



OM-256 476B

2012-010

ITW

Auto-Darkening Helmets

**Models: Digital Elite™
Digital Pro-Hobby®
Digital Performance Series®**



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SECTION 1 – WELDING HELMET SAFETY PRECAUTIONS – READ BEFORE USING

helmet 2012-02

-  **Protect yourself and others from injury — read, follow, and save these important safety precautions and operating instructions.**

1-1. Symbol Usage



DANGER! – Indicates a hazardous situation which, if not avoided, will result in death or serious injury. The possible hazards are shown in the adjoining symbols or explained in the text.

 Indicates special instructions.



Indicates a hazardous situation which, if not avoided, could result in death or serious injury. The possible hazards are shown in the adjoining symbols or explained in the text.



This group of symbols means Warning! Watch Out! ELECTRIC SHOCK, MOVING PARTS, and HOT PARTS hazards. Consult symbols and related instructions below for necessary actions to avoid the hazards.

NOTICE – Indicates statements not related to personal injury.

1-2. Arc Welding Hazards



Only qualified persons should install, operate, maintain, and repair this unit.



ARC RAYS can burn eyes and skin.

Arc rays from the welding process produce intense visible and invisible (ultraviolet and infrared) rays that can burn eyes and skin. Sparks fly off from the weld.

- Wear a welding helmet fitted with a proper shade of filter to protect your face and eyes when welding or watching (see ANSI Z49.1 and Z87.1 listed in Safety Standards). Refer to Lens Shade Selection table in Section 1-4.
- Wear approved safety glasses with side shields under your helmet.
- Use protective screens or barriers to protect others from flash, glare, and sparks; warn others not to watch the arc.
- Wear protective clothing made from durable, flame-resistant material (leather, heavy cotton, and wool) and foot protection.
- Before welding, adjust the auto-darkening lens sensitivity setting to meet the application.
- Stop welding immediately if the auto-darkening lens does not darken when the arc is struck. See the Owner's Manual for more information.



WELDING HELMETS do not provide unlimited eye, ear, and face protection.

Arc rays from the welding process produce intense visible and invisible (ultraviolet and infrared) rays that can burn eyes and skin. Sparks fly off from the weld.

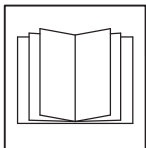
- Use impact resistant safety spectacles or goggles and ear protection at all times when using this welding helmet.
- Do not use this helmet while working with or around explosives or corrosive liquids.
- Do not weld in the overhead position while using this helmet.
- Inspect the auto-lens frequently. Immediately replace any scratched, cracked, or pitted cover lenses or auto-lenses.



NOISE can damage hearing.

Noise from some processes or equipment can damage hearing.

- Wear approved ear protection if noise level is high.



READ INSTRUCTIONS.

- Read and follow all labels and the Owner's Manual carefully before installing, operating, or servicing unit. Read the safety information at the beginning of the manual and in each section.
- Use only genuine replacement parts from the manufacturer.
- Perform maintenance and service according to the Owner's Manuals, industry standards, and national, state, and local codes.



FUMES AND GASES can be hazardous.

Welding produces fumes and gases. Breathing these fumes and gases can be hazardous to your health.

- Keep your head out of the fumes. Do not breathe the fumes.
- If inside, ventilate the area and/or use local forced ventilation at the arc to remove welding fumes and gases.
- If ventilation is poor, wear an approved air-supplied respirator.
- Read and understand the Material Safety Data Sheets (MSDSs) and the manufacturer's instructions for metals, consumables, coatings, cleaners, and degreasers.
- Work in a confined space only if it is well ventilated, or while wearing an air-supplied respirator. Always have a trained watchperson nearby. Welding fumes and gases can displace air and lower the oxygen level causing injury or death. Be sure the breathing air is safe.
- Do not weld in locations near degreasing, cleaning, or spraying operations. The heat and rays of the arc can react with vapors to form highly toxic and irritating gases.
- Do not weld on coated metals, such as galvanized, lead, or cadmium plated steel, unless the coating is removed from the weld area, the area is well ventilated, and while wearing an air-supplied respirator. The coatings and any metals containing these elements can give off toxic fumes if welded.

1-3. Proposition 65 Warnings



Welding or cutting equipment produces fumes or gases which contain chemicals known to the State of California to cause birth defects and, in some cases, cancer. (California Health & Safety Code Section 25249.5 et seq.)



This product contains chemicals, including lead, known to the state of California to cause cancer, birth defects, or other reproductive harm. *Wash hands after use.*

1-4. Lens Shade Selection Table

Process	Electrode Size in. (mm)	Arc Current in Amperes	Minimum Protective Shade No.	Suggested Shade No. (Comfort)*
Shielded Metal Arc Welding (SMAW)	Less than 3/32 (2.4) 3/32–5/32 (2.4–4.0) 5/32–1/4 (4.0–6.4) More than 1/4 (6.4)	Less than 60 60–160 160–250 250–550	7 8 10 11	-- 10 12 14
Gas Metal Arc Welding (GMAW) Flux Cored Arc Welding (FCAW)		Less than 60 60–160 160–250 250–500	7 10 10 10	-- 11 12 14
Gas Tungsten Arc Welding (TIG)		Less than 50 50–150 150–500	8 8 10	10 12 14
Air Carbon Arc Cutting (CAC-A)	Light Heavy	Less than 500 500–1000	10 11	12 14
Plasma Arc Cutting (PAC)		Less than 20 20–40 40–60 60–80 80–300 300–400 400–800	4 5 6 8 8 9 10	4 5 6 8 9 12 14
Plasma Arc Welding (PAW)		Less than 20 20–100 100–400 400–800	6 8 10 11	6–8 10 12 14

Reference: ANSI Z49.1:2005

* Start with a shade that is too dark to see the weld zone. Then, go to a lighter shade which gives a sufficient view of the weld zone without going below the minimum.

1-5. Principal Safety Standards

Safety in Welding, Cutting, and Allied Processes, ANSI Standard Z49.1, is available as a free download from the American Welding Society at <http://www.aws.org> or purchased from Global Engineering Documents (phone: 1-877-413-5184, website: www.global.ihs.com).

Safe Practice For Occupational And Educational Eye And Face Protection, ANSI Standard Z87.1, from American National Standards Institute, 25 West 43rd Street, New York, NY 10036 (phone: 212-642-4900, website: www.ansi.org).

SECTION 2 – SPECIFICATIONS

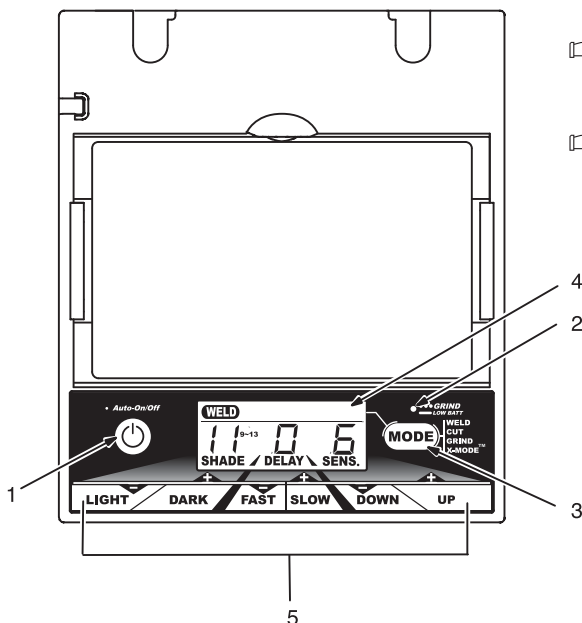
Specification	Digital Pro-Hobby Helmet	Digital Performance Helmet	Digital Elite Helmet
Viewing Field	3.75 x 1.55 in. (95 x 40 mm)	3.81 x 1.85 in. (97 x 47 mm)	3.81 x 2.62 in. (97 x 60mm)
Operating Modes	Two Modes: Weld, Grind	Three Modes: Weld, Cut, Grind	Four Modes: Weld, Cut, Grind, X-Mode
Reaction Time	0.0000500 sec (1/20,000)	0.0000500 sec (1/20,000)	0.0000500 sec (1/20,000)
Available Shades <i>All Shades Provide Continuous UV And IR Protection.</i>	Weld Mode Darkened State: No. 9 – No. 13 Light State: No. 4 Grind Mode Light State: No. 4	Weld Mode Darkened State: No. 9 – No. 13 Light State: No. 4 Cut Mode Darkened State: No. 5 – No. 9 Light State: No. 4 Grind Mode Light State: No. 4	Weld Mode Darkened State: No. 9 – No. 13 Light State: No. 4 Cut Mode Darkened State: No. 5 – No. 9 Light State: No. 4 Grind Mode Light State: No. 4 X-Mode Darkened State: No. 9 – No. 13 Light State: No. 4
Sensitivity Control <i>Adjustable For Varying Ambient Light And Welding/Cutting Arc.</i> <i>No. 10 Setting Locks Lens In Dark State.</i>	Weld Mode: No. 0 – No.10 Grind Mode: Not Applicable	Weld Mode: No. 0 – No. 10 Cut Mode: No. 0 – No. 10 Grind Mode: Not Applicable	Weld Mode: No. 0 – No. 10 Cut Mode: No. 0 – No. 10 Grind Mode: Not Applicable X-Mode: No. 0 – No. 10
Delay Control <i>Slows Lens Dark-To-Light State.</i>	Weld Mode: No. 0 – No. 10 Grind Mode: Not Applicable	Weld Mode: No. 0 – No. 10 Cut Mode: No. 0 – No. 10 Grind Mode: Not Applicable	Weld Mode: No. 0 – No. 10 Cut Mode: No. 0 – No. 10 Grind Mode: Not Applicable X-Mode No. 0 – No. 10
Automatic Power	Shuts Lens Off 45 Minutes After Last Arc Is Struck. Lens automatically turns on when arc is struck.		
Low Battery Light	Red LED Illuminates To Indicate 2–3 Days Remaining Battery Life.		
Power Supply	CR2450 Lithium Batteries (Miller Part No. 217 043)		

