



# AUTO DARKENING WELDING GOGGLES

## SHADE 9-13

MODEL NO: **SSP102**

Thank you for purchasing a Sealey product. Manufactured to a high standard, this product will, if used according to these instructions, and properly maintained, give you years of trouble free performance.

**IMPORTANT:** PLEASE READ THESE INSTRUCTIONS CAREFULLY. NOTE THE SAFE OPERATIONAL REQUIREMENTS, WARNINGS & CAUTIONS. USE THE PRODUCT CORRECTLY AND WITH CARE FOR THE PURPOSE FOR WHICH IT IS INTENDED. FAILURE TO DO SO MAY CAUSE DAMAGE AND/OR PERSONAL INJURY AND WILL INVALIDATE THE WARRANTY. KEEP THESE INSTRUCTIONS SAFE FOR FUTURE USE.



Refer to instructions

### **BATTERY WARNING**

**KEEP OUT OF REACH OF CHILDREN**  
Swallowing can lead to chemical burns, perforating of soft tissue, and death. Severe burns can occur within 2 hours of ingestion. Seek medical attention immediately.



If the battery compartment does not close securely, stop using the product and keep it away from children.  
Refer to Section 8 for Battery Safety information.



Warning:  
Contains Lithium battery

## 1. SAFETY

- ☐ **WARNING!** The goggles is not suitable for use with laser welding or CUTTING or for overhead welding applications.
- ✓ Ensure all workshop safety rules, regulations and conditions are complied with when using welding equipment. The goggles will not offer protection against misuse of workshop tools, equipment, or accessories.
- ✓ Maintain the goggles in good condition and protect cartridge from liquid and dirt contact. Regularly replace the protective lens and replace any damaged or worn parts. Use genuine parts only. Unauthorised parts may be dangerous and will invalidate the warranty.
- ✓ Ensure the front cover window is securely in place before use.
- ✓ Fit the goggles and adjust the head band so the goggles will sit as low and near to your face as possible.
- ✓ Use goggles only in temperatures ranging from -10°C to 60°C.
- ✓ Remove ill fitting clothing, remove ties, watches, rings and other loose jewellery. Wear appropriate PPE to avoid spatter and burns.
- ✓ Maintain correct balance and footing.
- ✓ Ensure the floor is clear from obstructions, not slippery and wear non-slip shoes.
- ✓ Keep children and unauthorised persons away from the working area.
- ☐ **WARNING!** The goggles will only protect the eyes and face from radiation and sparks. It will not protect against explosive devices or corrosive liquids. Ensure goggles are sealing against light before use.
- ✗ **DO NOT** use goggles for any purpose for which it is not designed.
- ✗ **DO NOT** use goggles unless you have been instructed in its use by a qualified person.
- ✗ **DO NOT** open or tamper with the shade cartridge.
- ✗ **DO NOT** get the goggles wet or use in damp or wet locations.
- ✗ **DO NOT** leave work place with goggles in lowered position, as bright light source may darken cartridge unexpectedly.
- ✗ **DO NOT** place the goggles on a hot surface.
- ✗ **DO NOT** use goggles without front cover window fitted. To do so will invalidate your warranty.
- ✓ Clean goggles (see section 6) and store the goggles in a safe, dry, childproof location.
- ☐ **WARNING!** Before welding always inspect the goggles to ensure they are not damaged. To test the goggles prior to welding, direct the front of the goggles to a bright light source which will cause the lens to darken. Then using your hand rapidly cover and uncover the sensor. The goggles should lighten momentarily then return to a dark state.
- ☐ **WARNING! DO NOT** use the goggles if damaged or you suspect they may be faulty.
- ☐ **DANGER! DO NOT USE** if, at any time, the face plate in the goggles FAILS to darken when exposed to a welding spark. Remove and return to your Sealey stockist for checking.
- ▲ **DANGER!** Continued use of the product knowing that the auto darkening feature is NOT FUNCTIONING may DAMAGE YOUR EYES and CAUSE BLINDNESS.
- ✓ Avoid working in wrong position that could expose unprotected areas of the body to spark, spatter or reflected radiation and use adequate protection if it cannot be avoided.
- ✓ The recommended operating temperature range for welding lens is -5° C to 55°C (14 °F-131 °F ). **DO NOT** use this device beyond these temperature limits.
- ✓ Never place these welding goggles on a hot surface.
- ✗ **DO NOT** use any solvents on any lens or mask components.
- ✓ Be sure that the dark shade of the welding lens in the welding goggles is the correct shade number for your application.
- ✓ Inspect all operating parts before each use for signs of wear or damage. Any scratched, cracked, or pitted parts should be replaced immediately.
- ✓ Check the inside & outside protection plates are clean and that no dirt is covering the sensors on the front of the goggles.
- ✓ Please ensure goggles are sealing against light before use.
- ✗ **DO NOT** use any replacement parts other than those specified in this manual. Unauthorized modifications and replacement parts will void the warranty and expose the user to the risk of personal injury.
- ✓ Check the battery state before use.
- NOTE:** The material which may come into contact with the wearer's skin can cause allergic reactions in some circumstances. Seek medical advice if so affected.
- NOTE:** Eye protector shall only be used against high-speed particles at room temperature.

