



PORTX[®] RESCUE

FULL SERVICE

The following document is an officially created REID Lifting guide. It demonstrates the best practice and procedure for the following services:

- › Inspection of the unit and it's parts
- › Main spring retraction test
- › Full disassembly, service and reassembly
- › Post-service test procedure

This service must only be carried out by a trained and certified REID Service provider.



**See the video
guide here**



**Download the
service checklist**

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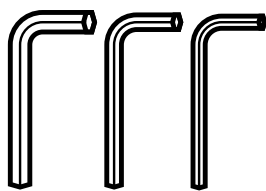
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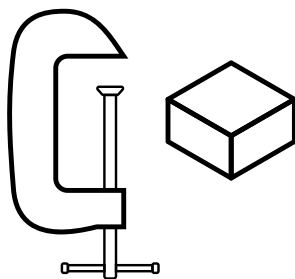
The following PPE Is required to carry out this procedure.:



The following tools are required for this procedure:



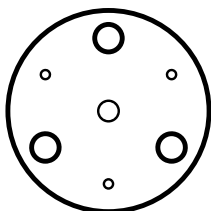
5.5mm, 5mm, 3mm, 2.5mm
hex keys



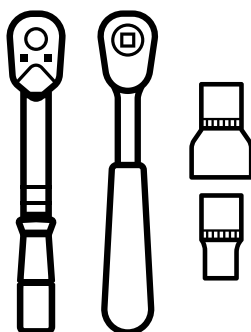
G-Clamp and clamping block



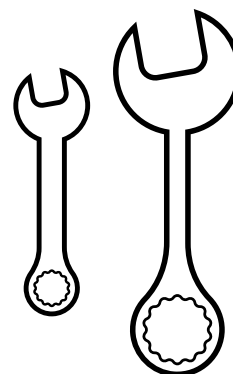
Long-nose pliers



Torque Nest
(REID Supplied)



Ratchet handle and Torque
wrench with 27mm
and 12mm sockets



27mm and 12mm combination
spanners



High quality grease
(SKF LGHP2 or similar)



Medium strength thread-
locking compound

Inspection Prior to Disassembly



1

Start by inspecting the cable, to do this pull the wire from the PortX Rescue casing and visually inspect the full length of the wire.



2

Inspect the snap hook for damage or corrosion. Confirm the fall indicator has not been activated.



3

If the cable has any defects such as corrosion, fraying, kinks, if the fall indicator is activated, or the hook does not open and close freely or shows any signs of damages, replace with a new wire (Part No. RSPTXR0001) when appropriate in the servicing process.



4

Inspect the housing for any cracks, distortion or other signs of physical damage, ensuring both sides of the housing are in good condition and free from defects. Check that all safety decals and product markings are present, clearly legible, and display the necessary product information and identification.

Main Spring Retraction Test



1

Start by hanging or mounting the device to a suitable support, Extend the rope wire and attach 0.5kg to the hook and allow it to retract. In our example we use a master link that is of an appropriate weight.



2

Ensure the cable retracts smoothly.



3

If the cable does not retract without assistance, you must replace the main spring (Part No. RSPTXR0002) when appropriate in the servicing process.

Brake Mechanism | Disassembly & Inspection



NOTE: Before beginning the service the bracket and bracket attachments should be removed completely.



1

Undo the 10 fixings securing the case using a 5mm hex key. Once all the fixings are removed, you can split the casing.



2

Inspect the teeth on the ratcheting gear looking for any damage or corrosion.



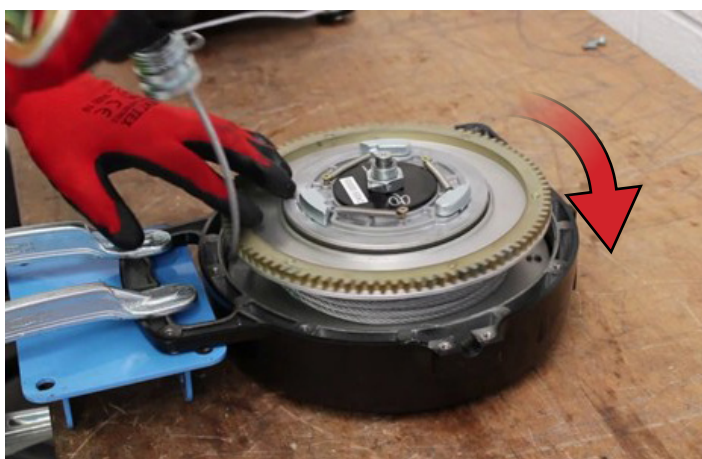
3

Inspect the swivel anchorage eye looking for damage, wear and corrosion.



