

PremAire[®] *System*

and

Combination Breathing Apparatus

ULTRA ELITE[®] FACEPIECE



For More Information: Call (1-800-MSA-2222) or Visit Our Website at (www.MSAnet.com)

MSA

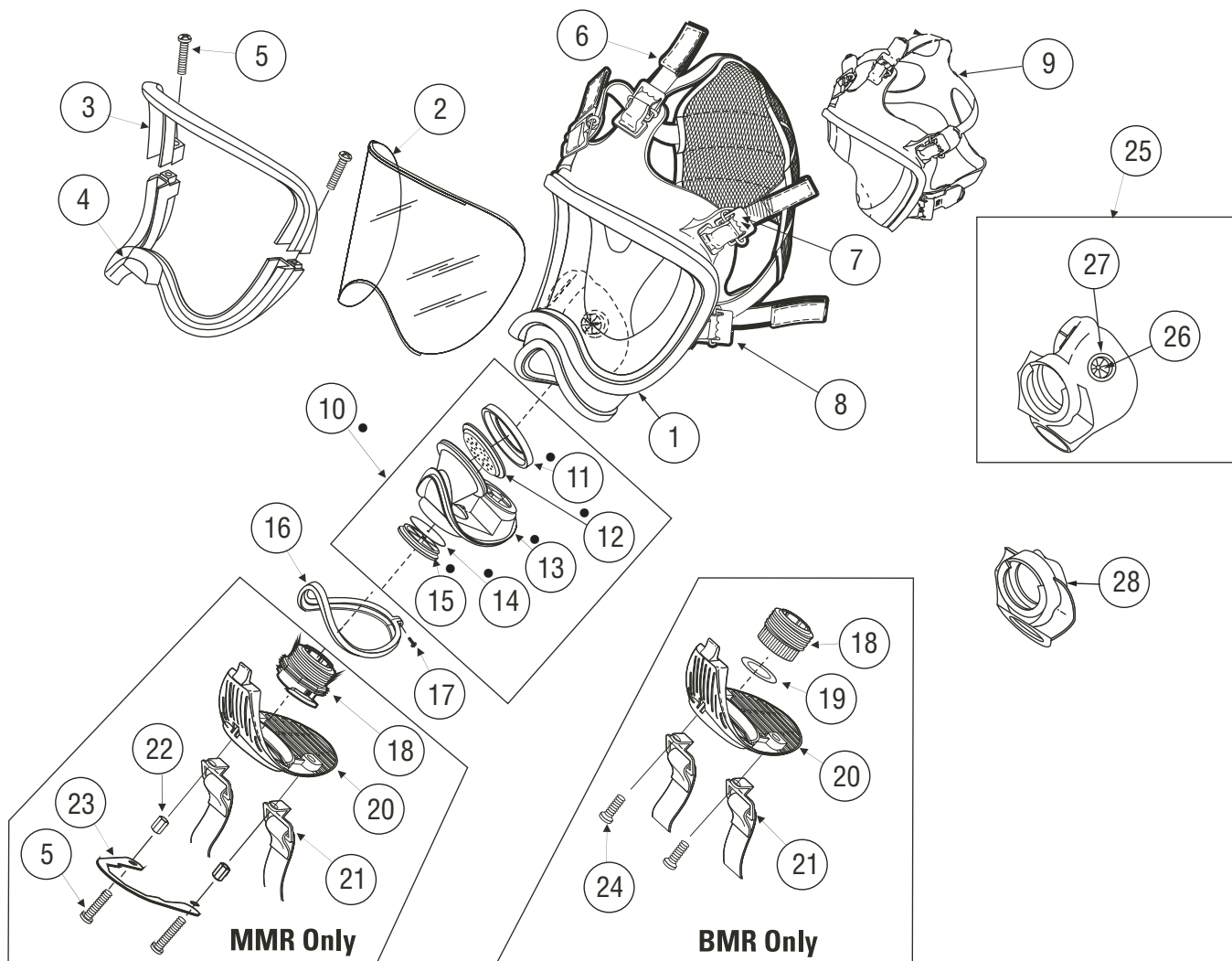
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MINE SAFETY APPLIANCES COMPANY
PITTSBURGH, PENNSYLVANIA, U.S.A. 15230

