

Solar Viewer:

Instructions for use



Total Solar Eclipse
Monday, 21 August 2017



TERMS AND CONDITIONS FOR USE OF SOLAR VIEWER

Please read these Instructions for Use carefully before using the Solar Viewer. Your purchase and use of the Solar Viewer constitutes your agreement to these terms and conditions. Failure to follow these Instructions for Use may result in serious personal injury, including permanent eye damage. If you do not understand these Instructions or cannot follow them diligently and completely, then you should not look at the Sun at any time, with or without a Solar Viewer.

The term "Solar Viewer" refers to the special cardboard-and-polymer optical products, marked "SAFE FOR DIRECT SOLAR VIEWING", manufactured by Rainbow Symphony of Reseda CA, and sold by Eclipse2017.org for the purpose of viewing the Sun during the solar eclipse of August 21, 2017, by or under the direct supervision of a person 18 years of age or above and in accordance with these Instructions for Use.

Observing the Sun directly, without the benefit of eye protection provided by the Solar Viewer, will likely result in serious personal injury, up to and including permanent eye damage and blindness. When these Instructions for Use are followed completely and precisely, the undamaged and unmodified Solar Viewer has been proven to be safe and effective in allowing direct, short-term, viewing of the Sun. If these Instructions for Use are not followed, or if damaged or modified Solar Viewers are used, permanent eye injury could result.

You should never look directly at the Sun, with or without the aid of the Solar Viewer, if you have any temporary or permanent medical or other condition which either (1) prevents your use of the Solar Viewer according to these Instructions for Use, or (2) which predisposes you to an increased or special risk of incurring, worsening, or contributing to the effects of any optical or other medical, health, or other condition, by looking or attempting to look at the Sun.

You should never attempt to perform any other activity (such as driving or walking) while using the Solar Viewer.

You agree that if you let others use the Solar Viewer, you will provide each such user with a copy of these Instructions for Use and will make sure such user reads and understands the Instructions for Use before using the Solar Viewer.

By using the Solar Viewer to view the Sun, you agree with the following:

- (a) you understand these Instructions for Use completely;
- (b) you understand and accept the risks associated with improper use of the Solar Viewer;
- (c) you accept full responsibility for, and assume all risks associated with, the act of viewing the Sun, with or without the use of the Solar Viewer; and
- (d) the Solar Viewer is fragile and any damage to it or modification of it will render it immediately and permanently unusable for its intended purpose.

Release and Limitation of Liability

By way of purchasing and using the Solar Viewer, you are irrevocably releasing, indemnifying, and holding harmless the manufacturer and seller from any liability, loss, claim and expense (including attorneys fees), including but not limited to bodily injury or other personal harm, which may result from using the Solar Viewer under any circumstances or conditions and irrespective of jurisdiction. Neither the manufacturer nor the seller will be responsible for any damages of any kind, irrespective of reasons, conditions or circumstances, including malfunctioning of the Solar Viewer. All risks associated with using the Solar Viewer rest solely and entirely with the user, irrespective of whether the Solar Viewer is used by the original purchaser or any third party. You fully understand and assume the risks in using the Solar Viewer. You confirm that you have read this release of liability and fully understand its terms and that you have given up substantial rights by purchasing and using the Solar Viewer.

THE MANUFACTURER AND SELLER OF THE SOLAR VIEWER MAKE NO WARRANTY OF ANY KIND, EXPRESSED OR IMPLIED, WITH RESPECT TO THE SOLAR VIEWER, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, AND NON-INFRINGEMENT. NEITHER THE MANUFACTURER NOR THE SELLER SHALL BE LIABLE FOR ANY OTHER DAMAGES, INCLUDING BUT NOT LIMITED TO DIRECT, INDIRECT, INCIDENTAL, SPECIAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES, WHETHER IN AN ACTION IN CONTRACT OR TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY), SUCH AS, BUT NOT LIMITED TO, LOSS OF ANTICIPATED PROFITS OR BENEFITS RESULTING FROM, OR ARISING OUT OF, OR IN CONNECTION WITH THE USE OR FURNISHING OF THE SOLAR VIEWER OR THE PERFORMANCE, USE OR INABILITY TO USE THE SAME, EVEN IF THE MANUFACTURER OR SELLER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. IN NO EVENT WILL THE MANUFACTURER'S OR SELLER'S TOTAL LIABILITY EXCEED THE PRICE PAID FOR THE PRODUCT.

