

*Instructions For*  
ACCUTRON, BULOVA  
AND CARAVELLE  
*Special Feature Watches*

## *Mr. Jeweler:*

**This book is to assist you in sales and maintenance of Bulova products.**

With the introduction of many new models employing special features, i.e., day and date mechanisms, elapsed time indicators, tachometer scales, etc., the Bulova Watch Company is providing all of its dealers with this book of instructions for special feature watches to assist you in the sale and maintenance of Bulova products.

It outlines the operational instructions of all special feature ACCUTRON, BULOVA and CARAVELLE watches so that you may better apprise yourself of the manner in which these features are used and operated. Understanding these functions will be a simple and effective method of improving your sales; this book has been prepared with this goal in mind. To guide you to the proper instructions is an index which will be periodically up-dated, along with additional operating instructions as new models are added to our line.

Also outlined in this book are details about understanding the basic facts about the ACCUTRON timepiece, along with power cell replacement and testing and regulation of our electronic watches.

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All information contained in this booklet is based on the latest product information available at the time of printing.

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# *Service Facilities*

## *Owned and Operated by Bulova Watch Company*

To provide our dealers with maximum efficiency in watch and clock servicing, the Bulova Watch Company, in addition to the New York Service Facility, has established a network of regional factory service centers; presently incorporating four (4) area offices.

Each office has been selected and staffed to supply more personalized and complete warranty and post warranty watch and clock repair service. May we request that you forward all repairs (Bulova watch and clock products only) direct to your service office at the mailing address given below, choosing the one geographically situated to best serve your marketing area. **When returning wall clocks for repair, please be sure to remove the movement from the case and send only the movement to the service facility.**

As you know, prior to this calendar year, we were using several independently owned authorized service facilities across the United States. By mutual agreement, all such service arrangements have now been terminated and unnecessary delay can be eliminated by your using only the offices listed below:

### **New York Service Department**

Service Department  
75-20 Astoria Blvd.  
Jackson Heights, N. Y. 11370

### **Regional Service Centers**

Service Department  
2621 West Olympic Blvd.  
Los Angeles, California. 90006 .....Far West

Service Department  
1940 West Roosevelt Road  
Broadview, Ill. 60153 .....Upper Midwest

Service Department  
P.O. Box 15217  
Dallas, Texas 75201 .....Lower Midwest

Service Department  
786 Main Street  
Forest Park, Ga. 30050 .....South Atlantic States

**Note:** In order to avoid pilferage of watches being returned for repair, we are requesting that you address your packages as shown above. This will eliminate any connection with the Bulova Watch Company.

## *Understanding The Basic Facts About The ACCUTRON Timepiece*

### **I. The Guarantee of Accuracy**

Bulova guarantees accuracy of the ACCUTRON Timepiece — for one year from date of purchase — not to gain or lose more than one minute a month in normal use as a wrist timepiece.

### **II. How to Check Accuracy**

To determine whether degree of accuracy meets terms of guarantee, at least 30 days (one month) must be allowed for time test. Accurate time to the second is not readily available. Radio, television, electric clocks, Western Union and telephone time signals can experience a variance of many seconds daily. However, these sources are suitable to time an ACCUTRON Timepiece for a 30 day period.

The most accurate time standards available are Short Wave Stations WWV in the U.S. and CHU in Canada. These are recommended to ACCUTRON owners who desire a day by day performance record.

### **III. Need for Regulation**

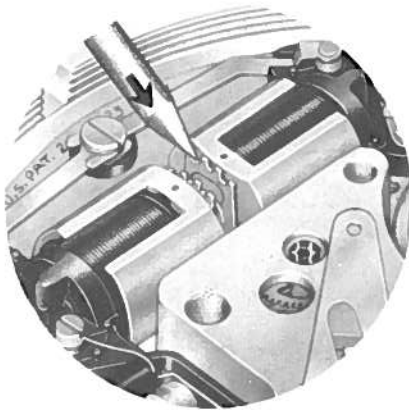
Regulation is sometimes needed after a month to conform to owner's wearing habits. (See Page 3.)

### **IV. The Sound of ACCUTRON**

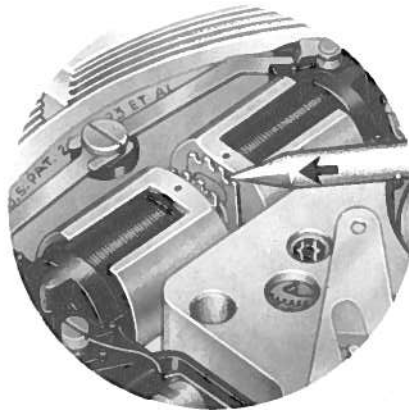
The sound heard in an ACCUTRON Timepiece is a combination of the normal "hum" of the vibrating tuning fork and the indexing mechanism operating to turn the hands which indicate the time. Because it is a high frequency sound, to some wearers it is inaudible. Others find it slightly audible while some find it quite noticeable. This depends upon the individual's hearing sensitivity.

## *Regulation Of ACCUTRON Timepiece—Series 214 and 218*

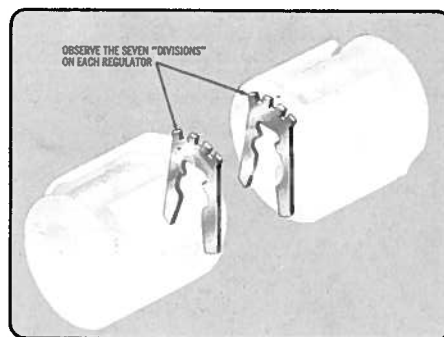
To regulate 2 seconds per day faster, move either regulator one division inward as shown.



To regulate 2 seconds per day slower, move either regulator one division outward as shown.



1. Clean and wipe away any accumulated material around the locking-ring. Unscrew and remove the locking-ring and lift the case back off.
2. The ACCUTRON regulators are serrated to make them easier to rotate and to serve as a means of calibration with reference to the dot on each cup. The serrations of each regulator form seven divisions (4 projections and 3 indentions). Rotating one of the regulators a distance equal to one division, changes the rate (frequency) of the ACCUTRON fork by 2 seconds per day.



3. Determine the daily error to be corrected by regulation. Rotate one or both of the regulators, with a pegwood stick, a sufficient number of divisions in the direction necessary to make the required correction.

