

Ensure that the cable on either side of each mated connector pair is secured to prevent the connector pulling apart. Do NOT tie down the ends of the connector or stress the cable in such a way as to cause the mated connectors to bend.

The input of the interface should be connected to the signal by a single wire to Pin 1 of the Mini Sure Seal plug.
If the sensor is not already connected to 0 volts (Isolated) then a second connection to Pin 4 (0 volts) is required.

Note: **DO NOT** make a connection if the sensor has a chassis return connection or is a signal from an ECU etc.

ADJUSTMENT

Once the system has been fully wired turn the power on.

Apply a low frequency signal to the input. Adjust the input sensitivity of the interface by turning the small screw head next to the LED. As the adjustment is made note the two positions of the screw head when:

1. The red LED changes from Off to Flashing
2. The red LED changes from Flashing to On

Re-adjust the screw to be in the middle off the flashing position.

Note: If the frequency is higher than approximately 10 flashes/second the LED may only appear to dim, as the flashing is too fast for the human eye to see.

The operation should be checked at the lowest possible frequency, as this is the most likely speed at which problems may occur.

TECHNICAL SPECIFICATION

	ST492
Supply	6.5 volts to 15 volts @ 7mA typ
Output characteristics :	Current sinking 'open collector' type. 50mA Sink. 4k7 pull up to +12v
Input impedance :	>50K Ohms
Operating temperature range :	-20 to +80 degrees Celcius
Input threshold adjustment range :	-1 volts to +5 volts
Input hysteresis	+/- 0.3 volt typ.
Maximum input frequency	2000 Hertz
Physical dimensions (mm) :	L 51, H 18, W 32
Weight :	50 Grams maximum
Vibration testing :	20 G, 50Hz to 2000 Hz, 1 Octave/Minute for 12 Hours

ST492

Pulse Amplifier Interface

USER INFORMATION

(2650-1771-77)

For service send to:
Stack LTD, 413 West Elm St. Sycamore, IL 60178 USA
Toll Free: (888) 867-5183 International: (815) 991-2134
Email us at sales@stackltd.com
<http://www.stackltd.com>

Introduction

This interface is designed to convert the output of an existing transducer, which generates a pulsed signal whose characteristics are not compatible with the ST400 or ST800 system input requirements. This incompatibility may be due either to insufficient voltage or lack of output current drive capability.

Installation

It is essential to ensure that these devices are **NOT** mounted in a position which is close to any devices, or associated wiring, similar to the following:

Suggested Wiring Clearances	Min space ST492
Ignition HT & coil leads	100mm (4")
Radio transmitters	75mm (3")
Fast switching inductive loads like fuel injectors, hydraulic solenoids.	75mm (2")
Any powerful source of heat	Shield with reflective material

The interface, which will have negligible loading effect on the signal, includes the facility to adjust the sensitivity and it can therefore be used with a wide variety of transducers.

MECHANICAL

On one side of the module there is a small red LED and a potentiometer access hole. This potentiometer is used to alter the sensitivity and the LED is used to give visual confirmation of correct adjustment. Access to this part should therefore be considered when choosing a mounting position.

USING THE 'DUAL-LOCK' FASTENER WITH STACK SENSORS

This is a high opening force 'Velcro-type' fastener system with identical mating halves. It is intended to be used for semi-permanent fixing applications, and is not intended for frequent dismantling.

For best performance, the following precautions should be taken:

Bond strength is dependent upon the amount of adhesive to surface contact development. Firm application pressure develops better adhesive contact and thus improves bond strength.

To obtain maximum adhesion, the bonding surfaces must be clean, dry and well unified. Typical surface cleaning solvents are isopropyl alcohol/water mixture (rubbing alcohol) or heptane. Use proper safety precautions when handling solvents.

Ideal application temperature range is 21-38 Deg.C (70-100 Deg.F). Initial application to surfaces at temperatures below 10 Deg.C (50 Deg.F) is not recommended because the adhesive becomes too firm to adhere readily.

Take one of the supplied pieces of 'dual-lock' fastener, remove the adhesive backing, and attach to the sensor or housing.

Take a second strip of the fastener and attach to the first piece by pushing them together firmly, ensuring correct alignment.

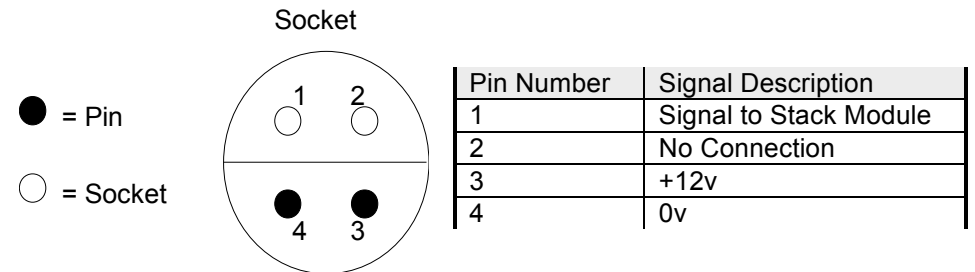
Remove the adhesive backing off the second strip of fastener and attach the sensor or housing to the vehicle in the desired position. Push against the fastener firmly to ensure maximum adhesion.

Do not try to separate the 2 strips of fastener immediately

The acrylic adhesive backing should be given 24 hours to achieve full bond strength.

Electrical Sensor Connections

The interface connects into Stack systems via a four way, ITT Cannon Mini Sure Seal (MSS) socket, the larger of the two connectors on the ST492. The following polarity is observed in all cases :



This allows the ST492 to be connected to any pulse channel input on a Stack harness. (ES, WS, PA1 – PA4 etc).

The small Mini Sure Seal plug is the connection to the signal.

