

# Gallet F1 XF

Communication Accessories – Technical specifications  
Rev 2 – March 2014







## Flexible Microphone Headset, Gallet F1 XF helmet

Specification	Description	
<b>Overview</b>	Communication headset for integration in Gallet F1 XF fire helmet <ul style="list-style-type: none"> <li>• One or two loudspeakers, in plastic housing with mounting clips.</li> <li>• Flexible microphone, adjustable in length (80 mm) to optimize position in front of the mouth or in front of the speech diaphragm (BA face piece)</li> <li>• Downlead Cable with anti-tearing, LEMO connecting plug (green cover).</li> </ul>	
<b>Interoperability</b>	Operates with an MSA Push-to-Talk (PTT) module enabling connection to the PMR radio. Connection through an anti-tearing LEMO plug with color codification. <ul style="list-style-type: none"> <li>• PTT module with Yellow connector: non ATEX system</li> <li>• PTT module with Green connector: ATEX system (for use with approved ATEX radios only)</li> </ul>	
<b>Technical specifications</b>	<ul style="list-style-type: none"> <li>• Microphone: noise cancelling Electret, 100Hz-10kHz, distortion &lt; 3%</li> <li>• Loudspeaker: 32 Ω, 20 Hz – 3 kHz, max power 100 mW</li> <li>• Amplifier: adjustable gain (0 to 26 dB), 300 Hz – 3 kHz Nominal output 50 mV RMS, Harmonic distortion 5%</li> <li>• Down lead Cable: Fire retardant, shielded cable</li> <li>• Housing: Polyamide (PA6), Fire resistant (V0)</li> <li>• Operation Temperature: -20°C to +65°C, humidity &lt; 98%</li> </ul>	
<b>Weight</b>	<ul style="list-style-type: none"> <li>• Standard version (1 speaker): 100 ± 10g</li> <li>• Premium version (2 speakers): 125 ± 10g</li> </ul>	
<b>Approval</b>	<ul style="list-style-type: none"> <li>• EMC performance: ESD/EMI: 10 V/m</li> <li>• Ingress Protection testing: IP56 (tested inside the helmet)</li> <li>• ATEX (when used with an ATEX certified PTT module)</li> <li>• ATEX level: II 2G Ex ia IIC T4</li> </ul>	
<b>Ordering Information</b>	Part number (when ordered separately from the helmet) <ul style="list-style-type: none"> <li>• GA010002B3X – Headset, Gallet F1XF, Flexible Microphone 1 Speaker</li> <li>• GA010002B3AX – Headset, Gallet F1XF, Flexible Microphone 2 Speakers</li> </ul>	
 <p><i>Headset, 1 speaker</i></p>	 <p><i>Headset, 2 speakers</i></p>	 <p><i>Microphone standby position</i></p>
 <p><i>Headset, in-use position</i></p>	 <p><i>Headset, standby position</i></p>	 <p><i>Connecting plug, headset to PTT</i></p>







## Bone conductive Microphone Headset, Gallet F1 XF helmet

Specification	Description	
<b>Overview</b>	Communication headset for integration in Gallet F1 XF helmet <ul style="list-style-type: none"> <li>• One or two loudspeakers, in housing with mounting clips.</li> <li>• Bone conductive microphone, inserted in the front headband padding.</li> <li>• Downlead Cable with anti-tearing, LEMO connecting plug (blue cover).</li> </ul>	
<b>Interoperability</b>	Operates with an MSA Push-to-Talk (PTT) module enabling connection to the PMR radio. Connection through an anti-tearing LEMO plug with color codification. <ul style="list-style-type: none"> <li>• PTT module with Red connector: non ATEX system</li> <li>• PTT module with Blue connector: ATEX system (for use with approved ATEX radios only)</li> </ul>	
<b>Technical specifications</b>	<ul style="list-style-type: none"> <li>• Microphone: Accelerometer, 20 Hz – 20 kHz, Sensitivity 1 mV / mG</li> <li>• Loudspeaker: 32 Ω, 20 Hz – 3 kHz, max power 100 mW</li> <li>• Down lead Cable: Fire retardant, shielded cable</li> <li>• Housing: Polyamide (PA6), Fire resistant (V0)</li> <li>• Operation Temperature: -20°C to +65°C, humidity &lt; 98%</li> </ul>	
<b>Weight</b>	<ul style="list-style-type: none"> <li>• Standard version (1 speaker): 75 ± 10g</li> <li>• Premium version (2 speakers): 100 ± 10g</li> </ul>	
<b>Approval</b>	<ul style="list-style-type: none"> <li>• EMC performance: ESD/EMI: 10 V/m</li> <li>• Ingress Protection testing: IP56 (tested inside the helmet)</li> <li>• ATEX (when used with an ATEX certified PTT module)</li> <li>• ATEX level: II 2G Ex ia IIC T4</li> </ul>	
<b>Ordering Information</b>	Part number (when ordered separately from the helmet) <ul style="list-style-type: none"> <li>• GA010002A3X – Headset, Gallet F1XF, Bone conductive Microphone 1 Speaker</li> <li>• GA010002A3AX – Headset, Gallet F1XF, Bone conductive Microphone 2 Speakers</li> </ul>	
 <p><i>Headset, 1 speaker</i></p>	 <p><i>Headset, 2 speakers</i></p>	 <p><i>Headset mounted inside helmet (chinstrap not shown)</i></p>
 <p><i>Bone conductive sensor (inserted in headband padding)</i></p>	 <p><i>Left Speaker module (optional)</i></p>	 <p><i>Connecting plug, headset to PTT</i></p>

