

BALANCER -200 & 300 SERIES



EN Installation and user manual for balancer-200, -300 and -350

EN – ORIGINAL INSTRUCTION

All rights reserved. The information given in this document has been collected for the general convenience of our clients. It has been based on general data pertaining to construction material properties and working methods known to us at the time of issue of the document and is therefore subject at any time to change or amendment and the right to change or amend is hereby expressly reserved. The instructions in this publication only serve as a guideline for installation, use, maintenance and repair of the product mentioned on the cover page of this document. This publication is to be used for the standard model of the product of the type given on the cover page. Thus the manufacturer cannot be held responsible for any damage resulting from the application of this publication to the version actually delivered to you. This publication has been written with great care. However, the manufacturer cannot be held responsible, either for any errors occurring in this publication or for their consequences.

To improve comprehension for people whose first language is not English, we have written parts of this manual in Simplified Technical English (STE). STE is a controlled language originally developed for aerospace industry maintenance manuals. It offers a carefully limited and standardized subset of English, along with specific writing rules.

TABLE OF CONTENTS




ENGLISH		Page
Preface		3
1. Introduction		3
2. Product description		4
3. Safety instructions		4
4. Installation		5
5. Use		6
6. Maintenance		6
7. Troubleshooting		6
8. Spare parts		7
9. Disposal		7
CE declaration		7

PREFACE

Using this manual

Pictograms and symbols

The following pictograms and symbols are used in this manual:

	TIP Suggestions and recommendations to simplify carrying out tasks and actions
	ATTENTION A remark with additional information for the user. A remark brings possible problems to the user's attention.
	CAUTION! Procedures, if not carried out with the necessary caution, could damage the product, the workshop or the environment.

Text indicators

Listings indicated by "-" (hyphen) concern enumerations.
Listings indicated by "•" (bullet point) describe steps to perform.

Service and technical support

For information about specific adjustments, maintenance or repair jobs which are not dealt with in this manual, please contact the supplier of the product. He will always be willing to help you. Make sure you have the following specifications at hand:

- product name
- serial number

You can find these data on the identification plate.

Product indications

Unless specifically stated, the contents of this manual applies to the balancer-200, -300 and -350 series.

1 INTRODUCTION

1.1 Identification of the product

The identification plate contains, among other things, the following data:

- product name
- serial number

1.2 General description

Balancer to hold and lift the hose of a vehicle exhaust system. The integrated safety wire is to be attached to the system's trolley or mounting device. The BRL types contain an additional lock.


1.3 Technical specifications

1.3.1 Balancers

	Balancer BR-200/8-17	Balancer BR-300/7-14	Balancer BR-350/5-14
Article no.	0000100363	0000100364	0000104951
Wire length	6.5 ft. (2 m)	10 ft. (3 m)	11.5 ft. (3,5 m)
Spring tension	18-37 lbs (8-17 kg)	15-31 lbs (7-14 kg)	11-31 lbs (5-14 kg)
Angle from plumb line	max. 45°	max. 45°	max. 45°

1.3.2 Balancers with lock

	Balancer BRL-300/7-17	Balancer BRL-350/5-14
Article no.	0000100366	0000100367
Wire length	10 ft. (3 m)	11.5 ft. (3,5 m)
Spring tension	15 - 37 lbs (7-17 kg)	11 - 31 lbs (5-14 kg)
Angle from plumb line	max. 45°	max. 45°

	Refer to the available product data sheet for detailed product specifications.
---	--

1.4 Scope of supply

Standard, all balancers are delivered without the balancer locking cable. The balancer locking cable can be ordered separately or is delivered with following kits:

Description	Art. no.
ICCA-100	0000113864
ICCA-125	0000113869
ICCA-150	0000113751
IC-100	0000109783
SBT-KIT	0000105160
Balancer locking cable	0000105126

2 PRODUCT DESCRIPTION

2.1 Product components

The product consists of the following main components and elements:

Fig. 2.1

- A fire brigade snap hook \varnothing ¼ in. (6 mm)
- B spring tension lock
- C balancer locking cable (optional)
- D balancer wire stop
- E wire
- F fire brigade snap hook \varnothing 5/16 in. (8 mm)
- G safety wire
- H balancer body including spring