SECTION 3 – OPERATING INSTRUCTIONS

3-1. Helmet Controls



Digital Elite Lens Shown



- 1 Auto On/Off Button (See Section 3-2)
- 2 Grind Mode / Low Battery Light (Section 3-2)
- 3 Mode Control Button (See Section 3-3)
- 4 Display Screen
- 5 Lens Adjustment Buttons (Sections 3-3 Thru 3-6)

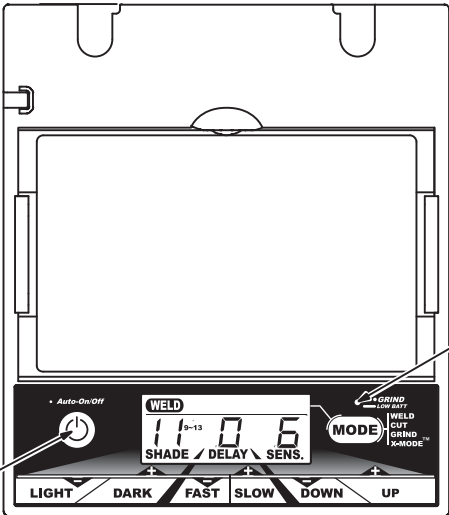
 Use adjustment buttons to change shade, delay, and sensitivity settings.

 The lens assembly saves the shade, sensitivity, and delay settings.

3-2. Auto On/Off Button And Low Battery Light



Digital Elite Lens Shown



1 Auto On/Off Button

Press On/Off button to check if the lens is working properly and to begin lens shade, sensitivity, and delay adjustments.

When the On/Off button is pressed, the display screen should show the lens settings. Do not use the helmet if the lens does not function as described. (See Section 9, Troubleshooting.)

2 Grind / Low Battery Light

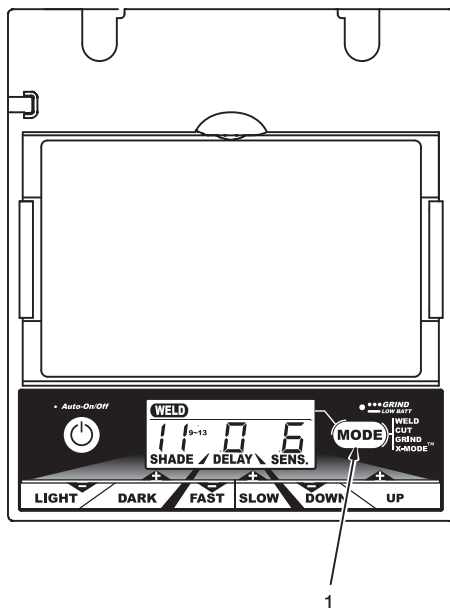
The Grind / Low Battery light blinks when the lens is in the Grind mode. Light stays on when 2–3 days of battery life remain.

If battery power is low, replace with CR2450 lithium batteries (2 required – Miller Part No. 217 043). See Section 6.

3-3. Mode Control



Digital Elite Lens Shown



1 Mode Control Button

Press Mode button to select the mode appropriate for the work activity:

Weld Mode – used for most welding applications. In this mode the lens turns on when it optically senses a welding arc. Adjust shade, sensitivity, and delay settings as needed.

Cut Mode – used for cutting applications. In this mode the lens turns on when it optically senses a cutting arc. Adjust shade, sensitivity, and delay settings as needed.

☞ Cut mode is not present on Pro-Hobby helmets.

Grind Mode – used for metal grinding applications. In this mode the shade is fixed shade No. 4. No lens adjustments are possible.

X-Mode – used for outdoor or low current welding applications. In this mode the lens turns on when it senses weld current. Adjust shade, sensitivity, and delay settings as needed.

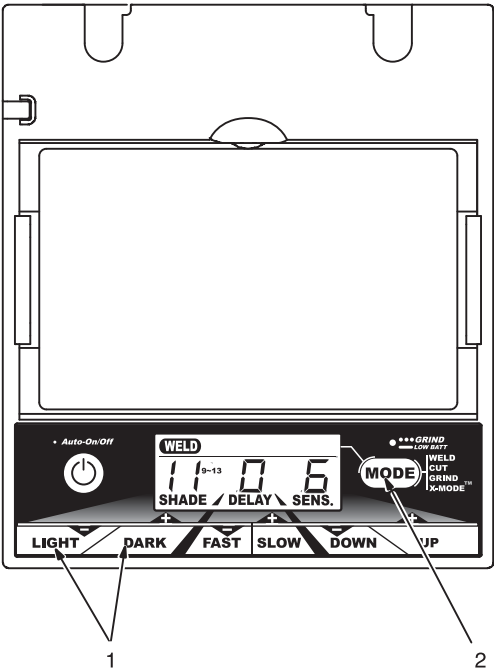
☞ X-Mode is not present on Pro-Hobby and Performance helmets.

☞ Nearby welding may affect helmet operation when lens is in X-Mode. Stay at least 12 ft (3.7 m) away from other welding activity.

3-4. Variable Shade Control



Digital Elite Lens Shown



- 1 Variable Shade Adjustment Buttons
- 2 Mode Control Button

Use the **LIGHT** and **DARK** adjustment buttons to adjust the lens shade in the darkened state. Use the table in Section 1-4 to select proper shade control setting based on your welding process. The shade ranges for each mode are as follows:

Weld – No. 9 – No. 13

Cut – No. 5 – No. 9

Grind – No. 4 only

X-Mode – No. 9 – No. 13

Start at the highest setting and adjust lighter to suit the application and your personal preference.

Variable Shade Adjustment Procedure

- Press Auto On/Off button to turn lens On. Helmet lens will darken twice and then clear.

- Press Mode Control Button to select desired function: Weld, Cut, Grind, or X-Mode.

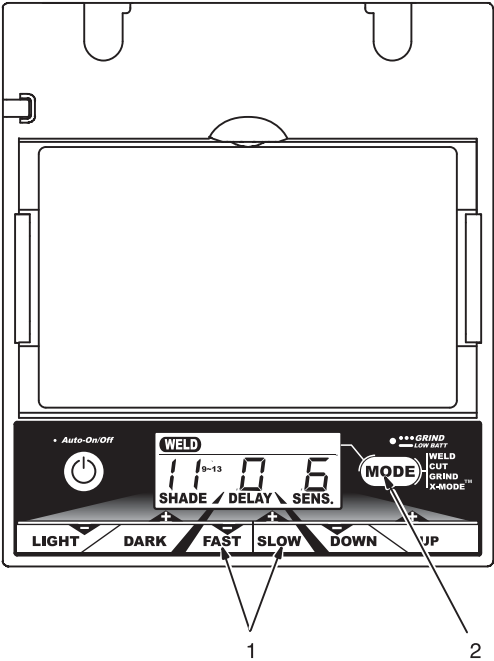
✎ Cut mode is not present on Pro-Hobby helmets. X-Mode is not present on Pro-Hobby and Performance helmets.

