innTOUCH
Smart Sensor

INNOTECH®

Models:

ISS01 – Smart Sensor
ISS02 – Smart Sensor with Real Time Clock (RTC)

ISS03 – Smart Sensor with Universal Inputs (UI)
ISS04 – Smart Sensor with RTC and UI

Overview

The Innotech innTOUCH Smart Sensor is a wall mounted remote Human Machine Interface (HMI) panel that provides a user interface for supported Innotech MiniMAX, VAVMax, MicroMAX, Omni C20x, Omni C40x and Omni Compact controllers.

The innTOUCH Smart Sensor has a single communications channel, with data transfer occurring through the power supply interface. Power and communication are provided through the 2-way Combicon connector.

One innTOUCH Smart Sensor can interface with a supported controller. All data points on the innTOUCH Smart Sensor are updated at the same rate as the controllers.

Features

- Icon based backlit Liquid Crystal Display (LCD)
- Modern, attractive enclosure design
- Four universal inputs (optional)
- One integrated thermistor input
- Real Time Clock (optional)
- Push button interface
- Two wire single twisted pair, shielded or unshielded connection from controller provides both comms and power
- Wall mounted device
- Innotech Focus software compatible

Interface

Direct Interface Compatibility

MM01C	OMC8	OMC20
MM02C	OMC8V	OMC20D
VM01C	OMC10	OMC40
UM01C	OMC10V	OMC40D

Model designations

	Thermistor Input	Universal Inputs	Real Time Clock
ISS01	✓	—	—
ISS02	✓	—	✓
ISS03	✓	✓	—
ISS04	✓	✓	✓

Applications

The innTOUCH Smart Sensor extends the capabilities of the supported controllers. innTOUCH provides an easy to read visual display of control values, and allows modifications to certain parameters using the intuitive LCD and push button interface.

- Provides a HMI for the controller to which it is connected
- Immediate access for programming parameters

Installation / Wiring

The innTOUCH Smart Sensor should be installed in an environment that does not exceed the maximum operating parameters of the device. It should be mounted in a clean and dry environment free of vibration, and properly ventilated.

The cable providing both power and communication must be 2 core shielded twisted pair cable. Polarity (+/–) MUST be observed when connecting power.

The recommended cable length is maximum 30 metres. The cable should not be run in parallel with conductors carrying high current.

Specifications

POWER SUPPLY REQUIREMENTS

Power input	Powered by connected controller

This is a Safety Extra Low Voltage (SELV) of 5–12VDC. The power is connected by the 2 way Combicon plug used for communications.

⚠️ Polarity (+/–) MUST be observed when connecting power.

ENVIRONMENTAL

Operating Temperature	0 to 40°C non-condensing
Storage Temperature	0 to 50°C non-condensing

BATTERY - ISS02 & ISS04 Only

Contains Lithium Type Battery, Dispose of Properly.
(In accordance with local regulations).

Type	CR-2032 Lithium
Nominal voltage	3 Volts
Shelf life	5 Years, depending on ambient temperature

⚠️ Caution: Risk of explosion if battery is replaced by an incorrect type.

ENCLOSURE

Designed to maximise airflow to the integrated thermistor. Can be mounted with a standard vertical C-Clip, or in a standard wall enclosure.

Colour	White/Grey
Dimensions (Maximum)	(W)70mm x (H)121mm x (D)41mm

APPROVALS

EN61326-1:2013 for CE & RCM Labelling

Title 47 CFR, Part 15 Class A for FCC Marking

UL & C-UL listed to UL916, File Number E242628

INPUTS / OUTPUTS - ISS03 & ISS04 ONLY

4 physical inputs (optional) configured with software as shown below:

Input Type	Input Range	Output Range
Dry Digital Input	Open or Closed	ON or OFF
Thermistor Input	$96\,k\Omega – 677\,\Omega$	-20°C to 100°C

1 integrated thermistor input scalable for °F

innTOUCH Parameters

The innTOUCH parameters can be accessed and programmed by simultaneously pressing and holding the **Power**, **Left Button**, and **Right Button**. You must use the **Left Button** button to exit and return to the home screen in order to save any parameter changes to memory. You can also modify multiple parameters before returning to the home screen to save your changes.

Parameter 1: Sensor Calibration Value

The actual sensor temperature reading will be displayed. Use the Up and Down buttons to enter an offset to the sensor reading.

P1 note: Only the integrated temperature sensor can be calibrated from the wall unit. All other inputs can only be calibrated by the configuration loaded on the controller.

Parameter 2: Default Set Point

The factory default set point is 22.5°C, or Fahrenheit equivalent.

