



#### WARNING

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Thank you for placing your trust in MSA products.

Please read these instructions carefully before using your helmet.

Failure to observe these instructions could reduce the amount of protection your helmet provides.

Your helmet will only provide maximum protection if all of the MSA components are used with it. Furthermore, any change made to your helmet or failure to use one of the original helmet components will imply improper use of the equipment, and will discharge MSA of any liability.

In an ongoing effort to improve its products, MSA hereby reserves the right to alter them at no notice.

To guarantee sufficient protection, the helmet must be adapted and adjusted to the wearer's head size.

Your helmet is designed such that the pressure built up when it is knocked is absorbed by the partial destruction or damage to the outer and inner cap; even if such damage is not immediately apparent, we recommend replacing any helmet which has taken a considerable impact.

The user's attention is also drawn to the dangers of modifying or removing any of the original components of the helmet, apart from any modification or removal recommended by the helmet manufacturer. Under no circumstances should helmets be adapted for attachment of accessories by any means not recommended by the helmet manufacturer.

Do not apply any paint, solvents, adhesives or self-adhesive labels, other than those recommended by the helmet manufacturer's instructions.

Checks should be made following any apparent impact, carried out by our maintenance department or a specialist.

#### GENERALITIES

The MSA LH 050/250 flying helmet is designed only for pilots and crew helicopter members, transport aircraft and aircraft without ejection seats. It ensures a maximum comfort and protection.

Available in two sizes to fit head measuring between 52 cm to 63 cm. It incorporates two visors, and could receive a wide range of communication systems and Night Vision Goggles supports, available to order. Please contact us for details.

Each helmet is individually serial numbered to ensure correct identification of the helmet and a correct record of the service life history of the helmet.

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#### DESCRIPTION

#### Helmet includes:

#### · A helmet :

- A small shell equipped with a lining including T shape comfort liner adjustable in 4 areas, provided with 4 mm foam pads, a M size neck pad, and a M size edgeroll.
- Or, a large shell equipped with a lining including a 5mm thick front pad, a 5mm thick top pad, a XXL size neck pad and a L size edgeroll.
- A protective cover for the outer visor
- A personalization kit to customize your helmet (see page 4):
  - A set of adjusting pads (4 tickness 8mm and 4 tickness 12 mm)
  - A set of neck pads (XS and S sizes or L and XL sizes)
  - 4 earcup spacer pads (see page 5)
- A protective helmet bag (see page 8)
- A carrying bag (see page 8)

### Size correspondence chart:

#### Small size shell

Helmet size	xs	s	м	
Pad thickness in mm	12	8	4	
Head size in cm	52 to 53	54 to 55	56 to 56.5	
Head size (in)	20.47 to 20.87	21.26 to 21.65	22.05 to 22.24	

### Large size shell

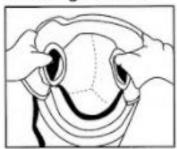
Helmet size	L	XL	XXL	
Pad thickness in mm	12	8	4 62 to 63 24.41 to 24.63	
Head size in cm	57 to 59	60 to 61		
Head size (in)	22.44 to 23.23	23.62 to 24.02		





#### ADJUSTEMENT

# Donning helmet:



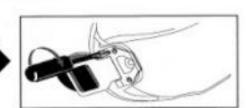




Helmet wearing is given by the low position of the inner visor.

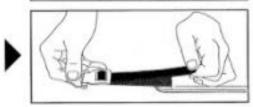
# Chinstrap permanent attachment:

The chinstrap is attached to the helmet with 2 screws (left side)



### Adjusting chinstrap:

Free the leather end-piece and adjust the chinstrap according to the buckle. Reposition the end-piece.



# Locking/unlocking the chinstrap:



Locking mechanism is executed with the opposed hand of locking side (illustration with locking on the right-hand side by the left hand).



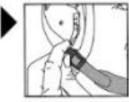
Position the thumb on the lever, the index and the major under the lever closed to the axis of the pin.



Approach the lever of the chinstrap support, the index and the m major allowing to feel the hooks of the chinstrap support



Slide the lever into the tumbler of the chinstrap Support



Lock the chinstrap by pressure on the center Of the lever



Unlocking by traction on the extremity of the lever.