- Use **LIGHT** and **DARK** adjustment buttons to select desired shade.
- Begin welding or continue with other lens adjustments.

3-5. Lens Delay Control



Digital Elite Lens Shown



1 Lens Delay Adjustment Buttons

2 Mode Control Button

Use the Lens Delay FAST and SLOW buttons to adjust the time for the lens to switch to the clear state after welding or cutting.

The delay is particularly useful in eliminating bright after-rays present in higher amperage applications where the molten puddle remains bright momentarily after welding. Use the Lens Delay Control buttons to adjust delay from 0 to 10 (0.1 to 1.0 second).

The delay ranges for each mode are as follows:

Weld, Cut, And X-Modes – 0 – 10

Grind Mode – No delay adjustment

There is no lens delay adjustment in the Grind mode, and in the Cut mode (when sensitivity is set to 10).

Cut mode is not present on Pro-Hobby helmets. X-Mode is not present on Pro-Hobby and Performance helmets.

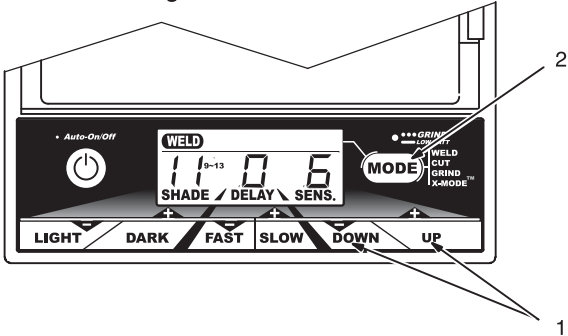
Lens Delay Adjustment Procedure

- Press Auto On/Off button to turn helmet On. Helmet lens will darken twice and then clear.
- Press Mode button to select desired function: Weld, Cut, or X-Mode.
- Use FAST and SLOW adjustment buttons to select desired delay.
- Begin welding or continue with other lens adjustments.

3-6. Sensitivity Control



Digital Elite Lens Shown



1 Sensitivity Adjustment Buttons

2 Mode Control Button

Use control to make the lens more responsive to different light levels in various welding processes. **Use a Mid-Range or 30–50% sensitivity setting for most applications.**

It may be necessary to adjust helmet sensitivity to accommodate different lighting conditions or if lens is flashing On and Off.

The sensitivity ranges for each mode are as follows:

Weld, Cut, X-Modes – 0 – 10

Grind Mode – No sensitivity adjustment

⚠ Do not weld in the Grind mode; the lens will not darken.

✎ X-Mode is not present on Pro-Hobby and Performance helmets. Cut mode is not present on Pro-Hobby helmets.

Sensitivity Adjustment Procedure

✎ Adjust helmet sensitivity in lighting conditions helmet will be used in.

- Press Auto On/Off button to turn helmet On. Helmet lens will darken twice and then clear.
- Press Mode button to select desired function: Weld, Cut, or X-Mode.
- Use Sensitivity DOWN and UP buttons to adjust sensitivity control to lowest setting.

- Face the helmet in the direction of use, exposing it to the surrounding light conditions.

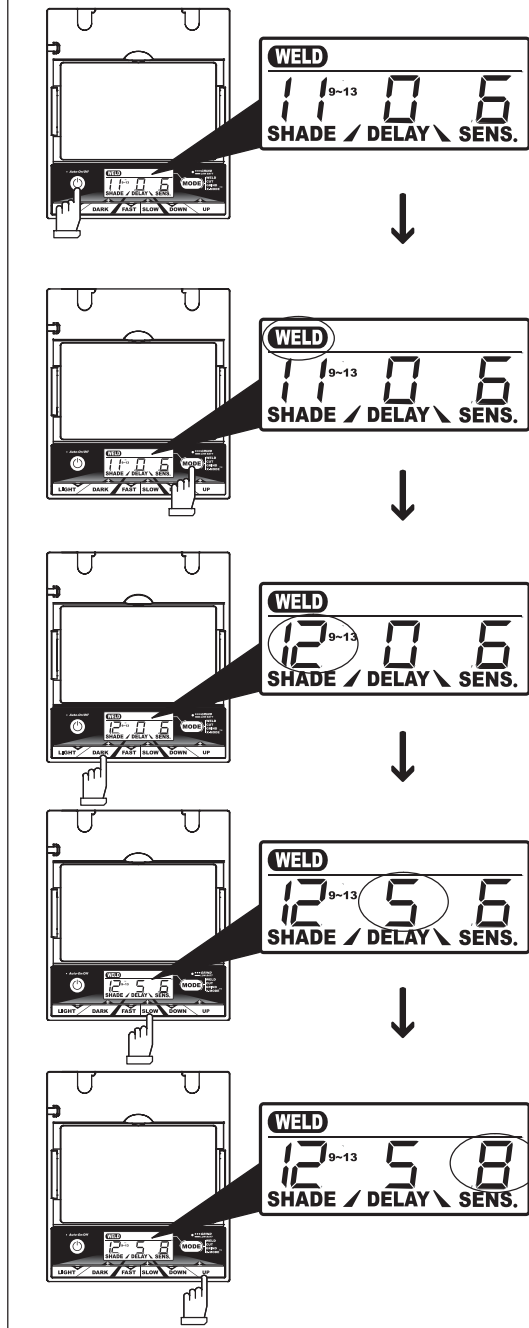
- Press sensitivity UP button until the lens darkens, then press DOWN button until lens clears. An alternative method is to press and hold the Less button until the lens clears.

Helmet is ready for use. Slight readjustment may be necessary for certain applications or if lens is flashing on and off.

✎ Reduce Sensitivity setting if lens stays dark longer than Delay setting.

Recommended Sensitivity Settings	
Stick Electrode	Mid-Range
Short Circuiting (MIG)	Low/Mid-Range
Pulsed & Spray (MIG)	Mid-Range
Gas Tungsten Arc (TIG)	Mid/High-Range
Plasma Arc Cutting/Welding	Low/Mid-Range

3-7. Typical Lens Adjustment Procedure



☞ Lens assembly displays prior settings when turned On. Retained settings are not shown in example.

☞ In the Grind mode the lens is a fixed shade No. 4. No lens adjustments are possible.

☞ X-Mode is not present on Pro-Hobby and Performance helmets. Cut mode is not present on Pro-Hobby helmets.

Adjusting Lens Assembly:

- Turn lens On. Display screen appears.
- Select mode (Weld, Cut, Grind, X-Mode).
- Select shade by pressing LIGHT and DARK buttons.
- Select Delay by pressing FAST and SLOW buttons.
- Select Sensitivity by pressing DOWN and UP Buttons.
- Begin work.

SECTION 4 – ADJUSTING HEADGEAR



 *There are four headgear adjustments: headgear top, tightness, angle adjustment, and distance adjustment.*

1 Headgear Top Straps

Adjusts headgear for proper depth on the head to ensure correct balance and stability.

2 Headgear Tightness

To adjust, turn the adjusting knob located on the back of the headgear left or right to desired tightness.

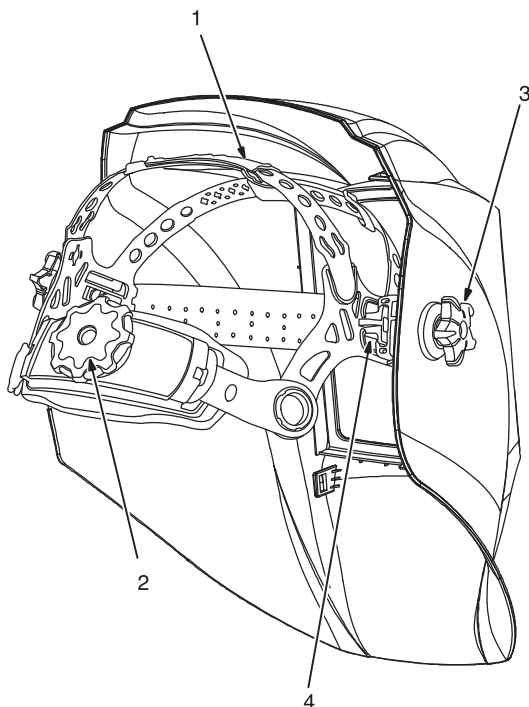
3 Angle Adjustment (Not Shown)

Seven slots on the right side of the headband provide adjustment for the forward tilt of the helmet. To adjust, lift and reposition the control arm to the desired position.

