

SKIP 9000



READ BEFORE INSTALLING



Shur-Co[®], LLC Terms & Conditions

SHIPPING. Orders are shipped F.O.B. from the Shur-Co®, LLC sites listed below. No full freight is allowed or prepaid shipment accepted unless quoted and approved in writing prior to acceptance of the order. All shipments are made by the most reasonable means in accordance with size and weight of order, unless specified routing instructions are furnished by the customer. Shipments are made daily via courier. Claims for shortages must be made within 10 days. All claims for damages or loss in transit must be made with the carrier. No collect calls will be accepted. To ensure delivery of orders, we need your full street address and phone number. When you receive your shipment, examine it carefully. Be sure all cartons listed on the delivery sheet are accounted for. Large items may be packaged separately. If a carton is damaged, open it and inspect the contents before signing for delivery. If merchandise is damaged, describe damage on the delivery receipt. Failure on your part to document damaged or missing merchandise on the delivery receipt releases the carrier of all liability; repair or replacement will be the customer's responsibility.

WARRANTY. We warrant all new products are free of defects in materials and workmanship.* This warranty is effective if products are properly installed and used for the purpose for which they were intended and applies to the original buyer only. Except as set forth above or in any product-specific warranty documentation, we make no other warranties, express or implied, including but not limited to warranties of merchantability of fitness for a particular use.

Returns of a product for warranty must be accompanied by a Return Merchandise Authorization number (RMA#), obtained by by calling UK Customer Service at 01634 862 363, and sent, with freight paid by us, to Shur-Co® UK Ltd., Donovan House, Unit 41, Rochester Airport Estate, Rochester, Kent ME1 3QX. All products returned without an RMA# will be refused. When we issue the RMA#, we will also issue a call tag to have UPS (or other freight company) pick up the product. C.O.D. returns not accepted. We will pay no storage fees for a warranty product return prior to pick by us or the freight company. If a warranty product return is scheduled to be picked up by us, we will pick up the product at our earliest convenience. If a product returned is found, in our judgement, to be defective in material or workmanship, our obligation under this warranty is limited to the repair or replacement of the product, which will be made by us. Repair or replacement will be at our discretion, with replacements being made using current products performing in the equivalent function. Labour charges, other than those incurred at our factory, including, but not limited to, any labour to install a repaired or re-placement product, are not covered under this warranty. All expenses associated with delivering defective products to our factory and delivering repaired or replacement products from our factory to the owner will be paid by us.

If the product returned is found, in our judgement, to be non-warrantable, the owner will be contacted to authorize repair work, purchase of a replacement product or return of the product, all of which will be at the owner's expense. Payment authorization must be received by us before any non-warrantable product is repaired, replaced or returned. All expenses associated with delivering the repaired non-warrantable product, a replacement product or the non-warrantable product from our factory to the owner will be paid by the owner.

In no event will we be liable for any damages of any kind to person, product or property, including but not limited to indirect, incidental, special, consequential or punitive damages, or damages for loss of profits or revenue, even if we have been advised of the possibility of such damages. There are no warranties for used products or products that have been repaired, altered, modified or subjected to misuse, negligence or accident. We will not repair or replace products that fail or malfunction due to ordinary wear and tear, except as expressly noted in a product-specific warranty. Use of non-Shur-Co[®], LLC products will void this product warranty.

*Certain products have specific warranties that differ from this warranty, for example motors and electronics. Product-specific warranty documentation is available for these items. In the event of a conflict between this warranty and a product-specific warranty, the product-specific warranty will govern.

RETURN POLICY. All sales final. See WARRANTY above for return details.

OTHER. All prices, product listings, sizes, weights and manufacturing details are subject to change without notice. No person is authorized to modify the foregoing conditions of sale whatsoever.

SHUR-CO®, LLC SERVICE AND DISTRIBUTION CENTRES

Corporate HQ and Outlet Store

SHUR-CO[®] of SOUTH DAKOTA 2309 Shur-Lok St., PO Box 713 Yankton, SD 57078-0713 Ph 800.474.8756 | Fax 605.665.0501

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SKIP 9000

INTRODUCTION

Thank you for purchasing Shur-Co's cover sheeting system. By purchasing a Shur-Co[®] product, you can expect the highest standards of build quality, customer service and product support from the world's largest sheeting system manufacturer.

Due to the nature and variation of commercial skip equipment, this installation manual is offered as guidance only. Should you encounter any difficulties with this product/installation, you can contact our UK based help line at +44 (0) 1634 862 363, and one of our skilled engineers will be happy to assist you.