ULTRA ELITE FACEPIECE COMPONENTS		
Item	Part No.	Description
1	805576	Small, Faceblanks, Hycar
	805574	Medium, Faceblanks, Hycar
	805578	Large, Faceblanks, Hycar
2	805020	Lens Super Hardcoat
3	805594	Upper Lens Ring
4	805595	Lower Lens Ring
5	804806	Screw (4 Req'd)
6	817089	Speed-ON Harness Assembly (with 3 Buckles)
	817088	Speed-ON Harness Assembly (less Buckles)
7	804828	Buckles (3 Req'd)
8	804807	Buckle Assembly with D-Ring (2 Req'd)
9	817262	Rubber Harness Black (less Buckles)
10	815604 •	Component Housing Assembly (Complete)
11	804808 •	Speaking Diaphragm Retainer
12	804809 •	Speaking Diaphragm
13	815605 •	Component Housing with Exhalation Valve
14	804813 •	Inlet Disc, Valve
15	804814 •	Valve Spider
16	804811	Component Housing Ring, Clamp
17	804812	Screw
18	813556	Adapter Assembly, 1/4 Turn (MMR)
	804824	Adapter Assembly w/Gasket, Threaded (BMR)
19	804825	Gasket (BMR)
20	809464	Component Housing Cover
21	804829	Neckstrap
22	637865	Spacer (MMR)
23	813543	Retaining Ring (MMR)
24	804821	Screw (2 Req'd) (BMR)
25	810412	Medium, Gray, Nosecup
	810413	Large, Gray, Nosecup
	495188	Medium, Black, Nosecup
	495189	Large, Black, Nosecup
26	804822	Valve Seat (2 Req'd)
27	804823	Valve Disc (2 Req'd)
OPTIONAL		
28	809858	Baffle
29	804638	Spectacle Kit (Not Shown)

Ultra Elite[®]

