

DRAPER®

®

INSTRUCTIONS FOR Auto-Varioshade Welding Helmet

Stock No. 38271, 38392
Part No. WGH3, WGH4

IMPORTANT: PLEASE READ THESE INSTRUCTIONS CAREFULLY TO ENSURE THE SAFE AND EFFECTIVE USE OF THIS PRODUCT.



CE

38271 shown

DRAPER®

GENERAL INFORMATION

These instructions accompanying the product are the original instructions. This document is part of the product, keep it for the life of the product passing it on to any subsequent holder of the product. Read all these instructions before assembling, operating or maintaining this product.

This manual has been compiled by Draper Tools describing the purpose for which the product has been designed, and contains all the necessary information to ensure its correct and safe use. By following all the general safety instructions contained in this manual, it will ensure both product and operator safety, together with longer life of the product itself.

All photographs and drawings in this manual are supplied by Draper Tools to help illustrate the operation of the product. Whilst every effort has been made to ensure the accuracy of information contained in this manual, the Draper Tools policy of continuous improvement determines the right to make modifications without prior warning.

1. TITLE PAGE

1.1 INTRODUCTION:

USER MANUAL FOR:

AUTO-VARIOSHADE WELDING HELMET

Stock no. 38271, 38392.

Part no. WGH3, WGH4.

1.2 REVISIONS:

Date first published December 2013

As our user manuals are continually updated, users should make sure that they use the very latest version.

Downloads are available from: <http://www.drapertools.com/b2c/b2cmanuals.pgm>

DRAPER TOOLS LIMITED

HURSLEY ROAD

CHANDLER'S FORD

EASTLEIGH

HAMPSHIRE

SO53 1YF

UK

WEBSITE: www.drapertools.com

PRODUCT HELPLINE: +44 (0) 23 8049 4344

GENERAL FAX: +44 (0) 23 8026 0784

1.3 UNDERSTANDING THIS MANUALS SAFETY CONTENT:

WARNING! Information that draws attention to the risk of injury or death.

CAUTION! Information that draws attention to the risk of damage to the product or surroundings.

1.4 COPYRIGHT © NOTICE:

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In all cases this copyright notice must remain intact.

2. CONTENTS

2.1 CONTENTS

	PAGE CONTENT	PAGE
1	TITLE PAGE	
	1.1 INTRODUCTION	2
	1.2 REVISION HISTORY	2
	1.3 UNDERSTANDING THIS MANUAL	2
	1.4 COPYRIGHT NOTICE	2
2	CONTENTS	
	2.1 CONTENTS	3
3	GUARANTEE	
	3.1 GUARANTEE	4
4	INTRODUCTION	
	4.1 SCOPE	5
	4.2 SPECIFICATION	5
5	HEALTH & SAFETY INFORMATION	
	5.1 GENERAL SAFETY INSTRUCTIONS FOR WELDING HELMETS	6
6	TECHNICAL DESCRIPTION	
	6.1 IDENTIFICATION	8B
7	UNPACKING & CHECKING	
	7.1 PACKAGING	8A
8	SETTING THE HELMET	
	8.1 COMFORT AND FIT ADJUSTMENTS	9
	8.2 BEFORE FIRST USE	9
	8.3 PRODUCT CHARACTERISTICS	9
	8.4 DARKER SHADE SELECTION	10
	8.5 SENSITIVITY SELECTION	10
	8.6 DELAY SWITCH LOCATED INSIDE HELMET ABOVE FILTER	10
	8.7 WELDING/GRINDING	11
	8.8 SHADE GUIDE TABLE	12
9	MAINTENANCE	13
10	DISPOSAL	
	10.1 DISPOSAL	14
11	EXPLANATION OF SYMBOLS	
	11.1 EXPLANATION OF SYMBOLS	15
	DECLARATION OF CONFORMITY	ENCLOSED

3. GUARANTEE

3.1 GUARANTEE

Draper tools have been carefully tested and inspected before shipment and are guaranteed to be free from defective materials and workmanship for a period of 12 months from the date of purchase except where tools are hired out when the guarantee period is ninety days from the date of purchase.

A proof of purchase must be provided with the tool.

Should the machine develop any fault, please return the complete tool to your nearest authorized warranty repair agent or contact Draper Tools Limited, Chandler's Ford, Eastleigh, Hampshire, SO53 1YF. England. Telephone Sales Desk: (023) 8049 4333 or Product Helpline (023) 8049 4344.