4 Distance Adjustment

Adjusts the distance between the face and the lens. To adjust, press black tabs on the top and bottom of the pivot point and use other hand to slide headgear forward or backward. Release tabs. (Both sides must be equally positioned for proper vision.)

 *Numbers on the adjustment slides indicate set position so both sides can be adjusted equally.*



SECTION 5 – REPLACING THE LENS COVERS

5-1. Replacing Outside Lens Cover – Digital Pro-Hobby Series Helmets



⚠ Never use the auto-darkening lens without the inside and outside lens covers properly installed. Welding spatter will damage the auto-darkening lens and void the warranty.

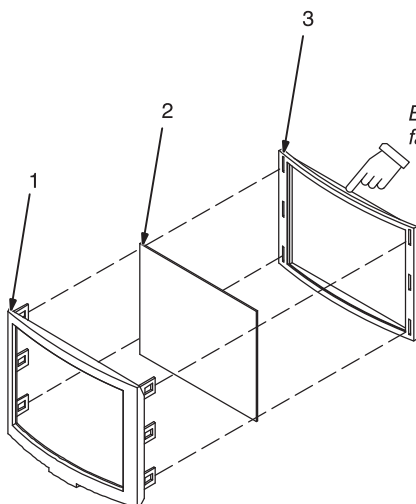
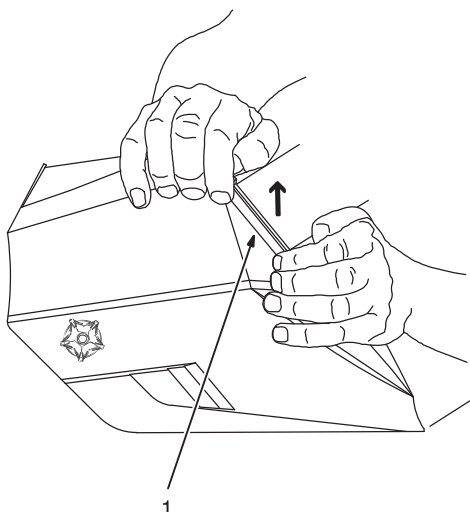
- 1 Outside Lens Cover Frame
- 2 Lens Cover
- 3 Gasket

Remove lens cover frame by grasping the outside corners and pulling the frame away from the helmet.

Remove lens cover and gasket from the six-prong lens frame. Replace lens cover and reinstall gasket and lens in frame. Reinstall frame in helmet.

☞ Be sure the flat side of lens gasket faces the six-prong lens frame.

☞ Be sure all six prongs of lens frame are securely fastened in slots in helmet.



Be sure flat side of gasket faces lens frame.

5-2. Replacing Inside Lens Cover – Digital Pro-Hobby Series Helmets



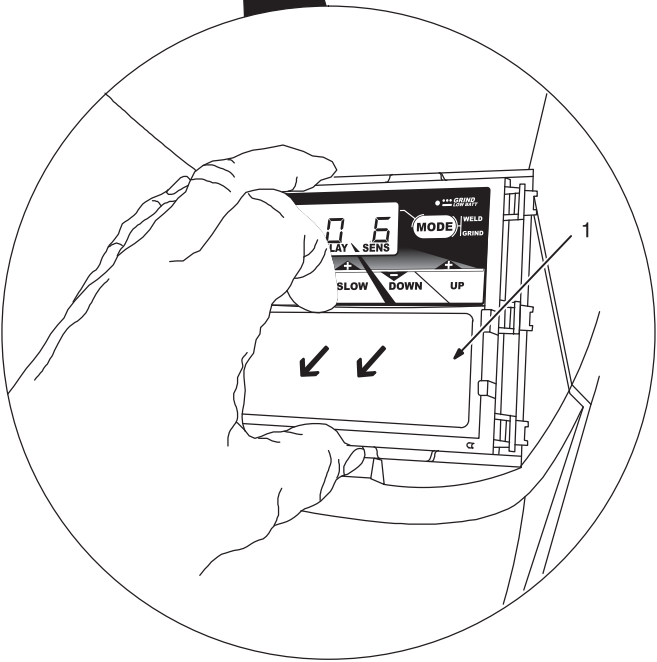
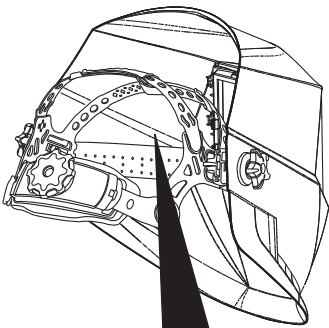
⚠ Never use the auto-darkening lens without the inside and outside lens covers properly installed. Welding spatter will damage the auto-darkening lens and void the warranty.

1 Inside Lens Cover

Remove the inside lens cover by prying the lens up at the thumbnail opening located at the top center of the lens cover.

Replace the lens cover by gently bowing it in the center and inserting it, one end at a time, into the retaining clips located on the outside of the auto-darkening lens assembly.

☞ Be sure the cover lens is seated properly (flat) to prevent fogging.



5-3. Replacing Outside Lens Covers On Digital Elite And Performance Quick-Release Helmets



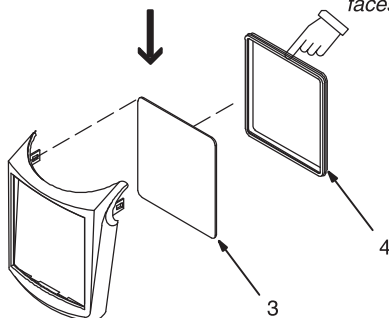
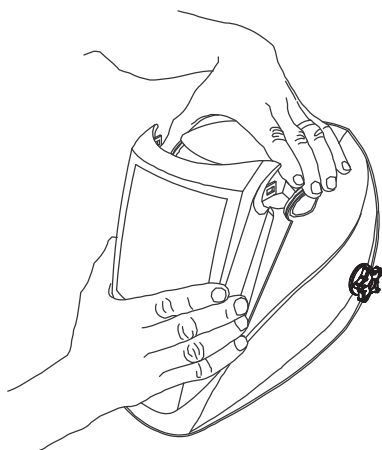
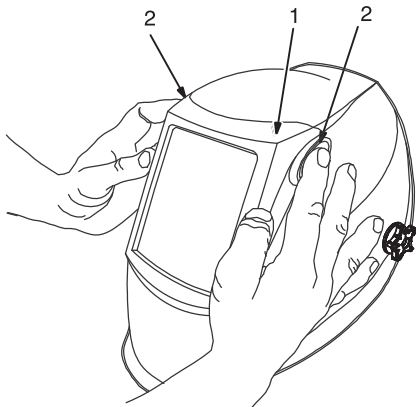
! Never use the auto-darkening lens without the inside and outside lens covers properly installed. Welding spatter will damage the auto-darkening lens and void the warranty.

- 1 Front Lens Holder
- 2 Release Points
- 3 Lens Cover
- 4 Gasket

Remove front lens holder by pressing release points and pulling the holder away from the helmet.

Remove lens cover and gasket from the holder. Replace lens cover and reinstall gasket and lens in holder. Reinstall holder in helmet.

☞ Be sure the flat side of lens cover gasket faces the lens cover holder.



Be sure flat side of gasket faces lens cover holder.