**Note:** The basic accuracy of ACCUTRON is such that excessive timekeeping errors (minutes per week) are an indication of malfunctioning and require movement repair rather than regulation.

## *Testing The Power Cell Is The First Step In Assisting Your Customer*

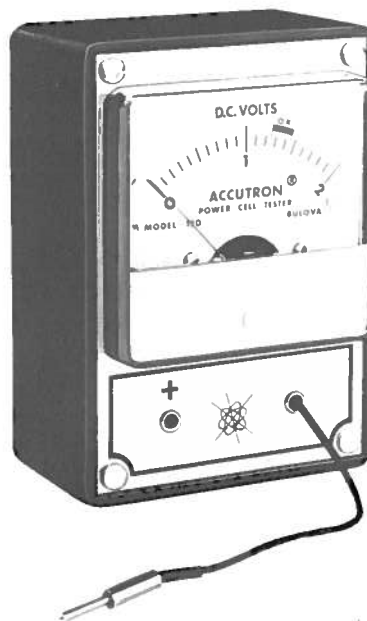
After removing the power cell from your customer's watch, it is important that you check its voltage on your Power Cell Tester before replacing it to correct an electronic watch problem, since this is the only way to be sure the cell is **BELOW THE VOLTAGE REQUIREMENTS**.<sup>\*</sup> It may not be the fault of the cell that caused the watch to malfunction; therefore, replacement of the cell will **NOT** correct the problem. If the Cell Tester indicates the proper voltage on the scale of the tester, it is an indication of movement malfunctioning requiring repair, not power cell replacement. Power cell replacement is **ONLY** necessary if the voltage does not meet with **VOLTAGE REQUIREMENTS**.

### **To Test The Cell**

1. Place it with the positive (imprinted) side **FACING DOWN** onto the rivet (marked "+") of your Power Cell Tester Model 120 (See illustration.)
2. Now place the probe, at the end of the lead, on the negative (no imprint) side of the power cell.

Installation of a new power cell should always be preceded by checking its voltage with the aid of the Power Cell Tester, to be sure that cell meets **VOLTAGE REQUIREMENTS**.

Note: Poor electrical contact between the power cell and Power Cell Tester will cause either a low reading or a wavering indication of cell voltage. It can be readily avoided by making certain that the power cell surfaces and contact points on the Power Cell Tester are clean. A wavering reading of voltage is always an indication of poor contact, not an indication of a bad cell.



### **\* Voltage Requirements**

ACCUTRON (214 and 218 Series)	1.25 to 1.45
12OTC	1.4 to 1.6
7OT	1.4 to 1.6

## About The ACCUTRON Cell

The power cell has been developed exclusively for the ACCUTRON timepiece and SUBSTITUTE CELLS SHOULD NEVER BE USED AS THEY MAY DAMAGE THE MOVEMENT. All ACCUTRON Models do not use the same type of power cell. For those models employing the crown on the case back, use the 214 power cell. For those models employing the crown on the side of the case, use the 218 power cell.

### Replacing the Power Cell — Series 214

1. Wipe the case back and clean away any accumulated material from around the power cell cover (to prevent dirt from entering movement when the cover is removed).
2. Unscrew and remove power cell cover (See Fig. 1); turn the timepiece over and the power cell will fall out.
3. When reinstalling or replacing the power cell, the imprinted side (smaller side) must be placed "down" into the movement and cell compartment cover screwed securely into place to assure a watertight seal.



Fig. 1

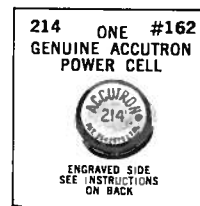


Fig. 2

214 Genuine ACCUTRON Power Cells are packaged in this white envelope.

### Replacing the Power Cell — Series 218

1. Clean and wipe away any accumulated material from around the locking-ring (to prevent dirt from entering movement when case back is removed).
2. Unscrew and remove the locking-ring and case back. For those models employing snap-back cases, use an appropriate case knife to remove the back. (See Page 8.)
3. Loosen coil form screw slightly (not more than 1/4 turn) and loosen cell strap screw approximately one turn. Swing cell strap out as shown; turn timepiece to vertical position with setting crown up and the power cell will fall out.
4. Reinstalling or replacement of the 218 power cell should always be preceded by inspection for foreign matter in the cell compartment or on the under side of the cell strap. Clean surface as necessary to assure good electrical contact.
5. Now insert the power cell with the imprinted side facing down into the movement. (See Fig. 3.)

Note: Gasket should be properly positioned before replacing back.

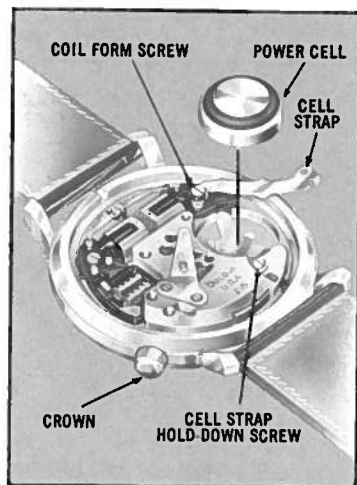


Fig. 3

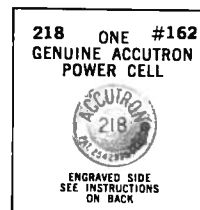


Fig. 4

218 Genuine ACCUTRON Power Cells are packaged in this white envelope.

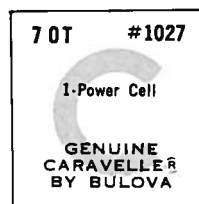
## *Replacing The Power Cell In The Ladies' CARAVELLE Transistorized Watch*

1. Clean and wipe away any accumulated material from the case back (to prevent dirt from entering movement when case back is removed).
2. Remove case backs of the snap-back type with the use of a CARAVELLE case opener #7037.
3. Unscrew and remove power cell strap screw and power cell strap (See Fig. 1). Turn watch to vertical position with setting crown "down" and power cell will fall out.
4. When reinstalling or replacing power cell, the imprinted side must be placed up facing the case back.

