



# Trouble Shooting Guide



## 3M™ S-Series Hoods & Headcovers

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*Replaces all previously issued until superseded.*

The following chart is intended to help the user troubleshoot certain situations that may occur with the 3M™ S-Series Hoods and Headcovers used with 3M Powered and Supplied Air Systems. If you cannot identify your problem in the chart below, please consult your supervisor or contact 3M Technical Service.

<b>S-100/300/400/500 Series (With Integrated Suspension)</b>		
<b>Problem</b>	<b>Possible Causes</b>	<b>Suggested Corrective Actions</b>
<b>Poor visibility through visor.</b>	<ul style="list-style-type: none"> <li>- Protective film or cover from headgear manufacturer/transit still in place.</li> <li>- Visor or visor peel-off cover is scratched or coated with material.</li> <li>- Headgear not properly positioned on head.</li> </ul>	<ul style="list-style-type: none"> <li>- Remove protective film or cover.</li> <li>- Clean visor.</li> <li>- Remove and replace peel-off visor cover.</li> <li>- Dispose of headgear and replace with new one.</li> <li>- Refer to the <i>User Instructions</i> for proper placement of headgear.</li> </ul>
<b>Headgear noisy.</b>	<ul style="list-style-type: none"> <li>- Breathing tube rubbing against headgear.</li> <li>- Protective apparel or other garment rubbing on headgear.</li> <li>- Foreign objects in breathing tube.</li> <li>- Malfunction of air source.</li> </ul>	<ul style="list-style-type: none"> <li>- Ensure breathing tube is properly connected.</li> <li>- Check headgear donning. Refer to the <i>User Instructions</i> for donning and placement of headgear.</li> <li>- For BT-20 series breathing tubes, select appropriate length.</li> <li>- Adjust other garments.</li> <li>- Examine interior of tube for objects.</li> <li>- Check air source for proper function.</li> </ul>

<b>S-100/300/400/500 Series (With Integrated Suspension)</b>		
<b>Problem</b>	<b>Possible Causes</b>	<b>Suggested Corrective Actions</b>
<b>Air whistling past the ears.</b>	<ul style="list-style-type: none"> <li>- Incorrect size.</li>   <li>- Headgear not properly positioned on head.</li>   <li>- Tears, holes, or other damage to the headgear.</li>   <li>- Presence of beard or facial hair.</li> </ul>	<ul style="list-style-type: none"> <li>- Refer to the sizing guidelines in the <i>User Instructions</i>. The elasticized edges of the faceseal should come into contact with the face under the chin and above the ears.</li>   <li>- Refer to the <i>User Instructions</i> for proper placement of headgear.</li>   <li>- Inspect product. Dispose of headgear and replace with new one if you discover any signs of wear or damage.</li>   <li>- Users should be clean shaven where the faceseal of the headgear comes into contact with the face.</li> </ul>
<b>Headgear moves out of position.</b>	<ul style="list-style-type: none"> <li>- Breathing tube is improper length. (for BT-20 series breathing tubes)</li>   <li>- Headgear suspension not adjusted properly.</li>   <li>- Headgear suspension not fully connected.</li>   <li>- Headgear not properly positioned on head.</li>   <li>- PAPR or Air Control Device improperly positioned.</li> </ul>	<ul style="list-style-type: none"> <li>- Replace breathing tube with longer or shorter length version.</li>   <li>- Readjust the suspension. Ensure crown strap is on top of the head.</li>   <li>- Check suspension connection points. If straps are not fully connected, re-connect or replace headgear.</li>   <li>- Refer to the <i>User Instructions</i> for proper placement of headgear.</li>   <li>- Reposition PAPR or Air Control Device on body.</li> </ul>

<b>S-100/300/400/500 Series (With Integrated Suspension)</b>		
<b>Problem</b>	<b>Possible Causes</b>	<b>Suggested Corrective Actions</b>
<b>Headgear feels too tight or too loose.</b>	<ul style="list-style-type: none"> <li>- Incorrect size.</li> <li>- Headgear suspension not fully connected.</li> <li>- Headgear suspension not adjusted properly.</li> <li>- Headgear not properly positioned on head.</li> <li>- Elastic in faceseal is worn or damaged.</li> <li>- Comfort pad is missing.</li> </ul>	<ul style="list-style-type: none"> <li>- Refer to the sizing guidelines in the <i>User Instructions</i>. The elasticized edges of the faceseal should come into contact with the face under the chin and above the ears.</li> <li>- Check suspension connection points. If straps are not fully connected, re-connect or replace headgear.</li> <li>- Readjust the suspension. Ensure crown strap is on top of the head.</li> <li>- Refer to the <i>User Instructions</i> for proper placement of headgear.</li> <li>- Dispose of hood or headcover and replace with a new one.</li> <li>- Dispose of hood or headcover and replace with a new one.</li> </ul>

