

# Promethean **ActivCare**

The Importance of Projector Maintenance  
SSI Range

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The following is a general guideline to the best practice for projector maintenance.

Promethean strongly recommends that the projector user manual should always be consulted before any cleaning regimes are undertaken and/or changes are made to the projector, its settings or its components. The Promethean and/or Manufacturer's warranty is a warranty against failure as a result of the product or components of the product failing as a result of workmanship or manufacture and not due to lack of or poor maintenance. Promethean cannot be held liable for any actions taken by customers that adversely affect projectors thereby causing faults not inherently related to workmanship or manufacture.

In order to sustain the lifetime of a projector it is imperative that the projector is regularly maintained in line with the user guide and manual. The frequency and type of maintenance is subject to numerous factors such as:

- **Operation of the projector**
- **Environment in which the projector is situated**

### **Laser power mode: E C O vs. Normal**

It is recommended that the projector is operated in ECO mode rather than in a Normal mode as this typically meets most user needs. Instances where Normal mode may be necessary are where lights in the room cannot be switched off and therefore the ambient light washes out the projected image, or where the room is of an extremely large size such as 300 seat auditoriums.

Persistent use of Normal mode forces the laser to work at a higher capacity to achieve the greater light output and increases the fan speed to maintain the required internal temperature. Therefore, consistent use of the projector in Normal mode for sustained periods of time will require more filter cleaning.

### **Turning the projector off**

When turning the projector off using the correct Power off function on the remote control or on the projector, the projector is set-up to enter an off mode which sets in motion a cooling process to ensure that the projector is powered down in the optimal way to maintain the lifetime of the projector and its components.

Turning the projector off at the electrical supply socket prevents this cooling process from engaging and leaves the projector to cool according to ambient temperatures which may be too high or too low to allow the projector to cool down optimally and will affect the on-going operation of the projector.

### **Auto power off**

There are certain measures that can be taken to assist in maintaining the life of the projector, its parts and projector lamps. Examples of these are outlined below.

Managing the shut-down process ensures that when the projector is not receiving any input it does not stay on unnecessarily. For example, if a projector is turned on and at the end of the presentation, the presenter forgets to switch the projector off, the Shut-down Management will ensure that after the specified amount of time of it not receiving any input from say, the presenter's laptop, it will shut down automatically.

A major determinant of a projector's functionality and longevity is the environment within which it is situated. Averagely high dusty or humid environments can cause unseen damage to a projector if not regularly maintained and serviced.

For example, in dusty environments dust can settle within the projector itself which can build up over time and cause overheating and thereby reduce the lifetime. The effectiveness of the projector can be particularly affected as a result of dust settling on the lens as this dust can get burnt on, reducing the effectiveness of the laser luminescence and causing projected images to appear washed out or blurred.

Projectors have a cooling system to draw air in to keep the projector at an optimal temperature during and after use. In order to prevent an excess of dust getting into the projector workings such as the electronics and fans, there are air filters which need to be regularly cleaned. If these are not cleaned on a regular basis these become clogged with dust, which in turn prevents the air from circulating and causes the projector to overheat thereby causing damage to the projector.

If the air filters become blocked then air will continue to be drawn in through other sources in the projector which are unfiltered. This air contains dust particles which are then attracted to the hottest parts of the projector internals, potentially causing overheating and further image degradation. In addition, this dust can then settle on the optics which then require specialist cleaning.

High humidity environments further exacerbate the above situations as the moisture in the air adheres the dust particles to the parts of the projector causing overheating and dust collection to occur at a more rapid pace.

For these reasons, Promethean advises customers to check the Maintenance section of their user manuals to see which parts can and should be cleaned regularly according to the directions set out therein.

### **Establishing environmental conditions and cleaning regimes** <sup>1</sup>

As each environment will have its own individual conditions it is difficult to definitively state what cleaning regimes will work best for individual projectors or indeed what type of environment it is. However, in order to begin to estimate the environmental conditions or relevant cleaning / maintenance regime we recommend that for the first three months after installation the filters<sup>2</sup> are checked on a weekly basis to gauge how affected these are by the environment.

If for example after the first week there is no effect to the filters, return to these the following week to check again. If there is still no change, then return to the projector the following week. After a month it should be possible to ascertain how affected the filters are by the environment and therefore a cleaning regime can be implemented accordingly. In all cases it should be determinable by the third month of following the above checking process what kind of environment the projector is in.

If there is a build up of dust in the first few weeks then it is clear that the environment is subject to above average conditions and therefore a cleaning regime which matches the timeframe it took for the dust to build up would be advisable i.e. weekly, fortnightly, monthly etc. for the life of the projector. In any event, Promethean's recommendation is to check and clean filters every thirty days at minimum.

