SMART SENSOR ®

Model: ☐ AS882A
☐ AS892

Non-contact infrared
thermometer Instruction manual

-- Case cleaning: Clean the case with a damp sponge cloth and mild soap.

9. Note:
-- Do not use solvent to clean lens.
-- Do not submerge the unit in water.
-- Do not use/place the unit in high temperature or moist environment, that might inflect the units performance.
-- Do not change circuity of the unit, that possibly will destruct the unit / endanger.
-- When ⊏⊐ icon display, means low battery power. Please replace new battery to prevent inaccurate measuring.
-- If unit not being use for long period, please unload the battery.

10.Specifications

| Specifications	AS882A	AS892
Temperature range	200℃~1850℃ 392°F~3362°F	200℃~2200℃ 392°F~3992°F
Accuracy	200℃~800℃ ±2% 800℃ over ±3%	
Emissivity	0.10 to 1.00 adjustable (pre-set 0.95)	
Response time	500 mSec, 95% response	
Spectral response	(0.9~1.7)um&500ms	
Resolution	0.1℃ or 0.1°F (<1000℃) 1℃ or 1°F (≥1000℃)	
Ambient operating range	0 to 40℃ (32 to 104°F)	
Relative humidity	10-80% RH noncondensing	
Storage temperature	-20 to 60℃ ,≤85%RH, without battery	
Weight/Dimensions	1100g ;210*155*60mm	
Power	6V Alkaline or NiCd battery or 6V 500mA adpter	
Battery life(Alkaline)	Laser Models:10 hrs	
Distance Spot Ratio	80:1	

IntelliSafe CE SGS UKAS MANAGEMENT SYSTEMS 005

1.Introduction
Compact, rugged and easy to use. Just aim and push the button, read current surface temperature in less than a second. Safely measure surface temperature of hot, hazardous or hard-to-reach objects without contact.
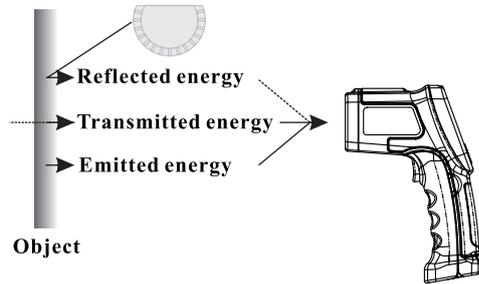
2.How it works
Infrared thermometer measure the surface temperature of an object. The units optical system sense the object's emitted energy with different wavelength.It is collected and focus onto a detector. The unit's electronics system translated the information into a temperature reading which is displayed on the unit.

3.Cautions
Infrared thermometer should be protected for the following:
--EMF (electro-magnetic fields) from arc welders, inductionheaters.
--Thermal shock (cause by large or abrupt ambient temperature changes allow 30 minutes for unit to stabilize before use).
--Do not leave the unit on or near objects of high temperature.
--Static electricity.

100 groups memory unit available. To recall the stored data in normal measuring mode by pressing 6 key, remove all data by pressing 6 keys for 3 seconds.
H. EMS: Emissivity setup-- press 5 key for emissivity settings, press 4 key to save setup and back to normal status.
(7) LCD(see 5.1)
(8) Battery door clip
(9) Battery door: When replace battery, please press battery door clip, pull down and forward the battery door. Then install 9v battery correctly.
(10) Clesius / Fahrenheit switch: Please open battery and push the slide switch for convertsion

7. USB & DC IN PUT interface
When connected AS882A with PC, **DATA** will display on LCD. During taking real time measurment, **AUT** will blink on LCD.

-- For software installation and intructions, please read the User Guide on CD.
-- DC input: For saving battery consumption, please use 6V 200mA adapter on long period measurement. (Polarity show on socket label)

8.Maintenance
-- Lens cleaning: Blow off lose particles using clean compressed air. Gently brush remaining debris away with a moist cotton cloth.


(Figure5)

USB socket
Standard DC IN socket
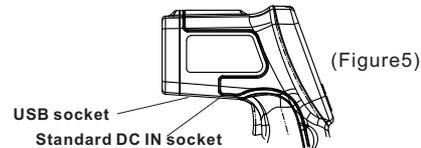
(2) Laser / back light button: when back light turn on ,any operations will remain back light for 10 sec. LCD indicate on/off status.

