

# Electronic Lock Indicator Harness Replacement Instructions

RK-10903-L & RK-10903-R  
2-Sensor Harness Replacement Kit for  
XA-311, XA-351 and XA-331 Series  
Fifth Wheel Top Plates



# SAFETY INFORMATION

This manual contains retrofit procedures for installing an Electronic Lock Indicator (ELI) on the 3500 fifth wheel top plate (XA-351 Series), and for the 3500 low lube fifth wheel top plate (XA-331 Series) manufactured after January 1, 1997. Use the figures to the right to identify your Holland 3500 Series fifth wheel.

The ELI is NOT available for FW3500 fifth wheel top plates manufactured before December 31, 1996. See figures at right.

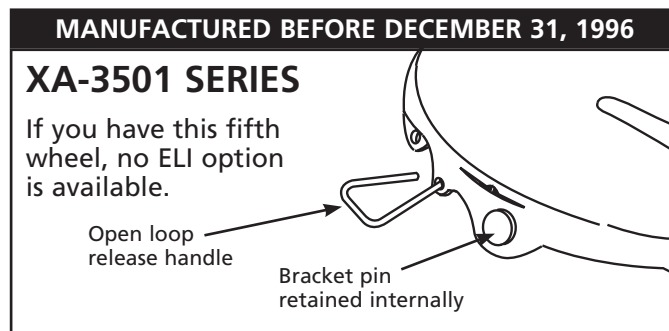
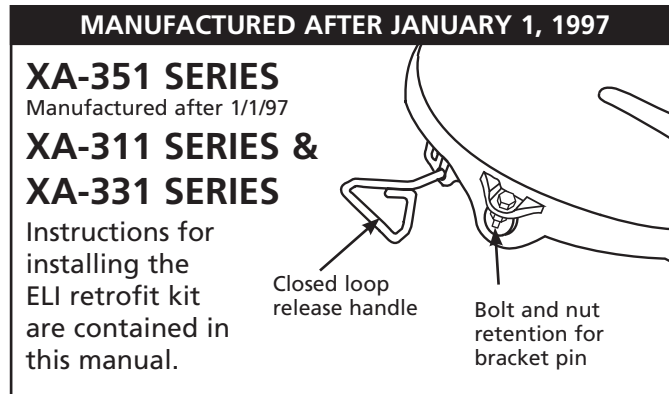
**IMPORTANT:** The electronic lock indicator is a tractor/trailer fifth wheel coupling aid and is intended as an additional safety check to assure the driver of a safe and complete coupling. It does not eliminate the requirement for a visual inspection of the fifth wheel.

**⚠️ WARNING** ALWAYS GET OUT OF THE TRACTOR CAB AND VISUALLY INSPECT THE FIFTH WHEEL COUPLING! Failure to verify a proper couple can result in tractor and trailer separation, causing death or serious injury to you or others.

