



# *B.O.S.S. II 5s*™

Body Orifice Security Scanner

US Patent Numbers 4677384 & 5521583. Others Pending

## OPERATOR'S INSTRUCTION MANUAL



Ranger Security Detectors, Inc.  
11900 Montana Avenue  
El Paso, Texas 79936 U.S.A  
Telephone: 915-590-4441  
Fax: 915-592-1043  
Web site: [www.rangersecurity.com](http://www.rangersecurity.com)  
E-mail: [support@rangersecurity.com](mailto:support@rangersecurity.com)

Version 2.0 Rev. 02

# BOSS II 5s Manual Contents

## Table of Contents

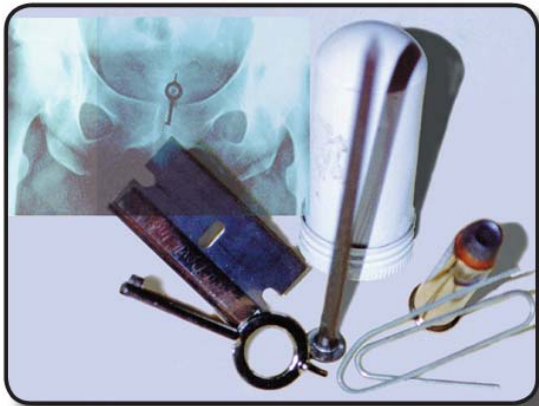
<b>1. Introduction</b>	<b>3</b>
Introduction	
<b>2. Using the BOSS II</b>	<b>4</b>
Detection-Zones	
Power-Cord-Socket	
<b>3. Alarm Display Panel</b>	<b>5</b>
Alarm-Display-Panel	
<b>4. Abdominal, Rectal, and Vaginal Screening</b>	<b>6</b>
Abdominal,-Rectal,-and-Vaginal-Cavity-Screening	
<b>5. Foot Screening</b>	<b>7</b>
Foot-Area-Scanning	
<b>6. Oral Cavity Screening</b>	<b>8</b>
Oral-Cavity-Screening	
<b>7. Menu Settings</b>	<b>9</b>
Setting-the-Sensitivity	
Setting the Volume	
Setting Alarm Tone	
Setting Target Filter	
Changing the Pass Code	
Changing the Frequency	
<b>8. Transporting the B.O.S.S Chair</b>	<b>11</b>
Transporting-the-B.O.S.S.-Chair	
<b>9. Technical Support</b>	<b>12</b>
Technical-Support	
<b>10. Contact Information</b>	<b>13</b>

## 1. INTRODUCTION

B.O.S.S II 5s is a fast reliable, simple to use, non-intrusive scanning system designed to detect small weapons or contraband metal objects concealed in abdominal cavity, rectal-vaginal cavity and shin area. High precision, non-contact, measurement sensors are housed in the frame of rugged Baltic Birch wood that is coated in RF resistant paint for improved EMI rejection. The sensors provide instantaneous, high sensitivity detection, most ferrous and non-ferrous metals and alloys are detected.

**B.O.S.S II 5s is applicable for both law enforcement and loss prevention applications:**

- . Prisons, jails and detection centers
- . Customs and Border Patrol Facilities
- . Precious metal mines and refineries
- . Jewelry and watch manufacturing industries
- . Electronic manufacturing



**B.O.S.S. II 5s** contributes to a safe environment for officers and inmates in correctional facilities as it helps to prevent and deter the entry of weapons. Inmates soon learn that objects such as razor blades, knives, shanks, tools, handcuff keys, etc. will be detected. Security officers now have an alternative to the unpleasant task of conducting routine manual cavity searches and associated administrative work. Because the inspection is non-contact, issues that can arise from invasive searches are reduced.

**B.O.S.S. II 5s** can also be used in loss prevention applications. It detects items such as gold shot, rings, watches and microelectronic components. Measurements of metal mass allow accurate comparative testing as people enter and exit a secure production area.

