



STYLE 3600 SWITCH INTERFACE TRANSMITTER INSTALLATION AND OPERATING INSTRUCTIONS

The following is intended to provide the basic instructions for installation and operation of the Switch Interface Transmitter (SIT), and to assist in attaining the best possible performance from the unit. Read and understand these operating instructions before use.

TOOLS REQUIRED

- Wire Cutters
- Wire Strippers
- Wire Crimpers (Deutsch)

PRODUCT WARNINGS

- ⚠ **WARNING:** For fire fighting use only by trained fire fighters.
- ⚠ **WARNING:** Although the enclosures for the SIT is water-resistant, it is important to keep water out of the enclosure. Prolonged exposure to water will cause damage.
- ⚠ **WARNING:** Replace the identification tags if they should become worn or damaged.
- ⚠ **WARNING:** The SIT will not operate without a Receiver installed to logic box.

PRODUCT SPECIFICATIONS

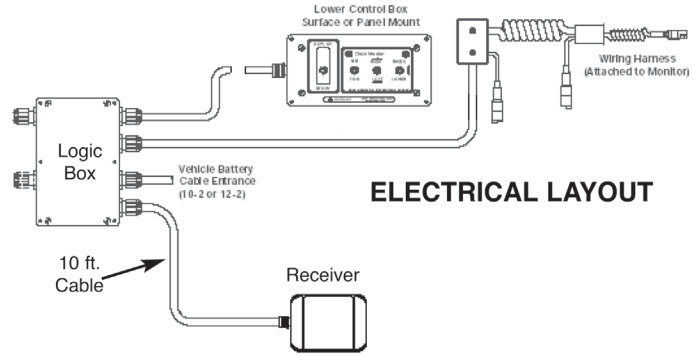
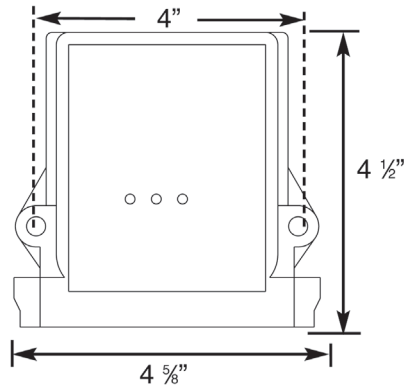
Handheld Controller

- Input power 12 or 24 volt DC
- Output power Meets FCC part 15 requirement for license free operation
- SIT dimensions 5 1/4" x 4 5/8" x 1 3/8"
- SIT weight 1/2 lb
- Operating temperature range -40°F to 140°F (-40°C to 60°C)
- SIT power 100 mW
- Operating Frequency 2.4GHz or 900MHz (see label for frequency)
- FCC ID OUR-XBEE
- Security Code 64 bit code from serial number of module
- Range 500 ft

NOTE: Enclosing the SIT in a compartment or behind the pump panel will reduce the effective range.

MECHANICAL ATTACHMENT OF SIT

Below are the envelop and mounting hole dimensions for the SIT.



ELECTRICAL INSTALLATION OF SIT

The Switch Interface Transmitter (SIT) has two 12 pin connectors. They are differentiated by insert color and are keyed. Monitor control functions are present in each connector to accommodate double control boxes on the truck. Note that the pin numbering scheme for each connector is different. Be sure to look at the pins on each connector to find the location of each pin.

Note: Pins 11 and 12 of the black insert connector provide power to the SIT and must be connected to the vehicle power supply. The voltage at the + COMMON pin on each connector is derived from this supply voltage.

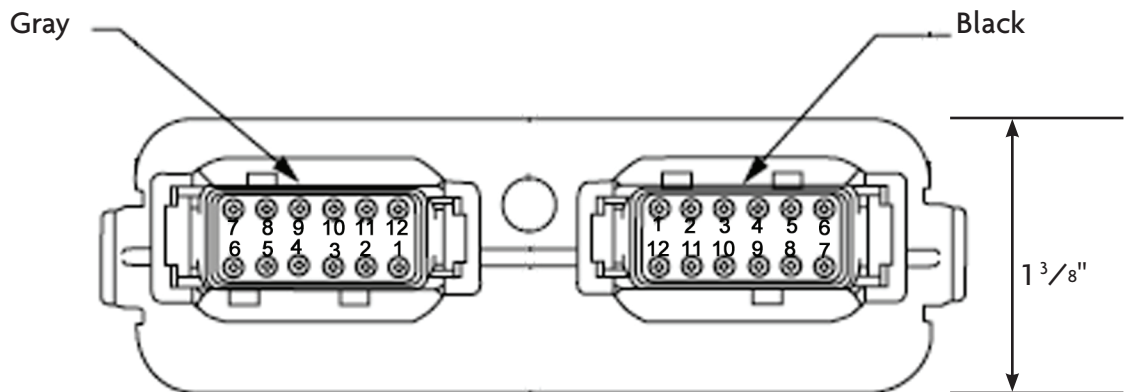
The Gray insert connector can be left unused if dual monitor controls are not needed. Be sure to secure the SIT with the mating connector and plugs if unused.

