

SMT-BRIDGE 250 SMART BRIDGE FOR SC ARGUS PRO SYSTEMS BRIDGE INSTALLATION AND COMMISSIONING INSTRUCTION

SMT-BRIDGE 250-W Smart Bridge Installation and Commissioning Instructions



A key component in the SC Argus Pro solution is the bridge. Each bridge is assigned to a specific restroom group. When a bridge covers multiple restrooms, it is placed in the Men's room in each group for consistency.

SLOAN[®] LIMITED WARRANTY SUMMARY

Sloan Valve Company ("Sloan"), warrants its products against defects in materials and workmanship, excluding damage caused by matters beyond Sloan's reasonable control. Instructions for filing claims can be found in the Limited Warranty which can be obtained at www.Sloan.com or by requesting a free copy by telephone at 888.756.2614. Sloan will repair or replace your defective product, or provide a refund, as your exclusive remedy. *This is only a general summary of Sloan's Limited Warranty so it is important to note that the specific terms, conditions, limitations and exclusions, including the duration of warranty coverage for your particular Sloan product, are contained in the actual Sloan Limited Warranty. The Limited Warranty is subject to applicable laws in your country, state, province or other jurisdiction—and disputes arising under the Limited Warranty are to be resolved by binding arbitration unless you provide Sloan with an opt-out notice no later than 30 days after your purchase date. In case of a conflict with this summary, the terms and conditions set forth in the complete Limited Warranty will prevail.*

PACKAGE CONTENTS

The SMT-BRIDGE 250-W Smart Bridge package includes the following items:

1. SMT-BRIDGE 250-W Smart Bridge
2. Power cord
3. 2.4 GHz antenna
4. 40" Ethernet cable with connectors

PRIOR TO INSTALLATION

Before installing the SC Argus Pro **SMT-BRIDGE 250-W** Smart Bridge be sure the items below have been completed and tools are available.

It is important for the IT department at the customer to complete the following items in order for the SC Argus Pro Smart Bridge to be able to communicate with the system.

- DHCP must be enabled in the Internet Router connected with the Bridge
- Bi-directional Internet Traffic for Remote Ports 80, 443, 8883 must be enabled for the Bridge
- Remote Ping to servers "www.google.com" and "www.yahoo.com" must be enable for the Bridge
- Please wait one (1) minute after powering up the bridge and then verify all LEDs for Status.

Required Tools and Items

- Pre-determined locations for SMT-BRIDGE 250-W Smart Bridge
- Phillips Screw driver
- 4 Phillips pan head #8 screws
- Ethernet cable (Cat 6) OR excellent Wi-Fi coverage
- 120 VAC power outlet

System Access

- SC Argus Pro portal access

BRIDGE INSTALLATION

Typically bridge may be installed at any location. It is important that the bridges are placed in the pre-assigned locations to properly monitor and manage the devices in each room.

Bridges may be powered by connecting to a standard 120V outlet. They can also be powered through the Ethernet cable (PoE) which provides connectivity to the cloud services.

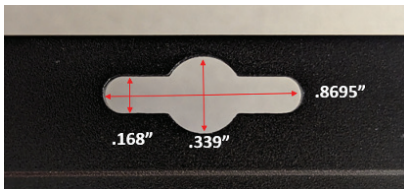
The bridge should be placed as high as possible in the room to obtain the best coverage.

1. HARDWARE INSTALLATION

- A. Document or take a picture of the Serial Number and Token Number of the bridge. The serial number is needed to identify the smart bridge in the SC Argus Pro system portal.
- B. Connect the antenna to the bridge BLE coax connector. The antenna should point upwards.
- C. Install the bridge onto the wall or shelf in the pre-determined location.
 - i. The location must have an Ethernet cable available or a strong WiFi signal.
 - ii. The bridge can be placed above a drop ceiling tile near one of the tile support bars, set on a shelf
 - iii. For wall installations, follow the steps below.

