BALLISTISCAN V2 USER'S MANUAL (202303)

Welcome to the BallistiSCAN V2 User Manual. In this document, you will learn how to quickly set up the BallistiSCAN system, change the detection sensitivity and troubleshoot common issues.

Please be advised that the end user (user) assumes all risk in the use of the BallistiSCAN metal detector platforms. Use of the BallistiSCAN platform confirms that you accept all risk and will hold BALLISTIGLASS LLC harmless for any eventualities arising from the use of any BallistiSCAN platform. If you do not accept the risk, please immediately notify BALLISTIGLASS LLC for a return authorization. A full refund will be issued if BALLISTIGLASS is notified within the first 10 days of ownership. No refunds will be issued after one calendar month of ownership. Please note: the BallistiSCAN comes with a one-year warranty covering parts and labor for any system defects. Additional extended warranty plans are available.

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QUICK START PROTOCOL

1. **SET UP SENSORS ON BARRIER POLES**

   Setting up the BallistiSCAN V2 is very easy. Once you open the case and undo the Velcro straps securing the power cord and two sensor cables, affix the sensors to the barrier poles using the provided 3M Dual Lock strips. Align the sensors 48 inches (1.2 meters) apart. Do not concern yourself with which sensor goes to which side. Either can go on the left or right side. Pedestrian traffic can go in either direction.

Top View
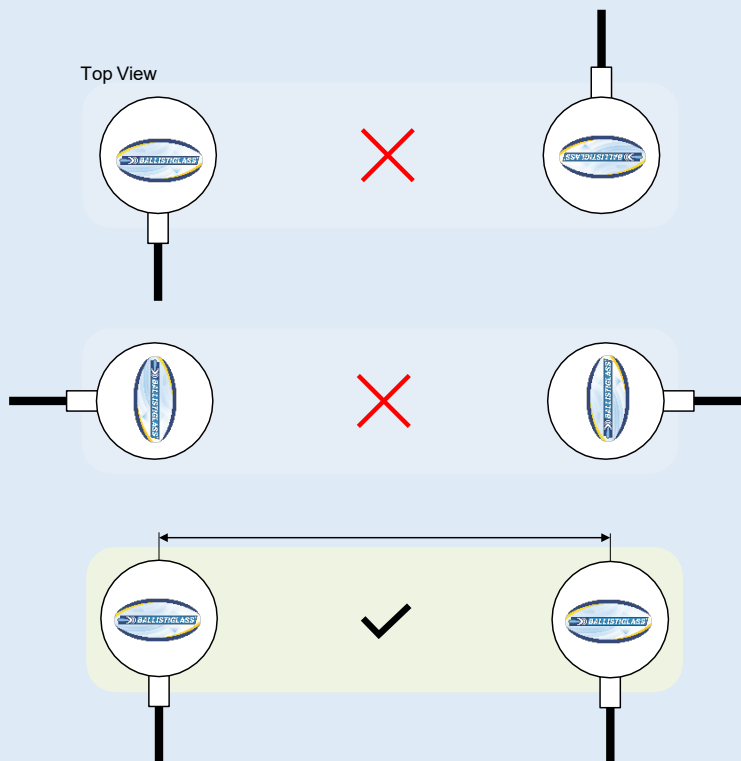
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QUICK START PROTOCOL

2. TURN ON AND AUTO-CALIBRATE THE BALLISTISCAN

   Locate the 3-pronge plug and plug it into an electrical socket. Locate the power switch on the BallistiSCAN and turn on the system. The BallistiSCAN system will now power up and go through the auto-calibration protocol. Make sure that there is nothing in between or within 36 inches (0.9 meters) of either sensor. Calibration should take less than one minute. When calibration is complete, the red LED number on the center of the processing unit in the black case will read '00'. A reading of "- -" indicates that calibration is still in process.

3. POSITIVE CONTROL TEST

   Now that your BallistiSCAN is on and calibrated, test the system by running a few items of interest through to make sure you are satisfied with the settings. If so, you are ready to use the BallistiSCAN to detect metallic objects! If you wish to alter any settings, you will need to use the included laptop to make the necessary adjustments. See the section in this manual on "BALLISTISCAN LAPTOP" for instructions to do so. Please note: the PIN for the laptop is (all numbers): 0214

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USER SUPPLIED ITEMS

There are three (3) items that we highly recommend that the user supplies which they may or may not already own at their facility. The first item is a suitable rubber mat that will go between the poles to cover the trailing sensor wire. The second is a pair of flat top barrier poles (stanchions). The third item is an uninterruptable power supply (UPS) that conditions the wall power to have a perfect sine wave, 60 Hz, and 120 volts AC. All three items can be purchased at Amazon.com or any other supplier.

We have created a shopping list at Amazon for you. The URL is: https://a.co/4rhD4cf

VersaTex Multi-Purpose Rubber Floor Mat for Indoor or Outdoor Use, Utility Mat for Entryway, Home Gym, Exercise Equipment, Tool Box Liner, Garage, Under-Sink, Patio, and Door Mat; 30" x 48", Black

US Weight - U2000 Sentry Stanchion with 6.5 Foot Retractable Belt – Easy Connect Assembly (2-Pack), Black

CyberPower CP850PFCLCD PFC Sinewave UPS System, 850VA/510W, 10 Outlets, AVR, Mini-Tower
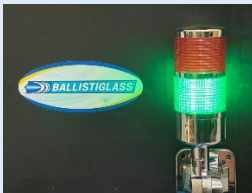
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YOUR BALLISTISCAN METAL DETECTOR

Open your BallistiSCAN V2 Metal Detector case. On the lid of the case is an attached alert pole with a buzzer that visually and audibly alerts the user when a preset relay threshold is exceeded (i.e., enough metal has been detected).