Note Regarding Translations

[Translations](#) of these Instructions for Use into various languages are provided "AS-IS" and solely for the convenience of the reader. Eclipse2017.org has made reasonable efforts to ensure the accuracy of the Translations; however, in the event of any perceived discrepancy in meaning or interpretation between the English version and any Translation, the English version will prevail. You should not act in reliance on anything contained in any Translation of these Instructions for Use, but should refer to the official English version.

TOTAL SOLAR ECLIPSE - 21 August 2017

Welcome to the United States!

We are honored that you have chosen to visit our country to experience a total eclipse of the Sun, and we would like for everyone to be able to view this magnificent event safely!

*The English version of these instructions, directions and disclaimers (the “Instructions”), is the complete source of information and guidance for the proper and correct use of the Solar Viewer for direct viewing of the Sun. The Instructions are available at <http://tinyurl.com/viewer-instructions>, and you must read, understand and follow them in order to use the Solar Viewer. **Failure to follow the Instructions may result in serious personal injury.***

Astronomers call the eclipse of August 21, 2017 a “total eclipse”, but in order for you to see totality, you must be located within a very narrow strip of land which crosses the USA (called the “Path of Totality”). If you are not in this path, you will only see a partial eclipse! Therefore, it is very important to know whether you are in the path of totality, and the method for you to use will be explained shortly.



The Path of Totality

QUICK START GUIDE

DETAILED INSTRUCTIONS

The term “Solar Viewer”, as used within this document, is understood to represent the “Solar Viewer” referred to within the disclaimer contained in the first page of, and referred to elsewhere within, this document.

Your use of the Solar Viewer to view the Sun constitutes a legal agreement. You must accurately and completely follow all instructions and direction contained within the Instructions, in order to use the Solar Viewer to observe the Sun at any time. If you do not understand the Instructions, or if you cannot follow them completely and correctly, or if you do not agree to their terms, then you are instructed and advised not to attempt to view the Sun at any time, using any method.

SOLAR VIEWER QUICK START GUIDE

This Quick Start is condensed from the [detailed set of Instructions](#), which you must read, understand and comply with in its entirety in order to use the Solar Viewer to view the eclipse.









- 1) Look up your location at <http://tinyurl.com/find-times> to see whether or not the eclipse will be total there, as well as the approximate contact times for the partial and (if applicable) total phases for that location.
- 2) A total eclipse is an absolutely spectacular event, but you can only enjoy the experience of totality if you are located within the “path of totality” – which is only about a hundred miles wide. If totality will not be visible from your planned viewing location, we strongly advise you to relocate to a position which is within the path of totality!
- 3) To use the Solar Viewer to see the eclipse, hold the lens material of the Solar Viewer directly over your eyes, so that they are completely protected from directly viewing the Sun.
- 4) When to use the Solar Viewer to look at the Sun:
 - a. If the eclipse **WILL NOT** be total at your location, then view it through the Solar Viewer at all times. **YOU RISK PERMANENT DAMAGE TO YOUR EYES IF YOU LOOK AT THE SUN WITHOUT PROPER EYE PROTECTION!**
 - b. If the eclipse **WILL** be total at your location, then you **MUST** view the Sun through the Solar Viewer while any portion of the bright part of the Sun’s disk - even if only a very small piece - is visible. **YOU RISK PERMANENT DAMAGE TO YOUR EYES IF YOU FAIL TO FOLLOW THIS INSTRUCTION!**
 - i. However, **during the short interval of totality ONLY**, when no bright part of the Sun’s disk at all can be seen, you should look directly at the total eclipse without using the Solar Viewer.
 - ii. In fact, if you try using the Solar Viewer to look at the Sun during totality, you will see absolutely nothing!
 - iii. You **MUST** return to using the Solar Viewer as soon as totality is over, and the bright part of the Sun’s disk returns to view.
- 5) In other words,

**WHEN ANY PART OF THE SUN’S BRIGHT DISK IS SHOWING,
YOU *MUST* USE THE SOLAR VIEWER TO LOOK AT THE SUN!**

DETAILED INSTRUCTIONS FOR USE OF THE SOLAR VIEWER

First, there is some terminology you need to understand!