## 2. INTRODUCTION

Compact design allows user to weld in tight spaces where traditional helmets would not allow. Benefit from precise visual clarity and optimal protection as you weld, thanks to the seamlessly adjustable shade control between 9-13. Suitable for MIG, TIG, arc/MMA and gas welding. Also features sensitivity and delay controls for fully automatic switching from light to dark on striking arc. Eyes remain firmly protected with an instant operating time between light and dark standing at 0.3ms. Shade is selected by the digital screen on the side of the goggles. Goggles are supplied with a face shield as well as a safety hood to offer maximum protection from arc rays and light splatter.

## 3. SPECIFICATION

MODEL: ..... SSP102  
Grinding Function: ..... Yes  
Nett Weight: ..... 0.46kg  
Operating Temperature: ..... -5°C to +55°C  
Operating Time Light/Dark: ..... 0.3ms  
Power: ..... Lithium Cell Battery  
PPE Category: ..... I  
Shade Active: ..... 5-8/9-13 Variable  
Shade Inactive: ..... 3  
Viewing Area: ..... 111 x 39mm

## 4. COMPONENTS

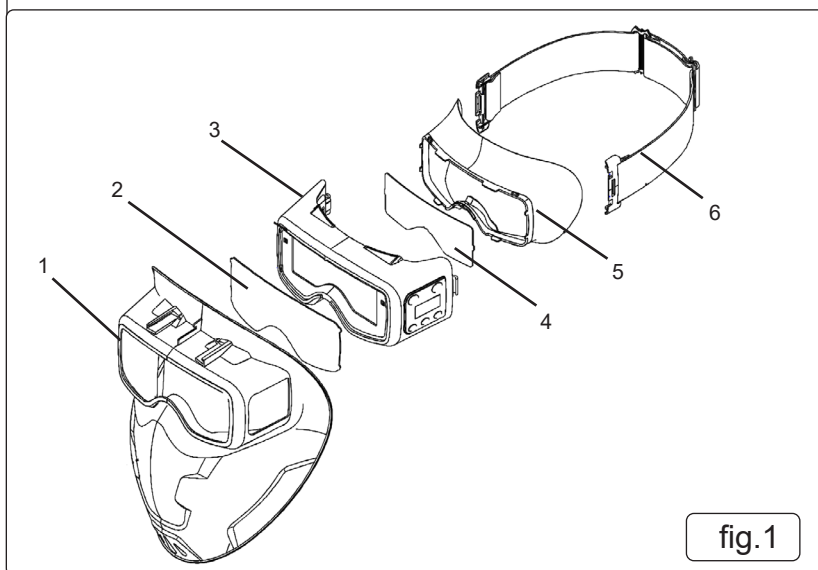


fig.1

### MARKING KEY

#### Welding Helmet Shell:

16321 YXEW131-M

16321 indicates Document Name of Standard

YXE indicates Manufacturer's identification

13 indicates Darkest State

1-M indicates Headform Size

#### Automatic welding filters:

G3016321 YXE W3/5-8/9-13 V2;  
G2016321 YXE W3/5-8/9-13 V2

G30/G20 indicates Model Name

3 indicates Light State

5-8/9-13 indicates dark states

YXE indicates Manufacturer's identification

V2 indicates Angle dependence class

16321 indicates Document Name of Standard

### FIG.1 KEY

ITEM	DESCRIPTION
1	Auto Darkening Goggles Shell
2	Outer Protection Plates
3	Goggles
4	Inner Protection Plates
5	Silicone Skirt
6	Elastic Headband

