

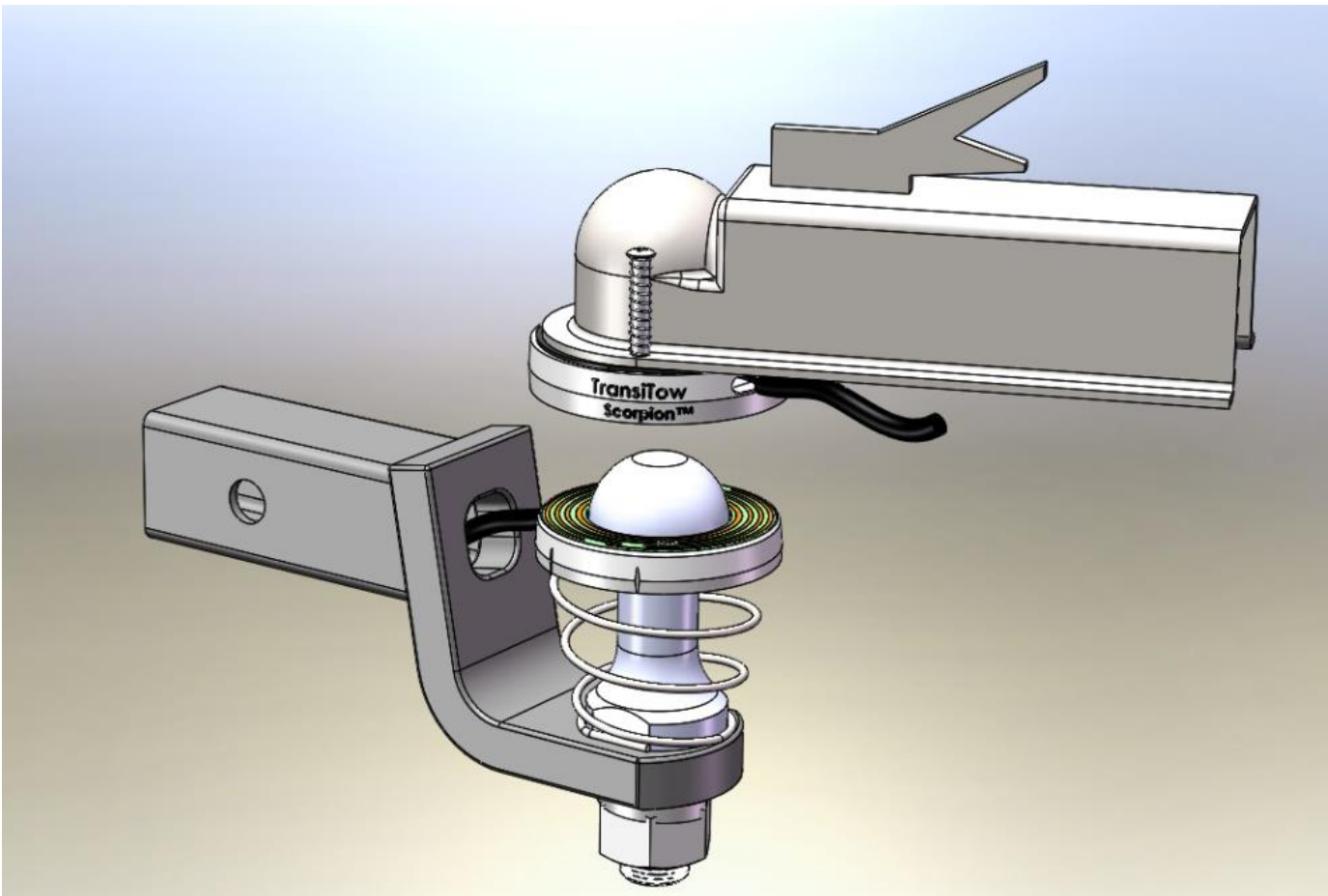


Transit Owl Scorpion Connector Installation Instructions Document

Welcome: Congratulations and thank you for your purchase! Welcome to the next generation of towing with your TransiTow Scorpion® Hitch Connector!

Description: This document provides installation instructions for the Transit Owl Scorpion Connector.