4

Secure the Port Rescue to the bench using a G-clamp and a block before releasing the tension on the main spring.



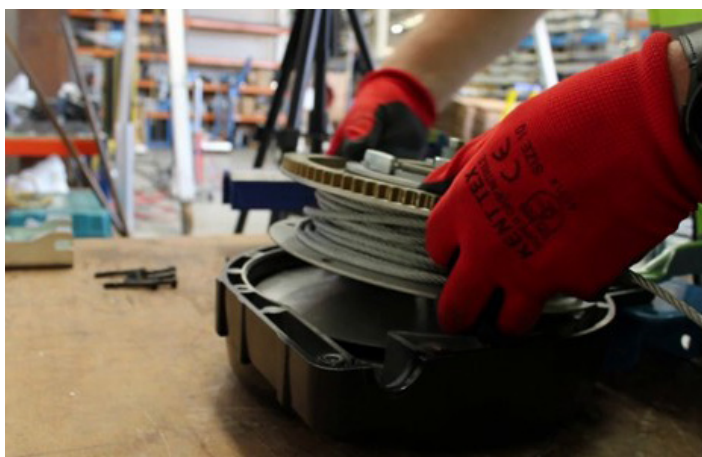
5

To release the tension on the main spring remove the metal collar attached to the cable stop spring from the housing. Let the drum rotate in a clockwise direction until the drum does not self-rotate, taking care not to allow the drum to move in an uncontrolled manner.



6a

⚠ When lifting the drum out of the housing, use extra caution. The drum shaft is keyed onto the mainspring, which is located behind the spring pad washer.



6b

Carefully release the main spring from the drum shaft using your fingers. When lifting the drum ensure the spring pad washer is separated from the drum and retains the main spring in the housing.

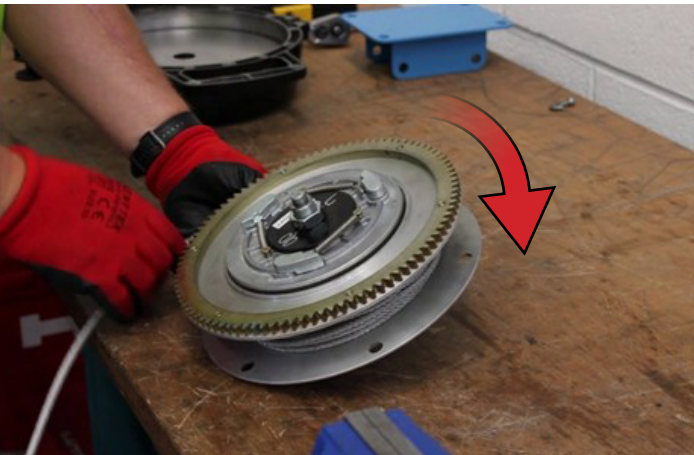
⚠ Be aware: if the mainspring is lifted too far while removing the drum, it can unravel. The spring stores a significant amount of energy and is extremely hazardous if mishandled.



7

Once released, remove the spring pad cover and inspect the spring for any signs of corrosion. Replace if retraction test failed, or if there are signs of corrosion (Part No.RSPTXR0002)

⚠ Take care when removing main spring to prevent centre of spring to fall free and release the stored energy within the spring coils. Once removed secure the coils to prevent accidental release.



8

Remove the cable from the drum.

⚠ Ensure that it is coiled correctly if it is to be re-used, to prevent any damage to the cable.



9

Inspect the pawl tips and springs for any signs of damage or corrosion. Ensure all pawls operate correctly, confirming that each one returns to its original position after being moved. If the pawls fail or show any signs of corrosion or damage they must be replaced.



10

Remove the pawls and pawl springs using a 2.5mm hex key.