The SKIP 9000 is engineered to fit nearly all makes of skip vehicle and, despite being a fixed arm system, will cover most standard sizes of skip bins from 4 to 14 yards.

It is imperative that installers of the Shur-Co[®] SKIP 9000 sheeting system are trained and competent. It is recommended that all members of the installation team are made aware of the following safety points and that a suitable and sufficient risk assessment is completed by a competent person for the task of installation. It is also recommended that adequate personal protective equipment (PPE) is worn when installing the system in accordance with the risk assessment. Recommended PPE includes, but is not restricted to:

PROTECTIVE EQUIPMENT

<u>Safety footwear:</u> To protect feet from heavy falling or crushing objects.

- <u>Safety glasses:</u> To protect eyes from sharp items, spring tension release and airborne debris.
- <u>Safety gloves:</u> To protect hands against cuts/ infection from abrasive or sharp objects.
- <u>Hi-Viz clothing:</u> To increase operator's visibility whilst installing the system.

SAFETY POINTS

- 1. Only operate in safe location.
- 2. Never climb on system.
- 3. Always remain clear of moving parts.
- 4. Always replace damaged or worn components immediately with genuine Shur-Co[®] parts.
- 5. Stand clear while operating system, remaining vigilant for loose or falling debris.
- 6. Always wear suitable and sufficient PPE.

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NOTE: When noting orientation of components on vehicle, location is determined by operator facing forward in driver seat

Relay Box Location/Installation

When selecting mounting position for relay box select convenient location close to vehicle batteries (do not exceed 5 meters) and, where practicable, on driver side of vehicle. Select location protected from heavy road spray with good access to reset switch.

Ensure relay is mounted on flat surface, using at least three of four mounting points (do not connect to battery until installation is complete).

HINT: Running EMT conduit (not supplied in kit) for electric cables from relay to battery provides safe location to run wires as well as giving clean, finished look to installation.



SMART 3[™] Location/Installation

When selecting mounting position for SMART 3 control unit, select convenient location close to vehicle batteries (do not exceed 5 meters) and, where practicable, on driver side of vehicle. Select location protected from heavy road spray with good access to open / close button on control box lid.

Ensure SMART 3 is mounted on flat surface, using at least three of four mounting points (do not connect to battery until installation is complete).

HINT: Running EMT conduit (not supplied in kit) for electric cables from relay to battery provides safe location to run wires as well as giving clean, finished look to installation.



Determine Pivot Points & Attach Pivot Mounting Plates



Designs of skip equipment vary according to manufacturer. For this reason, methodology for calculating pivot point is subjective to each installation. Consider size and shape of

- **STEP 1:** Start with pivot mounting plate in middle of outer edge of skip side rail (do not weld/fix).
- STEP 2: Measure from top to tarp bar (2) to centre of hole in pivot mounting plate (1) - measurement A
- **STEP 3:** Measure from centre hole of pivot mounting plate to 300mm behind largest bin to be covered, measurement B.
- STEP 4: Adjust left and right side pivot mounting plate position so measurements A and B are equidistant and pivot point is identified.
- **STEP 5:** Tack weld universal mounting plates on both sides of vehicle. Make sure that the hole patterns on mounting plates is correct for LH and RH spring assemblies. Ensure that there is adequate clearance for spring assemblies and lifting cylinders before completely welding the plates. If necessary mount the pivot mounting plates on offset bracket (not supplied in basic kit).





- **STEP 1:** Insert the shim plate onto spring assembly hanger bracket.
- **STEP 2:** Secure the spring assembly onto pivot mounting plate using 4 off M10x30 hexagon head bolts with M10 nylon lock nuts.
- **STEP 3:** Make sure that spring straight tail is sitting securely in spring hanger bracket and spring hook tail is bracing against spring hook bracket.
- **STEP 4:** Insert the pivot cast onto spring assembly hexagon shaft. Typical position of pivot cast on hex shaft is shown below. This is ensuring that necessary preload is created on spring when mounting the arms.
- **STEP 5:** Secure the pivot cast with set screws provided. Spring should be with minimum pressure when in pivot cast is lifted to horizontal position.









Install Aluminium Extruded Roller Bar

STEP 1: Mount direct-drive motor **(9)** on same side of vehicle as relay box and electrical cable. Motor is bolted to outer edge of arm plate with shaft inserted through centre hole of plate; fixings supplied with motor.



