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# Criminalistics, Inc.

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## SID<sup>TM</sup>

### Suspected Item Disposal



*The Foremost Explosive Device  
Transport System*

## Delineation of SID 500 F1

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|--------------------------------|-------------------------|
| ●* General Information         | ●* Specifications       |
| ●* Farawa <sup>TM</sup> System | ●* Pricing and Warranty |
| ●* Training and Delivery       | ●* Certification        |

*Available under GSA Contract # GS-07F-9557 G*

We are proud of SID™, the world's first commercially produced explosive device transport system. Since its conception in 1971, it has been put to use by over 100 agencies worldwide and is renowned as the premier explosive disposal device. We urge your serious consideration of the following aspects that make SID™ what it is today: a proven life saver.

We certify the capabilities of SID™ and offer the results of independent and extensive testing conducted by the U.S. Army under the auspices of the eminently qualified National Bomb Data Center (see Bulletin 44-72). This testing also depicts the levels of Peak Incident Pressures inside a simulated towing vehicle at the driver's eardrum during detonations; incident and reflective pressures on a typical city street that could cause damage to buildings and injuries to citizens. This testing also establishes the limits of SID™'s ability to contain explosive forces of the highest detonating velocity for "worst case" situations.

The legal ramifications, commonly espoused as "the deep pockets theory" by those eager to sue, are inherent with device disposal activities by government agencies. This dictates that an independently tested and proven system be chosen for the best legal posture.

SID™ has over 36 years of service and is distinguished as the first – for years the only – system donated by a private corporation for demonstrations and uses at the Hazardous Devices School at Redstone Arsenal, Alabama.

SID™ has safely controlled the detonation of up to 20 pounds of explosives such as: TNT, Composition four or high density primers.

SID™ is the unique bomb trailer designed with a specialized head and replaceable inner cylinder to facilitate continued long term use after extreme detonations. For convenience, SID™ has two large storage compartments and a canvas top for the blast chamber.

Compact in size, this highly mobile trailer can be precisely maneuvered in tight, narrow streets. **SID™** comes equipped with:

- \* four wheel electric brakes with an electronic control center for the towing vehicle,
- \* battery powered brake-away system that automatically stops the trailer in the event that it becomes separated from the towing vehicle.

Due to its compact design and inherently stable characteristics, SID™ is easily towed at 90 m.p.h. by a standard pickup. Constructed with a versatile suspension system that facilitates mobility, this disposal system can be realistically towed over rough terrain and sharp curbs. These features allow SID™ to go directly where it is needed most, quickly and effectively. Saving lives for over 36 years with proven service with over 100 agencies, SID™ is ready to work for you.

# Farawa™

## The New Explosion in Officer Safety!

When it comes to safety, we know exactly what it means to you. For this reason we have designed Farawa™, a major officer safety system for SID™. In fact, it is the most advanced remote loading/unloading system available today. It remotely controls the loading/unloading of devices up to 500 feet by coded radio, and up to 100 feet distance with cable (200 feet with the addition of an extension cord). The operator never needs to be any closer to the transport system than the towing vehicle.

Once an item is secured, Farawa™ moves the device to the blast chamber. Farawa™ controls the winch and the swing of the hoist arm which is programmed to automatically stop at two positions; the farthest pick up point and the direct center of the blast chamber.

Farawa™ can be easily operated by one person with minimum training. To load a device, all that is needed is a simple flip of a switch on the radio control unit or the towing vehicle. This will raise the hoist arm up and lock it into position. Once the device is remotely loaded by radio or cable controls, lower the hoist arm into the travel position and just leave the device attached to the hoist cable for easy removal at the proper disposal site. The use of Farawa™ remedies the OLD problem of what to do with the device once it is in the chamber. HOW DO YOU SAFELY GET IT OUT? This new system is the answer that eliminates the need for you to approach SID™'s Blast Chambers.

**BONUS:** Farawa™ can be adapted to almost any bomb transport system. Call us for details regarding the compatibility of Farawa™ with other trailers.

## Training and Delivery

SID™, our explosive device transport system, is produced within 90 business days. Upon our completion of your trailer, Criminalistics, Inc., will provide one round trip airfare to the production site, from within the United States, and one night's lodging for a representative from your squad, who will engage in a one day intensive training program with the SID™ and Farawa™ Systems. Your representative will be counselled by the manufacturer on the use and complete maintenance procedures of the systems. Additional representatives may attend the training program at your expense.

Your representative should be prepared and authorized to inspect and accept delivery of the system during this training period.