## IMPORTANT SAFETY INFORMATION

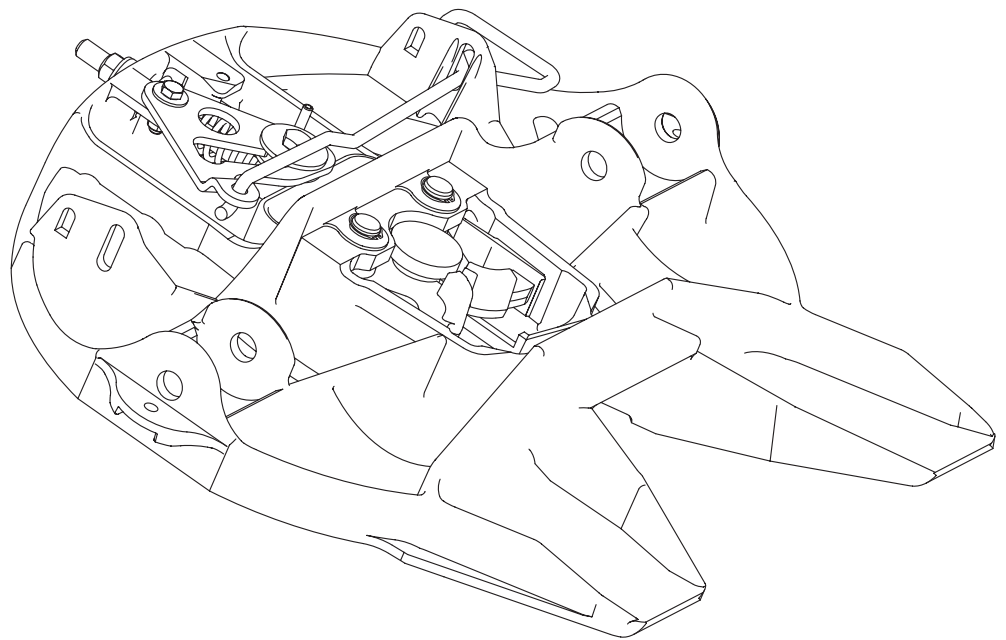
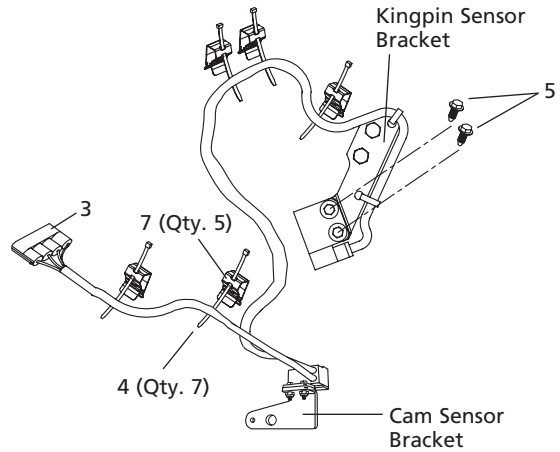
Before attempting ELI retrofit installation, you must read and understand the following:

- **DO NOT** attempt to install ELI on any XA-351 or XA-331 fifth wheel without following the instructions contained in this manual.
- **DO NOT** modify, change, weld, or add to the product. Use only genuine Holland parts. Use only the components supplied in the kit.
- Perform all procedures in a lighted area clear of obstacles and other personnel.
- Always wear safety goggles during removal, installation, or service procedures.
- **DO NOT** strike any part of the product with a steel hammer, except where instructed to do so.
- Observe standard precautions when lifting.



*U.S. PATENT #5861802, D442971, 6285278, and other patents pending.*

# PARTS BREAKDOWN



## NOTE

The item numbers in this parts breakdown, and in the chart below, correspond to the item numbers referenced throughout this manual.

