

RESPIRONICS®

# ASSESS® Peak Flow Meter with Asthma Management Zone System

Low Range 30-390 L/min

## Instructions For Use

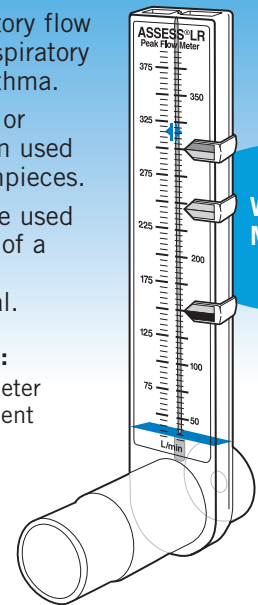
Measures peak expiratory flow in order to monitor respiratory conditions such as asthma.

For single patient use or multi-patient use when used with disposable mouthpieces.

This product should be used under the supervision of a physician or licensed healthcare professional.

### This package contains:

- ASSESS® Peak Flow Meter with Asthma Management Zone System
- Instructions For Use
- Daily Record Chart
- Mouthpiece



With Zone Management

RESPIRONICS®

Made for:  
Respironics New Jersey, Inc.  
5 Wood Hollow Road  
Parsippany, NJ 07054

Global Headquarters: Pittsburgh, Pennsylvania USA  
Customer Service: 800-962-1266 or 724-387-4000  
Fax: 1-724-387-5270  
www.respironics.com

U.S. Patent No. 4,944,306/Design Patent 254,443  
Made in the U.S.A.

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Respironics New Jersey, Inc.  
Parsippany, NJ 07054



Reorder No. HS750

## Introduction

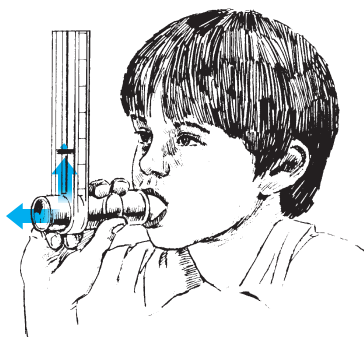
The ASSESS® Low Range Peak Flow Meter measures your “peak expiratory flow rate” (PEFR) – the fastest speed at which you can blow air out of your lungs after taking in as big a breath as possible. PEFR can tell you how well you are breathing by measuring how well air is moving through the airways in your lungs.

If you have a breathing condition such as asthma, your doctor or healthcare provider may recommend that you use an ASSESS peak flow meter to monitor changes in your airflow. He or she will give you a treatment plan that will tell you what actions to take when you have a change in airflow. In addition, you should keep a record of your peak flow measurements (see the “Daily Record Chart” section) and review them with your doctor in order to determine the best treatment plan for you.

When you blow into ASSESS, your breath pushes a piston inside the meter up a scale. When the piston rises, it carries the indicator with it and the indicator remains at your peak flow value. A high number usually means that air is moving easily through your lungs. When you have an asthma episode or attack, your airways are narrowed and air cannot move easily. Therefore, a peak flow meter will help measure the openness of your airways.

Daily peak flow readings can help detect subtle changes in your lung function... sometimes even before you are aware of them. Changes in your airflow may require your doctor to adjust your treatment plan.

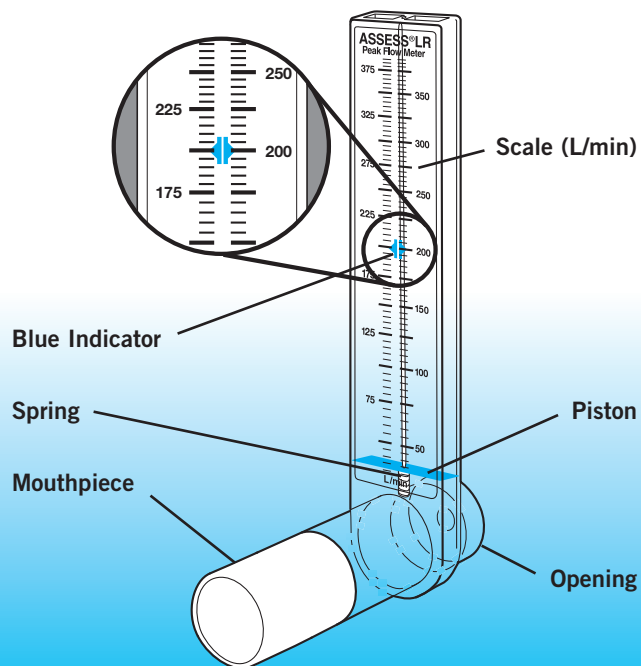
Read these Instructions for Use thoroughly and, if the instructions are not clearly understood, please call Respironics Customer Service for further explanation. Your doctor will tell you when and how often to use your peak flow meter. It is generally recommended to monitor your peak flow in the morning when you wake up. The peak flow meter should also be used when you are feeling symptoms of breathing problems, in order to let you and your doctor know how serious the breathing problem is and how well your asthma treatment plan is working.