P2 note: *A compatible MAXIM controller will use the default value stored in the Set Point Net Input block until innTOUCH has been correctly detected and configured.*

Parameter 3: Set Point Minimum Value

The minimum value for the set point. Factory default is 15°C or Fahrenheit equivalent.

Parameter 4: Set Point Maximum Value

The maximum value for the set point. Factory default value is 30°C or Fahrenheit equivalent.

Parameter 5: Set Primary Display Mode

This parameter determines what is displayed on the primary home screen. The options are *Temperature* [Factory Default]*, Set Point (SP), Auxiliary value (AVAL), Time or Date.*

Parameter 6: Set Secondary Display Mode

This parameter determines what is displayed on the secondary home screen (small field at the bottom of the screen). The options are *Temperature, Set Point (SP), Auxiliary value (AVAL), Time* [Factory Default] *or Date*.

Parameter 7: Set Temperature Display Units

Determines whether the temperature is displayed in Celsius [Factory Default] or Fahrenheit.

P7 note: *All temperature values will be processed using Celsius and converted to Fahrenheit if P7 is set to display Fahrenheit.*

Parameter 8: Set Primary Auxiliary Value Units

Determines how the Auxiliary value is displayed on the primary display, if selected. The options are *Temperature* [Factory Default]*, kW, kWh or nothing*.

Parameter 9: Set Secondary Auxiliary Value Units

Determines how the Auxiliary value is displayed on the secondary display, if selected. The options are *Temperature, ppm, %, %Rh or nothing* [Factory Default].

Parameter 10: Minimum Scaling Factor for Auxiliary Value

This is the minimum scaling value for the Auxiliary Value output. Factory default is -20.

Parameter 11: Maximum Scaling Factor for Auxiliary Value

This is the maximum scaling value for the Auxiliary Value output. Factory default is 100.
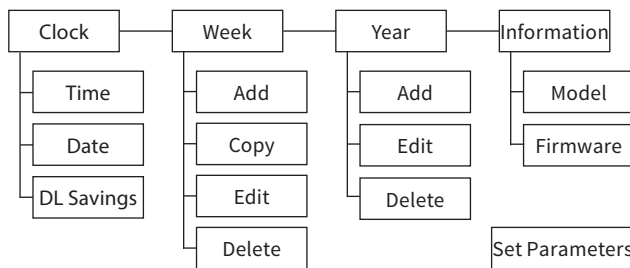
Parameter 12: Fan Speed or AC Mode

This parameter sets the operating mode for innTOUCH.

- AHC — When selected, the operator may change the operating mode using the Right Button. Auto, Heat, Cool or Vent can be selected.
- FAN — Fan speed can be adjusted with the Left Button. Auto, Heat, Cool and Vent mode is automatically controlled.
- NONE — Fan speed cannot be adjusted and Auto operation is selected. The Left and Right buttons are not used. [Factory Default]

ℹ️ The Factory Default parameters shown on this page are for the latest default firmware. Please contact Innotech or your local distributor for details on other Firmware Versions.

innTOUCH Menu Structure

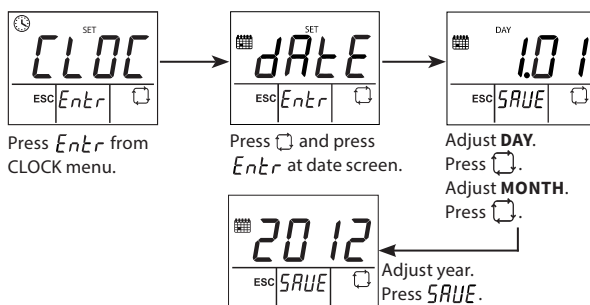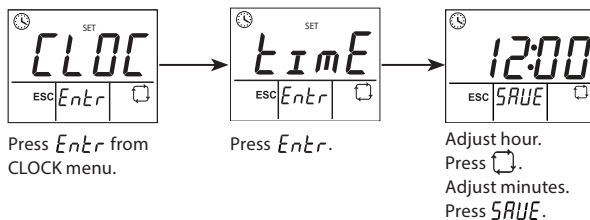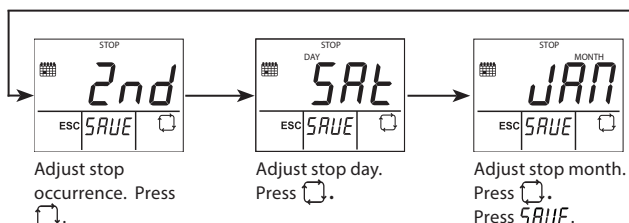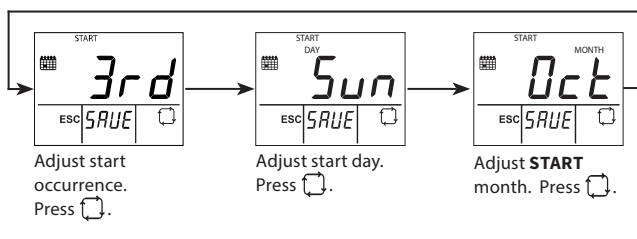Below is the menu structure of the innTOUCH Smart Sensor.

```
Clock          Week          Year          Information

  Time          Add           Add             Model

  Date          Copy          Edit           Firmware

  DL Savings    Edit          Delete

                Delete                      Set Parameters
```