The chair configuration ensures accurate position of the subject for detection of any metal object concealed in the body cavity. Relative to a walk-through or hand held scanning device, a much higher measurement of precision is possible.

## 2. Using the BOSS II

### Detection Zones

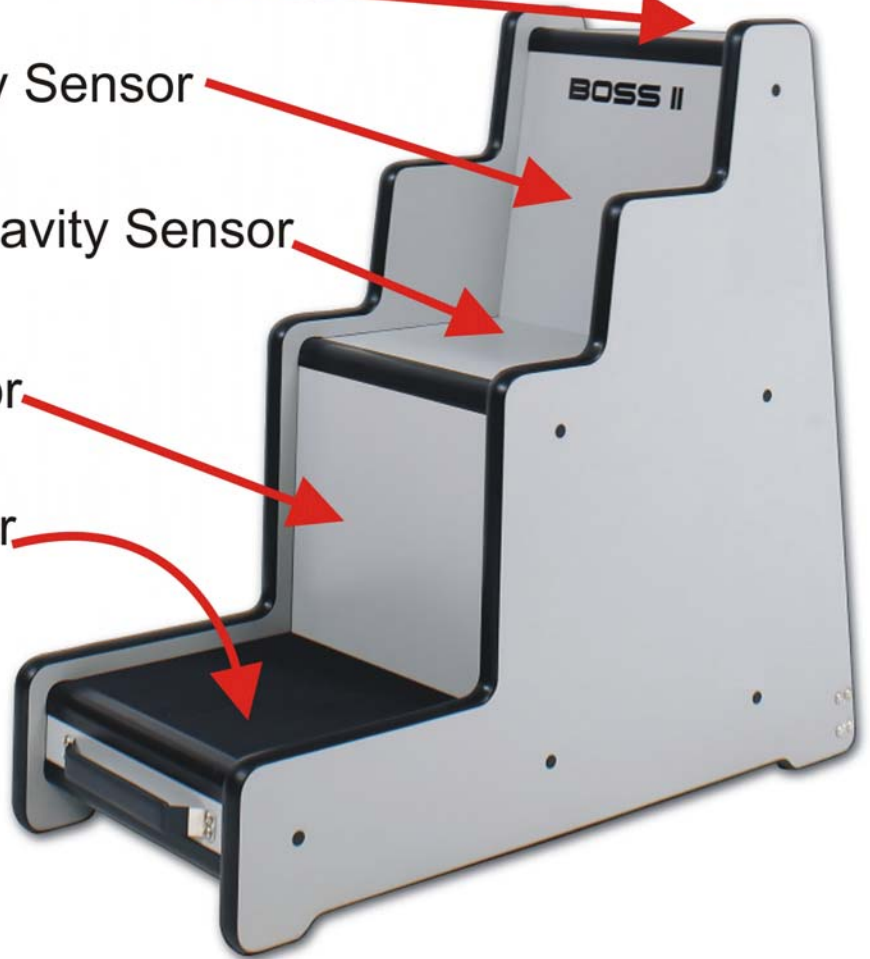
1. Oral Cavity Sensor

2. Abdominal Cavity Sensor

3. Rectal-Vaginal Cavity Sensor

4. Shin Area Sensor

5. Foot Area Sensor



### 3. Alarm Display Panel

Each of the BOSS II 5s detection zones alarm status

Is identified by a green and red L.E.D. (Light Emitting Diode).

The L.E.D.s indicates the activity in the zone.

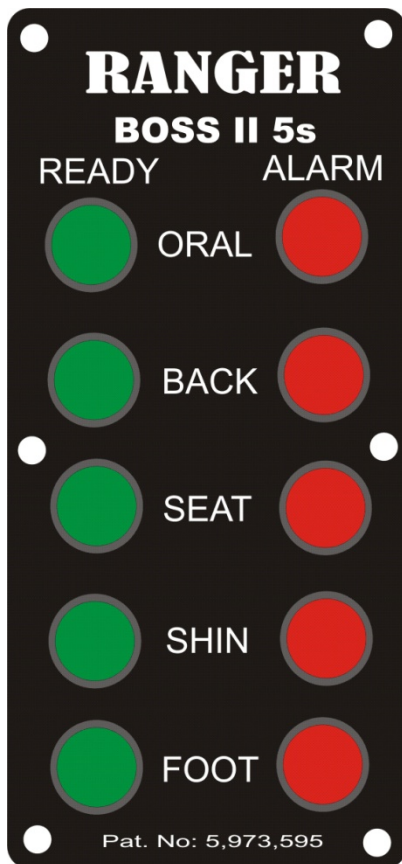
The Green L.E.D.s indicates the zone is in READY state (operational).

