



Abingdon Watches

Amelia

Product Information, Manual and Warranty

Dear Friend,

Welcome to the Abingdon family. Thank you for purchasing your Abingdon watch. I hope it helps you navigate for years to come.

In this booklet I have written down instructions that will show you how to use all of the features your new Abingdon watch has to offer. It's easy to read and I've included lots of examples.

Again, thank you and one last thing. Now that you are a part of the Abingdon family, please keep in touch with your adventures and stories on the Abingdon Life section on our website, www.abingdonwatches.com.

Sincerely,
Juice



Table of Contents

Setting the Time.....	6
Setting Zulu Time.....	6
Setting the Date.....	7
The E6B.....	8
Basics.....	9
Time Calculations.....	15
Speed Calculations.....	19
Distance Calculations.....	21
Fuel Consumption.....	23
Conversions.....	26
Miscellaneous.....	30
Warranty.....	32



Setting the Time

1. Pull out the crown at the 3 o'clock position so that it clicks **once**. Rotate the crown **clockwise** until the hour hand lines up with the current hour.
2. To set the minute hand, pull the crown out so that it clicks twice. Rotate the crown clockwise until the minute hand lines up with the current minute.
3. Push the crown back into its original position. The second hand will begin to tick again.



Setting Zulu Time

Your Abingdon Watch should already be set, but you may need to reset it after a battery replacement. Here's how.

Example: Los Angeles Time: 9:00am

Greenwich Mean Time: 4:00pm (of the same day)

1. Pull the crown at the 3 o'clock so that it clicks **twice**. Make sure to stop the second hand in the 12 o'clock position.
2. Rotate the crown so that the hour and minute hands read 4pm.



Setting the Date

1. Pull out the crown at the 3' o'clock position so that it clicks **once**. Rotate the crown **counterclockwise** until the correct date is shown in the date box. Note: I recommend setting the date between the hours of 5am and 5pm to ensure the date will change the following day.
2. Push the crown back into its original position. Now the date has been set.



The E6B

Your Abingdon watch has an E6B slide rule along the inside of the bezel which can be rotated by a crown located at the 8 o'clock position. Practice using the E6B as it can help you EVERYWHERE! Traveling, flying, math class, even driving. It may look a little overwhelming at first, but after you've mastered it you're going to wonder how you've gone so long without it! Ok, let's begin. This is going to be fun...

The Basics

First, rotate the ring so the 60 on the outer ring is in line with the red 60 on the middle ring. You will notice that all the numbers on the middle and the outer rings are the same.



When these two rings match, you have a ratio of 1:1. So now rotate the number 30 on the outer scale so that it is in line with the **red** 60 on the middle scale. 30 is half of 60 so you have now just created a ratio of 2:1 (two “30s” equal one “60”). Notice that 35 is over 70 and 40 is over 80. You will use these ratios in time, speed, and distance calculations. Isn’t that neat! And we’ve only just begun.



Multiplication

Whenever you want to multiply something quickly you can use your Abingdon watch. To do so, you must set one of the numbers on the outer ring to the 10 on the middle ring. It doesn't matter which one. For example, 5×7 (we're going to start off easy)

1. Rotate the number 50 on the outer ring to the number 10 on the middle ring. (notice that there is not a “5” on the outer ring? We are going to treat 50 like it is actually 5.0). Leave it there.
2. Find the number 70 on the middle ring (make sure to treat the number 70 like it is actually the number 7.0) and read the number 35 on the outer ring. $5 \times 7 = 35!$ Well done!



3. Let's do the same problem the other way. Line up the 70 on the outer ring with the 10 on the middle ring. Find the 50 on the middle ring and look! It again reads 35! Remember, it doesn't matter which number you line up with the 10 on the middle ring.

Practice these multiplication problems:

$$9 \times 3 = 27$$

$$14 \times 7 = 98$$

$$23 \times 5 = 115$$

$$90 \times 3 = 270$$

$$11 \times 13 = 143$$

$$4 \times 29 = 117$$

Division

For division problems, you will not be setting any numbers under the 10 on the middle ring, because that is where your answer is going to be! The example below explains what I'm trying to say:

Example: $15/5$

1. Whatever number is being divided will go on the outer ring. Therefore in this example, find 15 on the outer ring.

2. Rotate the 15 so that it is in line with the 50 (5.0 remember?) on the middle ring.
3. Now look at the 10 on the middle ring and read the number on the outer ring. It will say 30 or as we know, 3.0!
Answer: $15/5 = 3!$



Let's try a few practice problems.

$$230/5 = 46$$

$$5/2 = 2.5 \text{ (remember that decimal point!)}$$

$$180/12 = 15$$

$$135/9 = 15$$

$$98/7 = 14$$

Note:

One thing you may have noticed starting off is that it seems that each number can be anything you want it to be. For example, 1 can be 1, 10, 100, 1000, or .1, .01 and so on. Depending on each problem, you will have to decide which value you need. If you choose 10 to represent the number “10,” then the calibrations or “notches” between 10 and 11 represent 0.1. Each notch reads: 10.1, 10.2, 10.3, and so on. Take a look at your Abingdon watch to see what I mean. But if you choose 10 to represent the number 100, then the calibrations between 10 and 11 represent 1. Now each calibration reads: 101, 102, 103, and so on. Try it out for yourself. It takes some getting used to, but I believe in you. Keep practicing and you will get the hang of it.