pressure demand facepiece NFPA

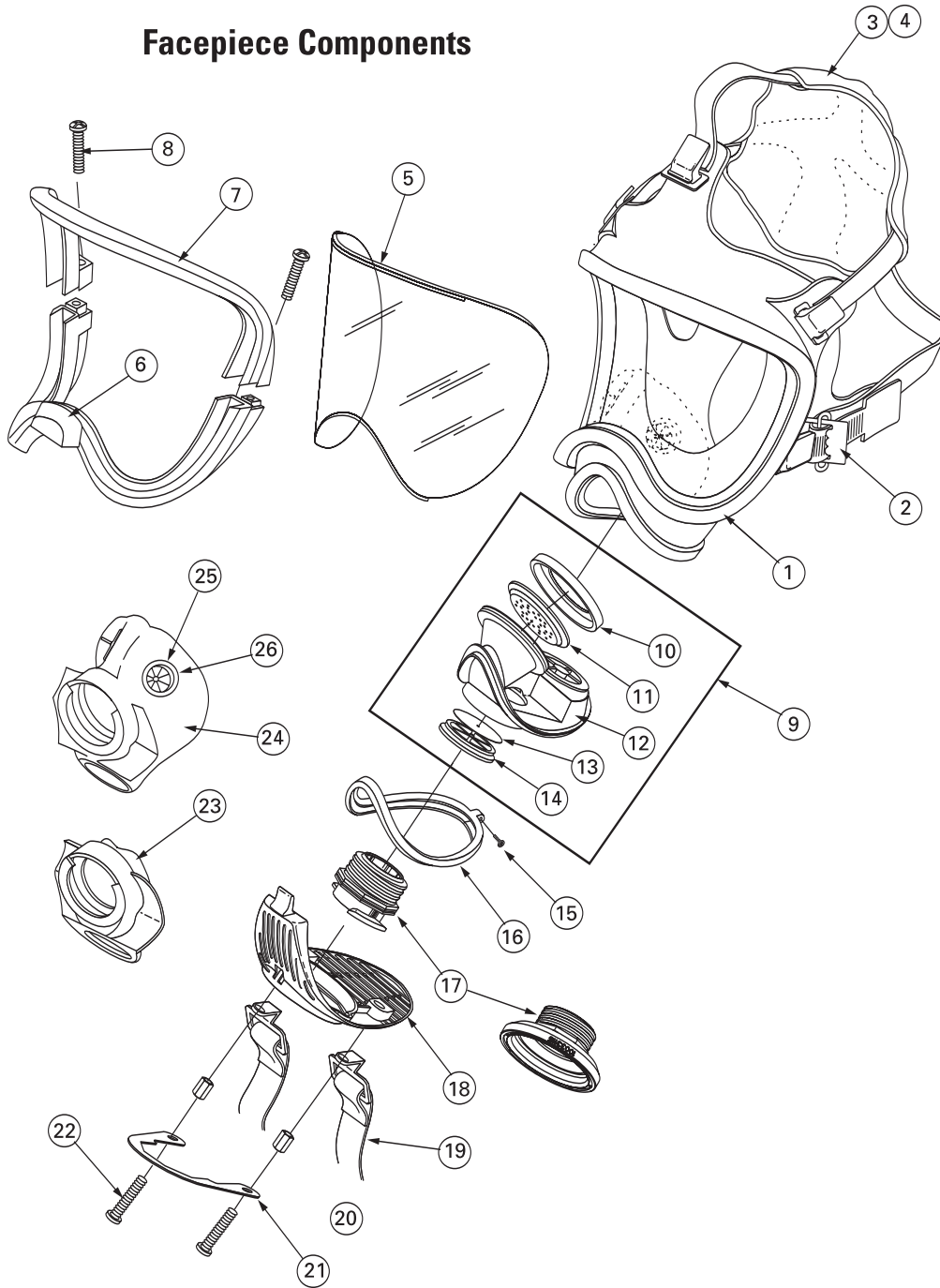


ULTRA ELITE COMPONENTS				
Item	Part No.	Description		
1	FACEPIECE BLANK			
	Material	Color	Facepiece Blanks	Facepiece Assembly
	Hycar	Black	490128 (Small)	808916 (Small)
			490138 (Medium)	808911 (Medium)
490139 (Large)			808921 (Large)	
2	804807	Buckle Assembly with D-Ring		
3	804534	SpeeD-On Harnes Assembly (with Buckles)		
4	491608	Rubber Harness (with Buckles)		
5	805019	Lens Hardcoat		
6	805594	Lower Lens Ring		
7	805595	Upper Lens Ring		
8	804806	Screw (2)		
9	815604	Component Housing Assembly (complete)		
10	804808	Speaking Diaphragm Retainer		
11	804809	Speaking Diaphragm		
12	10026463	Component Housing Assembly (complete)		
	815605	Component Housing Only w/ Exhalation Valve		
13	491933	Inlet Disc		
14	804814	Valve Spider		
	805011	Valve Spider (Firehawk)		
15	804813	Screw		
16	804811	Component Housing Ring		
17	813566	Adapter Assembly (1/4 Turn)		
	10018621	Adapter Assembly (Slide)		
	10033115	Adapter Assembly (Push-to-Connect)		
18	809838	Component Housing Cover (Gray)		
	804819	Component Housing Cover (Black)		
	10034500	Component Housing Cover (Black) Slide		
19	804829	Neckstrap		
20	637865	Spacer (2)		
21	813543	Retaining Ring		
22	804821	Component Housing Screws		
23	809858	Baffle (optional) Gray		
NOSECUP ASSEMBLY (with valves)				
24	810412	Medium, Gray		
	495188	Medium, Black		
	810413	Large, Gray		
	495189	Large, Black		
25	804822	Valve Seat (Kit)		
26	804823	Valve Disc (Kit)		

