


VOLVO CAR SERVICE AND PARTS BUSINESS			
<h1>Special Tools Bulletin</h1>			
TITLE: <b>Road Force Elite Wheel Balancer</b>			
NO: <b>227</b>	ISSUE DATE: <b>2018-06-19</b>	CAR MARKET: <b>United States and Canada</b>	Page 1 of 4
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**“Right first time in Time”**

As Volvo Sales and Service volumes increase and our vehicles increase in value and complexity, it is important that our service facilities keep pace with customer expectations. In order to meet this challenge it is essential that our Retail Partners have the proper Volvo recommended shop equipment needed to properly diagnose and repair vehicles the first time every time.

This statement comes into focus and currently relevant as it pertains to tire and wheel vibration concerns. Many of the customer concerns relating to tire vibration could be corrected with the use of a high quality Road Force Tire and wheel balancing machine.

RFE Videos:

Title: Why Do We Balance Wheels - Understanding Road Force  
<http://www.volvotechinfo.com/index.cfm/u/8z5x3g/>

Title: Road Force® Elite Diagnostic Wheel Balancer from Hunter Engineering  
<http://www.volvotechinfo.com/index.cfm/u/3omfx3/>

It is essential that all Volvo Retailers have a Road Force Elite Balancer, or a machine with equivalent specifications, in their Volvo Service Shop.

The Hunter 1-RFE03-VO, 1-RFE13-VO or 1-RFE33-VO Road Force balancers can be purchased from the Volvo Shop Equipment program. At a minimum, the base unit 1-RFE03-VO should be considered a required piece of equipment for every Volvo Retailer.

**Units in operation that apply a roller force less than 1250 lbs do not meet the technical requirements needed to properly balance current wheel and tire combinations. In the Hunter example, GS9712 (Generations 1 & 2) are considered obsolete.**

<http://volvodealersolutions.com/>

Service Personnel: Read and initial	SERVICE MANAGER	PARTS MANAGER	WORKSHOP FOREMAN	SERVICE TECHNICIANS												



Orders placed through the Volvo Dealer Equipment program can be charged against the Retailer Parts Statement (U.S. Dealers only).

## Volvo Hunter Balancer

Volvo Dealer Equipment, in partnership with Bosch Automotive Service Solutions and Hunter Engineering, is happy to provide you with the following options on a required Road Force balancer package essential in providing a quality service experience to the Volvo customer.

- 1) REF03 Road Force Balancer w Printer
- 2) RFE13 Road Force Balancer w Printer and Wheel Lift
- 3) RFE33 Road Force Balancer w Printer, Wheel Lift and SpeedClamp
- 4) Optional Universal Flange Plate

Balancer 1-RFE03-VO	Description / Specifications
	Road Force Elite with TDC Laser System, and Ink Jet Printer with storage
Technical	
Tire diameter	40"
Tire width	20"
Weight approx.	794 lbs
Rim diameter	10-30 inch
Rim width	1.5-20.5 inch
Power supply	196-253V, 10 amp, 50/60 Hz, 1 ph (Power cable includes: NEMA 20 amp plug, L6-20P) V/Hz/A
Dimensions (L x W x H)	L x 65 x 70
Balancing speed	300 rpm



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Balancer 1-RFE13-VO	Description / Specifications
	<p>Road Force Elite with <i>Wheel Lift System</i>, TDC Laser System, and Ink Jet Printer with storage</p>
Technical	
Tire diameter	40 inch
Tire width	20 inch
Weight approx.	794 lbs
Rim diameter	10-30 inch
Rim width	1.5-20.5 inch
Power supply	196-253V, 10 amp, 50/60 Hz, 1 ph (Power cable includes: NEMA 20 amp plug, L6-20P)
Dimensions (L x W x H)	L x 65 x 70 inch
Balancing speed	300 rpm

Balancer 1-RFE33-VO	Description / Specifications
	<p>Road Force Elite with <i>Wheel Lift System and SpeedClamp System</i>, TDC Laser System, and Ink Jet Printer with storage</p>
Technical	
Tire diameter	40 inch
Tire width	20 inch
Weight approx.	794 lbs
Rim diameter	10-30 inch
Rim width	1.5-20.5 inch
Power supply	196-253V, 10 amp, 50/60 Hz, 1 ph (Power cable includes: NEMA 20 amp plug, L6-20P)
Dimensions (L x W x H)	L x 65 x 70 inch
Balancing speed	300 rpm



Universal Flange Plate Kit	Description / Specifications
<p><b>1-20-1839-1VO</b></p>	<p><b>20-1839-1 – Adjustable flange plate &amp; stud kit</b></p> <p>The preferred recommendation when choosing a flange plate kit for maximum application coverage. Single-plate sliding bolt circle design with interchangeable pins provides quick setup and universal fitment. The kit adapts to 3-, 4-, 5-, 6-, 7- and 8-lug bolt circles with infinite adjustability. Fits future vehicle bolt circles that have yet to be released.</p> <p>The maximum bolt circle diameter is 6.70 in. (170 mm) and minimum diameter is 3.85 in. (98 mm). The kit contains much fewer pieces and is more economical than multiple flange plate kits. All pins use compressible studs allowing more accurate centering when clamping on uneven wheel lug seat surfaces. This mounting method is the most accurate of all choices.</p> <p>Kit includes:</p> <ul style="list-style-type: none"> <li><b>A. 175-355-1</b> Adjustable flange plates with locking knob</li> <li><b>B. 106-145-2</b> Conical end pin sleeve (5), 3/4 in. diameter, 2.50 in. long</li> <li><b>C. 106-144-2</b> Spherical end pin sleeve (5), 7/8 in. diameter, 2.00 in. long</li> <li><b>D. 106-143-2</b> Conical end pin sleeve (7), 1 in. diameter, 2.00 in. long [Shown with 135-378-1 pin assemblies (7)], 1.00 in. long</li> <li><b>E. 20-1881-1</b> Pin storage rack [Not shown.]</li> </ul> <p><b>Optional Pin End Kits</b></p> <p><b>20-2110-1</b> Pin end kit - Long 3/4 in. O.D., set of five pins (106-150-2) used with adjustable flange plate (not included in 20-1839-1). Depending on wheel offset and width, these pins may only be compatible when used with the GSP/DSP9200 series wheel balancers. 3.25 in. long.</p> <p><b>20-2111-1</b> Pin end kit - spherical end, set of five pins (106-140-2) used with adjustable flange plate (not included in 20-1839-1). Depending on wheel offset and width, these pins may only be compatible when used with the GSP/DSP9200 series wheel balancers. 3.25 in. long.</p> 