




# JSF

## TECHNOLOGIES

### SOLAR TRAFFIC SOLUTIONS


www.JSFTech.com

1.800.990.2454



part: L-938 \_\_\_\_\_  
serial: \_\_\_\_\_

**FC** FCC ID: SFWPS  
IC: 5301A-WP5  
Model: WP5  
This equipment complies with FCC Rules, Part 15 and Industry Canada's ICES 003 for a Class A Digital Device. Operation is subject to two conditions:  
1) This device may not cause harmful interference, and  
2) This device must accept any interference that may cause any undesired operation.  
"Cet Appareil numérique de la Classe A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada."  
Caution: Changes or modifications to this equipment, not expressly approved by the manufacturer could void the user's authority to operate the equipment.



MUTCD JSF Strobe  
RRFB (WW+S)  
MUTCD Wig-Wag  
JSF Strobe Wig-Wag  
Test

Flash Pattern


Reset

Network Address

Flash Duration

Current Driver

RRFB Sign LEDs ☐ GE S2 (Legacy) ☐  
SW \_\_\_\_\_



made in canada

# Integrated Instructions

## WP5 Module



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## NOTE

The WP5 modular transmitter is only to be used by JSF Technologies as incorporated into its own products, and it is not intended for sale to third parties.

## GENERAL INFORMATION

Specifications and information contained in this manual are current at time of printing, and are subject to change at any time without notice.

**FCC ID: SFIWP5**

**IC: 5301A-WP5**

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference.
- (2) This device must accept any interference, including interference that may cause undesired operation of the device. Changes or modifications to this device, not expressly approved by JSF Technologies Inc., could void the user's authority to operate the equipment.

This device complies with Industry Canada's license-exempt RSSs. Operation is subject to the following two conditions:

- (1) This device may not cause interference; and
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

- (1) l'appareil ne doit pas produire de brouillage;
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.



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# WARRANTY

## INFORMATION ON LIMITED WARRANTY

Installing, operating or in any other way utilizing the product contained in this box means that the original end-use purchaser of the product has read and accepted the terms, conditions and limits of liability and warranty set out below.

## WHAT IS COVERED AND FOR HOW LONG?

JSF Technologies Inc., 6582 Bryn Rd, Saanichton, British Columbia, Canada warrants to the original end-use purchaser of the product contained in this box (the "JSF Product") that the JSF Product will be free from defects in materials and workmanship under normal use and service for a period of five (5) years from the date of delivery following the original purchase by the end user (the "Warranty Period"). If the JSF Product fails to conform to this Limited Warranty during the Warranty Period, JSF Technologies will, at its option and to the extent permitted by law:

1. repair the JSF Product defect at no charge using new parts or refurbished parts that are equivalent to new in performance and reliability; or
2. exchange the JSF Product with a product that is new or refurbished that is equivalent to new in performance and reliability and is at least functionally equivalent to the original product.

JSF Technologies may request that the original end-use purchaser replace defective parts with user-installable new or refurbished parts that JSF Technologies provides in fulfillment of its warranty obligation.

A replacement JSF Product or part, including a user-installable part that has been installed in accordance with instructions provided by JSF Technologies, assumes the remaining Limited Warranty of the original JSF Product, if any.

When a JSF Product or part is exchanged, any replacement item becomes the property of the original end-use purchaser and the replaced item becomes JSF Technologies' property. Parts provided by JSF Technologies in fulfillment of its Limited Warranty obligation must be used in the JSF Product for which warranty service is claimed.

## WHAT IS NOT COVERED BY THE LIMITED WARRANTY?

This Limited Warranty applies only to the JSF Product manufactured by or for JSF Technologies. It does not cover the following (collectively "Ineligible Products"):

- consumable parts, such as batteries;
- damage caused by accident, abuse, misuse, liquid contact, fire, earthquake or external cause;
- JSF Products that have been subject to modifications, alterations, tampering, or improper maintenance or repairs;
- damage or malfunction resulting from handling, storage, installation, testing, or use not in accordance with instructions provided by JSF Technologies;
- damage caused by normal wear and tear or otherwise due to the normal aging of the JSF Product;
- inoperability due to the lack of or insufficient cellular network coverage;
- in the case of the solar-powered or supplemented JSF Products, inoperability or reduced operability resulting from lack or insufficiency of sunlight.

