Moshon DATA

"Imparting knowledge"

EVT

EuroNCAP Vehicle Target

User Manual

Developed in conjunction with Thatcham,
Approved by EuroNCAP

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Revision
Document Revision: MD141210 *(See Revision History for detailed information).*

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INTRODUCTION

The EVT EuroNCAP Vehicle Target was developed to simulate a rear end of a standard production car. It incorporates an image, radar signature and LIDAR reflectivity to make it suitable for all technologies used for crash detection.

The EVT provided by Moshon Data conforms to the EuroNCAP AEB protocol as defined in the EuroNCAP document.

INTENDED USE

The EVT should only be used for its intended purpose as described in this manual. Any other use shall be regarded as misuse. The manufacturer shall not be held liable for any damage resulting from such use.

The system is designed to be easily used but never the less care should be taken at all times and only used for its intended purpose.

BALLON INFLATION

The balloon car has 6 inflatable sections, 4 inner tubes and 2 cushions, front and rear.

◊ Make sure the valves are in the correct position (spring uncompressed) turned fully anti-clock wise.

◊ The 12V pump supplied has an automatic cut off when it reaches the desired pressure. This should be set to 250mbar.

◊ Inflate the 4 inner tubes starting with the front 2, followed by the rear 2.

◊ Inflate the front and rear cushions.

NOTE: *It can sometimes be beneficial to only inflate these to ¾ pressure, until the outer cover is partly in place and the corners of the front and back section of the outer cover are around the cushion corners. This allows the cushion to pull the cover tight when fully inflated,*

◊ Thread the cam-buckle straps through the rear cushion.

BUMPER ELEMENT

The Bumper Element provides contour to the outer cover, it adds shape and definition to the EVT.

It also adds the radar signature as it contains a 77GHz corner reflector and two radar reflective strips.

Mount the Bumper Element into the front cushion of the balloon.

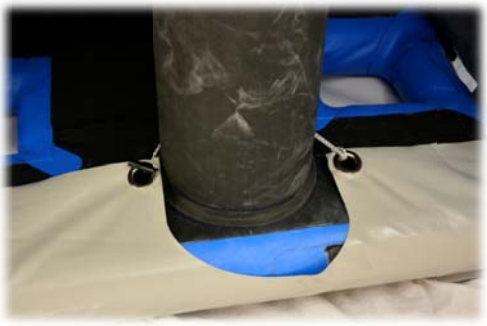
OUTER COVER

The outer cover is printed with the EuroNCAP specific image of a VW car, it also incorporates reflective elements to aid LIDAR based technology. Moshon Data has made some modifications to improve the assembly and use of the EVT. A radar absorbent foam section is sewn into the bottom behind the shadow, so that this cannot be lost or forgotten. The cover fastens at the rear using a stretch cord and toggle method and the same method is used to tension the front and rear faces to the balloon.

Once the bumper element is in place the cover can be pulled over the balloon. This is an important step in the assembly of the EVT and care should be taken to align and tension the cover correctly.

At this stage you must:

1. Make sure the corners of the cover are over the corners of the balloon.
2. Wrap the front and rear lower section around the cushions and secure around the inner tubes with stretch cords.

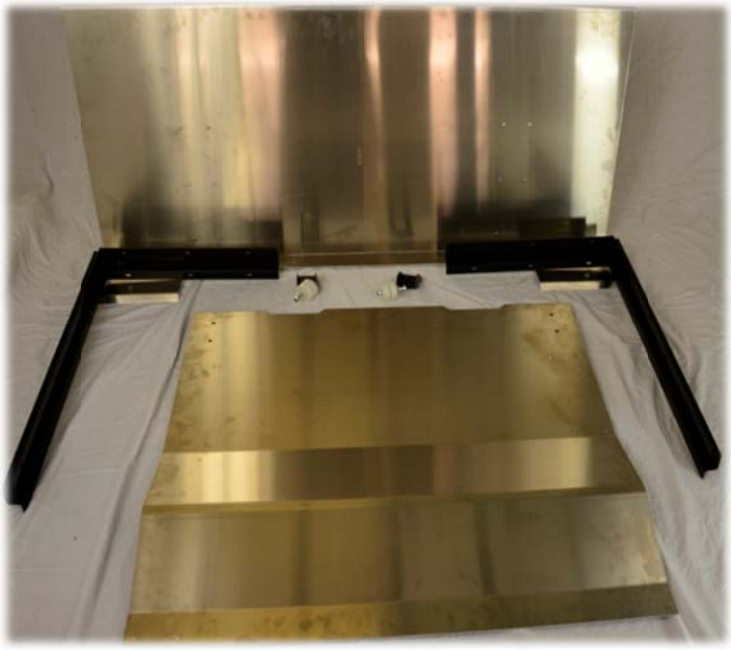


3. Inflate the front and rear cushion to full pressure 250mbar.
4. Pull through the lifting tabs on the balloon through the cover eyelets.
5. Pull the buckle straps through the side panels.
6. Wrap around the sides and fasten at the rear.

TRAY ASSEMBLY

The tray assembly consists of:

- Back plate
- Base plate
- Mounting brackets
- Wheels assembly
- Skid block



NOTE: A 10mm and 13mm spanner are needed along with a 6mm Allen key to assemble the tray.

Assemble as follows:

Figure 1

Figure 1

Figure 2

Figure 4

Figure 5

Figure 6

Mount the EVT on to the tray and secure with the buckle straps around the rear and across the tray.

REVISION HISTORY

MD141210	Initial Version