**Note:** Gasket should be properly positioned before replacing back.



**Fig. 1**



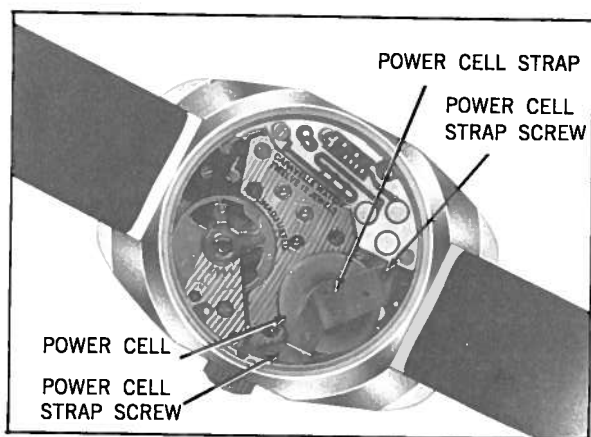
**Fig. 2**

70T Genuine Power Cells are packaged in this white envelope.

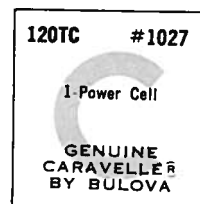
## *Replacing The Power Cell In The Men's CARAVELLE Transistorized Watch*

1. Clean and wipe away any accumulated material from around the locking-ring (to prevent dirt from entering movement when case back is removed).
2. Unscrew and remove the locking-ring and case back.
3. Unscrew both cell strap screws and remove with cell strap. (See Fig. 1.) Turn watch to vertical position with the setting crown "down" and the power cell will fall out.
4. When reinstalling or replacing the 120TC power cell, the imprinted side must be placed "up" facing the case back.

**Note:** Gasket should be properly positioned before replacing back.



**Fig. 1**



**Fig. 2**

120TC Genuine Power Cells are packaged in this white envelope.

**Note:** The 120TC power cell is used in the following movement calibers:

120TC, 120UC, 120UCD

## *Opening ACCUTRON Snap-Back Cases—Series 218*

### **First Obtain:**

- a) A case knife.
- b) A watchmaker's bench anvil or similar block on which to support case. Block must be high enough and narrow enough to provide firm support over surface of case back only.
- c) A selvyt cloth.
- d) A small plastic envelope or a small piece of paper approximately two (2) inches square. A plastic envelope is preferable.

### **Then:**

- 1) Fold plastic envelope or piece of paper over knife blade.
- 2) With envelope or piece of paper between case and case knife, press knife under opening lip and rock carefully until back snaps off.
- 3) Install power cell in movement. (See Pages 4 and 5.)

### **To Reclose Case:**

- 1) Lay selvyt cloth over bench block.
- 2) Put case gasket in place.
- 3) Position back on case so that locating notch on edge of back is in line with crown.
- 4) Holding case and back together tightly, place case on covered block dial side up. Maintain pressure on crystal so that bezel does not lift away from case back.
- 5) Place palm of one hand over case to serve as a pad and press down with other hand until bezel and back snap together.

## *Directions For Setting The ACCUTRON Date Model*

I. Follow these instructions in sequence for "first time" setting:

### **Set The Time**

1. Pull crown "out" when second hand reaches 60 second marker. All hands will stop.
2. Move hands forward until date changes. (This establishes midnight.)
3. Now continue to turn hands forward until the minute hand is slightly ahead of the desired minute marker and then turn back to this marker. (If setting the watch after 12:00 noon, advance hands an additional 12 hours.)
4. When time standard being used to set watch reaches 60th second, push crown "in."

### **Set The Date**

5. With crown in its normal "in" position, turn it clockwise (away from you) to desired date.

*Note:* The date will advance automatically at midnight, **provided** a.m. and p.m. have been established (step 2). On the first day of each month, following a month with less than 31 days, advance the date manually.

II. The following instructions are for any desired resetting of the time or the date:

### **To Reset The Time**

Hands may be turned in either direction. Exact hand synchronization may be achieved as follows:

1. Pull crown "out" when sweep-second hand is exactly at 60 second marker. All hands will stop.
2. Turn hands until minute hand is slightly ahead of desired minute marker; then turn backward to this marker. When time standard, by which you are setting your timepiece, reaches the 60th second push crown "in" (without turning). All hands will start instantly.

### **To Reset or Advance The Date**

With the crown in normal "in" position, turn it clockwise (away from you) to the desired date.

**IMPORTANT:** If watch is returned because calendar advances at noon and not midnight, watch will only require resetting and not repair. Please note that it is important to differentiate between noon and midnight when setting watch. This will assure that calendar will advance at midnight rather than 12 o'clock noon. To reset watch, follow the above instructions.

## *Directions For Setting The ACCUTRON Date and Day Model*

I. Follow these instructions in sequence for "first time" setting:

### **Set The Day Of The Week**

1. Pull crown "out" when second hand reaches 60 second marker. All hands will stop.
2. Move hands forward until day changes. (This establishes midnight.)
3. Rotate hands backward to approximately 5:30 and then forward until day changes again.
4. Repeat process until proper **day** appears (**disregard** the date.)

### **Set The Time**

5. With the crown still in "out" position, continue to turn hands forward until minute hand is slightly ahead of desired minute marker; then turn back to this marker. (If setting the watch after 12:00 noon, advance hands an additional 12 hours.)
6. When time standard being used to set watch reaches 60th second, push crown "in."

### **Set The Date**

7. With crown in its normal "in" position, turn it clockwise (away from you) to desired date.

Note: The date will advance automatically at midnight, **provided** a.m. and p.m. have been established (step 2). On the first day of each month, following a month with less than 31 days, advance the date manually.

II. The following instructions are for any desired resetting of the time, the date, or the day:

### **To Reset The Time**

Hands may be turned in either direction. Exact hand synchronization may be achieved as follows:

1. Pull crown "out" when sweep-second hand is exactly at 60 second marker. All hands will stop.
2. Turn hands until minute hand is slightly ahead of desired minute marker; then turn backward to this marker. When time standard, by which you are setting your timepiece, reaches the 60th second push crown "in" (without turning). All hands will start instantly.

### **To Reset or Advance The Date**

With the crown in normal "in" position, turn it clockwise (away from you) to the desired date.

### **To Reset The Day**

Follow sequence for "first time" setting.

