

DEGROFF AVIATION TECHNOLOGIES
PITOTSHIELD V2™ with SMARTCOVER™ TECHNOLOGY

PITOTSHIELD V2™

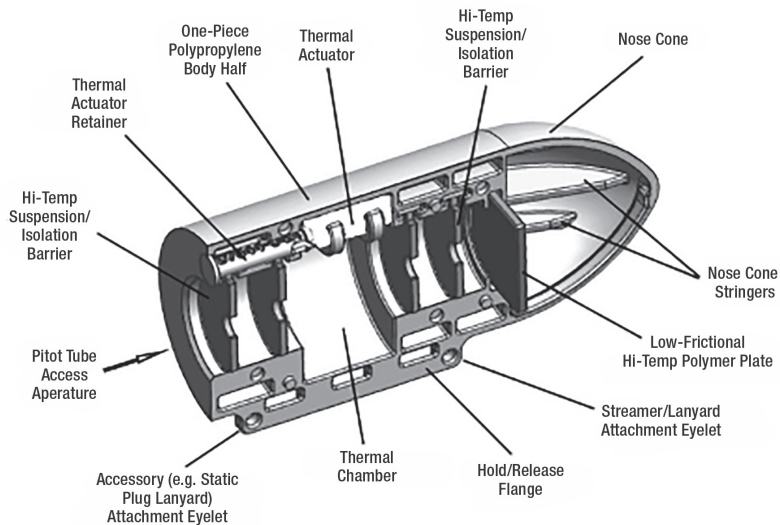
OWNER'S INSTRUCTION MANUAL

ATTENTION

READ THIS ENTIRE OWNERS MANUAL PRIOR TO
USING PITOTSHIELD V2™ SMARTCOVER™



Scan for Digital
Instruction Manual



DEVICE DETAIL

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Section i – DEFINITIONS

WARNING – Means that failure to follow the described action, or violation of or failure to follow prescribed procedure may result in DEATH or INJURY.

CAUTION – Means that failure to follow the described action, or violation of or failure to follow prescribed procedure may result in DAMAGE to equipment or subsequent failure of systems and/or components.

ADVISORY – Means DeGross Aviation Technologies has determined that a procedure or action has been deemed to be the most appropriate means of accomplishing a specified result.

Section ii - WARNINGS - CAUTIONS – ADVISORIES

WARNING! PITOTSHIELD V2™ SMARTCOVER™ MUST BE REMOVED FROM THE PITOT TUBE PRIOR TO ANY OPERATION OF THE AIRCRAFT.

WARNING! VERIFY THE FIT OF THE PITOTSHIELD V2™ SMARTCOVER™ IS COMPATIBLE WITH THE AIRCRAFT'S PITOT TUBE PRIOR TO UTILIZATION OF THE COVER.

WARNING! PITOTSHIELD V2™ SMARTCOVER™ IS DESIGNED FOR USE ON ROUND (CYLINDRICALLY-SHAPED) PITOT TUBES ONLY.

WARNING! PITOTSHIELD V2™ SMARTCOVER™ IS INTENDED FOR USE ON AIRCRAFT WITH PITOT HEAT SYSTEMS AUTOMATICALLY ACTIVATED (PASSIVELY) WITH NORMAL SYSTEMS OPERATION.

WARNING! IN THE UNLIKELY EVENT THE PITOTSHIELD V2™ SMARTCOVER™ DISENGAGEMENT ACTUATOR FAILS TO PROVIDE A TIMELY RELEASE, THE PITOT COVER COULD OVERHEAT RESULTING IN THE POLYMER BODY MELTING AND CONTAMINATING THE PITOT TUBE.

WARNING! IF THE PITOTSHIELD V2™ SMARTCOVER™ IS COATED IN SIGNIFICANT ICE, THE INTERIOR THERMAL ACTUATOR WILL OPERATE APPROPRIATELY, BUT RELEASE OF THE PITOT COVER CAN BE DELAYED DUE TO THE HEAT REQUIRED TO MELT THE EXTERIOR ICE. THIS DELAY CAN OVERHEAT THE PITOT COVER INTERIOR AND DAMAGE THE PITOT TUBE RENDERING THE AIRCRAFT UNAIRWORTHY.