- Scorpion Connector 4 Point
- Scorpion Connector 7 Point





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1. Registration / Contact Transit Owl

- 1.1. **Register:** Register your product to be eligible for the warranty. Send us a copy of your proof of purchase and an image of the completed product registration card (included in your kit) to hello@transitowl.com with the subject "REGISTER PRODUCT".
- 1.2. **Contact Us:** For any other product-related inquiries, go to transitowl.com ⇨ **Contact**

2. Tools Requires

- Philips screwdriver
- Snip (to cut the zip ties)
- Wire stripper
- Center punch tool
- Drill (ideally, cordless)
- Drill 9/32 dia
- Gloves
- Eye protection
- Light-colored tarp (minimally 5'x9')
- Hammer
- Electrical tape
- Measuring tape
- Rat tail file

3. Contents of Package

Please review all the contents in this box. Each set is inspected to meet the highest quality standards to make sure you have everything needed for seamless installation.

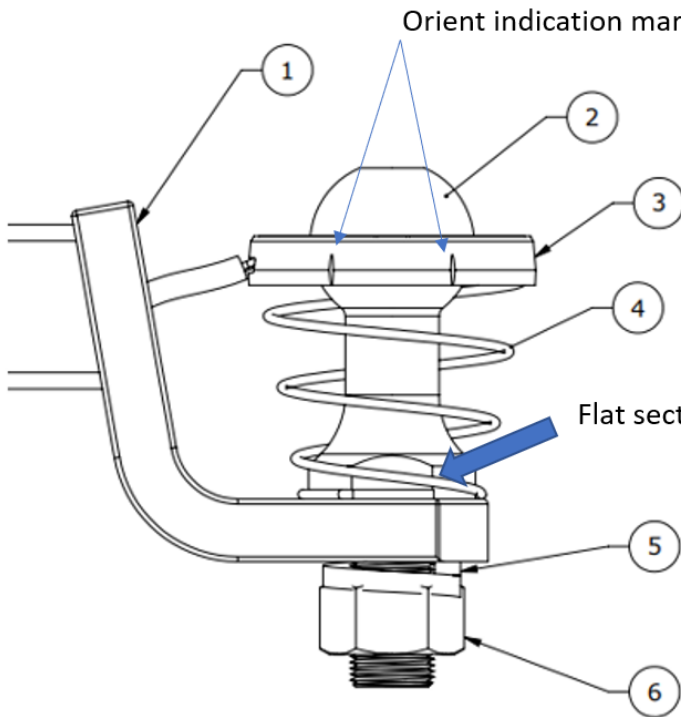
- SC-001 Backing Plate Qty 1
- SC-007 Compression Spring Qty 1
- SCA-001 Probe Block Qty 1
- SCA-002 Receiver Rotary Coupler Qty 1
- SC-005 & SC-006 Long neck 2 inch Ball Hitch and Tow Hitch (pre-assembled) Qty 1
- 96110A049 Nylon threaded posts Qty 4 (2 Spares)
- 9657K347 Compression Spring Qty 4 (2 Spares)
- 91770A191 Screw Truss hd 8-32 x .31 lg Qty 2
- 91771A197 Screw Flat hd 8-32 x .75 lg Qty 2
- 7227K12 Butt Connector 18 ga Qty 8

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4. Assembly of SCA-003 Receiver Assy Complete (Vehicle)

4.1. Assemble per diagrams and parts list below

4.2. Route wiring thru hitch bar opening and secure with Zip Tie(s). Be sure wiring is long enough to move freely with the spring compression.



ITEM NO.	PARTNO	DESCRIPTION	QTY
1	SCA-005	TOW HITCH	1
2	SC-006	BALL HITCH	1
3	SCA-002-A-B	RECEIVER BLOCK ASSY ROTARY COUPLER	1
4	SC-007	COMP SPRING	1
5	92147A038	LOCK WASHER 1.0"	1
6	91845A205	HEX NUT 1.0 -14 SS	1

Flat section of spring corresponds to Ball Flat

Items 1, 5 & 6 Pre-assembled within kit

* Route wiring harness thru port, hitch bar opening

Route wires thru hitch bar and terminate per best practice

Press spring coil firmly into housing

* Routing port optional
If not equipped, route wiring adjacent and tie wrap.