## Push-to-Talk Module

Specification	Description	
<b>Overview</b>	Push-to-Talk Module (PTT) including: <ul style="list-style-type: none"> <li>• Housing with large size, easy to handle push button</li> <li>• Download cable to the PMR radio with connection plug</li> <li>• Headset connection cable with anti-tearing LEMO plug</li> <li>• Belt / Strap attachment through clip of pincer</li> </ul>	
<b>Interoperability</b>	Operates with an MSA Headset, in particular helmet mounted headsets for Gallet F1 XF fire helmets. <ul style="list-style-type: none"> <li>• PTT with Yellow connector: for flexible microphone headsets</li> <li>• PTT with Green connector: for flexible microphone headset, ATEX (for use with ATEX radios only)</li> <li>• PTT with Red connector: for Bone conductive microphone headsets</li> <li>• PTT with Blue connector: for Bone conductive microphone headset, ATEX (for use with ATEX radios only)</li> </ul>	
<b>Technical specifications</b>	<ul style="list-style-type: none"> <li>• Amplifier: Adjustable gain (0-26 dB), bandwidth 300Hz-3kHz</li> <li>• Nominal output: 50mV RMS, harmonic distortion 5%</li> <li>• Housing Material: High Temperature Thermoplastic (PA)</li> <li>• Operation Temperature: -20°C to +65°C, humidity &lt; 98%</li> </ul>	
<b>Weight</b>	<ul style="list-style-type: none"> <li>• Pincer version: approx. 200 g</li> <li>• Clip Version: approx. 160 g</li> </ul> <i>Note: Weight may vary depending on radio plug and cable type</i>	
<b>Approval</b>	<ul style="list-style-type: none"> <li>• EMC performance: ESD/EMI: 10 V/m</li> <li>• On selected models, compliance to ATEX directive</li> <li>• ATEX (when used with an ATEX certified PTT module, blue or green plug)</li> <li>• ATEX level: II 2G Ex ia IIC T4</li> </ul>	
<b>Ordering Information</b>	Ordering information depends on type of headset and type of radio. <i>Please consult MSA for exact configuration.</i>	
 <p>PTT Module, with headset plug (left) and radio plug (right) – Shown with Motorola GP 3x0 series connector</p>		
 <p>PTT module, pincer version (also available with belt clip)</p>	 <p>Headset connecting plug Color varies with configuration</p>	 <p>Radio connecting plug Ex: Motorola GP3x0 series</p>

## Hearing Protection with flexible Microphone

Specification	Description	
<b>Overview</b>	Active Hearing Protection headset with built-in communication capabilities, including: <ul style="list-style-type: none"> <li>• Two ear muffs with padding and noise attenuation foam</li> <li>• Ear cup height adjustment system for optimal wearing position</li> <li>• Flexible microphone attached to the left muff</li> <li>• Downlead Cable with anti-tearing, LEMO connecting plug (green).</li> </ul>	
<b>Interoperability</b>	Operates with an MSA Push-to-Talk (PTT) module enabling connection to the PMR radio. Connection through LEMO plug with color codification. <ul style="list-style-type: none"> <li>• PTT module with Yellow connector: non ATEX system</li> <li>• PTT module with Green connector: ATEX system (for use with approved ATEX radios only)</li> </ul>	
<b>Technical specifications</b>	<ul style="list-style-type: none"> <li>• Microphone: Noise cancelling electret, 100Hz-10kHz, sensitivity -61 dB (nominal) at 50% humidity</li> <li>• Loudspeaker: 32 Ω, 100Hz-20kHz, max power 100mW</li> <li>• Material: Cup: PC/ABS, Cushion: Synthetic leather</li> <li>• Down lead Cable: Fire retardant, shielded cable</li> <li>• Battery: 2xAAA batteries, Duracell, Varta, Energizer (ATEX versions),</li> <li>• Surrounding sound amplifiers: Omnidirectional, sensitivity -38±2dB, Max input 110dB S.P.L</li> <li>• Operation Temperature: -20°C to +65°C, humidity &lt; 98%</li> </ul>	
<b>Weight</b>	390 g ± 10g (including batteries)	
<b>Approval</b>	<ul style="list-style-type: none"> <li>• EMC performance: ESD/EMI: 10 V/m</li> <li>• Fully watertight – equivalent to IP67</li> <li>• ATEX (when used with an ATEX certified PTT module)</li> <li>• ATEX level: II 2G Ex ia IIC T4</li> <li>• SNR value : 26 dB / H=26 / M=23 / L=18</li> </ul>	
<b>Ordering Information</b>	Part number ( <i>when ordered separately from the helmet</i> ) <ul style="list-style-type: none"> <li>• GA010002D3X – Headset, Gallet F1XF, Hearing Protection, boom microphone</li> </ul>	
 <p><i>Headset general view</i></p>	 <p><i>Headset mounted inside the helmet</i></p>	 <p><i>Connecting plug, headset to PTT</i></p>
 <p><i>Ambient sound microphone</i></p>	 <p><i>Battery compartment</i></p>	 <p><i>Button (on/off and Volume +/-)</i></p>

