



## Portable & Handheld Explosive And Narcotics Trace Detector

### TW-NE200

TW-NE200 portable explosive/narcotics trace detector is a narcotics and explosives detection device independently designed and manufactured by Safeway Inspection System Limited. Based on the principle of ion mobility spectrometry, it can accurately detect particles or vapor of trace amounts of explosives and narcotics, and give the ingredient names.

The instrument is small size and light, portable for carry. With low false alarm rate, low power consumption, easy to use and maintain, it features user-friendly and environmentally friendly, and produces fast and unambiguous results.

Due to the superior technical features and specifications including fast response, high precision, low power consumption, easy to operate and maintain, the detector is widely used for dangerous goods detection in airports, ports, customs checkpoints, border crossings, and crowd-gathered places, or used as a tool for forensic evidence examination and identification.



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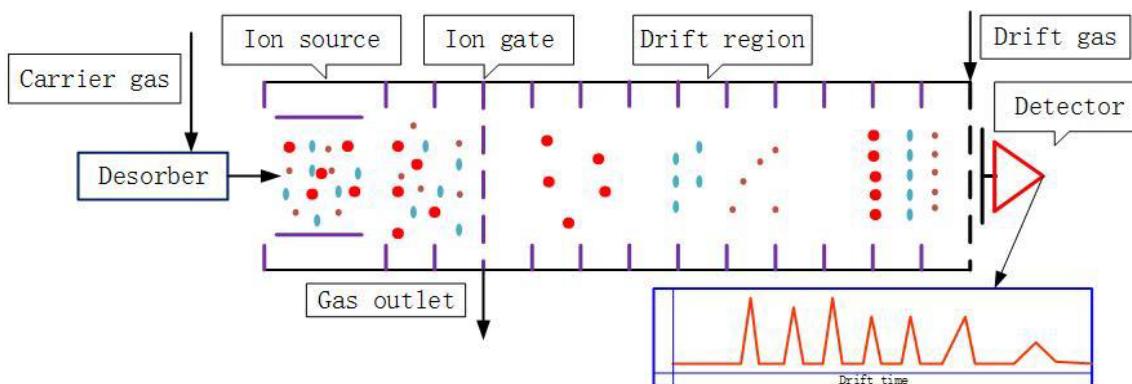
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## Theory of Operation

Safeway System TW-NE200 portable explosive/narcotics trace detector uses a reliable trace detection technology based on the ion mobility spectrometry. The core component of this device is the drift tube, which is schematically illustrated in Figure below. It mainly included a ion source, ion gate, drift region and detector.