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5. Wiring of Receiver Assy (Vehicle)

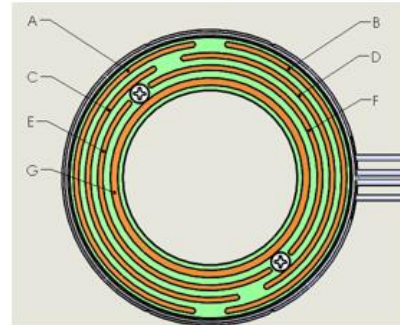
Connect wires to Vehicle using butt splice connection supplied

4 Point Wiring

- **Green** Right turn / brakes
- **Yellow** Left turn / brakes
- **Brown** Tail lights
- **White** Ground

7 Point Wiring

- **Green** Right turn
- **Yellow** Left turn
- **Brown** Running Lights
- **White** Ground
- **Blue** Electric brakes
- **Black** Reverse
- **Red** Utility



SCA-002-A RECIEVER BLOCK ASSY 7 POINT			
SCA-002-B RECIEVER BLOCK ASSY 4 POINT			
WIRING			
WIRE CLR, GA	CONN DES	SCA-002-A (7CON)	SCA-002-B (4CON)
BLACK, 18 GA	A	X	
WHITE, 18 GA	B	X	X
BROWN, 18 GA	C	X	X
RED, 18 GA	D	X	
YELLOW, 18 GA	E	X	X
GREEN, 18 GA	F	X	X
BLUE, 18 GA	G (2X)	X	

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6. Modification of Tow Bar

Note: If you have purchased the optional Transit Owl Tow Bar this step is not required.

6.1. Modification to the tow bar is required. End result, 2 (diameter .281) holes need to be drilled thru the tow bar lip as described below.

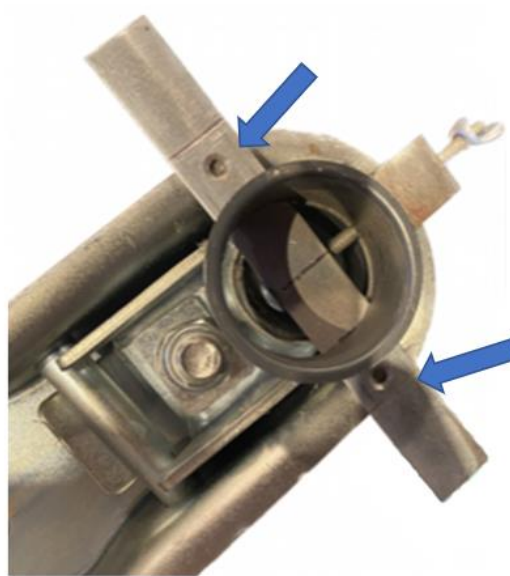
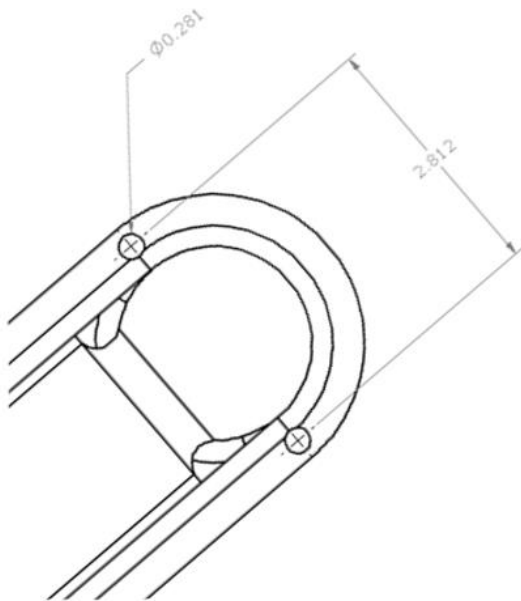
6.1.1. Clamp fixture in place, ensure alignment such that holes to be drilled are perfectly centered as shown.