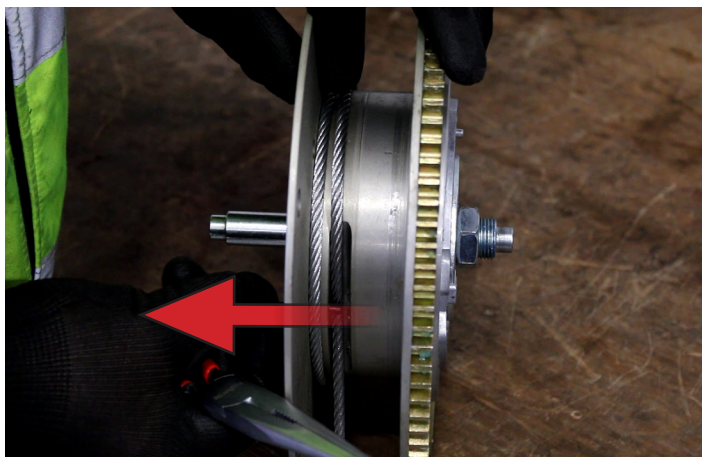
11

Turn the drum over and remove the plate using a 3mm hex key, exposing the cable termination



12

Remove the termination ferrule from its position and slide it through onto the drum.



13

Using long-nose pliers, carefully remove the cable fixing pin. The cable can now be removed.
 ⚠ The fixing pin must be replaced every time the device is serviced (Part No. RSPTXR0008).



14

Mount the drum into the torque nest to allow the brake clamping nut to be released.



15

Remove the brake clamping nut using a 27mm socket. Once released the Belleville washer and ratchet pawl plate can now be removed, ensuring to check for any damages or defects such as corrosion or markings, taking care to avoid getting any lubrication on the plate.



16

Remove the friction brake pad.

⚠ The friction brake pad must be removed and replaced every time the device is serviced (Part No. RSPTXR0005).

Braking Mechanism | Reassembly



1

When reassembling the braking mechanism ensure that both the new friction brake pad and the surfaces it contacts are free from damage and completely free of lubrication, as any contamination could reduce the unit's performance.



2

Fit the new friction brake disc ensuring that the recesses are correctly located on the drum, then fit ratchet pawl plate, new Belleville washer and brake nut.

⚠ The friction brake pad, Belleville washer and brake nut must be replaced every time the device is serviced. (Part No. RSPTXR0005, RSPTXR0007) Secure the brake pad in place using the new Belleville washer and brake nut.



3

Tighten brake nut to **precisely 122Nm** using a 27mm socket. It is critical that this step is carried out correctly, as it determines the arresting force of the unit.

4

We can now remove the drum from the torque nest and replace the cable. Feed the ferruled end through the drum and terminate as shown.



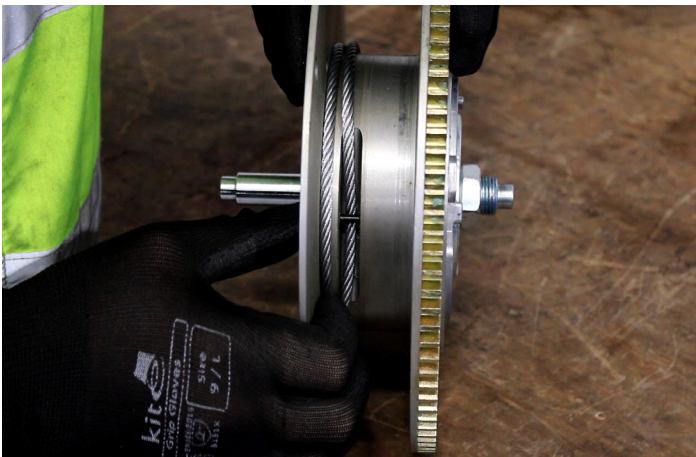
5

Reinstall the plate and secure with the three fixings.



6

Take any slack out of the cable and insert the new cable fixing pin (Part No. RSPTXR0008). Ensure 1.5 safety windings before the pin. This is vital for safe use of the PortX Rescue.



7

Wind the cable back onto the drum, ensuring a tight and even lay.





8

Refit the drum into the housing. During this process you need to make sure the slot in the shaft engages correctly with the spring. The spring includes a flattened section designed to align with and fit into the slot on the drum shaft. Refer to figure 6a in the Disassembly & Inspection section.