**IMPORTANT:** If watch is returned because calendar advances at noon and not midnight, watch will only require resetting and not repair. Please note that it is important to differentiate between noon and midnight when setting watch. This will assure that calendar will advance at midnight rather than 12 o'clock noon. To reset watch, follow the above instructions.

## *Directions For Using The ACCUTRON Astronaut With 24 Hour Rotating Bezel (Series 214)*

The ACCUTRON Astronaut timepiece is primarily designed for the airline pilot and marine navigator and provides for a simultaneous display of local time and Greenwich Mean Time.

It can also be used to advantage by the globetrotter and international businessman to indicate both local time and a second time zone.

In addition to the conventional 12-hour dial, with hour, minute, and sweep second hands, the ACCUTRON Astronaut timepiece is provided with a revolving rim, calibrated into 24 hours and a special G.M.T. hand which revolves around the dial once every 24 hours. This enables the owner to adjust the setting of his timepiece to any two time zones throughout the world.

### **Setting To Local Time**

When setting to local time make sure that G.M.T. hand (triangular tip) is on correct side of dial. This hand should be on right side of dial if the time is a.m. and on left side if p.m. At midnight, this hand and regular hour hand both point to 12 marker on the conventional dial.

The ACCUTRON timepiece, unlike conventional watches, has a unique free-floating gear train. For this reason, the following procedure is required to set the hands exactly to the second:

1. Lift setting handle (Fig. 1) when sweep second hand is exactly at 60 second marker (Fig. 2). All hands will stop instantly.
2. Turn hands in either direction until regular hour and minute hands indicate desired time. In doing this, advance minute hand slightly ahead of desired minute marker and then turn it back to this marker. At this point sweep-second hand may have advanced several seconds. Proceed as if hand had not moved.
3. Turn setting handle slightly forward, making certain not to turn it far enough to move minute hand. (This is to permit setting handle to return to flat position without causing hands to jump.)
4. When sweep-second hand or audible signal of time standard by which you are setting your timepiece reaches the 60th second, snap the setting handle back to normal position.

### **Setting To A Second Time Zone**

1. Establish time differential between zone you are in and other time zone in which you are interested.
2. Turn rotatable ring until hour for other time zone which corresponds to midnight local time is opposite the 12 marker on the conventional dial.

G.M.T. hand will now indicate on outer ring the correct hour in other time zone.

For example, your timepiece shows 4 P.M. Eastern Standard Time and you want your 2nd time zone at Greenwich Mean Time which is 5 hours later. At midnight local time, Greenwich Mean Time would be 5 A.M. or 0500 hours. Rotate the outer rim until the 5 marker on the rim is opposite the 12 marker on the inside dial. The G.M.T. hand will now point to 2100 hours on the 24-hour rim dial, the correct Greenwich Mean Time.

The minute and sweep-second hands apply to both time zones alike.

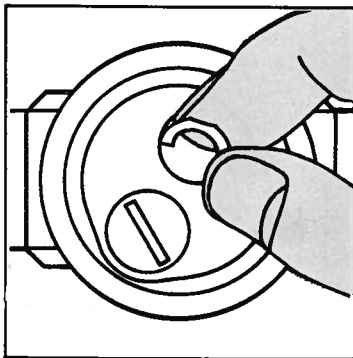


Fig. 1

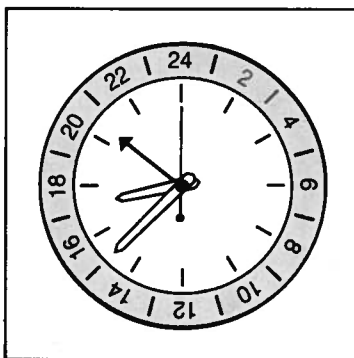


Fig. 2

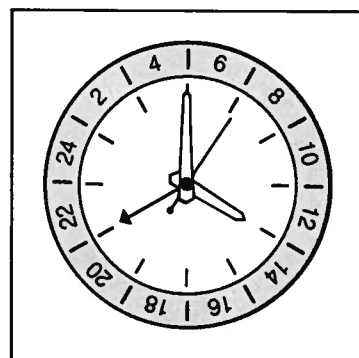


Fig. 3

## *Directions For Using The ACCUTRON Astronaut Day/Night (Series 214)*

The ACCUTRON "Astronaut" timepiece is designed primarily for the convenience of the globe trotter and international business man who needs to know local time and the time in another time zone.

In addition to the conventional 12-hour dial with hour, minute, and sweep-second hands, this model timepiece is provided with a 24-hour hand and a rotatable outer dial (ring) with hour graduations for use in telling time in a second time zone. This ring is divided into a black half to indicate nighttime hours and a white half to indicate daytime hours (not P.M. or A.M.). The graduations are numbered in accordance with the more commonplace 12-hour method of expressing the time.

### **Setting To Local Time**

When setting to local time make sure that 24-hour hand (triangular tip) is on correct side of dial. This hand should be on right side of dial if the time is A.M. and on left side if P.M. At midnight, this hand and regular hour hand both point to 12 marker on the conventional dial.

The ACCUTRON timepiece, unlike conventional watches, has a unique free-floating gear train. For this reason, the following procedure is required to set the hands exactly to the second:

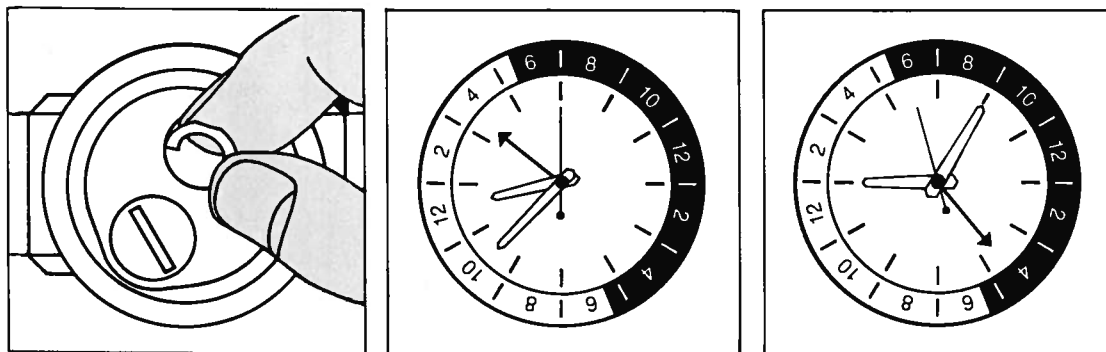
1. Lift setting handle (Fig. 1) when sweep second hand is exactly at 60 second marker (Fig. 2). All hands will stop instantly.
2. Turn hands in either direction until regular hour and minute hands indicate desired time. In doing this, advance minute hand slightly ahead of desired minute marker and then turn it back to this marker. At this point sweep-second hand may have advanced several seconds. Proceed as if hand had not moved.
3. Turn setting handle slightly forward, making certain not to turn it far enough to move minute hand. (This is to permit setting handle to return to flat position without causing hands to jump.)
4. When sweep-second hand or audible signal of time standard by which you are setting your timepiece reaches the 60th second, snap the setting handle back to normal position.