                    NORMAL STATE   ALARM STATE

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YOUR BALLISTISCAN METAL DETECTOR

In addition to the red light, a buzzer will emit a pulsing sound during an alarm. There is a switch to turn the sound on or off as desired. The sound switch is located to the right of the power switch. When enough metal is detected (as defined by the 'RELAY THRESHOLD' as described in the BALLISTISCAN LAPTOP section of this manual) the BallistiSCAN will go into an alarm state. The pole light will switch from green to red and the buzzer will sound. The alarm state will exist as long as the relay threshold is exceeded. The minimum length of the alarm state is defined by the 'ALARM TIME' as described in the BALLISTISCAN LAPTOP section of this manual.
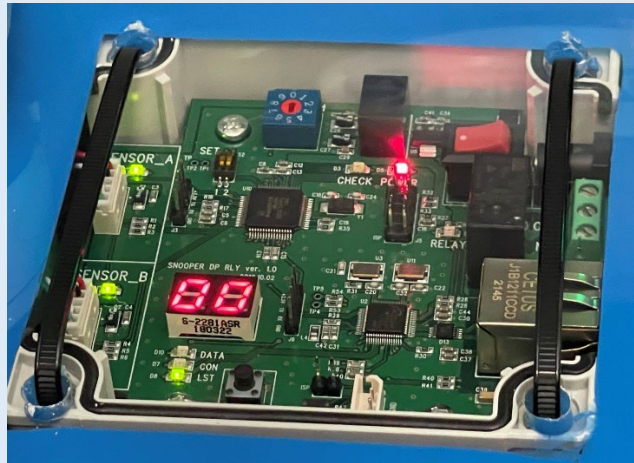

In the image above, we see the processing unit (also known as the "Controller" in Appendix A of this manual) of the BallistiSCAN V2. There are no user accessible items, but it is worth understanding the LED lights. The most important LED is the red number seen here as a double zero "00". When you first turn on the power to the BallistiSCAN, the red numbers will read "- -". The green LED lights next to SENSOR_A and SENSOR_B will blink. This means that the system is auto-calibrating. Once the two green sensor lights remain solid green, the red LED numbers will display "00". This means the unit is in operation mode. Metal passing through the sensors will register on the red number LED. The greater the amount of metal, the higher the number. The number is one tenth the real value. For example, if "15" is displayed, the reading is actually 150. This will be relevant if you decide to change the detection settings with the laptop. You can ignore the other lights (e.g., yellow "check" light).

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YOUR BALLISTISCAN METAL DETECTOR
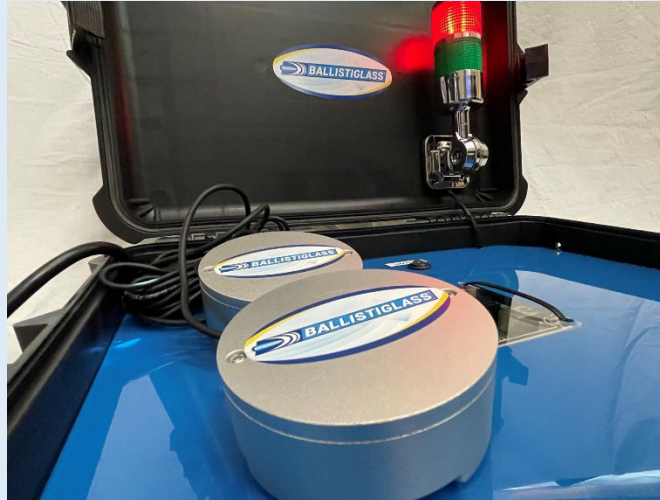
The most important feature of the BallistiSCAN V2 is the pair of "hockey puck"-sized sensors. These sensors work in tandem as a pair. Each sensor has a passive detection field that is roughly one meter (39 inches) in all directions. The sensors are placed upon flat-topped barrier poles (stanchions) by using the supplied 3M Dual-Lock tape strips. If necessary, the included doublet (back-to-back) strips can be used to help the sensor attach to the barrier pole (some flat barrier poles partially obstruct the attachment of the sensors, the doublets help span any gap).

During normal operation, the sensors send detection data to the processing unit in the black case via the black cables. The processor looks for data that are common to both sensors such as from metal passing between them. If metal is detected by only one sensor, the BallistiSCAN considers this signal as being generated outside the pedestrian pathway and ignores it. This is why it is so important to set up the sensors correctly as depicted in the SET UP SENSORS ON BARRIER POLES section of the QUICK START PROTOCOL on page 3 of this manual. Please note, the BallistiSCAN will detect metal with both directions of pedestrian traffic through the lane. Typical lane traffic is about 3 miles per hour. Please keep in mind that the BallistiSCAN detects the sum of the metal moving between the sensors. Because of this, it is not advised to have more than one person at a time pass through the pedestrian lane, otherwise an alert will be indeterminate.