This Limited Warranty does not cover the original end-use purchaser's cost or expense arising from inspecting, testing, reinstalling, replacing (in whole or in part) the JSF Product.

JSF Technologies does not warrant that the JSF Product will be error-free or will operate without interruption.

The performance of the JSF Product may be affected by outage, limitation, delays and other problems inherent in the use of the Internet, cellular network, and electronic radio communications. It is the sole responsibility of the end-use purchaser to determine the suitability and proper placement and location of the JSF Product. JSF Technologies is not responsible for any delays, scheduling failures, or other damage or interruption of use resulting from such problems and, without limitation, none of the following: inadequate wireless network reception in the location of installation of the JSF Product; wireless network, cellular, or Internet quality of service issues; radio frequency interference with the JSF Product; SMS delivery delays related to wireless network or cellular quality or outage; Internet or cellular service provider outages; owner or operator error.

The JSF Product is not designed for or intended for use as a traffic control device; it is to be used as a warning device, only. Anyone who sells or uses the JSF Product in such application does so at their own risk and agrees to fully indemnify and hold JSF Technologies harmless for any damages resulting from such sale or use.

## HOW TO GET LIMITED WARRANTY SERVICE?

Before being able to claim under this Limited Warranty, the original end-use purchaser must (a) notify JSF Technologies of the intention to claim by

phone: (800) 990-2454, ext. 224, or email: support@jsftech.com, during the Warranty Period and provide a description of the alleged failure, and (b) comply with JSF Technologies' return shipping instructions.

JSF Technologies will have no warranty obligations with respect to a returned JSF Product if it determines, in its reasonable discretion after examination of the returned JSF Product, that the JSF Product is an Ineligible Product. JSF Technologies will bear all costs of return shipping to the original end-use purchaser and will reimburse any shipping costs incurred by the original end-use purchaser, except with respect to any Ineligible Product, for which the original end-use purchaser will bear all shipping costs.

## WHAT ARE THE LIMITS OF JSF TECHNOLOGIES' WARRANTY/LIABILITY?

EXCEPT AS SET OUT IN THE EXPRESS LIMITED WARRANTY CONTAINED IN THIS DOCUMENT, THE ORIGINAL END-USE PURCHASER TAKES THE JSF PRODUCT "AS IS" AND, TO THE EXTENT PERMITTED BY LAW, THIS LIMITED WARRANTY AND THE REMEDIES SET OUT IN THIS DOCUMENT ARE EXCLUSIVE AND IN LIEU OF ALL OTHER REPRESENTATIONS AND WARRANTIES, REMEDIES AND CONDITIONS, WHETHER ORAL, WRITTEN, STATUTORY, EXPRESS OR IMPLIED. TO THE MAXIMUM EXTENT PERMITTED BY LAW, JSF TECHNOLOGIES DISCLAIMS ALL EXPRESS, IMPLIED AND STATUTORY WARRANTIES AND CONDITIONS WITH RESPECT TO THE JSF PRODUCT, INCLUDING:

- IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE;
- WARRANTIES AGAINST HIDDEN OR LATENT DEFECTS; OR

COMPLIANCE OF THE JSF PRODUCT WITH THE REQUIREMENTS OF ANY LAW, ORDINANCE, REGULATION, SPECIFICATION OR CONTRACT PERTAINING THERETO.

NOTHING CONTAINED IN THE JSF PRODUCT INSTRUCTION OR INSTALLATION MANUAL MAY BE CONSTRUED AS CREATING AN EXPRESS WARRANTY OF ANY KIND WHATSOEVER WITH RESPECT TO THE JSF PRODUCT.

IF JSF TECHNOLOGIES CANNOT LAWFULLY DISCLAIM STATUTORY OR IMPLIED WARRANTIES THEN TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, JSF TECHNOLOGIES LIMITS THE DURATION OF ANY IMPLIED WARRANTIES OR CONDITIONS TO THE DURATION OF THIS LIMITED WARRANTY AND TO THE REPAIR, REPLACEMENT OR PURCHASE PRICE REFUND OPTIONS SET OUT ABOVE AS DETERMINED BY JSF TECHNOLOGIES IN ITS SOLE DISCRETION.