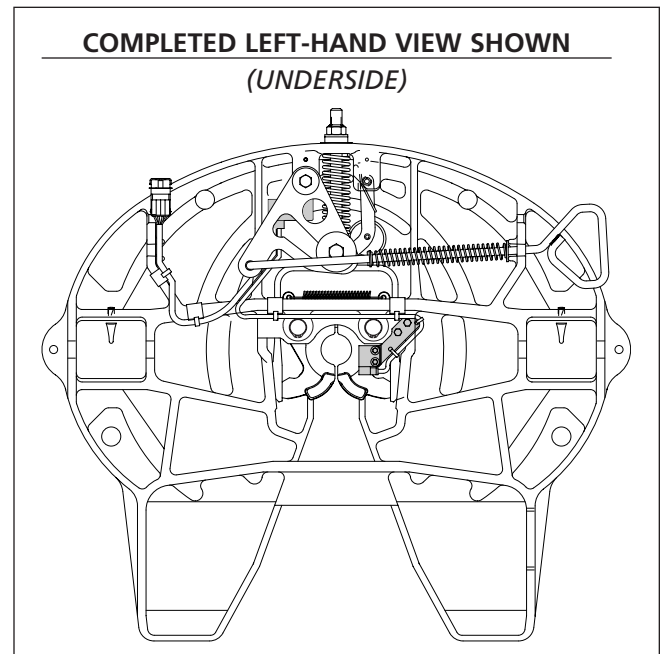
## REQUIRED TOOLS AND SUPPLIES

- Torque Wrench (ft.-lbs.)
- Scissors/knife
- Hammer or mallet

ITEM	PART NO.	NO.	PART NAME
3	XA-10776-L	1	Harness subassembly, 2-sensor, LH
	XA-10776-R	1	Harness subassembly, 2-sensor, RH
4	XB-01961	7	Cable tie, nylon
5	XB-10074	2	Screw, 1/4"-20 type F, thread cutting
6	XB-21-S-5M-22M	2	Roll pin, 5mm dia. x 22mm large
7	XB-09976	5	Spring clip
12*	XB-08559	2	Washer (1-3/4" O.D. x 9/16" I.D.)
13*	XA-1029	1	Roller (1/2" I.D.)
14**	XB-10068	1	Hex head cap screw (1/2" x 2")
15**	XB-T-69-A	1	Locknut (1/2"- 20)
20**	XB-PW-1732-1-1161	1	Washer (1-1/16" O.D. x 17/32" I.D.)

\* Not included in this kit. Items are listed only for reference.

\*\* Included in this kit, but not shown in this drawing.

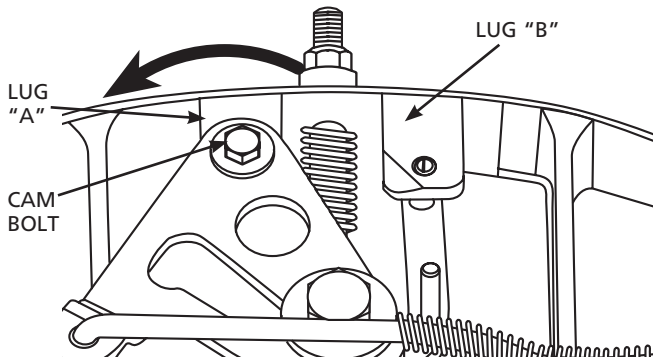


# INSTALLATION INSTRUCTIONS

## Fifth Wheel Top Plate Preparation Left-Hand Release

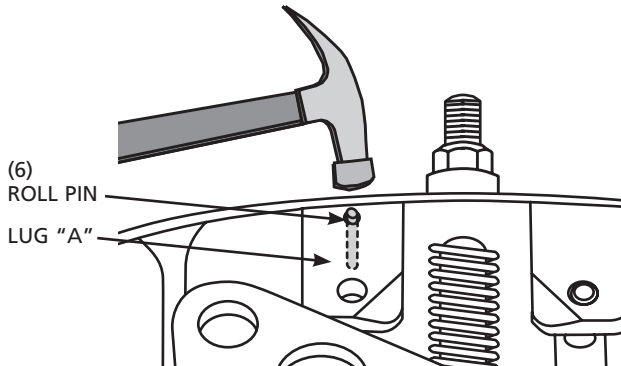
1. Remove the cam bolt and rotate the cam away from lug A. Remove and discard cam sensor.

**FIGURE 1**



2. Pound the new roll pin (ITEM 6) into the hole flush with the top of the lug.

**FIGURE 2**



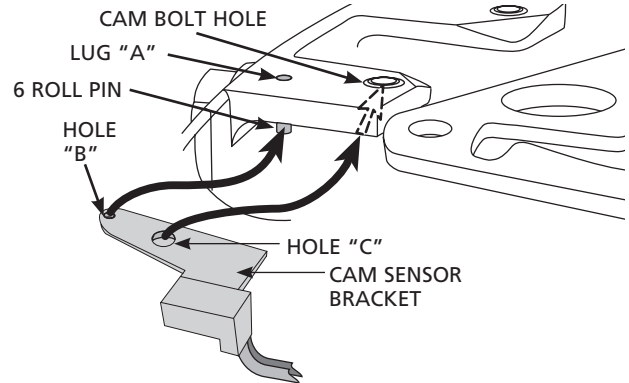
**NOTE:** Before installing the sensors and harness, make sure the top plate and work areas are free of chips and burrs.

