

Compact Top Brush

QUICK START INSTALL



View all Sonny's
Product Manuals &
Technical Bulletins



Work Force: 2 to 4 Technicians

Installation: 4 to 6 Hours





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YOUR SAFETY IS OUR #1 PRIORITY, MAKE IT YOURS TOO!

COMPACT TOP BRUSH QUICK START INSTALL MANUAL

2.1 READ ALL INSTRUCTIONS PRIOR TO INSTALLATION

- This manual is a comprehensive step-by-step instruction guide on how to install the Compact Top Brush and components. To review other manuals, go online to SonnysDirect.com under Support Tab.
- Make sure to read, understand and follow all these instructions.
- To address any questions relating to ordering parts, operating the Compact Top Brush, installation, troubleshooting, maintenance, service, or anything else, contact Sonny's Technical Support Team.
- All deviations and alterations from these instructions MUST be reported to Sonny's The CarWash Factory[®]. Keep this manual in a location where it may be used for ongoing reference.

2.2 SAFETY WEAR REQUIRED FOR INSTALLATION















Hearing Protection

Hard Hat Dust Mask

Eye Protection
With Side Shields

Safety Vest

Cut Resistant Gloves

Pants

* Shoes

WARNING: Make sure to follow Local and State Safety Wear Requirements to ensure the safety of all personnel. Failure to follow Safety Regulations may result in personal injury, death and/or dismemberment.

2.3 PRECAUTIONS







Stop and read carefully before proceeding, these contain important information to Avoid injuries or incorrect equipment installation.

*SHOES: Toe Protection steel or composite, Impact & Top of Foot Metatarsal Bones Protection up to 75 foot-pounds, Compression Protection up to 2,500 lbs., Electric Shock Resistance up to 600 volts, Antistatic, Puncture Resistant up to 270 lbs., Dielectric Insulation, Chainsaw Protection, Slip Resistant Footwear, Conductive Properties to Protect Against Ignition of Explosives and Volatile Chemicals.

2.4 IMPORTANT SAFEGUARDS AND WARNINGS

- WARNING: Do not perform any maintenance or work on equipment unless you first perform Lock-Out Tag-Out Safety Precautions. All electrically powered equipment MUST have manually operated disconnects capable of being locked in the "OFF" position. Equipment that has been "locked out" for any reason must be restarted ONLY by the person who performed the "lock out" operation. These procedures MUST be followed to avoid personal injury, death and/or dismemberment.
- All parts and components MUST be installed by experienced and trained technicians.
- No unauthorized personnel should ever be permitted in the wash tunnel or near the equipment at any time.
- Hardhat, safety glasses with side shields, closed steel toe shoes, anti-impact and cut resistant gloves, dust mask, and earplugs if operating power tools, MUST be worn.
- When cutting or grinding any metal, safety glasses, earplugs, and dust mask MUST be worn.
- Do NOT leave a ladder or any other items such as wash down hoses or tools in the wash tunnel while equipment is running. Vehicle damage and injury, including death, can occur.
- Do NOT wear loose fitting clothing or jewelry around moving equipment. Do not allow any part
 of your body or other objects (including ladders, hoses, or tools) to come in contact with moving
 equipment. Entanglement may result causing injury, death, or dismemberment.
- Always exercise caution when walking (never run) through the wash tunnel as there may be slippery conditions. Be careful so you do not bump into or trip over equipment.
- Electrical connections and repairs MUST ONLY be performed by a Licensed Electrician.
- Plumbing connections and repairs MUST ONLY be performed by a Licensed Plumber.
- When working on any equipment that is higher than your shoulders, always use a fiberglass ladder that is in good condition.
- Use proper lifting technique. Team lifts are required for items over 50 lbs.
- Do NOT alter or modify parts in any way and do NOT interchange or substitute any components without the authorization of your supervisor and Sonny's The CarWash Factory.
- Do NOT install any parts or components into faulty materials.
- All damages and defects MUST be reported to both your supervisor and Sonny's The CarWash Factory.

2.4 IMPORTANT SAFEGUARDS AND WARNINGS

- If there are any malfunctions with the **Compact Top Brush**; or if any questions arise regarding the equipment operations, immediately contact your supervisor or Sonny's The CarWash Factory.
- Only use approved hardware, parts, and components with the Compact Top Brush or any other equipment.
- Always protect your body parts against sharp corners and edges.
- Keep loose articles of clothing, long hair, and jewelry away from the removal, installation, or operation of all equipment.
- The personnel installing the **Compact Top Brush** are responsible for making sure it works according to the instructions in this manual.
- Always remove ladders, tools, parts, etc., from the wash tunnel and backroom when finished.
- All personnel MUST be trained in the safe operation of all equipment, wash tunnel operations, backroom operations, safety regulations, emergency shutdown, Lock-Out Tag-Out and maintenance practices to avoid any accidents, and possible equipment failure.
- Only personnel specifically instructed and trained are permitted to enter the wash tunnel to perform inspections or maintenance. At least two qualified maintenance personnel MUST be present when performing equipment repairs or preventive maintenance.
- IMPORTANT: Call Technical Support to adjust wash cycle when new equipment is installed.
- WARNING: All hydraulic and electrical systems in the wash tunnel equipped with a torque relief or overload should be checked and set to the minimum amount that will allow for proper functionality under normal washing conditions.
- > WARNING: Possible wet floors and slippery conditions! To avoid an accident that might result in personal injury, death or dismemberment, all personnel MUST proceed with Caution.
- WARNING: Do NOT enter the wash tunnel when the equipment is operating. Personal injury, death and/or dismemberment may occur.
- WARNING: Make sure the proper Chemistry (Brush Lubrication) is being used in the Car Wash Tunnel to prevent vehicle and/or equipment damage.
- WARNING: If the Equipment Installation Dimensions at the time of installation are NOT measured correctly, it may result in equipment damage and/or failure. Dimensions MUST be verified if equipment is already installed. Contact Sonny's Technical Support Team at 1-800-327-8723 for any Installation questions.