OTHER THAN AS PROVIDED IN THIS LIMITED WARRANTY AND TO THE EXTENT PERMITTED BY LAW, IN NO EVENT WILL JSF TECHNOLOGIES BE LIABLE FOR ANY DIRECT, CONSEQUENTIAL, INCIDENTAL, GENERAL, EXEMPLARY OR SPECIAL DAMAGES ARISING OR RESULTING FROM USE

OF THE JSF PRODUCT AS A TRAFFIC CONTROL DEVICE; ANY BREACH OF WARRANTY OR CONDITION; UNDER ANY OTHER LEGAL THEORY, INCLUDING BUT NOT LIMITED TO LOSS OF USE; OR ANY INDIRECT OR CONSEQUENTIAL LOSS OR DAMAGE HOWSOEVER CAUSED INCLUDING

THE REPLACEMENT OF EQUIPMENT AND PROPERTY.

JSF TECHNOLOGIES' TOTAL CUMULATIVE LIABILITY ARISING FROM OR RELATED TO THIS LIMITED WARRANTY OR THE JSF PRODUCT WILL NOT EXCEED THE AMOUNT ACTUALLY PAID FOR THE JSF PRODUCT BY THE ORIGINAL END-USE PURCHASER.





## TERMS OF SALE

These terms and conditions govern the sale of all products, parts and components ("Products") and the provision of all services ("Services") by JSF Technologies, Inc. ("Seller") to any purchaser of Products ("Buyer"). These terms and conditions ("Agreement") take precedence over any additional, supplemental or conflicting terms and conditions asserted by the Buyer or otherwise, to which notice of objection is hereby given. Neither Seller's commencement of performance or delivery shall be deemed or constituted as acceptance of Buyer's supplemental or conflicting terms and conditions. Buyer's submission to Seller of an order for Products or acceptance of the Products from Seller shall be deemed to constitute confirmation and acceptance of the terms and conditions contained herein. THESE TERMS AND CONDITIONS MAY ONLY BE WAIVED OR MODIFIED IN A WRITTEN AGREEMENT SIGNED BY AN AUTHORIZED REPRESENTATIVE OF SELLER.

### 1. Orders

All orders placed by Buyer are subject to acceptance by Seller. All orders must include a complete description of Products being purchased, quantities required and an approximate date materials are required by. Orders may not be canceled or altered without Seller's written consent. Seller may in its sole discretion allocate Product among its Customers. Seller may designate certain orders as non-cancelable and certain Product as non-returnable ("NCNR"). All orders containing custom terms shall be NCNR.

### 2. Prices, Pricing Terms and Payment

The prices and pricing terms for all Product sold by Seller are subject to any additional terms and conditions that may be set out on the Seller's Price List, which the Seller may amend from time to time. Full payment is due promptly upon placing an order unless credit has been pre-approved by the Seller. All credit terms are subject to Seller's credit policies then in effect.

### 3. Delivery and Title

Delivery of Products from Seller to Buyer shall take place at the factory or warehouse location specified by Seller to the carrier who will transport the Products to Buyer (the "Delivery Point"), and shall be deemed to have occurred when the Products are loaded on to the carrier's truck, trailer, train car or other mode of transport. Selection of the carrier and delivery route shall be made by Seller unless specified by Buyer. If the carrier is selected and hired by Seller, (1) Buyer will reimburse Seller for all transportation costs paid by Seller and (2) the Seller reserves the right to charge the Buyer for reasonable storage fees incurred if the goods are not picked up by the Buyer's carrier within 72 hours of the mutually agreed on shipping date. Regardless of whether the carrier is selected and hired by Seller or Buyer, the carrier shall be Buyer's agent and delivery of the Product to the carrier shall constitute delivery to Buyer and title and risk of loss shall pass to Buyer upon delivery to carrier at the Delivery Point. Notwithstanding, Seller reserves all rights to disposal of goods and stoppage in transit. Buyer is responsible at its cost to insure all Products from and after delivery of the Products at the Delivery Point. Buyer acknowledges that lead times and delivery dates provided by Seller are estimates only. Seller reserves the right to ship before the delivery date if Product is available to ship. Seller shall not be liable for delays in delivery or for failure to perform due to causes beyond the reasonable control of Seller. In the event of delay caused by such event, the date of delivery shall be extended for a period equal to the time lost as a consequence of the delay in delivery without subjecting Seller to any liability or penalty. If Product is damaged, lost or stolen while in the custody of the carrier, the Seller shall be deemed to have performed its obligations in full. Delivery of a quantity, which varies from the quantity specified, shall not relieve Buyer of the obligation to accept delivery and pay for the Products delivered. Delay in delivery of one installment shall not entitle Buyer to cancel other installments. Seller reserves the right to discontinue Products without notice. If a Product is no longer in Seller's inventory, Seller reserves the right to cancel customer orders related to such Product.