Ultra Elite™

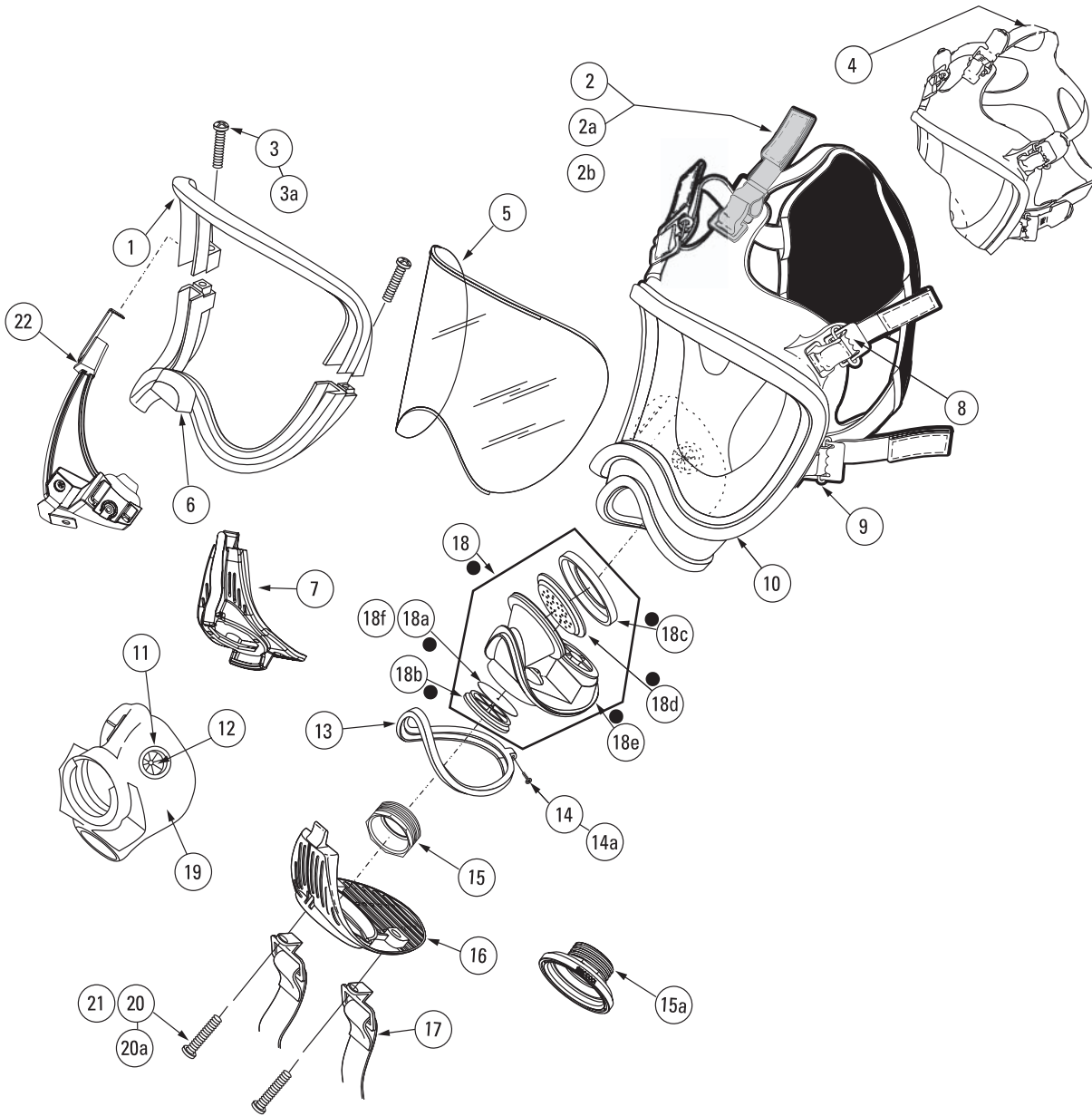
pressure demand facepiece (NON NFPA)

Facepiece Components



ULTRA ELITE COMPONENTS		
Item	Part No.	Description
1	804804	Upper Lens Ring
2	10031102	SpeedOn Harness Assembly (Firehawk)
3	636955	Screw (2 Req'd)
3a	804806	Screw Kit (2 Req'd)
4	817262	Rubber Harness Black (less Buckles)
5	491132	Lens
6	804805	Lower Lens Ring
7	494297	Buckles (3 Req'd)
8	804807	Buckle Ass'y with D-Ring (2 Req'd)
9	See Chart	Facepiece Blank
10	804822	Valve Seat (2 Req'd)
11	804823	Valve Disc (2 Req'd)
12	804811	Component Housing Ring
13	10025381	Screw
14	10033115	Push-To-Connect
15	489224	Component Housing Cover
16	804829	Neckstrap
17	815604	Component Housing Assembly (Complete) •
17a	804813	Inlet Disc •
17b	490134	Valve Spider (Firehawk) •
17c	804808	Speaking Diaphragm Retainer •
17d	804809	Speaking Diaphragm •
17e	815605	Component Housing with Exhalation valve •
18	Nosecup Assembly (with valves)	
18a	495188	Medium, Black
18b	495189	Large, Black
19	10033208	Screws (2 Req'd)