If upon inspection it is found that the fault occurring is due to defective materials or workmanship, repairs will be carried out free of charge. This guarantee does not apply to normal wear and tear, nor does it cover any damage caused by misuse, careless or unsafe handling, alterations, accident, or repairs attempted or made by any personnel other than the authorised Draper warranty repair agent.

NOTE: If the tool is found not to be within the terms of warranty, repairs and carriage charges will be quoted and made accordingly.

This guarantee applies in lieu of any other guarantee expressed or implied and variations of its terms are not authorised.

Your Draper guarantee is not effective unless you can produce upon request a dated receipt or invoice to verify your proof of purchase within the 12 month period.

Please note that this guarantee is an additional benefit and does not affect your statutory rights.

Draper Tools Limited.

4. INTRODUCTION

4.1 SCOPE

Professional users helmet with solar powered automatic shading facilities when arc is struck.

4.2 SPECIFICATION

Stock no	38271.....	38392
Part no	WGH3.....	WGH4
Welding filter - Permanent protection against UV and IR radiation		
Power supply - Solar cells - no batteries required		
Viewing area	92 x 42mm	92 x 42mm
UV & IR Protection shade.....	16.....	16
Optical Class.....	1/1/1/2	1/1/1/2
Shades	9 - 13EW	9 - 13EW
Switching time - (Light to dark)	1/25000s	1/25000s
Delay time	0.25s / 0.70s.....	0.25s / 0.70s
Filter shades.....	9 - 13EW	9 - 13EW
Weight	0.49kg	0.49kg

5. HEALTH & SAFETY INFORMATION

5.1 GENERAL SAFETY INSTRUCTIONS FOR WELDING HELMETS

- Severe burns are possible with a damaged lens (cracks, pits and holes etc.).
Do not use damaged lenses.
- Optical radiation can possibly enter in from behind the helmet from other welders welding in the immediate area.
- This helmet is not designed for oxyacetylene, laser or very low amperage welding applications. (Arc detection may be impaired due to amperage, distance from the arc, welding copper, frequency, electrode type, shielding gasses and lighting conditions).
- This helmet is not designed to protect against severe impact, explosives or fragments from spinning wheels on abrasive discs.
- Do not weld in the light state.
- If filter fails to turn dark. Immediately stop welding.
- Do not use in an excessive heat environment.
- Ensure that the sensors are kept clean.

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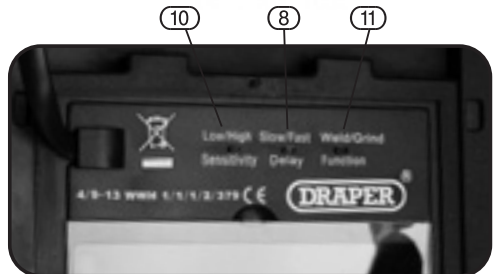
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6. TECHNICAL DESCRIPTION

6.1 IDENTIFICATION



- ① Outer cover lens.
- ② Helmet.
- ③ Potentiometer control dial.
- ④ Angle adjustment.
- ⑤ Upper head band.
- ⑥ Circumference adjustment.
- ⑦ Head band.
- ⑧ Slow-fast delay switch.
- ⑨ Inner cover lens.
- ⑩ High/low sensitivity switch.
- ⑪ Weld/Grind switch



7. UNPACKING & CHECKING

7.1 PACKAGING

Carefully remove the helmet from the packaging and examine it for any sign of damage that may have happened during shipping. Lay the contents out and check them against the parts shown below. If any part is damaged or missing; please contact the Draper Helpline (the telephone number appears on the Title page) and do not attempt to use the machine.

The packaging material should be retained at least during the guarantee period: in case the machine needs to be returned for repair.

Warning! Some of the packaging materials used may be harmful to children. Do not leave any of these materials in the reach of children.

If any of the packaging is to be thrown away, make sure they are disposed of correctly; according to local regulations.

8. SETTING THE HELMET

8.1 COMFORT AND FIT ADJUSTMENTS - FIG. 1

Push and move strap (5) to obtain correct height. Turn (4) for helmet angle adjustment.

Push and turn (6) to vary head size, pull knob again to lock position.

Loosen knob (4) to adjust distance from face/eyes.

