



## Transfer Switch TS15, TS20 User Manual

For safe and optimum performance, the Transfer Switch must be used properly with the KISAE Power Inverter. Carefully read and follow all instructions and guidelines in this manual and give special attention to the **Caution** and **Warning** statements.

### PLEASE KEEP THIS MANUAL FOR FUTURE REFERENCE

**Disclaimer:** While every precaution has been taken to ensure the accuracy of the contents of this guide, **KISAE Technology** assumes no responsibility for errors or omissions. Note as well that specifications and product functionality may change without notice.

**Important Safety Information:** Please be sure to read and save the entire manual before using your **KISAE Transfer Switch**. Misuse may result in damage to the unit and/or cause harm or serious injury. Read manual entirely before using the unit and save manual for future reference.

## Introduction

Thank you for purchasing the KISAE Transfer Switch, an optional accessory that can be used with KISAE Power Inverter, to automatically switch the AC load connection between an AC Power source and the AC output of the KISAE Power Inverter.

**Warning:** Failure to follow these instructions can result in death or serious injury

- When working with electrical equipment, have someone nearby in case of an emergency.
- Keep the Transfer Switch out of the reach of children
- Keep unit away from moist or damp areas. Never expose unit to snow, water etc.
- Do not use the Transfer Switch in the vicinity of flammable fumes or gases (such as propane tanks or large engines).
- Do not disassemble the Transfer Switch. There are no user serviceable parts inside.
- Continuous load current not to exceed 100 percent of switch rating.

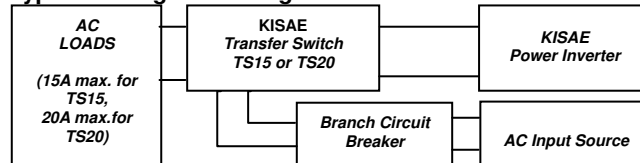
**Caution:** If used with other inverters other than KISAE Power Inverter, consult other inverter manufacturer for suitability.

## Installation and Operation

**Warning:** Please double check on the location of the AC Input and AC Output connector, misconnecting the AC Input Source to AC Output will

blow the unit and the inverter and may catch fire. It is recommended that all wiring be done by a certified technician or electrician to ensure adherence to the applicable electrical safety wiring regulations and installation codes. Tungsten filament load not to exceed 30% of switch rating. Failure to follow these instructions can damage the unit and could also result in personal injury or loss of life.

### Typical wiring block diagram of KISAE Transfer Switch:



**AC Source:** 120Vac, 60 Hz Sinewave AC source

**Branch Circuit Breaker:** 15A max for TS15 and 20A max for TS20

**KISAE Power Inverter:** Up to 1.8KW for TS15 and 2.4KW for TS20

**AC Loads:** 15A max for TS15 and 20A max for TS20



### Installation:

**Warning:** More than one live circuit is on the unit.

**Important:** Field wiring terminal tightening torque is 1.80 – 2.00 Nm.

Use copper wire only and temperature rating 105°C minimum.

Environmental Condition TYPE 1.

For TS15, When used with 15 ampere maximum class 15A branch circuit breaker this switch is suitable for withstanding an available fault current of 5000A RMS symmetrical 120 volts maximum.

For TS20: When used with 20 ampere maximum class 20A branch circuit breaker this switch is suitable for withstanding an available fault current of 5000A RMS symmetrical 120 volts maximum.

- Turn off AC Input Source and KISAE Power Inverter.

- Unscrew the two screws as shown above to remove the wiring compartment lid for AC Input Source and AC Load hard wiring.
- Hardwire the wire connection of the AC Load to the AC Output (Load) socket through the provided strain relief.
- Connect AC wires (minimum AWG 12 for TS15 & minimum AWG 10 for TS20) between the branch circuit breaker and AC Input 2 (Utility) socket through the provided strain relief.
- Use other AC wires (same rating as above) to connect between the branch circuit breaker and the AC Input Source such as a utility sub-panel in your RV or motor home.
- Tighten the two strain reliefs. Close the wiring compartment lid and secure it with the provided screws.

### Testing the Unit Monthly:

- Turn AC Source and Inverter ON. *Verify 120Vac is available at the AC Output.*
- Turn AC Source off by switching the 15A or 20A Branch Circuit Breaker OFF. *Verify 120Vac remains at the AC Output.*
- Turn OFF KISAE Inverter. *Verify there is no AC at the AC Output.*
- The unit is function properly.

## SPECIFICATIONS

*Note: Specifications are subject to change without notice.*

	TS15	TS20
AC Input 1,2	120VAC/60Hz/15A(max)	120VAC/60Hz/20A(max)
AC Output	120VAC/60Hz/15A(max)	120VAC/60Hz/20A(max)
Low Transfer Voltage	90 Vac	90 Vac
Transfer Time	80 ms	
Compliance	cETLus, FCC Class B	
Dimensions	6.6"x 4.3" x 1.8" (168mm x 110mm x 46mm)	
Weight	1.8 lbs (0.8kg)	

## WARRANTY

**One Year Limited Warranty:** The limited warranty program is the only one that applies to this unit, and it sets forth all the responsibilities of KISAE. There is no other warranty, other than those described herein. Any implied warranty of merchantability of fitness for a particular purpose on this unit is limited in duration to the duration of this warranty.

This unit is warranted, to the original purchaser only, to be free of defects in materials and workmanship for one year from the date of purchase without

additional charge. The warranty does not extend to subsequent purchasers or users. Manufacturer will not be responsible for any amount of damage in excess of the retail purchase price of the unit under any circumstances. Incidental and consequential damages are specifically excluded from coverage under this warranty.

This unit is not intended for commercial use. This warranty does not apply to damage to units from misuse or incorrect installation/connection. Misuse includes wiring or connecting to improper polarity power sources.

**Return/Repair Policy:** If you are experiencing any problems with your unit, please contact our customer service department at [info@kisaetechnology.com](mailto:info@kisaetechnology.com) or Phone 1 877 320-7857 before returning product to retail store. After speaking to a customer service representative, if products are deemed non-working or malfunctioning, the product may be returned to the purchasing store within 30 days of original purchase. Any defective unit that is returned to manufacturer within 30 days of the date of purchase will be replaced free of charge.

If such a unit is returned more than 30 days but less than one year from the purchase date, manufacturer will repair the unit or, at its option, replace it, free of charge. If the unit is repaired, new or reconditioned replacement parts may be used, at manufacturer's option. A unit may be replaced with a new or reconditioned unit of the same or comparable design. The repaired or replaced unit will then be warranted under these terms for the remainder of the warranty period. The customer is responsible for the shipping charges on all returned items.

**Limitations:** This warranty does not cover accessories, such as adapters and batteries, damage or defects result from normal wear and tear (including chips, scratches, abrasions, discoloration or fading due to usage or exposure to sunlight), accidents, damage during shipping to our service facility, alterations, unauthorized use or repair, neglect, misuse, abuse, failure to follow instructions for care and maintenance, fire and flood. If your problem is not covered by this warranty, call our Customer Service Department at [info@kisaetechnology.com](mailto:info@kisaetechnology.com) or 1 877 320-7857 for general information if applicable.

### Service Contact Information

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