

Instruction Manual



Read carefully
the manual
before use
the equipment

CE 0082
EN 355:2002

ENERGY ABSORBER with lanyard

EC type examination carried out by CETE APAVE SUDEUROPE, BP 193, 13322 Marseille, France - 0082

The energy absorber with lanyard is a component of personal fall arrest equipment and complies with EN355.

Fall arrest system consisted of energy absorber with lanyard, attached to the full body harness (complied with EN 361) and connected to the structural anchor point (complied with EN 795) can be used as a basic personal protective equipment against falls from a height.

Caution: The total length of the energy absorber with lanyard including terminations and connectors shall not exceed 2 m. (e.g. connector plus lanyard plus energy absorber plus connector)

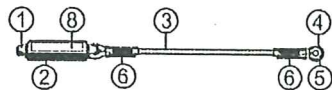
CONSTRUCTION

Energy absorber is made of 32 mm wide polyamide webbing. Absorber is equipped with attachment loops on the endings. One of the loops is connected to the lanyard. The body of the absorber is protected by a special jacket made of a shrinkable, polyethylene tube. The lanyard can be made of:

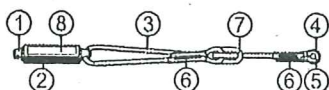
- ø10,5 mm polyamide kernmantle rope ended with sewn loops (ABM/LB101, ABM/LB102).
- ø12 mm polyamide kernmantle rope ended with sewn loops (ABM/LB121).
- ø12 mm polyamide kernmantle rope ended with sewn loops. One loop is adjustable by steel adjustment buckle (ABM/LB100, ABM/2LB100).
- tubular polyamide webbing with elastic core inside. The endings of the lanyard are sewn making the attachment loops (ABM/LE101, ABM/2LE101).
- 30 mm polyamide webbing ended with sewn loops equipped with thimbles (ABM-T, ABM-2T)

1. absorber's attachment loop ; 2. energy absorber ; 3. lanyard ; 4. lanyard's attachment loop ; 5. thimble ; 6. lanyard's seam
7. adjustment buckle ; 8. identity label.

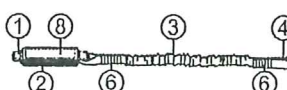
ABM/LB101 Ref. BW 200/LB 101



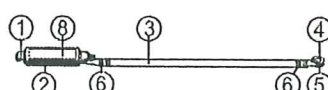
ABM/LB100 Ref. BW 200/LB 100



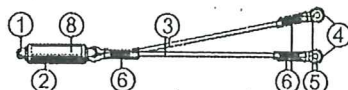
ABM/LE101 Ref. BW 200/LE 101



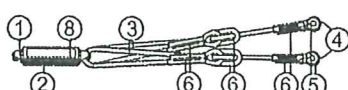
ABM-T Ref. BW 700



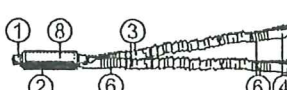
ABM/LB102 Ref. BW 200/LB 102



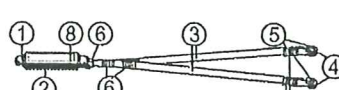
ABM/2LB100 Ref. BW 200/2 LB 100



ABM/2LE101 Ref. BW 200/2 LE 101



ABM-2T Ref. BW 800



ATTENTION! The energy absorbers can be equipped only with certified (according to EN362) connectors.

ADMISSIBLE TIME OF USE

The energy absorber with lanyard can be used for 5 years, counting from the date of putting the device into operation. After 5 years of use the energy absorber must be withdrawn from use and destroyed.

The energy absorber must be withdrawn from use immediately and destroyed when it have been used to arrest a fall. Withdrawn from use can be carried out only by a competent person responsible in a company for a safety equipment.