The illumination of Red L.E.D. indicates the system is in the ALARM.

State and the zone sensor indicating that it has detected the presence of metal within the detection zone (the sensor(s) is detecting a target).

When the BOSS II 5s is turned on it undergoes a self calibration, the L.E.D.s will come on with one Audio alarm at the end of the self test.

Now the BOSS II 5s is ready and in the scanning mode.



Power Cord Socket

#### 4. Abdominal, Rectal, and Vaginal Screening

When a subject sits on the BOSS II 5s their feet, legs, lower cavity(s) and abdominal region are scanned by a very low intensity magnetic field.

Therefore intrusive manual scanning is not required.

The magnetic field poses no danger to persons with a heart pace maker or affects pregnancies.

The BOSS II 5s alarm is activated when a person is carrying a concealed metal object and moves within range of the detection field.

When the object is detected, the audio alarm and the corresponding visual alarm (L.E.D.) will be activated.

The visual alarm may be in more than one zone. If a multi zone visual alarm is triggered, it indicates that the target is being detected by more than one scanning zone.

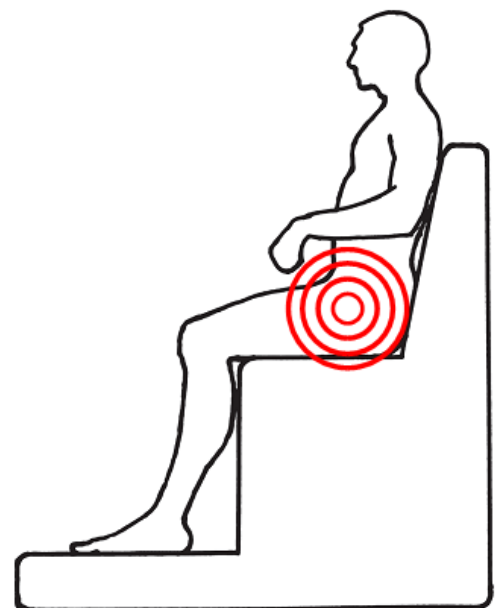
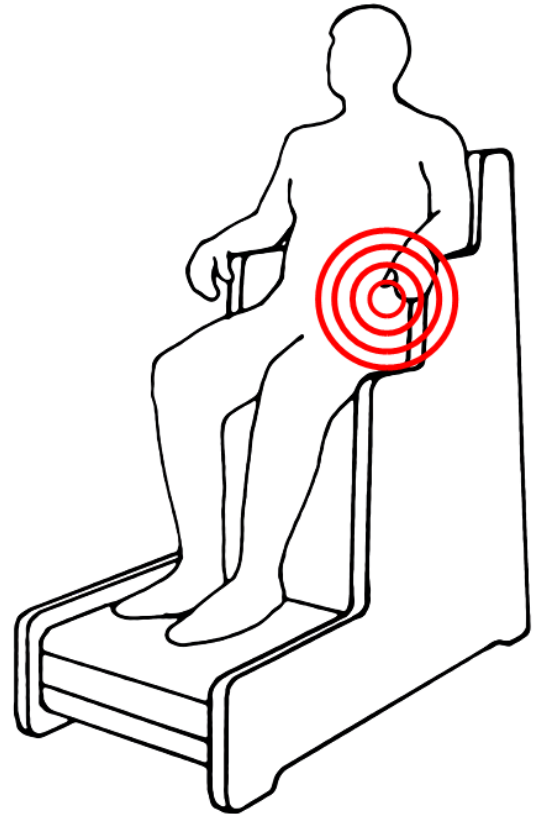
If the zone are adjacent to each other this indicates the subject may be concealing a large object.