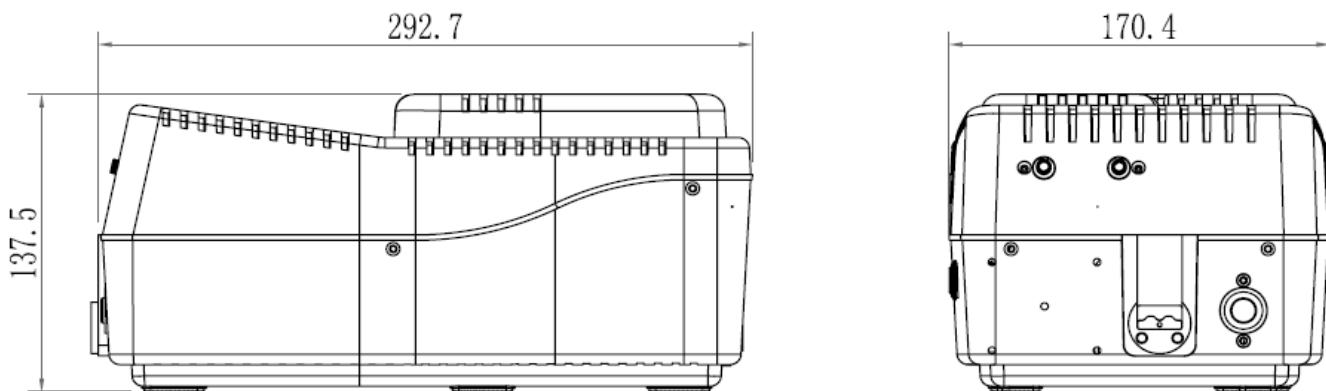
## Key Features

- **Dual-mode Settings :** The instrument combine the positive and negative two modes inside, which are respectively for the detection of explosives and narcotics.
- **One-touch Detection :** One-touch detection, easy to operate.
- **Precise Detection :** Based on Ion mobility spectrometry technology, in practice, the instrument don't need touch directly the dangerous target from the package to make a test. Target particles can be collected on clean and new traps by hand-wiping suspect with the trap, to facilitate a simple and precise detection.
- **Accurate Identification :** The instrument is able to accurately identify the name and ingredient name of dangerous materials.
- **Speedy Analysis :** Fast response, can give test result within 3 seconds.
- **Automatic Calibration :** The instrument is adaptive to various external environment changes with automatic calibration function.
- **Automatic Cleaning :** With automatic cleaning function, after overload detection, the instrument can quickly and easily clean itself.



## Key Features

- **Automatic Diagnosis :** With automatic fault diagnosis function, and real-time warning, the user can identify whether the instrument operate properly.
  - **Automatic Printing :** With print function, the user can easily print out the content when necessary.
  - **Real-time Updates :** With an open date base, the sample data can be upgraded at any time.
  - **Real-time Storage :** With real-time data storage, retrieval, export and other functions, the storage capacity is not less than 1 million.
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  - **Remote Monitoring :** Remote status monitoring, result viewing, fault diagnosis and other functions can be realized through the network.
  - **Full Color Screen :** Equipped with 5.6 inch TFT color touch screen.
  - **Low cost Consumables :** Molecular sieve-based desiccant is low cost and easy to replace.
  - **Strong Packaging :** Goods packed by safety box with lining inside, with firm master carton outside.
  - **Carefree After-sale Service :** 24-hour service call at any time to provide technical support for customers.
- Contact your sales team if any engineering support required for installation and maintenance.



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## Substance List detectable for TW300A

### Narcotics

- COCAINE
- HEROINE
- THC (cannabis)
- METHAM(Methamphetamine)
- Ketamine hydrochloride (K powder)
- Morphine hydrochloride (morphine)
- ethidine
- Ecstasy (MDA)
- Papaverine
- Ecstasy (MDMA)
- Methyl ephedrine
- Metformin
- Synthetic ephedrine (K2)
- Shakeballs (lysergic acid diethylamide, LSD)
- Triazolam
- Pentachlorophenol
- Amphetamine
- Fentanyl
- Diazepam
- Phencyclidine (PCP)
- N-ethyl-1- (3,4-methylenedioxyphenyl) -2-propylamine (MDEA)
- Cassione
- Dihydroetorphine Hydrochloride (DHE)

### Explosives

- TNT (Trinitrotoluene)
- RDX (Cyclotrimethylene trinitramine (C4))



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## Explosives

- PETN (Pentaerythritol tetranitrate)
- NITRO (nitroglycerine, ethylene glycol dinitrate)
- AM NO<sub>3</sub> (ammonium nitrate)
- Black powder (sulphur)
- 2,4- Dinitrotoluene
- Tetry
- Octogen
- Picric acid
- NA
- Composition C-4
- Semtex
- TATP
- HMTD
- Nitroguanidine
- HNS
- EGDN
- DEGDN
- PGDN
- 3,4- Dinitrotoluene
- 2,6- Dinitrotoluene
- 3,5- Dinitrotoluene
- 2,3- Dinitrotoluene
- 2,5- Dinitrotoluene
- 1,3,5- trinitrobenzene
- 2,4,6- trinitrobenzene
- 4-nitrotoluene
- 2,3-dinitrobenzene; 2,3 Dimethylbutane
- PYX
- 2.4. 6-TATB



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## Parameters

Accuracy rate	≥ 99%
False alarm rate	<1%
Detection limit	50pg cocaine hydrochloride; 50pg TNT
Analysis time	≤ 3 seconds
Warm up time	<5 minutes
Alarm Recovery time	<15s
Working environment	20°C~60°C 99% relatively humidity
Battery	Lithium battery pack 14.8V/6700mAh continuous power supply no less than 3 hours
Outside dimensions	290mm(L)×170 mm(W)×145 mm(H)

## Standard Accessories

Name	Quantity
TW300A instrument	1 unit
Traps	4 boxes
Calibration stick	2 pcs
Power Adapter	1 pc
Hand-wand	1 pc
Vacuum sampler	1 pc
GPS and GSM antenna	1 set
Touch pen	1 pc
Tools	1 set
Gloves	1 box
User manual	1 pc