WARNING – DO NOT REMOVE A SNOW OR ICE-CONTAMINATED PITOT TUBE COVER BY USING PITOT HEAT TO ACTIVATE THE HEAT-RELEASE MECHANISM. THE PITOT TUBE MAY BE DAMAGED AND THE AIRCRAFT RENDERED UNAIRWORTHY.

WARNING! DO NOT CONSTRICT OR BIND THE PITOTSHIELD V2™ SMARTCOVER™ IN ANY MANNER. IF THE SEPARATION OF THE PITOTSHILD V2 BODY HALVES IS IMPAIRED BY NATURAL OR ARTIFICIAL MEANS, THE THERMAL ACTIVATION MAY BE INEFFECTIVE IN REMOVING THE PITOTSHILED V2 FROM THE PITOT TUBE.

WARNING! NO PITOT TUBE COVER CAN BE ABSOLUTE IN ITS PROTECTION OF THE PITOT TUBE. ALWAYS INSPECT THE PITOT TUBE FOR CONTAMINATION PRIOR TO OPERATING THE AIRCRAFT.

CAUTION! THERE ARE NO LINE OR FIELD REPLACEABLE COMPONENTS IN A PITOTSHIELD V2™ SMARTCOVER™.

CAUTION! DEGROFF AVIATION TECHNOLOGIES RECOMMENDS COVERING THE PITOT TUBES WITH PITOTSHIELD V2™ SMARTCOVER™ PITOT COVERS WHEN THE AIRCRAFT WILL BE ON THE GROUND FOR MORE THAN TWENTY (20) MINUTES, PARTICULARLY IN CONDITIONS CONDUCIVE TO INSECT INFESTATION. IF THE AIRCRAFT WILL NOT BE FLYING FOR AN EXTENDED PERIOD, THE PITOT TUBE COVERS AND THE PITOT TUBES SHOULD BE INSPECTED FOR DAMAGE AND CONTAMINATION EVERY FOURTEEN (14) DAYS. THE PITOT TUBES AND PITOT TUBE COVERS SHOULD BE INSPECTED FOR SECURITY, DAMAGE AND CONTAMINATION IN AN EVENT OF STEADY WIND OR GUSTS EXCEEDING 45 KNOTS.

CAUTION! DO NOT PLACE THE PITOTSHIELD V2™ SMARTCOVER™ ON A PITOT TUBE HOTTER THAN 140 DEG. F/60 DEG. C.

SECTION 1 - ADS PROBE PROTECTION

Today's commercial, corporate, and military turbine aircraft have complex Air Data Systems (ADS) with numerous sensors providing data to the flight instruments, digital processors, and pilots. Indeed, virtually every manned aircraft flying has at least one pitot tube as part of the ADS. The need for a properly functioning pitot tube is illustrated by the many aircraft incidents and accidents related to ADS malfunctions. Regarding the ADS, a properly functioning pitot tube is paramount and proper function is dependent upon an unobstructed pitot tube.

Contamination can lead to inaccurate ADS input and must be prevented. Pitot tubes have been shown to become contaminated from ice, snow, insect nests, spider nests, in-flight insect and bird impact and various other causes. When an aircraft is on the ground, pitot tube contamination can be avoided with the proper use of pitot tube covers. Always follow Aircraft Maintenance Manuals, Airplane Flight Manuals, Pilots Operating Handbooks, Aircraft Operating Manuals, and Flight Operations Manuals.

Previously, there has been little system safety engineering technology to mitigate the human error of not removing pitot tube covers. If the pitot tube cover is not removed from the pitot tube, the cover itself now becomes the obstruction. PitotShield V2™ SmartCover™ will mitigate the risk of human error that exists with the use of conventional pitot tube covers.

SECTION 2 - REGULATIONS AND STANDARDS

There are no US Federal Regulations regarding pitot tube covers. There are two Defense standards that apply to pitot covers. Those are SAE AS5778 Covers, Aircraft Components, General Requirements For and NAS1756 STREAMER, WARNING. These were formerly two 1970's MILspecs (MIL-5778D and MS 51700 respectively) that were superseded in the 1990's and are largely unchanged for nearly 50 years.