## 5. OPERATION

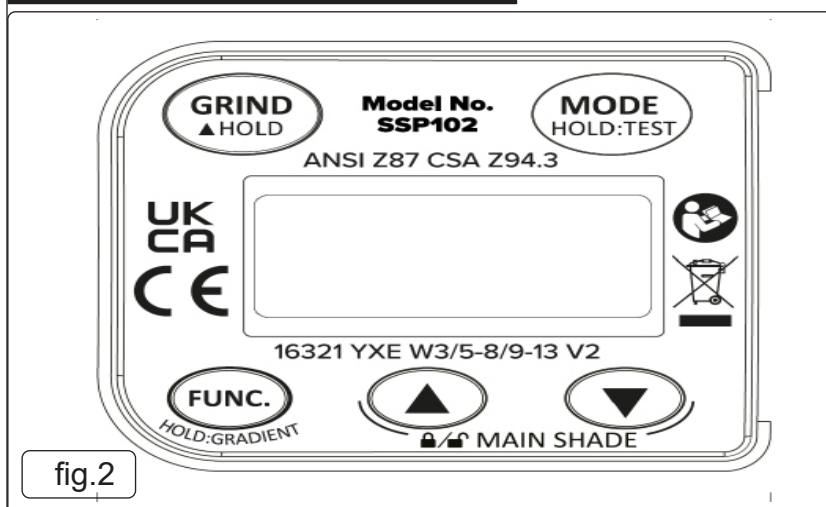


fig.2



Goggles With Hood Fitted

**NOTE:** We recommend a usage period of 4 years. The period depends on various factors such as use, cleaning, storage and maintenance.

**5.1.** Ensure the protective films on all lenses are removed before use.

**5.2.** The goggles are powered by a replaceable battery, CR\*2450. Battery icon (LED Light) will twinkle when the power is low with 1 bar illuminated and a replacement is needed. Remove the battery cover, take the old battery out and replace with a new one. See Maintenance section for instructions. Perform visual inspection prior to each use.

### 5.3. MODES

**5.3.1.** Welding Mode (Shade range 9-13). See Section 9 for Shade Guide.

**5.3.2.** Cutting Mode (Shade range 5-8). See Section 9 for Shade Guide.

- 5.3.3. Grinding Mode
- 5.3.4. Press the MODE button (fig.2) to cycle through Weld, Cut and Grind options.
- 5.4. VARIABLE SHADE CONTROL**
- 5.4.1. WELD Mode 9-13 (fig.3)
- 5.4.2. Press the MODE button and FUNC.button at the same time. The SHADE icon will be flashing and you will then be able to adjust the shade value by pressing UP/DOWN and the number will go from 9-13.
- 5.4.3. To change the shade in welding and cutting modes, press MODE button.
- 5.4.4. **NOTE:** Refer to Shade Guide Table Section 9 to determine shade value required if necessary.



fig.3

WELD Mode (9-13)

**5.5. SENSITIVITY CONTROL (fig.3)**

- 5.5.1. The sensitivity can be set within 0-9 LEVELS by pressing the FUNC. and UP/DOWN button on the digital control panel and the number will be indicated in the left corner of the digital display.
- 5.5.2. Sensitivity. 0: (Low) Suitable for high amp. welding and welding in bright light conditions (lamplight or sun light).
- 5.5.3. Sensitivity. 9: (High ) Suitable for low amp. welding and welding in poor light conditions and suitable for welding with steady arc process such as TIG welding.

**5.6. DELAY CONTROL (fig.3)**

- 5.6.1. Delay Time can be adjusted from 0-9 levels (0.04-2.0s) .The time delay is for protection of welder's eyes from strong residual rays after welding.
- 5.6.2. The recovery time intervals are recommended extended when the shade increased.
- 5.6.3. Short pressing FUNC. Button, when the DELAY is flashing, you can adjust it by pressing UP/DOWN to increase or decrease the delay time.
- 5.6.4. Level 9: Longest delay time is 2.0s. which is suitable for most welding application, especially for high amperage current application and longer welding intervals. Longer delay can also be used in low current TIG welding in order to prevent the filter opening when the light path to sensor is temporarily obstructed by a hand, torch, neighbouring welders' arc.
- 5.6.5. Level 0: Short delay time digital version is 0.04s,and it is for spot welding application.

