

# **Fixed Shade 10 Welding Helmet**

Model: 4UZZ3





Welding helmets are designed to protect the eyes and face from sparks, spatter and harmful radiation under normal welding conditions.

This welding helmet comes ready for use. Follow all "safety" warnings, make all helmet fit adjustments and prior to use, be sure of the shade number 10 is correct for your welding application.



## WARNING INSTRUCTIONS FOR USE



Severe personal injury could occur if the user fails to follow the above mentioned warnings, and/or fails to follow the operating instructions.

Read & Understand All Instructions Before Using

- This welding helmet is not suitable for laser welding and Oxyacetylene welding/cutting processes.
- Wear ANSI approved safety goggles and ear protection at all times during use of the welding helmet. The lens is breakable and does not provide complete protection from flying particles.
- Never place this helmet and filter on a hot surface.
- This welding helmet will not protect against severe impact hazards, including grinding discs.
- This helmet will not protect against explosive devices or corrosive liquids.
- Don't immerse the filter in water.
- Protect the darkening filter from coming in contact with liquid and dirt.
- Don't use any solvents on the filter screen or helmet components.
- Clean the filter surface regularly. Never use strong cleaning solutions.
- Replace the cracked / scratched / pitted front cover lens.
- Do not make any modifications to either the filter or helmet, unless specified in this manual. Do not use replacement parts other than those specified in this manual.
- Unauthorized modifications and replacement parts will void the warranty and expose the operator to the risk of personal injury.
- Use only within temperatures: 14° F ~ 131°F (-10°C ~ 55°C)
- Store helmet within temperatures: -4° F ~ 158°F (-20°C ~ 70°C)
- The materials which may come into contact with the wearer's skin can cause allergic reactions in some circumstances.





# INSTRUCTIONS FOR USE

WARNING! Before using the helmet for welding, ensure that you have read and understood the safety instructions

## **Before First Use**

- 1. Remove the protective shipping film from both sides of the front lens.
- 2. The helmet comes assembled, but before it can be used, the headgear must be adjusted for proper fit.

## ADJUSTING THE FIT OF THE HELMET

The overall circumference of the headband can be made larger or smaller by pushing in and rotating the knob on the back of the headband. (See adjustment "Y" in Fig.1). This can be done while wearing the helmet and allows just the right tension to be set to keep the helmet firmly on the head without it being too tight.

#### **ADJUSTING THE HELMET FIT**

- If the headband is riding too high or too low on your head, adjust the strap which passes over the top of your head. To do this, release the end of the band by pushing the locking pin out of the hole in the band. Slide the two portions of the band to a greater or lesser width as required and push the locking pin through the nearest hole. (See adjustment "W" in Fig. 1).
- Test the fit of the headband by lifting up and closing down the helmet a few times while wearing it. If the headband moves while tilting, re-adjust it until it is stable.

#### ADJUSTING THE DISTANCE BETWEEN THE HELMET AND THE FACE

- Step 1: Undo the block nut (See "T" in Fig. 1) to adjust the distance between the helmet and your face in the down position.
- Step 2: Loosen the block nut on either side of the helmet and slide it nearer or further from your face. (See adjustment "Z" in Fig.1). It is important that your eyes are each the same distance from the lens. Otherwise the darkening effect may appear uneven.
- Step 3: Re-tighten the block nut when adjustment is satisfactory.







#### **ADJUSTING VIEW ANGLE**

There are 5 holes on both side of the helmet (see Fig.2). You can change view angle position by moving the adjustable limitation washer into different holes.



# • SHADE SELECTION GUIDE (Fig.3)

						ARC	C	URR	RENT (	Ampe	res)						
Welding Process	0.5	2.5		10	20		40		80	125	175	5 :	225	275	35	0 45	D
		1 	5	15		30		60	100	1	50 	200	250	3(	00	400	500
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		1	11	12			13			14	
MAG/CO <sub>2</sub>								10	1	1	12		13			14	15
SAW											10	11	1.	2	13	14	15
PAC									11			12				13	
PAW				8 9	10	11	1	13	2		13			14	4		15

NOTE:

SMAW - Shielded Metal Arc Welding

MIG (Heavy) - MIG on Heavy Metals

SAW – Shielded Semi-Automatic Arc Welding TIG, GTAW – Gas Tungsten Arc Welding

PAW - Plasma Arc Welding

MIG (Light) - MIG on Light Alloys

PAC – Plasma Arc Cutting

MAG/CO<sup>2</sup> - Metal Active Gas

#### TROUBLE SHOOTING

# **Irregular Darkening or Dimming**

Headband has been set unevenly on the two sides of the helmet resulting in an uneven distance from the eyes to the filter lens. (Adjust the headband to reduce the difference in distances to the filter).