GRAY INSERT CONNECTOR PINOUT (Left Side):

BLACK INSERT CONNECTOR PINOUT (Right Side):

| Pin | Function |
|-----|--------------------------------------|
| 1. | RIGHT |
| 2. | + COMMON (For Switch Controller Box) |
| 3. | LEFT |
| 4. | UP |
| 5. | STREAM |
| 6. | DOWN |
| 7. | FOG |
| 8. | STOW |
| 9. | LED1 |
| 10. | DEPLOY |
| 11. | AUX1 |
| 12. | AUX2 |

| Pin | Function |
|-----|--------------------------------------|
| 1. | RIGHT |
| 2. | + COMMON (For Switch Controller Box) |
| 3. | LEFT |
| 4. | UP |
| 5. | STREAM |
| 6. | DOWN |
| 7. | FOG |
| 8. | STOW |
| 9. | LED2 |
| 10. | DEPLOY |
| 11. | GROUND (required) |
| 12. | +12 OR +24 VDC (required) |



ELECTRICAL INSTALLATION OF RECEIVER

The following is the wiring chart for the Receiver to the Logic Box. These color-coded wires should be wired into the input side of the Logic Box (TB1). The +V (power) and -V (ground) can be wired into TB2.

| RECEIVER WIRE COLORS | TERMINAL POSITION IN LOGIC BOX | |
|----------------------|--------------------------------|---------|
| WHITE | +V 12/24V POWER | TB1#10 |
| WHITE/BLACK | -V GROUND | TB3#15 |
| GRAY | LED | TB3#8** |
| WHITE/RED | AUX | * |
| BLACK | RIGHT | TB1#6 |
| RED | LEFT | TB1#5 |
| BLUE | DOWN | TB1#4 |
| GREEN | UP | TB1#3 |
| YELLOW | STREAM | TB1#2 |
| BROWN | FOG | TB1#1 |
| ORANGE | STOW (USED ONLY FOR SIT) | TB1#21 |
| PURPLE | DEPLOY (USED ONLY FOR SIT) | TB1#22 |

- * The Aux button can be used for Stow, Deploy or Oscillation if available on the monitor. Wire the white/red wire into the corresponding terminal requested by customer for the appropriate function. See monitor operating instructions (or Logic Box Lid) for wiring diagram and terminal location.
- ** Run jumper wire from TB3#7 to TB3#3 to have the Aux LED on the handheld controller indicate if the monitor is stowed or deployed.
 - Aux LED ON - Deployed
 - Aux LED OFF - Stowed

SYNCHRONIZE SIT WITH RECEIVER

- Before initial operation can occur, the SIT must be synchronized with the receiver. This establishes proper communication between the two and ensures that the SIT will only control the operation of one Receiver. Synchronization is performed only once when the system is put into operation for the first time or if it becomes desirable to synchronize the Switch Interface Transmitter with a different Receiver. An unsynchronized SIT will flash all three LEDs in unison when it is turned on. This indicates that synchronization to a Receiver is required.

New SIT's are shipped unsynchronized, except units with software version 2.1 which will need to be re-synchronized.

The following procedures are listed from most recent to the oldest.

Software Version 2.2

Released July 30, 2010

How to synchronize the SIT with a Receiver

1 - Make sure only the intended Receiver module is powered on.

The SIT will synchronize with any Receiver which responds to its request for a serial number.

To prevent unwanted synchronization, only the intended Receiver should be turned on.

The Receiver to which the SIT will be synchronized can be powered up before or at the same time as the SIT.

2 - Make sure power to the Switch Interface Transmitter is off.

3 - Press and hold the FOG and UP switches.

4 - Continue holding the FOG and UP switches, then turn on the power. All three LEDs should come on.

5 - As soon as the Yellow and Red LEDs go off, release the FOG and UP switches, then quickly press and release both the FOG and UP switches one more time.

6 - The SIT will respond by alternately blinking the Amber and Red LEDs several times.

This indicates that the SIT is sending messages to the Receiver and asking for its serial number.

7 - When the Green LED comes on solid, the SIT is ready for normal operation.

NOTES:

- Unit will not synchronize if you take too long on step 5. Just turn off power and start back at step 2.

- If no Receiver was found, the SIT will revert to the unsynchronized state (all 3 LEDs blinking in unison).

- To re-synchronize the SIT, just turn off power to the SIT, and start back at step 1.

