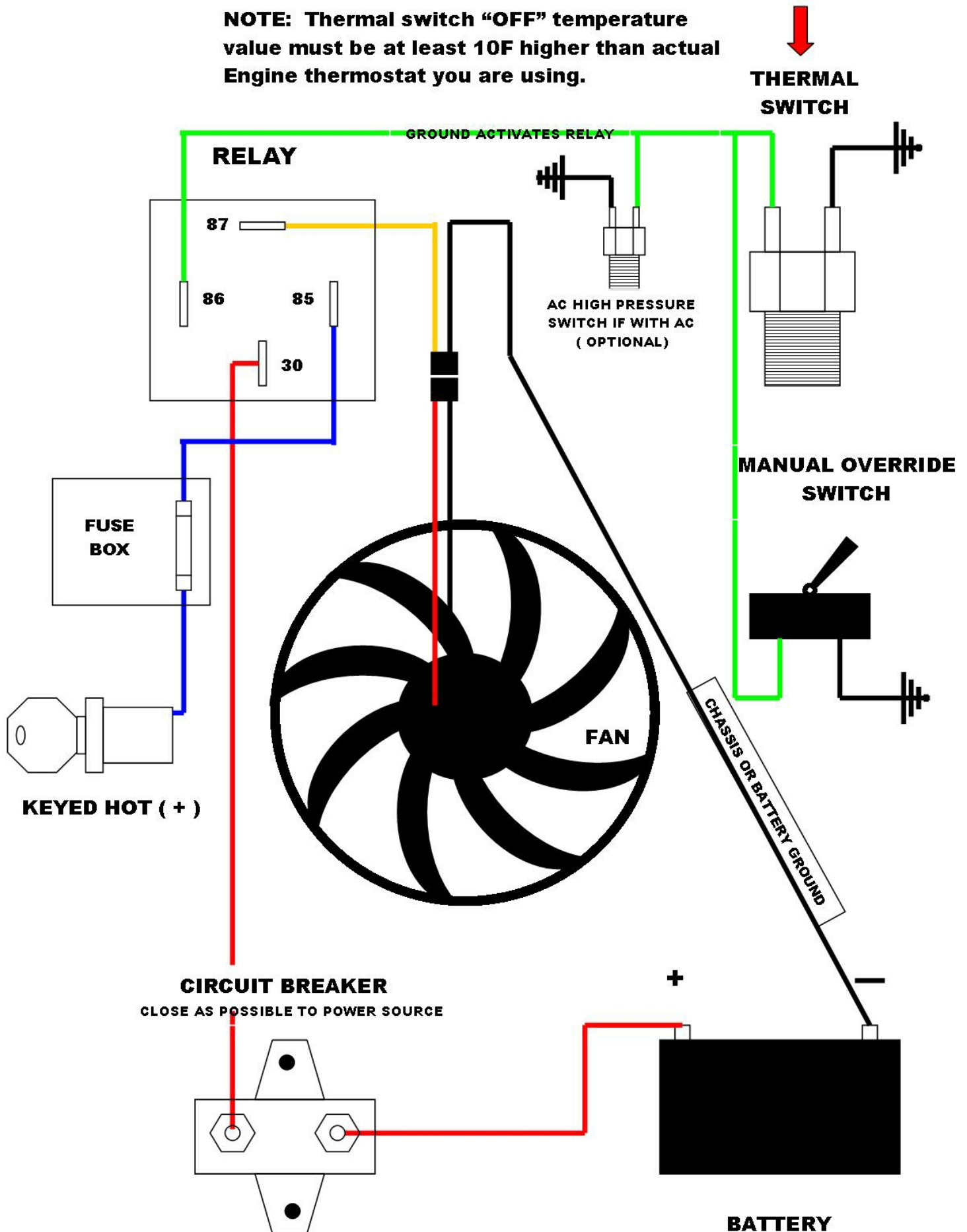


# SPAL FAN WIRING RECOMMENDATIONS & WARRANTY DETAILS

**NOTE: Thermal switch "OFF" temperature value must be at least 10F higher than actual Engine thermostat you are using.**