8.2 BEFORE FIRST USE

Tear off the cover lens' screen film on both sides of the filter cartridge before using the helmet.

Adjust and select the desired shade no. according to the type of welding and current of weld to suit your requirements.

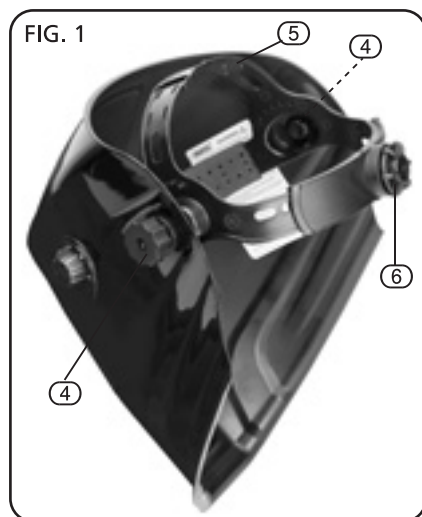
Adjust the upper head band (5) and retaining band (6) to achieve a stable fit .

The helmet face shield can be adjusted further away or closer to the users face, this is achieved by loosening knobs (4) and sliding the face shield forwards or backwards. When tightening these knobs back up adjust the tension just enough to allow the face shield to remain in the raised position due to the friction of these knobs.

8.3 PRODUCT CHARACTERISTICS

When arc is struck, Auto-darkening filter will turn from a clear state to a dark state, response time is less than 0.1ms.

The high performance of the Auto-Darkening filter provides the user's eyes and face full protection against UV and IR radiation during the entire welding process. The UV/IR protection level is up to shade 13 (DIN). This product is in full conformity with related DIN & EN safety standards.

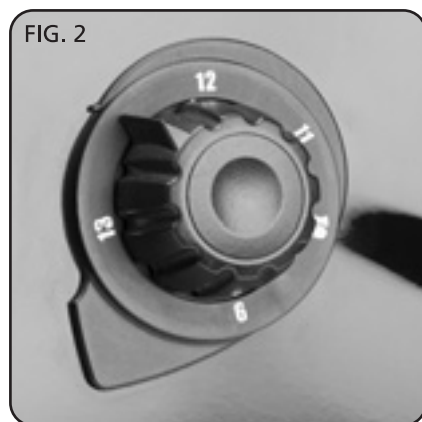


8. SETTING THE HELMET

8.4 DARKER SHADE SELECTION - FIG. 2

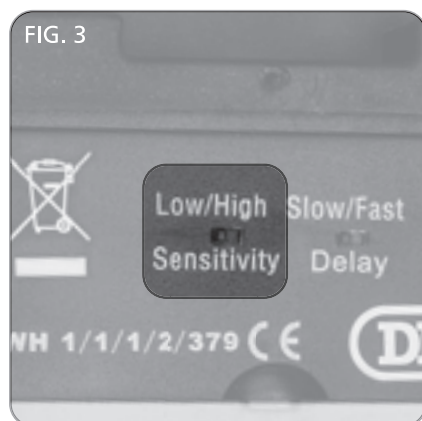
Select the shade level according to the welding process and the value of welding current by turning the potentiometer knob ③ on the left side of the helmet.

The shade number can be manually set between DIN9 to DIN13. Select a shade number by turning the shade adjustment knob until the arrow points to the required setting, see shade guide table on page 12 of this manual.



8.5 SENSITIVITY SELECTION - FIG. 3

According to your operational conditions, you can select suitable setting to meet your requirements for TIG welding or other small electric ARC welding can choose high sensitivity.



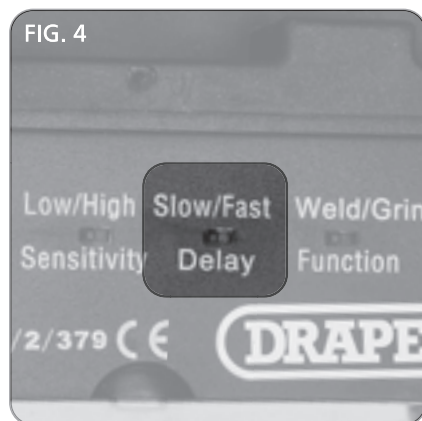
8.6 DELAY SWITCH LOCATED INSIDE HELMET ABOVE FILTER - FIG. 4

SLOW:

This setting delays the filter from turning clear again after welding stops for around 1.0 seconds to protect user from weld pool glow. Used for high amperage applications.