The sensors ARE sensitive to temperature changes. For this reason, it is recommended that the unit operate for 10 to 15 minutes prior to your metal detection protocol. This will allow the sensors to adjust (equilibrate) to the temperature of the surrounding environment.

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BALLISTISCAN LAPTOP

Your BallistiSCAN V2 Metal Detector comes with its own laptop that is pre-loaded with the software necessary to adjust any settings you wish (e.g., relay alarm threshold) as well to remotely monitor the real time sensor data from the BallistiSCAN sensors. Located within the BallistiSCAN case is a Wi-Fi router that securely broadcasts data from the BallistiSCAN over an SSID with the following naming convention "BSCAN_XXXX" where XXXX is the serial number of your particular BallistiSCAN system. Your laptop has been factory set to securely connect automatically over Wi-Fi to the SSID of the BallistiSCAN it shipped with. Make sure the BallistiSCAN system is on for at least a minute before "connecting" the laptop (via Wi-Fi).

1. TURN ON THE LAPTOP
    It is recommended that you always use the supplied laptop power cable. The laptop has its power mode set to never enter sleep or to power off. This ensures uninterrupted performance for the laptop but also means that the laptop will run out of batteries if the laptop is not plugged in.
    To turn on the laptop, open the laptop lid and depress the power button at the top right of the keyboard for 1 second. This will boot up the Windows platform where the software will run.
    When asked for a PIN, type in (all numbers): 0214

    Note: this number represents February 14th, the date in 2018 when our hometown of Parkland, Florida was forever changed by a lone gunman.

2. After you enter the PIN, the Windows desktop will appear. On the taskbar on the bottom of the screen, move the cursor over the BallistiSCAN icon and left button click to start the software:

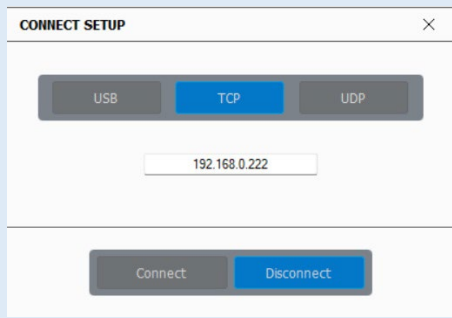**BALLISTISCAN V2 USER'S MANUAL (202303)**

BALLISTISCAN LAPTOP

3. The following window will appear:

4. Click on the connect button in the lop left corner: [Connect]
5. The following will pop up:

6. The IP address of the BallistiSCAN on the Wi-Fi router is 192.168.0.222
   Click on the gray "Connect" button on the lower left. The status of Sensor A and Sensor B at the bottom of the main viewing screen should turn green and display "Connected".
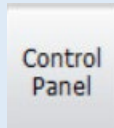
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7. With the BallistiSCAN now streaming its data to the laptop, you can visualize the detection data on the grid in the viewer window. The X-axis is time, the Y-axis is detection score. Monitoring these data in real time can make it much easier for the user to understand the different levels of detection are generated by metallic objects. BallistiSCAN utilizes advanced MAD sensors (Magnetic Anomaly Detection) to sense perturbations in the local Earth's magnetic field. During auto-calibration, the system zeroes out its readings based on its local magnetic environment. When a metallic object passes near the sensors, it generates a local magnetic flux. This flux is proportional to the amount of metal and the speed it moves through 3-dimensional space. The amount of flux that is detected by the sensors is proportional to the distance of the metallic object to the sensors. Please keep this in mind when you run test objects through the BallistiSCAN. The speed of the pedestrian as well as the location of the metal on their person can generate slightly different readings each time. This is why it is important to view the numbers in terms of ranges, not precise numbers.

8. HOW TO CHANGE THE RELAY ALARM THRESHOLD
   When you run metallic objects through the BallistiSCAN, it will detect the metal and generate a detection score. If that score (or number) is greater than the RELAY ALARM THRESHOLD setting, you will hear a "click" coming from the processing unit. This sound comes from the dry contact relay switching "on". This will illuminate the red pole light and sound the buzzer. The system will remain in the alarm state for the length of time as defined by ALARM TIME. The factory default values are 200 for the RELAY ALARM THRESHOLD and 1500 milliseconds (1.5 secs) for the ALARM TIME.
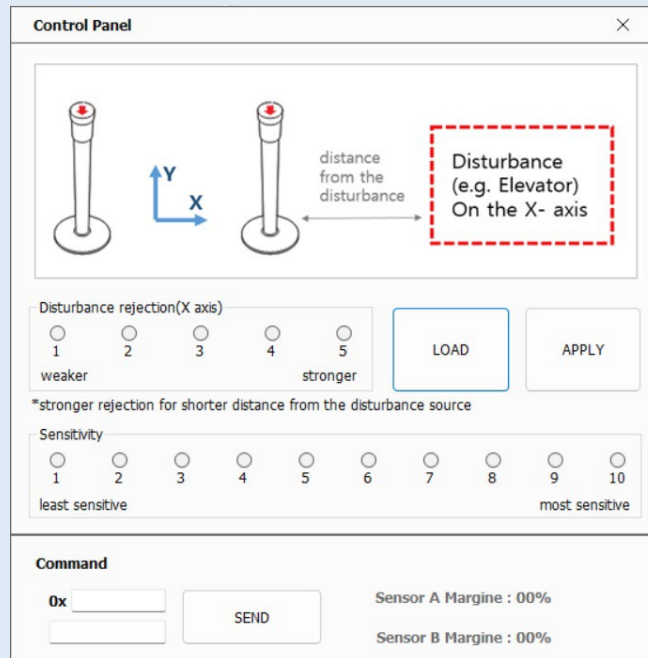   To adjust these settings, click on the control panel icon in the lower right of the viewer window:

Control
Panel

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Control panel has 3 areas of interest. First, let's look at the bottom where it says "Command" [ignore the very bottom of the box (not pictured here) where it says data.] Right below where it says "Command" is a line that begins with "Ox" if you wish to change the RELAY ALARM THRESHOLD setting, type in "4a" next to the Ox so that it reads: 0x4a

Below that, there is a box where you will type your new relay alarm threshold setting. For example, type in 150 into that box. Now click on the "SEND" button. This will send the 150 value to the systems flash memory and will be the new level that, when exceeded, puts the system into the alarm state to illuminate the red light and sound the buzzer. Acceptable numbers for the threshold are 1 to 2000. The system will not reply that the setting is accepted. It will silently accept the new number and remember this setting until it is changed by the user. Note: the factory default is 200.

If you wish to change the ALARM TIME setting, type in "4c" next to the 0x and enter a number in the box below it with a value in milliseconds from 1 to 5000 where 1000 equals one second. Click send to accept this new value. Again, the system will flash write this number without an acknowledgement. The factory default is 1500 (or 1.5 seconds).

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9. HOW TO CHANGE THE SENSITIVITY SETTING

The sensitivity of BallistiSCAN system is factory set to a medium value (5). There may be circumstances where you wish to increase or decrease the sensitivity of the system. Most often, if you change anything, it will be the RELAY ALARM THRESHOLD and not the system sensitivity. To change the sensitivity, locate the sensitivity section in the control panel: (note: 5 is the default factory setting for the sensors.)

Select the setting you desire by clicking the corresponding open circle (radio button) above the number. Then click on "APPLY" button:
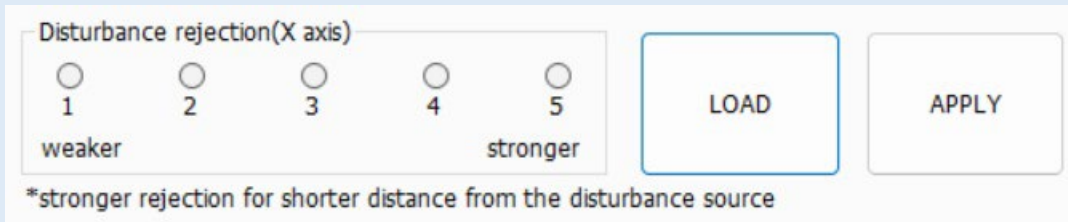
If you wish to view the current sensitivity setting, click on "LOAD".

If, during operation, you find that the system is not rejecting signals detected from the sides of the sensors (not within the pedestrian pathway) you can increase the BallistiSCAN's discrimination by increasing the "Disturbance rejection (x axis)" value by selecting the desired value 1 to 5 where 5 is the maximum rejection capability. Click on APPLY to save the new value. If you wish to see the current value, click on LOAD.
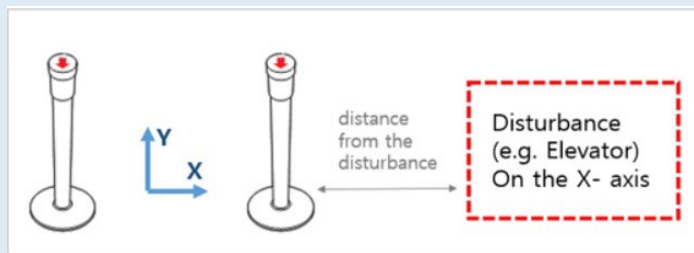
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10. FORCING A RE-CALIBRATION OF THE SENSORS

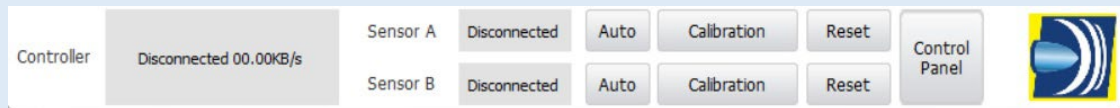At any time, with the software, it is possible to force the system to re-calibrate the sensors. Perhaps you may have moved a stanchion or re-oriented the sensors; in either case it is advisable to re-calibrate the sensors. This is done simply by clicking on the CALIBRATION or RESET buttons:

