



265 S. Federal Highway • Suite 163  
Deerfield Beach, FL 33441-4146  
Phone (954) 425-0199 • Fax (954) 827-2408 • Toll-Free 1-866-SCAN-SND  
[barry@scansound.com](mailto:barry@scansound.com) • [www.scansound.com](http://www.scansound.com)

# **Model PG-200 Reversible Prism Glasses**

## **Manual of Description and Product Use**

### **Reversible Prism Glasses Product Use**

Our MRIwear™ Prism Glasses (*Part Number PG-200*) were specifically designed for safe use in Magnetic Resonance Imaging scanning systems.

When worn by patients lying flat on their back inside the MRI scanner, these Prism Glasses provide the patient with a view of the open areas outside the MRI magnet bore. Although most patients typically lie down inside of a very tight space within the MRI magnet, the MRIwear Prism Glasses enable patients to avoid the closed-in feeling that often prevents the patients from going through with their scan. These Prism Glasses do not provide any type of vision correction and are designed primarily to help the user to relax. They have an excellent track record for helping MRI patients to endure their scan and overcome their claustrophobia.

### **Bed Specs Prism Glasses for Watching TV**

Some prism glasses were made with the intent to allow users to watch TV while lying flat on their back and most were branded by distributors as “Bed Specs”. They were never intended for use with MRI scanners, however many found their way into MRI scan rooms. People tried to use them to help overcome claustrophobia and it became apparent that the metallic folding hinges on those types of prism glasses actually caused distortion, especially when used with MRI brain coils. The Bed Specs type of prism glasses were cheaply made and most had poor quality frames. They were often warped or bent, the prisms were not parallel and the users experienced double vision. The Bed Specs brand of prism glasses were made with a metal folding hinge that interfered with the MRI scanning and produced imaging artifacts. Users should stay away from those kinds of prism glasses, especially since they are unsafe for use with MRI Scanners.

Our model PG-200 reversible prism glasses were designed to overcome the kinds of distortion and safety issues that users experienced with the Bed Specs types of glasses. We eliminated the need for metal hinges in our glasses and our frames were made with the highest quality optical prisms. The materials used to make our prism glasses were carefully selected so that our prism glasses would never interfere with any MRI scans. Our patented design ensures that all users can safely use our prism glasses in any MRI scanner and the users will see clearly without any angular distortion.

Our prism glasses are constructed of materials that are totally inert. We completely eliminated the metal hinge and designed the frames so that the left and right temples would attach to the glasses without any metal parts. Our prism glasses will not interfere with the imaging capabilities of any magnetic resonance imaging scanners. Each pair of MRIwear Prism Glasses are constructed of molded plastic and the prisms are made of precision aligned, optical quality glass. Because there are no ferrous materials in our MRIwear Prism Glasses, they are completely safe to use inside the high magnetic fields of all MRI Scanners, including those scanners that have a magnetic strength of 3.0 Tesla or higher.

### **MRIwear™ PRISM GLASSES FACTS**

1. Safe for use by patients being scanned inside magnetic fields, including magnetic fields which exceed 3.0 Tesla
2. Will not interfere with the imaging characteristics of any MRI Scanner
3. Glasses, Frame, Prisms and Elastic Strap are all made completely of Non-Ferrous Materials
4. Provide patients with a view outside of the magnet when the patient is lying flat on their back inside an MRI Scanner
5. The Prisms may be rotated, so that the patient view outside the magnet is correct for head-first *and* feet-first scans
6. Elastic strap can be snapped into place, substituting for the temples, to hold the Glasses in place on the patient's head, making these Prism Glasses well suited for Children and Seniors
7. Unlike other types of Prism Glasses, the MRIwear Prism Glasses will not cause any image distortion or artifacts
8. Our MRIwear Prism Glasses have been proven useful in helping patients overcome MRI claustrophobia
9. Protected by US Patent Number 8,186,828 – This product was designed by Biomedical Engineer, Barry C. Leeper: Mr. Leeper has 24+ years of MRI field experience

Each pair of prism glasses comes packaged inside of a box that is padded with foam around the following items:

- Left and Right Snap-in Temples
- Optical Cleaning Cloth
- Glasses Frame
- 2 Each Reversible Prisms
- Elastic Strap with Snap-in Temples