<b>S-600/700 Series (With S-950 Premium Reusable Suspension)</b>		
<b>Problem</b>	<b>Possible Causes</b>	<b>Suggested Corrective Actions</b>
<b>Poor visibility through visor.</b>	<ul style="list-style-type: none"> <li>- Protective film or cover from headgear manufacturer/transit still in place.</li> <li>- Visor or visor peel-off cover is scratched or coated with material.</li> <li>- Headgear not properly positioned on head.</li> </ul>	<ul style="list-style-type: none"> <li>- Remove protective film or cover.</li> <li>- Clean visor.</li> <li>- Remove and replace peel-off visor cover.</li> <li>- Dispose of headgear and replace with new one.</li> <li>- Refer to the <i>User Instructions</i> for proper placement of headgear.</li> </ul>
<b>Headgear noisy.</b>	<ul style="list-style-type: none"> <li>- Breathing tube rubbing against headgear.</li> <li>- Breathing tube rubbing against headgear.</li> </ul>	<ul style="list-style-type: none"> <li>- Ensure breathing tube is properly connected.</li> <li>- Check headgear donning. Refer to the <i>User Instructions</i> for donning and placement of headgear.</li> </ul>

<b>S-600/700 Series</b> <b>(With S-950 Premium Reusable Suspension)</b>		
<b>Problem</b>	<b>Possible Causes</b>	<b>Suggested Corrective Actions</b>
<b>Headgear noisy.</b>	<ul style="list-style-type: none"> <li>- Foreign objects in breathing tube.</li> <li>- Malfunction of air source.</li> </ul>	<ul style="list-style-type: none"> <li>- For BT-20 series breathing tubes, select appropriate length.</li> <li>- Examine interior of tube for objects and remove if present.</li> <li>- Check air source for proper function.</li> </ul>
<b>Headgear moves out of position.</b>	<ul style="list-style-type: none"> <li>- PAPR or Air Control Device improperly positioned.</li> <li>- Headgear suspension not adjusted properly.</li> <li>- Headgear suspension not fully connected.</li> <li>- Headgear not properly positioned on head.</li> <li>- Breathing tube is improper length. (for BT-20 series breathing tubes)</li> </ul>	<ul style="list-style-type: none"> <li>- Reposition PAPR or Air Control Device on body.</li> <li>- Readjust the suspension. There are multiple adjustment points. Refer to the <i>User Instructions</i> for guidance.</li> <li>- Check suspension is securely connected to the visor on both sides.</li> <li>- Refer to the <i>User Instructions</i> for proper placement of headgear and adjustment options.</li> <li>- Replace breathing tube with longer or shorter length version.</li> </ul>
<b>Headgear feels too tight or too loose.</b>	<ul style="list-style-type: none"> <li>- Suspension sizing not optimized.</li> <li>- Headgear suspension not fully connected.</li> <li>- Headgear suspension not adjusted properly.</li> <li>- Headgear not properly positioned on head.</li> <li>- Comfort pad or size reducing pad not installed.</li> <li>- Suspension parts are damaged or worn.</li> </ul>	<ul style="list-style-type: none"> <li>- Refer to the sizing guidelines in the <i>User Instructions</i>. A size reducing pad (S-954) is available for the S-950 suspension.</li> <li>- Check suspension is securely connected to the visor on both sides.</li> <li>- Readjust the suspension. Refer to the <i>User Instructions</i> for adjustment options.</li> <li>- Refer to the <i>User Instructions</i> for proper placement of headgear.</li> <li>- Install a comfort pad or size reducing pad.</li> <li>- Inspect suspension. Replace worn or damaged parts. Refer to the <i>User Instructions</i> for a listing of spare parts.</li> </ul>
<b>Uncomfortable airflow inside the hood.</b>	<ul style="list-style-type: none"> <li>- Position of the airflow adjustment mechanism on the S-950 suspension.</li> </ul>	<ul style="list-style-type: none"> <li>- Adjust the airflow mechanism to alter the airflow direction for wearing comfort.</li> </ul>