Programming innTOUCH

Accessing the Programming Menu

With the device ON, from the default screen press and hold the **Centre Button** for 3 seconds.

Adjust Time and Date
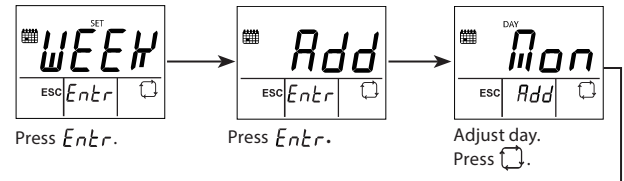

Press *Entr* from CLOCK menu.

Press *Entr*.

Adjust hour. Press ⟳. Adjust minutes. Press *SAVE*.

Press *Entr* from CLOCK menu.

Press ⟳ and press *Entr* at date screen.

Adjust **DAY**. Press ⟳. Adjust **MONTH**. Press ⟳.

Adjust year. Press *SAVE*.

Configure Daylight Savings Time (if supported)
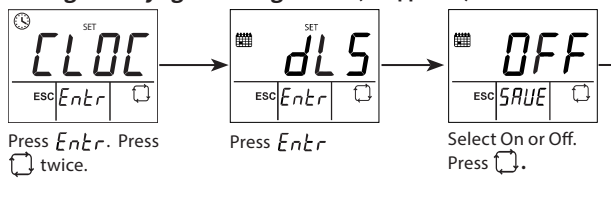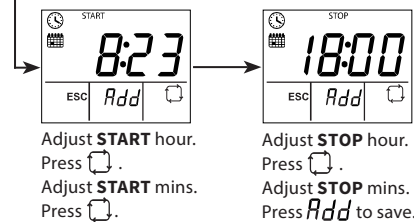
Press *Entr*. Press ⟳ twice.

Press *Entr*

Select On or Off. Press ⟳.

Adjust start occurrence. Press ⟳.

Adjust start day. Press ⟳.

Adjust **START** month. Press ⟳.

Adjust stop occurrence. Press ⟳.

Adjust stop day. Press ⟳.

Adjust stop month. Press ⟳. Press *SAVE*.

Add Weekly Schedule

Press *Entr*.

Press *Entr*.

Adjust day. Press ⟳.

Adjust **START** hour. Press ⟳. Adjust **START** mins. Press ⟳.

Adjust **STOP** hour. Press ⟳. Adjust **STOP** mins. Press *Add* to save.
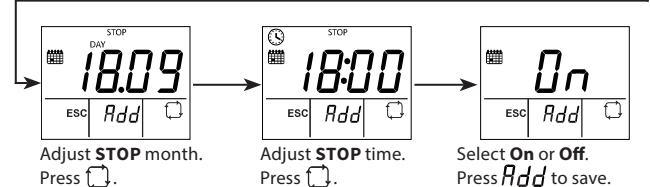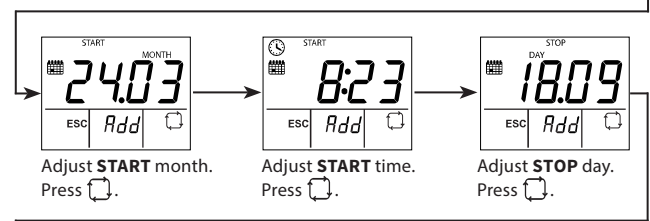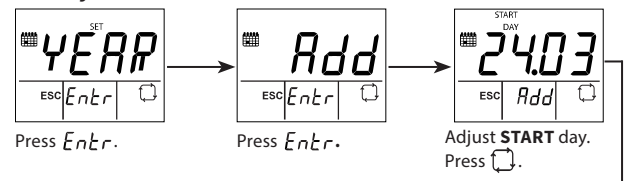
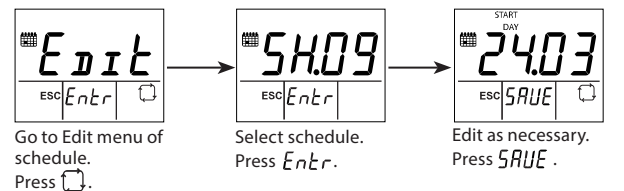ⓘ • The schedule block must exist in MAXIM configuration.
• This function is not compatible with Omni.

