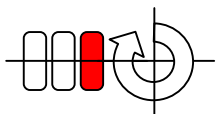


把柄头推回1段位置后快速修正飞返指针



5) 把柄头拉到2段位置顺时针转动，当飞返指针回到0位置时，确认中心表针是否在「12点±15分」之内。

请确认换历是否在「凌晨2点±40分」之内。



把柄头拉到2段位置，确认日历和飞返指针的动作情况



24小时飞返指针



- 2 分钟



· 确认换历时间

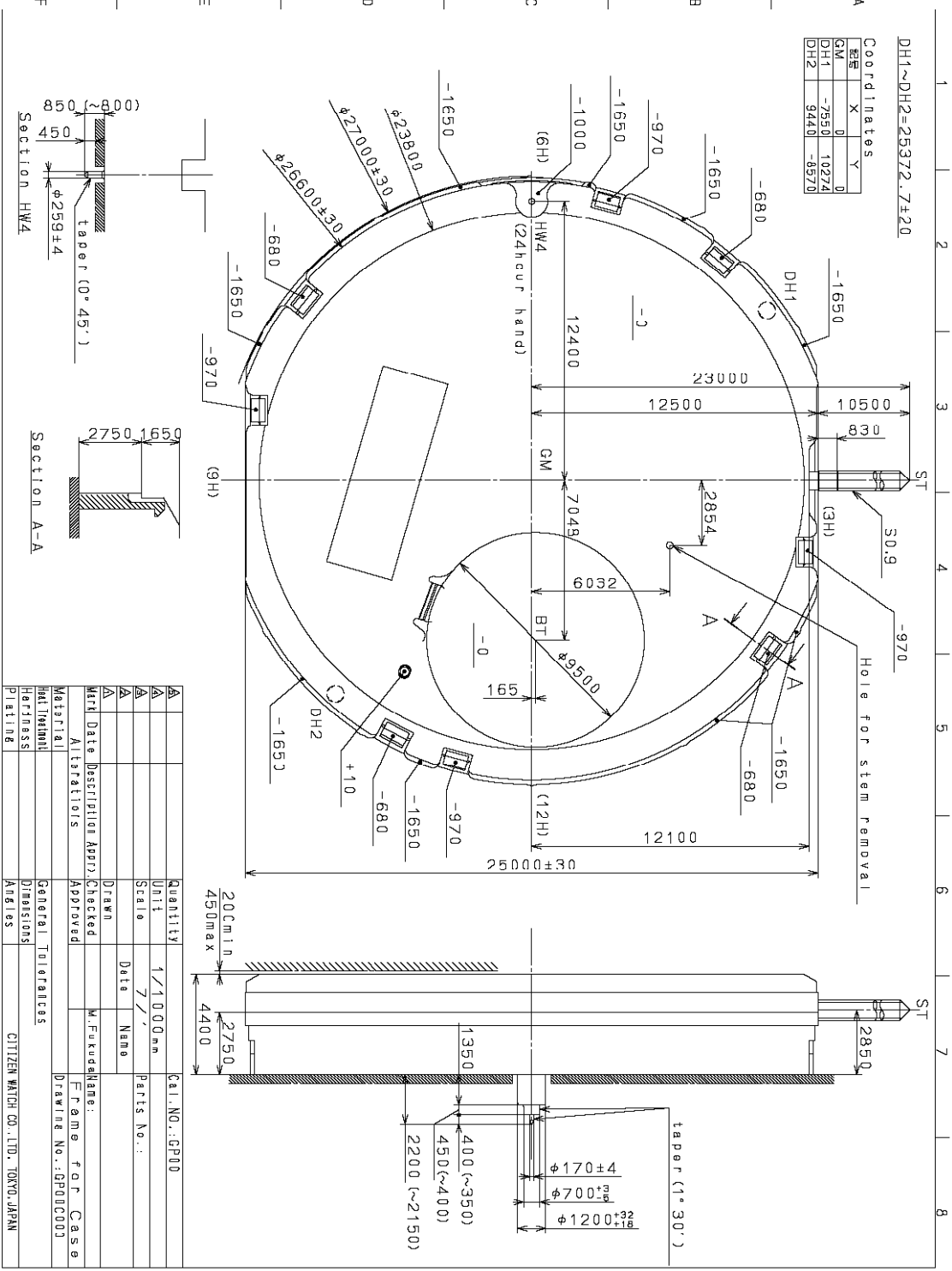


凌晨1:58

注意事项：飞返指针在0位置的时候把柄头拉到2段位置，逆时针方向转动柄头的话，中心表针和飞返指针的时差会发生变化。

2005/02/03 (08:15:13)

This drawing is provisional and subject to our reconfirmation and/or revision without notice.