## How To Use Your ASSESS Peak Flow Meter

Follow these step-by-step directions:

- 1 ASSESS can be used without a mouthpiece, but if you prefer, place the white mouthpiece on the peak flow meter. Do not bite down on the mouthpiece.
- 2 Make sure that the blue indicator is at the bottom of the scale.
- 3 Hold the peak flow meter upright as shown, being careful that your fingers *do not block the opening in the back*.
- 4 Stand up, if possible. Inhale as deeply as you can and place your mouth firmly around the mouthpiece, making sure your lips form a tight seal.
- 5 Blow out as hard and fast as you can. This will cause the blue indicator to move up the scale. The final position of the blue indicator is your peak flow rate.
- 6 Take three readings and record the *highest* value along with the date and time in the *Daily Record Chart* section provided with your peak flow meter. (Your doctor will show you how to record your readings correctly.)
- 7 To repeat the test, slide the blue indicator back to the bottom of the scale.



# Asthma Management Zone Systems

Zone clips have been attached to the right side of your ASSESS peak flow meter. These clips will help you understand your peak flow readings by making it simple to locate your personal “safety,” “caution,” and “danger” peak flow zones.

## ■ Three-Zone Asthma Management System

In the management of asthma, many doctors recommend a **Three-Zone Asthma Management System**. This system is based on the *highest peak flow measurement you can achieve* on a day when your asthma is under good control. This is called your **personal best** peak flow rate. For this type of asthma management system, peak flow readings are divided into **three zones** – green, yellow, and red. **If your doctor uses a Three-Zone System, remove the center all-yellow zone clip and discard it.**

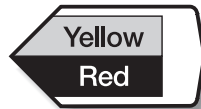
### Think Of These Zones As Traffic Symbols

**Green means go.** Your asthma is under control, so go ahead with your regular activities and medication plan.

**Yellow means caution.** Your condition is not as stable as it should be and a change in your medication may be necessary. Your doctor will give you instructions on how to change your medication should your peak flow rate fall into the yellow zone.

**Red means stop.** You’re headed for an asthma episode and emergency care may be required. Get medical help immediately.

Your goal should be to stay in the green zone as long as possible. Follow the actions prescribed by your doctor for each zone you enter.



## ■ Four-Zone Asthma Management System

Your doctor may choose to divide your zones into a **Four-Zone Asthma Management System**. This system is based on the *highest peak flow measurement you can achieve* on a day when your asthma is under good control. This is called your **personal best** peak flow rate. For this type of asthma management system, peak flow readings are divided into **four zones** – green, high yellow, low yellow, and red. **If your doctor uses a Four-Zone System, you will use the 3 zone clips attached to your ASSESS Peak Flow Meter. Think Of These Zones As Traffic Symbols**

**Green means go.** Your asthma is under control, so go ahead with your regular activities and medication plan.

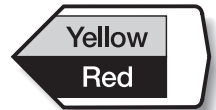
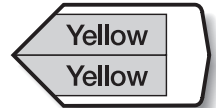
**Yellow means caution.** Your condition is not as stable as it should be and a change in your medication may be necessary. Your doctor will give you instructions on how to change your medication should your peak flow rate fall into the yellow zone. From the point of the all-yellow clip to the point of the green-yellow clip is your high yellow zone. From the point of the all-yellow clip to the point of the yellow-red clip is your low yellow zone. Your doctor will tell you the differences between these caution zones.

**Red means stop.** You’re headed for an asthma episode and emergency care may be required. Get medical help immediately.