6.1.2. Center “prick” punch or transfer punch hole starting point center.

6.1.3. Drill thru with 1/8” (.125”) dia drill bit

6.1.4. Drill thru with 9/32” (.281”) dia drill bit (final size)

6.1.5. Remove all sharp edges and burrs



Bottom view of Tow Bar
Modification fixture installed

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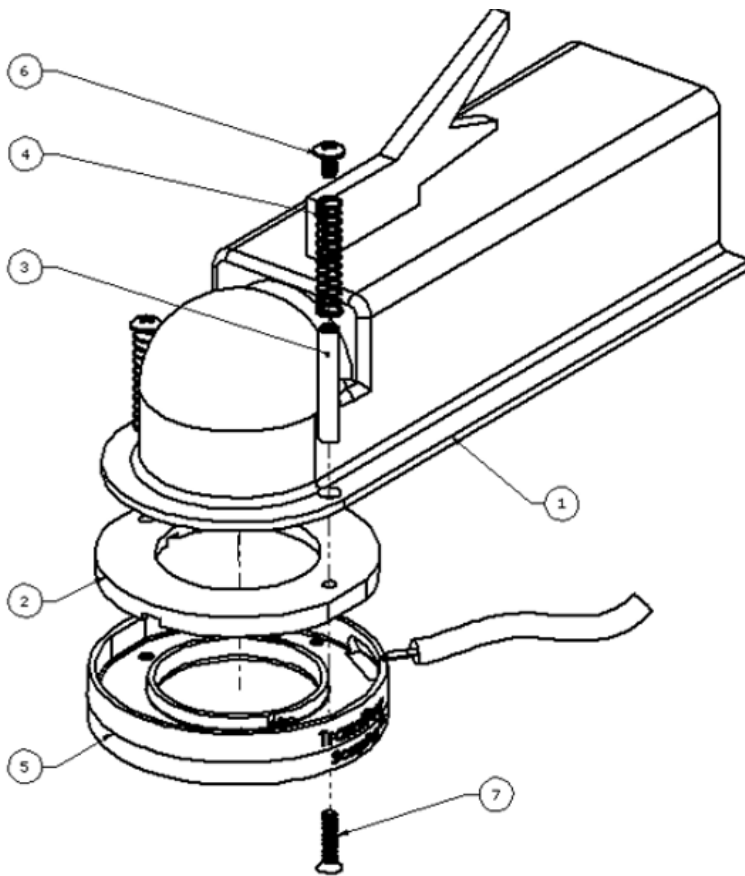
7. Assembly of SCA-004 Tow Assy Complete (Trailer)

7.1. Assemble as shown below

7.2. Wiring will exit at right side as shown, tie wrap as required. Drill additional holes for securing wire bundle 4" apart, large enough to run zip ties through.

7.3. Secure wires with zip ties

Note: Take care not to overtighten screws that thread into item 3 Nylon Standoff /post. Suggest screwdriver and hand tightening.



ITEM NO.	PARTNO	DESCRIPTION	QTY
1	N/A	TOW BAR MODIFIED	1
2	SC-001	BACKING PLATE ROTARY COUPLER	1
3	96110A049	NYLON THREADED FEMALE STANDOFF	2
4	9657K347	COMP SPRING	2
5	SCA-001-A-B	PROBE BLOCK ASSY 7POINT, 4 POINT	1
6	91770A191	SCREW TRUSS HD 8-32 X .31 LG	2
7	91771A197	SCREW FLAT HD 8-32 X .75	2

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8. Wiring of Tow Assembly (Trailer)

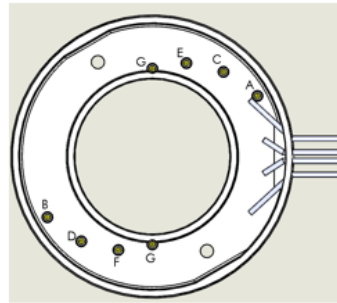
Wiring of Tow Assembly

4 Point Wiring

- **Green** Right turn / brakes
- **Yellow** Left turn / brakes
- **Brown** Tail lights
- **White** Ground

7 Point Wiring

- **Green** Right turn
- **Yellow** Left turn
- **Brown** Running Lights
- **White** Ground
- **Blue** Electric brakes
- **Black** Reverse
- **Red** Utility



Viewed from Top

SCA-002-A RECIEVER BLOCK ASSY 7 POINT			
SCA-002-B RECIEVER BLOCK ASSY 4 POINT			
WIRING			
WIRE CLR, GA	CONN DES	SCA-002-A (7CON)	SCA-002-B (4CON)
BLACK, 18 GA	A	X	
WHITE, 18 GA	B	X	X
BROWN, 18 GA	C	X	X
RED, 18 GA	D	X	
YELLOW, 18 GA	E	X	X
GREEN, 18 GA	F	X	X
BLUE, 18 GA	G (2X)	X	

9. Connect Vehicle to Trailer, Test all Functions

9.1. Connect Trailer to vehicle per normal, ensure alignment. See pic below

9.2. Determine all functions are working, running lights, turn signal, directionals left & right, brake lights