### **Setting To A Second Time Zone**

1. Establish time differential between zone you are in and other time zone in which you are interested.
2. Turn rotatable ring until hour for other time zone which corresponds to midnight local time is opposite the 12 marker on the conventional dial.

24-hour hand will now indicate on outer ring the correct hour in other time zone.

For example, your timepiece is set to indicate Eastern Standard Time on the conventional dial and you want to keep track of the time in Honolulu, Hawaii. The difference between these two time zones is 5 hours, so that at midnight E.S.T. it is 7:00 P.M. in Honolulu. Turn the outer ring until the 7 marker in the black (nighttime) area is directly above the 12 marker on the dial. The 24-hour hand will now indicate the correct hour in Honolulu. If Eastern Standard Time as shown on the dial is 9:05 A.M., the 24-hour hand will point to 4 in the black (nighttime) area on the outer ring, indicating that the time is 4:05 A.M. in Honolulu. (Fig. 3.)



## *Directions For Using The World Time Feature On The ACCUTRON Astronaut Mark I*

This watch has been designed to enable you to determine the time in the world's important cities and time zones. For this purpose, the watch is provided with:

1. A conventional 12-hour dial made up of heavy white markers.
2. An additional 24-hour scale appearing as odd numbers 1 to 23 between the conventional hour markers.
3. An outer rotatable dial (ring) located under the crystal which carries the names of important cities around the world, each of which is located in a different time zone. This outer dial can be rotated in either direction by turning the crown, located at the 2 o'clock position.

### **To determine the time of another city or time zone:**

1. Note the time in your own time zone and convert to 24-hour time. (e.g., 3 P.M. becomes 1500 hours.)
2. Now turn the crown located at the 2 o'clock position until the city located in your own time zone is in line with the point on the 24-hour scale appropriate to your present time (hour).
3. Your city of interest will now be in line with its present hour on the 24-hour dial.
4. The minute and sweep-second reading will correspond with that of your local time.

### **Example:**

You are in New York at 3 o'clock in the afternoon and wish to know the time in Tokyo.

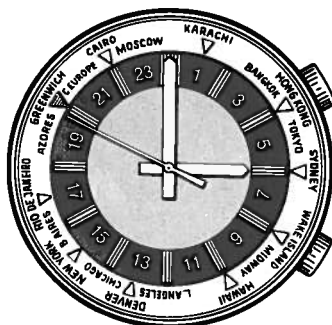
Convert 3 P.M. to 24-hour time — 1500 hours.

Now turn the crown located at the 2 o'clock position until the arrow beneath New York points to 15 on the 24-hour scale. (See illustration.)

Tokyo will now be in line with its present hour on the 24-hour scale which is 5. (See illustration.) The hour in Tokyo is, therefore, 5 A.M.

Using this method, you can quickly determine the time in any of the other cities indicated. If your city of interest is not shown on the dial, merely refer to a city in the same time zone.

**Note:** Consideration should be given to time changes within a particular time zone, such as the change from Eastern Standard Time to Daylight Savings Time.



# Directions For The Use Of The ACCUTRON Astronaut Mark II

## Setting Procedure

The unique feature of the ACCUTRON Astronaut Mark II is that the hour hand may be "advanced" or "backed-up" in exact one hour increments without disturbing the minute and seconds. This permits the traveler to readjust the hour hand of his watch to agree with local time as he crosses into new time zones. In addition a reference hour hand (see Fig. 1) or digital hour read-out, in a window, (see Fig. 2) depending upon the style, will continue to display his home-base time as he moves from one time zone to another. The date indicator is controlled from the (local) hour hand and for this reason it is important to follow the setting instructions as outlined below.

## Align The Hour Indicators

1. Prior to setting the time, set the hour hand (A) to the same hour as home-base time (B). This is accomplished by turning hour setting crown (C) in the appropriate direction to advance or back-up the hour hand.

Caution: Hour setting crown (C) is to be ROTATED ONLY to move hour hand forward or backward. DO NOT ATTEMPT TO PULL CROWN "OUT."

## Set The Time

2. Pull "out" time setting crown (D) when second hand reaches 60 second marker. All hands will stop.

3. Advance the hands until date changes. (This establishes midnight.)

4. Now continue to turn hands forward until minute hand is slightly ahead of the desired minute marker and then turn back to this marker. (If setting the watch after 12 Noon, advance hands an additional 12 hours.)

5. When time standard by which you are setting your watch reaches 60th second, push time setting crown (D) to normal "in" position.

## Set The Date

6. Rotate time setting crown (D) clockwise until the correct date appears in the date window.

Note: The date will advance automatically at midnight, **provided** a.m. and p.m. have been established. On the first day of each month, following a month with less than 31 days, advance the date manually (same procedure as step 6).

## To Change Time Zones

The hour hand (A) can be changed at any time of the day without affecting the home time (B). The change should be made as the wearer enters each time zone, "advancing" or "backing-up" the hour hand by rotating the hour setting crown (C). Upon returning local hour hand to home-base time, always retrace time zones in reverse procedure, so as not to change the calendar.

Note: If calendar changes at noon, correct by turning hour hand back 12 hours. Reset date as necessary.