In the unlikely event that something is found to be unacceptable, immediate corrections will be made.

SID™ Explosive Device Transport System will be shipped to your agency after inspection and payment. Due to location some purchasing agencies have found it desirable and cost effective to pick up SID™ during this training period. We are willing to work with you on your requirements.

## SID™ 500F1 SPECIFICATIONS

Trailer Dimensions . . . . . Length: 15' Width: 6'-3"  
Height: 6'-1" Weight: 5,000 lbs.  
(see Robot Housing Option)

Frame . . . . . (2) 10" structural steel channels,  
<sup>3</sup>/<sub>16</sub>" web with 1½" flange and 5  
steel support crossmembers.

Platform Area . . . . . ½" steel plate welded to  
trailer chassis.

Fenders . . . . . Full tandem axle fenders with 14  
gauge formed steel wheelwell  
housing. Easily detachable for  
painting and servicing trailer.

Jack Stand . . . . . Swivel mounted on driver side of  
tongue.

Standard Ball Coupler . . . 2<sup>5</sup>/<sub>16</sub>" size ball , 14,000 lbs. capacity (other coupler types available upon request). Adjustable height.

Blast Chambers . . . . . Two closed-bottom steel cylinders, one within the other. Outer cylinder: ½" thick welded steel, 4' diameter, 4' height, welded to chassis platform. Inner cylinder (replaceable): 1" thick welded steel, 3' diameter, 3'-8" height. Both cylinders are high-grade steel, mill test reports and certificate required by us on all chamber steel. Inner cylinder is outfitted with a custom head (no corners) and suspended in the outer cylinder by a rubber guide system comprised of nine rubber guides. There is no metal-to-metal contact between cylinders. The inner chamber, outside of its normal environment, has contained detonations of 20 lbs of a very dense explosive -detonation velocity 24,000 ft/sec. (see pages 10, 12 of Technical Bulletin 44-72)

Axles . . . . . Dual 4" drop axles rated at 6,000 lbs. each dampened by hydraulic shock absorbers.

Brakes . . . . . Four wheel, 2" x 12" electric brakes with an electronic brake controller center for towing vehicle.

Emergency Breakaway System . . . . . Four wheel emergency breakaway system.

Tires . . . . . H78 x 15, load range D 8 ply rated including one spare tire.

Tool Compartments . . . . . 3 tool compartments. Two aluminum, 48" top mount, 2 locks on each. Aluminum tool boxes lined with foam flooring. One "in deck" tool compartment 2' x 4' x 10" deep, gas lifts to open & hold open. Quality keyed paddle latches. (Robot Box replaces 1 tool compartment)

Suspension . . . . . Tandem suspension, can be towed over curbs and rough terrain. Hydraulic shock absorbers.

Factory Training . . . . . Criminalistics, Inc., will provide one round trip airfare to the production site from within the United States, and one night's lodging for a representative to engage in a one day intensive training program on the use and maintenance of SID™ and Farawa™.

Certified Blast Control . . . Based on extensive in-house testing along with independent testing by the U.S. Army under the auspices of the National Bomb Data Center, SID™ is certified to sustain a blast equal to 33 sticks of 60% dynamite (1¼" x 8") at sea level and 70 degrees Fahrenheit.

Independent Testing by the U.S. Army . . . . . Extensively tested by the U.S. Army under the auspices of the National Bomb Data Center, this unit safely controlled the detonation of up to 20 lbs of TNT and High Density Primers published in Technical Bulletin 44-72.

Proven Performance . . . . . SID™ is the only system with over 36 years of documented life saving service to over 100 agencies worldwide.

Robot Housing Option . . . Trailer with robot housing option: length: 18', width: 6'-3", height: 6'-1". Custom aluminum robot housing with locking doors, four tie downs, and loading platform and ramp. Box size: height: 56", floor width: 44", floor length: 60"



# "FARAWA™" SYSTEM SPECIFICATIONS

## SID™'s Remote Loading/Unloading Farawa™ System by Radio and/or Cable System

### Hoist Arm with Cable

**Guides, Sheaves** . . . . . Tubular steel, bends reinforced, sheaves for cable feed, bearing pivot point.

**Hoist Base and Mount** . . 3/8" flat steel plate with bearing hub for ease in rotation.

**Warn Works 1700 Winch** Working Load: 1700 lbs. Horsepower: 1.9 HP 3.0" Dia., Voltage: 12V DC, Gear Ratio: 222:1, Gear train: Split ring, Multi-directional operation, Brake: Self Locking and dynamic, features: clutch lever that places winch spool in freewheeling mode if lever is engaged. See owners manual for details. Length: 10.0", Weight: 18 lbs., Wire Rope: 5/32" X 35'. **Warning: Clutch lever will place winch spool in freewheel operation.**



### Winch Ball

**Photoelectric Sensor** . . . . Banner Mini-Beam 2-QS12 Series Miniature Photoelectric sensor, uses

advanced miniaturized microprocessor based circuitry, uses digital pushbutton sensitivity adjustments IP67 and NEMA 6 environmental ratings.

