#### Introduction and Features

The SRK-JW18HX is a complete radio replacement kit with integrated climate control retention for select Jeep Wrangler JL and Jeep Gladiator JT vehicles. All modules and cables are included to retain important features of the factory system, including: steering wheel-mounted radio controls, factory reverse camera, USB ports, and AM/FM reception.

Data integration with the vehicle and the Stinger HORIZON10™ radio (sold separately) allows for the retention and addition of the following features: vehicle performance gauges and information, climate controls, vehicle settings, factory amplifier control, and forced camera activation. Simplified installation and setup menus allow direct programming of camera triggers, steering wheel controls, and other settings of the radio and CH4A-JW18 interface. See Important Notes (next section) for additional information.

Plug & Play wiring harnesses and cables allow for quick and easy installation without the need to cut or splice any wiring.

#### Important Notes

We recommend reading this manual thoroughly to familiarize yourself with the entire process prior to beginning the installation.

### **Cluster Display Features**

- Compass (when equipped with 7" or 8.4" screen)
- Clock
- Phone pop-ups
- Navigation pop-ups

#### **Factory Amplifier Features**

Speed Controlled Volume

#### **Uconnect Features**

- Uconnect Access Remote Start / Lock / Unlock
- SOS / Assist
- Vehicle Location Service
- WiFi-Hotspot

#### SiriusXM Guardian Services

SiriusXM Radio

- 2. When connected properly, the USB port inside the center console will function for **Apple Carplay/Android Auto**, and all other USB ports will be used for USB thumb drives and charging only.
- 3. Ensure that the CH4A-JW18, PL1, and RPA-HD1 modules have been updated to the latest version of firmware before installing into the vehicle. Refer to the Updating Firmware section at the end of the manual for firmware update instructions.
- 4. When connecting an HDMI streaming device to the RPA-HD1, use an HDMI extension cable to position it away from the module to ensure proper functionality. We recommend placing the HDMI device in the glove box. Failure to follow the directions may result in module malfunction.

#### Tools Needed; Included Components

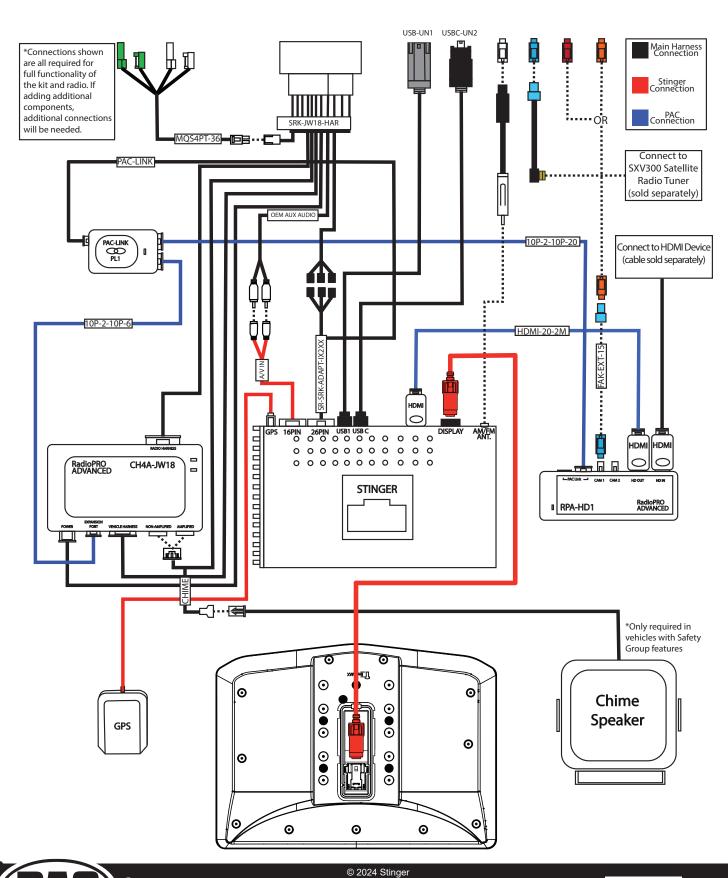
Tools needed for installation: 7mm socket, 10mm socket, ratchet, ratchet extension, T20 torx screwdriver, T25 torx screwdriver, pick tool or small flathead screwdriver, plastic panel removal tool (example - PAC part number TL-PRY2).