(Figure3)

(Figure4)
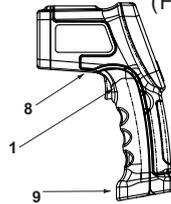
(3)—(6) key functions: press 3 key, LCD subdisplay blinks MAX-MIN-DIF-AVG-HAL-LAL-STO segment (only main display means normal measuring mode) press 4 key to enter.

  a. MAX: measuring maximum temperature
  b. MIN: measuring minimum temperature
  c. DIF: Basic on the reading before press 4 key, compute the difference of current reading.
  d. AVG: measuring average temperature
  e. HAL: high temperature alarm--when selected HAL, press 5 keys to set high temperature alarm trigger an dconfirmed by pressing 4 key. When reading over trigger, LCD display HI icon with BiBi audio sounds.
  f. LAL: low temperature alarm--when selected LAL, press 5 keys to set low temperature alarm trigger and confirmed by pressing 4 key. When reading over trigger, LCD display LOW icon with BiBi audio sounds
  g. STO: data storage--when selected STO, lock & DATA & 1---indicator will shown when press 4 key. After temperature read out press 6 key to store, then 2---memory unit will be shown. There

4.Warning

-- Do not point laser directly at eye or indirectly off reflective surfaces.

-- The unit cannot measure through transparent surfaces such as glass or plastic. It will measure the surface temperature of these materials instead.

-- Steam, dust, smoke, or other particles can prevent accurate measurement by obstructing by the units optics.
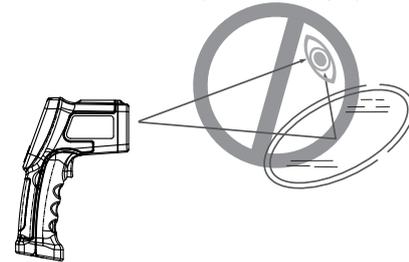
5、 Operation Instructions

-- When take measurement, point thermometer toward the object to be measured and hold the yellow trigger. The object under test should be larger than the spot size calculated by the field of view diagram.

-- Distance & spot size: As the distance from the object increase, the spot size of measuring area becomes larger.

D:S=80:1

33mm@ 2.6m   86mm@ 6.8m   127mm@ 10m

∅ 1.3"@ 104"   ∅ 3.5"@ 280"   ∅ 5"@ 400"
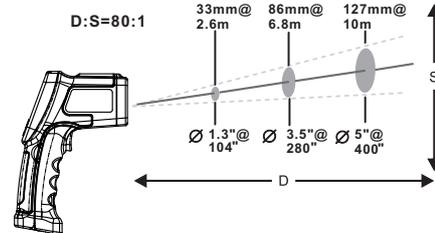
--Field of view: Make sure the target is larger than the unit's spot size. The smaller target the closer measure distance. When accuracy is critical, make sure the target is at least twice as large as the spot size.

-- Emissivity: Most organic materials and painted or oxidized surfaces have an emissivity of 0.95 (pre-set in the unit). Inaccurate readings will result from measuring shiny or polished metal surfaces. To compensate for this, adjust the units emissivity reading (see table below and 5.3 settings) or cover the surface to be measured with masking tape or flat black paint. Measure the tape or painted surface when the tape or painted reach the same temperature as the material underneath.

-- Table of approximate emissivity

| Marterial	Emissivity	Marterial	Emissivity
Aluminum	0.30	Iron	0.70
Asbestos	0.95	Lead	0.50
Asphalt	0.95	Limestone	0.98
Basalt	0.70	Oil	0.94
Brass	0.50	Paint	0.93
Brick	0.90	Paper	0.95
Carbon	0.85	Plastic	0.95
Ceramic	0.95	Rubber	0.95
Concrete	0.95	Sand	0.90
Copper	0.95	Skin	0.98
Dirt	0.94	Snow	0.90
Frozen food	0.90	Steel	0.80
Hot food	0.93	Textiles	0.94
Glass(plate)	0.85	Water	0.93
Ice	0.98	Wood	0.94

6.Quick start instruction

1、LCD display:
   A measuring reading   B measuring unit
   C laser on icon   D back light on icon
   E battery power icon   F scanning icon
   H mode/emissivity indicator G data hold icon
   J low temperature alarm icon I data storge / read icon
   K high temperature alarm icon
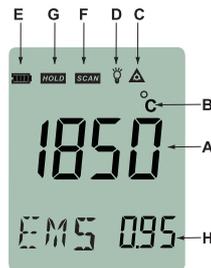
(Figure1)

2、Locating a hot/cold spot: To find a hot/cold spot, aim the thermometer outside the area of interest, then scan across with up and down motion until you locate the hot/cold spot.

(Figure2)
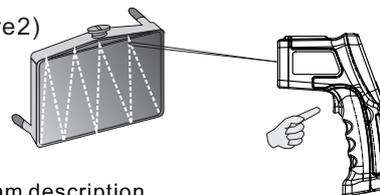
3、Diagram description
   (1) Trigger: When turn on LCD display VERXX software version for 1 sec. And turn to display reading with SCAN icon. Release the trigger, display reading with HOLD icon. Built in auto power off in 30sec.