# Auto Darkening filter does not darken or flicker

- Helmet was not properly charged before first use. (See "Before First Use section on page 2.
- Front cover lens is dirty or damaged. (Change the cover lens)
- Sensors are dirty. (Clean the sensor's surface.)
- Welding current is too low. (Adjust the sensitivity setting higher, Increase the delay time, if necessary).

# Slow response from darkening

Operating temperature is too low (Do not use at temperatures below -10°C or 14°F.)





#### **Poor vision**

- Front/inside cover lens and/or the filter are dirty. (Clean or change lens).
- There is insufficient ambient light.
- Shade number is incorrectly set, (Reset the shade number)
- Welding helmet slips
- Headband is not properly adjusted (Readjust the headband).



# REPLACING FRONT COVER LENS.

Replace the front cover lens if it is damaged (cracked or pitted). Move the holding spring out of the flip-up unit, replace the front cover lens with new one. (See Fig. 4).

# REPLACING THE INSIDE COVER LENS.

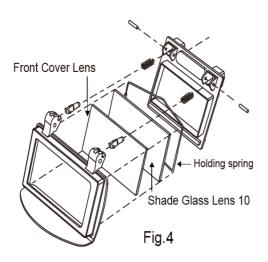
Replace the inner cover lens if it is damaged (cracked or pitted). Place your finger or thumb into the recess at the <u>upper edge</u> of the window and flex the window upwards until it releases from one edgel

#### CHANGING THE SHADE CARTRIDGE.

Move the holding spring out of the flip-up unit, replace the front cover lens with new one. (See Fig. 4).

#### **CLEANING.**

Clean helmet by wiping with a soft cloth. Clean cartridge surfaces regularly. Do not use strong cleaning solutions. Clean sensors and solar cells with methylated spirit (ethyl alcohol 95% and methyl alcohol 5%) and a clean cloth and wipe dry with a lint-free cloth.







**Welding Helmet Service Kit** 

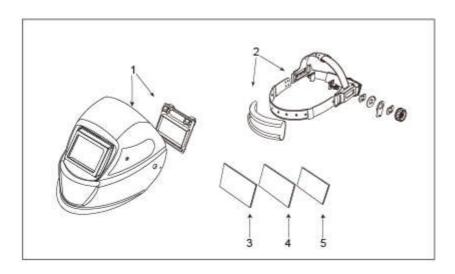
# For Repair Parts, call 1-800-323-0620

24 hours a day - 365 days a year

Please provide the following:

- Model Number
- Serial Number (if any)
- Part description and number as shown on parts list

Figure - Repair Parts Illustration for Model(s) 4UZZ3



# **Repair Parts List**

Reference			
Number	Description	Part Number	Qty.
1	Shell(Welding mask)	TTST100SG	1
2	Headband	TTST100HGG	1
3	Front Cover Lens	TTST100FG	1
4	Auto-DarkeningFilter	TTST100LG	1
5	Inside Cover Lens	TTST100IG	1

# **3 YEAR WARRANTY**

Should this welding helmet ever fail to perform satisfactorily due to a defect or poor workmanship within 3 years from the purchasing date, return it to the place of purchase and it will be replaced, free of charge. Incidental or consequential damages are excluded from this warranty.





TECHNICAL SPECIFICATIONS					
Viewing Area	98x53mm(3.86"x2.09")				
UV/IR Protection	Up To Shade DIN16 at all times				
Shade	Shade 10 Welding Glass				
Total Weight	510g				
Standard	ANSI Z87.1-2003 / CSA Z94.3				



Manufactured for Grainger International, Inc.

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