- 1. HORIZON10™ Display Mounting Panel (SE-JW18H)
- 2. Main Bracket, Panel Clips and Mounting Screws
- 3. Radio Module Mounting Brackets (L&R)
- 4. Chime Speaker (P-RPA-SPK)
- 5. Main Wiring Harness (SRK-JW18-HAR)
- 6. Radio Replacement Interface Module (CH4A-JW18)
- 7. HD Camera Retention Module (RPA-HD1)
- 8. PAC-LINK Interface Module (PL1)
- 9. 7' USB Port Retention Adapter (ÚSBC-UN2)
- 10. 15" Factory Camera Extension Harness (FAK-EXT-15)
- 11. 20" HDMI Cable (HDMI-20-2M)
- 12. 8" USB Hub Retention Adapter (USB-UN1)
- 13. 20" Data Harness (10P-2-10P-20)
- 14. AM / FM Antenna Adapter (BAA22)
- 15. Satellite Antenna Adapter (SAT-01)
- 16. CAN-Bus Connection Harness (MQS4PT-36)
- 17. 6" Data Harness (10P-2-10P-6)
- 18. RPA-HD1 Mounting Bracket (SE-JW18H\_MODULE BRACKET)
- 19. Radio Harness Adapter (SR-SRK-ADAPT-IX2XX)





## Complete Wiring Diagram Overview



This installation manual will cover the necessary order of procedures to complete the installation efficiently and to avoid redoing any steps along the way. The order will be as follows; Disassembly, Radio Unit Mounting Preparation, Radio Unit Harness Connections and Preparation, In-Vehicle Harness Connections and Preparation, Radio Unit Installation, and Reassembly.

### Section 1: Disassembly

#### Part One: Radio Removal



Step 1

Pull out at the top of the knee bolster to release the retaining clips, then work your hands down the edges of the knee bolster to release the remaining clips and remove the panel.



Step 2

Grasp the climate control panel at the exposed left edge and pull out to unclip the left side, then work your fingers around the remaining edges of the panel to fully unclip it.



Step 3

Disconnect the push-to-start button and climate control connectors from the back of the climate control panel and remove.



Step 4

Remove the two 7mm screws securing the radio bezel to the dash, then pull outward on the radio bezel to unclip it and remove.



Step 5

Remove the four 7mm screws securing the radio in place, then lift the radio out of the radio cavity.



Step 6

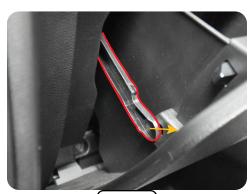
Disconnect the antenna and USB connectors from the back of the radio, then disconnect the 52-pin dock-and-lock connector and remove the radio.



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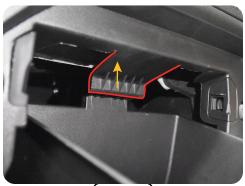
## Section 1: Disassembly (Continued)

Part Two: Glove Box Removal



Step 1

Open the glove box and unclip the soft-open sliding arm clasp from the left side of the glove box.



Step 2

Push up on the glove box stop tab to allow the glove box to fall forward out of the glove box opening, then unhinge the bottom of the glove box and remove.

#### Part Three: Center Console Panel Removal



Step 1

Open the center console storage lid, then remove the two T20 torx screws securing the rear console panel in place.



Step 2

While pulling the panel towards the rear of the vehicle, use a plastic panel removal tool to release the clips securing the panel in place and remove.



Step 3

Disconnect the inner center console USB port connector.

### Section 1: Disassembly (Continued)

#### Part Four: Door Sill Trim Removal



Step 1

Use a plastic panel removal tool to remove the panel on the driver side of the dash.



Step 2

Use a plastic panel removal tool to open the driver side handle bolt covers, then remove the two 10mm bolts.



Step 3

Remove the two T25 screws on the underside of the driver side upper door seal trim.



Step 4

Remove the two T25 screws on the inner-most side of the driver side upper door seal trim; then, while pulling towards the middle of the vehicle, use a plastic panel removal tool to remove it.