**5.7. GRIND MODE (fig.4)**

- 5.7.1. Set the MODE to GRIND or hold the GRIND button and GRIND & SHADE will appear on the LCD screen.
- \* **DO NOT** weld in GRIND mode because the goggles will not turn dark.



fig.4

GRIND Mode (3)

**5.8. CUT MODE (fig.5)**

- 5.8.1. Press the MODE button to cycle into the CUT mode.
- 5.8.2. You can change the shade number by pressing UP/DOWN buttons through the different shades (shade 5-8).

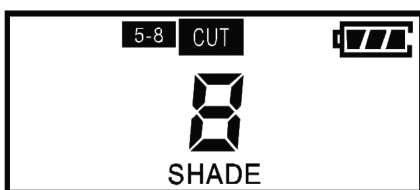


fig.5

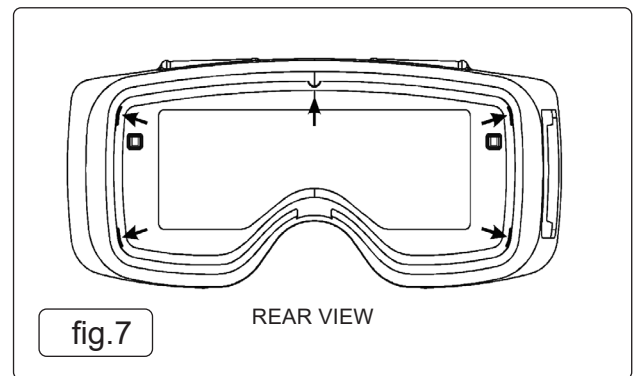
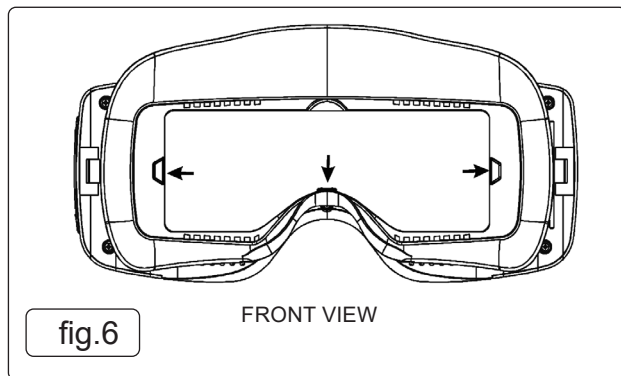
CUT Mode (5-8)

✓ **NOTE:** Restrict period of use to ensure concentration and safe working are at highest level.

## 6. MAINTENANCE

**NOTE:** The Welding Goggles need little maintenance. Use a clean, soft piece of cloth, moistened with soap/commercial disinfectant to wipe the inside/out-side of the goggles then dry. But the FILTER lens should **ONLY** be cleaned with dry, soft cloth.

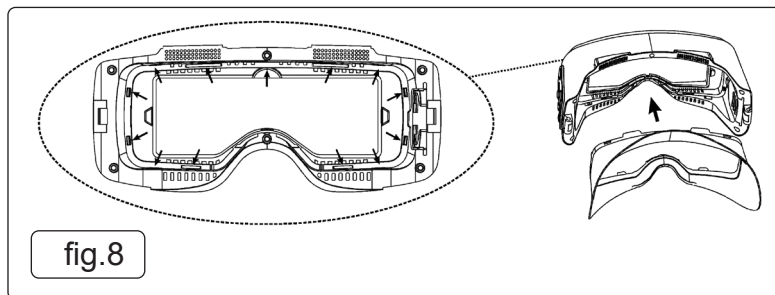
### 6.1. REPLACING PROTECTION PLATES (fig.1.2, fig.1.4, fig.6, fig.7) Only replace with genuine certified parts.



- 6.1.1. If protection screens (fig.1.2, fig.1.4) are in any way damaged, covered with welding spatter or broken, they must be immediately replaced.
- 6.1.2. Use a thin bladed screw driver or similar to pry the lenses out on the ADF and pull outwards to fully remove. Insert new lenses ensuring that they are securely fastened in the housing slots.
- 6.1.3. There are 5 slots on the outer cover lens, and 3 slots on the inner cover lens.