## Harness Installation Left-Hand Release

### Cam Sensor Bracket Installation

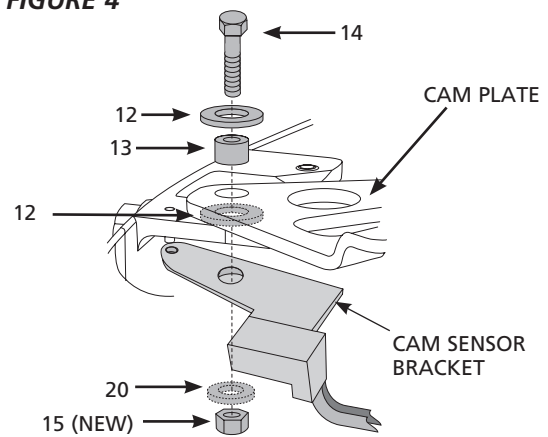
1. Clean and lubricate the cam plate. Install cam sensor bracket under LUG "A". Position HOLE "B" onto the bottom of the roll pin (ITEM 6).

**FIGURE 3**

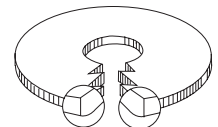


2. Once the cam sensor bracket is attached to the roll pin, line up HOLE "C" (see FIGURE 3) with the cam bolt hole. Replace the washer (ITEM 12) over the cam bolt hole, and rotate the cam plate back into position (see FIGURE 4). Re-install the roller (ITEM 13) and second washer (ITEM 12). Finally, guide the hex head cap screw (ITEM 14) through the washer, roller, cam plate, washer, lug, and the cam sensor bracket, add washer (ITEM 20). Screw the new locknut (ITEM 15) onto the hex head cap screw and tighten securely. Check the cam operation for free movement. Clean away excess grease.

**FIGURE 4**



**NOTE:** When installing the washers (ITEM 12), the rounded edge of the washers must always face the cam plate.



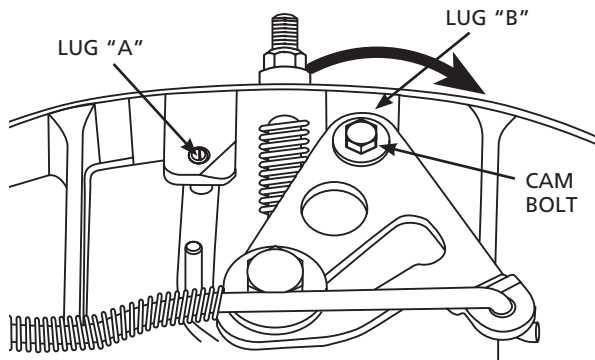
Proceed to "Kingpin Sensor Bracket Installation" on page 7.

# INSTALLATION INSTRUCTIONS

## Fifth Wheel Top Plate Preparation Right-Hand Release

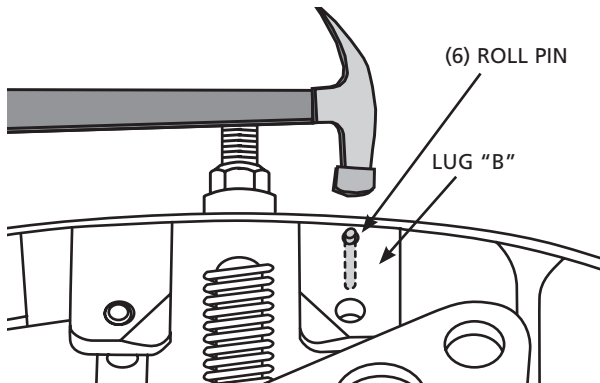
1. Remove the cam bolt and rotate the cam away from lug B. Remove and discard cam sensor.