2.4 IMPORTANT SAFEGUARDS AND WARNINGS

- > WARNING: All connections and repairs MUST ONLY be performed by Licensed Professionals. Perform all trade work in compliance with all applicable local and national codes.
- WARNING: Although building codes have been considered in developing all drawings, verification of site-specific conditions and compliance with federal, state, and local building codes is the exclusive responsibility of the customer and/or architect and engineer to verify compliance.
- > WARNING: Do NOT attempt to repair or adjust any pressurized liquid or pneumatic part, hose, pipe, or fitting while that equipment is in operation.
- WARNING: Do NOT operate any equipment that requires safety covers with those covers removed or improperly installed. Do NOT operate any equipment if any component of that equipment is suspected to be defective or malfunctioning.
- WARNING: Store all cleaning, washing solutions and oils in a well-ventilated area. Clean up fluid spills immediately to prevent hazardous safety conditions. Be certain to follow all safety procedures on SDS Sheets for each chemical product used.
- WARNING: When a piece of equipment must be in operation during inspection or maintenance, one trained technician MUST stay at the power disconnect switch in the Backroom, while another trained technician performs the inspection or maintenance on the equipment in the Tunnel; and a 3rd trained technician communicates any emergency shutoff between the 1st and 2nd technician.
- > WARNING: All Equipment MUST be given regular maintenance to prevent equipment damage and/or failure that will VOID the warranty.
- WARNING: Emergency "STOP" Buttons MUST be well marked, and their location and proper use reviewed with all personnel. Any activated "STOP" button must be reset only by the person who activated it. Clear the wash tunnel of any people, ladders, hoses, tools, and other loose items before restarting the equipment. An audible device MUST sound to warn people that the equipment is starting.

SAVE THESE INSTRUCTIONS

2.5 SAFETY FIRST

- CAUTION: Verify Safe Working Conditions
- Make Sure to Have a First Aid Kit and Fire Extinguisher On Site
- Make Sure to Apply the Lock-Out Tag-Out to Any Equipment that Requires it
- Equipment Should Always be Installed by a Qualified Technician

2.6 HOW TO MAKE A SAFE WORKPLACE

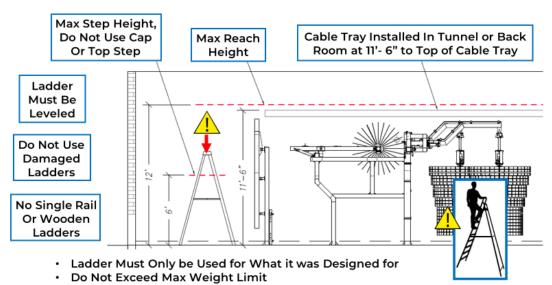
- 1 Wear Appropriate Attire
- 2 Wear Safety Equipment
- 3 Keep Aisles Clear
- 4 Keep Work Area Clean
- 5 Report Accidents
- 6 Report Any Unsafe Conditions
- 7 Place Trash In Proper Containers

- 8 No Smoking In Tunnel Or Backroom
- 9 Have a First Aid Kit For Emergencies
- 10 Have a Fire Extinguisher On Site
 - Lift Properly 12 Power Off For Install & Service





2.7 TUNNEL INSTALL



- · Personnel Must Not Carry Any Objects that Will Cause Them to Lose Balance
- Personnel Must Face Ladder When Climbing and Going Down the Ladder

2.8 TOOLS REQUIRED FOR INSTALLATION

TOOLS	TOOLS
Safety Glasses	C Clamp
Gloves	Rachet Strap or S-Hooks
Hard Hat	Tape Measure
Impact Gun with Socket Set	Rubber Mallet
Hammer Drill with 5/8" Concrete Bit	Sledgehammer
Allen Key Set	Nip Scissor
Wrench Set and Screwdriver	Anti-Seize Compound Never-Seez®
Torque Wrench	2 Ladders
Level Tool	Forklift



2.9 UTILITIES REQUIREMENTS

Utilities interconnection and the materials required for interconnection to Sonny's equipment are the responsibility of the customer.



All connections and repairs MUST ONLY be performed by Licensed Professionals.

Perform all trade work in compliance with all applicable local and national codes.

WATER - THE CUSTOMER'S PLUMBER IS RESPONSIBLE FOR:

• The Customer's Plumber is to provide and install a 1/2" water line @60PSI (nominal) to the solenoid valve on the chemical distribution system for the Washer.

FOAM APPLICATION

• Foam and soap must be applied on vehicle and brushes. For proper machine operation, it is important for there to be lubricity between brush and vehicle.

ELECTRIC - THE CUSTOMER'S ELECTRICIAN IS RESPONSIBLE FOR:

- The Customer's Electrician is to provide and install single phase power from the (24 or 110 VAC as determined at time of order) from the Customer's Controller system to the liquid solenoid valve for the brush spray bars. If required, the motor starter coil for the hydraulic power pack feeding the brush, and any pump motor for the chemical distribution system.
- If applicable, the Customer's Electrician is to provide materials and install 208VAC or 230VAC or 460VAC, 3-phase, 60Hz power to the electric motor on the hydraulic power pack; or VFD panel from a properly sized three pole circuit breaker, and motor starter with three thermal overloads.
- The Customer's Electrician is to provide and install single phase power from the remote pushbutton station, through the tunnel equipment programmer; to the supplied air solenoid valve, on the Air Distribution Manifold for retract of both washers upon selective signal.

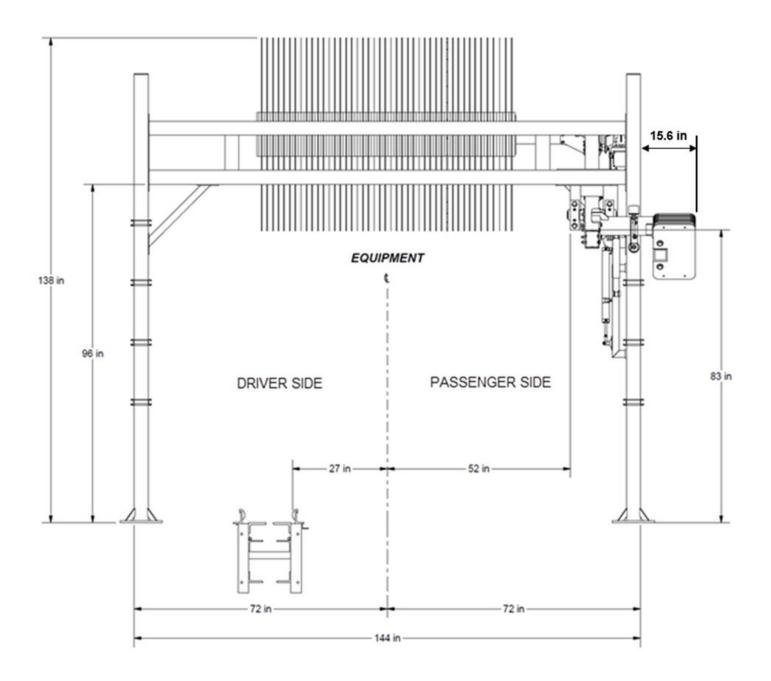
COMPRESSED AIR - THE CUSTOMER'S PLUMBER IS RESPONSIBLE FOR:

 The Customer's Plumber is to provide and install a 1/2" compressed air line from the Air Compressor to the Air Distribution Manifold for the retract functions.