### 4. Acceptance/Returns

Shipments will be deemed to have been accepted by Buyer upon delivery of the said shipments to Buyer or Buyer's agent unless rejected in accordance with this paragraph. Buyer shall perform whatever inspection or tests Buyer deems necessary as promptly as possible but in no event later than five (5) days after delivery, after which time Buyer will be deemed to have irrevocably accepted the Products. Any discrepancy in shipment quantity must be reported within five (5) working days of receipt of the Products. In the event of an over shipment, Buyer shall have the option to return the excess Products to Seller at Seller's expense or to retain the excess Products (subject to adjustment of the invoice) and shall notify Seller of Buyer's election within five (5) working days after receipt of the Products, failing which Buyer will be deemed to have elected to retain and pay for the excess Products. Any Product returns shall be subject to compliance with Seller's return merchandise authorization ("RMA") policies and procedures as well as a restocking charge equivalent to 50% of the value of such Product as specified in Seller's invoice to Buyer, provided that the restocking charge will not apply to returned excess Products. Returned Products must be in the original packaging and conform to minimum package quantity ("MPQ") requirements. Products not eligible for return shall be returned to Buyer freight collect.

5. Product Warranty

The Seller offers a limited warranty against defects in material and workmanship on its JSF Technologies' branded Products ("Limited Warranty"). The Limited Warranty may vary for different Products. Information on the applicable Limited Warranty terms for the Product you have purchased is included in your product instruction manual, and can be obtained directly from JSFT or by contacting your JSF Technologies representative. The Seller expressly excludes and disclaims any and all other representations, warranties, conditions and guarantees, whether express, implied or imposed by statute, with the exception of the Limited Warranty. Further exclusions and limitations are set out in the Limited Warranty terms. Products that are sold by the Seller and are not JSF Technologies branded ("Third Party Products") are sold AS IS by the Seller, but may be accompanied by their manufacturers' standard warranties. Third Party Products are sold by Seller as is, where is, and with all faults, and without express or implied warranties from Seller. The Buyer acknowledges that it has reviewed Seller's Limited Warranty terms and accepts their terms and conditions, including all limitations, exclusions, and disclaimers.



## TERMS OF SALE

The Buyer or end-user who purchases the Product assumes all responsibility and liability for loss or damage resulting from the handling or use of the Product. Seller's liability on any claim, whether in warranty, contract, negligence, or any other legal theory, for loss, damage or injury arising directly or indirectly from or in relation to the use of the Product shall in no event exceed the purchase price of the Product which gave rise to the claim. IN NO EVENT SHALL SELLER BE LIABLE FOR PUNITIVE, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES WHETHER FORSEEABLE OR NOT INCLUDING BUT NOT LIMITED TO LOSS OF PROFITS OR REVENUES, LOSS OF USE OF GOODS, OR LOSS OF BARGAIN.

### 6. Export Control/Use of Products

Buyer certifies that it will be the recipient of Products to be delivered by Seller. Buyer acknowledges that the Products are subject to the export and/or import control laws and regulations including those of Canada and, where applicable, the United States and the country in which Buyer is located. Buyer agrees that it shall, at the request of the Seller, provide end-user documentation and certification and that it shall otherwise strictly comply with all export laws of Canada, the United States and the country in which Buyer is located and assume sole responsibility for obtaining licenses and/or permits to export, re-export or import as may be required. The Buyer agrees that it shall not directly or indirectly export any Products to any country to which such export or transmission is restricted or prohibited.

### 7. Technical Assistance or Advice

Technical assistance or advice offered by Seller in regards to the use of any Product or in connection with Buyer's purchases may be given free of charge and only as an accommodation to Buyer. The Seller reserves the right to charge for Technical assistance or advice at its discretion and shall have no obligation to provide any technical assistance or advice to Buyer and if any such assistance or advice is provided, it is provided at the Buyer's own risk, without liability or responsibility on behalf of the Seller and such fact will not obligate Seller to provide any further or additional assistance or advice. No statement made by any of Seller's representatives in connection with the Products constitute a representation or warranty, express or implied.