CONTENT OF THE DEVICE IDENTITY LABEL

<p>(A) ENERGY ABSORBER WITH LANYARD LB101</p> <p>(B) ABM/LB101</p> <p>(C) Ref.: BW 200/LB101</p> <p>(D) EN 355:2002 CE 0082</p> <p>(E) the maximum length of the energy absorber with lanyard can't exceed 2 m</p>	<p>Date of manufacture: 03.2002</p>	<p>(F)</p> <p>(H)</p> <p>(I)</p> <p>(G)</p>
	<p>Serial number: 0000001</p>	
	<p>(Image of a tag with a hole)</p>	
	<p>(Image of a tag with a hole)</p>	

A. type of the device

B. marking of the model of energy absorber

C. reference number of the device

D. CE marking with identity number of the notified body controlling manufacturing of the equipment (the article 11)

E. European standards (number/year)

F. month/year of the device manufacture

G. number of the manufacturing series

H. caution: read the manual

I. marking of the manufacturer or distributor

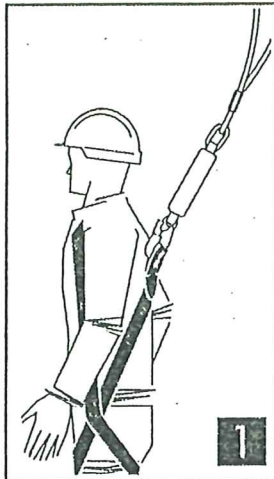
ASSEMBLING A FALL ARREST SYSTEM

1. Attach the energy absorber's connector to a frontal or dorsal attachment point of full body harness (conformed to EN 361) - [1]
2. Connect the lanyard's connector to the structural anchor point of resistance min. 10 kN (conformed to EN 795) placed above the user:
 - directly [2]
 - with a additional connector [3], [4]

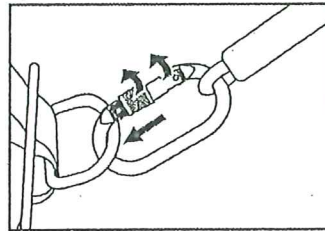
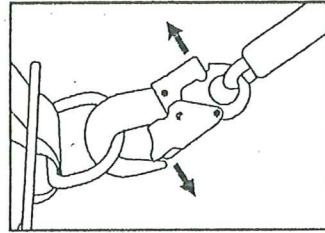
The shape of the structural anchor point shall not let self-acting disconnection of the device.

WARNING:

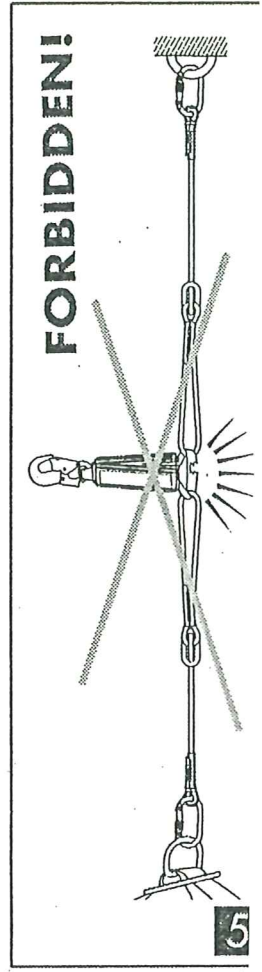
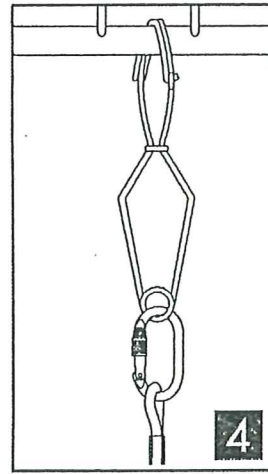
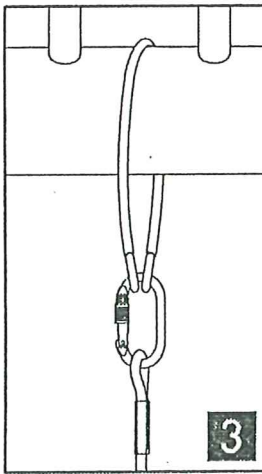
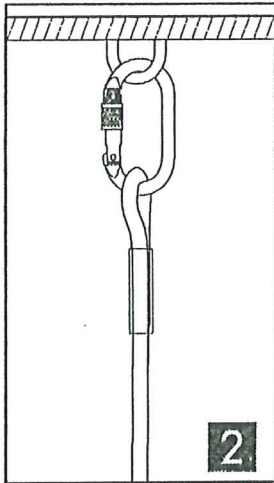
During use the energy absorber with double lanyard (ABM/LB102, ABM/2LB100, ABM/2LE101, ABM-2T) it is strictly forbidden to attach the one lanyard's connector to harness attachment element and the second lanyard's connector to structural anchor point [5].



WARNING!