Software Version 2.1

Released May 21, 2010

How to synchronize the SIT with a Receiver

- 1 - Make sure only the intended Receiver module is powered on.
The SIT will synchronize with any Receiver which responds to its request for a serial number.
To prevent unwanted synchronization, only the intended Receiver should be turned on.
The Receiver to which the SIT will be synchronized can be powered up before or at the same time as the SIT.
- 2 - Make sure power to the Switch Interface Transmitter is off.
- 3 - Press and hold the FOG and UP switches.
- 4 - Continue holding the FOG and UP switches,
Note: As soon as power is applied in the next step, all three LEDs will come on, and you will need to immediately count off three seconds. Read through the next steps before proceeding.
- 5 - Turn on the power, count 1001, 1002, 1003 (3 seconds), release the FOG and UP switches, then quickly press and release both the FOG and UP switches one more time.
- 6 - The SIT will respond by alternately blinking the Amber and Red LEDs several times.
This indicates that the SIT is sending messages to the Receiver and asking for its serial number.
- 7 - When the Green LED comes on solid, the SIT is ready for normal operation.

NOTES:

- Unit will not synchronize if you take too long on step 5. Just turn off power and start back at step 2.
- If no Receiver was found, the SIT will not revert to the unsynchronized state (unlike version 2.2).
- To re-synchronize the SIT, just turn off power to the SIT, and start back at step 1.

Software Version 1.1

Released May 14, 2006

How to synchronize the SIT with a Receiver

- 1 - Make sure only the intended Receiver module is powered on. The SIT will synchronize with any Receiver which responds to its request for a serial number.
To prevent unwanted synchronization, only the intended Receiver should be turned on.
- 2 - Power up the SIT. The Receiver to which the SIT will be synchronized can be powered up before or at the same time as the SIT.
- 3 - The SIT will blink all the Red, Green, and Amber LED's in unison to indicate that synchronization to a Receiver is required.
- 4 - Start the synchronization procedure by activating the Fog and Up inputs to the SIT while the three LED's are blinking in unison.
Each of the two connectors on the SIT has a set of Fog and Up inputs. It does not matter which set is used to start the synchronization procedure.
- 5 - The SIT will blink all the Red, Green, and Amber LED's in unison to indicate that synchronization to a Receiver is required.
- 6 - Start the synchronization procedure by activating the Fog and Up inputs to the SIT while the three LED's are blinking in unison.
Each of the two connectors on the SIT has a set of Fog and Up inputs. It does not matter which set is used to start the synchronization procedure.
- 7 - The SIT will respond by blinking the Amber LED several times. This indicates that the SIT is sending messages to the Receiver and asking for its serial number.

How to re synchronize a version 1.1 SIT with a Receiver

To re-synchronize a version 1.1 SIT that has been previously synchronized to a different Receiver:

- 1 - Make sure only the intended Receiver module is powered on. The SIT will synchronize with any Receiver which responds to its request for a serial number.
To prevent unwanted synchronization, only the intended Receiver should be turned on.
The Receiver to which the SIT will be synchronized can be powered up before or at the same time as the SIT.
- 2 - Hold FOG and UP while powering up. Release FOG and UP shortly after turning power ON.

OPERATING INSTRUCTIONS

The Switch Interface Transmitter (SIT) is used to control the monitor and nozzle by sending messages to the Receiver. A return message from the Receiver is used to control two constant current sources on the SIT.

1. To change the horizontal monitor position toward the right or left:
Activate the proper input, "RIGHT" or "LEFT" respectively, in either connector on the SIT.
2. To change the vertical monitor nozzle position upward or downward:
Activate the proper input, "UP" or "DOWN" respectively, in either connector on the SIT.
3. To change the nozzle pattern toward the straight stream or fog position:
Activate the proper input, "STREAM" or "FOG" respectively, in either connector on the SIT.
4. To initiated a stow or deploy function:
Activate the proper input, "STOW" or "DEPLOY" respectively, in either connector on the SIT.
5. The AUX1 or AUX2 inputs in the gray connector of the SIT in the gray can be used for different functions depending on the electrical installation of the AUX1 and AUX2 wires from the Receiver into the logic box. (See electrical installation of Receiver)
6. The LED1 output in the Gray connector of the SIT is driven by the state of the INPUT1 input to the Receiver. (See electrical installation of Receiver.) It is updated when the SIT is powered up but thereafter only when one of the inputs to the SIT is active. The LED1 output is a 13mA sinking constant current source. The cathode of an LED can be connected directly to the LED1 output with the anode connected to the supply voltage.
7. The LED2 output in the Black connector of the SIT is driven by the state of the INPUT2 input to the Receiver. (See electrical installation of Receiver.) It is updated when the SIT is powered up but thereafter only when one of the inputs to the SIT is active. The LED2 output is a 13mA sinking constant current source. The cathode of an LED can be connected directly to the LED2 output with the anode connected to the supply voltage.



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