Time Calculations

First, let's take a look at your Abingdon watch. See the inner ring? This ring is a conversion of the middle ring from minutes to hours. Let me show you how easy this is. Find the number 70 on the middle

ring (It's around the one o'clock position). If you look opposite the 70 on the inner ring, you will see 1:10. 70 minutes is 1 hour and 10 minutes!



See if you can go around the entire face changing the hours to minutes. Take your Abingdon watch off your wrist first, though or else you'll twist your arm!

Now that we have that settled, let's work on some flight problems. Note that the middle ring will ALWAYS be time in minutes.

Example 1:

Let's say your plane flies at 150 knots per hour. You want to find out how long it will take to fly 90 nautical miles. (If you don't know how to convert statute miles to nautical miles, see the Conversions chapter on page 26).

1. Rotate the outer ring so that 15 (signifying 150) is in line with the red 60 located at the 12 o'clock position. This is your "RATE." You have now set the rate (150 knots in 60 minutes).
2. Now find 90 (representing the distance you plan to travel) on the outer ring. You will notice the 90 lines up with 36 on the middle ring. Therefore, it will take 36 minutes to go 90 nautical miles. Piece of cake!



In fact, you can choose any distance and, as long as you leave the rate set, you can figure out how long it will take you to fly any distance.

For practice, set your plane's cruise speed to the rate and find out how long it will take to go:

25 nautical miles

60 nautical miles

350 nautical miles

Speed Calculations

Before I forget, I want to mention one thing. Remember that the outer ring will ALWAYS be distance and speed. The middle and inner ring will always be time (minutes on the middle ring, hours on the inner ring). Keep this in mind for the upcoming speed/time/distance problems

Outer Ring = Distance or Speed

Middle Ring = Time in minutes

Inner Ring = Time in hours

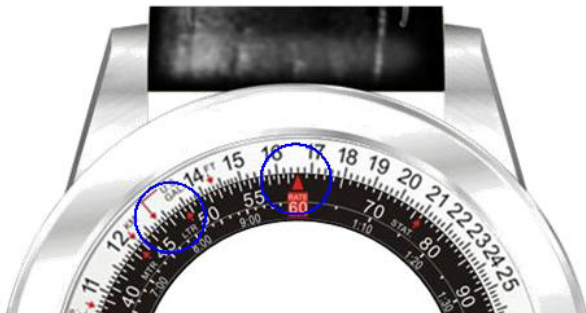
Speed problems are like the time problems we just did, except we are finding the RATE. Remember in the time problems how our speed was our RATE? Well, here we don't have the RATE, but we have the distance and the time. Knowing the distance we flew and time it took to fly, we can easily figure out the average speed at which we were flying.

Example 2:

You flew 130 knots (distance) and it took you 47 minutes (time).

What was your average speed?

1. Rotate the outer ring so that 130 (13 will represent 130 in this example) is in line with 47.
2. Your speed is found on the outer ring opposite the RATE arrow. In this case your average speed would have been 166 knots per hour.



Distance Calculations

For distance problems, you can figure this out once you have the time and speed.

Example 3:

You are traveling at 150 knots per hour (speed) and you want to know how far you will go after 20 minutes (time).

1. Rotate the outer ring so that 15 is in line with the **red** 60 (RATE).
2. Your distance is found on the outer ring opposite the number 20 on the middle ring.
Answer: 50 knots



Here are some practice problems to try:

<u>Speed</u>	<u>Time</u>	<u>Distance</u>
125kts	_____	524NM
_____	2:30	345NM
110kts	1:40	_____

Fuel Consumption Calculations

Fuel Burn Rate

Let's say you wanted to find out how much fuel you burned per hour while you were on your 6 ½ hour flight. After you landed and filled up the tank, you noticed that your tank took 17 gallons. Here is how you would find your fuel burn rate:

1. First, set 17 on the outer ring to 6:30 on the inner ring (there is a notch marking the middle of 6:00 and 7:00 – that's where you want to line up 17).
2. Now you can easily find your burn rate where the red 60 – or your “RATE” arrow – is pointing. In this case the RATE arrow is pointing at the number 26, so the answer is 26 gallons per hour! Easy!



Now you can also find out other information using this example. Let's say your fuel burn rate is 26 gph (gallons per hour) and you want to find out how long you could get on a full tank of usable fuel. If a full tank of gas was equal to 140 gallons (which you should know if you are flying a plane that has a maximum useable fuel of 140 gallons), then here is how you would find your *endurance*.

1. Your RATE (the red 60 arrow on the middle ring) should be set to 26 already (from the previous example). If it isn't set there, then please do so.

2. Now find 14 (representing 140 gallons) on the outer ring.
3. Opposite 14, you should see 5:20 or as it is read on the middle ring, 32 (which represents 320 minutes).

Therefore, you can go 320 minutes on a full tank of gas!