Add Yearly Schedule

Press *Entr*.

Press *Entr*.

Adjust **START** day. Press ⟳.

Adjust **START** month. Press ⟳.

Adjust **START** time. Press ⟳.

Adjust **STOP** day. Press ⟳.

Adjust **STOP** month. Press ⟳.

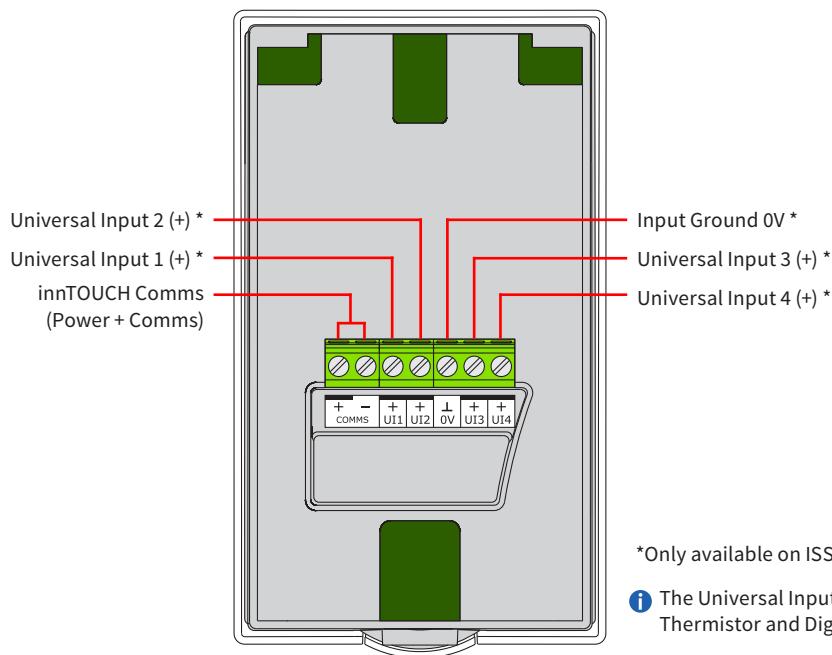Adjust **STOP** time. Press ⟳.

Select **On** or **Off**. Press *Add* to save.

ⓘ • The schedule block must exist in MAXIM configuration.
• This function is not compatible with Omni.

Edit Schedules

Go to Edit menu of schedule. Press ⟳.

Select schedule. Press *Entr*.

Edit as necessary. Press *SAVE*.

ⓘ • The schedule block must exist in MAXIM configuration.
• This function is not compatible with Omni.

Delete Schedules
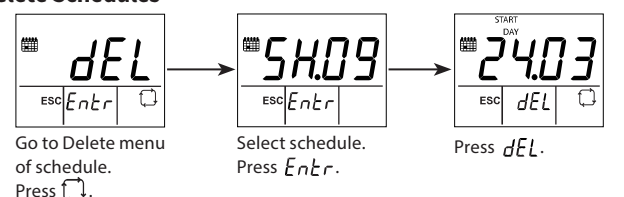
Go to Delete menu of schedule. Press ⟳.

Select schedule. Press *Entr*.

Press *dEL*.

ⓘ • The schedule block must exist in MAXIM configuration.
• This function is not compatible with Omni.

innTOUCH Smart Sensor Connection Diagram

Universal Input 2 (+) *

Universal Input 1 (+) *

innTOUCH Comms
(Power + Comms)

Input Ground 0V *

Universal Input 3 (+) *

Universal Input 4 (+) *

+	−	+	+	⊥	+	+
COMMS		UI1	UI2	0V	UI3	UI4

*Only available on ISS03 & ISS04 models

ℹ The Universal Inputs are for
Thermistor and Digital Input only

innTOUCH Smart Sensor Parts Identification and Dimensions

Button description

Power ON / OFF – Turn innTOUCH ON or OFF
Up and Down – Increase or decrease to adjust a value
Left Button – Exit and return to previous menu (ESC)
Centre Button – Enter, Save, Copy, or Delete function
Right Button – Scroll through menus or parameters (⟳)

Primary Display

Secondary Display

Left Button

Centre Button

Right Button

Up

Down

Power ON/OFF

23.5

14:25

121

70

26   15

41

61