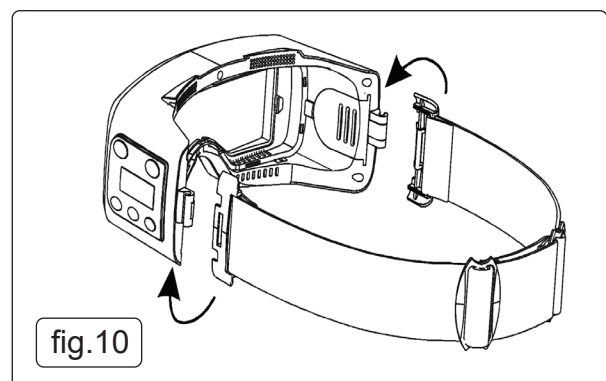
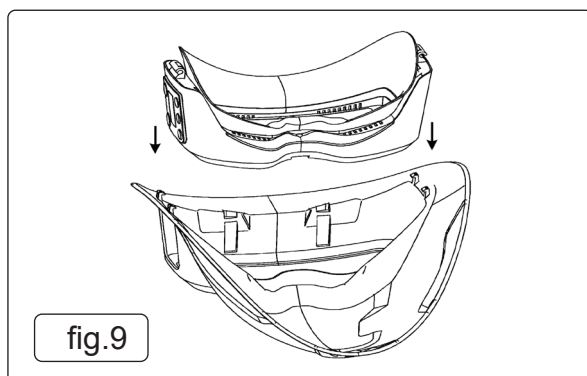
### 6.2. REPLACING SILICONE SKIRT (fig.8)

- 6.2.1. The silicone skirt needs to be replaced if broken, damaged or covered with welding spatter.
  - 6.2.2. Pull the silicone skirt upward in four positions to remove it.
  - 6.2.3. Insert a new silicone skirt into the goggles ensuring it is securely fitted. Be sure 13 tabs are put in the slots.
- ✓ **IMPORTANT!** User must always make sure that the silicone skirt is fitted properly before each use.



### 6.3. REMOVING THE GOGGLES FROM THE MASK (fig.1.3, fig.9)

- 6.3.1. Press the buckles in the direction showed in the fig 9. And at the same time, push goggles up separate.

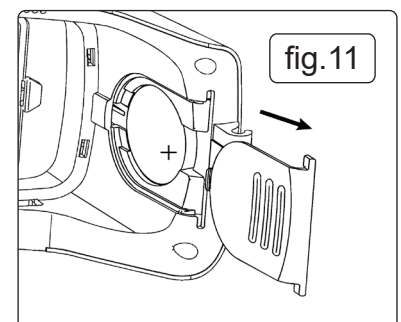


### 6.4. ADJUSTING / REPLACING THE ELASTIC HEAD BAND (fig.1.6, fig.9)

- 6.4.1. Pull the hinge clips up in the direction shown on fig. 10. to separate them from the goggles and replace the band.
- 6.4.2. Headband fit and tightness can be adjusted by the buckle on the band.

### 6.5. BATTERY REPLACEMENT (fig.11)

- 6.5.1. Slide battery cover from inside of goggles (fig.11) and remove the battery.
  - Dispose of battery in accordance with local, regional and national guidelines.
  - ✓ Replace with new battery and securely refit the battery cover.
- NOTE:** Refer to section 8 of these instructions labelled BATTERY SAFETY.



## 6.6. STORAGE AND TRANSPORT

- 6.6.1. Store in original packaging in clean, dry environment at temperature between -20°C to 70°C.
- 6.6.2. Transport unit in original packaging.

## 7. TROUBLESHOOTING

**NOTE:** Make sure the sensors are clean and facing the area with angles of 45° or more will limit the light reaching the sensors.

