



15192 Triton Lane
Huntington Beach, CA 92649
Office Tel: 714-892-3400
Customer Service Tel: 714-891-6533
www.ppedm.com




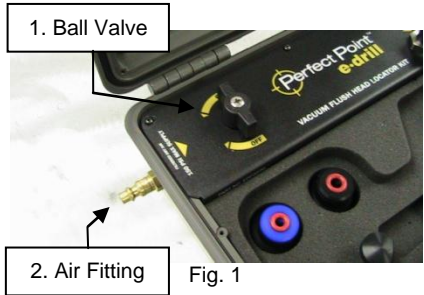
Document No.	61-175	Rev.	2	Rev. Date:	04-30-2015
--------------	--------	------	---	------------	------------


Perfect Point EDM, Inc.

Vacuum Flush Head Locator

Part Nos. EDF1220, EDF1221, EDF1320, EDF1321

User Guide

1.0 Warnings:	
1.1	   <p>Vacuum Force Exhaust Unrestricted Exhaust</p>
1.2	Do not leave the Locator unattended. If the shop air is disconnected or the air supply valve is closed, the Locator can slip from the work surface and cause injury. Use standard shop safety practices when using this air powered device.
1.3	The Vacuum Flush Head Locator is designed to operate with clean, dry, filtered shop air, at 80 to 150 PSI. Vacuum performance will deteriorate outside of this specified operating pressure range. Introduction of moisture and particulates from contaminated or unfiltered air supplies will void the system warranty and affect system performance.
1.4	Do not expose the Locator Suction Cups to harsh chemicals and solvents, While chemically resistant to most solvents and oils including phosphate esters (commercial aircraft hydraulic fluid) prolonged exposure will accelerate Suction Cup wear.
2.0 System Set Up:	
2.1	This system has been factory adjusted and tested for optimum performance. No further adjustment is required beyond the proper shop air supply setting. On the upper left side of the tool case, remove the plastic shipping plug from the air supply port and install preferred pneumatic fitting into the 1/4 in. NPT fitting.
2.3	<p>Prior to connection to the air supply source, open the tool case lid and check that the system air supply Ball Valve (Fig 1, Item 1) is in the closed position.</p> <p>Connect the shop air supply hose to the pneumatic fitting installed on the side of the tool container. (Fig 1, Item 2).</p>
 <p>Fig. 1</p>	
3.0 System Operation:	
3.1	Open the air supply valve. There will be a hissing from Vacuum Pump venturi. This is normal vacuum pump operation, not leakage. When the air supply valve is opened the vacuum locator suction cups will adhere to any work surface they are placed on.

<p>3.2</p>	<p>Grip the Suction Cup Locator as depicted in Fig. 2. Depress the Relief Valve Lever located on the side of the vacuum locator and the system vacuum will bypass releasing the Locator from the work surface.</p> <p>Release the Relief Valve Lever and the Locator will again “vacuum clamp” onto the work surface. Repeat several times to become familiar with system operation.</p>	 <p style="text-align: center;">Fig. 2</p>
<p>3.3</p>	<p>The Vacuum Flush Head Locator will operate on both convex and concave curved surfaces down to a radius of approximately 4 ft, and on fasteners greater than 2” in from the edge of a panel. In situations with radius less than that (wing leading edge or lip seal leading edge as examples) or where fasteners are located on the edge of a panel, an alternative means of location might be more suitable.</p> <p>Custom made and specialty tools are available from Perfect Point EDM Inc. for difficult, hard to reach fastener locations. Contact the Customer Service number provided at the back of this instruction guide for details about special or custom designed tooling.</p> <p>Note: All 3 suction cups must seal on the work surface for the system to function. See section 4.2 (note b) on use of foil tape to resolve suction issues on challenging surfaces.</p>	
<p>4.0 Fastener Removal Using the Vacuum Flush Head Locator System:</p>		
<p>4.1</p>	<p>Select and install the proper e•drill electrode, and one of the 3 adaptor assemblies (-5, -6, or -8) from the kit.</p>	
<p>4.2</p>	<p>The system is supplied with an illuminated optical sight. Insert sight into locator body and rotate until LEDs are energized. A small magnet placed on the locator body activates an internal switch. When illuminated a series of concentric marks will be visible through the lens of the sight.</p> <p>Depress the Relief Valve Lever and move the vacuum locator to the desired position while sighting the fastener head through the bombsight. Once satisfied with Bombsight alignment, release the Relief Valve Lever and the locator will seize the work surface.</p> <p>Note: It may be necessary to reposition the Locator once or twice before satisfactory positioning is achieved.</p>	

4.3	Once the Locator is properly positioned, remove the bombsight, insert the e-drill in the Locator. When correctly aligned, the e-drill will slip firmly into the locator bore. Apply steady pressure and perform the cut.
4.4	<p>For best results the following Locator use guidelines should be followed:</p> <ul style="list-style-type: none"> a) Wipe away any excess dirt or oil form the immediate area of Locator use. This will assure an optimum surface to the locator to achieve a vacuum. b) If a rough uneven surface is encountered or surface with existing fasteners removed, Foil Tape (speed tape) can be used on the airframe to improve the contact surface. c) Sight directly over and through the Bombsight. This technique will provide the best fastener alignment and optimum location results. d) Inspect the suction cups periodically, if Locator performance deteriorates, inspect the suction cups for dirt and debris. Wipe out any dirt or debris from the suction cups with a clean dry shop towel. e) Tug lightly on the locator to ensure it is firmly affixed to the surface and not leaking vacuum before initiating a cut.
5.0 Maintenance and Troubleshooting:	
5.1	The vacuum system is a relatively simple. Most difficulties can be overcome by checking for proper system air regulator settings. The system Vacuum Pump is a “venturi” type with no moving parts, and is not field repairable.
5.2	The Bombsight is a scratch resistant acrylic that will provide years of service if properly maintained. Do not expose the Bombsight to harsh chemicals. Set the Bombsight down on a clean shop towel when not being used for sighting purposes. Always return the Bombsight to its Locator seat when not in use. Do not drag the Bombsight across work surfaces.
5.3	Periodically inspect the Suction Cups for wear or cracking. Worn or damaged suction cups will deteriorate system performance.
5.4	As parts become worn or damaged please contact your distributor or PPedm Customer Service for replacements. For PPedm parts and service please contact us at: 714-891-6533