

User's Manual for the electric ventilation fan, switch and battery unit

Thank you for purchasing SWANS TURBO Goggle.

Please read this manual carefully as well as the User's Manual of SWANS snow goggle before use.

Please keep this manual after you read it.

Icons

There are several icons used through out this manual.

Warning : Please follow the instruction exactly, otherwise significant injury or death may occur.

Caution : Please follow the instruction exactly, otherwise injury may occur or the unit may become damaged.

⊘ Indicating prohibition

ⓘ Indicating compliance rule

Warning

- ⊘ Do not get any objects into the fan unit. Objects may be flicked out by spinning fan and may hurt you. This may also damage the unit.
- ⊘ Do not tear apart or reassemble the fan unit. It may damage the unit.

Instruction for use

- ⊘ Avoid heavy impacts to the goggles, especially to the fan unit.
- ⓘ Please wipe off any snow or waterdrops on the goggle after use. Any remaining droplets may cause damage or failure to the electric motor. Please remove the remaining snow or waterdrops quickly.
- ⓘ Please be sure to set up the battery in the correct position when replacing. An incorrect replacement may cause liquid spill or damage to the motor.
- ⊘ Do not use any batteries except for Alkaline or OXY. If you use Manganese battery or Storage battery such as a Lithium ion, it causes unmoving of the sensor, inadequate exhaust.
- ⓘ Please remove the battery for long storage periods.
- ⓘ Please wipe off any moisture after use and store the goggle in a well-ventilated place avoiding direct sunlight.

Please read the section for the goggle you purchased.

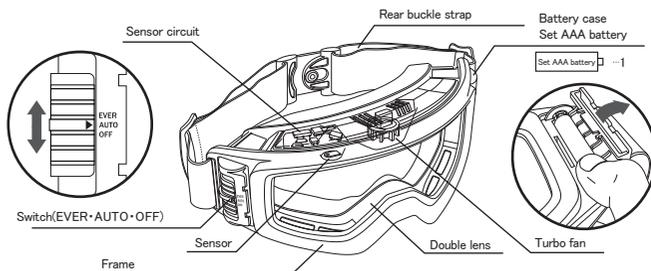
Specification

Type	TBS(Sensor)
Model	Anti-fog goggle equipped with motor fan
Anti-fog method	Centrifugal evacuation turbo fan
Fog detection	Condensation sensor
Automatic/Manual	Switchable
Motor fan rotating speed	8000rpm ± 15%
Consumption of electric current	50mA
Usable battery	Alkaline N (cell) battery * Do not use manganese dioxide battery
Maximum continuous usage	Five hours (0°C, EVER position) * This may change depending on the conditions.

Model number: HELI-PDTBS

TBs sensor turbo, Structure and Feature

- Turbo fan works automatically when the sensor is tripped by the humidity inside the goggle. For this to happen, please turn the switch to the AUTO-ON position. Manual position is also available.



How to use the TBs sensor turbo

- Please turn the switch to the AUTO-ON position for regular use. The Turbo fan works automatically when the sensor is tripped by a change of humidity and temperature.
- Please turn the switch to the EVER-ON position for continuous use. Please turn the switch to the AUTO-ON position after the fog is cleared up to avoid wasting the battery.
- Please turn off the switch when no fog is expected or no fog is on the lens.
- Please replace the battery by opening the side lid of the unit. Do not use manganese dioxide battery. It is easy to put off the battery by holding the bottom of the battery.
- Please ensure closing the side lid of the unit. If you do not close properly, it causes coming off the battery and breakage of the inner electrodes.

Effective usage

- When the outside temperature is extremely low and the user is sweating excessively, there's a high possibility for fog developing inside the goggle. Insufficient ventilation inside the goggle may cause it to fog, too. Perspiration continues even after the skier stops skiing on the slope, goggle fog occurs more likely under such circumstance.
- Please turn on the Turbo fan for about 20~30 seconds before and after skiing, even in the case when there's no fog present on the lens. Frequent operation of the Turbo Fan can emit the humid air to the outside of the goggle and keep the lens clear. Please turn on the switch when the goggle starts fogging. The time to clear the fog depends on how badly fogged up the goggles are.
- When the humidity changes drastically, the fog on the lens surface is liquefied and the waterdrops will remain on the lens even when the humidity gets lower. Please wipe off any water by soft cloth in these cases.
- ⓘ When the outside temperature is extremely high, the fan will keep spinning due to a malfunction in AUTO-ON position. Please turn the switch to the EVER-ON position and clear up the fog, and turn off the switch in these cases.
- ⓘ When the water droplets or snow remain on the sensor, the fan may keep spinning. In these cases, turn off the switch and then dry the goggles completely. Switching to EVER-ON or OFF is effective in these cases.

Please be sure to check the following three points in the case that the unit does not work properly.

- Are you using a new battery?
- Is the battery set in the correct way?
- Is the switch set in a secure position?

YAMAMOTO KOGAKU CO.LTD.

25-8, Chodo-3, Higashi-Osaka City, Osaka 577-0056 Japan

Tel: 81 6 6783-1103

URL: <https://swans.co.jp>