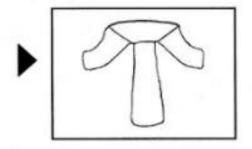


# Customizing the helmet lining:

Your LH helmet's lining can be disassembled

# 1-Adjustable comfort liner (3 thicknesses: 4, 8, 12 mm)

Comfort pad with foam pads of different size.



# 2-Neck pad

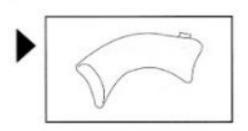
Pad.

(6 sizes: XS, S, M, and L, XL, XXL)

The pad is attached to the shell by two Velcro strips.

The tag is towards the helmet top.

Adjust the headphone connecting wire under the neck



# Removable edgeroll (different pad sizes are available as spare parts)

a-Assembly

Insert one of the lateral pins into the corresponding Slot. Slide it in. Do the same with the other pin. Slide the pins in as far as possible, and then clip The three left and right snaps located at the side.



#### b-Disassembly

Remove the three snaps located at the right and left sides. Pull the pad backwards by sliding the two pins from their slots, beginning with one side pin.



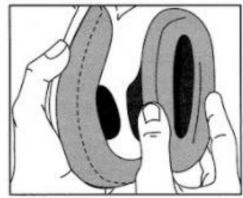


# Assembly/Disassembly of the headphone earcups:

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Use as many earcup spacer pads as necessary To get the desired pressure at the ear area, in order to increase or decrease sound attenuation.

Adjust the headphone connecting wire under the neck pad.



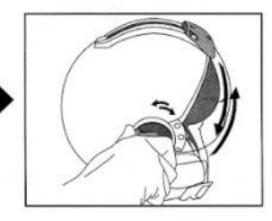
#### USE

### Moving the inner visor: (LH 050/250)

To lower or raise your visor, use the left or Right button provided for this purpose.

# Assembly and disassembly of the inner visor: (LH 050/250)

The inner visor can easily be removed (without any tools).





GT corresponds to the large size helmet shell PT corresponds to the small size helmet shell

#### a-Assembly

Place the visor maneuver buttons in their Lower position. Clip one side, then the Second. Raise and lower the visor in order to Check the right positioning.

#### b-Disassembly

Lower the visor. Unsnap one side, and then the other, pulling hard on the side edge of the visor.



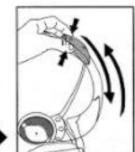


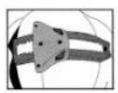
### Moving the outer visor: (LH 250)

Press the two buttons at the top of the visor simultaneously in order to unlockit. Six lower locking positions can be used.



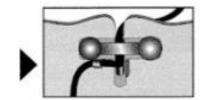
MSA recommends that you fly with the outer visor in its low position (optimal mechanical protection).





### Helicopter anti-cable tear-out system

In case of removing the anti-cable tear-out system, Replace it when reassembling.



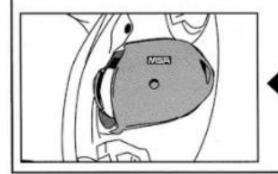
#### Note:

When acquiring your helmet, make sure that the avionics correspond with the type of aircraft with which it is to be used.



# Warning:

For the helmets equipped with oxygen mask receivers



The oxygen racks are safety elements.

Do not disassemble the oxygen mask receivers. Send the helmet back to your supplier if any problem occurs.



# ΕN

#### Conditions for use:

This helmet was designed to efficiently protect pilots and flight personnel from :

- Impacts which may occur during flight.
- Blinding
- Excessive noise.

Any other use is to be avoided, and relieves the responsibility of MSA.

This product ensures optimal user protection within the limits of the specified conditions.

- Do not modify your helmet.
- · Attach the chinstrap under the chin at all times.
- Replace your helmet in case of significant impact, even if is no visible damage.

# **DESCRIPTION OF HELMET ELEMENTS**

- . The LH helmet's shell is made of :
- a one-piece shell in hight performance carbon fibers, aramid, and epoxy resin.
   The shell covers a large head protection zone, and has goog flexibility for user manipulation.
- an expanded polystyrene inner padding for impact absorbtion. It is covered with a velvet lining for the user's comfort, with the possibility of attaching different size sitting elements.
  - The outside coating is flame retardant.
  - The inner lining is made up of a set of three elements available in several sizes which make is possible to perfectly fit the user's head form. This set includes an edgeroll, a neck pad and a T shape comfort liner.