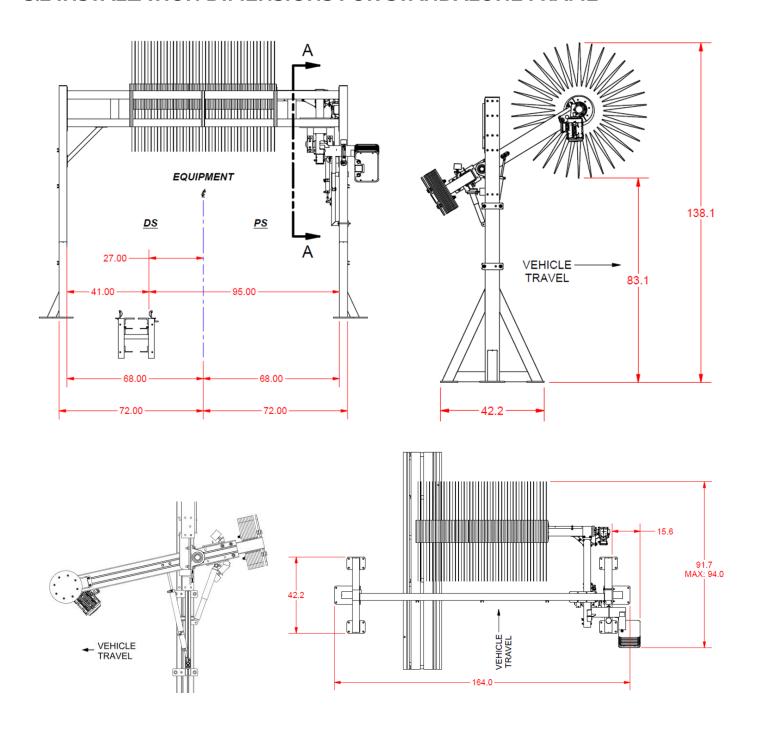
TECHNICAL DISCLAIMER

Although building codes have been considered in developing all drawings, verification of site-specific conditions and compliance with federal, state, and local building codes, it is the exclusive responsibility of the customer and/or architect and engineer to verify compliance.

3.1 INSTALLATION DIMENSIONS FOR FOUNDATION FRAME

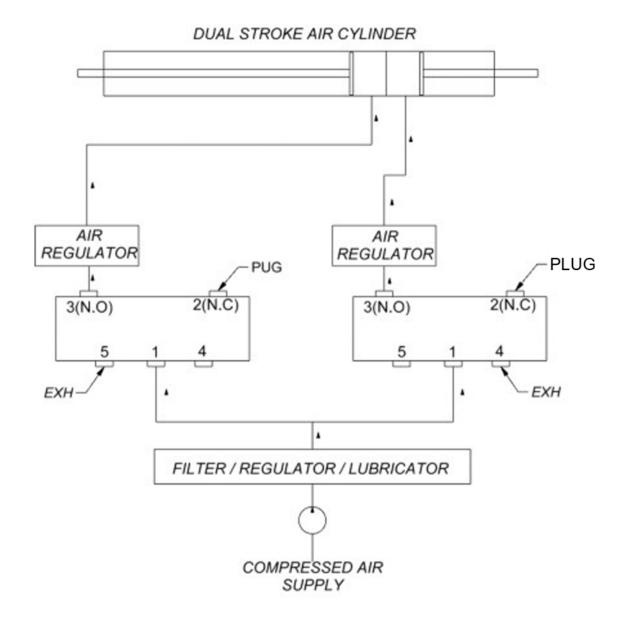


3.2 INSTALLATION DIMENSIONS FOR STANDALONE FRAME



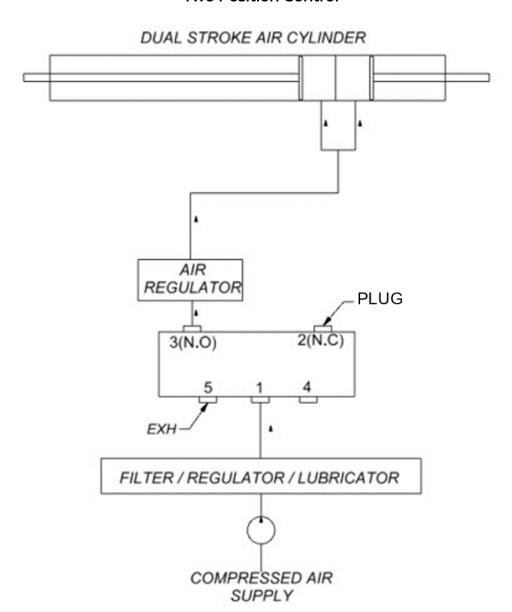
3.3 AIR CYLINDER POSITIONS

Compact Top Brush - Pneumatic Diagram Three Position Control

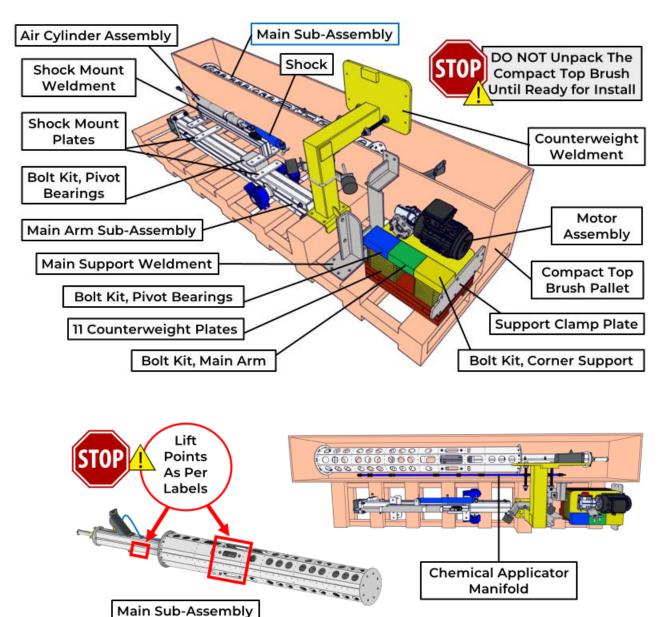


3.3 AIR CYLINDER POSITIONS

Compact Top Brush - Pneumatic Diagram Two Position Control



3.4 UNPACKING THE COMPACT TOP BRUSH

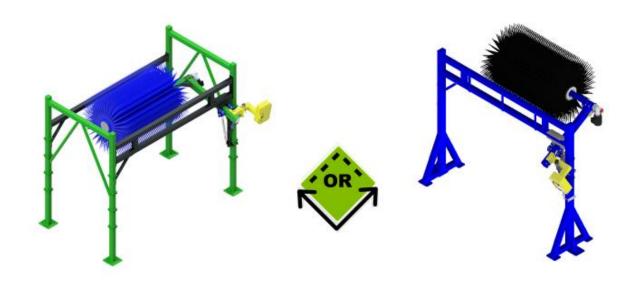


3.5 BEFORE STARTING



IMPORTANT: All parts and components MUST be installed by experienced and trained technicians. Safety wear is required for ALL personnel.