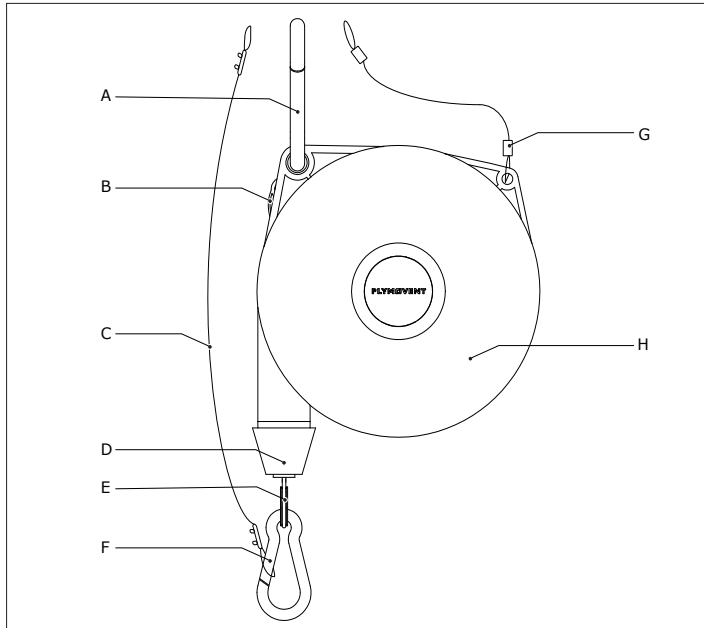


Fig. 2.1 Main components

3 SAFETY INSTRUCTIONS

General

The manufacturer does not accept any liability for damage to the product or personal injury caused by ignoring of the safety instructions in this manual, or by negligence during installation, use, maintenance, and repair of the product mentioned on the cover of this document and any corresponding accessories. Specific working conditions or used accessories may require additional safety instructions. Immediately contact your supplier if you detect a potential danger when using the product.

The user of the product is always fully responsible for observing the local safety instructions and regulations. Observe all applicable safety instructions and regulations.

User manual

- Everyone working on or with the product, must be familiar with the contents of this manual and must strictly observe the instructions therein. The management should instruct the personnel in accordance with the manual and observe all instructions and directions given.
- Do not change the order of the steps to perform.
- Keep the manual with the product.

Users

- The use of this product is exclusively reserved to authorized, trained and qualified users. Temporary personnel and personnel in training can only use the product under supervision and responsibility of skilled engineers.
- Stay alert and keep your attention to your work. Do not use the product when you are under the influence of drugs, alcohol or medicine.
- The product is not to be used by children or persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction.
- Children must be supervised not to play with the product.

Technical specifications

Do not change the specifications given in this manual.

Modifications

Modification of (parts of) the product is not allowed.

Installation

- The installation of this product is exclusively reserved to authorized, trained and qualified engineers.
- During installation, always use Personal Protective Equipment (PPE) to avoid injury. This also applies to persons who enter the work area during installation.
- Use sufficient climbing gear and safety guards when working on a higher level than 2 meters (local restrictions may apply).
- Do not install the product in front of entrances and exits which must be used for emergency services.
- Mind any gas and water pipes and electric cables.
- Make sure that the workspace is well illuminated.
- Stay alert and keep your attention to your work. Do not install the product when you are under the influence of drugs, alcohol or medicine.

Use

- Inspect the product and check it for damage. Verify the functioning of the safety features.
- Check the working environment. Do not allow unauthorized persons to enter the working environment.
- Protect the product against water and humidity.
- Make sure the room is always sufficiently ventilated; this applies especially to confined spaces.

Service, maintenance and repairs

- Obey the maintenance intervals given in this manual. Overdue maintenance can lead to high costs for repair and revisions and can render the guarantee null and void.
- Always use Personal Protective Equipment (PPE) to avoid injury. This also applies for persons who enter the work area.
- Make sure the room is sufficiently ventilated.
- Use tools, materials, lubricants and service techniques which have been approved by the manufacturer. Never use worn tools and do not leave any tools in or on the product.
- Use sufficient climbing gear and safety guards when working on a higher level than 2 meters (local restrictions may apply).
- Clean the area afterwards.