11. UNDERSTANDING RELAY THRESHOLD AND SOFTWARE THRESHOLD

BallistiSCAN V2 is designed to be monitored locally and remotely. There are two alarm thresholds. The one that controls the relay is governed by the RELAY ALARM THRESHOLD and can be adjusted as described earlier in this manual. The other threshold is known as the SOFTWARE THRESHOLD. This is the blue horizontal line:
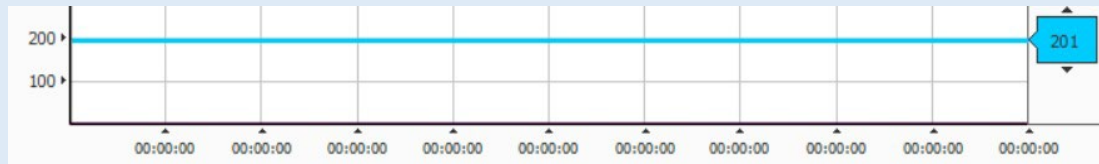
Sensor readings that exceed this blue line will put the LAPTOP software into an alarm state (but not necessarily the RELAY ALARM on the light pole.) If the software and relay thresholds are set to the same number, they will both alarm when exceeded. It is possible to set the thresholds to a different number from each other but this tends to confuse things. We recommend setting both to the same number. At the factory, they are both set to 200. If you wish to change the software threshold, slide the blue cursor on the right side of the graph up or down to your desired number. Alternatively, you can click on this button and type in the threshold:

If you wish to change the scale of the graph (the Y-axis), you can click on this button and type the number in: This makes it easier to discern the range of values generated by a metallic object.

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12. CAPTURING IMAGES

The BallistiSCAN software has a feature that allows you to automatically take pictures of the person that set off the alarm. To turn this feature on, you will need to have a web camera (not included) plugged into a USB port on the laptop.

On the main screen, click on the camera button:
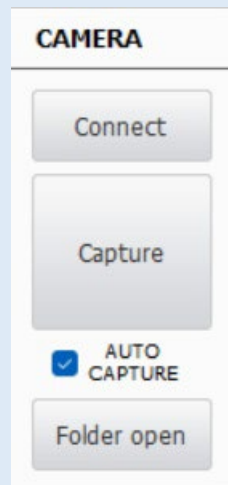
Click on the "Connect" button to select your USB camera. If, in the "Camera select" option, you select '0', it will activate the laptop's built in camera above the monitor. You can snap a photo with the "Capture" button, or, preferably, you can check the "Auto Capture" feature. Photos that are taken will appear in the "Folder open" button.

The pictures that are taken will have their associated detection score and time stamp. It is recommended that you set the system clock for Windows accurately. This will insure an accurate time stamp on all photos.

If you wish to use an IP-RTSP camera, that is, a camera through the internet to take pictures, you can select the IP-RTSP button depicted above and enter the IP address of the camera. Click on "Connect" to connect the remote camera.

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13. SETTING ALARM SOUNDS
    If you are using the laptop to monitor the BallistiSCAN, you may wish to hear an alarm each time the software threshold is exceeded.

    To do this, click the "Alarm" button:
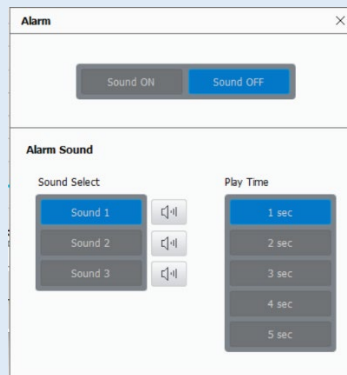
    You can select from 3 different alarm sounds and the length of the alert.
    The laptop is Bluetooth compatible so you can use Bluetooth earphones to hear the alarm discreetly.

14. The LOG button.
    Pressing the LOG button on the main screen will display a list of the most recent commands sent between the BallistiSCAN and the laptop. This is feature most users never use.

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TROUBLESHOOTING

1. PROBLEMS AND SOLUTIONS:

Problem: Sensor A or Sensor B always seem to be in calibration mode.
Solution: Metal detectors are sensitive instruments that are sensitive to electrical noise in the power line. This issue appears as a sensor never seeming to complete its calibration. If the electrical socket is loose or dirty it can negatively impact the BallistiSCAN's ability to get clean power. To overcome this, we recommend plugging the BallistiSCAN into an uninterruptable power supply (UPS). These are available at Amazon or any electronics store.

Problem: Strange readings when no metal is present.
Solution: Sometimes, by accident, someone was too close to the sensors when it was calibrating. Force a re-calibration using the "Calibration" button. Make sure that no one is closer than 36 inches to either sensor during calibration.
Alternatively, this may just be a temperature issue. All metal detectors are sensitive to abrupt temperature changes. If, perhaps, someone stored the BallistiSCAN in the trunk of their car then used the BallistiSCAN right away, the system may not have had enough time to equilibrate with the temperature of the surrounding environment. The solution is easy: just let the BallistiSCAN run for about 10 to 15 minutes before it is needed. The sensors will have had time to adjust and then should operate normally.

Problem: The laptop won't connect to the BallistiSCAN over Wi-Fi.
Solution: First, make sure the BallistiSCAN has been powered up for at least a minute. This will give the internal Wi-Fi router time to broadcast its signal, then, make sure the laptop is connecting to the SSID for the BallistiSCAN. The SSID will be "BSCAN_XXXX" where XXXX is the serial number for the system.
If the problem persists, try a system reboot by powering everything off then starting the power up process again. Most problems in life are fixed with a reboot!
If you still experience problems, give the technical support team at BALLISTIGLASS a call for help. Also, never use the laptop to connect to the "internet".

Finally, we recommend that when you first start using the BallistiSCAN, you work with a partner to record (on paper) the ranges of detection values for each object. This will allow you to strategically set the thresholds and sensitivity values for your use case.

