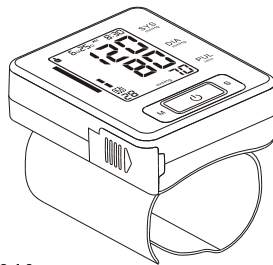


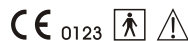
DIGITAL WRIST BLOOD PRESSURE MONITOR

USER GUIDE



MODEL : HAP-910

English



Safety Information

- Type BF applied part
- Manufacturer
- Specifies serial number
- Authorized Representative in the European Community
- CE Mark: conforms to essential requirements of the Medical Device Directive 93/42/EEC.
- DISPOSAL:** Do not dispose this product as unsorted municipal waste. Collection of such waste separately for special treatment is necessary.
- Direct current
- Follow instructions for use

4

Introduction

Thank you for purchasing the Wrist Blood Pressure Monitor. Please read the manual carefully before you use the unit, and keep the manual well after using.

The unit is compact and easy to use, adopts the oscillometric principle. It measures your blood pressure and pulse rate simply and quickly. The device uses its advanced "Intellisense" for comfortable controlled inflation without the need of pressure presetting or reinflation. This unit is only applied for the adult.

2x90 sets memory function, each measurement result will be displayed on the screen, and automatically stored. This unit has blood classification index, could easy to check your blood pressure.

INTENDED USE

These automatic blood pressure monitor intended to measurement the systolic pressure, diastolic pressure and pulse rate through Wrist. They are expect used into the home and hospital, intended for over than 12 years old adult using.

2

Safety Information

To assure the correct use of the product, basic safety measures should always be followed including the warning and the caution listed in the instruction manual :

Symbol descriptions

The following symbols may appear in this manual, on the label, on the device, or on it's accessories. Some of the symbols represent standards and compliances associated with the device and its use.

WARNING: This alert identifies hazards that may cause serious personal injury or death.

CAUTION: This alert identifies hazards that may cause minor personal injury, product damage, or property damage.

3

Safety Information

Those who have arrhythmia, diabetes, blood circulation or apoplexy problem, please use under the physician's instruction.

Contact your physician for specific information about your blood pressure. Self diagnosis and treatment which use measured results may be dangerous. Follow the instructions of your physician or licensed healthcare provider.

Please place on a high place where children can't be touched.

No modification of this equipment is allowed.

Do not modify this equipment without authorization of the manufacturer.

If this equipment is modified, appropriate inspection and testing must be conducted to ensure continued safe use of equipment.

The swallowing of small part like packaging bag, battery, battery cover and so on may cause the suffocation.

5

Safety Information

Please don't use a dilution agent, alcohol or petrol to clean the unit. Please don't hit heavily or fall down the product from a high place. Use the right cuff, otherwise it can not work.

Never leave any low battery in the battery compartment since they may leak and cause damage to the unit.

Please take off the battery if you won't use in 3 months.

Replace the new batteries if the unit display a low battery symbol.

Do not mix the old and new batteries.

Do not use a cellular phone near the unit. It may result in operational failure.

Please avoid using in high radiant area in order to make your measuring data correctly.

Do not use the equipment where flammable gas (such as anesthetic gas, oxygen or hydrogen) or flammable liquid (such as alcohol) are present.

6

Safety Information

WARNING: Do not dispose of electrical appliances as unsorted municipal waste, use separate collection facilities. Contact you local government for information regarding the collection systems available. If electrical appliances are disposed of in landfills or dumps, hazardous substances can leak into the groundwater and get into the food chain, damaging your health and well-being.