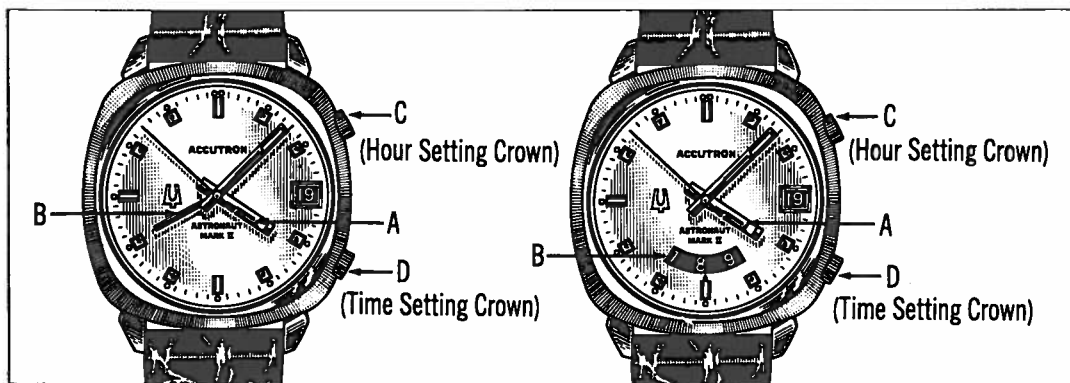


Fig. 1

Fig. 2

## *Directions For Using The Doctor's Date ACCUTRON*

Our Doctor's Date ACCUTRON is made so that reading can be started with the sweep-second hand positioned at either the 4 or 10 o'clock positions. [See illustration.]

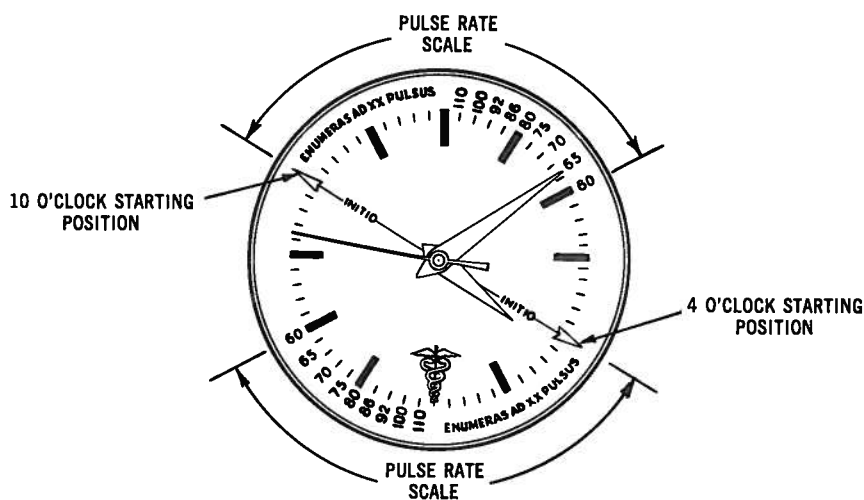
At the edge of the dial are calibrated figures running from 110 to 60 starting on the 6 o'clock side and from 110 to 60 on the 12 o'clock side (see illustration). With the sweep-second hand positioned at either the 4 or 10 o'clock position, count the patient's pulse until 20 beats. At the end of the 20th count, the sweep-second hand will point to the patient's pulse rate on the **pulse rate scale**.

### *Example:*

If you start with the second hand positioned at 4 o'clock and count 20 pulsations and the sweep-second hand has travelled to the 7 o'clock position, the pulse rate is 80 per minute.

If after counting 20 pulsations, the sweep second hand is at the 8 o'clock position, the pulse rate is 60 per minute.

Reversely, if you start with the sweep-second hand positioned at 10 o'clock and after counting 20 pulsations the sweep-second hand is at the 1 o'clock position, the pulse rate is 80, or if the sweep-second hand is at 2 o'clock, the pulse rate is 60 per minute.



## *Directions For Setting The BULOVA Date Model*

1. Pull out stem to setting position and turn hands clockwise (forward) until date advances at about 12 o'clock midnight.
2. Repeat Step 1 until desired date is reached.
3. Now set hands forward to correct time. If time of day is before noon (a.m.), stop hands at correct time immediately after date has been reached. If time of day is afternoon (p.m.), continue to turn hands an additional 12 hours before stopping at correct time.

*Note:* Hands may also be turned counterclockwise to **back up** the date each 24-hour cycle. This is often useful when setting to an earlier date. (For instance, in going from the 14th to the 8th, it is quicker to go backwards than to go forward from the 14th through the 31st to the 8th.) When setting counterclockwise, consideration of a.m. and p.m. must be reversed so that date will change at midnight.

**IMPORTANT:** If watch is returned because calendar advances at noon and not midnight, watch will only require resetting and not repair. Please note that it is important to differentiate between noon and midnight when setting watch. This will assure that calendar will advance at midnight rather than 12 o'clock noon. To reset watch, follow the above instructions.

## *Directions For Setting The BULOVA Quick-Set Date Model*

1. Pull out stem to setting position and turn hands clockwise (forward) until date advances at about 12 o'clock (midnight).
2. If the date requires correction, turn the hands backward and forward between 8 o'clock and 12 o'clock (P.M.) as many times as necessary to bring the proper date into view.
3. Now set hands forward to correct time. If time of day is before noon (A.M.), stop hands at correct time immediately after date has been reached. If time of day is afternoon (P.M.), continue to turn hands an additional 12 hours before stopping at correct time.

**Note:** On the first day of each month following a month with less than 31 days, repeat step 2.

**IMPORTANT:** If watch is returned because calendar advances at noon and not midnight, watch will only require resetting and not repair. Please note that it is important to differentiate between noon and midnight when setting watch. This will assure that calendar will advance at midnight rather than 12 o'clock noon. To reset watch, follow the above instructions.

## *Directions For Setting The BULOVA Quick-Set Date and Day Model*

All indicators on this watch are set by means of the crown. When starting the watch first set the day, then the date, and then the time. Proceed as follows:

1. Pull crown "out" to setting position.
2. Advance the hands by turning the crown until the proper day appears in its dial aperture.
3. If proper date is not showing in its aperture, turn hands backward  $3\frac{1}{2}$  hours, to approximately 8:30 o'clock, and then forward until date advances. When the hands are turned backward the day will also turn backward but will return again to the proper day as the hands are moved forward.
4. Repeat step 3 until proper date shows in its aperture.
5. Advance hands until correct (a.m. or p.m.) time is reached. If time of day is before noon, stop hands at the correct time before 12 o'clock noon. If time of day is afternoon, continue to turn hands beyond the 12th hour (noon) before stopping at correct time. The watch calendar will function automatically for months of 31 days. If a month has less than 31 days, it is necessary to advance the date manually at the end of the month. To do this without disturbing the day indicator, turn the hands backward to the previous midnight and then proceed as described above beginning with step 3.