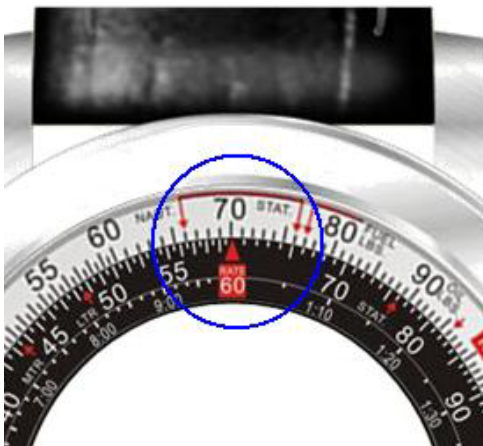
Conversions

Statute to Nautical

This one is as easy as pie. On the outer ring, there is a red double-edged arrow around the number 70. On one side it has the word “NAUT,” for nautical and on the other side the word “STAT,” for statute. All you do is just put the figure you want to convert under one arrow and see what the conversion is under the other arrow.

Example: Convert 65mph (statute) to nautical miles per hour.

1. Rotate the outer ring so that the “STAT” side is in line with the number 65.
2. Read the number under the arrow “NAUT” to see how fast you drive on the freeway in nautical miles! Answer: 56.5 kph



Statute to Kilometers

To convert Statute to Kilometers, you will use the same idea as converting Statute to Nautical miles, but slightly different. Find the word “STAT” on the middle ring. It is located about 1 o’clock. Note: This is not the same “STAT” on the outer ring. Now find the “KM” written on the middle ring around 4 o’clock. Did you find it yet? Good. There is an arrow pointing up at each place. Now just like

before, put the figure you want to convert over one arrow and see what the conversion is under the other arrow.

Using the arrows on your Abingdon watch, you can also convert easily:

Feet	Pounds
Meters	Liters
Imperial Gallons	Fuel Pounds
US Gallons	Oil Pounds
Kilograms	

Currency

Here is how to make vacation abroad much easier. First you must find out the exchange rate, and then set it on your Abingdon watch.

Example: If one US dollar is equal to .73 of a Euro, here is how to make vacation abroad much easier.

1. Rotate the number 10 on the outer ring so that it is in line with 73 on the middle ring. “10”

represents \$1.00 USD and 73 represents €73 Euro. Leave it there.

2. The outer ring will now always be US dollars and the middle ring will always be euros.

So now if something costs €90.00, look at the 90 on the middle ring of your Abingdon watch and you will see it lines up with the 124 on the outer ring, so the item costs about \$124.00. As long as you set the 10 to whatever country's currency you are in, you'll have no more guessing games when you travel!

Miscellaneous

Can I wear my Abingdon while swimming or showering?

Your Abingdon watch is fine in the shower or if you splash water on it. However, it is not recommended to swim with it on unless your watch is a 100 meter watch.

How often should I get my Abingdon serviced?

A quartz movement should get routine maintenance every eight to ten years. If you use your watch in the water, you should check it for water resistance every two years.

How should I wash my Abingdon watch?

Metal bracelets should be washed carefully with mild soap in water. If it's really dirty, a soft toothbrush will help. Rinse with water and pat dry with a soft cloth. The case should be wiped gently with a moist cloth and dried carefully.

For leather or cloth bands, mild soap and water plus a soft cloth will take care of any dirt, sweat or other

residue on your watch. If the dirtiness level is really high, a watch service shop will be able to get the worst stains out.

Will heat and cold affect a watch's accuracy?

Your Abingdon watch is designed to keep good time if worn on your wrist for at least seven hours a day. If you do not wear your watch for an extended period of time during extreme temperature changes (100°F in the summer or 32°F in the winter) then it may lose up to 1 second a day, but will return to normal as soon as you start wearing it again.

Will wearing my Abingdon watch on the inside of my wrist affect its accuracy?

No, with quartz, extreme temperatures are the only variable that will affect the accuracy of the movement.

How long will the battery last?

The silver oxide battery will last typically 2-3 years.

Can I change the battery myself?

It is strongly recommended to take your Abingdon watch to a watch repair shop and have the pros do it. Unless you have the proper tools and experience changing watch batteries, please have a watch repairer do the job.

Again, congratulations on your new purchase and I hope you enjoy your new watch for many years!

-Juice

WARRANTY

2 YEAR LIMITED INTERNATIONAL WARRANTY EXCLUSIVELY FOR ABINGDON WATCHES PRODUCT BUYERS

If the buyer finds a problem with their Abingdon watch as per the manufacturing of the watch, he or she should contact Abingdon Watches customer support at 2596 Wellesley Ave., Los Angeles, CA 90064 or at 310-736-5673. Please have ready your name, phone number, and order number as listed on your receipt. Abingdon Watches will repair or replace only the model of the watch which was purchased or, if so deemed give a full refund to the dissatisfied customer. Guaranteed.

Expect 2-3 weeks for repair and/or replacement if the damage is considerable.

Abingdon Watches is not responsible for any loss arising from the theft, fire, acts of God, typhoons, or other catastrophes while the goods are in the possession of the buyer.

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