HINT: Motor should be mounted running down arm towards pivot box

STEP 2: On arm opposite motor, bolt 3/4 inch bearing **S** to outer edge of arm plate with supplied fixings



STEP 3: Measure distance between arm plates of both arms and cut roller bar 20mm shorter than measured length.



- STEP 4: Notice that both motor (2) and 19mm shaft (19) are
- STEP 4: Notice that both motor (a) and Temm shall (b) are pre-drilled. Measure distance from arm plate to predrilled hole on motor shaft and drill an 8mm hole in one end of roller bar to align with pre-drilled hole on motor shaft. Fix motor and roller bar using M8 hightensile nut and bolt provided.



HINT: When calculating position for drilling roller bar fixing point, remember to allow for 10mm clearance between roller bar and mounting plate at both ends of roller bar.

HINT: When drilling through roller bar, drill through smooth-sided slots, not threaded slot, as shown.

STEP 5: Repeat process for 19mm shaft at other end of roller bar. Insert 19mm shaft through 3/4 inch bearing and into roller bar and fix through roller bar with M8 high-tensile nut and bolt provided.



HINT: It is important that roller bar is level; check using spirit level before proceeding.

Running Electrical Cable, Mounting Arm Rest & Tarp Tie Bar

STEP 1: Run electrical cable through arm on same side of vehicle as relay box. Feed cable into arm through hole at top of arm near motor mounting plate as shown. Pull cable out of arm through hole at bottom of arm. Do not cut electrical cable. Leave approximately 50cm of cable exposed at motor mounting plate and pull rest through arm exit point.



HINT: Use appropriate electrical conduit (not supplied in kit) for exposed electrical cable, providing extra protection as well as giving clean, finished look to installation.

HINT: Wire hook is useful when trying to locate electrical wire and pull it through exit point of arm.

- **STEP 2:** Mount the tarp tie bar to the spill board using two M10 bolts. If the spill board is to low extension frame may be required. **DO NOT WELD** tie bar in place, always bolt it.
- **STEP 3:** Unbolt one end of tarp bar and slide top pocket of sheet over tarp bar. Secure tarp bar in position with nut and bolt
- **STEP 4:** Slide main tarp spline at rear of sheet into extruded aluminium roller bar groove. Start at centre of roller bar and feed left and right as needed.

HINT: It is important that tarp bar is level and square, if spill board is damaged/twisted, this must be accounted for when installing to ensure spill board extension is square.



STEP 5: Arm rest bracket should be mounted on as far back on the vehicle as possible to support the arm as close to the electric motor as possible. Typically arm rest bracket is bolted or welded in convenient position on skip lifting arm. In case of larger bins extension brackets or vertical post may be required (not supplied in basic kit).

HINT: Allow for rubber buffer when determining position of arm support brackets and consider size of bins to be carried.

HINT: It may be necessary to cut down tarp bar to desired length: this will be subjective to each install.



Wire Electric System - Relay Box

STEP 1: Connect the two-core electric cable provided in kit , to the direct drive motor . Connect the red cable to positive terminal on motor and black cable to negative.



CAUTION: Vehicle <u>must</u> be wired using the wire provided. Smaller wire will cause the system to operate slowly and possibly overheat.

STEP 2: Take the other end of the electric cable and safely route it to the relay box. Run electrical cable from direct drive motor on same side of vehicle as relay box. When routing the cable to the relay box, securing it to the housing and split board.

HINT: Use appropriate electrical conduit (not supplied in kit) for exposed electrical cable, providing extra protection as well as giving clean, finished look to installation.

STEP 3: Once cable is safely routed back to relay box and secured in position, cut off any excess cable and connect red cable to positive terminal on top of the relay box and black cable to negative terminal.



STEP 4: Using 3-core cable from underside of relay box connect the external switch as shown below and position it on vehicle in position allowing safe operation of the system.



NOTE: Within same are next to external switch, system override stop switch must be fitted (not included in kit).

- **STEP 5:** Yellow decal and operation sticker should be affixed adjacent to control switch so as to be clearly seen by operator..
- **STEP 6:** Take main feed cable (2 core) from underside of relay box and safely route it to vehicle batteries or vehicle auxiliary power output.



Wire Electric System - Smart 3™



CAUTION: Vehicle <u>must</u> be wired using the wire provided. Smaller wire will cause the system to operate slowly and possibly overheat.