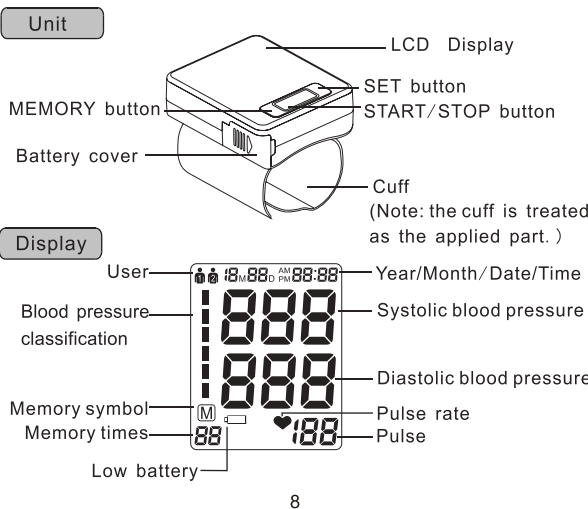
Classification

- Internally powered equipment;
- Type BF applied part;
- Protection against ingress of water or Particulate matter: IP21;
- Not category AP /APG equipment;
- Mode of operation:Continuous operation.

The user must check that the equipment functions safely and see that it is in proper working condition before being used.

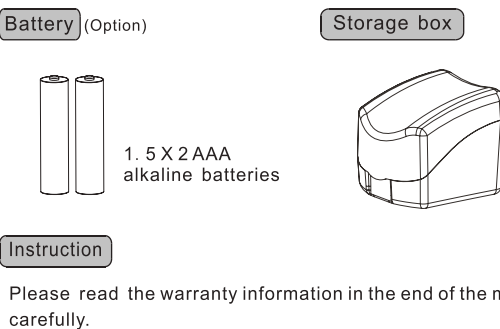
7

Product Structure



8

Each of Component



9

Battery installation

Battery installation and replacement

1. Push the hook on the bottom of the battery cover as picture.

2. Insert two 1.5V "AAA" batteries in the battery compartment.

Place the batteries "+" and "-" in the right position as indicated.

3. Pull the battery cover to the main unit.

When the battery cover close tightly, could hear "Ka-ka".

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Low Battery and Replacement

Battery installation

When power on, the low battery symbol will display once the unit start to work, and you must replace with new batteries, otherwise the unit can't work.

Please use 2pcs AAA identical 1.5V alkaline batteries. Do not use the batteries beyond their expiry date.

Please remove the batteries if you do not need to use for long time.

WARNING: Dispose of the battery in accordance with all federal, state and local laws. To avoid fire and explosion hazard, do not burn or incinerate the battery.

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Setting Mode

How to set

1. How to set user:

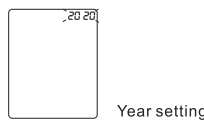
Press button S when power off, the screen will display user 1 or user 2, press button M, it will be changed between user 1 and user 2, press button S when you confirm the user, then it will enter into the year setting mode.

12

Setting Mode

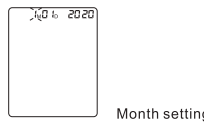
4. Year setting:

Continue to above step, the screen will display and flash 20XX, the last digit of the year will increase 1 when press button M each time, you could choose from 2020 to 2099. Press button S when you confirm the year, then it will enter into the month and date setting mode.



5. Month and date setting

Continue to above step, the screen will display xMxxD and XX-XX, and keep flashing on month, the digit will increase 1 when press button M each time, you could choose from 1 to 12. Press button S when you confirm the month, then it will set the date. Same as the month setting, each time you press button M, the digit will keep changing from 01 to 31. Press button S when you confirm the date, then it will enter into the time setting mode.

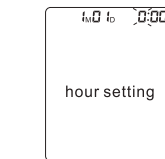


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Setting Mode

6. Time setting:

Continue to above step, the screen will display xMxxD and XX:XX, and keep flashing on the digits of hour, the digit will increase 1 when press button M each time, you could choose from 0 to 23. Press button S when you confirm the hour, then the digits of minute start to flash, same as the hour setting, each time you press button M, the digits will keep changing from 00 to 59. Press button S when you confirm the minute, then the total setting is completed.