FIGURE 5



2. Pound the new roll pin (ITEM 6) into the hole flush with the top of the lug.

FIGURE 6



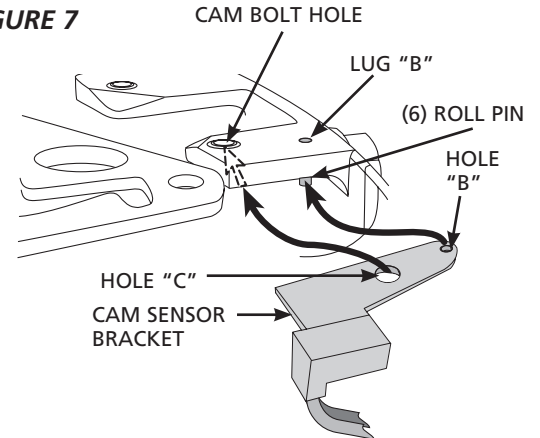
**NOTE:** Before installing the sensors and harness, make sure the top plate and work areas are free of chips and burrs.

## Harness Installation Right-Hand Release

### Cam sensor bracket installation

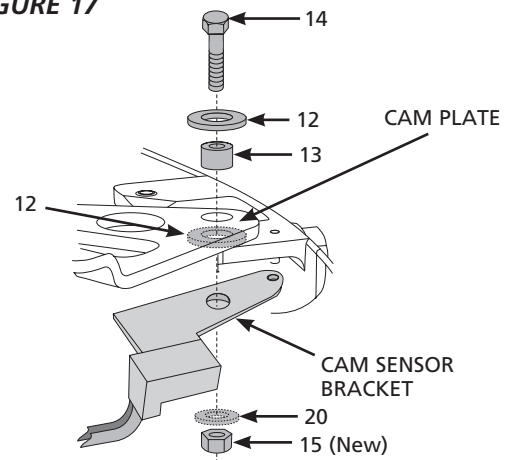
1. Clean and lubricate the cam plate. Install cam sensor bracket under LUG "B". Position HOLE "B" onto the bottom of the roll pin (ITEM 6).

FIGURE 7

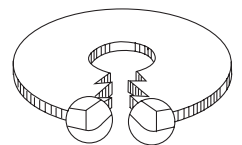


2. Once the cam sensor bracket is attached to the roll pin, line up HOLE "C" (see FIGURE 15) with the cam bolt hole. Place the washer (ITEM 12) over the cam bolt hole, and rotate the cam plate back into position (see FIGURE 16). Re-install the roller (ITEM 13) and second washer (ITEM 12). Finally, guide the hex head cap screw (ITEM 14) through the washer, roller, cam plate, washer, lug, the cam sensor bracket, and washer (ITEM 20). Screw the new locknut (ITEM 15) onto the hex head cap screw and tighten securely. Check the cam operation for free movement. Clean away excess grease.

FIGURE 17



**NOTE:** When installing the washers (ITEM 12), the rounded edge of the washers must always face the cam plate.



# INSTALLATION INSTRUCTIONS

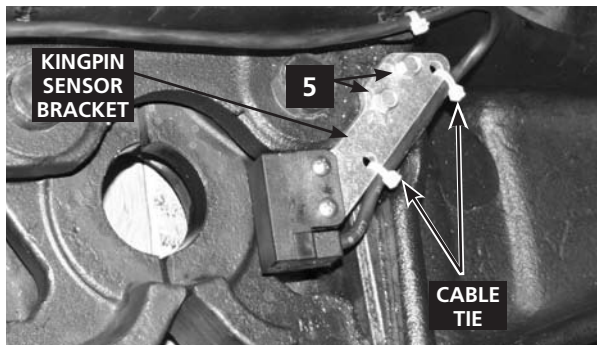
## Kingpin Sensor Removal

1. Remove the two screws (see **FIGURE 9, ITEM 5**). Remove and discard old sensor harness.

## Kingpin Sensor Bracket Installation

1. Mount the kingpin sensor bracket to the fifth wheel (see **FIGURE 9**) with the thread-cutting screws (**ITEM 5**). Torque screws to 12 foot-lbs. **Do not** overtighten the screws. **Do not** use air or impact tools.