WORK FORCE	INSTALLATION TIME
2 to 4 Experience and Trained Technicians	4 to 6 Hours Without Setbacks



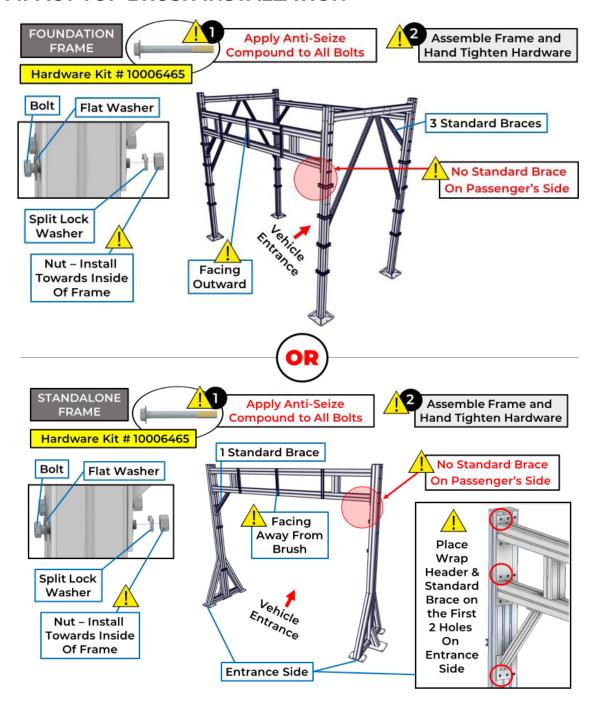


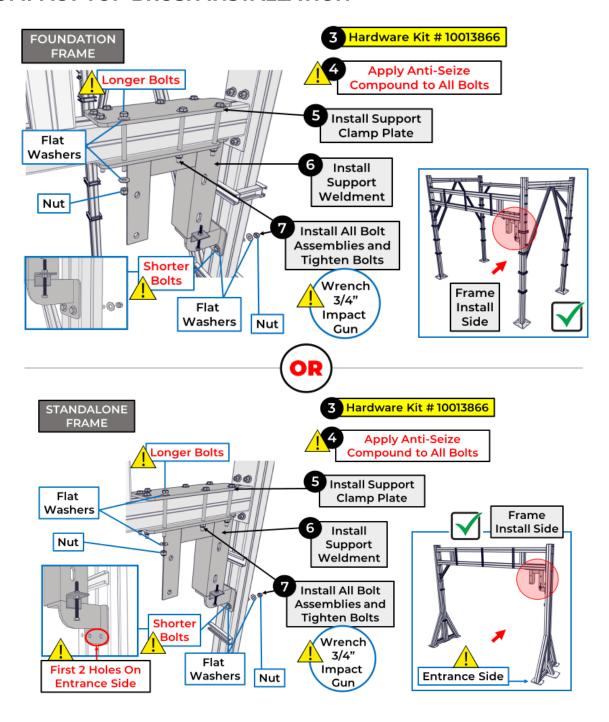
IMPORTANT: If the Equipment Installation Dimensions at the time of installation are NOT measured correctly, it may result in equipment damage and/or failure.