9

Secure the PortX Rescue back onto the bench, load the main spring by rotating the drum 7 times anticlockwise. Take care not to lift the drum from the housing while rotating. After completing 7 rotations, position the metal collar back into the housing to maintain spring tension. Clean then apply a thin layer of SKFLGHP2 or similar to the ratchet ring gear.



10

Using a 2.5 mm hex key, reinstall the three pawls and springs with medium-strength thread-locking adhesive, tightening each screw only halfway to avoid spring tail deformation. If the pawl inspection was failed in step 10 of disassembly, new parts must be used (Part no. RSPTXR0004). Once the pawls are secured, ensure the pawls function correctly.



11

Inspect the bushing on the side casing for any damage or defects.

Retrieval Winch | Disassembly & Inspection



1

Remove the release pin on the retrieval mode activator using a 12mm spanner.



2

Remove the fixing that secures the ratchet pin and spring using a 5.5mm hex key.



3

Remove the cap at the base of the handle using a 12mm spanner.



4

Remove the pin and spring located at the base of the handle.



5

Remove the handle. To do this, hold the gear in place on the pinion shaft and rotate the handle clockwise.



6

Remove the cap to expose the gear in the handle assembly. Remove the pinion shaft and inspect the ratchet and gear teeth for damage, wear, or corrosion.

⚠ Note the orientation of the ratchet teeth for reassembly.



7

Remove the brake discs from the gear and check for signs of wear. Check the contacting surfaces for signs of corrosion. Ensure the brake discs and contacting surfaces are completely free of contamination and lubricants.



8

Inspect winch arm top hat washer for any signs of damage. Replace if damaged.



9

Inspect the handle bushing for any signs of damage. Replace if damaged.

Retrieval Winch | Reassembly



1

Clean then apply a thin layer of SKFLGHP2 or similar grease to the gears, avoiding clumping and keeping the brake pads free of contamination.



2

Reassemble the handle. Insert the shaft and lock the gear in position. Return the handle and rotate to tighten. You can now reposition the cap to the bottom of the shaft ensuring it is positioned correctly.



3

Replace the release pin and tighten it with a 12mm spanner.



4

Reinstall the ratchet pin and spring, then secure them with the fixing using a 5.5mm hex key.



5

Replace the spring, pin, and cap at the base of the handle, securing them with a 12mm spanner.



6

Return the swivel anchorage eye to the housing.



7

Refit the casing and secure it in place with the 10 fixings and a medium strength thread locking compound using a 5mm hex key.

Final Tests | Test Setup



NOTE: We recommend using a REID Porta Gantry Rapide. For other REID products, please refer to the relevant Operations & Assembly guide for correct setup procedure and skip to step 4.



1

Attach the device to the trap plate using the universal bracket.



2

Pull the cable of the SRL through the cheek plates and attach the corner sheave.



3

Pull the cable across the Porta Gantry Rapide and attach the sheave carrier



4 (All systems)

Attach a karabiner through the hard eye of the cable. We do this to prevent the fall indicator activating during the load tests, as the wire must be replaced if the indicator gets activated.

Final Tests | Light Load



1

A light load should be carried out. To do this attach 15% of the Max WLL of the device to the karabiner you added, for the PortX Rescue that's 21kg.



2

Activate the Rescue winch by pulling the release pin, activate the handle and lift the load, ensuring no slippage occurs.



3

Once lifted, release the handle and ensure there is no slippage of the winch brake.



4

Lower the load using the winch, continuing to ensure no slippage.

Final Tests | Service Load



1

The service load test should be 100% of the device WLL. (For the PortX Rescue this is 140kg). Attach the load to the karabiner.

⚠ Do not attach to the snap hook.



2

Activate the Rescue winch by pulling the release pin, activate the handle and lift the load, ensuring no slippage occurs.



3

Once lifted, release the handle and ensure there is no slippage of the winch brake.



4

Lower the load using the winch, continuing to ensure no slippage.

Final Tests | Brake and Retraction



1

With the unit mounted - or securely held on a bench - pull sharply on the snap hook to simulate a fall, confirming that the brake engages effectively



2

Repeat the brake function test approximately half way through the cable length by pulling sharply on the cable. Repeat at the end of the cable to ensure consistent braking performance.



3

Attach a weight of 0.5kg to the hook. Extend the cable, then allow it to retract. The cable should return smoothly.

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