ESC ESP914

ESC ESP914 Rear Suspension Bump Stop Instruction Manual

Model: ESP914

1. Product Overview

The ESC ESP914 Rear Suspension Bump Stop is a critical component designed to prevent metal-on-metal contact within your vehicle's suspension system. It absorbs excessive compression, protecting shock absorbers and other suspension components from damage during large impacts or when the vehicle is heavily loaded. This part is a direct replacement for OEM part numbers 55701429 and 51800004.
This bump stop is compatible with a range of vehicles, including:

- Fiat Grande Punto 199 (2005-2020 Hatchback)
- Fiat Punto 199 (2008-2020 Hatchback)
- Fiat Punto Evo 199_ (2008-2012 Hatchback)
- Opel Corsa D (2006–2014 Hatchback)
- Alfa Romeo MiTo 955 (2008-2018)

2. Safety Information

Before beginning any work on your vehicle, please read and understand all safety precautions. Automotive repair can be dangerous if proper procedures are not followed.

- Always wear appropriate personal protective equipment (PPE), including safety glasses and gloves.
- Ensure the vehicle is securely supported on jack stands on a level surface before working underneath. Never rely solely on a jack.
- Use wheel chocks to prevent the vehicle from rolling.
- If you are unsure about any installation steps or procedures, consult a professional mechanic.
- Keep hands and clothing clear of moving parts.

3. Package Contents

Verify that all components are present and undamaged upon opening the package:

- 1 x ESC ESP914 Rear Suspension Bump Stop

4. Setup and Installation

This section provides general guidelines for the installation of the rear suspension bump stop. Specific procedures may vary depending on your vehicle model. Refer to your vehicle's service manual for detailed instructions.

Tools Required:

- Vehicle Jack
- Jack Stands
- Wheel Chocks
- Socket Wrench Set (with appropriate socket sizes for lug nuts and bump stop fasteners)
- Pry Bar (optional, for stubborn parts)
- Wire Brush (for cleaning mounting area)

Installation Steps:

1. **Prepare the Vehicle:** Park the vehicle on a firm, level surface. Engage the parking brake and place wheel chocks in front of the front wheels to prevent movement. Loosen the lug nuts on the rear wheel(s) where the bump stop will be replaced.
2. **Lift and Secure:** Using the vehicle jack, carefully lift the rear of the vehicle until the wheel is off the ground. Place sturdy jack stands under the vehicle's frame or designated lift points, ensuring the vehicle is stable and secure. Once the vehicle is safely supported by jack stands, remove the rear wheel.
3. **Access the Bump Stop:** Locate the existing rear suspension bump stop. It is typically mounted on the chassis or a suspension arm directly above the axle or near the shock absorber.
4. **Remove Old Bump Stop:** Depending on your vehicle's design, the old bump stop may be bolted, clipped, or pressed into place. Remove any retaining bolts, clips, or fasteners. If it's pressed in, a pry bar or firm pulling might be necessary to remove it. Clean the mounting area thoroughly with a wire brush to remove any dirt or rust.
5. **Install New Bump Stop:** Align the new ESC ESP914 bump stop with the mounting location. Install it by reversing the removal process. Ensure it is seated correctly and all fasteners are securely tightened to the manufacturer's specifications.
6. **Reassemble:** Reinstall the rear wheel and hand-tighten the lug nuts. Carefully lower the vehicle off the jack stands using the jack. Once the vehicle is on the ground, tighten the lug nuts to the vehicle manufacturer's recommended torque specifications using a torque wrench.

Image 1: The ESC ESP914 Rear Suspension Bump Stop, highlighting its yellow polyurethane buffer and black protective boot.

Image 2: Side view of the ESC ESP914 Rear Suspension Bump Stop, showing the full length of the black protective boot.

Image 3: Another angle of the ESC ESP914 Rear Suspension Bump Stop, emphasizing the ribbed design of the black boot.

Image 4: Close-up view of the ESC ESP914 Rear Suspension Bump Stop, detailing the connection point between the yellow buffer and the black boot.

Image 5: Top-down view of the ESC ESP914 Rear Suspension Bump Stop, illustrating its overall cylindrical shape.

5. Operating Principle

Once installed, the rear suspension bump stop operates passively. Its primary function is to engage when the suspension reaches its maximum compression, preventing the vehicle's chassis from directly contacting the axle or other suspension components. This action dampens severe impacts, reduces harshness over large bumps, and helps maintain vehicle stability, especially when carrying heavy loads or traversing uneven terrain. The bump stop acts as a progressive spring, providing additional resistance as the suspension compresses further.