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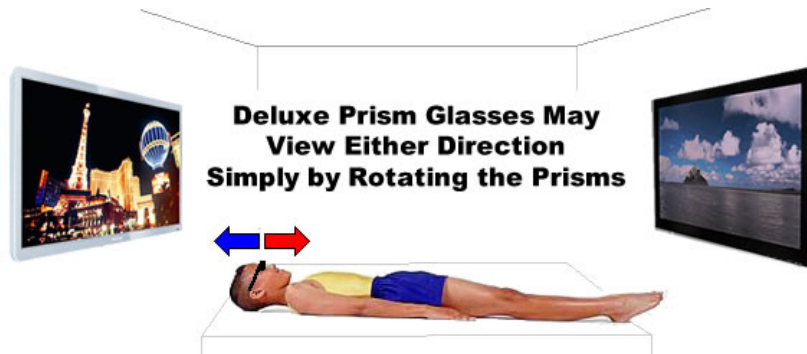
Here is a picture showing the Model PG-200 Prism Glasses packaging and items found inside of the box:



Here are some of the basic differences between the Model PG-200 prism glasses and standard Bed Specs type of prism glasses:

MRIwear Deluxe Prism Glasses Compared with Standard Prism Glasses	
MRIwear Deluxe Prism Glasses	Standard Prism Glasses
Prisms may be rotated to view in either head or feet direction	Can only be used to view towards the feet
Precision made prisms provide clear crisp viewing	Prisms tend to be poorly aligned leading to fuzzy or blurry viewing and elevated eye strain
Works with plastic frame or elastic strap to remain in place while maintaining ultimate comfort	Glasses may slip off the nose if the head moves or tilts forward
No metal parts to interfere with patient imaging scans	Hinges made of metal cause distortion and artifacts near the eyes
Temples or elastic strap may be used with adults or children to maintain a perfect fit	May be used by adults only - glasses may not fit everyone
May be used with all field strengths for MRI and fMRI scanning	Metal hinge causes distortion artifacts in MRI scans of the brain
Prisms may be reversed 180-degrees to change the view	Fixed-prism can view only towards the feet
Frames are Precision Made and Totally Straight	Frames are Made of Soft Plastic that Tends to Warp, Causing Distortion of Objects in the Viewing Area

When an individual is lying down wearing the PG-200 Reversible Prism Glasses, they may see either direction, depending on the way that the prisms are mounted in the frames. Here is an illustration showing how the prisms can be set to see towards the patients feet, or with the glasses rotated the other direction, they may see back behind their head.



This picture shows the PG-200 Prism Glasses with the Left and Right temples snapped into the glasses frame. There is no metal hinge in the glasses, so the temples do not fold.

The temples can actually be removed so that an elastic strap can be installed. This may be helpful in keeping the glasses held in place on children during an MRI scan.