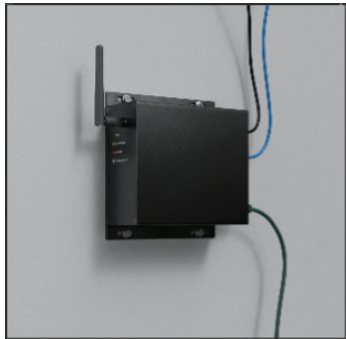
2. WALL MOUNT INSTALLATION

The Smart Bride uses a keyhole slotted bracket for mounting purposes and requires 4 screws. Use a coarse thread type screw with a Phillips "pan" head #8 screw with a 5/32 (.16") thread diameter. The length depends on wall material and if plastic anchors are used.



- A. Determine the location on the wall for the bridge and the screw holes to mount the bridge.
- B. Secure the bridge to the wall with the antenna pointed upwards as shown in the diagram below.

3. CONNECT POWER SUPPLY



- A. When using standard power, Plug the bridge power cord into a nearby 120V outlet, then plug the bridge power cord into the bridge. Note: If using PoE this step may be skipped.
- B. Attach the Cat 6 Ethernet cable into the bridge RJ45 Ethernet port. If using Power over Ethernet (PoE) the cable will power the bridge.

4. BRIDGE POWER UP SEQUENCE

The bridge will go through a power up sequence. The green light will come on and it will go through a sequence of flashes, then stay solid (lit). The start-up sequence is below:

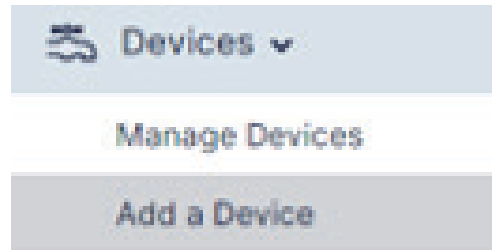
- Green power LED come on when connected w/Ethernet and USB (will stay on unless power outage).
- SR Network & Internet LED's come on solid, then the Communication LED (All LED's are lit up).
- All but the Power LED turn back off.
- The SR, Internet, and Communication LED's flash together 3 times, then go back off.
- Internet & Communication LED's light up.
- Internet LED turns off and SR Network LED comes on. Communication LED stays on the entire time.
- Communication LED turns off, followed by the SR Network LED turning off.
- SR Network LED turns on and off twice.

1. ADD THE BRIDGE TO THE NETWORK

Bridge commissioning

If you are adding a new bridge to expand your network, the bridge needs to be added to the SaaS portal.

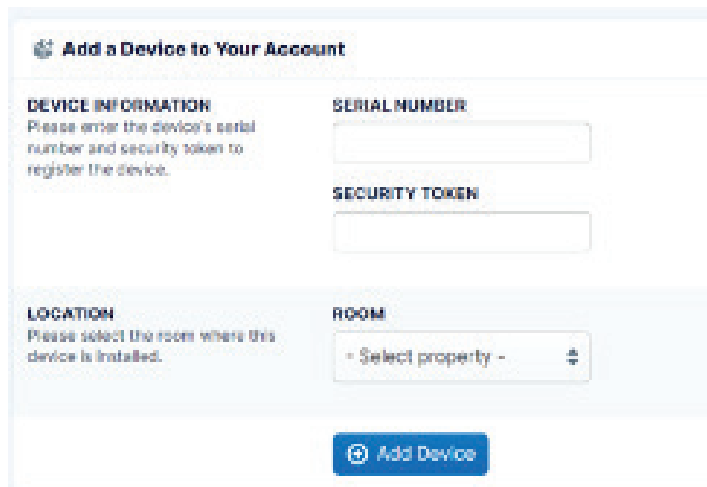
A. Log into your SC Argus Pro system. Go to the menu on the left, select 'Devices' and then 'Add a Device'.



B. Enter the Bridge's Serial Number and the Token number in the fields. The numbers can be found on the label on the Smart Bridge.

C. Select the room where the bridge will be located. Sloan suggests placing bridges in the Men's restrooms on the portal for consistency and ease in locating in the system.

- i. Click on the property where the bridge is being installed
- ii. Click on the desired area
- iii. Click on the desired floor
- iv. Click on the men's restroom



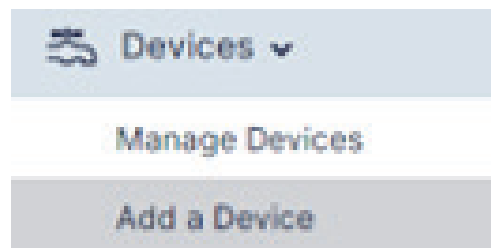
D. Click on 'Add Device'. The bridge is now added to your system.