### 8. Limitation Period

Notwithstanding any terms and condition of sale and subject at all times to any of the limitations expressed in the Limited Warranty, no action by Buyer may be brought at any time for any reason against Seller or the manufacturer more than twelve (12) months after the facts occurred upon which the cause of action arose.

### 9. Governing Law and Dispute Resolution

This Agreement shall be governed exclusively by the laws of the Province of British Columbia, Canada, excluding rules of international law that would result in the application of the laws of any other jurisdiction. The United Nations Convention on Contracts for the International Sale of Goods (1980) does not apply to this Agreement. If Buyer's principal place of business is located within Canada, the parties hereby irrevocably attorn and submit to the exclusive jurisdiction of the Supreme Court of British Columbia sitting at Victoria, British Columbia, Canada in respect of all disputes arising under or in respect of this Agreement. If Buyer's principal place of business is located outside of Canada, then all disputes arising out of or in respect of this Agreement shall be determined by arbitration administered by the International Centre for Dispute Resolution in accordance with its International Arbitration Rules. The number of arbitrators shall be one. The place of arbitration shall be Victoria, British Columbia, Victoria, Canada. The language of the arbitration shall be English.

### 10. Force Majeure

The Seller shall not be liable for its inability to secure sufficient quantities of any Product or failure to deliver due to causes beyond Seller's reasonable control including, but not limited to, acts of God, natural or artificial disaster, riot, war, strike, delay by carrier, shortage of Product, acts or omissions of other parties, acts or omissions of civil or military authority, Government priorities, changes in law, material shortages, fire, strikes, floods, epidemics, quarantine restrictions, acts of terrorism, delays in transportation or inability to obtain labor, materials or Products through its regular sources, all of which shall be considered as an event of force majeure excusing Seller from performance and barring remedies for non-performance. In the event of a force majeure condition, the Seller's time for performance shall be extended for a period equal to the time lost as a consequence of the force majeure condition without subjecting Seller to any liability or penalty. Seller may, at its option, cancel the remaining performance, without any liability or penalty, by giving notice of such cancellation to Buyer.

### 11. Miscellaneous

If any part of this Agreement is invalid, all other parts of this Agreement remain enforceable. This Agreement is the entire agreement between Seller and Buyer regarding its subject matter. All prior agreements and communications, whether verbal or written, are of no legal effect. This Agreement enures to the benefit of and is binding upon Seller and Buyer and our respective heirs, executors, administrators, successors and permitted assigns.



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## WP5 CONFIGURATION



part: L-938 \_\_\_\_\_

serial: \_\_\_\_\_



FCC ID: SFIWP5  
IC: 5301A-WP5  
Model: WP5

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"Cet Appareil numerique de la Classe A respecte toutes les exigences du Reglement sur le material brouilleur du Canada."

Caution: Changes or modifications to this equipment, not expressly approved by the manufacturer could void the user's authority to operate the equipment.



The diagram shows the WP5 configuration panel with the following sections:

- Flash Pattern:** A rotary switch with positions for MUTCD, RRFB (WW+S), JSF Strobe, MUTCD Wig-Wag, JSF Strobe Wig-Wag, and Test. A red arrow points to the 'Reset' position.
- Network Address:** A rotary switch with positions 0 through 15.
- Flash Duration:** A rotary switch with positions for Minutes (30, 60) and Hours (2, 3, 4, 5, 15, 18, 20, 25, 30, 35, 40, 45, 50, 60).
- Current Driver:** Two checkboxes for RRFB Sign LEDs and GE S2 (Legacy).
- SW:** A switch labeled SW.

A Canadian flag logo with the text 'made in canada' is located in the bottom right corner of the panel.

1. Set the **Flash Pattern** dial to any of the flash patterns to energize the board. The flash pattern itself does not matter for AB-4400 models as they do not have LED beacons. Just an indicator light to show if the unit is on.
2. Designate the **Network Address** that the unit will operate in. Set it to the same network as the rest of the system you are installing
3. Set the **Flash Duration**



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## NOTES