

INSTALLATION, OPERATION, STORAGE AND MAINTENANCE INSTRUCTIONS FOR TYPE I WIPERS – J.G. PAPAILIAS CO. MANUAL NO. 009

1.0 Introduction: Type I Wipers are simple devices used to clean the inside surface of a sight glass or sight flow indicator lens. Type I Wipers can be expected to perform reliably if they are properly specified, free of any shock loading caused by rapid temperature changes or mechanical impacting and lastly, by using good workmanship in the installation and maintenance of the Type I Wiper.

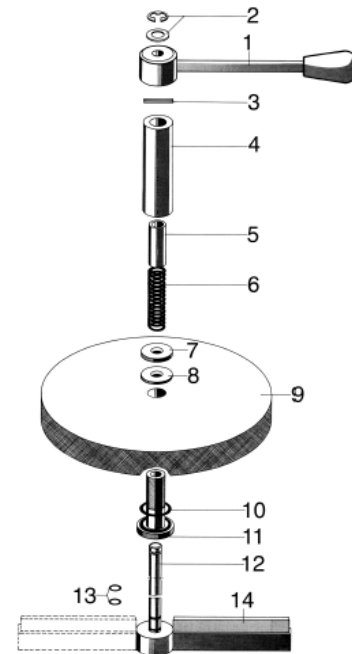
All personnel involved in the installation and maintenance of a Type I Wiper should read and understand all instructions contained herein before attempting installation or maintenance. Personnel should also be familiar with any drawings depicting the sight glass or sight flow indicator assembly incorporating a Type I Wiper and have the drawings, if available, on hand during installation or maintenance.



2.0 Inspection: Papailias Company, Inc. Type I Wipers meet or exceed all applicable specifications and standards when shipped from the factory. Type I Wipers should be inspected carefully for shipping damage. If damage is evident, do not attempt installation and notify the carrier immediately. If damage is only suspected consult factory before attempting installation.

3.0 Storage: Personnel handling Type I Wipers should have clean hands, free of dust, dirt, and grease. Type I Wipers should be placed on clean surfaces, preferably covered with clean cloth or clean paper.

4.0 Installation and Maintenance: Installation should only be done by qualified personnel who are familiar with sight glasses or sight flow indicators and have read and understand all instructions contained herein and are also familiar with any available drawing or drawings depicting the sight glass or sight flow indicator assembly.



#	Description	Std. Construction
01	Handle/Arm	SST/Phenolic
02	Clip	Stainless Steel
03	Groove Pin	Brass
04	Threaded Spacer	Stainless Steel
05	Bushing	Stainless Steel
06	Tension Spring	Stainless Steel
07	Spring washer	Stainless Steel
08	Gasket	Fiber
09	Lens	Tempered Glass, Polycarbonate
10	O-Ring	Fluoroelastomer
11	Flanged Bushing	Stainless Steel
12	Blade Holder/Shaft	Stainless Steel
13	O-Rings	Fluoroelastomer
14	Wiper Blade	PTFE

Before starting installation, the lens should be examined for scratches and other imperfections. Use a flashlight or other bright concentrated light to examine the lens carefully. If any type of flaw is apparent, installation should be delayed pending the replacement of the item.

DANGER: Lenses that have scratches or other imperfections are weakened and should not be used under any circumstance.

The Type I Wiper is supplied as an assembly which includes the lens and wiper mechanism. Therefore, assembly and maintenance is identical to that of a standard lens. Please refer to Installation and Maintenance Manual for the product in question for specific information and instructions regarding installation and maintenance.

5.0 Operation: Type I Wipers are simple devices used to clean the inside surface of a sight glass or sight flow indicator lens. Cleaning is accomplished by the rotation of a wiper blade against the inside glass surface. Rotation of the wiper blade is provided through the manual turning of an external handle. If rotation of the handle becomes difficult, it is probably due to build-up of deposits on the internal mechanism. Do not attempt to force the handle to break mechanism loose as excessive torque could damage wiper drive train. Remove lens/wiper assembly from sight glass or sight flow indicator and clean surfaces of deposits to allow free rotation of wiper blade.

IMPORTANT: The exploded view on page 1 of this manual shows the individual components in their relevant positions. If you have ordered a replacement mechanism without the lens [7] parts numbers 12-14 will be delivered shop assembled.

Parts 3,5 & 6 ensures that the wiper blades [14] is held firmly up against the process side of the glass.

Prior to installation, it should be checked that the lens is clean and undamaged. Use a flashlight or other bright concentrated light to examine the lens carefully. If any type of flaw is apparent, installation should be delayed pending the replacement of the item.

The Type 1 Window Wiper should only be installed in a sight glass lens provided by the PAPAILIAS, Inc. Installation into lenses provided by others is dangerous and will void the warranty.

The Type 1 Window Wipers is normally intended for glass thicknesses between 9/16" and 1" depending on the application. Maximum operating pressures ranges between 30psi ~ 90psi depending on the unsupported diameter of the lens and the operating pressure.

Please make sure that the wiper blade holder [13] has a length that corresponds with the inside diameter of the sight glass. Under no circumstances should the space between the end of the wiper blade holder and the inside edge of the flange be less than 1/16". If necessary the wiper blade holder and wiper blades can be shortened prior to installation.

WARNING: No metal parts of the wiper unit should have direct contact to any part of the surface of the sight glass disc due, for example, eccentricity, missing or damaged gaskets, etc. Only use the specified,

undamaged, original PAPAILIAS, Inc. parts. If in doubt cease all work and contact PAPAILIAS, Inc. immediately.

6.0 Assembly:

1. Insert the O-ring [10] in the groove of the flanged bushing [11].
2. Push the flanged bushing [11] through the hole in the sight glass lens [9].
3. Place the gasket [8] followed by the spring washer [7] over the top of the sight glass lens [9] and through the threaded end of the flanged bushing [11] as shown in the exploded view.
4. Manually screw the threaded spacer [4], with its wrench flats pointed up, onto the flanged bushing [11]. Looking through the lens verify that the O-ring [10] should be slightly flattened against the surface of the lens [9]. It is recommended to apply lock-tight on the threaded bushing [4].
5. Pass the wiper arm shaft and blade holder [12] complete with installed O-Rings [13] through the flanged bushing [11] and rotate it slightly until the wiper blade holder fits snugly up against the surface of the lens. Make sure that the O-Rings gaskets [13] and the shaft are not damaged in the process.
6. Insert the tension spring [6] over and around the shaft and into the threaded spacer [4]. Ensure that the spring has bottomed out.
7. Insert the bushing [5] over and around the shaft and into the threaded spacer [4] so that it sits on top of the tension spring [6].
8. Manually press down on the bushing [5] so that it compresses the tension spring [6] until the end of the shaft [12] protrudes enough that the small pin hole is visible. Insert groove pin [3] to secure the assembly.
8. Mount the ratchet style handle/arm [1] on the upper end of the wiper shaft while taking note of the ratchet mechanisms direction of rotation. The Place the stainless steel washer [2] on top and around the shaft. Align the open end of the clip [2] and carefully push it until it locks in place.