### Actuators and Mounting

**Horizontal Actuator** . . . . Performs left/right swing of hoist arm. Load: rated at 200 lbs at 24 Volts DC, Operation Temp: -30° F to + 122° F, Waterproofing: Epoxy powder coated steel tube and high grade plated hardware. Has a built-in adjustable limit switch.

### Horizontal Actuator

**Mount** . . . . . Steel bracket for mounting actuator.

**Vertical Actuator** . . . . . Performs the raising/lowering of hoist. Same specs as the horizontal actuator.

### Controllers

#### Integrated Hardwire and RF

#### Transmitter Control Box

**and Receiver** . . . . . A single Farawa Control Box has both hardwire and RF functions. A 100' of cable can be attached to control actuator right, left, up, and down of the hoist arm. It also controls winch in and out functions. Simple extension cables may be added, giving 200' of cable control.

The RF transmitter function performs the same operations as the hardwire, but can go up to a 500' range. It uses a pulse width modulation, 8 Bit word giving 256 codes. The antenna for both the receiver and transmitter are custom tuned to deliver maximum range and performance.

**Battery Charger** . . . . . Dual function charger for hand held radio transmitter when plugged into AC. Automatically monitors the battery condition and switches to float when battery is charged. Please note this charger can be used on the New **Enspecta™** System, reducing the **Enspecta™**'s cost.

**External Shore Power** . . Power inlet located on the front driver side toolbox will supply power to the onboard AC battery charger. This will also supply power to the optional robot box via an outlet internal to this box.

**Static Strap** . . . . . Installed at the bottom rear of the trailer. Will conduct dangerous levels of static charge build up safely to ground, which may prevent premature detonation of the suspected item.

The Farawa™ System is designed for ease in maintenance. All functions can be checked with a standard voltmeter.



## SID™ Self Contained Power System

**Battery and Housing** 12 Volt gel cell battery. 625 Amp Hours. Battery encased in plastic battery box, enclosed in a steel battery case constructed in the underside of the trailer chassis.

**Circuit Breaker** . . . Quality, 50 Amp circuit breaker mounted in driverside tool box backplane. May be reset by operater.

### Automatic Battery

**Charger** . . . . . AC Battery tender (022-0076-1) mounted in drivers side tool compartment. Automatic Float/Charge.

**Input Voltage: 90 to 132 VAC**

(European Input Voltage available upon request)

**Nominal Output: Voltage: 12 Volts Current: 6 Amps**

**Charger Output:** Maximum power @23°C 70 Watts (+2, -5) Watts.

Maximum current during bulk charge 6.0 Amps (+/- 10%) Amp output.

Absorption Voltage: 14.5VDC = (2.422 vpc) Absorption to Float Transition: Charge

Current drops: below 3.0 Amps.

Equalization Voltage: N/A

Float Voltage: 13.2 VDC = (2.2 vpc)

Electrical Isolation:

Input/Output: 2500 VAC

Input/Chassis: 2500 VAC

Output/Chassis 500 VAC

Operation Temp: -20°C to 50°C

Dimensions: 5 in L (127) x 4.9 in W (125) x 2 in H (51)

Weight: 21 oz.

Enclosure: Powder Coated Aluminum Chassis

Special Features:

Short Circuit Protection: Yes

Reverse Polarity Protection: Yes

Spark Proof: No

Temperature Compensation: No

Agency Listings: UL, ETL, CSA

### Solar Panel with

**Regulator:** . . . . . MSX10L Lite Module.

Maximum Power (W) 10

Open Circuit Voltage (V) 21.0

Short Circuit Current (A) 0.65

Voltage at Load (V) 16.8

Current at Load (A) 0.59

**Control Regulator** supplied to prevent overcharging and discharge during period of darkness.

Under certain conditions, a module may produce more current or voltage than reported at STC. Accordingly, a modules open circuit voltage and short circuit current at STC should be multiplied by 1.25 when determining components ratings and capacities. (STC - Standart Test Conditions)