Your goal should be to stay in the green zone as long as possible. Follow the actions prescribed by your doctor for each zone you enter.

## Your Peak Flow Readings

- Consult your doctor to ensure you are recording your values correctly.
- Make sure that you keep your records up-to-date.
- Your doctor will provide you with a management plan based on your peak flow measurements. Contact your doctor when changes in readings occur that may indicate worsening of your condition, as per his or her instructions.
- Taking daily peak flow readings will help your doctor make important decisions about your asthma treatment.



# Caring For Your ASSESS Peak Flow Meter

## Cleaning the Instrument

It is not necessary to clean your personal meter after each use. Once each week should be enough. Cleaning is simple and is important to maintain the accuracy of ASSESS.

- The removable white mouthpiece can be cleaned by rinsing with warm water and thoroughly drying.
- The whole instrument can also be cleaned by rinsing with warm water and a mild liquid soap. Then, rinse the meter with clean warm water. Shake out the water and let the instrument air dry before use.
- ASSESS can be safely cleaned on the top rack only of your dishwasher. After dishwashing, shake out any remaining water and allow to air dry thoroughly before use.
- *Never boil the instrument.*

## Checking Your Meter

You should examine your meter periodically to see if it is functioning properly. Since ASSESS is made of clear plastic, it is easy to see if it is operating correctly. *A damaged meter should not be used.*

## Warranty

ASSESS comes with a one-year unconditional replacement warranty. If the instrument is not operating for any reason, please contact Respironics Customer Service for return authorization. With proper care your ASSESS should last at least two years.

ASSESS Low Range and its accompanying literature meet the Technical Standards established by the National Asthma Education and Prevention Program (NAEPP).

## Consult Your Doctor

It is important that the ASSESS Low Range Peak Flow Meter is used as medically directed, i.e., in consultation and conjunction with professional medical advice.

**CAUTION:** *Do not allow children to play with the ASSESS Peak Flow Meter. Allowing them to do so may alter its function and/or overall reliability.*

## Normal Predicted Average Peak Expiratory Flow (L/min)

The National Asthma Education and Prevention Program recommends that a patient's "personal best" be used as his/her baseline peak flow. "Personal best" is the maximum peak flow rate that the patient can obtain when his/her asthma is stable or under control. The following tables are intended as guidelines only.

### Normal Males\*

Age (Years)	Height				
	(in) 60" (cm) 152	65" 165	70" 178	75" 191	80" 203
20	554	575	594	611	626
25	580	603	622	640	656
30	594	617	637	655	672
35	599	622	643	661	677
40	597	620	641	659	675
45	591	613	633	651	668
50	580	602	622	640	656
55	566	588	608	625	640
60	551	572	591	607	622
65	533	554	572	588	603
70	515	535	552	568	582
75	496	515	532	547	560

### Normal Females\*

Age (Years)	Height				
	(in) 55" (cm) 140	60" 152	65" 165	70" 178	75" 191
20	444	460	474	486	497
25	455	471	485	497	509
30	458	475	489	502	513
35	458	474	488	501	512
40	453	469	483	496	507
45	446	462	476	488	499
50	437	453	466	478	489
55	427	442	455	467	477
60	415	430	443	454	464
65	403	417	430	441	451
70	390	404	416	427	436
75	377	391	402	413	422

### Normal Children and Adolescents†

	Height		Males & Females	Height		Males & Females
	(In)	(Cm)		(In)	(Cm)	
43	109	147	55	140	307	
44	112	160	56	142	320	
45	114	173	57	145	334	
46	117	187	58	147	347	
47	119	200	59	150	360	
48	122	214	60	152	373	
49	124	227	61	155	387	
50	127	240	62	157	400	
51	130	254	63	160	413	
52	132	267	64	163	427	
53	135	280	65	165	440	
54	137	293	66	168	454	

\* Nunn AJH, Gregg I. Brit Med J 298:1068-70, 1989.

† Polgar G, Promadhat V. Pulmonary Function Testing in Children: Techniques and Standards. Philadelphia, W.B. Saunders Company, 1971.

NOTE: All tables are averages and are based on tests with a large number of people. The peak flow rate of an individual can vary widely. Individuals at altitudes above sea level should be aware that peak flow readings may be lower than those at sea level, which are provided in the tables.