If the zones are not adjacent and a multi zone alarm is triggered this indicates the subject is concealing objects in multiple areas of the body.

Remember, the detection of metal object occurs when, the object moves through or near the scanning zone.

The alarm stops when the object stops moving though the scanning field. Five (5) seconds or less sitting is enough time to detect a target.

It is not recommended to allow the subject to sit on the BOSS II 5s for an extended period of time and expect to detect a target.

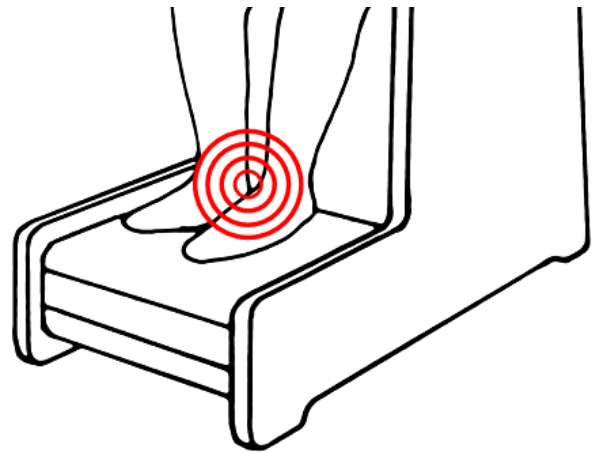


## 5. Foot Screening

### Foot Area Scanning

The Foot Detection Area can be used in two manners.

1. In the Sitting position – For optimal detection the feet should be centered from back and side to side on the detection zone and separated approximately two (2) inches apart.



2. In the Standing Position – If the operator is scanning both feet at the same time the same procedure should be used as if the subject were sitting.

**Note:** If the operator is scanning one(1) foot at a time, the best foot position is with the foot centered front the back and with the center of the foot position two (2) inches off center right or left on detection zone.

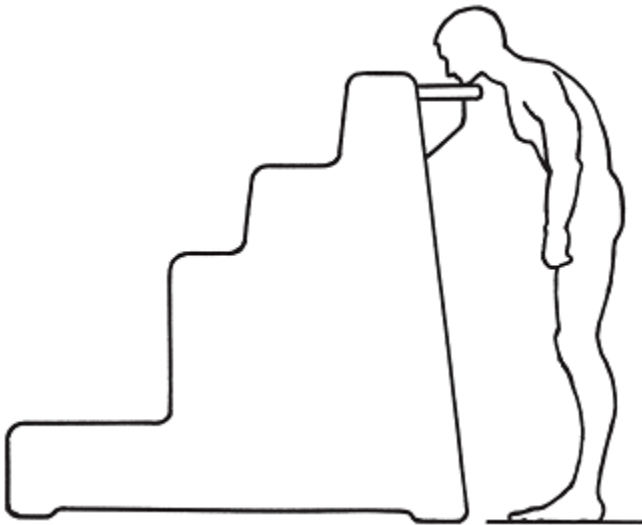


## 6. Oral Cavity Screening



Oral Cavity Screening

When scanning the oral cavity, the subject should be positioned as illustrated in the diagrams and photos on this page. The subject should first place their chin on the detection surface, and then position the head on one side then the other side.





## 7. MENU SETTINGS

Operating parameters can only be accessed by an authorized person. Entry into the operating menu is gained by entering a six-digit pass code via the keypad. The scrolling display program stops when the first digit of the pass-code is entered. After accessing the menu if no keypad changes are made within a five minute period access to the operating parameters is automatically terminated. The display reverts to the scrolling mode.

The **default PASS CODE** is **123456** and press ENT. This code can be changed to a different one. See change PASS CODE for more information.

Once in the main menu by pressing M↓ or M↑ the menu setting can be display.