5-4. Replacing Inside Lens Cover – Digital Performance Series Helmets



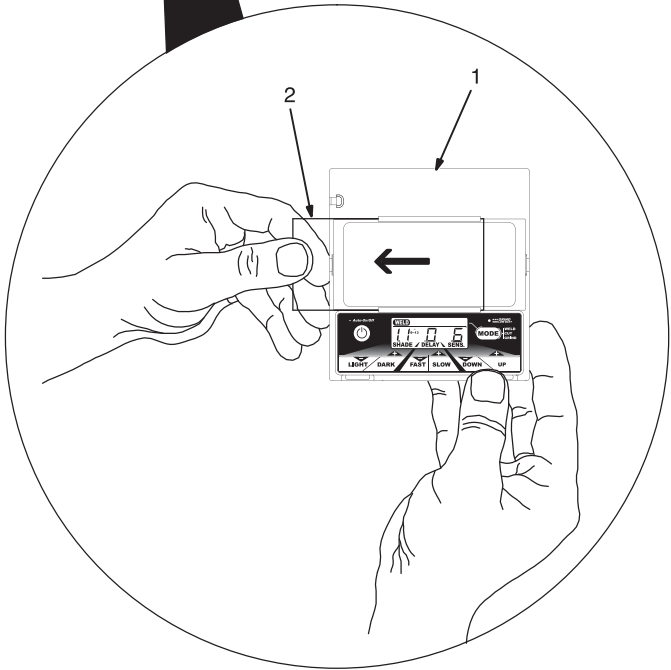
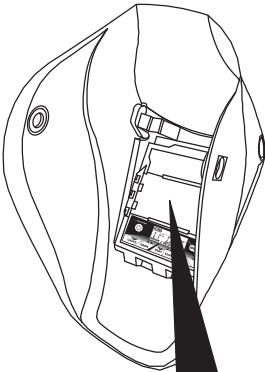
⚠ Never use the auto-darkening lens without the inside and outside lens covers properly installed. Welding spatter will damage the auto-darkening lens and void the warranty.

- 1 Lens Assembly
- 2 inside Lens Cover

Remove the lens cover holder (see Section 5-3). Remove lens assembly.

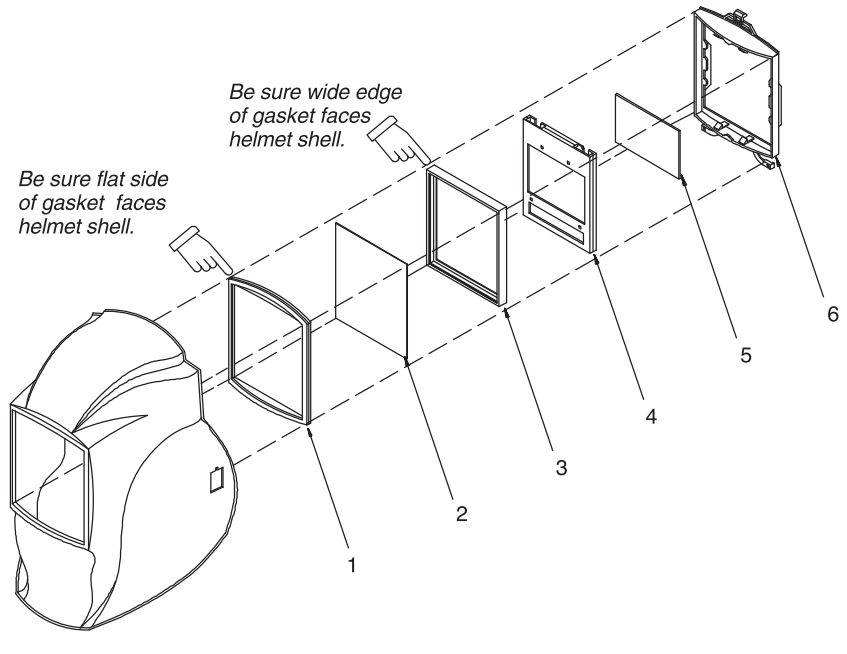
Remove the inside lens cover by prying the cover up at either thumbnail opening at each side of the cover. Slide cover it out of either side of frame. Replace lens cover and reinstall the assembly in the helmet by reversing the above procedure.

👉 Be sure the cover lens is seated properly (flat) to prevent fogging.



5-5. Replacing The Lens Covers On Digital Elite Standard Helmets





Be sure flat side of gasket faces helmet shell.

Be sure wide edge of gasket faces helmet shell.

1 Front Lens Gasket

2 Outside Lens Cover

3 Lens Assembly Gasket

4 Lens Assembly

5 Inside Lens Cover

6 Lens Frame

Ref. 805 012

⚠ Never use the auto-darkening lens without the inside and outside lens covers properly installed. Welding spatter will damage the auto-darkening lens and void the warranty.

Remove the lens assembly to remove either lens cover.

To remove the lens assembly, push down on the helmet bottom retaining arms and push the retaining clips toward the outside of the helmet. Lift up on the assembly and pull free of the helmet.

Outside Lens Cover

Remove the outside lens cover by pushing cover into the helmet. Remove the rubber lens gasket and install on the new lens cover. Reinstall the lens assembly.

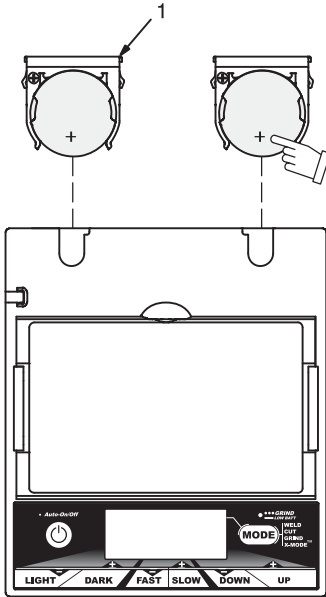
Inside Lens Cover

To replace the inside lens cover, remove the lens assembly from the lens frame by pushing up on the top two retaining tabs while gently pushing the lens free.

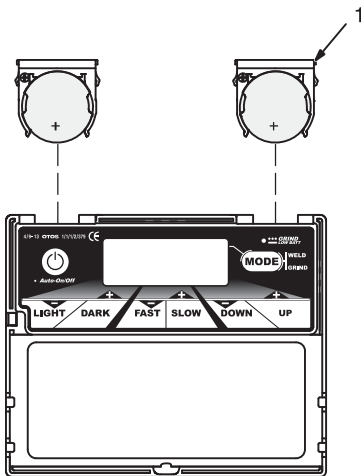
Remove the lens cover by sliding it out of either side. Replace with the new cover lens and reinstall the assembly in the helmet.

☞ Be sure the flat side of lens cover gasket faces the helmet shell.

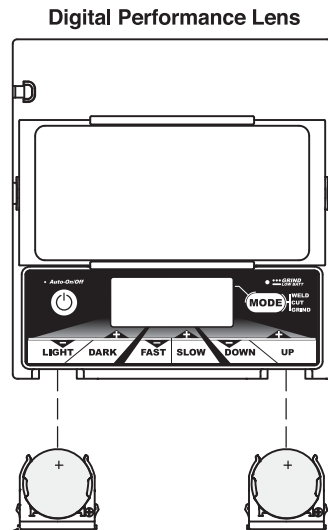
SECTION 6 – REPLACING THE BATTERY



Digital Elite Lens



Digital Pro-Hobby Lens



To replace the batteries, remove the auto-darkening lens assembly (see Section 5).

1 Battery Tray

After removing the lens assembly, slide the battery holding trays out and remove the old batteries.

Replace with CR2450 lithium type batteries (2 required) or equivalent (Miller Part No. 217043).

Be sure Positive (+) side of the battery faces up (toward inside of helmet).

Reinstall the battery trays. To test, press the On button. The display screen should turn on. Reinstall the lens assembly.

Left and right battery trays are not interchangeable. The auto-darkening helmet will not work if battery trays are installed on the wrong sides.

SECTION 7 – INSTALLING OPTIONAL MAGNIFYING LENS

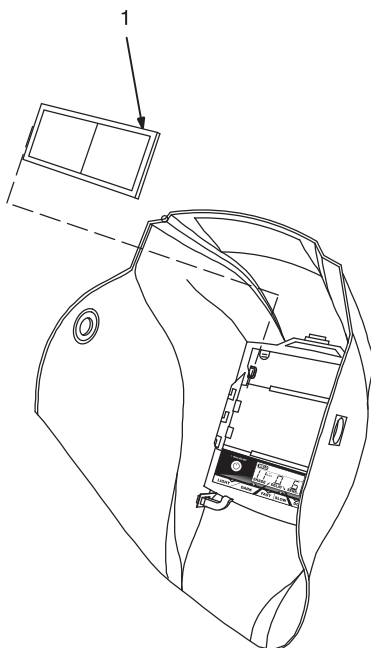


1 Optional Magnifying Lens

Starting at the top, slide magnifying lens into the helmet retaining brackets. Align the magnifying lens with the auto-darkening lens assembly.

Reverse procedure to remove magnifying lens.

 To prevent lens fogging, install flat side of magnifying lens toward auto-darkening lens.