## Hearing Protection with Bone conductive Microphone

Specification	Description	
<b>Overview</b>	Active Hearing Protection headset with built-in communication capabilities, including: <ul style="list-style-type: none"> <li>• Two ear muffs with padding and noise attenuation foam</li> <li>• Built-in, level dependent function with amplification volume adjustment</li> <li>• Ear cup height adjustment system for optimal wearing position</li> <li>• Flexible microphone attached to the left muff</li> <li>• Downlead Cable with anti-tearing, LEMO connecting plug (blue).</li> </ul>	
<b>Interoperability</b>	Operates with an MSA Push-to-Talk (PTT) module enabling connection to the PMR radio. Connection through LEMO plug with color codification. <ul style="list-style-type: none"> <li>• PTT module with red connector: non ATEX system</li> <li>• PTT module with blue connector: ATEX system (for use with approved ATEX radios only)</li> </ul>	
<b>Technical specifications</b>	<ul style="list-style-type: none"> <li>• Microphone: Accelerometer, 20 Hz – 20 kHz, Sensitivity 1 mV / mG</li> <li>• Loudspeaker: 32 Ω, 100Hz-20kHz, max power 100mW</li> <li>• Material: Cup: PC/ABS, Cushion: Synthetic leather</li> <li>• Down lead Cable: Fire retardant, shielded cable</li> <li>• Battery: 2xAAA batteries, Duracell, Varta, Energizer (ATEX versions),</li> <li>• Surrounding sound amplifiers: Omnidirectional, sensitivity -38±2dB, Max input 110dB S.P.L</li> </ul>	
<b>Weight</b>	370 g ± 10g (including batteries)	
<b>Approval</b>	<ul style="list-style-type: none"> <li>• EMC performance: ESD/EMI: 10 V/m</li> <li>• Fully watertight – equivalent to IP67</li> <li>• ATEX (when used with an ATEX certified PTT module)</li> <li>• ATEX level: II 2G Ex ia IIC T4</li> <li>• SNR value : 26 dB / H=26 / M=23 / L=18</li> </ul>	
<b>Ordering Information</b>	Part number (when ordered separately from the helmet) <ul style="list-style-type: none"> <li>• GA010002C3X – Headset, Gallet F1XF, Hearing Protection, bone conductive</li> </ul>	
 <p><i>Headset general view</i></p>	 <p><i>Headset mounted in helmet</i></p>	 <p><i>Connecting plug, headset to PTT</i></p>
 <p><i>Ambient sound microphone</i></p>	 <p><i>Battery compartment</i></p>	 <p><i>Button (on/off and Volume +/-)</i></p>

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## Hearing Protection with level dependant function

Specification	Description	
<b>Overview</b>	Active circum aural headset enabling the user to be in contact with the surroundings but still protect the hearing, including: <ul style="list-style-type: none"> <li>• Two ear muffs with padding and noise attenuation foam</li> <li>• Built-in, level dependent function with amplification volume adjustment</li> <li>• Ear cup height adjustment system for optimal wearing position</li> </ul>	
<b>Technical specifications</b>	<ul style="list-style-type: none"> <li>• Loudspeaker: 32Ω, 100Hz-20kHz, max power 100mW</li> <li>• Material: Cup: PC/ABS, Cushion: Synthetic leather</li> <li>• Battery: 2xAAA batteries, Duracell, Varta, Energizer (ATEX versions),</li> <li>• Surrounding sound amplifiers: Omnidirectional, sensitivity -38±2dB, Max input 110dB S.P.L</li> </ul>	
<b>Weight</b>	330 g ± 10g (including batteries)	
<b>Approval</b>	<ul style="list-style-type: none"> <li>• EMC performance: ESD/EMI: 10 V/m</li> <li>• Fully watertight – equivalent to IP67</li> <li>• ATEX Approval according to directive</li> <li>• ATEX level: II 2G Ex ia IIC T4</li> <li>• SNR value : 26 dB / H=26 / M=23 / L=18</li> </ul>	
<b>Ordering Information</b>	Part number (when ordered separately from the helmet) <ul style="list-style-type: none"> <li>• GA010002E3X – Headset, Gallet F1XF, Hearing Protection</li> </ul>	
 <p><i>Headset general view</i></p>	 <p><i>Headset mounted in helmet</i></p>	
 <p><i>Ambient sound microphone</i></p>	 <p><i>Battery compartment</i></p>	 <p><i>Button (on/off and Volume +/-)</i></p>