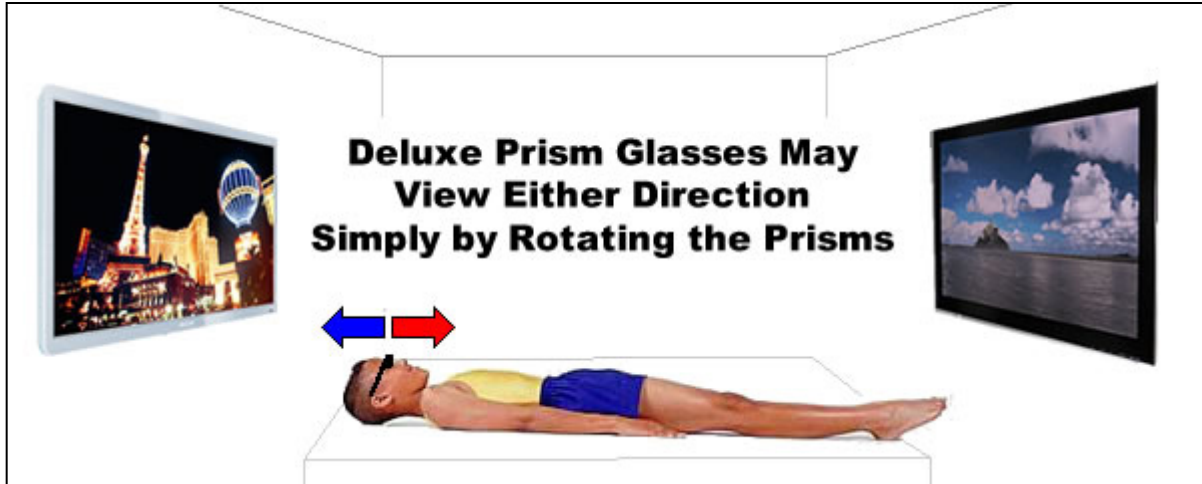


**PRISM GLASSES FEATURES**

- Prism glasses feature **Reversible Prisms** that may be used in two different fixed positions
  - Prisms may be used in MRI scans to help reduce claustrophobia
- Prisms can be slid out of their mount, rotated and slid back in 180-degrees in reverse
  - Patients may be scanned head-first or feet-first with an identical view outside of the MRI magnet
  - Prism angle remains fixed in either position so no viewing angle adjustment is required
  - Prisms do not reverse the image so it is possible to see a mural, calming poster or projection screen TV, with the patient in the MRI magnet either head-first or feet-first
- Prism glasses are **completely free of any metal components**
  - Glasses may be worn in all types of Diagnostic Imaging Scans
- MRI, fMRI, Nuclear Medicine, CT, PET and Digital X-Ray Imaging Devices
  - Totally inert - will not interfere with patient imaging in any way
  - No distortion artifacts that are common to most other prism glasses
  - Unique patented design employing hinge-free all-plastic removable temples
- Prism glasses are **similar to wearing a conventional pair of glasses**
  - Patients will easily adapt to wearing the glasses
  - Optical quality prisms enable patient to see outside the magnet bore
  - Slender lightweight design is comfortable for optimal patient compliance
  - MRIwear prism glasses **can be worn with all-plastic earpiece or elastic strap**
  - Plastic temples snap into frame and fit over the ear just like a regular pair of eyeglasses
  - An elastic strap can be snapped in place of the side earpieces to firmly hold the glasses in place
  - MRIwear prism glasses come with a handy storage container and lint-free cloth
  - Glasses may be easily cleaned to be hygienically worn by multiple patients
- Prism glasses are compact and **easily worn in all MRI coils**
  - Slim design enables glasses to be worn inside all MRI coils and all MRI systems, regardless of manufacturer, including all types of MRI head coils
- Can reduce neck strain from having to look upward or downward for long periods of time
  - Mountain climbing instructors
  - Assembly line workers viewing up or down for long periods
- Individual can lie flat on back for long periods and wait for activity
  - Hunting or military use
  - One prism could be set to view frontal and the other in the opposite direction
- Prism glasses enable wearer to lie down and see outwards, regardless of being head-first or feet first inside the MRI Magnet, to reduce claustrophobia
- Highly effective in increasing throughput by reducing MRI scan claustrophobia
- Patients view outside of the magnet bore and this helps avoid the closed-in feeling
- Many patients have bought prism glasses before their scan
- Great for all kinds of Scanners, Including fMRI, PET Scanners, CT Scanners, Nuclear Med Scanners
- Optical quality prisms for highest quality vision
- Can be used to view a television beyond the head of the patient or beyond the foot of the patient, just by changing the direction that the prisms are angled
- Persons with cervical problems and patients with head or neck restraints find it easier to expand their viewing options with the use of prism glasses
- Great for patients with a neck restraint, to see a keyboard or computer, where looking ahead would allow them to see downward
- Drummers - now you can see your drums while looking out towards your audience
- Great when sitting on an airplane so you can lean back and read a book on your tray table

	<p><b>PRISMS CAN BE REMOVED AND THEN ROTATED TO ALLOW PATIENTS TO SEE OUTSIDE THE BORE, REGARDLESS OF WHETHER THE PATIENT IS HEAD-FIRST OR FEET-FIRST INSIDE THE MRI MAGNET</b></p>
	<p>Prisms can be rotated 180-degrees and then placed back into frame</p> <p>Just slide prism off of frame</p> <p>Easily position and slide prism back into grooved channels on the frame</p> <p>Prisms are firmly held in place by interlocking groove in the all-plastic frame</p>

Each pair of prism glasses are quality checked during the manufacturing process to ensure that they are free of any defect and do not have any metal components. The glass used in the prisms is made from optical quality glass. Please note that exposing the prisms to freezing temperatures can damage the clear optical properties of the glass. Each pair of prism glasses is guaranteed for 90-days to be free of any manufacturing defects. Any glasses that require replacement within the 90-day warranty will be subject to charges for shipping and handling by Scan Sound, Inc.