## BRUSHED PRODUCTS WARRANTY CONDITIONS – USAGE RECOMMENDATIONS

### DEFINITIONS:

**SPAL:** SPAL Automotive S.r.l.

**Client/s:** any company, body or corporate entity, which purchases the Products of SPAL from the latter;

**Conditions:** these General Warranty Conditions.

**Product/s:** any goods supplied by SPAL to the client.

### GENERAL WARRANTY CONDITIONS

- a. SPAL guarantees the compliance of its Products with the technical features declared and the absence of production defects and faults, provided that they have been correctly stored and used in compliance with the Usage Recommendations.
- b. The warranty has a validity of 36 months as from the date of shipment of the Products;
- c. The Conditions do not apply to Products which present:
  - i. Damages caused during transportation and/or by erroneous handling;
  - ii. Damages due to accidental events;
  - iii. Damages consequent to negligent or improper use of the same;
  - iv. Damages caused by use not in line with the SPAL usage recommendations and specifications (see “Usage recommendations”);
  - v. Repairs, tampering or modifications made by the Client or third parties;
  - vi. Normal wear and tear of the Product.
- d. These Conditions do not cover indirect or consequential damages of any kind, or rather by way of example, the lack of earnings, lack of production, lack of sales, costs for product recalls, labour, inconveniences, transport costs, telephone calls, board and lodging, losses of income or incomings, as well as damages caused to the purchaser and/or to third parties, or to property or objects possessed by the purchaser and/or third parties, consequent to defects covered by these Conditions, manifesting during the use of the Product.
- e. These Conditions cannot leave aside a contract/sales agreement that they form an integral part of; the same are therefore exclusively applicable vis-à-vis the purchaser with the exclusion of third parties.
- f. In any event, the Client cannot enforce the warranty rights vis-à-vis SPAL if the Client has an outstanding debt with the same, also in the event that the failure to make the payments under the agreed terms and conditions, refers to Products other than those in relation to which the Client intends to enforce the warranty.

### BRUSHED PRODUCT USAGE RECOMMENDATIONS

The Client is exclusively responsible for checking that the product chosen by the same is suitable for the requirements and the operating conditions of its technical specifications and related applications. If the Client requests as such, SPAL is willing to provide its support in identifying the most appropriate solutions. However, SPAL will not issue any declaration or guarantee relating to the suitability of the choice made, complete responsibility for the same will remain exclusively with the Client.

Our usage recommendations for the Products are as follows:

- a. The Product must be powered at the nominal voltage with a tolerance of +/-10%;
- b. The power supply must be adjusted and stabilised with residual ripple values of less than 1%. Higher residual ripple values considerably reduce the duration of the Product and cause irregular functioning of the same;
- c. Unless indicated otherwise, the Product is suitable for operating under temperatures which fall within a range of -20 and +80 °C (-4 and +176 °F);
- d. In general, you are recommended to check that the working conditions are not more severe than those for which the Products have been tested.
- e. Each individual Product must be suitably protected via fuse or similar device which interrupts the electricity supply in the event of accidental blockage;
- f. In the event of use of speed control systems (i.e. PWM signal or other), ensure that it is compatible with the SPAL Product and that the power supply to the Product interrupts in the event of conditions of overload or blockage;
- g. In applications where the electric fan is installed in a horizontal position with the motor cover facing upwards, the use of a fan with drainage holes in the hub is recommended;
- h. Never use the SPAL Products in the presence of inflammable/combustible substances or in environments at risk of explosion.
- i. You are recommended to store the Product in environments lacking humidity, protected from external agents and under temperature conditions that do not exceed the working ones envisaged.

**WARNING:** failure to observe these recommendations could cause the breakdown of the Product with the consequent risk of fire, explosion, serious injury or death.

SPAL declines all responsibility for damages of any kind, both direct and indirect, caused to property or individuals, which are the consequence of incorrect use of the Product.