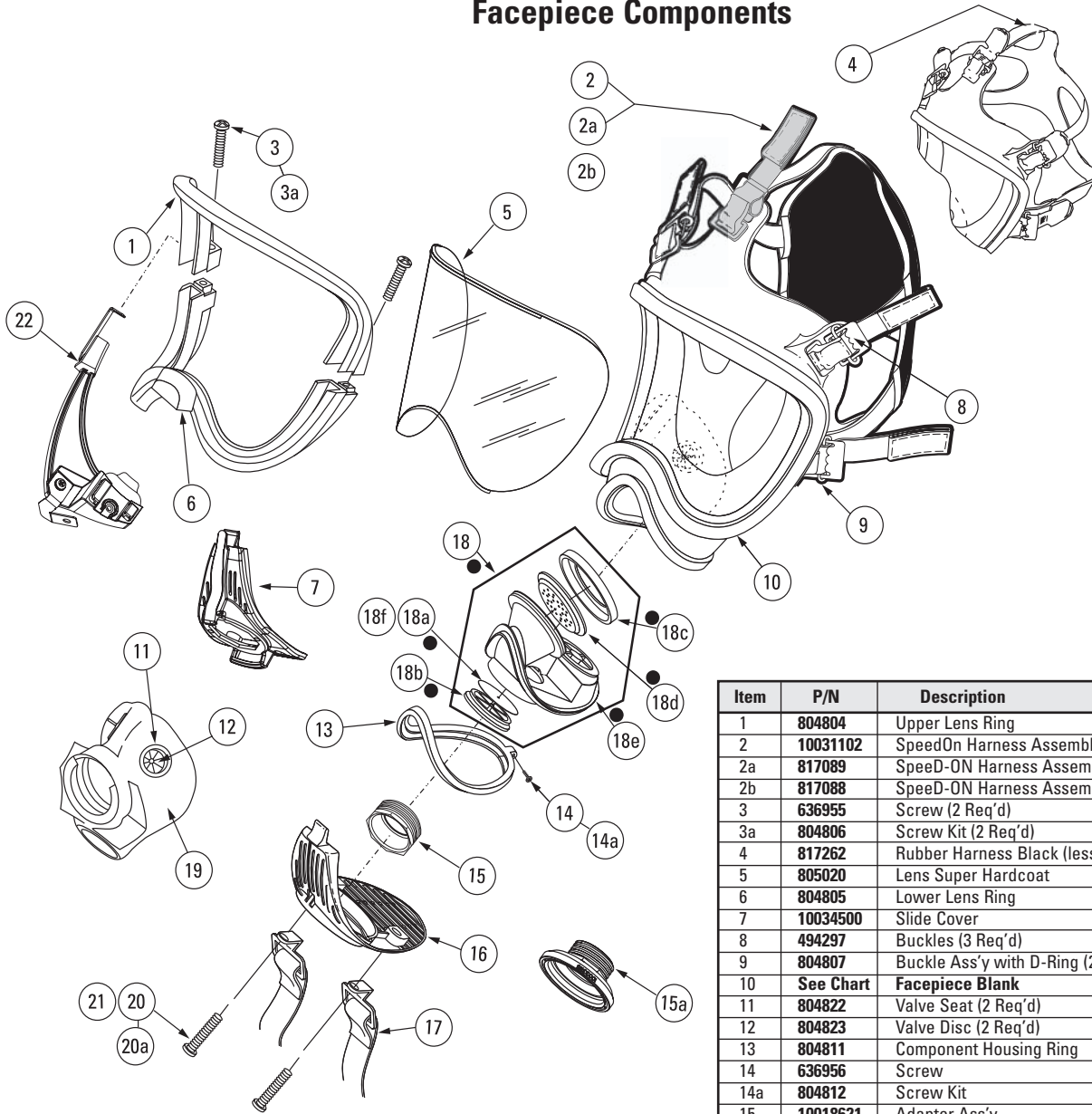
Ultra Elite[®] Firehawk



Ultra Elite® Firehawk

pressure demand facepiece NFPA

Facepiece Components



Facepiece Blank			
Type	Small	Medium	Large
Hycar	10048814	10048813	10048815
Silicone	805581	805580	805582

Item	P/N	Description
1	804804	Upper Lens Ring
2	10031102	SpeedOn Harness Assembly (Firehawk)
2a	817089	Speed-ON Harness Assembly (with 3 Buckles)
2b	817088	Speed-ON Harness Assembly (less Buckles)
3	636955	Screw (2 Req'd)
3a	804806	Screw Kit (2 Req'd)
4	817262	Rubber Harness Black (less Buckles)
5	805020	Lens Super Hardcoat
6	804805	Lower Lens Ring
7	10034500	Slide Cover
8	494297	Buckles (3 Req'd)
9	804807	Buckle Ass'y with D-Ring (2 Req'd)
10	See Chart	Facepiece Blank
11	804822	Valve Seat (2 Req'd)
12	804823	Valve Disc (2 Req'd)
13	804811	Component Housing Ring
14	636956	Screw
14a	804812	Screw Kit
15	10018621	Adapter Ass'y
15a	10033115	Push-To-Connect
16	489224	Component Housing Cover
17	804829	Neckstrap
18	815604	Component Housing Assembly (Complete) •
18a	804813	Inlet Disc •
18b	805011	Valve Spider •
18c	804808	Speaking Diaphragm Retainer •
18d	804809	Speaking Diaphragm •
18e	815605	Component Housing with Exhalation valve •
18f	490134	Valve Spider (Firehawk)
19	Nosecup Assembly (with valves)	
19a	810412	Medium, Gray
19b	810413	Large, Gray
19c	495188	Medium, Black
19d	495189	Large, Black
19e	804638	Spectacle Kit
20	10033208	Screws (2 Req'd)
20a	804821	Screw Kit (2 Req'd)
21	637070	Screw (2) (Firehawk)
22	10037791	NightFighter Bracket

ULTRA ELITE FACEPIECE REPAIR

REPLACING THE RUBBER HEADSTRAP

Note: To replace the standard rubber headstrap (the one with rollers and end-tabs), see Ultravue Facepiece Repair.