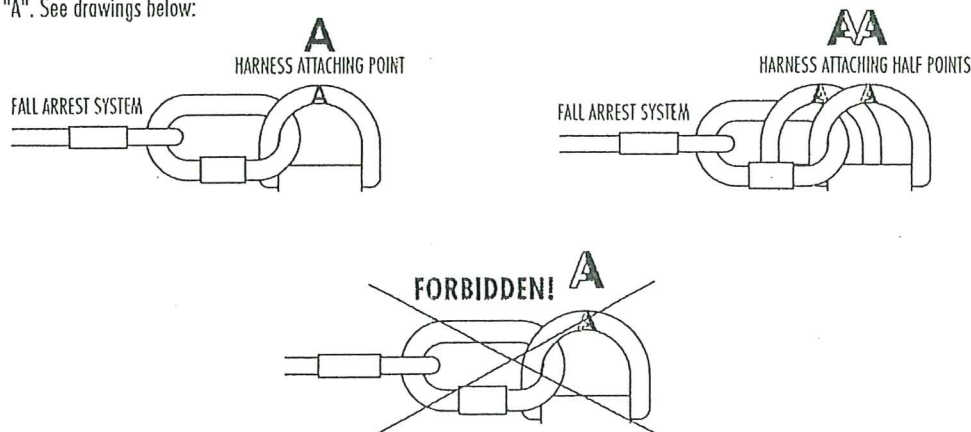
NECESSARILY PROTECT THE SNAP HOOK GATE WITH THE LOCKING GEAR



THE ESSENTIAL PRINCIPLES FOR USERS OF PERSONAL PROTECTIVE EQUIPMENT AGAINST FALLS FROM A HEIGHT

- personal protective equipment shall only be used by a person trained and competent in its safe use.
- personal protective equipment must not be used by a person with medical condition that could affect the safety of the equipment user in normal and emergency use.
- a rescue plan shall be in place to deal with any emergencies that could arise during the work.
- it is forbidden to make any alterations or additions to the equipment without the manufacturer's prior written consent.
- any repair shall only be carried out by equipment manufacturer or his certified representative.
- personal protective equipment shall not be used outside its limitations, or for any purpose other than that for which it is intended.
- personal protective equipment should be a personal issue item.
- before use ensure about the compatibility of items of equipment assembled into a fall arrest system. Periodically check connecting and adjusting of the equipment components to avoid accidental loosening or disconnecting of the components.
- it is forbidden to use combinations of items of equipment in which the safe function of any one item is affected by or interferes with the safe function of another.
- before each use of personal protective equipment it is obligatory to carry out a pre-use check of the equipment, to ensure that it is in a serviceable condition and operates correctly before it is used.
- during pre-use check it is necessary to inspect all elements of the equipment in respect of any damages, excessive wear, corrosion, abrasion, cutting or incorrect acting, especially take into consideration:
 - in full body harnesses and belts - buckles, adjusting elements, attaching points, webbings, seams, loops;
 - in energy absorbers - attaching loops, webbing, seams, casing, connectors;
 - in textile lanyards or lifelines or guidelines - rope, loops, thimbles, connectors, adjusting element, splices;
 - in steel lanyards or lifelines or guidelines - cable, wires, clips, ferrules, loops, thimbles, connectors, adjusting elements;
 - in retractable fall arresters - cable or webbing, retractor and brake proper acting, casing, energy absorber, connector;
 - in guided type fall arresters - body of the fall arrester, sliding function, locking gear acting, rivets and screws, connector, energy absorber;
 - in connectors - main body, rivets, gate, locking gear acting.