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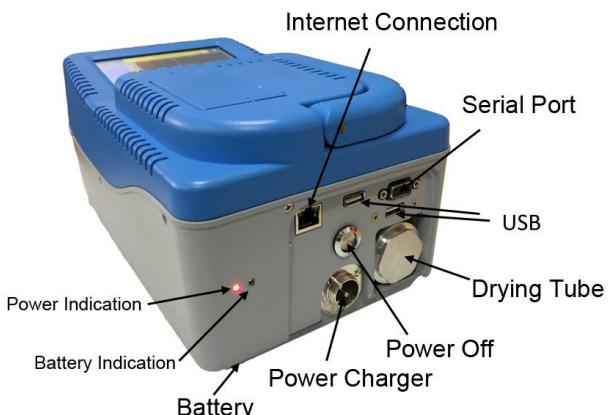
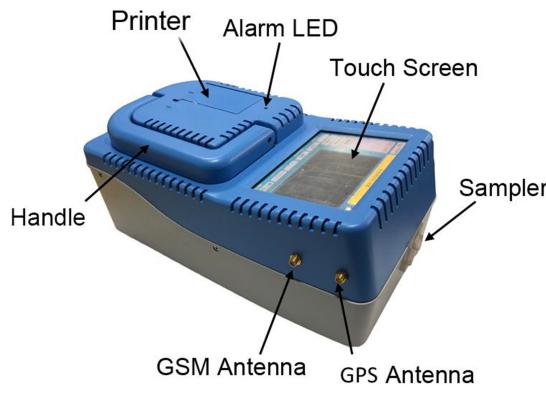


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## Dimensional Drawing



## TW-NE200 Structure

- The drift tube: It is the core component of TW-NE200, where samples can be tested. The drift tube sealed inside the device.
- The Sampler: Traps inserted here for thermal analysis of the sample particles on the trap surface. There are high temperature components in the desorber, which can evaporate and analyze the material particles on the traps. There is also an optical detection sensor to detect if a trap is inserted.
- Touch screen: TW-NE200 is equipped with a 5.6-inch color touch screen. All the functional operations are achieved through the touch screen.
- Printer: built-in thermal printer to provide instant testing results. Test and calibration results, history and spectral data can be printed.
- Alarm lights: This light flashes once suspicious things are detected.
- GPS antenna interface: used to connect the GPS antenna to enhance the positioning signal.
- Antenna interface: used to connect the GSM antenna to enhance the communication signal.
- Handle: used to carry the device. It is foldable to facilitate the operating.
- Drying tube: used to remove moisture and pollutants in the gas, in which the filtering particles can be replaced regularly.
- Power supply connector: For supplying the power or charging the built-in battery.



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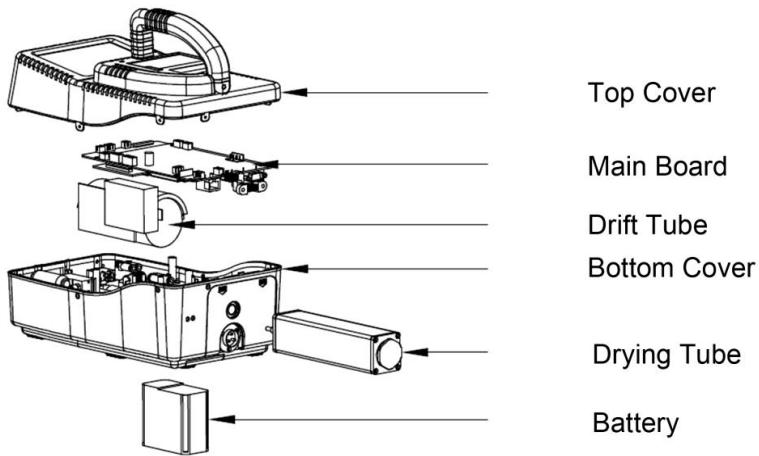


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 **Head Office :** D-162, Okhla Industrial Area Phase I,  
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 **Regional Office :** Mumbai, Bengaluru, Ahmedabad,  
Chennai, Kolkata.

**International Office :** Dubai

**Disclaimer :** All pictures shown are for illustration purposes only. The actual product and color may vary due to product enhancement. The brief specification is mentioned and may change without prior notice. Please consult us before placing any order.