To replace the standard rubber headstrap if the buckle assemblies are damaged, or to install the Speed-ON Harness, follow the steps below:

1. To remove a damaged rubber head strap from the facepiece, lay the facepiece on a table or other flat surface.
 - a. Grasp the facepiece lug with the thumb and forefinger of one hand. Grasp the headstrap metal buckle with the thumb and forefinger of the other hand.



- b. Lift the metal buckle up with your thumb as you stretch the facepiece lug.

- c. Turn the facepiece and switch hands to pry up on the other side of the metal buckle.
 - d. Pull the facepiece lug out of the metal buckle.
 - e. Repeat steps a through d for each remaining strap.
 - f. If you removed the headstrap to install the Speed-ON Harness, go to Installing the Speed-ON Harness.
2. To install a new rubber headstrap, lay the new headstrap flat. The MSA logo should be right-side up. Each strap is labeled. Pick the headstrap up by the strap labeled "Front."
 - a. Insert the facepiece lug into the metal buckle.



- b. Hold the buckle down against the facepiece lug with the thumb and forefinger of one hand while gripping the end of the lug with the thumb and forefinger of the other hand.

- c. Pull the buckle and lug in opposite directions while twisting them from side to side to work the buckle down until it snaps in place over the lug.
- d. Repeat steps a through c for each remaining strap. Check that the installed headstrap is not twisted.

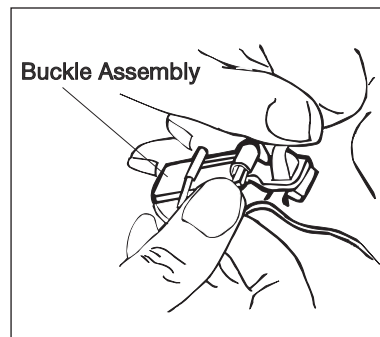
3. Don the facepiece and check the face-to-facepiece seal. Follow the Facepiece Fit Check.

REMOVING THE SPEED-ON HARNESS

1. To remove a damaged Speed-ON harness from the facepiece, lay the facepiece on a table or other flat surface.
2. Follow Replacing the Rubber Headstrap, steps 1a - d for each of the top three straps.
3. To remove the bottom buckles, pull the back of the buckle away from the rubber strap and pull slightly so the rubber harness end-tab is at the buckle.
4. Fold the end-tab sides together, then slide each tab through its buckle.
5. Repeat steps 3 and 4 for the other buckle.

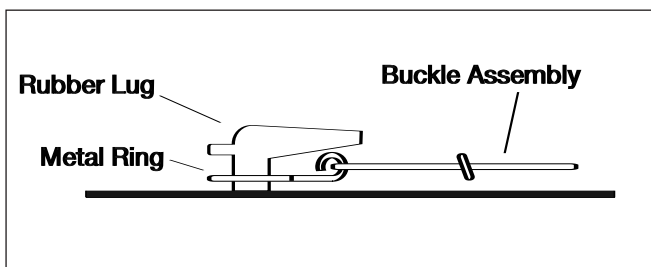
INSTALLING THE SPEED-ON HARNESS

1. Install the harness strap buckles on the facepiece rubber lug at the crown and temple locations:
 - a. Insert the long tab end of the rubber lug into the metal ring.



- b. Pull the entire rubber lug through the metal ring.

2. Refer to Kit 817088 Head Harness Installation instructions to attach the harness.



ULTRA ELITE FACEPIECE REPAIR



CLEANING SPEED-ON HARNESS

Machine wash in warm water (maximum 120 degrees F) with a mild detergent. Hang the harness in an open area to air-dry. **Do not dry clean.** Do not bleach or use abrasive cleaners. Do not fold or store when wet.

REMOVING THE COMPONENT HOUSING COVER

1. Remove the two component housing cover screws and the neckstrap.



2. Remove the locking ring.

3. Lift up on the cover release hook, located forward of the adapter assembly opening. Once the release is lifted, you can remove the cover by pulling it away from the housing. You must tilt the cover and work it over one adapter bayonet at a time.



4. Unthread and remove the adapter assembly.

CAUTION

Be careful that you do not damage internal parts of the component housing assembly (exhalation valve, spring, retainer, or speaking diaphragm) once the cover is removed.