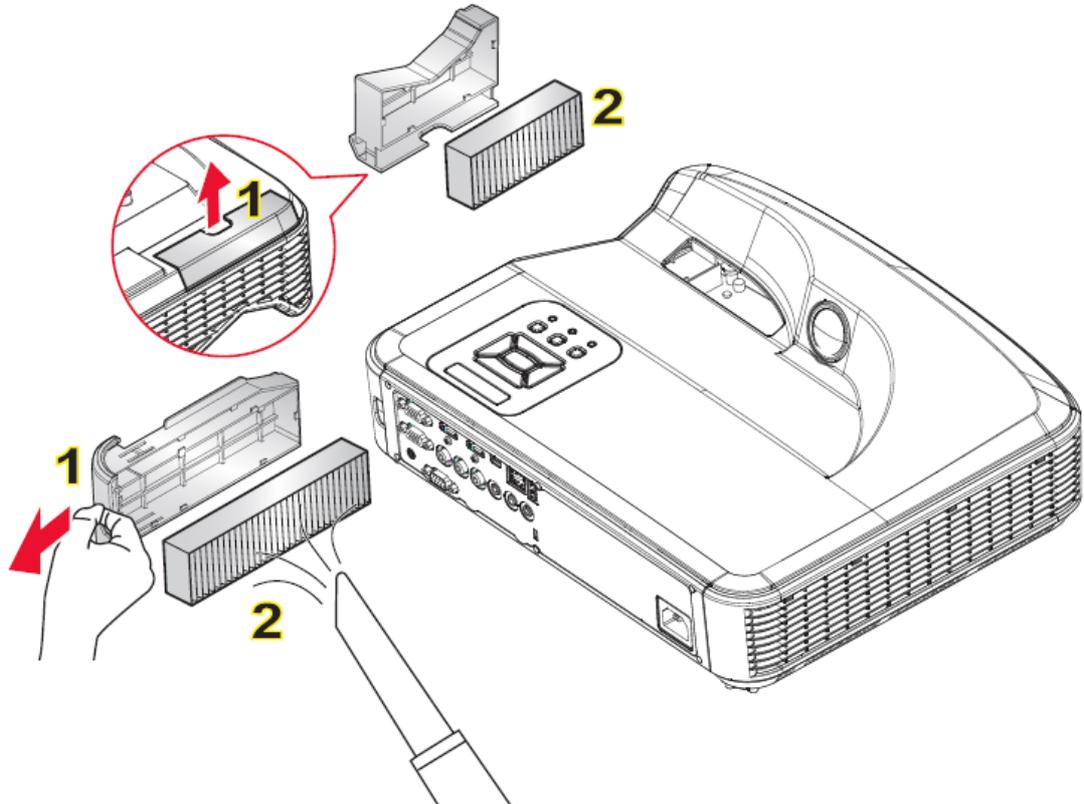
Do not operate the projector with the air filters removed. Dust may accumulate on the optical elements degrading picture quality and requiring specialist cleaning. Do not put anything into the air intake vents, otherwise it may result in malfunction of the projector.

Additionally it may also be necessary for the projector to be sent for regular maintenance to a skilled service provider. Customers should contact Promethean for advice on the closest service provider to them. These providers are separate entities to Promethean and maintenance and filter replacement is not covered under the Promethean manufacturer warranty. For these reasons service providers are likely to make charges for maintenance work to be completed which Promethean cannot influence.

<sup>1</sup> In the event that Promethean identifies that extreme environmental conditions have been the cause of any reported faults, Promethean reserves the right not to service the faults under its warranty provision if caused in whole or in part by "extreme environment (including extreme temperature or humidity)" as per Section III, point A.4 of Promethean's Terms & Conditions available from [www.PrometheanWorld.com/Warranty](http://www.PrometheanWorld.com/Warranty).

<sup>2</sup> Replacement filters are not provided by Promethean under warranties as these are considered to be Consumables and are therefore excluded from the Promethean Warranty as per Section III, point A.7 of Promethean's Terms & Conditions available from [www.PrometheanWorld.com/Warranty](http://www.PrometheanWorld.com/Warranty).

**Cleaning the filters**



- **Air Filter Cleaning Procedure:** ○
1. Switch off the power to the projector by pressing the “⏻” button.
  2. Disconnect the power cord.
  3. Pull out the dust filter, as shown in the illustration. **1**
  4. Carefully remove the dust filter. Then clean or change the filter. **2**
- To install the filter, reverse the previous steps.
5. Turn on the projector and reset the filter usage counter after the dust filter is replaced.

Additional information: if a Filter Warning icon appears on the screen, clean the filter immediately. Failure to do so will lead to internal damage of the projector and invalidate the manufacturer's warranty.

The usage time of the dust filter is reached.  
Please clean the dust filters to maintain performance.