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APPENDIX A: ADVANCED CONNECTIVITY

If you wish to port the BallistiSCAN data to a 3rd party software platform, the following information will be helpful:

1. Introduction of the protocol

This protocol was designed for the communication between 'PC (Ethernet device)' and 'Controller'. There are three types of the communication interfaces for 'Controller'

1.1 USB

User can communicate with a Controller by the 'USB Serial Port' (Virtual Serial Port.)

- Baud Rate: 115,200 bps   Data Bits: 8   Parity: None   Stop bits: 1

1.2 TCP/IP

User can communicate with a Controller by the 'Ethernet Port' under TCP/IP.

- Controller: TCP/IP Server (Maximum client socket count is 3)

- Server Port: 4470

- A Controller sends stream data when a client is connected

1.3 UDP

User can communicate with a Controller by the 'Ethernet Port' under UDP

- Controller: UDP Server

- Server Port: 6118, 6119(There are two UDP sockets)

- Controller sends stream data for 1 minute since the Controller gets packets from the PC. So, user should send any packet to the Controller every 10 - 50 sec.

2. Packet from Controller to PC

2.1 Send mode

- Controller sends three packets at every 18ms when there is/are sensor(s) connected.

- Controller sends three packets at every 60ms when there is no sensor connected.

- Controller sends a packet when there is an answer data for a request.

APPENDIX A: ADVANCED CONNECTIVITY

2.2 Packet structure (12bytes / packet)

<Table 1. Packet from Controller to PC>

Bytes	0	1	2	3	4	5	6	7	8	9	10	11
Contents	Header		Index	State	Sensor A	Sensor B	Answer Code	Data		Reserved		End

2.2.1 Header

Fixed bytes for head of packet = **F0:F1**

2.2.2 Index

Index of packet which increases every packet send. It goes to zero after 255.

2.2.3 State

The higher 4bits (State & 0xF0) shows the 'Operation Mode/Type of Packet'. Data sets of bytes.4, 5, 6, 7, 8 are dependent on this value.

<Table 2. Operation Mode / Type of Packet>

Value	Operation Mode / Type of Packet	Byte.4 Sensor A	Byte.5 Sensor B	Byte.6 Small Data	Byte.7,8 Large Data
0x00	Waiting for sensor connection	State of Sensor A	State of Sensor B	-	-
0x10	Operating with two sensors	State of Sensor A	State of Sensor B	-	Object size between Sensors A and B
0x20	Sensor(s) is(are) on the calibration	State of Sensor A	State of Sensor A	-	-
0x30	Operating with only one sensor	State of Sensor A	State of Sensor B	-	Object size
0xA0	This packet is an answer for the request	-	-	Answer Code	Answer Value

The lower 4bits (State & 0x0F) shows the request from Controller. User can determine the condition of system and respond for request.

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APPENDIX A: ADVANCED CONNECTIVITY

<Table 3. Request from Controller and System Condition>

State & 0x0F	Contents	Condition
0x00	Nothing requested	All tests are passed
0x01	Sensor Connection requested	There is no sensor connected
0x02	Sensor Recalibration requested	The Condition of sensor is not perfect

2.2.4 Sensor A and Sensor B

This shows the state of each sensor.

The higher 4 bits show operation mode of sensor.

<Table 4. Operation mode of sensor>

Sensor X & 0xF0	Sensor Operation mode
0x00	Sensor is disconnected
0x10	Sensor is operating normally
0x20	Sensor is calibrating

The lower 4 bits show the condition of sensor.

The higher value is the better condition. The maximum value is 0x0A which means the condition of the sensor is perfect. The minimum value is 0x00 which means a sensor is NOT working normally. We recommend that the user recalibrate the sensor if this value is under 6.

2.2.5 Answer Code

This byte is unsigned 8bit 'Answer Code' value. Ref. Table 6

This value is usually 0x00 when the Operation Mode (Type of Packet) is not 0xA0

2.2.6 Data

These two bytes are unsigned 16bit (Little-Endian) value which is depend on Operation Mode/Type of Packet. This shows a size value of object between Sensor A and Sensor B when Controller is in 'Operating with two sensors'. This is a size value of object near Sensor A or Sensor B when Controller is in 'Operating with only one sensor'. This is an answer data when packet type is 'Answer'. Ref. Table 6

2.2.7 Reserved

These two bytes are reserved.

2.2.8 End

Fixed byte for end of packet = 0xF2

APPENDIX A: ADVANCED CONNECTIVITY

3. Packet from PC to Controller.

3.1 Packet structure (8 bytes / packet)

<Table 5. Packet from PC to Controller>

Bytes	0	1	2	3	4	5	6	7
Contents	Header				Code	Data		End

3.1.1 Header

Fixed bytes for head of packet = F6:F7:F8:F9

3.1.2 Command Code/Data and Answer Code/Data

The 'Command Code' and 'Command Data' are the command set which user send to Controller. And 'Answer Code' and 'Answer Data' are the answer set which user.