SECTION 8 – MAINTENANCE

NOTICE – Never use solvents or abrasive cleaning detergents.

NOTICE – Do not immerse the lens assembly in water.

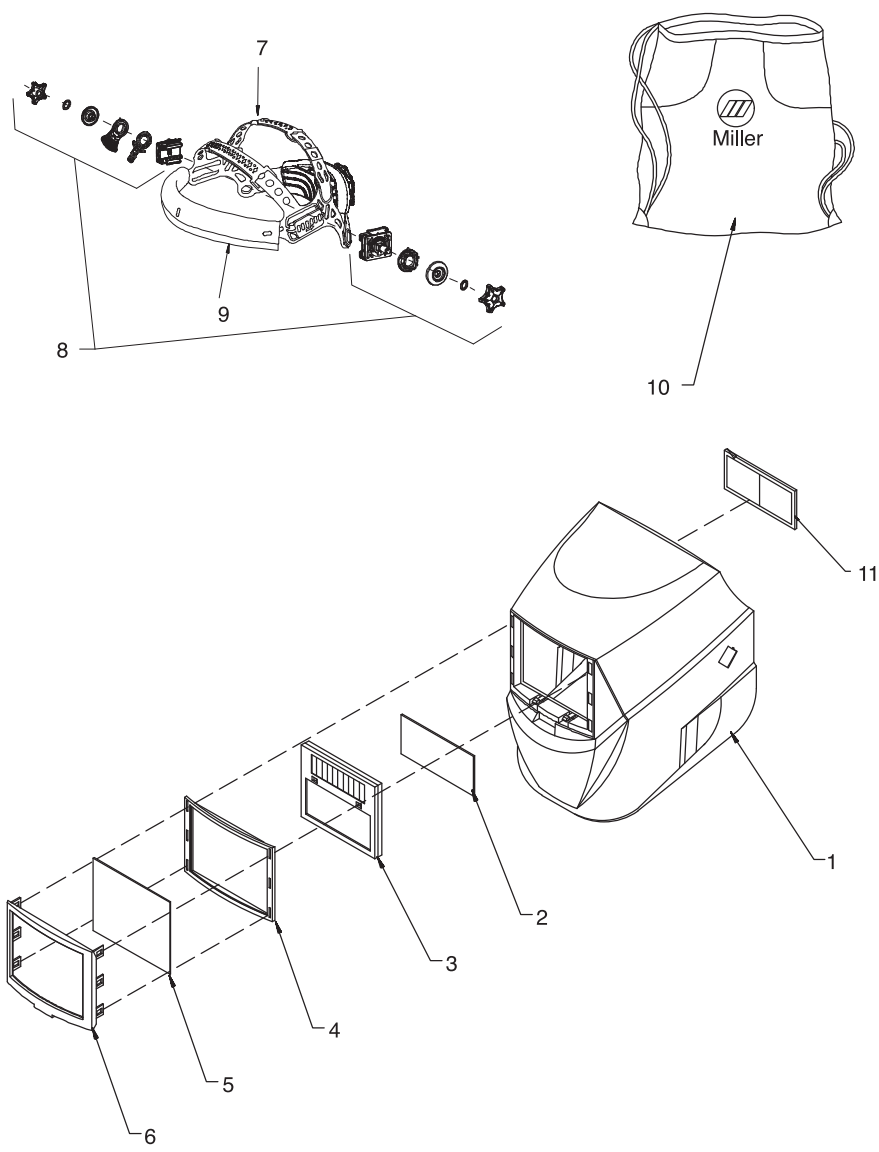
The helmet requires little maintenance. However, for best performance clean after each use. Using a soft cloth dampened with a mild soap and water solution, wipe the cover lenses clean. Allow to air dry. Occasionally, the filter lens and sensors should be cleaned by gently wiping with a soft, dry cloth.

SECTION 9 – TROUBLESHOOTING



Trouble	Remedy
Auto lens not On – auto-lens does not darken momentarily when the On button is pressed.	Check batteries and verify they are in good condition and installed properly. Check battery surfaces and contacts, and clean if necessary. Check battery for proper contact and gently adjust contact points if necessary. This is particularly important if the helmet has been dropped. Verify left and right battery trays are installed on the correct sides.
Not switching – auto-lens stays light and does not darken when welding or cutting.	Stop welding or cutting immediately: Make sure the lens is turned On. If power is On, check the mode settings. Also review sensitivity recommendations and adjust sensitivity if possible. Clean lens cover and sensors of any obstructions. Make sure the sensors are facing the arc; angles of 45° or more may not allow the arc light to reach the sensors.
Not Switching – auto-lens stays dark after the arc is extinguished, or the auto-lens stays dark when no arc is present.	Reduce Sensitivity setting (see Section 3-6). In extreme light conditions, it may be necessary to reduce the surrounding light levels.  <i>If the lens remains dark, press the Auto On/Off button to return lens to the clear state.</i>
Sections of the auto-lens are not going dark, distinct lines separate the light and dark areas.	Stop welding or cutting immediately: The auto-lens may be cracked which can be caused by the impact of dropping the helmet. Weld spatter on the auto lens may also cause cracking. (The lens may need to be replaced; most cracked lenses are not covered by warranty).
Switching or Flickering – the auto-lens darkens then lightens while the welding or cutting arc is present.	Review the sensitivity setting recommendations and increase the sensitivity if possible. Be sure the arc sensors are not being blocked from direct access to the arc light. Check the lens cover for dirt and spatter that may be blocking the arc sensors. Increasing Lens Delay 0.1 – 0.3 second may also reduce switching.
Inconsistent or lighter auto-lens shading in the dark-state, noticeable on the outside edges and corners.	Referred to as an angle of view effect, auto-darkening lenses have an optimum viewing angle. The optimum viewing angle is perpendicular or 90° to the surface of the auto-lens. When that angle of view varies in the dark-state, welders may notice slightly lighter areas at the outside edges and the corners of the lens. This is normal and does not represent any health or safety hazard. This effect may also be more noticeable in applications where magnifying lenses are used.

SECTION 10 – PARTS LIST



804 796

Figure 10-1. Digital Pro-Hobby Auto-Darkening Welding Helmet

Item No.	Part No.	Description	Quantity
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Figure 10-1 Digital Pro-Hobby Auto-Darkening Welding Helmet

1	231 415	Helmet Shell, Black	1
1	260 087	Helmet Shell, Metalworks	1
1	231 416	Helmet Shell, American Eagle II	1
1	231 419	Helmet Shell, Red Flame	1
1	231 418	Helmet Shell, Camouflage	1
2	231 410	Lens Cover, Inside (4.25 – 1.75 in.) (5 Per Pkg.)	1
3	256 467	Auto-Darkening Lens Assy.	1
	256 729	Battery Tray Kit (Left/Right)	1
4	231 412	Gasket, Front Lens	1
5	231 411	Lens, Front Cover (4.5 x 3.6875 in) (5 Per Pkg.)	1
6	231 572	Holder, Front Lens (Black)	1
6	231 573	Holder, Front Lens (Gray)	1
6	231 574	Holder, Front Lens (Red)	1
6	231 575	Holder, Front Lens (Blue)	1
6	231 576	Holder, Front Lens (Camouflage)	1
7	256 174	Ratchet Headgear Assy.	1
8	*256 178	Adjustment Angle/Stop Hardware Kit	1
9	770 249	Headband, Fabric	1
10	♦770 250	Bag Helmet, Miller	1
	♦079 975	O-Rings, Replacement (For Item 8) (5 Per Pkg.)	1
	♦222 003	Adapters, Hard Hat (Not Shown)	1
11	♦212 235	Lens, 0.75 Magnification	1
11	♦212 236	Lens, 1.00 Magnification	1
11	♦212 237	Lens, 1.25 Magnification	1
11	♦212 238	Lens, 1.50 Magnification	1
11	♦212 239	Lens, 1.75 Magnification	1
11	♦212 240	Lens, 2.00 Magnification	1
11	♦212 241	Lens, 2.25 Magnification	1
11	♦212 242	Lens, 2.50 Magnification	1