4 INSTALLATION

4.1 Tools and requirements

The following tools and requirements are needed to install the product:

- wrench 5/16 in. (8 mm).
- power cutter
- socket 24 mm for BR-200/300 (0000115762 set of 5, not in scope of supply)

4.2 Mounting

The balancer can be mounted to the following devices:

- trolley of SBT system
- trolley of STR system
- drops

4.2.1 Mounting to the trolley of SBT system

- Mount the fire brigade snap hook \varnothing 1/4 in. (6 mm) to the balancer and the trolley.
- Mount the safety wire to the trolley and fasten with a M8 x 20 bolt and 8 mm hex nut and washers.
- Mount the fire brigade snap hook \varnothing 5/16 in. (8 mm) to the balancer and the elbow.
- Mount the balancer locking cable to the trolley and the balancer. Please refer to paragraph 4.3 for the mounting of the balancer locking cable.

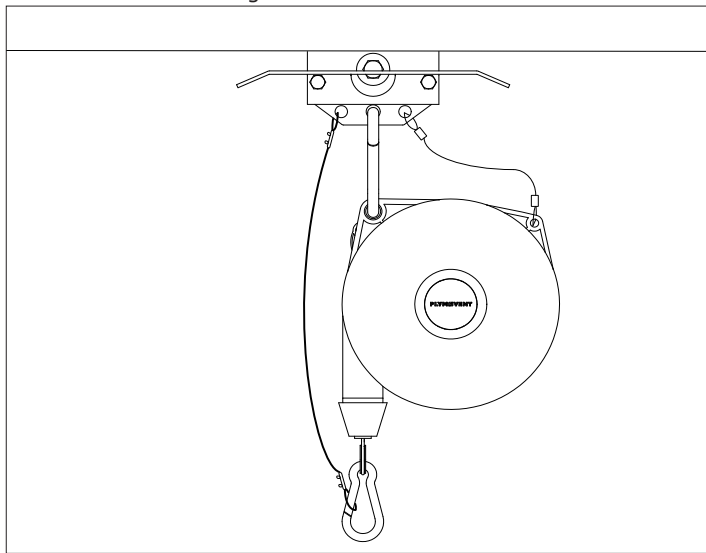


Fig. 4.2.1 Mounting balancer to SBT system

4.2.2 Mounting to trolley of STR system

- Mount the fire brigade snap hook \varnothing 1/4 in. (6 mm) to the balancer and the trolley.
- Mount the safety wire to the trolley and fasten with a M8 x 20 bolt and 8 mm hex nut and washers.
- Mount the fire brigade snap hook \varnothing 5/16 in. (8 mm) to the balancer and the elbow.
- Mount the balancer locking cable to the trolley and the balancer. Please refer to paragraph 4.3 for the mounting of the balancer locking cable.

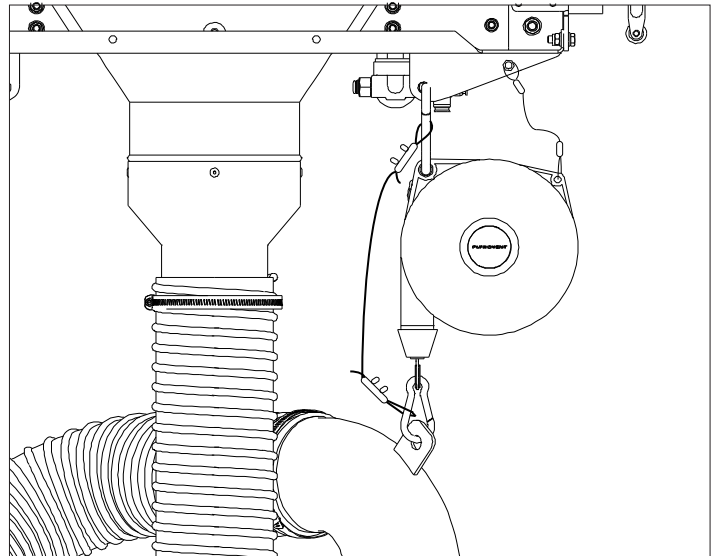


Fig. 4.2.2 Mounting balancer to STR system

4.2.3 Balancers used in drops

Drops have no provision to mount the safety wire. Instead it can be mounted to the wall or ceiling construction, e.g. by means of a mounting plate.