FAST:

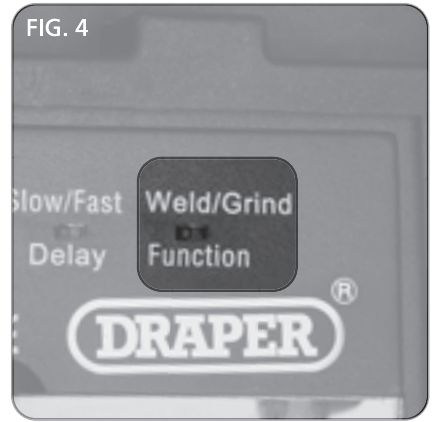
This setting delays the filter from turning clear again after welding stops for around 0.1 seconds. Used for normal general use.



8. SETTING THE HELMET

8.7 WELDING/GRINDING - FIG. 5

When the helmet is switched to grind function the helmet will only darken enough to provide protection from the glow of ground metal and related sparks.



8. SETTING THE HELMET

8.8 SHADE GUIDE TABLE:

Welding Process	ARC Current (Amperes)																						
	0.5	1	2.5	5	10	15	20	30	40	60	80	100	125	150	175	200	225	250	275	300	350	400	450
SMAW							9	10	11			12			13			14					
MIG (heavy)										10	11	12			13			14					
MIG (light)										10	11	12	13	14	15								
TIG, GTAW				9	10	11	12			13			14										
MAG/CO ₂										10	11	12	13			14			15				
SAW										10	11	12	13	14	15								
PAC										11		12		13									
PAW				8	9	10	11	12	13			14			15								

NOTE: SMAW - Shielded Metal Arc Welding. **MIG (heavy)** - MIG on heavy metals.

MIG (light) - MIG on light alloys. **TIG, GTAW** - Gas Tungsten Arc Welding.

SAW- Shielded Semi-Automatic Arc Welding. **PAC**- Plasma Arc Cutting.

9. MAINTENANCE

Regular inspection and cleaning reduces the necessity for maintenance operations and will keep the product in good working condition.

If the replacement of the part is necessary, this has to be done by the manufacturer or his agent in order to avoid a safety hazard.

All servicing and maintenance not listed in this manual must be carried out by an approved Draper service agent (see back for contact details).

Filters require virtually no maintenance other than periodic cleaning when the lens, solar panel, and/or sensor(s) become dirty or clouded from smoke. Clean your filter by using window cleaner or a mild soapy solution and a soft cloth or paper towel (do not immerse in water or solution). Change the cover plates frequently.

Welding helmets require virtually no maintenance other than periodic cleaning when dirty. Clean your helmet by using a mild soapy solution and a soft cloth or paper towel (do not immerse in water or solution). Do not throw or abuse the helmet. Doing so may crack the helmet shell and compromise the protection.

Change cover plates when they lose flexibility and/or become bowed or distorted. Clean with mild soapy solution including any build-up from the area where the cover plate is retained. Discard if cleaning fails to improve visibility. Use an internal cover plate to provide additional protection.

10. DISPOSAL

10.1 DISPOSAL

- At the end of the machine's working life, or when it can no longer be repaired, ensure that it is disposed of according to national regulations.
- Contact your local authority for details of collection schemes in your area.

In all circumstances:

- Do not dispose of power tools with domestic waste.
- Do not incinerate.
- Do not abandon in the environment.
- Do not dispose of WEEE* as unsorted municipal waste.



* Waste Electrical & Electronic Equipment.

11. EXPLANATION OF SYMBOLS

11.1 EXPLANATION OF SYMBOLS



WEEE

Do not dispose of Waste Electrical &
Electronic Equipment in with
domestic rubbish

- **DRAPER TOOLS LIMITED,**
Hursley Road, Chandler's Ford,
Eastleigh, Hampshire. SO53 1YF. U.K.
- **Helpline:** (023) 8049 4344
- **Sales Desk:** (023) 8049 4333
- **Internet:** www.drapertools.com
- **E-mail:** sales@drapertools.com
- **Sales Fax:** (023) 8049 4209
- **General Enquiries:** (023) 8026 6355
- **Service/Warranty Repair Agent**
For aftersales servicing or warranty repairs, please contact the Draper Tools Helpline for details of an agent in your local area.

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