For each eclipse, and for each location on earth, there are names that are given to the times of certain important events. These are known as:

<i>Name of Event</i>	<i>Description of Event</i>	<i>What it Looks Like (for a Total Eclipse)</i>	<i>What it Looks Like (for a Partial Eclipse)</i>
C1	The start of the partial phase		
C2	The start of totality		** Does not occur! **
Mid-Eclipse	The mid-point of the eclipse		
C3	The end of totality		** Does not occur! **
C4	The end of the partial phase		

1) GENERAL INSTRUCTIONS FOR USE OF THE SOLAR VIEWER



- 1) [if applicable] Unpackage the Solar Viewer carefully.
- 2) Keep the Solar Viewer protected when not in use.
- 3) Inspect the Solar Viewer before each use; if the lens film is damaged or creased in any way, then cut the Solar Viewer up and destroy it, and [acquire an undamaged replacement](#).
- 4) If the lens film is damaged in any way, do not use the Solar Viewer to view the Sun at any time.
- 5) Do not remove the lens film material from the Solar Viewer, and do not use removed lens film material to view the Sun in any way.
- 6) The correctly-mounted, undamaged lenses of the Solar Viewer will safely block dangerous levels of visible light, as well as harmful UV and other solar rays. It is therefore perfectly safe to use the Solar Viewer, according to the direction provided by these Instructions, to view the Sun at any time. There are no special “eclipse rays” which make viewing the Sun either more or less dangerous during an eclipse.
- 7) **You must use the Solar Viewer, in the manner described herein, to view the Sun safely whenever ANY portion of the Sun’s bright disk is visible. This is true regardless of any eclipse contact times (namely, “C2” and “C3” as described above) that you have recorded from any source.**
- 8) Do not use the Solar Viewer in combination with any telescope, binocular, camera, lens, mirror, or any other optical instrument, device or object which may transmit or reflect light (“Optical Device”).
- 9) Never point any such Optical Device toward or at the Sun, and never directly view the Sun’s image using any Optical Device that is pointed at the Sun, or is in any way gathering, focusing, or redirecting the Sun’s light.
- 10) Do not allow the Solar Viewer to be used by animals, or by anyone who is temporarily impaired, unable to read, understand and comply with the requirements for the safe use of the Solar Viewer, or to legally accept responsibility for the consequences of their actions.
- 11) To use the Solar Viewer:

Hold the Solar Viewer completely between your eyes and the Sun, and look through the undamaged lens material of the Solar Viewer toward the Sun, keeping the lens material of the Solar Viewer at all times completely between your eyes and the Sun. In the case of a Solar Viewer shaped as cardboard eyeglasses, you may fold the cardboard in such a way as to wear the Solar Viewer as you would conventional eyeglasses. Never look directly at the Sun while it is not in total eclipse (that is, during the times between C2 and C3 that you will note in the chart below, if such times are applicable for your viewing location), unless you are looking directly through the undamaged lens material of the Solar Viewer.
- 12) Do not use any material or object, other than the lenses of the Solar Viewer installed within their holders as originally manufactured, as eye protection while attempting to view the Sun.
- 13) If you have any questions regarding these instructions, please contact Eclipse2017.org at <http://tinyurl.com/viewer-questions>.