< Table 6. Commands from PC >

Command Code	Command Data	Description	Answer Code	Answer Data
0x00	-	Dummy packet (for UDP)	-	-
0x20	1~50	Set Raw Filter Factor	0x20	1~50
0x21	-	Load Raw Filter Value Factor	0x21	1~50
0x22	1~50	Set Result Filter Factor	0x22	1~50
0x23	-	Load Result Filter Factor	0x23	1~50
0xA0	-	Reset Sensor A	0xA0	-
0xA2	-	Recalibrate Sensor A	0xA2	-
0xA4	1~5	Set Sensitivity of Sensor A	0xA4	1~5
0xA6	-	Load Sensitivity of Sensor A	0xA6	1~5
0xB0	-	Reset Sensor B	0xB0	-
0xB2	-	Recalibrate Sensor B	0xB2	-
0xB4	1~5	Set Sensitivity of Sensor B	0xB4	1~5
0xB6	-	Load Sensitivity of Sensor B	0xB6	1~5
0xC0	0~1000	Set Integration Threshold	0xC0	0~1000
0xC2	110~130	Set Distance between two sensors	0xC2	110~130

3.1.3 End

Fixed byte for end of packet = FA

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APPENDIX B: METAL DETECTION PROTOCOL

7440B - METAL DETECTOR SEARCH PROCEDURES (from NEOLA 2011)

The principal shall be responsible for the monitoring and enforcement of regulations relative to metal detector electronic search procedures. The principal shall have the authority to request metal detector searches, and electronic searches shall not be conducted in the absence of such request.

The purpose of the metal detector search is to discourage students from bringing weapons into the schools. Accordingly, metal detectors may be used at Corporation events, schools and school-related functions of such schools, on a random and periodic basis.

All students, staff members and visitors entering events, schools and school-related functions of such schools are subject to search.

Metal detector searches will be conducted by local police using magnetometers (also known as walkthrough metal detectors) and hand-held scanning devices and monitored by principals.

A. Students, staff members and visitors shall not be informed in advance regarding the specific dates on which, or the locations where, metal detector searches will occur.

B. Prior to a metal detector search being conducted, a sign or signs announcing a search for weapons shall be posted, on the day of the metal detector search, outside the school or school-related function, at a main entrance or entrances.

C. When a metal detector is being used, students, staff members and visitors will be permitted to use only designated entrances to the school or school related function. Corporation staff may be stationed at other entrances, as necessary, to prevent students, staff members and visitors from opening those entrances to admit others into the building or school-related function.

D. All students, staff members and visitors entering the school or school related function are subject to search although those conducting the search and/or monitoring the search may choose to limit the search by any lawful random formula. For example, if the lines become too long, the search may be limited to every second or third person. Once a random formula is utilized, it shall be applied without deviation until it is ended by order of the principal. A random formula shall not be ended to ensure the search of a particular student or person.

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E. The police and principal are prohibited from selecting a particular student and/or person to search unless there is a reasonable suspicion to believe that the student and/or person is in possession of a weapon.

F. Prior to use in conducting an electronic search pursuant to these guidelines, each electronic search device to be used shall be examined by a person familiar with their operation to determine if they are in proper working order. An electronic search device shall not be used if there is any question as to whether it is in proper working order.

G. Each person operating an electronic search device shall be trained in the proper use of the device and the detection of any malfunction in the operation of the instrument. Adjustments in the settings of the device shall only be made by local police or school administrators.

H. As to each individual search, the police/principal will ask the student

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and/or person to remove all metal objects from his/her person and to place the metal objects and any bags, backpacks, briefcases, knapsacks, purses, or parcels on a table. With the exception of contraband in plain view, police officers may not inspect items in which a weapon could not be concealed, and may not examine written materials. The principal shall monitor each electronic search for compliance with these guidelines.

I. The student and/or person will then be asked to walk through the magnetometer (i.e., walk-through metal detector). If the metal detector activates, s/he will be asked a second time to remove metal objects from his/her person and to walk-through the magnetometer a second time.

J. If the walk-through metal detector activates a second time, the principal is to approach the student and/or person and explain the hand-held scanning device process, and then conduct a scanning beginning at the toes and continuing up to the head without intentionally touching the body. The bags and parcels will also be scanned. The principal shall monitor each electronic search for compliance with these guidelines.

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K. When a student's, staff member's and/or visitor's bag or parcel activates the scanning device, the principal is to request him/her to open the container in question so that the officer can look for weapons.

L. If a student's, staff member's and/or visitor's body activates the device, the police will repeat the request to remove metal objects. A second hand-held scanning device scan will then be conducted and if the device is activated again, the principal will escort the student and/or person to a private area where a more thorough search will be conducted in accord with Administrative Guideline 5771 on searches of a student's body.

M. Prior to the private search, the principal must ask the student, staff member and/or visitor again to remove all objects from his/her person, then the search will begin near the place where the device was activated. This is a pat-down search of outer clothing only, conducted by a person of the same gender, geared to locate the item which triggered the scanning device. The principal shall monitor this search for compliance with these guidelines.

N. If the principal feels an object during the pat-down, the student, staff member and/or visitor will be given a chance to remove it before the police does. If such an object, once removed, appears to be the one which activated the device, the search ceases.

O. The search can be continued only if a subsequent scan activates the device.

P. The search is directed to a search for weapons, however, other contraband discovered in the course of an electronic search or pat down may also be removed from any student.

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Q. All property removed from the student as a result of the above procedures which may be legitimately brought on school premises or to school functions will be returned to the student. All other property will not be returned to the student.