## Section 2: Radio Unit Mounting Preparation

#### Part One: Assembling the Radio Module Mounting Brackets



#### Step 1

Slide the left and right side brackets (marked by the letters LH and RH) into the back of the main bracket (the orientation of the main bracket is marked by the part number at the top).



### Step 2

Secure the side brackets to the main bracket using the four #10x3/8 Phillips course threaded screws.

#### Part Two: Mounting the Interface Modules and Stinger Radio Module

Note: It does not matter what the DIP switches on the CH4A-JW18 module are set to.



#### Step 1

Mount the *Radio Replacement Interface Module (CH4A-JW18)* to the left and right inner mounting tabs of the radio module mounting brackets using zip ties. Ensure the module is oriented with the part number (CH4A-JW18) on the right side.



#### Step 2

Use the square adhesive pad located in the SRK kit. Peel one side of the adhesive tape and stick it to the **PAC-LINK Interface Module (PL1)**. Remove the adhesive backing and mount the **PL1** module to the lower part of the **CH4A-JW18** module.



#### Step 3

Mount the **Stinger Radio Module** (ix210-M) onto the side brackets using the four M5x10 Phillips screws (only two shown). Ensure that the ports for connections on the radio module are facing down.



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## Section 2: Radio Unit Mounting Preparation (Continued)

Part Three: Assembling the Screen Mounting Panel



### Step 1

Install the six orange retaining clips onto the *Display Mounting Panel (SE-JW18)*. Remove the tabs in the middle opening of the panel (shown above).



### Step 2

Install 6 rubber covers (from the HORIZON10 packaging) in the indicated locations. NOTE: If the rubber covers are not installed the LCD will not be waterproof. Warranty is void if water damage occurs.



#### Step 3

Place the Display Mounting Panel over the back of the HORIZON10 Touch Panel Display.



## Step 4

Secure the Touch Panel Display to the Display Mounting Panel using the four M4x12 screws included with the HORIZON10.



## Section 3: Radio Unit Harness Connections and Preparation

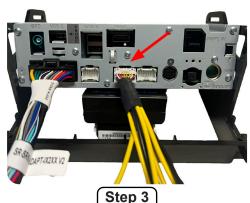
Part One: Main Harness Connections (RPK-JW18-HAR)



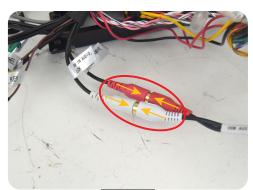
Locate the *Main Wiring Harness* (SRK-JW18-HAR) and the *Radio Harness Adapter* (SR-SRK-ADAPT-IX2XX). Connect the Power, Speaker and Input/Output harnesses from the main harness to the adapter harness.



Connect the *Radio Harness Adapter* (*SR-SRK-ADAPT-IX2XX*), labeled "26 Pin Radio" to the Stinger Radio Module connector labeled "Power."



Locate the 16 Pin AV Harness (PSEH-2103) from the HORIZON10 box. Connect this to the "AV IN" connector on the Stinger Radio Module.



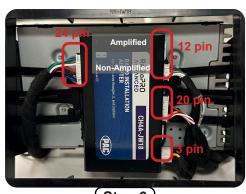
Step 4

Connect the white and red male RCAs labeled "OEM AUX AUDIO" from the *Main Wiring Harness (SRK-JW18-HAR)* into the white and red female RCAs labeled "AUX IN" on the *16-pin A/V Harness (PSEH-2103)*.



Step 5

For the next Steps, all the wires should feed under the bottom of the Stinger Radio Module. NOTE: photo is to show how wires should look once the connections are made. PAC-LINK (PL1) has been removed for visibility.



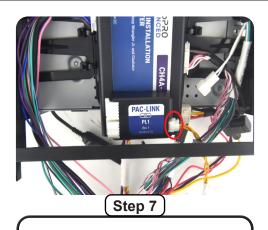
Step 6

Connect the 24 pin harness to the CH4A-JW18 module. Connect the 12 pin connector to the module. Ensure that the 12-pin connector is plugged into the correct audio output port (this depends on if the vehicle is equipped with a factory amplifier or not). Connect the 20 pin connector to the module. Connect the 3 pin harness to the module

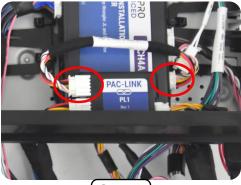


## Section 3: Radio Unit Harness Connections and Preparation (Continued)

#### Part One: Main Harness Connections (SRK-JW18-HAR) (Continued)



Connect the 3 pin connector labeled "PAC LINK (PL1)" from the (SR-SRK-ADAPT-IX2XX) into the 3-pin port on the PAC-LINK Interface Module (PL1).