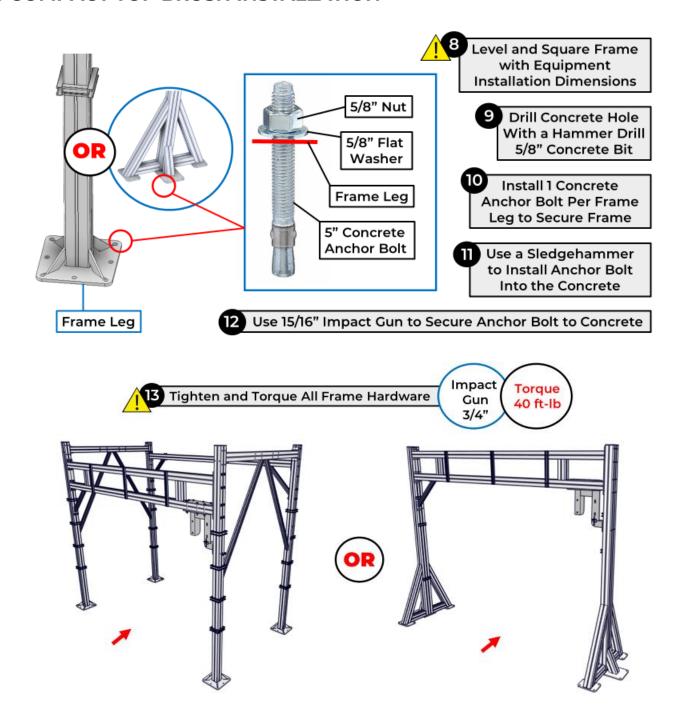


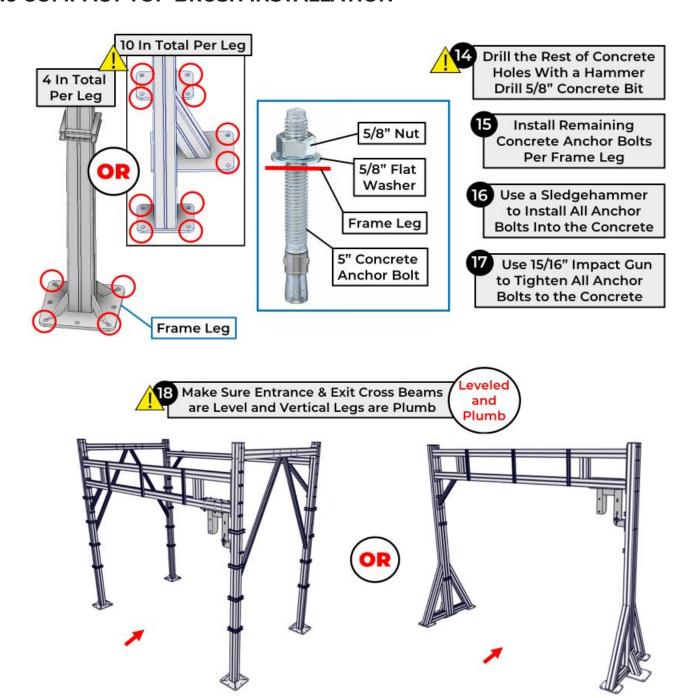


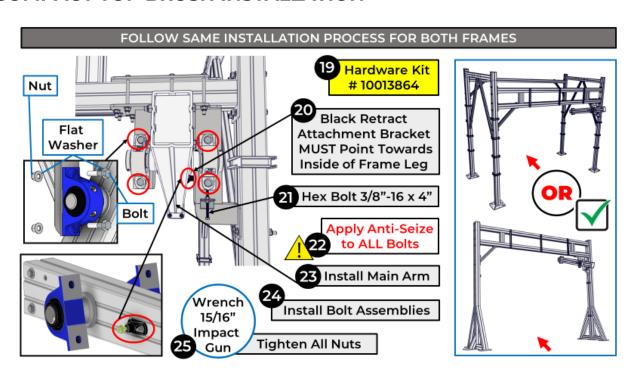
DANGER: Always shutoff all power to conveyor and/or equipment before starting any install, maintenance, service, or repairs. failure to do this may result in personal injury, death, or dismemberment.