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Proper use of the unit

Before the measurement

Relax for about five to ten minutes prior to the measurement. Avoid eating, drinking alcohol, smoking, exercising and bathing for 30 minutes before taking a measurement. All these factors will influence the measurement result.

Remove watch or other ornaments from the measured wrist. Always measure on the same wrist (normally left). Take measurement regularly at the same time of every day, as blood pressure changes even during the day.

Common factors of wrong measurement

- Please measure under the same circumstance if compare the blood pressure by different way, especially measure in a quiet environment.
- Make sure you are in a comfortable, relax position and do not activate any of the muscles in the measurement arm during the measurement.
- If put the wrist lower or higher than the heart, a false reading will be obtained.

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Proper use of the unit

Note:

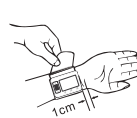
- A loose cuff or a exposed bladder causes false reading.
- With repeated measurements, blood accumulates in the wrist which can lead to false reading. Consecutive blood pressure measurements should be repeated after 1 minute pause or after the arm has been held up in order to allow the accumulated blood to flow away.

Fitting the cuff

1. Roll up sleeve. Make sure your sleeve is not rolled up too tightly on your arm. This may constrict the flow of blood in your arm.



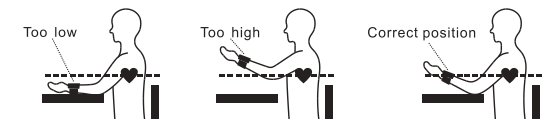
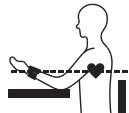
2. Wrap the cuff directly against your skin, hold the bottom part of the cuff and wrap it around the wrist so it fits comfortably and securely around your wrist as picture show.



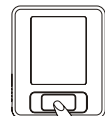
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Proper use of the unit

3. Sit in a chair and take an erect body posture, make the monitor at the same level as your heart.



4. Press the START/STOP button, the monitor will measure your blood pressure automatically. Please keep still when the monitor works.



If it is not possible to fit the cuff to your left wrist, it can also be placed on the right. However, all measurements should be made using the same wrist.

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Proper use of the unit

Measuring procedure

1. Press the START/STOP button, all symbols appear on the display, then 0 flash for 2 seconds, the pump begins to inflate the cuff, the rising pressure in the cuff is shown on the display.



2. After the suitable pressure has been reached, the pump stops and the pressure gradually falls. The cuff pressure is displayed. In case that the inflation is not sufficient, the device automatically re-inflates to a higher pressure.



3. When the device detects a pulse, the heart symbol on the display starts to flash.

4. When the measurement has been completed, the systolic, diastolic and pulse rate will appear on the display.



5. The measurement readings remain on the display until you switch off the device. If no button is pressed for a period of 3 minutes, the device switches off itself in order to save the power.

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Proper use of the unit

Discontinuing a measurement

If it is necessary to interrupt a blood pressure measurement for any reason (eg. the patient feels unwell) the START/STOP button can be pressed at any time. The device immediately decreases the cuff pressure automatically.

Memory-recall of measurements

This blood pressure monitor automatically stores 2x90 sets measurements value, the oldest record will be replaced by the latest measurement value when more than 90 sets each user.

Read memory record

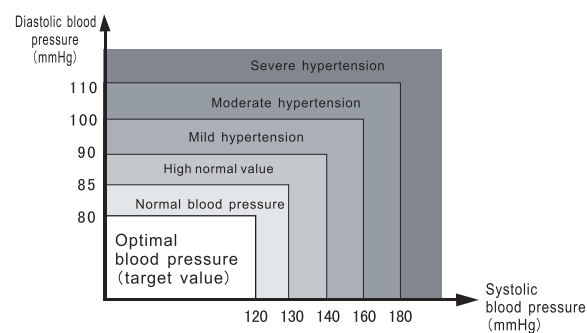
Press the M button when power off, the latest 3 times average value will be shown, press the M button again to show the latest memory, press the S button to show the oldest memory, as well as subsequent measurements can be shown one after the other by pressing the M button or the S button each time.