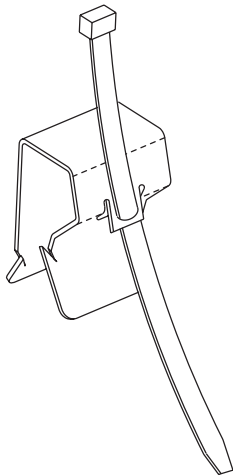
**FIGURE 9**



**NOTE:** The kingpin sensor bracket mounts in the same position for both left- and right-hand release fifth wheels.

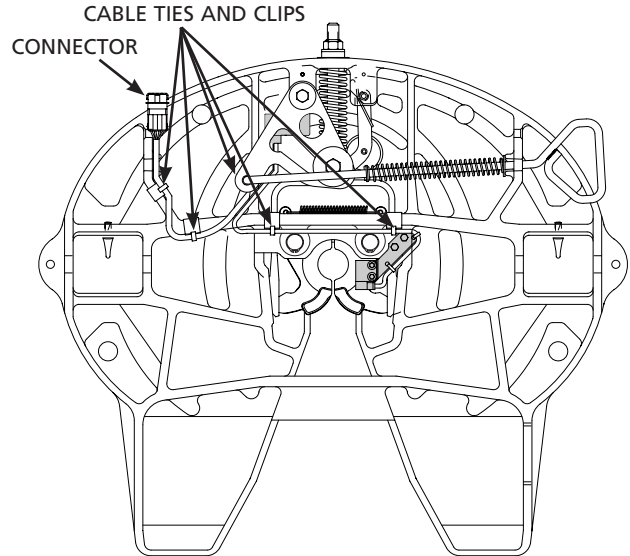
2. Assemble the cable ties (**ITEM 4**) and spring clips (**ITEM 7**) together before pressing the clips onto the casting as shown in **FIGURE 10**.

**FIGURE 10**



3. Route the harness on the fifth wheel as shown in **FIGURE 11**. Use clips (**ITEM 7**), and cable ties (**ITEM 4**) to fasten the harness to the fifth wheel ribs in the locations shown.

**FIGURE 11**



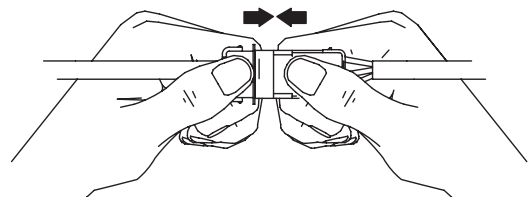
**NOTE:** A left-hand release fifth wheel is shown here. For a right-hand release, the cam sensor bracket and wiring are mirrored on the opposite side of the top plate.

4. Re-install the fifth wheel top plate onto the tractor.

## Cable Connection/Operation Check

1. Connect the 25' extension cable to the wire harness on the fifth wheel (see **FIGURE 12**).

**FIGURE 12**



2. Check the operation of the fifth wheel and the Electronic Lock Indicator using lock adjustment tool TF-TLN-5001.

For operating instructions, see SAF-HOLLAND publication XL-FW389-XX.

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SAF-HOLLAND USA, Inc. · 888.396.6501 · Fax 800.356.3929  
SAF-HOLLAND Canada Limited · 519.537.3494 · Fax 800.565.7753  
Western Canada · 604.574.7491 · Fax 604.574.0244  
[www.safholland.us](http://www.safholland.us)