SECTION 3 - STRUCTURAL AND FUNCTIONAL OVERVIEW

NOTE: PITOTSHIELD V2™ SMARTCOVER™ is designed for use on round pitot tubes. The PITOTSHIELD V2™ SMARTCOVER™ will fit nearly all turbine aircraft round pitot tubes. If the pitot tube diameter at 3" (76mm) from the tip is less than 15/32in (12mm), or the pitot tube diameter within three inches from the tip is greater than 13/16in (21mm), the PITOTSHIELD™ SMARTCOVER™ will not fit. There are a few aircraft with short pitot tubes for which we have our non-standard PITOTSHIELD V2™ Short. Contact your supplier or DeGross Aviation Technologies. Additionally, if a PITOTSHIELD™ SMARTCOVER™ does not fit your pitot tube, contact us to discuss customization.

General Design Aspects

This device is a thermal-reactive pitot cover designed to self-remove from the pitot tube when sufficient heat has been applied. The PITOTSHIELD V2™ SMARTCOVER™ utilizes an internal mechanism that lightly grips the pitot tube. This system allows for one size to fit most turbine aircraft pitot tubes. Additionally, where most conventional pitot tube covers can be a significant challenge to apply to a pitot tube located high on an airframe and out of reach, PITOTSHIELD V2™ SMARTCOVER™ makes this process very easy since it has a firm polymer body with a large opening into which the pitot tube tip inserts. Where many pitot tube covers are not heat-resistant and can melt onto a pitot tube when heat is applied, PITOTSHIELD V2™ SMARTCOVER™ contacts the pitot tube in only four small areas around the pitot tube and at the tip using high-temperature materials that will not melt. When parked in an environment where blowing sand and dust can be a major challenge for all pitot tube covers and other airframe and component structures, PITOTSHIELD V2™ SMARTCOVER™ can be provided with a protective “Sand Boot”. This material completely covers the PITOTSHIELD V2™ SMARTCOVER™ with a sand-barrier material and an expandable entry hole for a universal fit of the pitot cover onto the pitot tube.

Structure/Function

(See page two for visual reference)

The PitotShield™ SmartCover™ consists of two major components. First is a two-part durable, UV-resistant 100% recyclable polymer body. The body parts are manufactured as single complete units using a unique additive polypropylene manufacturing technology. The second component is a replaceable high-visibility reflective RBF Streamer with a grommet and ring attachment.

Within the body is a patented heat-resistant suspension/isolation system. The suspension/isolation system has five distinct functions: 1. Four isolation barriers suspend the polymer body from the potentially hot pitot tube to prevent melting of the polymer should pitot heat be applied to the pitot tube. 2. The barriers hold the pitot tube tip against a patented flat, protective temperature-resistant fluoropolymer plate to ensure that no contamination will ever get into the pitot tube tip. Because of the flexing of the isolation barriers, once the pitot cover is placed fully onto the pitot tube, it cannot be released without slight increased force sufficient to prolapse the barriers. When the pitot cover is removed from the pitot tube, an initial holding force from the flexed barriers must be overcome until the barriers are prolapsed, at which point the pitot cover body can be slid forward off the pitot tube. 3. The physical flexibility of the suspension system facilitates one size pitot cover fitting onto numerous sizes and shapes of pitot tubes. 4. The isolation barriers form a thermal chamber within the body surrounding the pitot tube. This chamber has a release actuator which, upon reaching a specified temperature, will trigger the release of the two body halves. 5. Simultaneously with release of the two body halves, the isolation barriers aid separation of the two body halves which fall harmlessly from the heated pitot tube. Additional features of the PITOTSHIELD V2™ SMARTCOVER™ are the eyelets on either end of the lower hold/release flange. One eyelet is the attachment point for the RBF Streamer while the other can be an attachment point for lanyards from static plugs and/or AOA covers to augment your ADS system protection.

CAUTION! THERE ARE NO LINE OR FIELD-REPLACEABLE COMPONENTS IN A PITOTSHIELD V2™ SMARTCOVER™.