R. Property removed from the student or the student's bags or parcels,

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possession of which is a violation of the Code of Conduct school rules, Board policy and administrative guidelines, and/or the law, shall cause a student to be disciplined in accordance with the Code of Conduct and may subject the student to criminal prosecution and/or juvenile proceedings for violations of law.

S. If student refuses to cooperate with the pat down search, the local police is to notify the principal, administrator, or Corporation staff member who is stationed nearby to monitor the search. Such students shall be subject to the Code of Conduct. Refusal shall also be grounds for immediate removal from school, facilities, and/or grounds and further discipline.

T. Nothing in the procedures set forth above shall limit the authority of the Corporation and Corporation staff to remove other contraband from a student, and to otherwise search a student when there is reasonable suspicion to believe that a particular student is in possession of an article or thing, the possession of which constitutes inappropriate behavior under the Code of Conduct.

U. A copy of the Metal Detector Search Procedures shall be available to each person and the principal who will in any way be involved with the conducting and/or monitoring of searches.

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Q & A's?

7440A - QUESTIONS ON THE USE OF METAL DETECTORS (from Jay County Schools)

A. When will metal detectors be used in the schools?

We have no plans to continuously use metal detectors in the schools. Rather, we intend to use them at random times throughout the school year in order to provide a deterrent. We will also use them if we have received or have knowledge of a threat to the school.

B. Will metal detectors be used in the elementary, middle, and high schools?

Based on our knowledge of previous incidents around the state and nation involving weapons in schools, we are prepared to use them at the middle and high school level.

C. Why does the Board of Education want a policy permitting the use of metal detectors in high schools and middle schools?

Given the increase in active school shootings in our society and the input of teachers, students, parents and the community, the Board feels this is a responsible step.

D. What type of metal detectors will be used under the proposed program?

Walk-by metal detector (primary) with hand-held metal

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detection wands (secondary). For more information see this link: https://ballistiglass.com/ballistiscan/
E. Who will conduct the metal detector searches?
School officials and law enforcement officers.

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F. When will metal detector searches be performed?
On a random basis or in response to a threat to the school.
G. Will students or their parents be informed in advance regarding the specific dates on which metal detector searches will occur?
No. This would counter the deterrent effect of this policy.
H. What will be the duration of the program?
Until the threat of school shootings incidents are no longer prevalent in our society.
I. Has this type of program been used in other corporations in the State?
It is unknown how many districts have employed similar programs. However, all school districts were provided the opportunity to obtain free metal detection wands from the State of Indiana. 94% of Indiana school districts ordered these devices. See this link for more information:
https://www.indystar.com/story/news/education/2018/07/23/metal-detector-wands-requested-almostevery-indiana-school-district/821052002/

BALLISTIGLASS

BALLISTISCAN V2 USER'S MANUAL (202303)

BALLISTIGLASS CONTACT INFORMATION

We are here to help you! If you need technical assistance, don't hesitate to contact us:

By phone: +1 (954) 612-6640 Monday through Friday 9 AM – 6 PM EST

By email: support@ballistiglass.com

By mail: 7957 N University Drive #102, Parkland, FL 33067

Our URL: http://www.ballistiglass.com

Our QR Code:

Please be advised that the end user (user) assumes all risk in the use of the BallistiSCAN metal detector platforms. Use of the BallistiSCAN platform confirms that you accept all risk and will hold BALLISTIGLASS LLC harmless for any eventualities arising from the use of any BallistiSCAN platform. If you do not accept the risk, please immediately notify BALLISTIGLASS LLC for a return authorization. A full refund will be issued if BALLISTIGLASS is notified within the first 10 days of ownership. No refunds will be issued after one calendar month of ownership. Please note: the BallistiSCAN comes with a one-year warranty covering parts and labor for any system defects. Additional extended warranty plans are available.

LIMITED WARRANTY

Ballistiglass LLC warrants all products for one (1) year from date of installation against defects in manufacturing. In addition, with regards to bullet resistant products, Ballistiglass LLC warrants against significant yellowing (>5.0 Yellowness Index) of product for this time period. Normal wear and tear or scratching by user are not covered by this warranty. Ballistiglass LLC warrants that the Work shall reasonably conform to specifications in all material respects. Ballistiglass LLC will not provide refunds for any Work conforming to specifications in all material respects. Other than the warranties set forth in this section, Ballistiglass LLC makes no warranty of any kind, expressed or implied or otherwise whatsoever, that the services performed or any items produced will be merchantable or fit for any particular purpose or use. In the event of any breach of any warranty specified in this provision, Buyers exclusive remedy shall be that Ballistiglass LLC shall, at its option, repair or replace any defective goods at no cost to Buyer or refund any purchase price paid for such Work. Our Products are warranted for defects in manufacturing only. Our responsibility is to replace products defective in manufacturing only with the same or better product, at the sole discretion of Ballistiglass LLC. In all cases Ballistiglass LLC must be notified within ten (10) days of receipt of the product for any possible claims of damage. Any claims after this time frame will be honored at the discretion of Ballistiglass LLC. Product returns are not accepted without expressed written permission from Ballistiglass LLC. We do not offer cash refunds. Products returned can be exchanged for the same product only, if found defective. Any other funds owed to our customers will be in the form of credit for future purchases only.

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