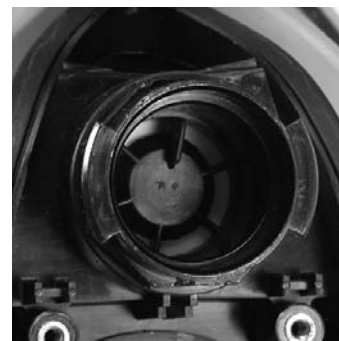
INSTALLING THE ADAPTER ASSEMBLY, LOCKING RING, AND COMPONENT HOUSING COVER

1. Holding the adapter assembly in your hand, rotate the slip nut so that the octagon flange on the slip nut lines up with the octagon flange on the adapter.



2. Thread the adapter assembly into the facepiece. Using the spanner wrench, torque the adapter to 12 - 27 in-lbs. If necessary, continue to torque until the top flat on the octagon is horizontal.

3. The bayonets must be in a horizontal orientation.



4. If the bayonets are not horizontal, remove the adapter assembly and turn the slip nut. Re-install the adapter assembly so that the bayonets are horizontal when the adapter assembly is torqued 12 - 27 in-lbs.

INSTALLING THE COMPONENT HOUSING COVER

1. Place the component housing cover over the adapter assembly. Tilt and rotate the cover to work it over one bayonet at a time.
2. Insert the tab on the cover into the slot in the lens ring.
3. Press in on the front of the cover until the cover hook snaps in place.

ULTRA ELITE FACEPIECE REPAIR

4. Install the locking ring by sliding it into the groove on the adapter. (Do not slide it into the space between the slip nut flange and the adapter flange.)
5. Place the neckstrap brackets and the spacers in the cover sockets under the locking ring. Install the Phillips screws and tighten.
6. Verify each of the following features.
 - a. The adapter bayonets are locked into a horizontal position and can NOT be rotated.
 - b. The slip nut is threaded completely into the facepiece and locked securely. It can NOT be rotated.
 - c. The metal locking ring is locked into position and can NOT be rotated.
 - d. There is no loose play in the assembly of parts.
7. Don the facepiece and check the face-to-facepiece seal. Follow the Facepiece Fit Check.

REMOVING THE FACEPIECE LENS AND RING

⚠ CAUTION

Keep the protective papers on the lens until the lens is completely assembled in the facepiece.

Note: Remove the adapter assembly and component housing cover.

1. Using a Phillips screwdriver, loosen and remove the screw from each side of the facepiece lens retaining ring.



2. Remove the upper and lower lens retaining rings.



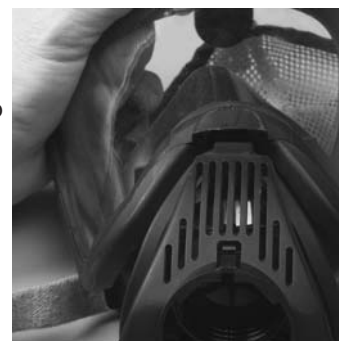
3. Fold the facepiece flange rubber back and pull the lens out of the groove.

INSTALLING THE FACEPIECE LENS AND RING

1. Remove any dirt, lens fragments, or other debris from the groove. Line up the new lens center-line marks (top and bottom) with the facepiece center-line mark. Insert the top of the lens into the groove. Work the facepiece rubber flange around the lens to fully seat the lens in the groove. When installed correctly, the bottom lens center-line mark lines up with the bottom facepiece center-line mark.
2. Moisten the facepiece lens groove and the inside of the housing ring.



3. Install the bottom ring. Insert the tab at the top of the component housing into the slot at the bottom center of the lower lens ring. The tab should snap into place.



4. Line up the top lens ring center-line with the facepiece rubber flange center-line mark. Press the ring into place.
5. Press the ring halves together at the top and bottom of the facepiece so that the ends mate.
6. Install a screw on each side. Start the screws. They should thread easily. If not, remove and reinstall the screws to avoid cross-threading. Keep hand pressure on both ring halves.
7. As the ring halves come together, alternate tightening the left and right screws to be sure the rings seat completely on the rubber flange.

⚠ CAUTION

Do not overtighten. Rubber must not show between the lens ring ends at the joint. If this happens, reassemble.

8. Remove all lens protective papers from the new lens.
9. Re-install the component housing and the adapter assembly.
10. Don the facepiece and check the face-to-facepiece seal. Follow the Facepiece Fit Check.
11. Install a cover lens to protect the facepiece polycarbonate lens during storage.

ULTRA ELITE FACEPIECE REPAIR

REMOVING THE COMPONENT HOUSING ASSEMBLY

Note: Remove the adapter assembly and the component housing cover.

1. Using a small Phillips screwdriver, remove the component housing ring screw. Grasp the ring with the thumb and forefinger of each hand. Gently spread the ring halves apart at the bottom.