SECTION 4 - SAFETY ASPECTS

1. The PITOTSHIELD V2™ SMARTCOVER™ has been developed in response to industry requests for a “fail-safe” turbine aircraft pitot cover available in one size that fits many different pitot tubes. With systems safety engineering in mind, PITOTSHIELD V2™ SMARTCOVER™ has been developed to protect turbine aircraft from pitot tube contamination.*
2. One size of PITOTSHIELD V2™ SMARTCOVER™ fits nearly all diameters of round pitot tubes, thus assuring availability of pitot tube protection nearly everywhere an airplane flies.
3. PITOTSHIELD V2™ SMARTCOVER™ has a stable, firm fit on the pitot tube and increases its grip if agitated by wind or jet blast. There is no metal in the PITOTSHIELD V2™ SMARTCOVER™ body to cause ingestion hazard conditions.
4. The DeGross Aviation-designed RBF Streamer utilizes the highest daytime visibility colors and are accompanied by a retro-reflective band for night visibility.
5. Testing showed the PITOTSHIELD V2™ SMARTCOVER™ will remain in place in direct tailwinds up to 60 kts, owing to its unique gripping concept and the characteristics of specifically designed RBF streamer.
6. Finally, if the PITOTSHIELD V2™ SMARTCOVER™ is not removed prior to aircraft operation, it will disengage from the pitot tube within minutes of pitot heat activation*.

*see limitations in Section 10 – LIMITATIONS OF PITOTSHIELD V2™ SMARTCOVER™

SECTION 5 - WHEN TO USE PITOTSHIELD V2™ SMARTCOVER™

The PITOTSHIELD V2™ SMARTCOVER™ should be applied to the aircraft according to the Aircraft Maintenance Manual, Airplane Flight Manual, Flight Operations Manual, or other standard protocol specific to your operation.

CAUTION: DO NOT PLACE THE PITOTSHIELD V2™ SMARTCOVER™ ON A PITOT TUBE HOTTER THAN 140 DEG. F/60 DEG. C.

SECTION 6 - INSPECTION AND MAINTENANCE

The PITOTSHIELD V2™ SMARTCOVER™ should be inspected for any damage or contamination prior to installation and after removal. The exterior should be inspected for any distortions, cracks, evidence of surface contact with significant oil, grease, and other debris, that could affect its function. The interior should be viewed to the extent possible for debris or contamination. Any contamination within the body should be cleared out by shaking the cover with the open end down. A small probe can be inserted to help release any large debris. Interior components are very durable and not prone to damage with typical probing. The exterior can be cleaned with any detergent-type cleaner and water. The interior can be flushed with low pressure water and detergent followed by draining and shaking open-end down or gently blowing excess water out with compressed air. The body is not 100% waterproof. Some water can seep through the body junctions and will drain out the bottom. If oil or grease is present in sufficient amounts that some may have penetrated to the interior, the ability of the silicone suspension/isolation barriers to hold the PITOTSHIELD V2™ SMARTCOVER™ could be compromised. In this case a water-based degreaser such as Simple Green®, Gunk®, Dawn® or other degreaser approved for use on plastics can be used to clean the exterior and interior. The RBF streamer is made of vinyl-coated polyester and can be cleaned with any detergent and water. The same degreasers used on PITOTSHIELD V2™ SMARTCOVER™ body can be used on the RBF streamer.

PITOTSHIELD V2™ SMARTCOVER™ should be replaced after five years in service or sooner if inspection reveals significant damage. Return the PITOTSHIELD V2™ SMARTCOVER™ to place of purchase or DeGross Aviation Technologies for a replacement. See our website for details.

SECTION 7 - INSTALLATION/REMOVAL OF PITOTSHIELD V2™ SMARTCOVER™

PITOTSHIELD V2™ SMARTCOVER™ is intended for protection of conventional round tube-type pitot tubes. The technology is designed for most pitot tubes with diameters from 15/32in (12mm) to 13/16in (21mm). The taper of the tube and other irregular shapes such as bulges will not affect the functioning of the PITOTSHIELD V2™ SMARTCOVER™. If it slides off with between 29 oz (0.8 kg) to six lb (2.7 kg) of force, the PITOTSHIELD V2™ SMARTCOVER™ will function as intended when using DeGross Aviation supplied RBF Streamers. Other streamers may result in the pitot cover disengaging in aft winds under 60 knots. Above six lb (2.7 kg) or more of removal force will result in difficult removal if using the Install/Remove Device fully extended.

