

Release 1, January 2018

3M[™] Speedglas[™] Welding Helmet 9100 QR

Description

- Designed to fit many of the industry's most popular safety helmets. With the QR rail installed, you can easily detach the welding visor and your safety helmet remains while doing non welding tasks.
- Variable dark shade 5, 8, 9-13 for most types of arc welding.
- Possible to lock-in any shade, e.g. in the light state 3 when grinding. Delay function to set the dark-to-light opening time.
- Switching time (light-dark) 0,1 ms. The sensitivity of arc detection can be adjusted for unsurpassed switching reliability.
- Tack welding comfort mode help minimize eye strain during extended tack welding applications.
- Short brim for better upwards visibility. Wide range of accessories available, for example integrated safety spectacles and 6-point suspension strap.
- Compatible with most 3M[™] Disposable Welding Particulate Respirators.
- With the QR rail installed, you can easily detach the welding visor and your safety helmet remains while doing non welding tasks.

Common Applications

When used with recommended filters, are designed for most welding processes such as:

- MMA
- MIG/MAG
- TIG
- Low amp TIG
- Grinding applications

(i) IMPORTANT NOTE

Always wear ANSI approved safety spectacles as primary eye protection. Welding helmets are considered secondary eye protection.

Approvals/Standards

- ANSI Z87.1
- ANSI Z89.1
- CSA Z94.3



Equipment Markings

Additional Markings



Shall be disposed of as electrical and electronic waste

Read the instructions before use

Limitations of Use

- Only use with original 3M branded spare parts and accessories listed in the user instructions and within the usage conditions given in the technical specifications.
- The use of substitute components, decals, paint or other modifications not specified in these user instructions might seriously impair protection and may invalidate claims under the warranty or cause the product to be non-compliant with protection classifications and approvals.
- Eye protectors worn over standard ophthalmic spectacles may transmit impacts thus creating a hazard to the wearer.
- Use of this product in applications outside its intended use, such as laser welding/cutting, may result in permanent eye injury and vision loss.
- Severe burn injuries may result if these welding helmets are used for heavy-duty overhead welding applications where there is a potential for falling molten metal.
- Should the product fail to switch to the dark state in response to an arc, stop welding immediately and inspect the welding filter as described in the instructions. Continued use of a welding filter that fails to switch to the dark state may cause temporary vision loss. If the problem cannot be identified and corrected, do not use the welding filter, contact your supervisor, distributor or 3M for assistance.
- Materials which may come into contact with the wearer's skin are not known to cause allergic reactions to the majority of individuals. These products do not contain components made from natural rubber latex.
- Flashing light sources (i.e. flash tube strobe lights, safety warning lights, etc.) can trigger the welding filter causing it to flash even when no welding is occurring. This is inherent with all auto-darkening filter technology. This interference can occur from long distances and/or from reflected light.
- Welding areas must be shielded from such interference, or replace lights with an LED strobe light.

Technical Specifications

Description	Value		
Viewing area:	3M™ Speedglas™ 9100V Welding Filter:1.77 x 3.66 in (45 x 93 mm)3M™ Speedglas™ 9100X Welding Filter:2.13 x 4.21 in (54 x 107 mm)3M™ Speedglas™ 9100XX Welding Filter:2.87 x 4.21 in (73 x 107 mm)3M™ Speedglas™ 9100XXi Welding Filter:2.87 x 4.21 in (73 x 107 mm)		
Switching Time (light-dark)	0.1 ms (+23° C)		
UV/IR Protection	Shade 13 (permanent)		
Light State	Shade 3		
Dark State	Shade 5, 8–13		
Fail/Safe State	Shade 5		
Battery Type	Lithium 3V Type CR2032 (2)		
Battery Lifetime	3M [™] Speedglas [™] 9100V Welding Filter: 2800 hours 3M [™] Speedglas [™] 9100X Welding Filter: 2500 hours 3M [™] Speedglas [™] 9100XX Welding Filter: 2000 hours 3M [™] Speedglas [™] 9100XXi Welding Filter: 1800 hours		
Operating Temperature	23°F to 131°F (-5°C to +55°C)		
Head Size	50 – 64 cm (6.25 - 8 in)		

3M Personal Safety Division

Description	Value
Material Quick release rail: Shield: Silver front frame: SideWindows: Head suspension:	PPA PPA/PP/TPE PA PC PA, PP, TPE, PE