- Mount the balancer to the drop in question.
- If desired, attach the safety wire to the wall or ceiling construction.



CAUTION

Make sure the safety wire connection is strong enough to hold the weight of the entire configuration.

4.3 Balancer locking cable

The locking cable's primary function is to control the point of disconnection.

As the hose reaches its maximum length the balancer locking cable will bottom out, in turn pulling the nozzle from the moving vehicle.

To enable this function it is necessary to cut the locking cable to the appropriate length by performing the following steps:

- Extract the nozzle up to 10 in. +/- 2 in. (25 cm +/- 5 cm) from the door and 20 in. (50 cm) from the ground (tailpipe height).
- Measure the shortest distance between the two fire brigade snap hooks of the balancer.
- Cut the balancer locking cable using a power cutter and adjust to the measured distance.
- Install the balancer locking cable between the two fire brigade snap hooks.


4.4 Functioning and setting

The balancer is factory-wise delivered with a pre-tension. It needs to be adjusted to its final tension when the entire installation is ready. Depending on the installation, there are two possibilities:

- pre-tension is OK
- spring tension needs to be increased

Check if the balancer is capable of holding and lifting the connected hose. If not, increase the spring tension as follows:

- Hold the balancer steady.
- Turn casing cap max. 0,5 revolutions clockwise (direction +) using a socket 24 mm

	<p>CAUTION</p> <p>Do not increase spring tension more than 0,5 revolution to avoid serious damage to the balancer. Except for the BR-200 / 8-17 which can be increased up to 1 revolution.</p>
--	--

5 USE

The balancer is used to keep the exhaust extraction hose clear of the ground, thus minimising the risk of damage to the hose and surroundings. It also enables easy operation of the exhaust extraction system.

6 MAINTENANCE

6.1 Periodic maintenance


The product has been designed to function without problems for a long time. In order to guarantee this some simple, regular maintenance activities are required which are described in this chapter.

The maintenance activities in the table below can be carried out by the user.

Component	Action	Frequency: every X months	
		X=6	X=12
Housing	Check for crack and loose screws. Replace balancer when housing shows cracks.	X	
Wire	Check wire for visible damage e.g. broken threads. Replace if necessary.	X*	

* Before every use

6.2 Replacing the wire

	<p>WARNING!</p> <p>The balancer contains a powerful spring. Remove the tension from the balancer before opening.</p>
--	---

- Use a 24 mm socket to apply a bit of tension on the spring.
- Carefully release the spring tension lock and remove tension from the balancer per quarter turn and lock again. Repeat until the balancer is freed of tension.

- Open the circlip (A) of the balancer with a circlip pliers.
- Pull out the cover of the balancer.
- Remove the wire by removing the nut and washer (B).
- Replace wire and fix with nut and washer.
- Place the wire spool back in the balancer and put the cover back on.
- Secure with the circlip.
- Put tension back on the balancer and secure with the spring tension lock.