STEP 2: Take the other end of the electric cable and safely route it to the SMART 3 control box. Run electrical cable from direct drive motor on same side of vehicle as control box is mounted. When routing the cable to the relay box, securing it to the housing and split board.

HINT: Use appropriate electrical conduit (not supplied in kit) for exposed electrical cable, providing extra protection as well as giving clean, finished look to installation.

- **STEP 3:** Once cable is safely routed back to SMART 3 control box and secured in position, cut off any excess cable and connect red cable to positive terminal noted as *MOTOR IN* on the back of the control box. Then connect black cable to negative terminal noted as *MOTOR OUT*.
- **STEP 4:** Use 2-core cable and connect the red wire to positive terminal noted *BAT POS*, and black wire to terminal noted *BAT NEG*.
- **STEP 5:** Take main feed cable (2 core) connected in step 4 and safely route it to vehicle batteries or vehicle auxiliary power output.

NOTE: It is recommended that 80-amp in-line fuse is fitted between battery and SMART 3 control box.



NOTE: More information regarding the SMART 3 Wireless Remote can be found in SMART 3 Operating Instruction *P/N* 1266870. Available on our website or by QR code below:





ltem	Part#	Description
1	1805464	9000 Upper Arm Left
2	1805466	9000 Upper Arm Right
3	1805458	Rear Cross Piece
4	1805458	9000 Lower Arm
5	1808485	Spring 22 Coils Assembly Driver Side
6	1808586	Spring 22 Coils Assembly Curb Side
7	1805436	Steel Pivot Casting
8	1801965	Durabuilt Electric Motor 24VDC (2336)
9	1801049	Shim Plate
10	1800960	Universal Mounting Plate Steel
11	1800737	Aluminium Roller Bar Inc. Shaft
12	1800042	3/4" Ball Bearing
13	1805490	Rubber Tarp Stops W/Jubilee Clamp
14	1804580	Basic 24VDC Relay Box
15	1805543	External Weatherproof Switch
16	1127921	Smart 3 Control Box Bluetooth

All replacement parts are available from your local agent or direct from Shur-Co® UK Customer Service Centre at 01634 862 363





1808989 Shaft Collar Single Zinc

All replacement parts are available from your local agent or direct from Shur-Co® UK Customer Service Centre at 01634 862 363

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Replacement Parts

Replacement sheets available in three different materials:

1805504—Standard mesh in stock with next day delivery in following colours:

- Black
- Green
- ♦ Red
- ♦ Blue

Additional bespoke colours available within few days from placing order, additional charges may apply.

1809543—Supa mesh more durable than standard mesh stock is subjected to availability for following colours:

- Black
- ♦ Green
- Red
- ♦ Blue

Additional bespoke colours available within few days from placing order, additional charges may apply.

1809597—Mighty Mesh® exclusively from Shur-Co UK

- Outlasts standard PVC mesh 3 to 1
- So strong that vinyl reinforcements are not necessary
- Holds up to heavy usage and the most abrasive loads
- Significantly Rips your tarp cost

Available in multicolour within few days from placing order.





All replacement parts are available from your local agent or direct from Shur-Co® UK Customer Service Centre at 01634 862 363







The industry's **BEST** motors!

Durabuilt 24VDC 1801965 (#2336)

- ✓ 24VDC— 900W Heavy Duty Motor
- No load speed 57rpm
- ✓ Stall torque 137 lbf*ft
- Max stall current 175A
- Extended output shaft
- 2 roller bar attachment holes
- For covering systems up to 53'
- ✓ 90:1 Gear Ratio provides extra torque

Also available as 12VDC—600W (Part number 1802061)

- ✓ 100% sealed motor and gear casting
- Solid cast end bell
- ✓ 100% quality control tested
- Replaces all competitors motors
- ✓ Fits all competitors front-to-rear systems



Sequential serial numbering and manufacture date stamp



Troubleshooting Guide

In unlikely event that sheeting system should fail, there are some simple steps to follow to as certain fault. (**Always** disconnect battery power before carrying out maintenance or servicing)

Problem:

Try This:

No forward travel: If system will not travel in forward (direction towards cab), the issue probably lies with either electrical system or sheet.

No forward travel: If system will 1. Inspect sheet for damage and replace as necessary.

2.Reset relay by pressing the reset switch located on top of relay box. Hold switch down for a few seconds, release and retry operation of sheeting system.

3.If you are still experiencing difficulties, it is possible one of relay box fuses has failed. Check fuses inside relay box by removing front panel to gain access. Replace any faulty fuses. Also check in-line fuse at battery positive terminal.