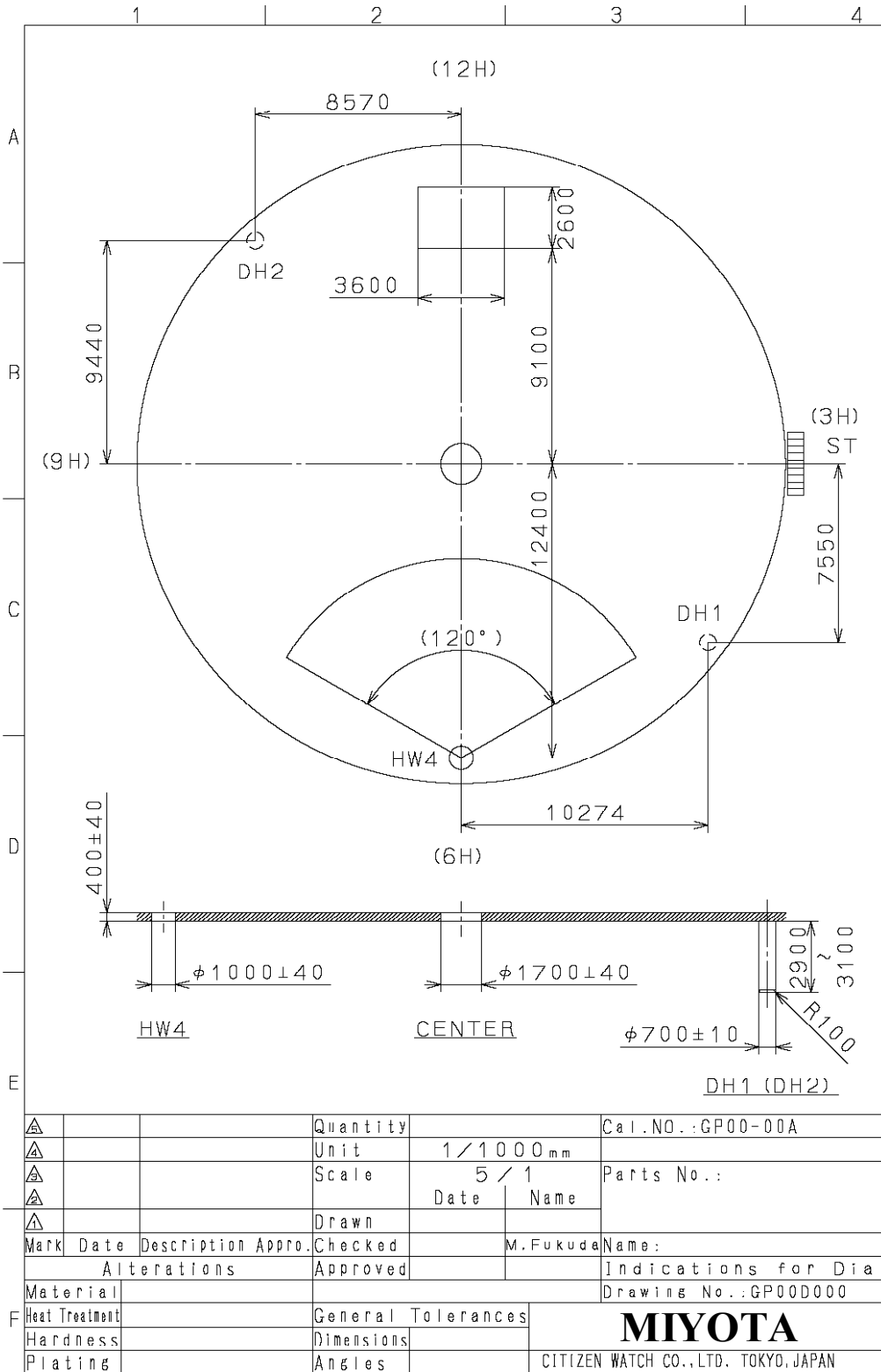
Coordinates

座標	X	Y
GM	-2550	10274
DH1	9440	-8570
DH2	9440	-8570

Quantity	1	Cal. NO.: GP00
Unit	1/1000mm	Parts No.:
Scale	7/7	Drawn Name
Date		Checked
Material		Approved
Alterations		M. Fukuda Name:
Material		Frame for Case
Material		Drawn No.: GP00C001
Dimensions		
General Tolerances		
Plating		
CITIZEN WATCH CO., LTD., TOKYO, JAPAN		

2005/02/02 (09:23:31)