- These Prism Glasses are **Completely Free of Any Metal Components**
- The Glasses may be worn in all types of Diagnostic Imaging Scans, including MRI, fMRI, Nuclear Medicine, CT, PET and Digital X-Ray Imaging Devices
- They are totally Inert and will not interfere with patient imaging in any way
- No Distortion Artifacts will occur, that are common to most other types of prism glasses
- They have a unique patented design employing hinge-free all-plastic removable temples



- The Prism Glasses are completely Inert with no metal hinge
- The Prism Glasses are **Similar to Wearing a Conventional Pair of Glasses**
- Patients will easily adapt to wearing the glasses
- Optical Quality Prisms Enable Patient to See Outside the Magnet Bore
- Slender lightweight design is comfortable for optimal patient compliance

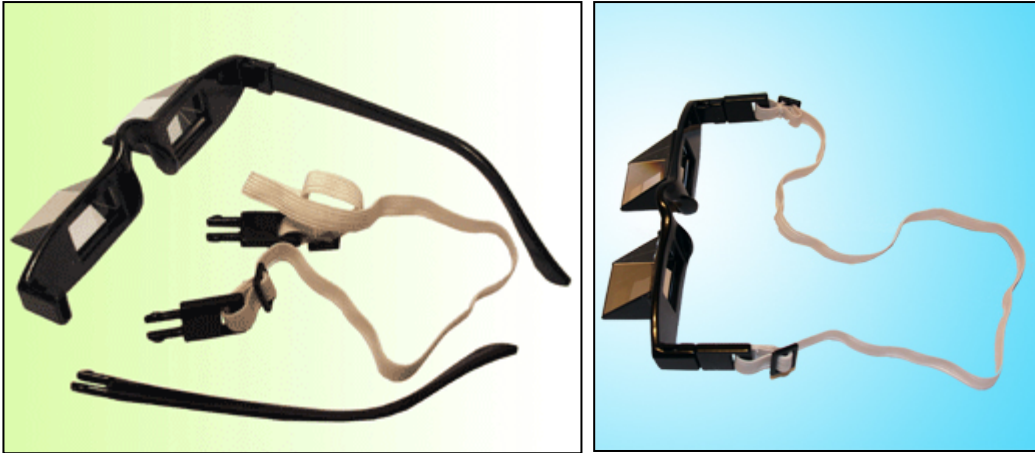


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- MRIwear Prism Glasses can be **Worn with All-Plastic Earpiece or Elastic Strap**
- Plastic Temples snap into frame and fit over the ear just like a regular pair of eyeglasses
- An Elastic Strap can be snapped in place of the side earpieces to Firmly Hold the Glasses in Place
- MRIwear Prism Glasses come with a handy storage container and lint-free cloth
- Glasses may be easily cleaned to be hygienically worn by multiple patients

### Prism Glasses are Compact and **Easily Worn in All MRI Coils**

- Slim Design enables glasses to be worn inside All MRI Coils and All MRI Systems, regardless of manufacturer, including all types of MRI Head Coils



Elastic Strap Can Snap-in After Removal of Temples

<b>MRIwear Prism Glasses Compared with Standard Prism Glasses</b>	
MRIwear Deluxe Prism Glasses	Standard Prism Glasses
No Metal Parts to Interfere with Scan	Hinges made of metal cause distortion and artifacts near the eyes
Temples or Elastic Strap may be used	Only usable with a Temple that Goes over the Ear
Elastic Strap can be sized for Children	One size designed for use primarily by Adults
Prisms may be reversed 180-degrees	Fixed-Prism only Directs Viewing towards the Feet

### Prism Glasses Feature Expanded Use for the following:

- Bicyclists can see the road ahead with their head tucked downward
- Can reduce neck strain from having to look upward or downward for long periods of time
  - Mountain Climbing Instructors
  - Assembly Line Workers Viewing up or down for long periods
  - Individual can lie flat on back for long periods and wait for activity
  - Hunting or Military Use
  - One Prism Could be set to view frontal and the other in the opposite direction
- Prism Glasses enable wearer to lie down and see outwards, regardless of being head-first or feet first inside the MRI Magnet, to reduce claustrophobia



## Model PG-200 Prism Glasses Manual

- The Prism Glasses are Packaged in a Foam-Padded Box to Provide Protection When Being Shipped