## Note to Healthcare Professionals

### For Multi-Patient Use

As a reminder to healthcare providers, note that when a single ASSESS unit is used repeatedly as a screening device, patients should be instructed to inhale *before* placing the instrument to their mouths.

Always use *disposable* mouthpieces for this application (Safety One-Way Valve Disposable Mouthpieces, Reorder No. HS713; Pediatric Disposable Mouthpieces, Reorder No. HS712; Adult Disposable Mouthpieces, Reorder No. HS711).

The meter may be exposed to ethylene oxide (EtO) sterilization methods (cycle temperatures not to exceed 120° F). Recommended aeration time is eight hours.

*Never boil or autoclave the instrument.*

### Zone Clips

The three-zone asthma management system recommended by the NAEPH helps patients comply with treatment regimens. The color-coded zone clips (attached to the right side of the scale) can be adjusted to delineate a patient's green, yellow and red zones. (These indicators have been designed to be difficult to move inadvertently.)

ASSESS Zone Clips give you the flexibility of using either the Three or Four-Zone Asthma Management System.

In order to use a Four-Zone Asthma Management System, use the all-yellow clip provided with ASSESS to divide the yellow zone into "high" and "low" areas. The area from the point of the all-yellow clip to the point of the green-yellow clip is "high yellow," and the area from the point of the all-yellow clip to the point of the yellow-red clip is "low yellow." If you prefer to use the Three-Zone System, remove the all-yellow zone clip and discard it.

Record each patient's zones and medication instructions on an Asthma Information Card for their easy reference.

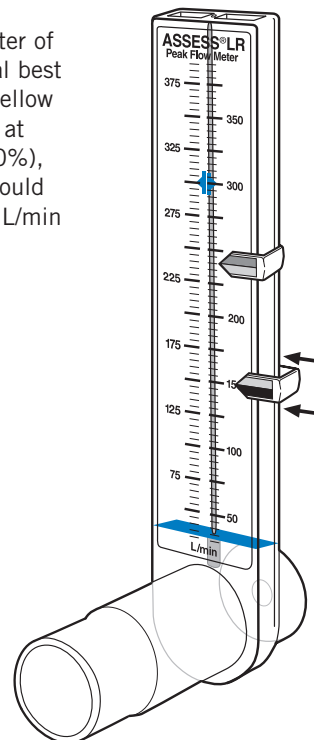
### How to Use Zone Clips

A patient's zones can be determined from their *personal best* peak expiratory flow rate. **Refer to the Zone Reference Chart for the Three-Zone Asthma Management System.**

- 1 Locate the patient's personal best value on the chart. The values directly below this number indicate where to place the ASSESS® Zone Clips.
- 2 Slide the green-yellow clip along the right side of the meter until it points to the patient's green-yellow value.
- 3 Slide the yellow-red clip along the right side of the meter in the same way, until it points to the patient's yellow-red value.

For example, on the meter of a patient with a personal best of 300 L/min, a green-yellow clip should be attached at the 240 L/min mark (80%), and a yellow-red clip should be attached at the 150 L/min mark (50%).

- 4 (Optional) To indicate the difference between the "high" and "low" yellow zones, slide the all-yellow clip along the meter to divide the yellow zone.



# Daily Record Chart

Taking daily peak flow readings and recording them in this booklet will provide a permanent record to help your doctor make important decisions about your asthma treatment.

1. **Fill in your name and baseline reading below.** Your doctor will help you obtain this value.
2. **Record the date at the top of the page.**
3. **Fill in the time of your reading.** Space is provided for three per day.
4. **Record your reading as illustrated in the example shown.**
5. **Use the space provided at the bottom of each page for your notes** (questions for your doctor, symptoms, medications, etc.)

CAUTION: When the peak flow meter is used to monitor a lung condition such as asthma, the user should be under the care of a physician or other licensed healthcare professional. A licensed healthcare professional's advice is required to understand the meaning and importance of the measures you get with your peak flow meter, and to help decide on an appropriate treatment plan.

Name \_\_\_\_\_

Baseline Reading \_\_\_\_\_

Example

Name <b>Jane Smith</b>															
Date	10/8			10/9			10/10			10/11					
Time	7	4	9	7	4	9	7	4	9	7	4	9	7	4	9
200															
175	x	x			x		x	x	x	x	x		x	x	
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