The lining elements are made of different types of foam, fabric and soft leather to ensure user's comfort. These three inner lining elements are interchangeable and attached inside the shell by Velcro strips. Adaptation to the user's head form is made by choosing each of these parts and the choice of the thickness foam pads.

 The LH 250 helmet includes two protective visors (single one for LH 050): an inner visor, and an outer visor which can be holded in high or low position.



- The acoustic protection system is made up of:
  - -two injection molded thermoplastic earcups, with a slot to hold headphones.
  - -Two soft plastic earpads for comfort, ergonomically shaped.

These earcups ensure correct acoustic protection and are fixed inside the shell by Velcro strips.

- The chinstrap is made up of a synthetic fire-proof fiber strap with a clipping system at each end. It can be permanently locked on the right or left side. A leather end-piece covers the strap to ensure user's comfort.
- The outer visor cover is fixed by two Velcros strips on the outer visor.
- Every helmet is delivered with the protective helmet bag in a padded polyester carrying bag. This bag includes:
- -a transparent gusset pocket on the inside and outside,
- -a handle and an adjustable length carrying strap,
- -two sliding closures,
- -a registration tag holder on the outer surface

This bag can be used as a flight bag.

 The LH helmet can be used with various type of avionics. State the type of equipment when placing the order.

#### WARRANTY

All models, accessories and spares are scrupulously checked before leaving the factory.

MSA helmets and their accessories carry a 12-month guarantee covering parts and labour, this running from the date they are delivered to the buyer, and covering any problem which arises when they are used under the conditions described in this notice.

In any event, you will be covered by a legal warrantee against any hidden flaws and defects under the conditions stipulated in Articles 1641 and subsequent of the French Civil Code.



#### MAINTENANCE



#### STORAGE

Storage temperature must be comprise between 15°C and 50°C, store the helmet somewhere clean, dry and ventilated; do not subject it to wide and rapid temperature changes.

Do not store the helmet near corrosive substances.

Store in a temperate climate.

Avoid prolonged storage near heat sources.

After use, store the helmet in its packaging.

Observing storage conditions will ensure that the helmet lasts.

#### DISPOSAL/RECYCLING

Handle the helmet like NIW (Normal Industrial Waste)/NGW (Non-Dangerous Waste).



This product is compliant with REACH requirements.

#### TRANSPORT

Carry the helmet in its protection bag

Avoid dropping the helmet as this will adversely affect its performance, weaken its shock absorption, or damage the helmet finish.

#### PRECAUTION

To avoid damaging the materials, do not apply any paint, self-adhesive, hydrocarbon or solvent to the helmet or its components.

#### CLEANING the OUTER CAP and the VISOR

Use only soapy water and a soft cloth.

#### CLEANING LEATHER PARTS

Apply glycerinated soap on a soft cloth. Non need to rinse.

#### CLEANING COMFORTABLE T SHAPED SPACER AND NECK SPACER Clean with cold water and soft soap.

To access to the maintenance manual of the helmet, please scan the code opposite.







LH 050

LH 250



#### **SPARES PARTS**

Spares: there are several of these, a description list is available on request.

#### LIFE TIME

Elements	Every(for information )	
Chinstrap clip set	2 years	
Chinstrap set	2 years	
Comfort ear seal	2 years depending on the state	
Velvet closure		
Acoustic foam cavity		
Front spacer		
Top spacer		
Neck spacer		
Skin comfort		
Inner visor	5 to 8 years Depending on the state	
Outer visor	5 to 8 years Depending on the state	
Shell	15 years	
Inner cap	15 years	

Frequencies given for a normal use and a base of 200 hours / year and depending on article state.

The life of the helmet is 15 years maximum (use and storage).

# **CHECKS BEFORE USE**

Before using your helmet, please check:

- General state, subsets fixation, the screws are lightened.
- Shell and hard cover: no fissures, no recesses, unexposed aramid or carbon, screws and inserts in their housings.
- Visors: no break lines, no bad scratches in the field of vision, raising/lowering in working order and high and low slots in working order.
- Chin-strap: clip in working order (hardness and no play), strap not torn or damaged at anchorage points.
- Adjustment kit: in place, comfort adjusted correctly.