### SETTING THE SENSITIVITY

In the main menu go to **SENS %** and select the desired sensitivity and press **ENT**.

The sensitivity can be change from 1 to 99.

1 is the lowest sensitivity and 99 is the highest sensitivity.

### SETTING THE VOLUME

In the main menu, select **ALM Vol =**. Set the alarm level that best meet your needs and press **ENT**. 0 no sound and 7 is the highest volume.

### SETTING THE ALARM TONE

In the main menu, go to **ALM Tone =**. Select from tones 1, 2, 3. And press ENT.

### SETTING ALARM HOLD

To change the alarm hold, go to **ALM Hold =**, and select 1 to 99 and press **ENT**.

The alarm hold sets the time of red LED illumination. This LED illuminates when a Zone goes to alarm. The time of alarm can be set from 1 to 99.

### SETTING TARGET FILTER

To change target filter in main menu go to **Tgt Fr 0-8=**. Select new filter number and press **ENT**.

Sets the amount of low frequency filtering needed to reduce noise in the target spectrum.

### CHANGING THE PASS CODE

The pass code can be changed from the factory default code to the one you decide.

To change the pass code in the main menu go to New OP PC: and press your new pass code twice, press Esc and enter your new Pass Code to enter main Menu.



## CHANGING THE FREQUENCY

The frequency of the BOSS chair can be changed in order to have multiple units operating in the same area. Another reason to change the frequency is to avoid false alarms.

In order to change the frequency, in the main menu go to **SKW frg 0-8=** and select a different frequency from 1 – 8 and press **ENT**.

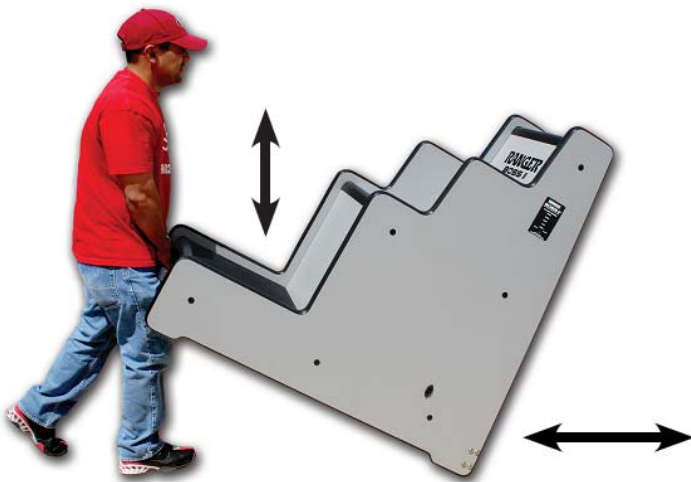
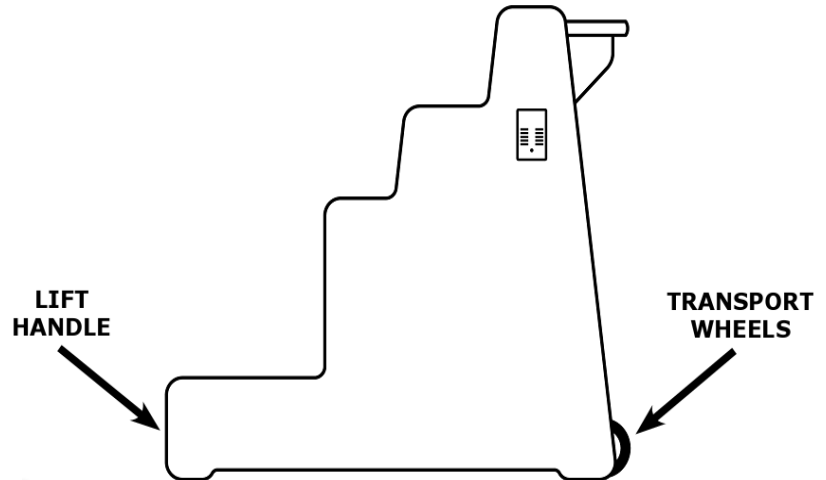
## SPECIFICATIONS

Power Requirement:	115-240 VAC / 47 to 63Hz.
Weight of B. O. S. S. II 5s:	210lb. (95.25kg.)
Dimensions:	53x50 inches (134.6x127 cm.)
Shipping Weight:	385lb. (174.63kg.)
Shipping Dimensions:	58x54x29 inches (147.3x137.2x73.7 cm.)