To install the PITOTSHIELD V2™ SMARTCOVER™, place the cover on the pitot tube in the conventional manner by lining up the cover WITH THE RBF STREAMER ATTACHMENT AT THE BOTTOM, such that the pitot tube will enter the rearmost silicone suspension/isolation barrier. Three more barriers will center and guide the PITOTSHIELD V2™ SMARTCOVER™ in place. Continue sliding the cover only until a hard stop is felt. At this point, rotating the PITOTSHIELD V2™ SMARTCOVER™ slightly left then right, WITHOUT ADDING FORCE will initiate a stable, firm but gentle seating of the tip of the pitot tube against a high-temperature butt plate and shield the pitot cover from contamination. If the unit is agitated by high winds the RBF flag will nudge the PITOTSHIELD V2™ SMARTCOVER™, but this dynamic will actually act to keep the cover well-seated with the pitot opening protected.

If applicable, place attached static port plugs and/or AOA covers after seating the PITOTSHIELD V2™ SMARTCOVER™, assuring that the lanyards do not interfere with the seating or functioning of the PITOTSHIELD V2™ SMARTCOVER™.

To remove the PITOTSHIELD V2™ SMARTCOVER™, simply grasp the body and move it forward off the pitot tube. Note that a significant force will be needed for initiating release from its seat against the butt plate, followed by a lesser force as the cover is removed.

Follow removal with inspection for any damage or contamination of the cover to ensure it is ready and safe to use for the next ground-placement and store as directed.

ADVISORY: For pitot tubes not within conventional reach, utilize the one-piece installation/removal device and sturdy, lightweight aluminum telescopic pole to apply and remove the pitot tube cover at elevations up to twelve feet above ramp level. Contact degroffaviation.com for information on obtaining the PITOTSHIELD V2™ SMARTCOVER™ Installation and Removal Device Kit.

SECTION 8 - STORAGE OF PITOTSHIELD V2™ SMARTCOVER™

PITOTSHIELD V2™ SMARTCOVER™ while durable, is designed to be low-mass and frangible should it be ingested. The RBF flag is conventional.

The device should be stowed within the protected environment of the aircraft or other suitable area of moderate temperature when not installed on the pitot tube.

SECTION 9 – ACTIVE DISENGAGEMENT

Typically, within two to five minutes after activation of pitot heat, a PITOTSHIELD V2™ SMARTCOVER™ that has been left on the pitot tube will activate. The PITOTSHIELD V2™ SMARTCOVER™ will disengage from the pitot tube and drop harmlessly to the ground. There will be three components: two separate body halves (one with the RBF streamer attached) and one polymer pin about 1/4in (6 mm) diameter and 1-1/4in (30mm) long. There will be three drops (0.15ml) of a non-toxic water-soluble liquid liberated inside the cover halves and some tiny gravel-like particles of glass, enough that would fill a pill capsule. Safely collect the components for return to manufacturer. Our testing has revealed no damage or contamination to the pitot tube upon activation; however, a visual inspection of the pitot tube must be performed. If any contamination or other damage is visible, enlist a qualified technician for inspection and resolution of any discrepancies prior to operating the aircraft. After the aircraft is deemed to be airworthy, replace each activated PITOTSHIELD V2™ SMARTCOVER™ with new. PITOTSHIELD V2™ SMARTCOVER™ should be available at Repair Stations and FBO's worldwide as well as through our distribution network.

Activation of a PITOTSHIELD V2™ SMARTCOVER™, while indicative of human factors failure, is a confirmation of overall Safety Management System success.

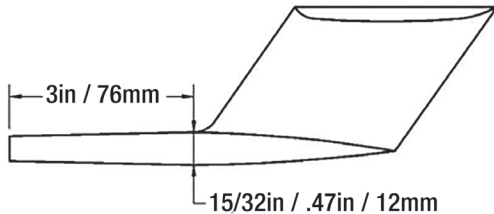
CAUTION – THERE ARE NO LINE OR FIELD REPLACEABLE COMPONENTS IN A PITOTSHIELD V2™ SMARTCOVER™.