<b>S-600/700 Series</b> <b>(With S-950 Premium Reusable Suspension)</b>		
<b>Problem</b>	<b>Possible Causes</b>	<b>Suggested Corrective Actions</b>
<b>Uncomfortable airflow inside the hood, continued.</b>	<ul style="list-style-type: none"> <li>- Airflow mechanism on the S-950 is worn or damaged.</li> <li>- Suspension not fully connected to the headgear.</li> <li>- PAPR or Air Control Device issue.</li> </ul>	<ul style="list-style-type: none"> <li>- Dispose of suspension and replace with a new one.</li> <li>- Check suspension is securely connected to the visor on both sides.</li> <li>- Consult <i>User Instructions</i> for the specific air source.</li> </ul>
<b>Airflow adjustment mechanism is difficult to turn or won't turn.</b>	<ul style="list-style-type: none"> <li>- Cover is missing.</li> <li>- Dirt or debris is in the mechanism.</li> <li>- Airflow mechanism is damaged or worn.</li> </ul>	<ul style="list-style-type: none"> <li>- Install a new S-955 airflow adjustment cover.</li> <li>- Clean suspension. Refer to the <i>User Instructions</i> for guidance. Make sure cover is used.</li> <li>- Dispose of suspension and replace with a new one.</li> </ul>

<b>General System Problems</b>		
<b>Problem</b>	<b>Possible Causes</b>	<b>Suggested Corrective Actions</b>
<b>Low air flow – PAPR systems.</b>	<ul style="list-style-type: none"> <li>- Breathing tube disconnected or not properly connected to headgear or PAPR.</li> <li>- Breathing tube or headgear damaged.</li> <li>- Battery has insufficient charge.</li> <li>- Particulate filter is excessively loaded.</li> <li>- Motor blower malfunction.</li> <li>- S-600/700 series headgear, positioning of the air flow adjustment mechanism perceived as low flow.</li> <li>- PAPR malfunction.</li> </ul>	<ul style="list-style-type: none"> <li>- Check connection of breathing tube and repeat connection procedures.</li> <li>- Inspect breathing tube and headgear – replace as necessary. Do not attempt to repair.</li> <li>- Remove battery from service and recharge or replace with fully charged battery.</li> <li>- Replace filter with new filter.</li> <li>- Switch to another motor blower.</li> <li>- Use air flow adjustment to modify air distribution pattern.</li> <li>- Air flow indicator can be used to help verify low flow and to assist in locating possible source of problem. Once corrected, complete user checks in the appropriate PAPR <i>User Instructions</i> to verify sufficient airflow.</li> </ul>

<b>General System Problems</b>		
<b>Problem</b>	<b>Possible Causes</b>	<b>Suggested Corrective Actions</b>
<b>Low air flow – Airline system.</b>	<ul style="list-style-type: none"> <li>- Compressed air line hose is disconnected, kinked or leaking.</li>   <li>- Supply air pressure too low.</li>   <li>- Breathing tube or headgear damaged.</li>   <li>- S-600/700 series headgear, positioning of the air flow adjustment mechanism perceived as low flow.</li> </ul>	<ul style="list-style-type: none"> <li>- Inspect entire length of air line hose; reconnect hose to air supply and air control device; un-kink hose; replace hose if leaking. Do not attempt to repair leaking hose.</li>   <li>- Check pressure gauge at hose connection to air supply source and ensure it is within the pressure schedule range as listed in the air control User Instructions for the headgear and hose length in use.</li>   <li>- Inspect breathing tube and headgear and replace as necessary. Do not attempt to repair.</li>   <li>- Use air flow adjustment to modify air distribution pattern.</li> </ul>

Consult the *User Instructions* for S-Series Hoods and Headcovers or for the specific air source for additional information on the use of these products.

 **WARNING**

These respirators help protect against certain airborne contaminants. Use of 3M™ Powered and Supplied Air Respirators by untrained or unqualified persons, or use not in accordance with the instructions, **may adversely affect product performance and result in sickness or death.** Powered and supplied air respirators are to be used only by qualified persons who are properly trained in their use and maintenance and only in accordance with their operating and maintenance manuals. Each person using these products must first read and understand the operator's manual. See supervisor for assistance or call 3M OH&ESD Technical Service in U.S.A. at 1-800-243-4630. In Canada call 1-800-267-4414.

**For More Information:**

In US:       Website: [www.3M.com/occsfety](http://www.3M.com/occsfety)  
                   Technical service: 1-800-243-4630  
 In Canada:   Website: [www.3M.com/CA/occsafety](http://www.3M.com/CA/occsafety)  
                   Technical Service: 1-800-267-4414

**3M Occupational Health and Environmental Safety Division**  
 3M Center, Building 235-2W-70  
 St. Paul, MN 55144-1000