4. If fuses repeatedly fail during operation, check for positive feed at both fuses. Check battery connections and cabling for signs of damage and repair/replace as necessary. Also, check the in-line fuse at the battery as this protects system wiring from the battery to the relay box, and the 15-amp fuse located inside the relay unit which protects the switch wiring. Finally check the 80-amp fuse located in the relay box which protects the power supply cable from relay box to motor.

5. If relay box clicks when switched but there is no function, check for feed and return at relay box and motor when switched. If motor runs one way only, then a replacement relay box is required.

I. If feed and return are OK at relay box but not at motor, check wiring between relay and motor.

II. If feed and return are not OK at relay box, check in-line fuse at battery terminal and for cable damage. If okay, a replacement relay box is likely required.

III. If feed and return are OK at motor but is still not functioning, replacement motor/gearbox is required. Always disconnect battery power supply before carrying out maintenance or servicing.

will not travel to rear of vehicle, it 2. If arms are not t will most likely be related to electrical system (please see above) or pivot box assembly.

No rearward travel: If system 1. Check for signs of damage and replace any damaged parts.

will not travel to rear of vehicle, it 2. If arms are not traveling square, look for signs of worn or damaged springs in pivot boxes and rewill most likely be related to electri- place as required.

cal system (please see above) or pivot box assembly. HINT: Spring performance will decline with age. Performance of both pivot boxes should be equal or within reasonable tolerance for system to run square. Consider this when replacing worn or broken springs. Try to keep performance of pivot boxes equal by replacing springs on each side simultaneously.

HINT: Use of Shur-Co® UK-replacement springs will reduce likelihood of any spring tension related issues.

Intermittent operation: Intermittent operation will most likely be associated with electrical system.

Isolate the power using the dead-man switch or similar, then check for damaged cables and/or corroded terminals, both externally at the battery, relay and motor, and internally in the relay unit by removing the front panel for visual inspection.

Arm system not travelling square or rubbing on skip arms: If arm system is not running true, this will probably be caused by issue with either sheet or arm/ pivot system damage.

Arm system not travelling 1. Check sheet is installed correctly

square or rubbing on skip 2. Check sheet for damage. Please note that functionality of system is not likely to be affected unless arms: If arm system is not running significant damage to sheet is sustained.

3. Check sheet is square and pay particular attention to alignment of front flap and main sheet.

HINT: Use of Shur-Co® UK patented replacement sheets will reduce likelihood of sheet-related issues.

4. Check for signs of damage and replace any damaged parts.

5. Check that arm system has been installed/repaired correctly

HINT: Use Shur-Co® UK-replacement parts will reduce likelihood of arm system-related issues.

If you are unable to resolve any issue relating to repair or installation of SKIP 9000 sheeting system, please contact our UK Customer Service department at 01634 862 363, and one of our skilled engineers will be pleased to assist you.



At Shur-Co[®], we pride ourselves in the quality of our equipment and offer a comprehensive warranty package on all of our products. Should any of our products fall below the high standards you expect, please contact our UK Customer Services department at 01634 862 363.

WHAT IS COVERED?

- **Mechanism Components:** Unless otherwise stated below, SKIP 9000 comes with 12-month warranty against defects in material or workmanship, limited to warranty exclusions/limitations detailed below.
- P/N 1801965 (2336) Electric Motor: Unless otherwise stated, 12 month warranty limited to warranty exclusions/limitations detailed below.
- P/N 1805504 Mesh Sheet: Comes with 90 days material and workmanship coverage, but excludes damage resulting from misuse or neglect.

WARRANTY EXCLUSIOONS/ LIMITATIONS:

Warranty will be invalidated if:

- 1) System has not been installed according to Shur-Co® UK's published installation instructions.
- 2) Genuine Shur-Co[®] kit components have been substituted, altered, modified or been subject to misuse or neglect.

Warranty on motor will be void if:

- 1) Motor/gearbox has been opened.
- 2) Damage is caused by improper installation or abuse.
- 3) Damage is caused by chemical exposure, including paint (do not paint motor).
- 4) Damage is due to use of improper circuit breaker or lack of circuit breaker.

Basic Warranty Information:

- 1) Warranty commences from date of sale, not installation.
- 2) Shur-Co® UK shall not be responsible to supply or pay labour to replace any part found defective.

3) Shur-Co[®] UK will not be liable for damages of any kind or nature to person, product or property or other consequential losses.