SECTION 10 – LIMITATIONS OF PITOTSHIELD V2™ SMARTCOVER™

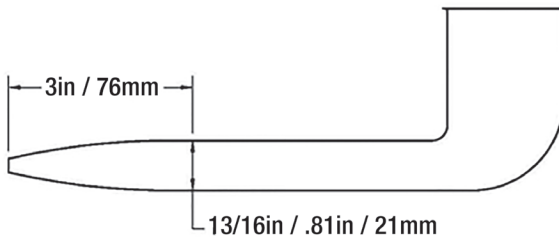
A. Universal Fit

The PITOTSHIELD V2™ SMARTCOVER™ will fit most ROUND pitot tubes. There are a few uncommon variations from normal:

1. NON-ROUND and BLADE TYPES of pitot tubes are NOT compatible.
2. If the pitot tube diameter at 3in (76mm) from the tip is less than 15/32in (0.47in) (12mm), the standard PITOTSHIELD™ SMARTCOVER™ will not fit your pitot tube. Contact us for customization.
3. If the pitot tube diameter within 3in (76mm) from the tip is greater than 13/16in (0.81in) (21mm), the standard PITOTSHIELD™ SMARTCOVER™ will not fit your pitot tube. Contact us for customization.
4. If the distance from the tip of the pitot tube to the angle of the mast is less than 3in (76mm), use non-standard PITOTSHIELD V2™ Short.
5. Testing has shown the PITOTSHIELD V2™ SMARTCOVER™ to maintain position on the smallest pitot tube (the lowest grip force) with up to 60 knot wind from aft. Attachment of accessory (static plugs) lanyard may affect this.



Minimum Pitot Tube Diameter



Maximum Pitot Tube Diameter

B. Protection from Contamination

The most vulnerable part of pitot tubes regarding contamination is the tip of the pitot tube. PITOTSHIELD V2™ SMARTCOVER™ has been shown to protect the pitot tube tip from contamination from typical contaminants that affect a pitot tube. This includes insects, spiders, windblown rainwater, snow, and sleet.

It is known that some airport environments are prone to sandstorms that can contaminate many components of aircraft, covered pitot tubes notwithstanding. PITOTSHIELD V2™ SMARTCOVER™ was tested in a fine media sandblaster to all exterior surfaces. After five minutes of constant bombardment, there were approximately one hundred grains of fine grit found in the pitot tube. As added protection from this possibility, DeGross Aviation Technologies offers a “Sand Boot” that can be easily applied over the PITOTSHIELD V2™ SMARTCOVER™ to minimize any potential ingress of wind-blown sand.

WARNING – USE OF THE SAND BOOT WILL ELIMINATE THE PITOT HEAT RELEASING FEATURE AND RENDER THE PITOTSHIELD V2™ SMARTCOVER™ AS A CONVENTIONAL PITOT COVER, VULNERABLE TO PITOT HEAT THAT CAN OVERHEAT THE COVER, POTENTIALLY DAMAGING THE PITOT TUBE COVER AND PITOT TUBE AND RENDERING THE AIRCRAFT UNAIRWORTHY.

WARNING – NO PITOT TUBE COVER CAN BE ABSOLUTE IN ITS PROTECTION OF THE PITOT TUBE. ALWAYS INSPECT THE PITOT TUBE FOR CONTAMINATION PRIOR TO OPERATING THE AIRCRAFT.

C. Self-Disengagement

PITOTSHIELD V2™ SMARTCOVER™ is a conventional pitot tube cover in that its primary objective is to protect the pitot tube from contamination. In the event that the PITOTSHIELD V2™ SMARTCOVER™ is left on at power-up of pitot heat, the cover self-disengages in approximately two to five minutes. The disengagement actuator within a PITOTSHIELD V2™ SMARTCOVER™ is heat-sensitive. The time to release after pitot heat power-up varies with the initial temperature of the pitot tube and the pitot tube cover as well as characteristics that vary with each pitot tube model. Other factors that can extend the release time beyond five minutes include:

1. Orientation - The PitotShield V2 must be installed with the RBF streamer flange downward to assure timely heat-activated ejection.
2. OAT (Outside Air Temperature) under 0 deg C (32F) and/or a cold wind.
3. Heavy and/or cold precipitation.
4. Icing conditions - If the PITOTSHIELD V2™ SMARTCOVER™ is coated in significant ice, the interior thermal actuator will operate appropriately, but the release of the pitot cover can be delayed due to the heat required to melt the exterior ice. This time delay can overheat the pitot tube cover and damage the pitot tube rendering the aircraft unairworthy.

WARNING!