E. Go to the bridge page in the room and add a Note that identifies exactly where the bridge is physically installed in or by the room.

2. ACCESSING BRIDGE IN THE NETWORK

Log into the Argos system. The Home page with the Dashboard will appear.

A. Select the device page. There is a menu to the left of the screen with Device icon. A drop down menu will appear.



B. Select "Manage devices". The locations will appear in the center of the screen.

C. Click on the location where the bridge is installed

D. Click on the desired area

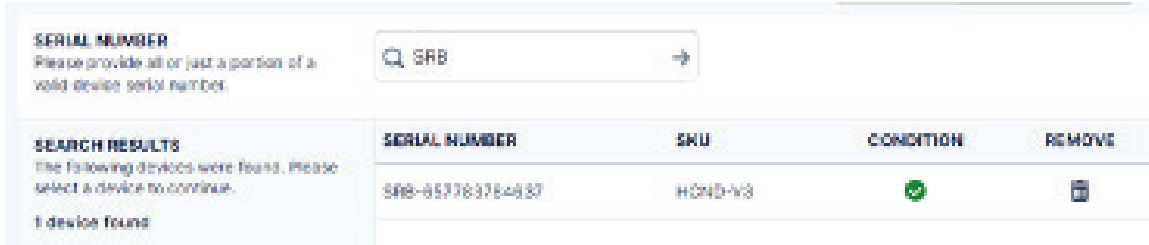
E. Click on the desired floor

F. Click on the men's restroom

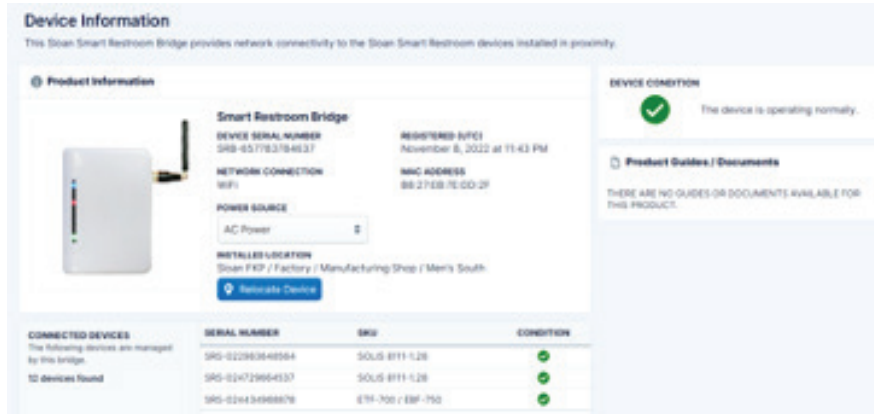
2. ACCESSING BRIDGE IN THE NETWORK-CONTINUED

G. After selecting the men's restroom a list of devices assigned to that room will appear below.

- i. The hub/bridge serial number is listed.
- ii. Bridges can be identified by their serial number which begin with "SRB". An example is below



- iii. Click on the serial number of the device. A screen will appear display a bridge image showing data about the device.



3. COMMISSION THE BRIDGE

A. Confirm the serial number on the screen matches the number on the bridge.

B. The Device Condition in the upper right corner should now show 'operating normally' and be green.

Note: if a bridge is replacing an existing one in the room all the devices should automatically move over to the new bridge.

TROUBLESHOOTING GUIDE

The table below shows the LED status for normal operation and when a problem is indicated.

| LED Lights | AMBER | RED | BLUE | INDICATION |
|------------------|----------|-----|----------|--|
| Normal Operation | On | Off | Off | Bridge powered ON: All three A/R/B lights blink for 3 seconds |
| | Off | Off | Blinking | Blinking BLUE: Normal Bluetooth communication |
| | Blinking | Off | Off | Blinking AMBER indicates operation, steady AMBER indicates confirmation |
| | Off | Off | Off | All lights are OFF: Everything works properly - Power LED (GREEN) is ON. |

Issue: All of the LEDs stay on: There is a problem with the device. Contact Sloan Customer Service.

Issue: The amber/yellow LED is on but the red LED is blinking: There is a problem with the device. Contact Sloan Customer Service.

