Spring Replacement Instructions
Spring Replacement Kit (ARMORSRK)

All kits include hardware

• Keep hands away from throat of operating fifth wheel
• Wear Personal Protective Equipment (PPE)
• Make sure the wheel is disarmed before maintenance
• Follow all instructions
• Read operating manual before use
• Use proper procedures
• Use proper tools

Spring Kit
Part # ARMORSRK
Standard Repair Time: 1 Hour

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Torsion spring</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>Spring tensioner</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>Main spring</td>
<td>1</td>
</tr>
</tbody>
</table>

See video at fifthwheel.com/maintenance/
Choose “Spring Kit Replacement”

Tools Required
- Crowbar
- Pliers
- 3/4” deep well socket with 2” extension
- 9/16” socket
- 11/16” socket
- 1/4” allen wrench
- Kingpin tool

Personal Protective Equipment
- Safety glasses
- Work gloves
- Steel toe boots

Spring Replacment Kit Video available at: fifthwheel.com/armor
Choose “Training” then “Spring Replacement”

Two bolts with cotter pin
Disassembly
Hint: If you need help with parts identification see pages 10-12.

1. Trip the wheel closed using a crowbar. NEVER use hands to trip an activated fifth wheel.

Hint: A fifth wheel is closed when the locking jaw is completely across the throat of the fifth wheel.

2. Raise the yard truck boom for easy access, then remove the air hose from the air cylinder quick release valve.

3. Remove two spring tension by removing the cotter pin with pliers. Then remove the two spring tensioner nuts. Hint: You can place a screwdriver in the main spring loop to prevent spring from rotating when unbolting nuts (see video).

4. Tilt the top plate down to access the two front bolts from the opposite side of the top plate. Remove the eight wear plate nuts and washers. Note all eight nut locations in photo.

See video at fifthwheel.com/maintenance/
Choose “Spring Replacement”

All kits include hardware
Disassembly

5. Remove both wear plates.

6. Tilt wheel down in rear to access secondary lock. Pull the secondary lock to open the fifth wheel.

7. Notice locking jaw is now visible because wear plate is off and fifth wheel is in open position.

8. Remove both cover plate nuts.

9. Remove operating handle nut and bolt.

All kits include hardware

See video at fifthwheel.com/maintenance/ Choose “Spring Replacement”
Disassembly

10
Remove operating handle nut and bolt.

11
Remove air cylinder/secondary lock bolt.

12
Remove trigger assembly.

All kits include hardware

See video at fifthwheel.com/maintenance/
Choose “Spring Replacement”
Spring Replacement

1. First remove torsion spring.
2. Install new torsion spring.
3. Install torsion spring nut, lock washer and washer.

Make sure torsion spring is secured in the notch on the operating handle before installing onto secondary lock.

Warning!

Wear protective equipment and use a tool to attach the torsion spring onto the secondary lock.
Secure the area, exercise extreme caution and keep fingers and hands from harm’s way.

All kits include hardware
Spring Replacement

Use a tool to install torsion spring onto secondary lock,

Properly attached, the spring is secured by a lip on the secondary lock and a notch in the operating handle.

Tighten torshion spring nut.

Install main spring onto trigger assembly oriented as shown.

Make sure to add the spring tensioner before installing the trigger assembly into the top plate.

The trigger assembly is no ready to be inserted into the top plate.
Assembly

1. Insert trigger assembly into top plate.

2. Fasten air cylinder bolt and tighten nut.

3. Install operating handle bolt.

4. Install lock washers before installing new cover plate.

Fasten air cylinder to the correct secondary lock bolt hole. Outside hole in secondary lock is for manual operation. Inside hole is for the air cylinder bolt.

Make sure cover plate is orientate properly with the angled side pointing towards you.

All kits include hardware
Assembly

5. Install lock washers before installing new cover plate.

6. Make sure cover plate is orientate properly with the angled side pointing towards you.

7. Position the jaw pin into the slot of the operating handle.

8. Trip the trigger off the stationary jaw stop. It pushes in.

9. Close the fifth wheel by pulling the main spring.

See video at fifthwheel.com/maintenance/
Choose “Spring Replacement”

All kits include hardware
Assembly

10
Install both wear plates.

11
Install the eight wear plate nuts and washers. You can tilt fifth wheel up and down for easy access. Note all bolt locations in photo.

12
Insert the spring tensioner through the hole.
Install the TWO spring tensioner nuts. Hint: You can place a screwdriver in the main spring loop to prevent spring from rotating when bolting on nuts (see video).

13
Install the cotter pin.

14
Connect the air hose to the air cylinder quick release valve.

15
Tilt the fifth wheel down and lower the yard truck boom.
Test the wheel using the Fontaine kingpin tool (ARMORKPK) by frequently opening and closing the fifth wheel (see video).

Test Kingpin Tool
Part # ARMORKPK

See video at fifthwheel.com/maintenance/
Choose “Spring Replacement”
All kits include hardware
### Part Identification

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Quantity</th>
<th>Included in kit</th>
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<tbody>
<tr>
<td>1</td>
<td>Wear plate</td>
<td>2</td>
<td>ARMORWPK</td>
</tr>
<tr>
<td>2</td>
<td>Knockout rod</td>
<td>1</td>
<td>ARMORKRK</td>
</tr>
<tr>
<td>3</td>
<td>Knockout rod clip</td>
<td>1</td>
<td>ARMORKRK</td>
</tr>
<tr>
<td>4</td>
<td>Knockout rod spring</td>
<td>1</td>
<td>ARMORKRK</td>
</tr>
<tr>
<td>5</td>
<td>Knockout rod nut</td>
<td>1</td>
<td>ARMORKRK</td>
</tr>
<tr>
<td>6</td>
<td>Stationary jaw</td>
<td>1</td>
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</tr>
<tr>
<td>7</td>
<td>Locking jaw</td>
<td>1</td>
<td>ARMORJRK, ARMORLAK</td>
</tr>
<tr>
<td>8</td>
<td>Torsion spring</td>
<td>1</td>
<td>ARMORTAK, ARMORLAK, AR MORSRK</td>
</tr>
<tr>
<td>9</td>
<td>Trigger</td>
<td>1</td>
<td>ARMORTAK, ARMORLAK</td>
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<tr>
<td>10</td>
<td>Secondary lock</td>
<td>1</td>
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<tr>
<td>11</td>
<td>Operating handle</td>
<td>1</td>
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<tr>
<td>12</td>
<td>Main spring</td>
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<tr>
<td>13</td>
<td>Spring tensioner</td>
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<tr>
<td>14</td>
<td>Air cylinder</td>
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<tr>
<td>15</td>
<td>3-way air valve</td>
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<tr>
<td>16</td>
<td>Cover plate</td>
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</tr>
</tbody>
</table>
Part Identification – Bottom View

- Three way air valve
- Air Cylinder
- Main Spring
- Stationary Jaw
- Trigger
- Tertiary lock (for use outside private yard)
- Manual Override Pull Handle Hole. Also used for tertiary locking.
- Secondary Lock
- Cover Plate
- Secondary Lock
- Operating Handle
- Wear Plate
- Torsion Spring
- Locking Jaw
- 28th fifth wheel manufactured in September, 2014

Example serial number: 09140028
Part Identification – Top View

- **Wear Plates** (removable for easy maintenance)
- **Air cylinder bolt access** (under wear plate)
- **Locking jaw access** (under wear plate). Locking jaw slides in for easy maintenance.
- **Stationary Jaw**
- **Locking Jaw**
- **Knockout rod access** (under wear plate). Slot for easy knockout rod maintenance.