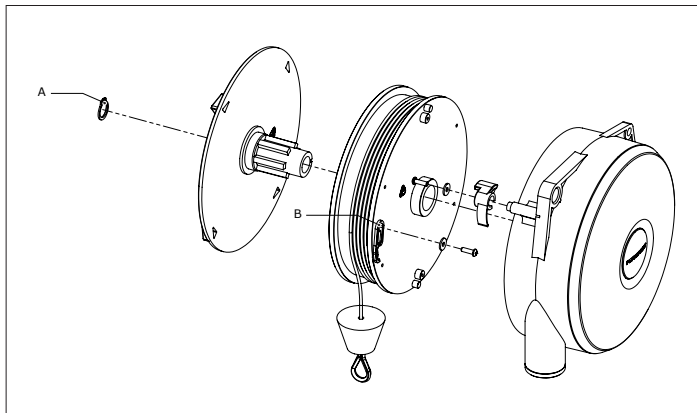


Fig. 6.2 Exploded view

7 TROUBLESHOOTING

Problem	Possible cause	Solution
Wire is not retracted when nozzle is disconnected.	Spring tension too low.	Increase spring tension. Refer to section 4.4 (Functioning and setting).
	Spring is broken.	Replace balancer.
Vehicle exhaust system disconnects too quick from tail pipe.	Spring tension too high.	Decrease spring tension. Refer to section 4.4 (Functioning and setting).
	The locking cable is too short.	Replace locking cable.
The kickback of the hose drop after disconnection is too powerful.	Spring tension too high.	Decrease spring tension. Refer to section 4.4 (Functioning and setting).

8 SPARE PARTS

Position	Article number	Description
• Balancer BR-200/8-17		
1	0000114096	Spring tension lock
2	0000105126	Balancer locking cable
3	0000114654	Wire complete 6.5 ft. (2m)
• Balancer BR-300/7-17 & Balancer BRL-300/7-17		
1	0000114096	Spring tension lock
2	0000105126	Balancer locking cable
3	0000114390	Wire complete 10 ft. (3m)
• Balancer BR-350/5-14 & Balancer BRL-350/5-14		
1	0000114096	Spring tension lock
2	0000105126	Balancer locking cable
3	0000114389	Wire complete 11.5 ft. (3,5m)

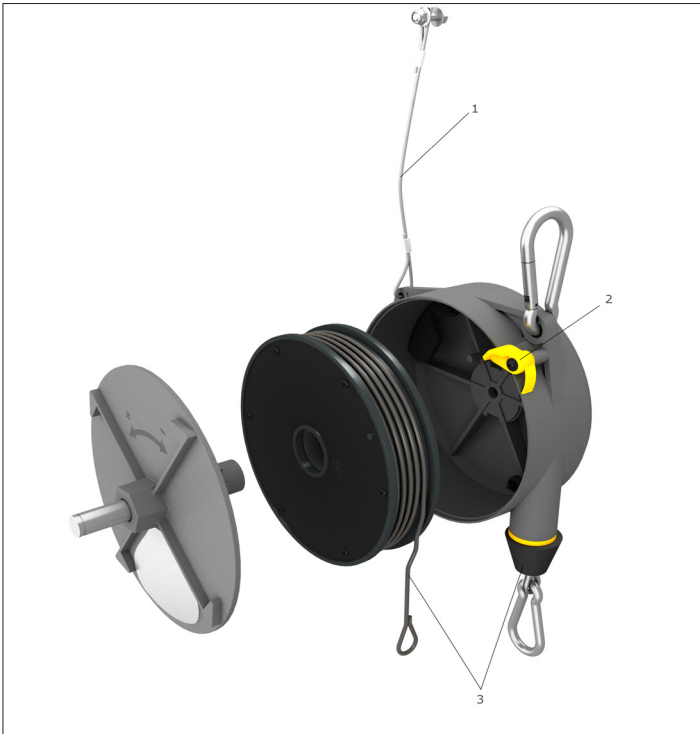


Fig. 8 Spare parts

9 DISPOSAL

After life of the product, dispose it of in accordance with federal, state or local regulations.

CE DECLARATION

CE declaration of conformity for machinery

We, Plymovent, Koraalstraat 9, 1812 RK Alkmaar, the Netherlands, herewith declare, on our own responsibility, that the product(s):

- Balancer

which this declaration refers to, is/are in accordance with the conditions of the following Directive:

- 2006/42/EC

and is/are in conformity with the following harmonized standard(s) and/or other such normative documents + amendments, if any:

- DIN 15112

Alkmaar, the Netherlands, November 6th, 2018

Kees Janssen
Product Manager EE

PLYMOVENT[®]
clean air at work



301018/0 Balancer-200 and -300 series

www.plymovent.com