**IMPORTANT:** If watch is returned because calendar advances at noon and not midnight, watch will only require resetting and not repair. Please note that it is important to differentiate between noon and midnight when setting watch. This will assure that calendar will advance at midnight rather than 12 o'clock noon. To reset watch, follow the above instructions.

## *Directions For Operating The BULOVA Wrist Alarm With Date*

### **Time Crown (Location 4 o'clock)**

This is the crown for winding the time mainspring and setting the time of day and date. The IN, or normal, position is the winding position. To set the time and date:

1. Pull the crown outward to the setting position.
2. Turn the crown so as to advance the hands until the date changes.
3. If the date requires correction, turn the hands backward and forward between 9:30 and 12:00 (p.m.) as many times as necessary to bring the proper date into view.
4. If the time of day is before noon, continue to advance the hands until correct time is reached. If the time of day is afternoon, advance the hands another 12 hours until correct time is reached.
5. Push the crown inward to normal running position.

**Note:** For months having less than 31 days, it is necessary to advance the date manually at the end of the month. To do this, follow step 3 above.

### **Alarm Crown (Location 2 o'clock)**

This crown controls all alarm functions. The IN position is the alarm winding and silent position. To use the alarm:

1. Turn the crown until the alarm mainspring is fully wound.
2. Pull the crown to the OUT position.
3. Set alarm time by turning the crown and leave the crown in the OUT, or ALARM ON, position.
4. To silence the alarm, push the crown in.

**Note:** The alarm hand turns in a counterclockwise direction only.

**IMPORTANT:** If watch is returned because calendar advances at noon and not midnight, watch will only require resetting and not repair. Please note that it is important to differentiate between noon and midnight when setting watch. This will assure that calendar will advance at midnight rather than 12 o'clock noon. To reset watch, follow the above instructions.

## *Directions For Using The Chronograph Mechanism On BULOVA Chronograph Models*

The sweep-second hand 30-minute recorder and hour recorder (if employed) are controlled by means of the pushers located at the 2 o'clock and 4 o'clock positions on the side of the case.

Starting and stopping of the hands are accomplished by consecutive depressions of the pusher located at the 2 o'clock position. The pusher at 4 o'clock is used only to reset the hands to zero.

With this construction of the controls, it is possible to do cumulative timing, i.e., restart the timing hands from a stopped position without the necessity of first returning them to zero.

A blocking device prevents the operation of the 4 o'clock or reset pusher when the hands are in motion.

*Directions For Using The Tachometer Scale  
Employed On BULOVA Chronograph Models*

The TACHOMETER scale located on the outside edge of the dial provides a means for direct reading of speed in terms of units per hour. For example, if the chronograph mechanism is started at the beginning of a measured mile and stopped at the end of the mile, the sweep-second hand will indicate on the TACHOMETER scale the average speed in miles per hour. If the measured distance is a kilometer, then the figure on the TACHOMETER scale will represent kilometers per hour.

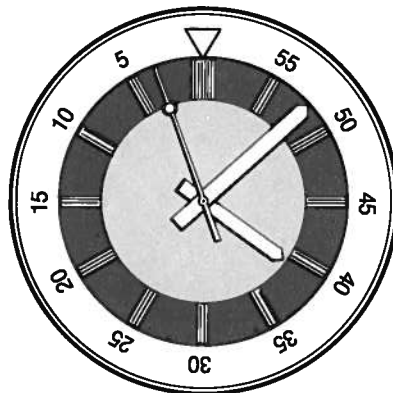
This scale is useful only for measuring speeds in excess of sixty units per hour.

*Directions For Using The REMAINING TIME Indicator  
On ACCUTRON, BULOVA and CARAVELLE  
Rotatable Dial (Ring) Models*

This watch is equipped with a rotatable outer dial (ring) which can be used in various ways. It is particularly useful to a diver for determining when to resurface. For this purpose, the outer ring is set so that the minute hand points to the number of minutes the diver plans to be under water. With the passing of time, the minute hand will then indicate directly on the ring the amount of time still remaining before resurfacing is necessary.

**For those models with the rotatable dial on the inside of the case, the dial is rotated by turning the crown located at the 2 o'clock position.**

**Note:** For a rotatable dial (ring) to be classified as a **remaining time** indicator, the numbers on the dial (ring) must read clockwise 60-55-50 etc. through 0. (See illustration.)

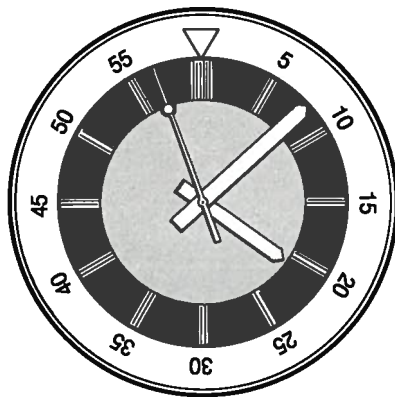


*Directions For Using The ELAPSED TIME Indicator  
On ACCUTRON, BULOVA and CARAVELLE  
Rotatable Dial (Ring) Models*

This watch is equipped with a graduated outer dial (ring) which is rotatable. This can be used in various ways. For example, a diver can use it to determine when he must resurface. For this purpose the outer ring is set so that the triangle will be in line with the minute hand when he submerges. The minute hand will then indicate on the outer ring the length of time that he has been under water. From this he can readily determine his remaining air supply.

**For those models with the rotatable dial on the inside of the case, the dial is rotated by turning the crown located at the 2 o'clock position.**

**Note:** For a rotatable dial (ring) to be classified as an **elapsed time** indicator the numbers on the dial (ring) must read clockwise 0-5-10 etc. through 60. (See illustration.)