Step 8

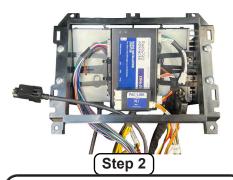
Connect one end of the 10P-2-10P-6 cable to the PAC-LINK Interface Module (PL1) and the other end to the Expansion Port on the Radio Replacement Interface Module (CH4A-JW18).

## Part Two: Stinger Display Connections



Step 1

Connect one end of the *LVDS*Display Cable (PSEH-2101) into the "Display" port on the Stinger Radio Module. (This cable is provided in the Stinger radio box.)



Route the *LVDS Display Cable* through the front opening of the main radio module mounting

### Section 3: Radio Unit Harness Connections and Preparation (Continued)

Part Three: Securing the Wire Harness

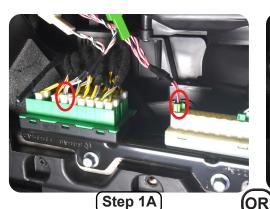


#### Step 1

After all your connections are done, secure the 52-pin connector to the back of the Stinger radio module with the included zip ties.

## Section 4: In-Vehicle Harness Connections and Preparation

Part One: CAN Connections Harness (MQS4PT-36)



Step 1A

Step 1B



Step 2

Behind the glovebox, connect the male white connector from the **CAN-Bus Connection Harness** (MQS4PT-36) into the green CAN junction block and the male green connector from the MQS4PT-36 into the white CAN junction block.

If there are no open ports on the CAN junction blocks, unplug one factory male connector and insert it into the same colored female connector on the MQS4PT-36 harness, then insert the male connector on the MQS4PT-36 harness into the now empty port on the CAN junction block.

Run the 4-pin connector on the MQS4PT-36 harness behind the glove box and out the radio opening.



### Section 4: In-Vehicle Harness Connections and Preparation (Continued)

Part Two: GPS Antenna and External Microphone (provided in Stinger radio box)



Step 1

Clean the area next to the factory antenna on the center roll cage structure and stick the GPS mounting plate to it. Then, secure the GPS antenna to the mounting plate (it is magnetic). Route the cable behind the trim panels of the roll cage over to the driver side A-pillar.



Step 2

Route the GPS cable down the A-pillar past the plastic dash side panel, then route the cable behind the lower dash below the steering column and then up the center stack to the radio opening. (Secure with zip ties along the way.)



Step 3

If you choose to use the external microphone instead of the internal microphone, mount it to the upper windshield trim panel above the rear-view mirror, then route the cable underneath the trim panels across the upper windshield and follow the route of the GPS cable to the radio opening.

Part Three: Chime Speaker



Step 1

Remove the knobs from the chime speaker and mount the chime speaker bracket to the metal brace underneath the steering column using the double sided tape, mounting bolts, and wing nuts. Then, reinstall the speaker to the mounting bracket. (Two holes must be drilled into the metal brace to secure the speaker mounting bracket to it.)

Note: Installation of the chime speaker is only required in vehicles with safety group features.



Step 2

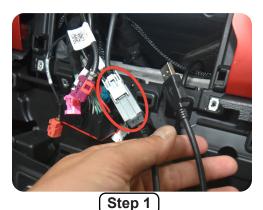
Route the chime speaker cable behind the dash panels to the radio opening.



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## Section 4: In-Vehicle Harness Connections and Preparation (Continued)

#### Part Four: USB Retention Adapters



Connect the **USB-UN1** adapter to the factory USB connector that was unplugged from the factory radio.



Step 2

Connect the *USBC-UN2* adapter to the factory USB port in the back of the center console, then route the cable along the passenger side of the center console to the radio opening.

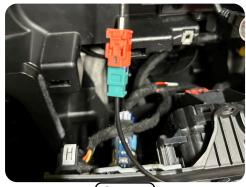
### Part Five: Miscellaneous Connectors



Step 1



Step 2



Step 3

For vehicles equipped with factory back-up sensors, connect the 2-pin chime speaker connector to the main harness.