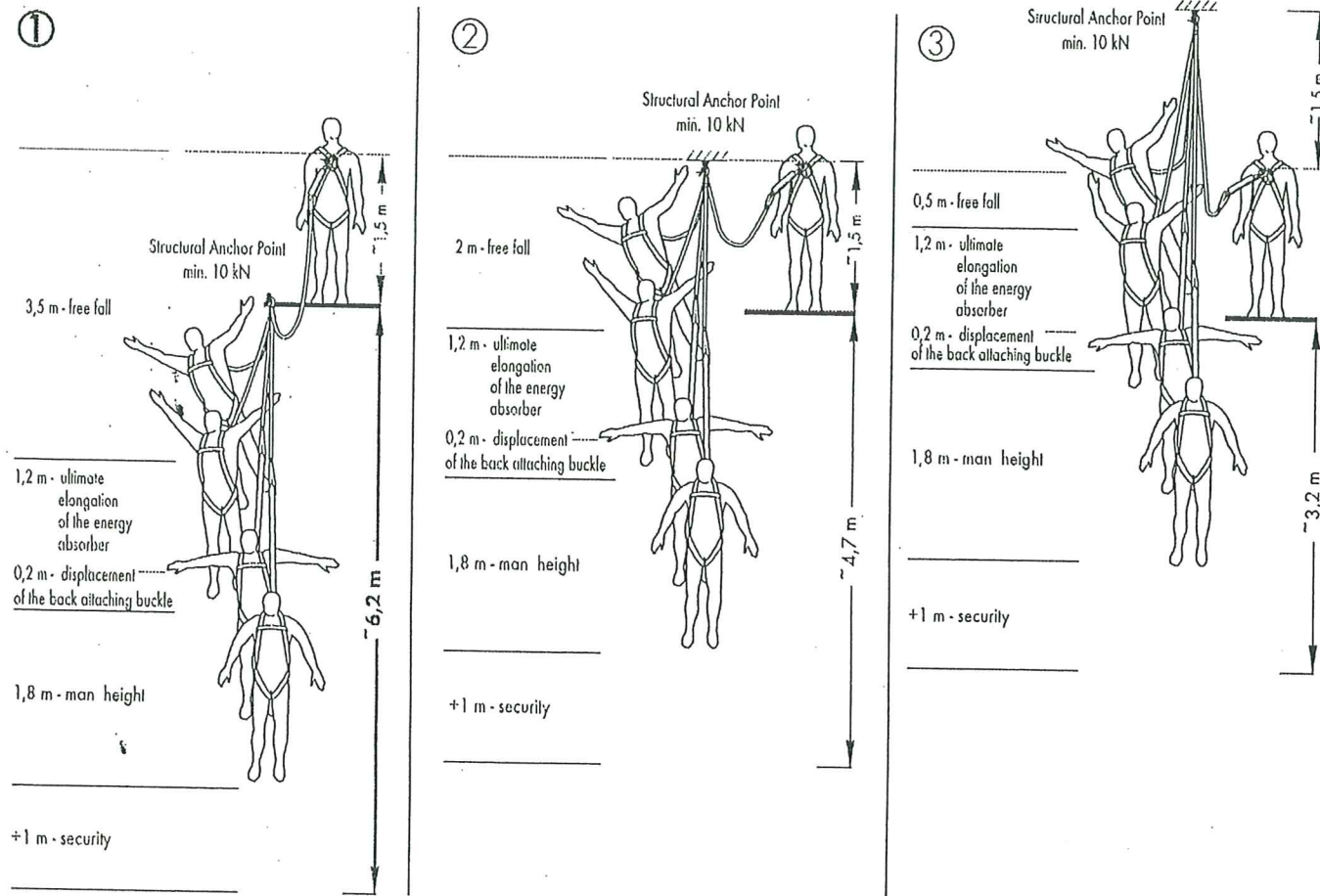
- after every 12 months of utilization, personal protective equipment must be withdrawn from use to carry out periodical detailed inspection. The periodic inspection must be carried out by a competent person for periodic inspection. The periodic inspection can be carried out also by the manufacturer or his authorized representative. In case of some types of the complex equipment e.g. some types of retractable fall arresters the annual inspection can be carried out only by the manufacturer or his authorized representative.
- regular periodic inspections are the essential for equipment maintenance and the safety of the users which depends upon the continued efficiency and durability of the equipment.
- during periodic inspection it is necessary to check the legibility of the equipment marking.
- it is essential for the safety of the user that if the product is re-sold outside the original country of destination the reseller shall provide instructions for use, for maintenance, for periodic examination and for repair in language of the country in which the product is to be used.
- personal protective equipment must be withdrawn from use immediately when any doubt arise about its condition for safe use and not used again until confirmed in writing by equipment manufacturer or his representative after carried out the detailed inspection.
- personal protective equipment must be withdrawn from use immediately and destroyed when it have been used to arrest a fall.
- a full body harness is the only acceptable body holding device that can be used in a fall arrest system.
- in full body harness use only attaching points marked with big letter "A" to attach a fall arrest system. Marking like "A/2" or a half of "A" means the necessity of attaching a fall arrest system to both attaching points together simultaneously. It is strictly forbidden to attach a fall arrest system to the single attaching point marked "A/2" or a half of "A". See drawings below:



- the anchor device or anchor point for the fall arrest system should always be positioned, and the work carried out in such a way, as to minimise both the potential for falls and potential fall distance. The anchor device/point should be placed above the position of the user. The shape and construction of the anchor device/point shall not allowed to self-acting disconnection of the equipment. Minimal static strength of the anchor device/point is 10 kN. It is recommended to use certified and marked structural anchor point complied with EN795.
- it is obligatory to verify the free space required beneath the user at the workplace before each occasion of use the fall arrest system, so that, in the case of a fall, there will be no collision with the ground or other obstacle in the fall path. The required value of the free space should be taken from instruction manual of used equipment.
- there are many hazards that may affect the performance of the equipment and corresponding safety precautions that have to be observed during equipment utilization, especially:
 - trailing or looping of lanyards or lifelines over sharp edges,
 - any defects like cutting, abrasion, corrosion,
 - climatic exposure,
 - pendulum falls,
 - extremes of temperature,
 - chemical reagents,
 - electrical conductivity.
- personal protective equipment must be transported in the package (e.g.: bag made of moisture-proof textile or foil bag or cases made of steel or plastic) to protect it against damage or moisture.
- the equipment can be cleaned without causing adverse effect on the materials in the manufacture of the equipment. For textile products use mild detergents for delicate fabrics, wash by hand or in a machine and rinse in water. Plastic parts can be cleaned only with water. When the equipment becomes wet, either from being in use or when due cleaning, it shall be allowed to dry naturally, and shall be kept away from direct heat. In metallic products some mechanic parts (spring, pin, hinge, etc.) can be regularly slightly lubricated to ensure better operation. Other maintenance and cleaning procedures should be adhered to detailed instructions stated in the manual of the equipment.
- personal protective equipment should be stored loosely packed, in a well-ventilated place, protected from direct light, ultraviolet degradation, damp environment, sharp edges, extreme temperatures and corrosive or aggressive substances.
- using the energy absorber in connection with fall arrest system must be compatible with use instructions of the fall arrest systems and obligatory standards:
 - EN361 - for the safety harness;
 - EN353-1, EN353-2, EN354, EN362 - for the fall arrest systems;
 - EN 795 - for anchorages
 - EN358 - for the work positioning systems.

REQUIRED FREE DISTANCE BELOW WORKING LEVEL FOR WORKER PROTECTED WITH ENERGY ABSORBER WITH LANYARD

- free distance below working surface must be 6,2 m (see drawing no.1)
- drawings no.2 and no. 3 show free distance below working surface depending on location of Structural Anchor Point.



IT IS THE RESPONSIBILITY OF THE USER ORGANISATION TO PROVIDE THE IDENTITY CARD AND TO FILL IN THE DETAILS REQUIRED.
 THE IDENTITY CARD SHOULD BE FILLED IN BEFORE THE FIRST USE BY A COMPETENT PERSON, RESPONSIBLE IF THE USER ORGANIZATION FOR PROTECTIVE EQUIPMENT.
 ANY INFORMATION ABOUT THE EQUIPMENT LIKE PERIODIC INSPECTIONS, REPAIRS, REASON IS OF EQUIPMENT'S WITHDRAWN FROM USE SHALL BE NOTED INTO THE IDENTITY CARD BY A COMPETENT PERSON.
 THE IDENTITY CARD SHOULD BE STORED DURING A WHOLE PERIOD OF EQUIPMENT UTILIZATION.
 DO NOT USE THE EQUIPMENT WITHOUT THE IDENTITY CARD.
 ALL RECORDS IN THE IDENTITY CARD CAN BE FILLED IN ONLY BY A COMPETENT PERSON.

IDENTITY CARD

MODEL AND TYPE OF EQUIPMENT

REF. NUMBER

SERIAL NUMBER

DATE OF MANUF.

USER NAME

DATE OF PURCHASE

DATE OF PUTTING
INTO OPERATION

PERIODIC EXAMINATION AND REPAIR HISTORY

	DATE	REASON FOR ENTRY PERIODIC EXAMINATION OR REPAIR	DEFECTS NOTED, REPAIRS CARRIED OUT AND OTHER RELEVANT INFORMATION	NAME AND SIGNATURE OF COMPETENT PERSON	PERIODIC EXAMINATION NEXT DUE DATE
1					
2					
3					
4					