* Adjustment Hardware Kit With O-rings

♦ Optional

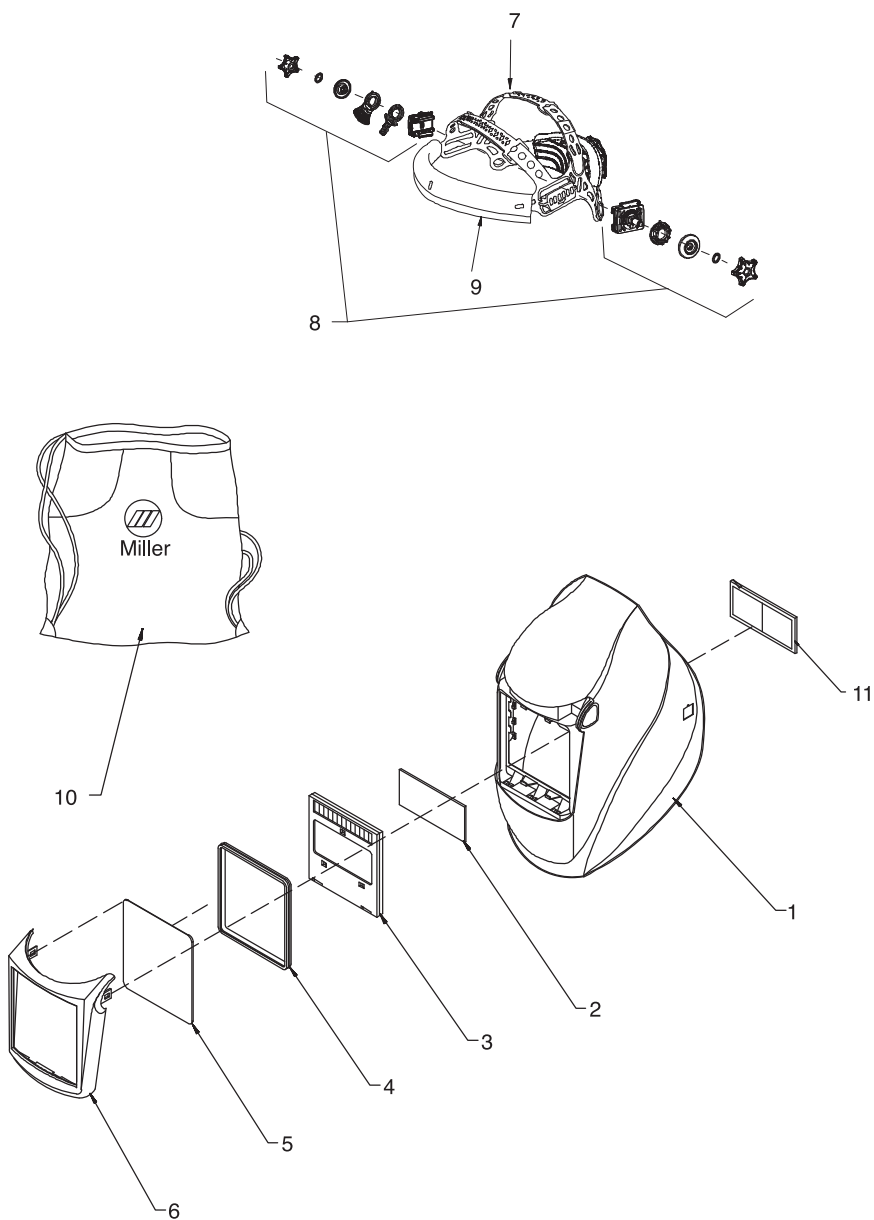


Figure 10-2. Digital Performance Auto-Darkening Welding Helmet

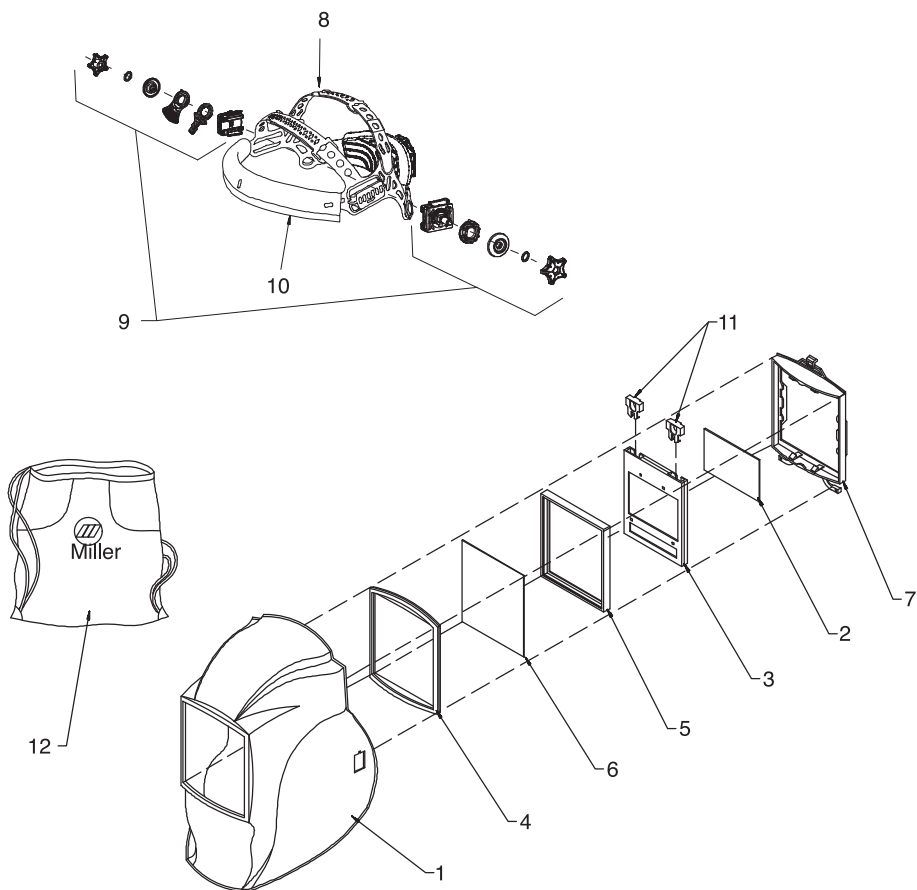
Item No.	Part No.	Description	Quantity
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Figure 10-2. Digital Performance Auto-Darkening Welding Helmet

1	250 533	Helmet Shell, '64 Custom	1
1	232 021	Helmet Shell, America's Eagle	1
1	232 020	Helmet Shell, Black	1
1	241 458	Helmet Shell, Blue Rage	1
1	241 460	Helmet Shell, Camouflage	1
1	234 514	Helmet Shell, Fireball	1
1	256 171	Helmet Shell, Illusion	1
2	770 237	Lens Cover, Inside (4.25 – 2.0 in) (5 Per Pkg.)	1
3	256 468	Auto-Darkening Lens Assy.	1
	256 730	Battery Tray Kit (Left/Right)	1
4	232 028	Gasket, Front Lens	1
5	231 921	Lens, Front Cover (4.5 x 5.5 in) (5 Per Pkg.)	1
6	232 030	Holder, Front Lens (Flat Black)	1
6	232 031	Holder, Front Lens (Gray)	1
6	232 032	Holder, Front Lens (Gloss Black)	1
6	232 033	Holder, Front Lens (Blue)	1
6	257 041	Holder, Front Lens (White)	1
7	256 174	Ratchet Headgear Assy.	1
8	* 256 178	Adjustment Angle/Stop Hardware Kit	1
9	770 249	Headband, Fabric	1
10	♦ 770 250	Bag Helmet, Miller	1
	♦ 079 975	O-Rings, Replacement (For Item 8) (5 Per Pkg.)	1
	♦ 222 003	Adapters, Hard Hat (Not Shown)	1
11	♦ 212 235	Lens, 0.75 Magnification	1
11	♦ 212 236	Lens, 1.00 Magnification	1
11	♦ 212 237	Lens, 1.25 Magnification	1
11	♦ 212 238	Lens, 1.50 Magnification	1
11	♦ 212 239	Lens, 1.75 Magnification	1
11	♦ 212 240	Lens, 2.00 Magnification	1
11	♦ 212 241	Lens, 2.25 Magnification	1
11	♦ 212 242	Lens, 2.50 Magnification	1