For vehicles without back-up sensors skip this step.

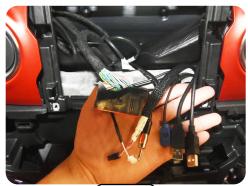
Connect the *AM/FM Antenna Adapter (BAA22)* to the antenna with the white connector that was disconnected from the factory radio.

Connect the factory camera cable with an orange or red Fakra connector into the 15" Factory Camera Extension Harness (FAK-EXT-15).



### Section 4: In-Vehicle Harness Connections and Preparation (Continued)

#### Part Six: Harness and Cabling Connections Continued



Step 1

Confirm all the in-vehicle harnesses are routed to the radio opening before installing the Stinger Radio Module.



Step 2

Remove the screw holding the window switch panel.
Once removed pull forward on the back of the panel to release the clips. Note: There is no need to disconnect any of the switches.

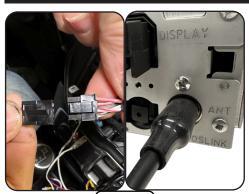


Step 3

Run the Blue Fakra extension (FAKRA-EXT-15) and feed it down the bottom left side of the radio opening. Note: Pull all the slack out of the cable.

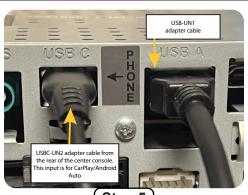
#### Section 5: Radio Unit Installation

#### Part One: Radio Module Connections



Step 4

Connect the CAN BUS connector from the *SRK-JW18-HAR* to the end of the *MQS4PT-36*. Connect the *AM/FM Antenna Adapter (BAA22)* to the "ANT" input on the Stinger Radio Module.



Step 5

Connect the USBs into the appropriate ports on the Stinger Radio Module. Ensure that the **USB-UN1** is connected to the "USB A" input, and the center console **USBC-UN2** is connected to the "USB C" input.



Step 6

Connect the *GPS Antenna* to the "GPS" input. Connect the *HDMI Cable (HDMI-20-2M)* to the "HDMI" input. Route the cable out the front of the radio opening.



## Section 5: Radio Unit Installation (Continued)

#### Part Two: Main Stinger Module Installation



Step 1

Connect the 52-pin dock-and-lock connector from the *Main Wiring Harness (SRK-JW18-HAR)* to the main OEM radio connector in the vehicle.

Before attempting to mount the radio unit into the dash, ensure that all excess cables and wires are tucked into the sides, out of the way of the radio. The radio unit is a snug fit and will be difficult to mount into the dash if there is anything taking up space behind the radio opening.

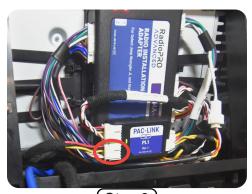
There is sometimes about a 1/4-inch gap between the screw holes. If there is more than a 1/4-inch gap before installing the screws, slide the radio unit back out and readjust the connectors and cables behind the radio opening until they are no longer in the way of the radio unit, then reinstall.



Step 2

Ensure the LVDS Display Cable (PSEH-2101), 20" HDMI Cable (HDMI-20-2M), and the 20" Data Harness (10P-2-10P-20) are exiting out of the front bottom left of the kit. Slide the radio unit into the radio cavity and secure it to the dash using the four 7mm screws that held the factory radio in place.

#### Part Three: PAC-LINK and HDMI



Step 3

Connect the 10P-2-10P-20 to the open port on the PAC-LINK Interface Module (PL1).



Step 5

Feed the **HDMI-20-2M** and the **10P-2-10P-20** through the opening and down to the window switch location.



## Section 5: Radio Unit Installation (Continued)

#### Part Four: Installing the RPA-HD1



Step 1

Zip tie the RPA-HD1 module to the RPA-HD1 Mounting Bracket (SE-JW18H\_MODULE BRACKET). Note: Ensure the orientation matches the image above.



Make the following connections to the RPA-HD1 module: HDMI-20-2M to "HD Out"

10P-2-10P-20 to "PAC Link".

Note: You can use a zip tie to hold the HDMI cable for best connection.

FAK-EXT-15 to "Cam 1"



Step 3

Remove the screw from the area behind the window switch panel.