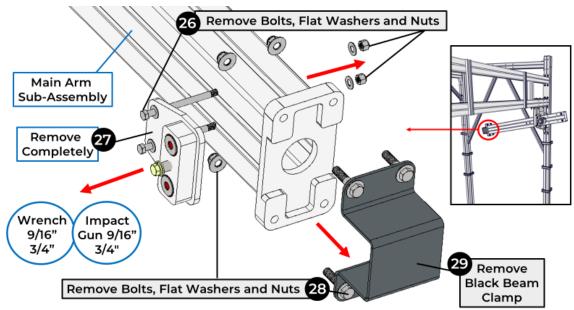


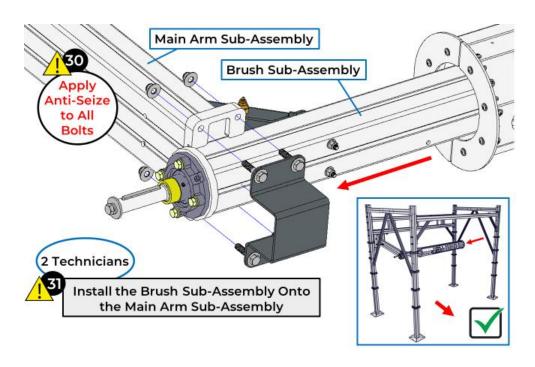


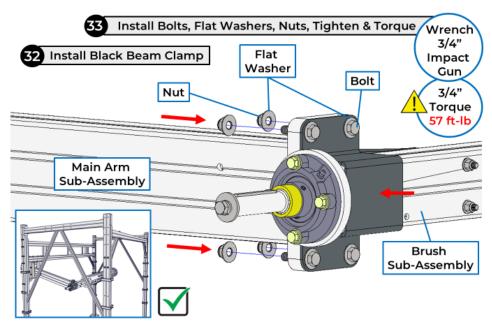


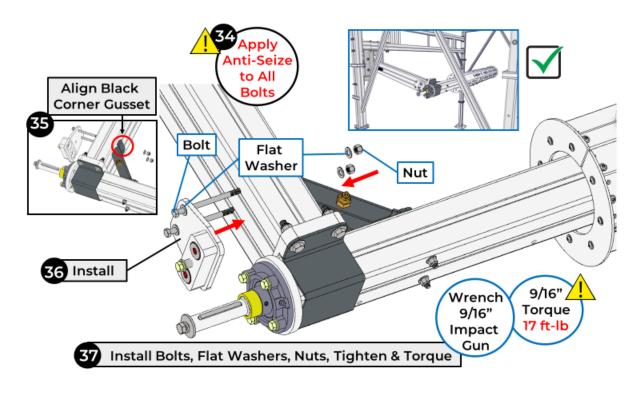


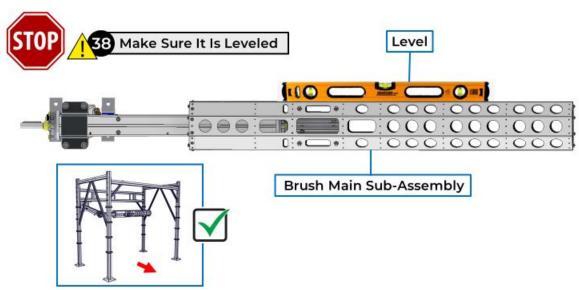


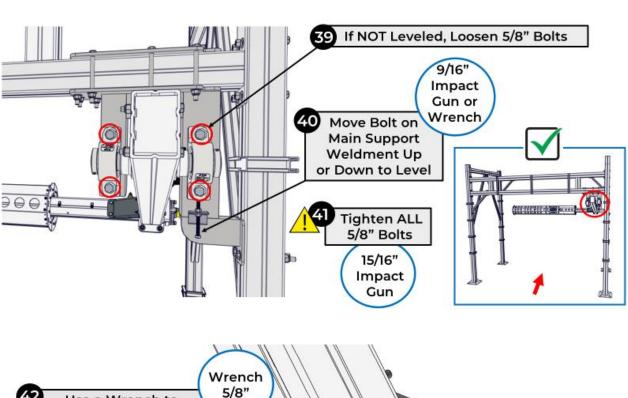


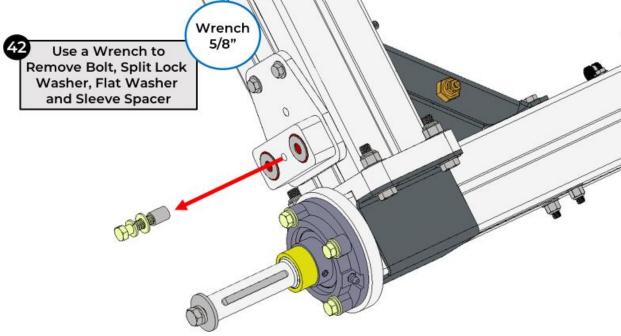


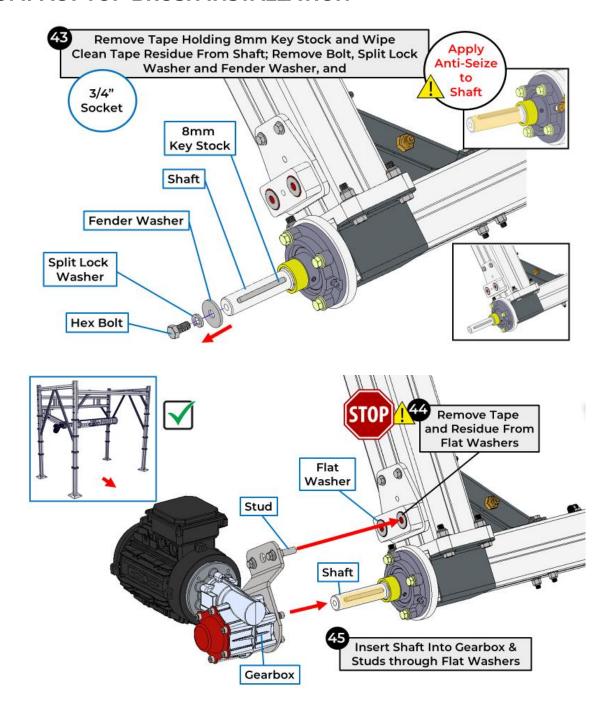


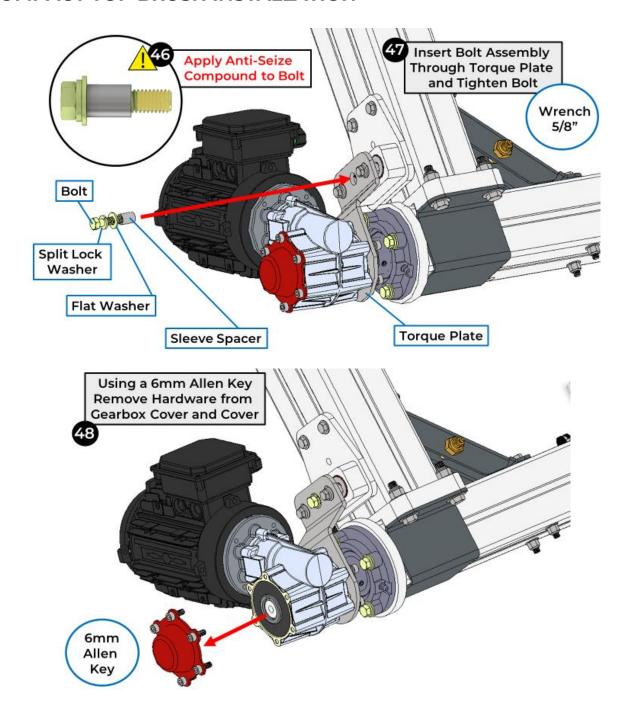


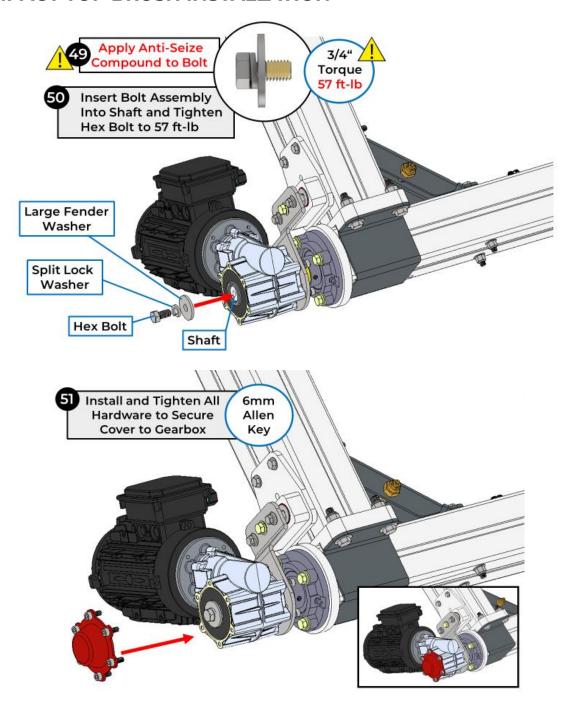


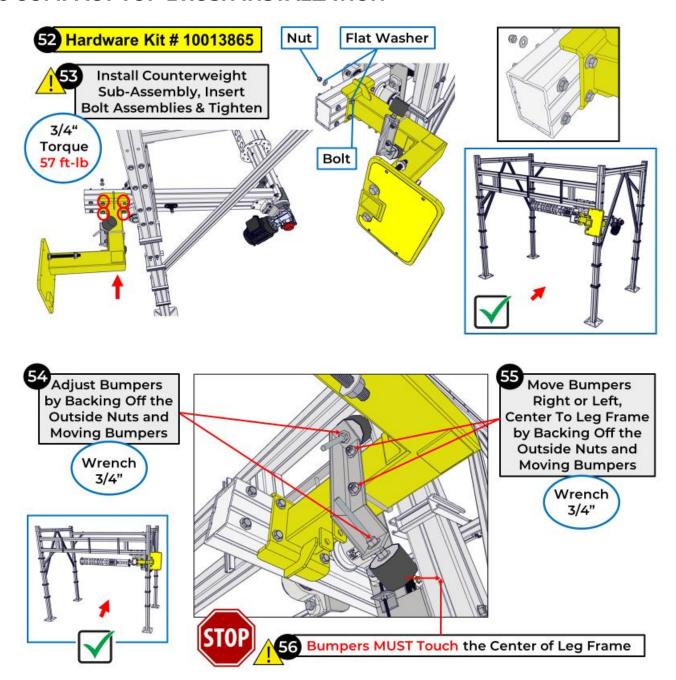


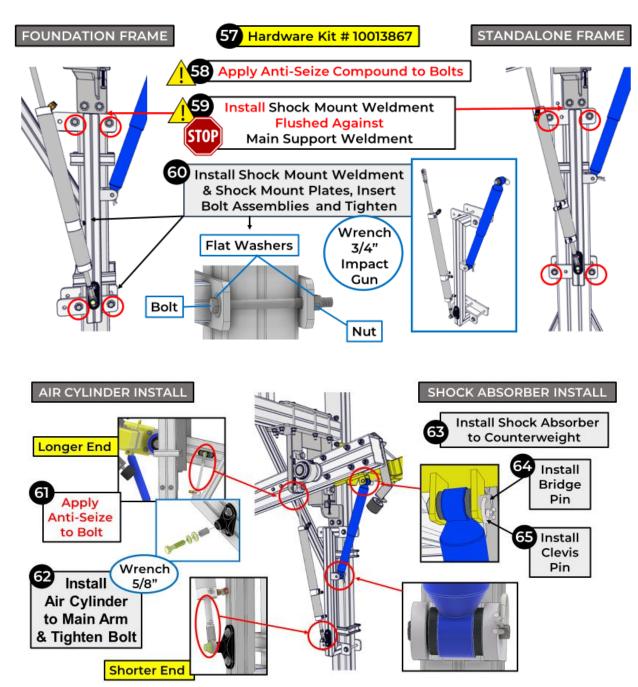


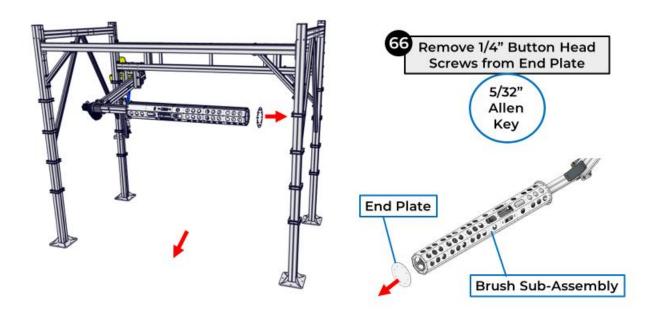


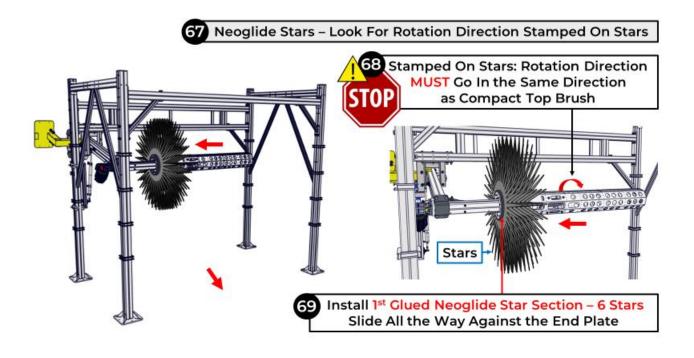


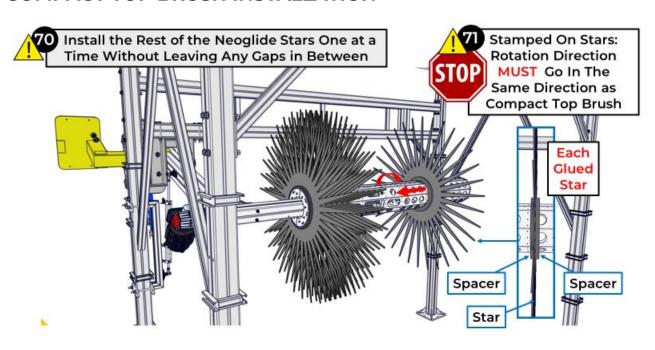


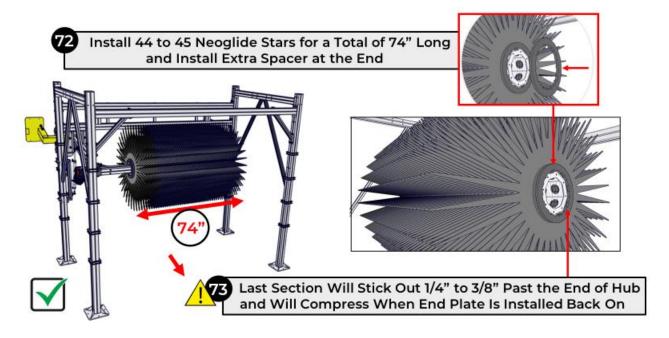


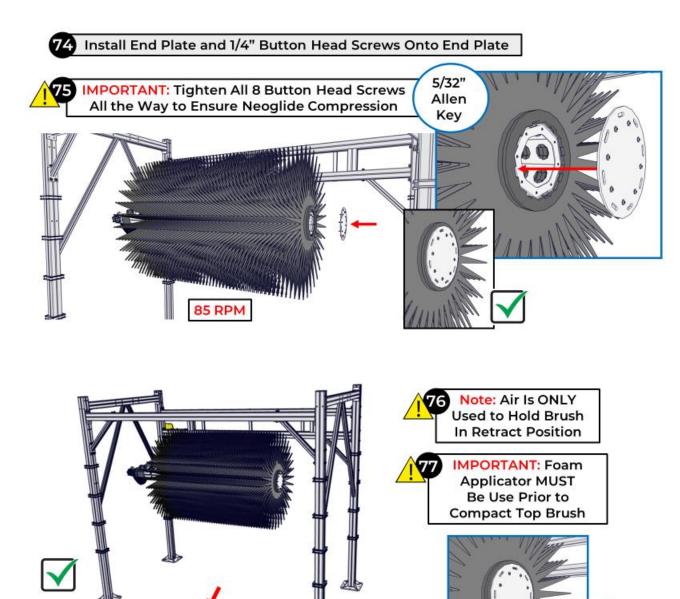










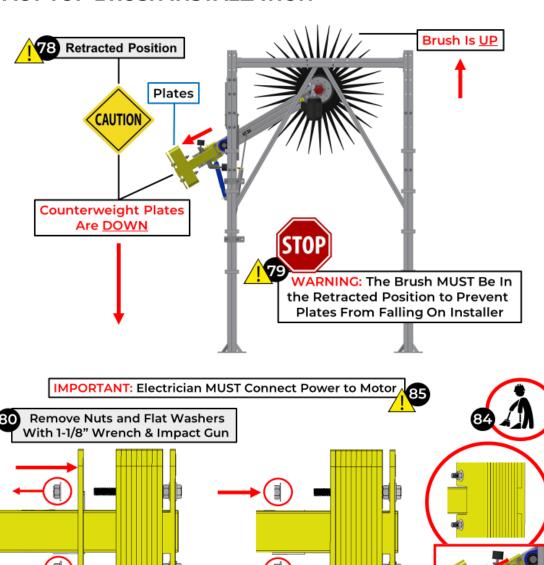




3.6 COMPACT TOP BRUSH INSTALLATION

Install

Plates



COMPACT TOP BRUSH QUICK START INSTALL MANUAL

Insert Flat Washers, Apply Anti-Seize

Compound to Bolts and Insert Nuts

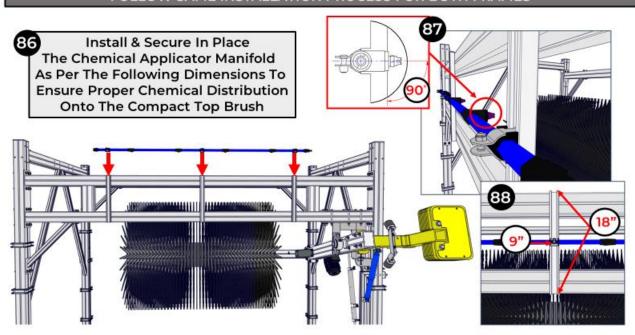
Hold Nuts With

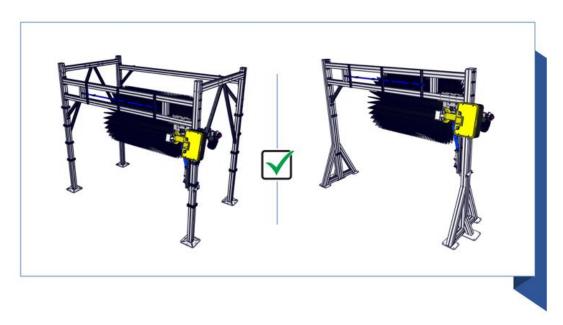
Wrench and

Tighten Bolts

3.6 COMPACT TOP BRUSH INSTALLATION

FOLLOW SAME INSTALLATION PROCESS FOR BOTH FRAMES





3.7 SPEED AND TORQUE ADJUSTMENT

- Compact Top Brush requires a VFD for proper smooth operation. Acceleration time should be set to 3.0 seconds.
- The speed can be adjusted on the Variable Frequency Drive (VFD).
- To increase the speed, adjust the Hertz on the VFD to a higher number.
- To decrease the speed, adjust the Hertz on the VFD to a lower number.

IMPORTANT: The Overload on the Motor Starter MUST be set at the lowest level to allow for operation. Adjust the amps in accordance with motor(s) name plate. For a 1HP Transtecno Motor, Overload Detection Level should be set to 2.3 amps.





3.8 ADJUST THE CLEANING PRESSURE OF THE WASHER

riangle Air pressure should **NOT** be used in the washing operation. Compact Top Brush penetration should be between 4 to 6 inches across the entire vehicle. To adjust Compact Top Brush penetration, Counterweight Plates can be added or removed.