Spare Parts and Accessories

Spare Parts	Description	Part Number	Description		
Spare Parts					
06-0100-10QR	Speedglas welding helmet 9100-QR with 9100V welding filter and 3M Hard Hat H-701	06-0100-30QR	Speedglas welding helmet 9100-QR with 9100XX welding filter and 3M Hard Hat H-701		
06-0100-20QR	Speedglas welding helmet 9100-QR with 9100X welding filter and 3M Hard Hat H-701				
06-0119-00QR 06-0114-00QR 06-0014-00QR 06-0014-00QR 06-0300-52QR 06-0300-55					
06-0300-54QR 04-0320-00 06-0400-55(B) 06-0200-55(B) 06-0200-51(B) 06-0200-52(B) 06-0000-30 06-0000-30 06-0000-30 06-0200-30(B) 06-0200-51(B) 06-0200-30(B) 06-0200-30(B) 06-0200-30(B) 06-0200-51(B) 06-0200-30(B) 06-0200-51(B) 06-0200-30(B) 06-0					
06-0200-52	06-0000-10 06-0200-20(B) 06-050 (B) 06-0000-20 06-0200-30(B) 06-050 (B) 06-0000-30 06-0000-30 06-0000-30	00-59			
06-0200-52	06-0000-10 06-0200-20(B) 06-050 (B) 06-0000-20 06-0200-30(B) (B) 06-0000-30 (B) 06-0000-30i	00-59			
06-0200-52 06-0200-53	06-0000-10 06-0200-20(B) 06-050 (B) 06-0000-20 06-0200-30(B) (B) 06-0000-30 (B) 06-0000-30i	00-59			
06-0200-52 06-0200-53 Accessories and C	06-0000-10 06-0200-20(B) 06-050 (B) 06-0000-20 06-0200-30(B) (B) 06-0000-30 (B) 06-0000-30 (B) 06-0000-30i	1	8-0099-68		
06-0200-52 06-0200-53 Accessories and C 04-0023-02	06-0000-10 06-0200-20(B) 06-050 (B) 06-0000-20 06-0200-30(B) (B) 06-0000-30 (B) 06-0000-30 (B) 06-0000-30 Onsumables 3M hard hat H-701R, white (unvented)	06-0200-30	8-0099-68 Inside protection plate 9100XX, 5/case		
06-0200-52 06-0200-53 Accessories and C 04-0023-02 04-0320-00	06-0000-10 06-0200-20(B) 06-050 (B) 06-0000-20 06-0200-30(B) 06-050 (B) 06-0000-30 06-0000-30(B) 06-050 (B) 06-0000-30(B) 06-0000-30(B) 06-050 onsumables 3M hard hat H-701R, white (unvented) 06-050 Batteries, 2/case 06-050 06-050	06-0200-30 06-0200-30-B	8-0099-68 Inside protection plate 9100XX, 5/case Part no 06-0200-30, 25/case		
06-0200-52 06-0200-53 Accessories and C 04-0023-02 04-0320-00 06-0000-10	06-0000-10 06-0200-20(B) 06-050 (B) 06-0000-20 06-0200-30(B) 06-050 (B) 06-0000-30 06-0000-30(B) 06-050 onsumables 3M hard hat H-701R, white (unvented) 06-050 Batteries, 2/case Speedglas welding filter 9100V	06-0200-30 06-0200-30-B 06-0200-51	Inside protection plate 9100XX, 5/case Part no 06-0200-30, 25/case Outside protection plate standard, 10/case		
06-0200-52 06-0200-53 06-0200-53 04-0023-02 04-0320-00 06-0000-10 06-0000-20	06-0000-10 06-0200-20(B) 06-050 (B) 06-0000-20 06-0200-30(B) 06-050 (B) 06-0000-30 06-0000-30(B) 06-050 onsumables 3M hard hat H-701R, white (unvented) 06-050 Batteries, 2/case Speedglas welding filter 9100V Speedglas welding filter 9100X	06-0200-30 06-0200-30-B 06-0200-51 06-0200-51-B	Inside protection plate 9100XX, 5/case Part no 06-0200-30, 25/case Outside protection plate standard, 10/case Part no 06-0200-51, 50/case		
06-0200-52 06-0200-53 Accessories and C 04-0023-02 04-0320-00 06-0000-10 06-0000-20 06-0000-30	06-0000-10 06-0200-20(B) 06-050 (B) 06-0000-20 06-0200-30(B) 06-050 (B) 06-0000-30 06-0000-30(B) 06-050 onsumables 3M hard hat H-701R, white (unvented) 06-050 Batteries, 2/case Speedglas welding filter 9100V Speedglas welding filter 9100X Speedglas welding filter 9100XX Speedglas welding filter 9100XX	06-0200-30 06-0200-30-B 06-0200-51 06-0200-51-B 06-0200-52	B-0099-68 Inside protection plate 9100XX, 5/case Part no 06-0200-30, 25/case Outside protection plate standard, 10/case Part no 06-0200-51, 50/case Outside protection plate scratch resistant, 10/case		
06-0200-52 06-0200-53 06-0200-53 04-0023-02 04-0320-00 06-0000-10 06-0000-20 06-0000-30 06-0000-30i	06-0000-10 06-0200-20(B) 06-050 (B) 06-0000-20 06-0200-30(B) 06-050 (B) 06-0000-30(B) 06-050 06-050 (B) 06-0000-3	06-0200-30 06-0200-30-B 06-0200-51 06-0200-51-B 06-0200-52 06-0200-53	B-0099-68 Inside protection plate 9100XX, 5/case Part no 06-0200-30, 25/case Outside protection plate standard, 10/case Part no 06-0200-51, 50/case Outside protection plate scratch resistant, 10/case Outside protection plate scratch resistant, 10/case Outside protection plate high temperature,10/case		
06-0200-52 06-0200-53 06-0200-53 04-0023-02 04-0320-00 06-0000-10 06-0000-20 06-0000-30 06-0000-30i 06-0200-10	06-0000-10 06-0200-20(B) 06-050 (B) 06-0000-20 06-0200-30(B) (B) 06-0000-30 06-050 (B) 06-0000-30 06-0200-30(B) (B) 06-0000-30 06-050 (B) 06-0000-30 06-000 (B) 06-0000-30 06-000 (B) 9100V Speedglas welding filter 9100XX Speedglas welding filter 9100XX 1000	06-0200-30 06-0200-30-B 06-0200-51 06-0200-51-B 06-0200-52 06-0200-53 06-0200-53-B	B-0099-68 Inside protection plate 9100XX, 5/case Part no 06-0200-30, 25/case Outside protection plate standard, 10/case Part no 06-0200-51, 50/case Outside protection plate scratch resistant, 10/case Outside protection plate scratch resistant, 10/case Outside protection plate high temperature,10/case Part no 06-0200-53, 50/case		