## 8. Transporting the B.O.S.S chair

### \*\*\* Caution \*\*\*

The BOSS chair is heavy and weighs 210 lbs (95.45 Kilograms). Please use precautions when lifting the BOSS chair for transporting. It is highly recommended to use a back support for heavy lifting. Persons with back injuries should not transport the BOSS chair.

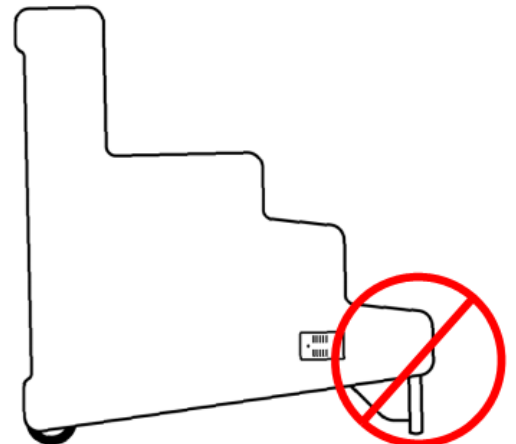


The BOSS Chair can be transported by taking hold of the lift handle and lifting straight up until the wheels make contact with the floor or ground. Simply pull the chair backward or push forward to desired location. Gently place the chair to its upright position; dropping the chair can cause damage to the chair.

### \*\*\* Caution \*\*\*

Do not tip the BOSS Chair completely forward; this can damage edge of the Oral Sensor as it is not designed to bear the weight of the BOSS Chair.

**Note:** *Battery powered option is available for this unit. If unit is purchased with the battery option, please charge battery for eight hours prior to first time use.*



## 9. Technical Support

### The Most Frequently Asked Questions.

**Question:** Will the use of the BOSS II 5s affect a person who may be pregnant?

**Answer:** No. The BOSS II 5s uses a very low intensity magnetic field which has no ill effects on an unborn child.

**Question:** Will the use of the BOSS II 5s affect a person who uses a heart pace maker?

**Answer:** No. The BOSS II 5s use a very low intensity magnetic field which has no ill effects on the electronics of a device like a peace maker.

**Question:** Who uses the BOSS II 5s Security Detection System?

**Answer:** The main users of the BOSS II 5s are mostly Criminal Correctional Facilities. Secondary users are Precious Metal Mines and some special Loss Prevention Applications.

**Question:** What is the Warranty on BOSS II 5s?

**Answer:** Ranger Security Detectors, Inc. warrants the BOSS II 5s against defects in workmanship and material under normal use for a two (2) year period from the date of purchase to the original user. Liability in all events is limited to the purchase price paid. Liability under the aforesaid warranty is to replace or repair at Ranger's option, units shipped cost prepaid to Ranger Security Detectors El Paso, Texas factory.

### RMA

#### Return Merchandise Authorization (RMA)

1. Contact Ranger Security Detectors, Inc to request an RMA number.(please have serial #)
2. An RMA Number is required for any repair or returns.
3. RMA Number must be identified on outside of box/package.
4. Merchandise will not be accepted without an RMA.

**10. Contact Information.**

Ranger Security Detectors, Inc.

11900 Montana Avenue

El Paso, Texas 79936

Website: [www.rangersecurity.com](http://www.rangersecurity.com)

E-mail: [support@rangersecurity.com](mailto:support@rangersecurity.com)

Telephone Number: (915) 590-4441

Toll Free Number: (800) 852-8266

Fax Number: (915) 592-1043

**RANGER**<sup>TM</sup>  
SECURITY DETECTORS  
*ALWAYS ON TARGET*