3.9 ADJUST THE ROTATION SPEED OF THE BRUSH

The Compact Top Brush speed should be adjusted using a VFD for the electric motor. Recommended Compact Top Brush speed should be around 85 RPM.

3.10 OPERATION SPEEDS CHART

CHAIN SPEED	BRUSH RPM
60-90 CPH	75-85
90-150 CPH	85-90
150-180 CPH	90-95

3.11 ADJUST FOR SMOOTH RETRACT OPERATION

To adjust the retract operation, the air pressure regulator should be adjusted to approximately 40-50 PSI in the retract position.

The tunnel controller should be adjusted so that the Compact Top Brush is put into the wash position prior to the front of the car arriving at the Compact Top Brush. This will entail deactivating the retracts before the vehicle reaches the Compact Top Brush and setting the look ahead to check for the proximity of the next car.



Note: Retract Position for the Compact Top Brush is achieved by the Extension of the Air Cylinder.

WARNING: Make sure the proper Chemistry (Brush Lubrication) is being used in the Car Wash Tunnel to prevent vehicle and equipment damage.

4. GENERAL OPERATION

WARNING: Make sure the proper Chemistry (Brush Lubrication) is being used in the Car Wash Tunnel to prevent vehicle and equipment damage.

4.1 COMPACT TOP BRUSH OPERATION

Compact Top Brush rotation starts and stops with a signal from the Customer Supplied Controller System to the Customer's Hydraulic Power Pack or VFD activating Compact Top Brush rotation. This Controller Start-Stop signal should also control soap solution delivery to the spray bar or manifold providing lubricity to the Compact Top Brush.



IMPORTANT: Make certain that the Compact Top Brush Rotates against vehicle travel.

With the Compact Top Brush rotating (against the direction of vehicle travel and at proper RPM) the Compact Top Brush travels on vehicle's front hood and across the vehicle maintaining a steady contact; as it cleans the hood, roof, and trunk of the vehicle.