2) LEARN THE SPECIFIC ECLIPSE EVENT TIMES FOR YOUR LOCATION

Based on the information provided at <http://tinyurl.com/find-times> for your location, complete the following statement:

For my location, the eclipse is:

TOTAL	NOT TOTAL
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(circle one)

If the eclipse is **TOTAL** in your location, follow the instructions contained within the

**“THE ECLIPSE IS
TOTAL
AT MY LOCATION”**

[section below:](#)

If the eclipse is **NOT TOTAL** in your location, follow the instructions contained within the















**“THE ECLIPSE IS
NOT TOTAL
AT MY LOCATION”**

[section below:](#)

**** THE ECLIPSE IS *TOTAL* AT MY LOCATION ****

You are in the path of totality, and will experience a rare and wonderful event! It is very important for you to be able to determine when the eclipse is total at your location. You will be able to do this by referring to the times you have noted below, and also because there will be no bright portion of the Sun's disk visible during totality.

- 1) Based on the information provided by <http://tinyurl.com/find-times> for your specific location, write down the approximate times for each eclipse event listed below (be sure to [adjust the times](#) for your time zone!):

Before C1	* There is no eclipse *				You MUST use the Solar Viewer
C1	Partial phase begins at:				You MUST use the Solar Viewer
C2	Total phase begins at:				After C2 , you may observe with the naked eye
Mid-Eclipse	Occurs at:				You may observe with the naked eye!
C3	Total phase ends at:				You MUST again use the Solar Viewer
C4	Partial phase ends at:				You MUST use the Solar Viewer
After C4	* There is no eclipse *				You MUST use the Solar Viewer

- 2) Though you are located within the path of totality, you **MUST** still use the Solar Viewer to view the Sun at all times before C2 or after C3, when the eclipse is not total.

- 3) You may directly observe the Sun with the naked eye (without using the Solar Viewer) ONLY:
 - a. if the eclipse is total in your location (you are “in the path”), AND
 - b. during the times of totality (approximately during the time period from C2 to C3 for your location that you have noted above), AND
 - c. **whenever the Sun’s bright disk is COMPLETELY covered by the Moon.**

The actual times of totality will vary greatly depending upon your exact location, and so you must have identified and recorded the approximate times beforehand. The times you record above are approximate!

- 4) Once again, irrespective of any of the times noted in the above listing, or gathered from any external source, **you must always view the Sun using the Solar Viewer WHENEVER ANY PART of the Sun’s bright disk is visible.**
 - 5) These instructions are accompanied by graphical explanatory supplements as an aid to understanding.
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You must read, understand, and comply with the following statements:











I MUST FOLLOW ALL INSTRUCTIONS REGARDING THE USE OF THE SOLAR VIEWER, IN ORDER TO USE IT SAFELY.

IF ANY PART OF THE SUN’S BRIGHT DISK IS SHOWING, I MUST USE THE SOLAR VIEWER WHEN LOOKING AT THE SUN.

**** THE ECLIPSE IS *NOT TOTAL* AT MY LOCATION ****

You are not in the path of totality, and so you will not experience the beauty of a total eclipse. (We strongly recommend you reposition yourself within the path of totality in order to share in this remarkable experience!)

- 1) Based on the information provided by <http://tinyurl.com/find-times> for your specific location, write down the approximate times for each eclipse event listed below (be sure to [adjust the times](#) for your time zone!):

Before C1	* There is no eclipse *				You MUST use the Solar Viewer
C1	Partial phase begins at:				You MUST use the Solar Viewer
Mid-Eclipse	Occurs at:				You MUST use the Solar Viewer
C4	Partial phase ends at:				You MUST use the Solar Viewer
After C4	* There is no eclipse *				You MUST use the Solar Viewer

(Note that there are no C2 and C3 times listed, since the eclipse is not total at your location!)

- 2) Since the eclipse is not total where you are, you must **ALWAYS** use the Solar Viewer to observe the Sun. Again, we recommend that you travel into the path of totality. Be sure to take the Solar Viewer with you, so that you may safely observe the partial phases of the eclipse!
- 3) These instructions are accompanied by graphical explanatory supplements as an aid to understanding.

You must read, understand, and comply with the following statements:

I MUST FOLLOW **ALL INSTRUCTIONS REGARDING THE USE OF THE SOLAR VIEWER, IN ORDER TO USE IT SAFELY.**

I MUST **ALWAYS USE THE SOLAR VIEWER WHEN LOOKING AT THE SUN.**