Step 4

Mount the connected **RPA-HD1** module. Use the screw you removed from step 3 to secure the assembly.

For a complete wiring diagram overview, refer to page 2.

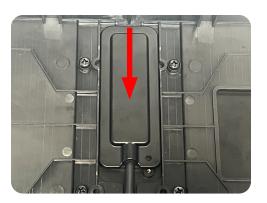


## Section 5: Radio Unit Installation (Continued)

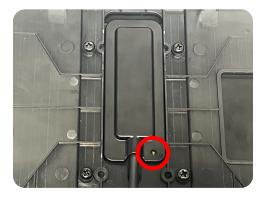
Part Five: Display Panel Installation



Insert the *LVDS Display Cable* (*PSEH-2101*) into the connector on the back of the Touch Panel Display.



Insert the *LVDS Connector Cover* into the top of the opening and slide it down until the screw hole is visible through the hole in the cover.



Once the screw hole is visible through the cover, insert the M2.6x6.5 screw to secure the cover.



Snap the Display Mounting Panel to the dash and secure the assembly using the two 7mm screws below the radio cavity.



#### **Troubleshooting**

- Reverse camera inoperable Verify that all reverse camera wiring connection points are proper by reviewing the RPA-HD1 connection steps.
- Vehicle Info icon not showing on main menu After updating the Radio System Firmware, perform a master reset on the radio by tapping "Master Reset" in the "Installer Settings"; then, update the PAC Application APK firmware in that order. If the Vehicle Info icon still does not show, turn off the vehicle, open the driver door, and let it sleep for about 20 seconds, then restart the vehicle and check for the Vehicle Info icon again.

CH4A-JW18 Interface Module LED Diagnostics

LED Pattern	State	Action
LED 2 solid red	Vehicle RAP / ACC Output Is On	N/A
LED 2 flashing green	SWC Activity	N/A
LED 2 flashing red	Module Resetting / Initializing	N/A
LED 1 solid green	Module Powered and Operating	N/A
LED 1 flashing amber	USB Connected	N/A
Off	No Activity	Verify key is in ignition position. Verify that there is 12v on the yellow wire and ground on the black wire.

**RPA-HD1 Camera Module LED Diagnostics** 

LED Pattern	State	Action
LED solid red	Initial Power-Up	N/A
LED flickering green	Querying RadioPro for Configu- ration	N/A
LED flashing green	Normal Operation w/ HDMI Pass-thru	N/A
LED solid amber	Normal Operation w/ Camera selected	N/A
Off	No Activity	Verify 10pin harness connections and key position

PL1 Adapter Module LED Diagnostics

LED Pattern	State	Action
LED flickering green or red	Data Communication / Normal Operation	N/A
Off	No Activity	Verify 10pin harness connections and key position

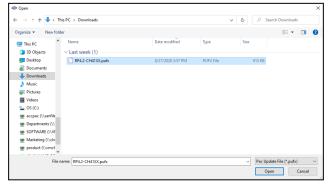
## Product Updates (Firmware)

#### Firmware Updates (RadioPRO, PL1, HD1 Interface Modules)

The RadioPRO PC app will allow you to update the interface modules with new firmware as it becomes available. Please visit www.PAC-audio.com/firmware to download available updates.

To update an interface module, open the RadioPRO PC app, connect the interface to your PC via a micro USB cable, and select "Firmware" and then "Update Firmware".





Now, select "Select File". Finally, browse to the place where you saved the file, and select it. This will begin the updating process. Once finished, disconnect the interface from the PC. Repeat for every module: CH4A, PL1, HD1, and test operation.

#### Firmware Updates (Stinger Radio and PAC Application APK)

To update the Stinger radio firmware and PAC Application APK firmware, refer to the Installer Setup Manual for an in-depth walk-through on how to perform these updates on your Stinger radio unit.

#### Reset / Restoring Interface Factory Settings

You can restore the RadioPRO interface module to factory default settings by pressing and holding the programming button on the side of the module until the status LED starts blinking red. Once the LED starts blinking red, release the button. You must release the button while the LED is blinking red in order to perform the reset. This reset will restore all settings to factory defaults.

#### Technical Support

Email: support@stingersolutions.com Phone: 727-592-5991

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