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About blood pressure

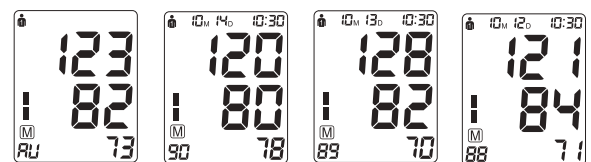
According to the blood pressure classification by the WHO/ISH.

SYS lower than 100mmHg is considered as hypotension.



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Proper use of the unit



Memory-clear of measurements

If you are sure that you want to permanently

remove all stored memories. Press the S button for

7 times until CL appears when power off, press

the START/STOP button, CL will flash for 3 times

to clear all the memories. After this press the M

button again, 'M' and "no" will be shown on the

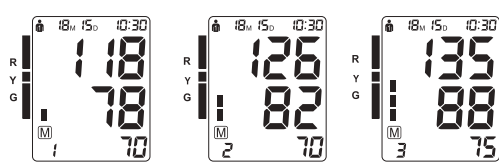
display which mean that no memory in store.



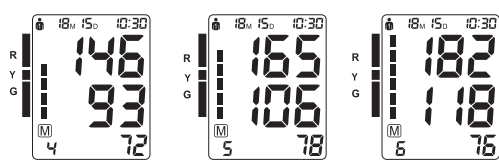
20

About blood pressure

Blood pressure type



Optimal blood pressure Normal blood pressure High normal value



Mild hypertension Moderate hypertension Severe hypertension

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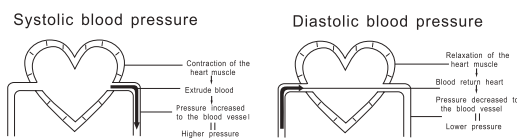
About blood pressure

About blood pressure

Blood pressure is the pressure exerted the arteries.

The systolic blood pressure value represents the blood pressure produced by contraction of the heart muscle.

The diastolic blood pressure value represents the blood pressure produced by relaxation of the heart muscle.



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Exceptional Situation

Error indicators

The following symbol will appear on the display when measuring abnormal.

Symbol	Cause	Correction
E-1	Weak signal or pressure change suddenly	Wrap the cuff properly. Remeasure with correct way.
E-2	External strong disturbance	When near cell phone or other high radiant device, the measurement will be failed. Keep quite and no chatting when measure.
E-3	It appears error during the process of inflating	Wrap the cuff properly. Remeasure.
E-5	Abnormal blood pressure	Repeat the measurement after relax for 30 mins if get unusual readings for 3 times, please contact you doctor.
	Low battery	Replace all the worn batteries with new ones.

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Exceptional Situation

Trouble removal

Problem	Check	Cause and solutions
No power	Check the battery power	Replace new one
	Check the polarity position	Installation for proper placement of the batteries polarities
Err and stop working	Whether move the wrist when inflate	Keep the wrist and body peaceful
	Check if chatting when measured	Keep quite when measure
Cuff leak	Whether the cuff wrap too loose	Wrap the cuff tightly

Please contact the distributor if you can't solve the problem, do not disassemble the unit by yourself!

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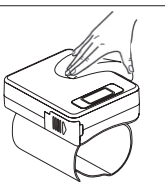
Care

Care for the main unit and blood pressure monitor cuff

Keep the unit in the storage case when no use.

Clean the unit with soft dry cloth. Do not use any abrasive or volatile cleaners.

Never immerse the unit or any component in water.



We won't be responsible for any quality problem if you don't care and maintain the product as instructed.

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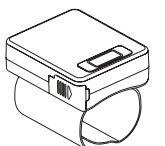
Care

Make sure the monitor is off prior to cleaning, a mixture of distilled water and 10 percent bleach could be used.