DO NOT REMOVE A SNOW OR ICE-CONTAMINATED PITOT TUBE COVER BY USING PITOT HEAT TO ACTIVATE THE HEAT-RELEASE MECHANISM. THE PITOT TUBE MAY BE DAMAGED AND THE AIRCRAFT RENDERED UNAIRWORTHY.

WARNING! LIKE ALL PITOT TUBE COVERS, PITOTSHIELD V2™ SMARTCOVER™ MUST BE REMOVED FROM THE PITOT TUBE PRIOR TO ANY OPERATION OF THE AIRCRAFT.

CAUTION: ALWAYS INSPECT THE PITOT TUBE FOR CONTAMINATION PRIOR TO OPERATING THE AIRCRAFT.

D. Aircraft with manual pitot heat

IF PITOTSHIELD V2™ SMARTCOVER™ IS NOT REMOVED PRIOR TO OPERATING AN AIRCRAFT WITH MANUAL PITOT HEAT ACTIVATION AND PITOT HEAT APPLICATION IS DELAYED TO WITHIN APPROXIMATELY SIX MINUTES OF TAKEOFF, THE TAKEOFF MAY COMMENCE WITH THE PITOT COVERS IN PLACE. THIS WILL CAUSE ERRONEOUS AIR DATA SYSTEM INDICATIONS AND POSSIBLE LOSS OF CONTROL OF THE AIRCRAFT.

NOTE: ADVERSE AMBIENT CONDITIONS MAY EXTEND DISENGAGEMENT TIME. SEE C. SELF-DISENGAGEMENT ABOVE.

E. High Outside Air Temperature

The thermal actuator releases the PITOTSHIELD V2™ SMARTCOVER™ when the heat-sensitive component reaches approximately 60deg C (138 deg F). The hottest temperature recorded at an airport is 54deg C (129deg F). PITOTSHIELD V2™ SMARTCOVER™ has technology to reduce its absorption of sunlight, however, it is conceivable that under extremely high OAT conditions with bright sunlight, the interior of the PITOTSHIELD V2™ SMARTCOVER™ could reach activation temperature and release from the pitot tube. This possibility should be considered when parked on an extremely hot ramp in direct bright sunlight conditions. If the pitot cover disengages, see Section 9 – ACTIVE DISENGAGEMENT

F. Service Life

The service life of a PITOTSHIELD V2™ SMARTCOVER™ is five years. See SECTION 6 - INSPECTION AND MAINTENANCE OF PITOTSHIELD V2™ SMARTCOVER™

SECTION 11 – WARRANTY

- A. DeGross Aviation Technologies LLC (DAT) warrants PITOTSHIELD V2™ SMARTCOVER™ TO BE FREE OF MANUFACTURERS DEFECTS throughout the service life of the product, that time being from the date of registration of the product by the end-user until five years after the date of registration of the product by the end user.
- B. DeGross Aviation Technologies LLC warrants PITOTSHIELD V2™ SMARTCOVER™ to perform as described in the Owner's Instruction Manual, with regard to the statement:

WARNING! AS WITH ALL CONVENTIONAL PITOT TUBE COVERS, PITOTSHIELD V2™ SMARTCOVER™ MUST BE REMOVED FROM THE PITOT TUBE PRIOR TO OPERATION OF THE AIRCRAFT.

DeGross Aviation Technologies is not responsible for any damages that result from operation of an aircraft with a PITOTSHIELD V2™ SMARTCOVER™ in place on the pitot tube.

SECTION 12 – SPECIFICATIONS

A. BODY

- Length 5.2in (132cm)
- Diameter 2.25in (5.7cm)
- Weight 4.59oz (130.2g)
- Materials
 - Polypropylene
 - Silicone Elastomer
 - Silica
 - Water-soluble substituted hydrocarbon

B. RBF Streamer Assembly (Standard)

- Length 18.5in (47cm)
- Width 2.25in (5.7cm)
- Weight 0.57oz (16.2g)
- Color International Orange; RBF Printed Black

Materials

- Streamer: Vinyl-coated Polyester or Nylon
- Grommet: Brass (Attached Milspec-style-NAS1756)
- Attachment ring: Steel

C. Total Assembled Weight w/Standard RBF Streamer: 5.16oz (146.4 g)