For any information relating to the Product usage recommendations, please contact us at the following e-mail address: [info@spalautomotive.com](mailto:info@spalautomotive.com)

For any information on the up-dates of the Products, please visit our website: [www.spalautomotive.com](http://www.spalautomotive.com)



## BRUSHLESS PRODUCTS WARRANTY CONDITIONS – USAGE RECOMMENDATIONS

### DEFINITIONS:

**SPAL:** SPAL Automotive S.r.l.

**Client/s:** any company, body or corporate entity, which purchases the Products of SPAL from the latter;

**Conditions:** these General Warranty Conditions.

**Product/s:** any Brushless goods supplied by SPAL to the client.

### GENERAL WARRANTY CONDITIONS

- a. SPAL guarantees the compliance of its Products with the technical features declared and the absence of production defects and faults, provided that they have been correctly stored and used in compliance with the Usage Recommendations.
- b. The warranty has a validity of 36 months as from the date of shipment of the Products;
- c. The Conditions do not apply to Products which present:
  - i. Damages caused during transportation and/or by erroneous handling;
  - ii. Damages due to accidental events;
  - iii. Damages consequent to negligent or improper use of the same;
  - iv. Damages caused by use not in line with the SPAL usage recommendations and specifications (see “Usage recommendations”);
  - v. Repairs, tampering or modifications made by the Client or third parties;
  - vi. Normal wear and tear of the Product.
- d. These Conditions do not cover indirect or consequential damages of any kind, or rather by way of example, the lack of earnings, lack of production, lack of sales, costs for product recalls, labour, inconveniences, transport costs, telephone calls, board and lodging, losses of income or incomings, as well as damages caused to the purchaser and/or to third parties, or to property or objects possessed by the purchaser and/or third parties, consequent to defects covered by these Conditions, manifesting during the use of the Product.
- e. These Conditions cannot leave aside a contract/sales agreement that they form an integral part of; the same are therefore exclusively applicable vis-à-vis the purchaser with the exclusion of third parties.
- f. In any event, the Client cannot enforce the warranty rights vis-à-vis SPAL if the Client has an outstanding debt with the same, also in the event that the failure to make the payments under the agreed terms and conditions, refers to Products other than those in relation to which the Client intends to enforce the warranty.

### BRUSHLESS PRODUCTS USAGE RECOMMENDATIONS

The Client is exclusively responsible for checking that the Product chosen by the same is suitable for the requirements and the operating conditions of its technical specifications and related applications. If the Client requests as such, SPAL is willing to provide its support in identifying the most appropriate solutions. However, SPAL will not issue any declaration or guarantee relating to the suitability of the choice made, complete responsibility for the same will remain exclusively with the Client.

Our usage recommendations for the Products are as follows:

- a. The Product must be powered according to the voltage indicated on the specific Product datasheet;
- b. Unless otherwise indicated on specific datasheets, the power supply must be adjusted and stabilised with residual ripple values of less than 3%. Higher residual ripple values considerably reduce the duration of the Product and cause irregular functioning of the same;
- c. The operating temperatures is indicated on each Product specific datasheets;
- d. In general, you are recommended to check that the working conditions are not more severe than those for which the Products have been tested.
- e. Each individual Product must be suitably protected via fuse or similar device which interrupts the electricity supply in the event of accidental blockage;
- f. In applications where the electric fan is installed in a horizontal position with the motor cover facing upwards, the use of a fan with drainage holes in the hub is recommended;
- g. Never use the SPAL Products in the presence of inflammable/combustible substances or in environments at risk of explosion.
- h. You are recommended to store the Product in environments lacking humidity, protected from external agents and under temperature conditions that do not exceed the working ones envisaged.

**WARNING:** failure to observe these recommendations could cause the breakdown of the Product with the consequent risk of fire, explosion, serious injury or death.

SPAL declines all responsibility for damages of any kind, both direct and indirect, caused to property or individuals, which are the consequence of incorrect use of the Product.

For any information relating to the Product usage recommendations, please contact us at the following e-mail address: [info@spalautomotive.com](mailto:info@spalautomotive.com)

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