3M Personal Safety Division

Part Number	Description	Part Number	Description
06-0500-57	Magnification plate 20x	06-0116-00QR	Pivot cover plate kit
06-0500-58	Magnification plate 25x	06-0118-00QR	Ear muff bar for Speedglas welding helmet 9100-QR
06-0500-59	Magnification plate 30x	06-0119-00QR	Distance bar when using welding filters 9100X/ 9100XX/9100XXi
18-0099-68	Ear and neck protection in leather	06-0300-52QR	Welding helmet 9100-QR without quick release rail, without welding filter, without hard hat
06-0014-00QR	Quick release rail for hard hat	06-0300-54QR	Welding helmet 9100-QR with quick release rail, without welding filter, without hard hat
06-0114-00QR	Rail retention parts	06-0300-55	Silver front panel 9100

(i) IMPORTANT NOTE

Before use, the wearer must read and understand the User Instructions provided as part of the product packaging.

Personal Safety Division

3M Center, Building 235-2W-70 St. Paul, MN 55144-1000

3M PSD products are occupational use only.

 In United States of America

 Technical Service:
 1-800-243-4630

 Customer Service:
 1-800-328-1667

 3M.com/workersafety
 In Canada

 Technical Service:
 1-800-267-4414

 Customer Service:
 1-800-364-3577

 3M.ca/Safety
 1-800-364-3577

© 3M 2018. All rights reserved. 3M and Speedglas are trademarks of 3M Company and its affiliates. Used under license in Canada. All other trademarks are property of their respective owners. Please recycle. Release 1, January 2018