NOTE: Proper Compact Top Brush penetration on flat vehicle surfaces should be 4"-6". As the Compact Top Brush rounds corners, such as on windshields, the Compact Top Brush penetration may be greater, but not deeper than half the distance to the aluminum brush core.

4.2 RETRACT OPERATION

When there is no vehicle approaching the Compact Top Brush, the tunnel controller will retract the Compact Top Brush from the wash position, toward the ceiling.



 $\stackrel{ extstyle op}{ op}$ NOTE: This can also be set up in the controller to retract for the beds of trucks to avoid problems.



IMPORTANT: It is recommended that the Compact Top Brush be retracted for:

- 1. ALL roof racks.
- 2. Sun visors mounted over the windshield.
- 3. Rear wipers on Acura Integra's and Mazda RX-7's unless they are taped down.
- 4. Open bed pickup trucks.

5. CONTACT US

5.1 TECHNICAL SUPPORT

For questions regarding installation, operational issues, settings, or servicing of this equipment, please contact Sonny's Technical Support Team:

Email: Sonnys-Support@SonnysDirect.com

SMS Text: 954-406-4363

Phone: 800-327-8723 Option #5

5.2 REPLACEMENT PARTS

Shop Online: https://sonnysdirect.com/shop/
Email: CustomerService@SonnysDirect.com

Phone: 800-327-8723 Option #3

5.3 ON-SITE SERVICE AND SUPPORT

Online: https://sonnysdirect.com/services

Florida	407-770-1000	Email: SCWSFLservice@sonnysdirect.com
Southeast	770-995-5989	Email: CWSseservice@sonnysdirect.com
Mid-Atlantic	800-448-4735	Email: Service-ma@sonnysdirect.com
Northeast	866-343-6680	Email: SCWSNEservice@sonnysdirect.com
Midwest	800-274-2777	Email: Service-indy@sonnysdirect.com
Texas	800-826-0829	Email: SCWStxservice@sonnysdirect.com
West	833-725-6353	Email: SCWSservice@sonnysdirect.com
All Others	800-327-8723	

5.4 EMERGENCY CELL PHONE CONTACTS



https://sonnysdirect.com/emergency





