* Adjustment Hardware Kit With O-rings

♦ Optional



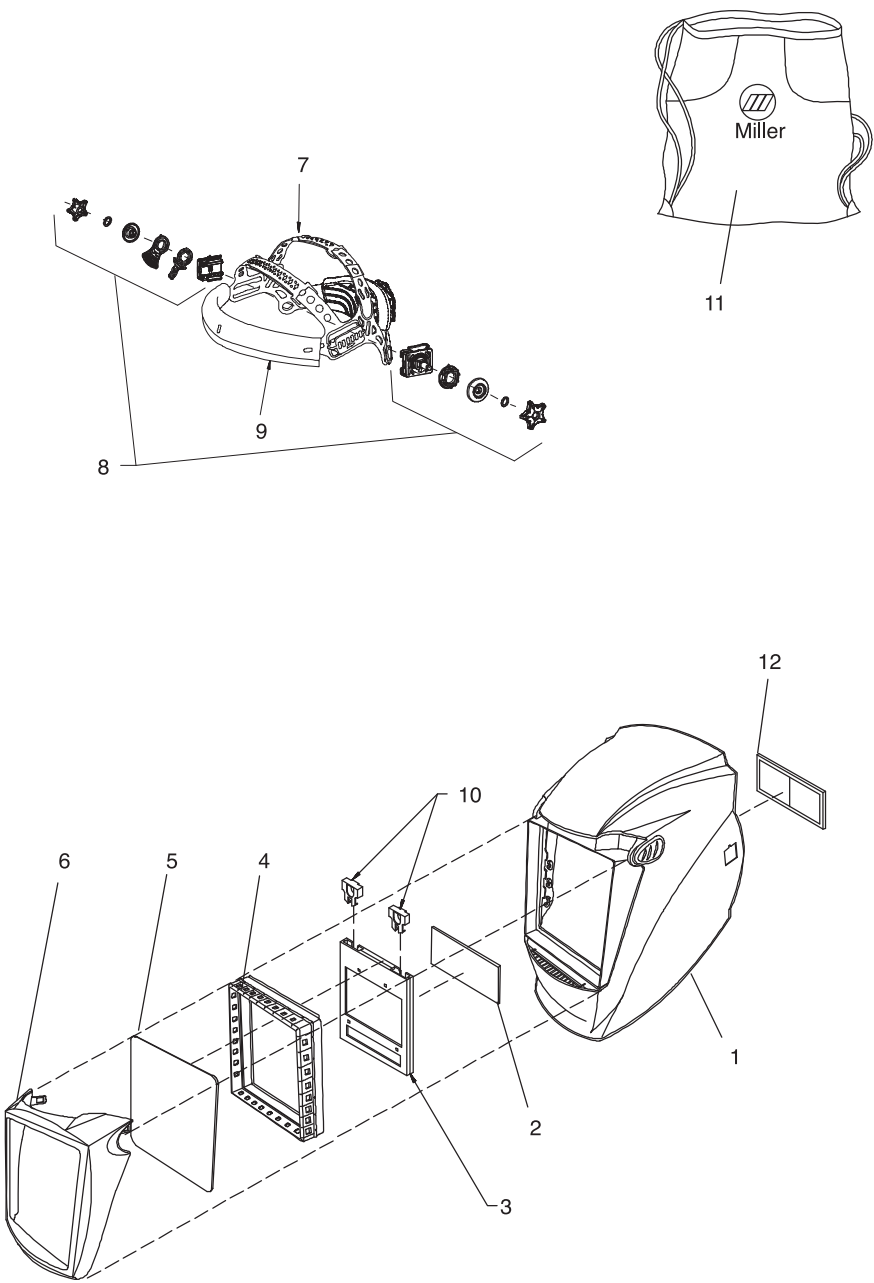
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Figure 10-3. Digital Elite Auto-Darkening Welding Helmet – Standard Models

Item No.	Part No.	Description	Quantity
Figure 10-3. Digital Elite Auto-Darkening Welding Helmet – Standard Models			
1	216 331	Helmet Shell, Black	1
1	223 454	Helmet Shell, Inferno	1
1	237 872	Helmet Shell, Lucky's Speed Shop	1
1	234 066	Helmet Shell, Stars And Stripes II	1
1	247 058	Helmet Shell, The Joker	1
1	247 059	Helmet Shell, Vintage USA	1
1	256 172	Helmet Shell, Fury	1
1	227 190	Helmet Shell, Camouflage	1
1	250 089	Helmet Shell, Sinister	1
1	260 086	Helmet Shell, Vintage Roadster	1
1	260 128	Helmet Shell, POW-MIA	1
2	216 327	Inside Lens Cover (4-1/4 X 2-1/2) (5 Per Pkg.)	1
3	256 469	Auto-darkening Lens Assembly	1
4	216 337	Gasket, Front Lens – Cover	1
5	234 758	Gasket, Auto-Darkening Lens Assembly	1
6	216 326	Outside Lens Cover (4-11/16 X 5-5/8) (5 Per Pkg.)	1
7	234 759	Frame, Lens	1
8	256 174	Ratchet Headgear Assembly (Includes Items 9 And 10)	1
9	*256 178	Adjustment Angle/Stop Hardware Kit	1
10	770 249	Fabric Headband	1
	079 975	Replacement O-rings For Kit 256 178 (5 Per Pkg.)	1
11	216 339	Tray, Battery (Left/Right)	1
	217 043	Battery, Lithium (CR2450)	2
	◆222 003	Hard Hat Adapters (Not Shown)	1
12	◆770 250	Helmet Bag – Miller	1
	◆212 235	Lens, 0.75 Magnification (Not Shown)	1
	◆212 236	Lens, 1.00 Magnification (Not Shown)	1
	◆212 237	Lens, 1.25 Magnification (Not Shown)	1
	◆212 238	Lens, 1.50 Magnification (Not Shown)	1
	◆212 239	Lens, 1.75 Magnification (Not Shown)	1
	◆212 240	Lens, 2.00 Magnification (Not Shown)	1
	◆212 241	Lens, 2.25 Magnification (Not Shown)	1
	◆212 242	Lens, 2.50 Magnification (Not Shown)	1

* Adjustment Hardware Kit With O-rings

◆ Optional



242 385 / Ref. 804 111

Figure 10-4. Digital Elite Series Auto-Darkening Welding Helmet – Quick Release Models

Item No.	Part No.	Description	Quantity
Figure 10-4. Digital Elite Auto-Darkening Welding Helmet – Quick Release Models			
1	241 976	Helmet Shell, Black (Includes Item 6)	1
2	216 327	Inside Lens Cover (4-1/4 X 2-1/2) (5 Per Pkg.)	1
3	256 469	Auto-darkening Lens Assembly	1
4	241 977	Gasket, Lens Assembly	1
5	216 326	Outside Lens Cover (4-11/16 X 5-5/8) (5 Per Pkg.)	1
6	241 978	Front Lens Holder (Black)	1
7	256 174	Ratchet Headgear Assembly (Includes Items 8 And 9)	1
8	*256 178	Adjustment Angle/Stop Hardware Kit	1
9	770 249	Fabric Headband	1
	079 975	Replacement O-rings For Kit 256 178 (5 Per Pkg.)	1
10	216 339	Battery Tray Kit (Left/Right)	1
	217 043	Battery, Lithium (CR2450)	2
	♦ 222 003	Hard Hat Adapters (Not Shown)	1
11	♦ 770 250	Helmet Bag – Miller	1
12	♦ 212 235	Lens, 0.75 Magnification	1
	♦ 212 236	Lens, 1.00 Magnification	1
	♦ 212 237	Lens, 1.25 Magnification	1
	♦ 212 238	Lens, 1.50 Magnification	1
	♦ 212 239	Lens, 1.75 Magnification	1
	♦ 212 240	Lens, 2.00 Magnification	1
	♦ 212 241	Lens, 2.25 Magnification	1
	♦ 212 242	Lens, 2.50 Magnification	1

* Adjustment Hardware Kit With O-rings

♦ Optional

SECTION 11 – LIMITED WARRANTY

LIMITED WARRANTY – Subject to the terms and conditions below. Miller Electric Mfg. Co., Appleton, Wisconsin, warrants to its original retail purchaser that the new Miller equipment sold after the effective date of this limited warranty is free of defects in material and workmanship at the time it is shipped by Miller. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OR MERCHANTABILITY AND FITNESS.

Miller Digital Series auto-darkening lens helmets are warranted for 3 years from the date of purchase. *Proof of purchase is required for warranty transactions so it is imperative that a copy of the original invoice or sales receipt be retained.*

For warranty transactions, contact your Miller Distributor.

Effective April 1, 2012



Visit our website at
www.MillerWelds.com



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