Using a spray bottle, moisten a soft cloth towel with the bleach or detergent mix until it is fully saturated. Squeeze any excess moisture from the cloth to avoid any dripping or potential oversaturation of the cuff.

Wipe all surfaces of the blood pressure monitor cuff thoroughly, making sure to clean the inside and outside of the cuff. Be cautious not to get any moisture in the main unit.

Using a dry cloth, gently wipe away any excess moisture that may remain on the blood pressure cuff. Lay the cuff flat in an unrolled position and allow the cuff to air dry.



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Maintenance

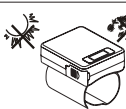
Do not clean the body and cuff with naphtha, thinner or gasoline etc.



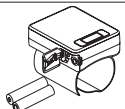
Do not wet the cuff or attempt to clean the cuff with water.



Store the unit in a clean and dry location. Do not subject the unit to extreme hot or cold temperature, humidity and direct sunlight.



Remove the batteries if the unit will not be used in 3 months or longer.



We won't be responsible for any quality problem if you don't care and maintain the product as instructed.

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Specification

Description	Automatic wrist blood pressure monitor	
Display	LCD digital display	
Measuring principle	Oscillometric method	
Measuring localization	Wrist	
Measurement range	Pressure	0~299 mmHg
	Pulse	40~199 pulses/min
Accuracy	Pressure	±3mmHg
	Pulse	±5% of reading
LCD indication	Pressure	3 digits display of mmHg
	Pulse	3 digits display
	Symbol	Memory/Heartbeat/Low battery

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Specification

Memory function	2x90 sets memory of measurement values	
Power source	2pcs AAA alkaline battery DC. 3V	
Automatic power off	In 3 minutes	
Main unit weight	Approx. 122g (batteries not included)	
Main unit size	L78mm x W65mm x H65mm	
Main unit lifetime	10,000 times under normal use	
Battery life	Could be used for 300 times for normal condition	
Accessories	Instruction manual, storage box	
Operating environment	Temperature	5~40°C
	Humidity	15%~93%RH
	Air pressure	86kPa~106kPa
Storage environment	Temperature: -20°C ~ 55°C, Humidity: 10% ~ 93%RH avoid crash, sun burn or rain during transportation.	
Software Ver	UA1.1	

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EMC Declaration

IEC 60601-1-2: 2014 ME EQUIPMENT and ME SYSTEMS identification, marking and documents for Class B product

Instructions for use
The ME EQUIPMENT or ME SYSTEM is suitable for home healthcare environments and so on.

Warning: Don't near active HF surgical equipment and the RF shielded room of an ME system for magnetic resonance imaging, where the intensity of EM disturbances is high.

Warning: Use of this equipment adjacent to or stacked with other equipment should be avoided because it could result in improper operation. If such use is necessary, this equipment and the other equipment should be observed to verify that they are operating normally.

Warning: Use of accessories, transducers and cables other than those specified or provided by the manufacturer of this equipment could result in increased electromagnetic emissions or decreased electromagnetic immunity of this equipment and result in improper operation."

Warning: Portable RF communications equipment (including peripherals such as antenna cables and external antennas) should be used no closer than 30 cm (12 inches) to any part of the blood pressure monitor, including cables specified by the manufacturer. Otherwise, degradation of the performance of this equipment could result.

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EMC Declaration

If any: a list of all cables and maximum lengths of cables (if applicable), transducers and other ACCESSORIES that are replaceable by the RESPONSIBLE ORGANIZATION and that are likely to affect compliance of the ME EQUIPMENT or ME SYSTEM with the requirements of Clause 7 (EMISSIONS) and Clause 8 (IMMUNITY). ACCESSORIES may be specified either generically (e.g. shielded cable, load impedance) or specifically (e.g. by MANUFACTURER and EQUIPMENT OR TYPE REFERENCE).