Issue: The amber and blue LEDs stay on: Check the Ethernet cable and connection. The Ethernet cable is unplugged or damaged.

Issue: The blue LED stays on and the red LED is blinking: The bridge is not registered in your User Account. Please register the Bridge by adding the device.

Issue: The Yellow/amber and red LEDs are on. The bridge firmware needs to be updated. Please contact Sloan Customer Service.

Issue: The blue LED is on and the Ethernet cable is plugged in. The bridge is not registered in the Local Area Network (LAN). Please check the Network Configuration.

Issue: Red LED is blinking every second: There is no connection to the server. Please check Internet connectivity and Network Configuration.

Issue: The amber/yellow LED is blinking every second and the red LED stays on: The bridge isn't receiving a response from the SC Argus Pro server. Please contact Sloan Customer Service.

Issue: The amber/yellow and red LEDs are blinking every second: The Bridge cannot establish a connection with the MQTT Broker. Please contact Sloan Customer Service.

Issue: The red LED stays on after a bridge configuration. The operation failed. Please repeat the process.

| | | | | |
|---------|----------|----------|--|---|
| Problem | On | On | On | If all A/R/B lights stay ON there is a problem with the device. Contact Customer Service |
| | Blinking | On | Off | Steady AMBER and Blinking RED: There is a Problem with the Device. Contact Customer Service. |
| | On | Off | On | Steady AMBER and Steady BLUE indicate Ethernet Cable is unplugged or Damaged. Please check the cable / connection |
| | Off | On | Blinking | Steady BLUE and Blinking RED every second indicates device not registered on User Account. Please register Bridge in Account. |
| | On | On | Off | Steady AMBER and Steady RED indicates BLE Module is in DFU Mode. Please Upgrade BLE Firmware using Mobile App. |
| | Off | Off | Blinking | Steady BLUE only indicates Not Registered in LAN but ETH Cable is Plugged-in. Please check Network Configuration |
| | Off | On | Blinking | RED blinking every second indicates no Server connection. Please check Internet connectivity or network configuration |
| | On | On | Off | AMBER Blinking every Second and RED Solid indicates SR Bridge doesn't receive response from Server. Contact Customer Service |
| On | On | Blinking | AMBER and RED Blinking every Second indicates SR Bridge cannot establish connection with MQTT Broker. Contact Customer Service | |
| Off | On | On | Steady RED after an operation indicates that the operation failed | |

SPECIFICATIONS: SMT_BRIDGE 250-W SMART BRIDGE

| General | |
|-----------------------------|--|
| RAM | 1GB LPDDR2 SDRAM |
| Flash | 32GB micro-SD |
| Power LED | Power LED: 1 |
| Status Indicator LEDs | 3 - Internet, Communication, SR Network |
| Connectivity | |
| Ethernet | 10/100 Ethernet Port with PoE |
| Wi-Fi Frequency Bands | 2.4GHZ; 5GHz |
| Wireless LAN | IEEE 802.11.b/g/n/ac |
| Wireless Device Interface | ANT (Adaptive Network Topology) |
| Connectivity Support | HTTP(SSL/TLS)/MQTT(SSL/TLS)TCP |
| SaaS Cloud Support | Sloan SC Argus Pro |
| Security | SecuRemote® SR Network Secure Communiation |
| OTA | Firmware OTA support |
| Connectors | |
| Ethernet | RJ45 Ethernet jack |
| USB Device | 4x Type A Host Connector (USB 2.0) |
| WiFi Antenna | External, SMA female (is it RP?) |
| Physical Description | |
| Input Power | DC 5.0V, 3A micro USB PoE (802.3af) |
| Power Adapter | 100-240 VAC 50/60 Hz; 0.35A. |
| Dimensions (L x W x H) | 6.5" x 6.125" x 2.125" (165mm x 156mm x 54mm) Allow an additional .385" for connectors |
| Weight | 625 grams (1.38 lbs) |
| Environmental | |
| Operating Temperature | 0 to +50 Celcius |
| Storage Temperature | 0 to +50 Celcius |
| Certifications | |
| Radio Compliance (FCC) | FCC Certified |
| Safety (UL) | UL Certified |
| Warranty | 1 Year |

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