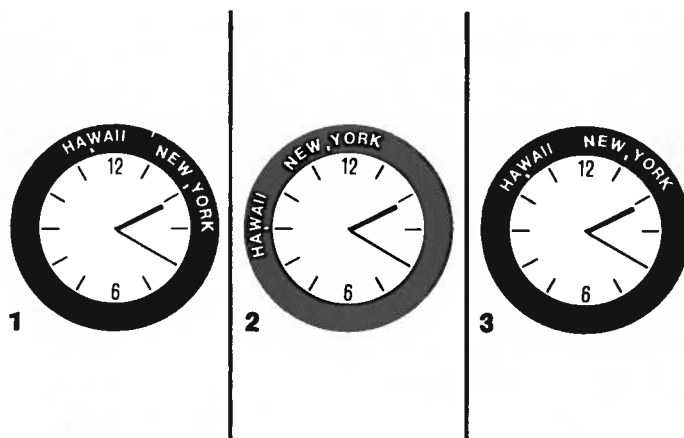
*Directions For Using The World Time Feature  
On BULOVA and CARAVELLE  
Rotatable Dial (Ring) Models*

When you wish to know the time in a city in another time zone:

1. Find on the outer ring the city or time zone in which you are located. Turn the ring until this city is at its present hour.
2. Note where city of interest is located and move your city to that point. This places the city of interest at its present hour.
3. To determine whether it is a.m. or p.m. in the city of interest, turn the outer ring until the name of the city in which you are located is half way between the marker for its present hour and 12. If it is p.m. in your city then it will be p.m. for all places on the same half (right vs. left) of the dial and a.m. for all places on the opposite half of the dial.

AS AN EXAMPLE, suppose the watch is set for 2:20 p.m. New York Time and you wish to know the time in Hawaii. Then:

1. Rotate the ring until New York is at hour marker 2. (Hawaii will be found half way between 11 and 12.) (See Fig. 1)
2. Turn the ring so that New York is half way between 11 and 12. (Hawaii will now be at 9; therefore, it is 9:20 in Hawaii.) (See Fig. 2)
3. Turn the ring until New York is half way between 12 and 2. Since it is p.m. in New York, and Hawaii is on the opposite side of the dial, it is a.m. in Hawaii. (See Fig. 3)



## *Directions For Setting The CARAVELLE Quick-Set Date Model*

1. Pull out stem to setting position and turn hands clockwise (forward) until date advances at about 12 o'clock (midnight).
2. If the date requires correction, turn the hands backward and forward between 8 o'clock and 12 o'clock (p.m.) as many times as necessary to bring the proper date into view.
3. Now set hands forward to correct time. If time of day is before noon (a.m.), stop hands at correct time immediately after date has been reached. If time of day is after noon (p.m.), continue to turn hands an additional 12 hours before stopping at correct time.

*Note:* On the first day of each month following a month with less than 31 days, repeat step 2.

**IMPORTANT:** If watch is returned because calendar advances at noon and not midnight, watch will only require resetting and not repair. Please note that it is important to differentiate between noon and midnight when setting watch. This will assure that calendar will advance at midnight rather than 12 o'clock noon. To reset watch, follow the above instructions.

## *Directions For Setting The CARAVELLE Quick-Set Date and Day Model*

All indicators on this watch are set by means of the crown. When starting the watch first set the day, then the date, and then the time. Proceed as follows:

1. Pull crown "out" to setting position.
2. Advance the hands by turning the crown until the proper day appears in its dial aperture.
3. If proper date is not showing in its aperture, turn hands backward  $3\frac{1}{2}$  hours, to approximately 8:30 o'clock, and then forward until date advances. When the hands are turned backward the day will also turn backward but will return again to the proper day as the hands are moved forward.
4. Repeat step 3 until proper date shows in its aperture.
5. Advance hands until correct (a.m. or p.m.) time is reached. If time of day is before noon, stop hands at the correct time before 12 o'clock noon. If time of day is after noon, continue to turn hands beyond the 12th hour (noon) before stopping at correct time. The watch calendar will function automatically for months of 31 days. If a month has less than 31 days, it is necessary to advance the date manually at the end of the month. To do this without disturbing the day indicator, turn the hands backward to the previous midnight and then proceed as described above beginning with step 3.

**IMPORTANT:** If watch is returned because calendar advances at noon and not midnight, watch will only require resetting and not repair. Please note that it is important to differentiate between noon and midnight when setting watch. This will assure that calendar will advance at midnight rather than 12 o'clock noon. To reset watch, follow the above instructions.

## *Directions For Setting The CARAVELLE Instant-Set Date and Day Model*

When starting this watch, proceed as follows:

### **Prepare for Setting**

1. Push crown inward as far as it will go and release it.
2. Turn crown a few turns to start watch running.

### **Set DAY**

3. Pull crown outward as far as it will go.
4. Advance the hands by turning the crown until the proper DAY drops into position.

### **Set TIME**

5. If time is before noon, continue to advance hands until correct TIME is reached.
6. If time is after noon, continue to advance hands **another 12 hours** until correct TIME is reached.
7. Push crown inward to normal running position.

### **Set DATE**

8. If correct date is not already showing, push crown inward as far as it will go and release it. Repeat until correct DATE appears.

Note: A. For months having less than 31 days it is necessary to advance the date manually at the end of the month. Simply follow step 8.

B. The instant date-setting mechanism is ineffectual between 9:30 P.M. and 12:15 A.M.

**IMPORTANT:** If watch is returned because calendar advances at noon and not midnight, watch will only require resetting and not repair. Please note that it is important to differentiate between noon and midnight when setting watch. This will assure that calendar will advance at midnight rather than 12 o'clock noon. To reset watch, follow the above instructions.

## *Directions For Operating The CARAVELLE Transistorized Model*

### **To Start Watch**

This CARAVELLE transistorized watch comes to you complete with power cell installed. To start it, simply:

1. Remove plastic guard from between case and crown.
2. Set hands to correct time.
3. Press the crown in firmly. Your watch will start instantly.

### **To Synchronize Your CARAVELLE Watch**

A special stop-action control automatically stops the hands when the crown is pulled out. With this feature you can set the time precisely to a radio, TV, or telephone time signal. To do so, proceed as follows:

1. Pull crown out.

*Note:* If watch employs a second hand, pull crown out as second hand passes over the 12 o'clock position.

2. Turning the crown in either direction, set the hour and minute hands to the desired time.
3. When time standard by which you are setting your watch reaches 60th second, push crown "in."