SYMPTOM	ACTION REQUIRED
Goggles not darkening.	Stop welding or cutting immediately.
	Check the mode is on WELD or CUT but not on Grind.
	Check the battery, is fitted and is LED shows charge. Replace if not.
	Change the lens if there is welding spatter cover the arc sensors.
	Check the sensitivity, adjust according to recommended value for the operation.
The goggles are flickering.	Check the power, if it is on, then follow the next step.
	Check the sensitivity, adjust it to required level.
	Clean lens covers and sensors of any obstruction.
The goggles remain dark after completing a weld .	Check the sensitivity, adjust it to a required level.
	If the work place is extremely bright, reduce the surrounding light level.
Slow Response.	Operate Temperature too low. <b>DO NOT</b> use at temperature below -10°C or 14 °F.
Poor Vision.	Change the cover lens/clean filter.
	Ensure ambient light is not too low.
	Ensure the shade number is correctly set.

## 8. BATTERY SAFETY

### 8.1. BATTERY INGESTION

- 8.1.1. If someone swallows a button battery, symptoms may not appear immediately, but serious damage can occur within hours. Here are common symptoms to watch for:
- 8.1.2. Unfortunately, it is not obvious when a button or coin battery is stuck in a child's oesophagus (food pipe). There are no specific symptoms associated with this. Common symptoms might be as below.
- 8.1.3. Cough, gag or drool a lot;
- 8.1.4. Appear to have a stomach upset or a virus;
- 8.1.5. Be sick;
- 8.1.6. Point to their throat or stomach;
- 8.1.7. Have a pain in their abdomen, chest or throat;
- 8.1.8. Be tired or lethargic;
- 8.1.9. Be quieter or more clingy than usual or otherwise "not themselves";
- 8.1.10. Lose their appetite or have a reduced appetite; and not want to eat solid food/ be unable to eat solid food.
- 8.1.11. These sorts of symptoms vary or fluctuate, with the pain increasing and then subsiding.
- 8.1.12. A specific symptom to button and coin battery ingestion is vomiting fresh (bright red) blood. If the child does this seek immediate medical help.
- 8.1.13. The lack of clear symptoms is why it is important to be vigilant with "flat" or spare button or coin batteries in the home and the products that contain them.

### 8.2. WHAT TO DO IF A BUTTON BATTERY IS SWALLOWED?

- 8.2.1. Go to the Accident and Emergency department immediately – This is a medical emergency.
- 8.2.2. **DO NOT** induce vomiting.
- 8.2.3. **DO NOT** let the person eat or drink until assessed by a doctor.
- 8.2.4. Give honey (if advised by medical professionals) – For children over 12 months, giving honey (10ml every 10 minutes, up to 6 doses) may help reduce oesophageal damage while getting to the hospital.
- 8.2.5. **NOTE:** Fast medical attention is crucial! Even if the person looks fine, internal damage can happen quickly.

## 9. SHADE GUIDE TABLE

Process	Current A																							
	1.5	6	10	15	30	40	60	70	100	125	150	175	200	225	250	300	350	400	450	500	600			
Covered electrodes	8							9	10	11	12				13				14					
MAG	8							9	10	11				12				13			14			
TIG	8				9			10		11			12			13								
MIG with heavy metals	9									10		11			12		13		14					
MIG with light alloys	10											11		12		13		14						
Air-arc gouging	10											11	12		13		14		15					
Plasma jet cutting	9									10	11	12				13								
Microplasma arc welding	4	5		6		7	8		9	10		11		12										
	1.5	6	10	15	30	40	60	70	100	125	150	175	200	225	250	300	350	400	450	500	600			



### ENVIRONMENT PROTECTION

Recycle unwanted materials instead of disposing of them as waste. All tools, accessories and packaging should be sorted, taken to a recycling centre and disposed of in a manner which is compatible with the environment. When the product becomes completely unserviceable and requires disposal, drain any fluids (if applicable) into approved containers and dispose of the product and fluids according to local regulations.



REGISTER YOUR PURCHASE HERE



Li-ion

### BATTERY REMOVAL

Under the Waste Batteries and Accumulators Regulations 2009, Jack Sealey Ltd are required to inform potential purchasers of products containing batteries (as defined within these regulations), that they are registered with Valpak's registered compliance scheme. Jack Sealey Ltd's Batteries Producer Registration Number (BPRN) is BPRN00705.



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**Note:** It is our policy to continually improve products and as such we reserve the right to alter data, specifications and component parts without prior notice.

**Important:** No Liability is accepted for incorrect use of this product.

**Warranty:** Guarantee is 12 months from purchase date, proof of which is required for any claim.

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