wintact®

MODEL: **WT327A**
WT327B

Infrared thermometer
Instruction manual

Standaed:Q/HTY 004-2017
Version：WT327A/WT328B-EN-00

## A.Introduction

This infrared thermometer is used for measuring the temperature of the object's surface, which is applicable for various hot, hazardous or hard-toreach objects without contact safely and quickly.
This unit consist of Optics, Temperature Sensor Signal amplifier, Processing circuit and LCD Display.
The Optics collected the infrared energy emitted by object and focus onto the Sensor. Then the sensor translates the energy into an electricity signal. This signal will be turned out to be digital shown on the LCD after the signal amplifier and processing circuit.

B. Warning & Cautions

1. Warning:

To avoid the potential situation may cause harm or damage to people, please pay attention to the following items:
1). Do not point laser directly at eye or indirectly off reflective surfaces.
2). The unit cannot measure through transparent surfaces such as glass or plastic. It will measure the surface temperature of these materials instead.
3). Steam, dust, smoke, or other particles can prevent accurate measurement by obstructing by the units optics.

2. Cautions:

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

C. Distance to spot size
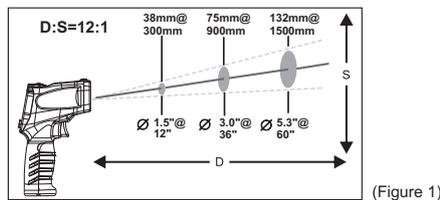
(Figure 1)

1. When take measurement, pay attention to the Distance to Spot Size. As the Distance (D) from the target surface increases, the spot size (S) of the area measured by theunit becomes larger.
The Distance to Spot size of the unit is 12:1.(Figure 1)
2. Field of view:
Make sure the target is larger than the unit's spot size. The smaller the target the closer measure distance. When accuracy is critical, make sure the target is at least twice as large as the spot size.

D. Emissivity

Emissivity: Most organic materials and painted or oxidized surfaces have an emissivity of 0.95(preset in the unit). Inaccurate readings will result from measuring shiny or polished metal surfaces.
To compensate for this, adjust the units emissivity reading 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.

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

E. Operation

1. Operating the unit:

1). Open battery door and load two 1.5V AAA batteries.
2). Pull the trigger to turn on the unit.
3). Aim at the target surface and pull the trigger, then temperature will be shown on the LCD.

This unit is equipped with a laser, which is only used for aiming.

2. Locating a Hot Spot:

To find a hot spot, aim the thermometer outside of interest, then scan across with an up and down motion until you locate the hot spot. (Figure 2).
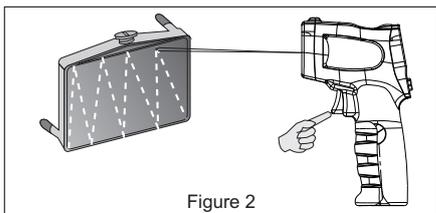

Figure 2

F. LCD display & buttons

1. LCD: as shown in Figure 3.

a.Temperature reading
b.Temperature units
c.Turning on state indicator of positioning laser
d.Back light on icon
e.Low battery indicator
f.Environmental temperature icon
g.Data reading indicator
h.Data holding indicator
i.emissivity icon
j.self-calibration icon
k.minimum icon
l.maximum icon
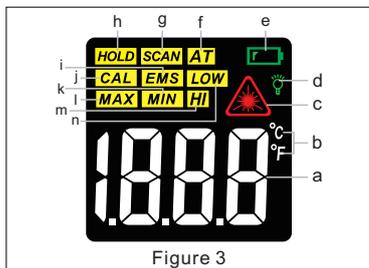m.Low temperature alarm icon
n.High temperature alarm icon

Figure 3

2. Names and functions of parts: as shown in Figure 4

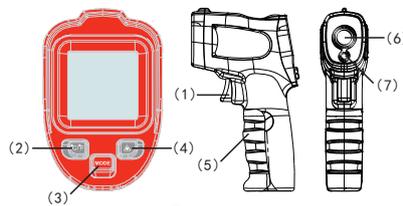

Figure 4

(1) Trigger: press it to display temperature value with SCAN appears at meantime. Release the trigger and enter into HOLD mode to save the data automatically, and the unit turns off automatically if there is no further operation.Built-in 7 sec auto power off function.
(2) Switch key between celcius degree and fahrenheit degree. This key can also be used for increasing value set.
(3) Mode switch key:press Mode key to switch modes in turn among MAX→MIN→AT→EMS→CAL→Hi→Low→MEASURING INTERFACE
  a. **MAX**: measuring maximum temperature
  b. **MIN**: measuring minimum temperature
  Note: In measuring, hold on the Mode key to swtich to Max or Min review.
  c. **AT**: current environment temperature
  d.**EMS**: emissivity that can be set between 0.10 and 1.00 with the ℃/℉ key and laser locating key
  e.**CAL**: Under self calibration mode, to calibrate the unit between -5.0℃ and +5.0℃
  f.**Hi and Low**: high temperature alarm and Low temperature alarm
  ①Switch to Hi or Low mode and adjust the setting of high or Low alarm points by using the key of ℃/℉ and the positioning laser key;
  ②When the measured temperature is greater than or less than the set point, the corresponding Hi symbol or Low symbol is displayed, and the "BI BI" sound is issued.
(4) Positioning laser switch: hold down the trigger,then press the positioning switch to close and open the positioning laser. In the Settings of EMS, CAL and high and low temperature alarm points, it can be used as a down-regulation function and the value can be rapidly reduced by long press.

(5) Battery door
(6) Infrared temperature sensing area
(7) Laser (assisted positioning)

G. Maintenence

1. Lens Cleaning:

Blow off loose particles using clean compressed air. Gently brush remaining debris away with a moist cotton swab. The swab may be moistened with water.

2. Case cleaning:

Clean the case with a damp sponge/cloth and mild soap.
Note:1) Do not use solvent to clean plastic lens.
     2) Do not submerge the unit in water.

H. Specification

LCD	Colorful LCD
Temperature range	WT327A:-50℃~400℃(-58℉~752℉) WT327B:-50℃~600℃(-58℉~1112℉)
Temperature measurement error	-50℃~0℃(-58℉~32℉) : ±3℃(±5℉) 0℃~600℃(32℉~1112℉) : ±1.5% rdg or±1.5℃(±2.7℉) Take the bigger value
Rrepeatability	1% rdg or 1℃Take the bigger value
Reponse time	0.5s, 95% Response
Emissivity	0.10~1.00 Adjustable(preset as 0.95)
D:S	12:1
Response wavelength	5um~14 um
No operation shutdown	About 7 seconds
Batteries	1.5V AAAbattery*2(No.7 battery)
Low power indicator	Low power indicator for power below 2.5V
Overload indicator	"Hi"/"Lo" displayed on LCD
Exceed upper/lower limits of work environment	"AH"/"AL"displayed on LCD
Working environment temperature	0℃~40℃(32℉~104℉)
Storage temperature	-10℃~60℃(14℉~140℉)

Specific Declarations:
Our company shall hold no any responisibility resulting from using output from this product as an direct or indirect evidence.
We reserves the right to modify product design and specification without notice.

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