

Razor International Pty Ltd

Program Maintenance and Servicing – Roll Over Tarp Kit

Introduction

Razor has a suite of products designed to perform for many years. Each product has the ability to have an extended life beyond the life of some of the wearable components. This is achieved by the implementation of planned servicing and change out of components that have achieved their service life.

The two main components to this program are,

1. Environmental wear and tear
2. Number of operations (Job cycles)

These two components are monitored by the operator on a periodic basis with the view to avoid breakdown through early detection of 'approaching full useable life'.

Implementation of Program

Becoming familiar with the Razor product installed on your vehicle is essential to properly monitoring its readiness for work. Although there are generic similarities across the product suite, each product has its own specific needs when it comes to its service life.

The Razor maintenance program requires 6 monthly inspections. At these period inspections the following should be done to all products.

1. All wiring looms to be checked for possible damage from chaffing and proper support.
2. Inspect plugs (and fuse holder) by disconnecting and spraying with water inhibitor and reconnecting.
3. Inspect charge harness connection to vehicle for possible copper oxidization.
4. Check keypad for damage from stones or other road material.
5. Check drive pin and collar for proper seating.
6. Perform a run test and observe proper function.

Specific inspection for each Razor Kit

Rollover Tarp System ROT

The ROT system is made up of the following main component parts

1. Drive Unit
2. Drive Arm and Tensioner
3. Spring Balance Arm
4. Controller
5. Razor Power Kit
6. Flexible Coupling

Drive Unit

The Drive unit is a braked 12V motor gearbox which is sealed and watertight. The life expectancy is 20,000 cycles (starts) or 5 years, however the brake components have wearing parts and will need inspection at 1 year intervals to check for compliance tolerance.

The brake end (zinc plated) on rear of motor has a brake release toggle and seal. The seal should be replaced annually along with the checking the tolerance of the brake parts. (Refer to the Razor Brake Service Bulletin)

The drive pin and collar can move over time and will need repositioning as necessary (Refer to the Razor drive Pin Service Bulletin)

Drive Arm and Tensioner

This unit is made up of a length of stainless steel tubing with a Right angle Gearbox (RA Gearbox) fitted each end. The inner drive tube transmits the turning force from the lower RA gearbox to the upper, this in turn transmits the turning force from the drive unit to the tarp pole to open and close the tarp.

Service life for the RA gearbox and inner drive tube is 10,000 cycles. These components need to be changed out to avoid breakdown. Worn parts can be overhauled and refurbished by Razor and come with limited warranty for further change out in the future. Upon inspection of the inner tube it maybe refitted if wear and tear is remedied.

The tensioner (tarp return assist) is a moving component and subject to wear. It can be refurbished by Razor. For the longest service life of this component it is important the end cap is in place to seal the tube from ingress of foreign material. If the end cap is seen to be missing, replace it as soon as practicable.

Spring Balance Arm

This assembly is made up of a pivot arm, the support spring and the pivot block. The pivot arm has rubber bushes fitted to facilitate flexibility in the arm mechanism. Over time the rubbers can deteriorate by exposure to toxic product. It is important to change out the rubber bushes when they begin to effect the smooth and free operation of the tarp drive system.

Controller

This component is the brain of all Razor drive systems. It has a power input loom and drive unit output loom and clean dry connectors are important for trouble free operation. The looms and plug connectors are regular inspection items for good working condition.

The Keypad located on the front of the housing has a polycarbonate stone guard, designed to protect the keypad from projectile damage and it's important the guard remains in place.

Razor Power Kit

This component has 4 main parts,

1. Battery Housing
2. Battery
3. Battery charger
4. Battery and charge harnesses

Please (Refer to the Razor Battery Service Bulletin) for proper care and maintenance

Flexible Coupling

This component connects the drive system to the tarp pole and is subject to all the force that can be applied by the Drive unit. It is in itself a robust component however the good connection between the tarp pole and the Flexible coupling requires periodic inspection and remedial action taken if found to be in danger of failure.

It is recommended that this connection be visually inspected at least monthly to avoid the risk of failure.