2. When the facepiece rubber is out of the ring groove, lift the ring up away from the facepiece. You may need to pull the housing down slightly to allow enough room to remove the ring from between the housing and the lower lens ring.



3. Remove the facepiece rubber from the component housing and pull the housing and nose cup (if installed) out of the facepiece.

INSTALLING THE COMPONENT HOUSING ASSEMBLY

1. Slide the housing into the front of the facepiece.
2. Starting at the top (narrow end) of the housing, place the housing in the facepiece groove. Work the rubber all the way around the housing. Check that the housing is completely captured inside the groove and the center-lines are lined up.



3. Moisten the facepiece housing area and the inside of the housing ring.
4. Insert the narrow end of the ring into the space between the lower lens ring and the facepiece housing area.

5. Line up the component housing ring mark with the facepiece center-line.



6. Starting at the top, work the housing ring down on the facepiece to capture the facepiece rubber in the ring groove. Work your way down each side of the ring until the facepiece rubber is completely captured inside the ring.



7. Gently squeeze the ring halves together at the bottom of the housing. Watch the facepiece rubber at the top as you do this. If you see any bulges or wrinkles in the facepiece rubber, it is not captured in the groove. Rework the ring around the facepiece rubber until there are no bulges or wrinkles.

⚠ WARNING

Bulges or wrinkles mean that the facepiece rubber is not seated correctly in the ring. Re-install the ring to seat it correctly. Failure to follow this precaution may cause the facepiece to leak and result in serious personal injury or death.

8. When the housing ring appears to be seated, grasp the outside of the ring and the inside of the housing at the top between your thumb and forefinger and squeeze them together. Then do the same with the ring halves at the bottom.

9. Install the screw and tighten using a small Phillips screwdriver.



ULTRA ELITE FACEPIECE REPAIR

⚠ CAUTION

Rubber must not extrude between the component housing ring ends at the joint. If this happens, reassemble.

10. Re-install the nose cup or air baffle (if used) in the facepiece.
11. Re-install the component housing cover and adapter assembly.
12. Don the facepiece and check the face-to-facepiece seal. Follow the Facepiece Fit Check.

REPLACING THE SPEAKING DIAPHRAGM

1. Remove the nose cup or air baffle (if installed) from inside the facepiece.



2. Unscrew and remove the speaking diaphragm retaining ring.

3. Turn the facepiece upside down and shake out the metal speaking diaphragm and gasket assembly.
4. Check the speaking diaphragm and gasket assembly for damage. Replace it if it is worn or damaged.
5. Be sure that the gasket is on the diaphragm assembly. Place the diaphragm in the retaining ring. Be sure that the gasket side of the speaking diaphragm will be facing the component housing.
6. Replace the retaining ring and hand-tighten.
7. Re-install the nose cup or air baffle (if used) in the facepiece.
8. Don the facepiece and check the face-to-facepiece seal. Follow the Facepiece Fit Check.

REPLACING THE INLET GASKET AND DISC VALVE

1. Remove the component housing cover and the adapter assembly.
2. Remove the disc from the gasket and inspect both for wear. The disc should be very soft and pliable. Install a new disc valve if it is damaged or hardened.
3. To install the inhalation disc valve:
 - a. *Gently*, stretch the hole in the center of the disc valve over the gasket stem.

- b. Note that the inlet gasket has a groove around its inside.



- c. With the pull-tab facing you, insert the gasket into the facepiece at an angle so that its groove captures the housing rim. The lower lip on the gasket must be placed under the rim in the component housing.

Note: You may have to bend the gasket slightly to work the groove under the rim all the way around. When installed correctly, the gasket will lay flat in the housing, and none of the spokes will be bent.

4. Re-install the adapter assembly.
5. Don the facepiece and check the face-to-facepiece seal. Follow the Facepiece Fit Check.

INSTALLING THE NEW PTC (PUSH TO CONNECT) ADAPTER ASSEMBLY AND COMPONENT HOUSING COVER

1. Insert facepiece component housing cover tab into lens ring slot, leave the cover loose.



2. Place the facepiece adapter through the facepiece component housing cover. Thread the adapter assembly into the facepiece.



ULTRA ELITE FACEPIECE REPAIR

3. Tighten facepiece adapter until the top flat on the octagon is horizontal.

Note: The octagon flats on the facepiece adapter must align with octagon flats of component housing.

4. Press in on the front of the cover until the cover hook snaps into place.

5. Place the neckstrap clips into the cover sockets. Install the new Phillips screws and tighten.
6. Verify that there is no loose play in the assembly of parts.
7. Don the facepiece and check the face-to-facepiece seal. Follow the Facepiece Fit Check procedures in the Operation and Instructions Manual.