6. Maintenance

The ESC ESP914 Rear Suspension Bump Stop is designed for durability and requires minimal maintenance. However, periodic inspection is recommended to ensure its continued effectiveness and safety.

- During routine vehicle inspections, tire rotations, or other undercarriage work, visually inspect the bump stop for signs of wear, cracking, tearing, or degradation of the material.
- Check for any signs of impact damage or deformation.
- Ensure the bump stop remains securely attached to its mounting point.

If significant damage or excessive wear is observed, replacement is recommended to ensure proper suspension protection and vehicle performance.

7. Troubleshooting

If you experience issues after installing the ESC ESP914 Rear Suspension Bump Stop, consider the following common troubleshooting steps:

- **Excessive Harshness or Clunking:** If you notice increased harshness over bumps or hear clunking noises from the rear suspension, verify that the bump stop is correctly seated and securely fastened. An improperly installed bump stop may not function as intended.
- **Visual Inspection:** Re-inspect the bump stop for any signs of manufacturing defects, shipping damage, or incorrect alignment that might prevent proper function.
- **Compatibility Check:** Double-check that the ESC ESP914 is the correct part for your specific vehicle make, model, and year. Refer to the compatibility list in Section 1.

If issues persist after performing these checks, it is advisable to consult a qualified automotive technician for diagnosis and repair.

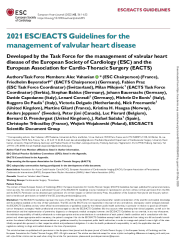
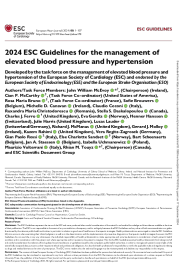
8. Specifications

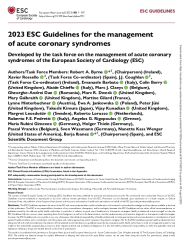
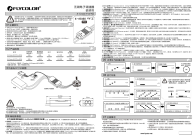
Attribute	Detail
Model Number	ESP914
Brand	ESC
Manufacturer	ESC
OEM Part Numbers	55701429, 51800004
Position	Rear
Item Weight	500 g
Package Dimensions	30 x 20 x 8 cm
Compatible Vehicles	Fiat Grande Punto 199, Fiat Punto 199, Fiat Punto Evo 199_, Opel Corsa D, Alfa Romeo MiTo 955

9. Warranty and Support

Specific warranty details for the ESC ESP914 Rear Suspension Bump Stop are not provided within this instruction manual. For information regarding product warranty, returns, or technical support, please contact your original point of purchase or the manufacturer directly.

Related Documents - ESP914

	2021 ESC/EACTS Guidelines for Valvular Heart Disease Management Comprehensive clinical practice guidelines from the European Society of Cardiology (ESC) and the European Association for Cardio-Thoracic Surgery (EACTS) detailing the latest recommendations for the diagnosis and management of valvular heart disease.
	2024 ESC Guidelines for the Management of Elevated Blood Pressure and Hypertension The 2024 ESC Guidelines provide comprehensive recommendations for the management of elevated blood pressure and hypertension, developed by the European Society of Cardiology (ESC) in collaboration with the European Society of Endocrinology (ESE) and the European Stroke Organisation (ESO). These guidelines focus on updated evidence for cardiovascular disease prevention and treatment strategies.

	[2023 ESC Guidelines for the Management of Acute Coronary Syndromes] Comprehensive 2023 clinical practice guidelines from the European Society of Cardiology (ESC) detailing the diagnosis, management, and secondary prevention of acute coronary syndromes (ACS), including STEMI and NSTEMI.
	[FLYCOLOR X-Cross HV3 Pro Brushless ESC User Manual] Comprehensive user manual for the FLYCOLOR X-Cross HV3 Pro Brushless ESC, detailing features, specifications, programming parameters, and setup instructions for RC models.
	[Hobbytech Spirit NXT EVO RR Reference Guide] A comprehensive reference guide for the Hobbytech Spirit NXT EVO RR, detailing various parts and their descriptions. This guide lists components such as carrosseries, shock absorbers, suspension parts, drive shafts, and more, with item numbers for easy identification.
	[Maclan MDP 160 ESC User Manual: Performance Drift ESC] Comprehensive user manual for the Maclan MDP 160 ESC, detailing features, specifications, programming parameters, and factory profiles for 1/10th scale RC drift applications.