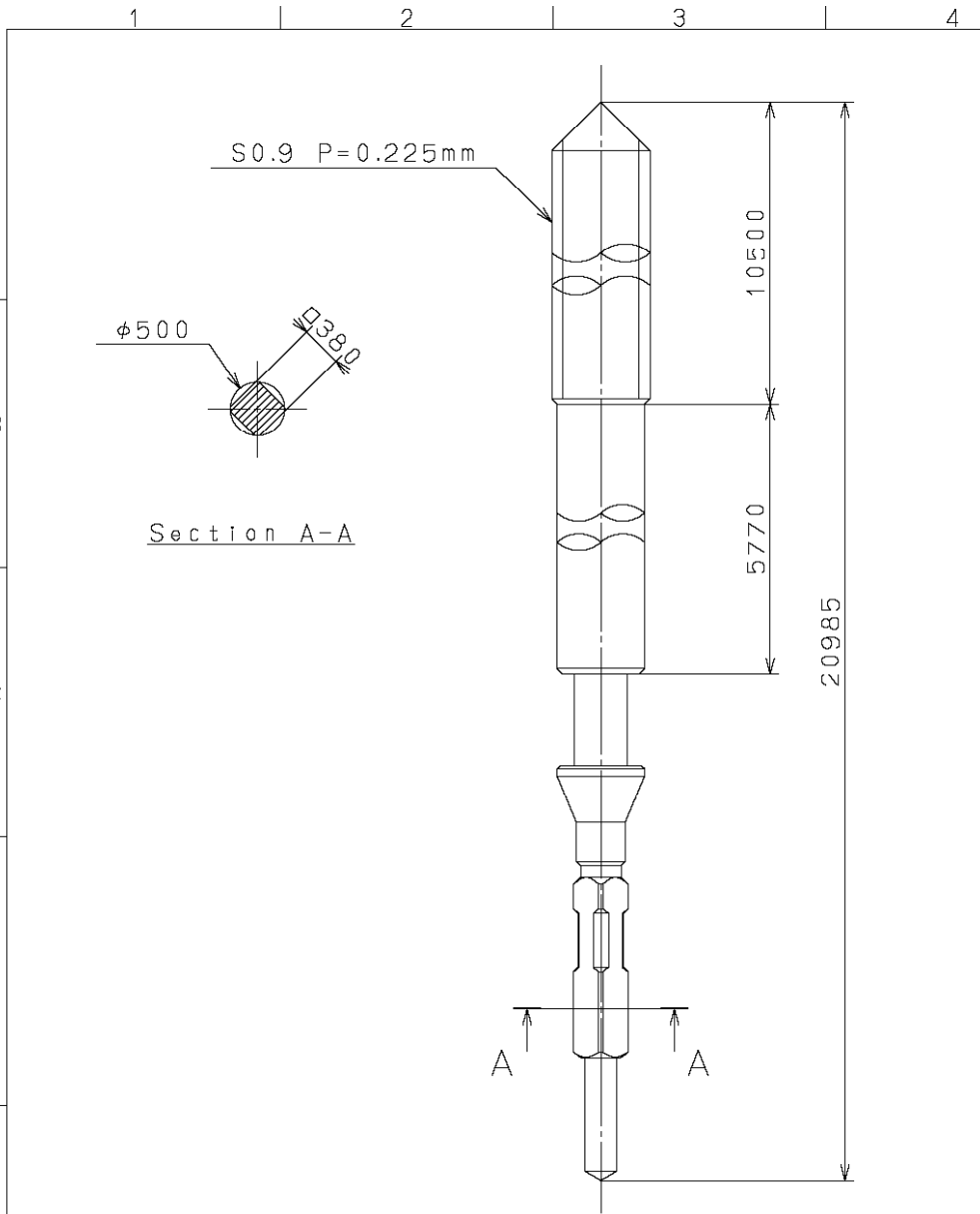
This drawing is provisional and subject to our reconfirmation and/or revision without notice.



△				Quantity	Cal. NO.: GP00-00A	
△				Unit	1 / 1000 mm	
△				Scale	5 / 1	
△				Drawn	Date	Name
Mark	Date	Description	Appr.	Checked	M. Fukuda Name:	
Alterations				Approved	Indications for Dial	
Material				Drawing No.: GP00D000		
Heat Treatment				General Tolerances		
Hardness				Dimensions		
Plating				Angles		
				MIYOTA		
				CITIZEN WATCH CO., LTD. TOKYO, JAPAN		

2005/02/01 (17:07:32)

This drawing is provisional and subject to our reconfirmation and/or revision without notice.



△			Quantity		Cal.NO.:
△			Unit	1/1000mm	
△			Scale	20/1	Parts No.:
△				Date	Name
△			Drawn		065-992
Mark	Date	Description	Appr.	Checked	M. Fukuda
		Alterations	Approved		Name:
Material					SETTING STEM
Heat Treatment			General Tolerances		Drawing No.: 9920S000
Hardness			Dimensions		MIYOTA
Plating			Angles		