If any: the performance of the ME EQUIPMENT or ME SYSTEM that was determined to be ESSENTIAL PERFORMANCE and a description of what the OPERATOR can expect if the ESSENTIAL PERFORMANCE is lost or degraded due to EM DISTURBANCES (the defined term "ESSENTIAL PERFORMANCE" need not be used).

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EMC Declaration

Technical description

1. All necessary instructions for maintaining BASIC SAFETY and ESSENTIAL PERFORMANCE with regard to electromagnetic disturbances for the expected service life.

2. Guidance and manufacturer's declaration -electromagnetic emissions and Immunity

Table 1

Guidance and manufacturer's declaration - electromagnetic emissions	
Emissions test	Compliance
RF emissions CISPR 11	Class 1
RF emissions CISPR 11	Class B
Harmonic emissions IEC 61000-3-2	Not application
Voltage fluctuations/ flicker emissions IEC 61000-3-3	Not application

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EMC Declaration

Table 2

Guidance and manufacturer's declaration - electromagnetic Immunity		
Immunity Test	IEC 60601-1-2 Test level	Compliance level
Electrostatic discharge (ESD) IEC 61000-4-2	±8 kV contact ±2 kV, ±4 kV, ±8 kV, ±15 kV air	±8 kV contact ±2 kV, ±4 kV, ±8 kV, ±15 kV air
Electrical fast transient/burst IEC 61000-4-4	Power supply lines: ±2 kV input/output lines: ±1 kV 100 kHz repetition frequency	Not application
Surge IEC 61000-4-5	line(s) to line(s): ±0.5kV ±1 kV.	Not application
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	0% 0.5 cycle At 0°, 45°, 90°, 135°, 180°, 225°, 270° and 315° 0% 1 cycle And 70% 25/30 cycles Single phase: at 0 0% 300 cycle	Not application

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EMC Declaration

Table 2

Power frequency magnetic field IEC 61000-4-8	30 A/m 50Hz/60Hz	30 A/m 50Hz/60Hz
Conducted RF IEC61000-4-6	150KHz to 80MHz: 3Vrms 6Vrms (in ISM and amateur radio bands) 80% Am at 1kHz	Not application
Radiated RF IEC61000-4-3	10 V/m 80 MHz – 2,7 GHz 80% AM at 1 kHz	10 V/m 80 MHz – 2,7 GHz 80% AM at 1 kHz

NOTE UT is the a.c. mains voltage prior to application of the test level.

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EMC Declaration

Table 3

Guidance and manufacturer's declaration - electromagnetic Immunity							
Radiated RF IEC61000-4-3 (Test specifications for ENCLOSURE PORT IMMUNITY to RF wireless communications equipment)	Test Frequency (MHz)	Band (MHz)	Service	Modulation	Modulation (W)	Distance (m)	IMMUNITY TEST LEVEL (V/m)
	385	380 – 390	TETRA 400	Pulse modulation 18 Hz	1.8	0.3	27
	450	430 – 470	GMSR 460, FRS 460	FM ±5 kHz deviation 1 kHz sine	2	0.3	28
	710	704 – 787	LTE Band 13, 17	Pulse modulation 217 Hz	0.2	0.3	9
	745						
	780						
	810						
	870	800 – 960	GSM 800/900, TETRA 800, ISM 820, CDMA 850, LTE Band 5	Pulse modulation 18 Hz	2	0.3	28
	930	1700 – 1990	GSM 1800, CDMA 1900, GSM 1900, DECT, LTE Band 1, 3, 4, 25, UMTS	Pulse modulation 217 Hz	2	0.3	28
	1720						
	1845						
1970	2450	2400 – 2570	Bluetooth, WLAN, 802.11 b/g/n, RFID 2450, LTE Band 7	Pulse modulation 217 Hz	2	0.3	28
5240							
5500	5100 – 5800	WLAN 802.11 a/n	Pulse modulation 217 Hz	0.2	0.3	9	
5785							

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