

# INSTALLATION & SERVICE INSTRUCTIONS

PowerCore® 4X4

XLC200K - Air Cleaner Housing and Filter Kit



Donaldson Company reserves the right to change design and specifications without prior notice. Do not make any system modifications or adjustments that would alter the original design. Modifications may result in denial of warranty coverage. Consult your Donaldson representative if you have questions regarding the assembly, operation, maintenance or warranty. Illustrations are for reference only as actual product may vary.

## IMPORTANT INFORMATION



Read these instructions carefully before using this product, paying particular attention to all sections that carry warning symbols, caution symbols and notices. Ensure that these are understood at all times.



# WARNING!

This symbol is used whenever there is a risk of personal injury.



# **CAUTION!**

This symbol is used whenever there is a risk of damaging your Donaldson product.



# NOTE:

This symbol is used to provide additional information, hints and tips.



These recommended installation procedures and instructions are a partial list intended only as a guide. If you are not qualified to undertake this installation, do not attempt it as you may be liable for resulting engine failure.

Before installation, inspect product contents for any damage and ensure you have all components required.

Filter inspection during initial fitment not required. Please refrain from doing so.

Removing and inspecting the element initially runs the risk of miss-realignment of the formed compression set on the element gasket. Warranty may be void due to miss-realignment of formed compression set.



Initial restriction level provided is based on a standard LandCruiser 200 vehicle without a snorkel. Performance enhanced vehicles, with or without a snorkel may trip the indicator prematurely due to increased restriction. This is not a true indication of remaining filter service life.

If the service indicator is tripping prematurely it is recommended to maintain a regular service interval for servicing of the air filter. Should you wish to change your indicator to a 30"H2O set point gauge please contact Donaldson for a replacement Free Of Charge.

# **KIT CONTENTS**



Please ensure that the engine is off before installation.

Remove product contents from packaging and inspect for any damage. Do not install if there is any product damage and contact Donaldson immediately.

#### **Required Tools and equipment**

- 10mm & 13mm socket and socket ratchet wrench with extension bar
- 3mm hex allen key
- · Medium phillips head screwdriver

#### **XLC200K Kit Contents**

Contents	Description	Qty
PowerCore® 4X4 Air Cleaner Housing & Filter Kit	Air Cleaner Housing	1
	Air Filter Element	1
	Brackets	2
	Bracket Isolators	3
	Restriction Indicator	1
	Wading Plug	1
	Foam Sealing*	1
	45° Adaptor**	1
Mounting Bracket Fixtures	M8x16 Bolts	6
	M8 Spring Washers	6
	M8 Flat Washers	6
MAF Sensor Assembly to Cover Outlet Fixtures	M4x10 Caphead Bolt	2
	M4 Spring Washers	2
	M4 Flat Washers	2
Housing Assembly Fixtures	M6x30 Bolt	3
	M6 Spring Washers	3
	M6 Flat Washers	3

<sup>\*</sup> only required when a snorkel is not installed.



- 1 Housing Body
- 2 Service Cover
- 3 Filter Element
- 4 Restriction Indicator
- 5 Top Mounting Bracket
- 6 Bottom Mounting Bracket
- MAF Sensor Connection

<sup>\*\*</sup> only required Pre-2015 models.



Please ensure that the engine is off before installation.

#### Removing the Original Equipment Air Filter Housing Assembly







#### 1. Disconnecting the Mass Air Flow Sensor (MAF)

 Unclip wiring harness from MAF sensor on the OE housing outlet and top cover.

#### 2. Disconnect Intake Pipe



Clean housing inlet and outlet clamp area with a clean damp cloth before loosening the clamps. This will reduce exposing the engine to contamination.

- Loosen clamps and remove intake and outlet pipe from the OE housing.
- Cover intake pipe with a clean cloth to stop contaminant getting through to the engine and adjust pipe to a 90-degree upwards angle for ease of housing removal.

#### 3. Remove OE Housing

- Unscrew the 3 OE housing mounting screws and completely remove the housing.
- Remove MAF sensor assembly carefully by undoing the screw sets and set aside.



If using a dual battery setup, be sure to release the cable clip for the battery earth lead from the OE housing using a small flat blade screw driver.



The retrofit housing is delivered as a complete air cleaner assembly. The filter element has already been installed in the housing.











#### 1. Insert Wading Plug

 Insert the provided wading plug into the drain hole located on the bottom of the air cleaner.

#### 2. Secure mounting brackets to air housing

- Secure top and bottom mounting brackets to the air housing using the provided stainless steel M8 bolt pack (bolt, spring washer, washer)
- Ensure rubber isolators are fitted to the brackets properly. If isolators are loose, remove the insert collar, fit rubber mount to the bracket and reinsert inner insert collar.

#### 3. Installing MAF sensor assembly to housing

 Secure OE MAF sensor assembly to the service cover outlet using the provided stainless steel M4 bolt pack (bolt, spring washer, washer).

#### 4. Install the housing

 Place housing body into the engine bay and align the inlet tube with either the guard duct or the snorkel connector. If using a snorkel, fit connector and leave clamp loose.



Connecting the intake pipe from the engine to the outlet of the housing on initial installation may be easier before securing the housing with supplied mounting hardware.

- Secure housing in the engine bay using the provided zinc plated M6 bolt pack.
- Connect intake tubing to the housing outlet, align the tubing and secure clamps
- Connect MAF sensor wiring harness to MAF sensor connection.
- Screw filter service indicator in position and reset.
- 45° ADAPTER to be used Pre-2015 models to maintain adequate clearance between indicator and bonnet liner. It is recommended to use thread tape.

# **SERVICE & MAINTENANCE INSTRUCTIONS**



Please ensure that the engine is off before installation.

Remove product contents from packaging and inspect for any damage. Do not install if there is any product damage and contact Donaldson immediately.



Do not open the cover unless you are replacing the element.

Removing and inspecting the element can lead to the potential misalignment of the formed compression set on the element gasket, which could void the warranty. Never try to clean the air element, even with compressed air, as this may damage the delicate fibers of the filter media and transfer contaminants to the clean side, also resulting in a voided warranty.



Air filter service life should be determined by measuring airflow restriction - not by visual inspection. Replace the filter only when the restriction level has reached the maximum recommended by the engine manufacturer or on a regular scheduled service.



#### 1. Inspect service indicator

 Visually inspect the 'Service When Red' gauge on the service indicator. When this section is completely red, it is time to change your air filter.



Cleaning housing outlet clamp area with a damp cloth before loosening the clamp will reduce exposing the engine to contamination.



## 2. Removing the service cover and air filter element

- Loosen clamp at engine intake and at the housing outlet.
- Remove piping from the air housing outlet, cover piping with a clean cloth to stop contaminant getting through to the engine and adjust pipe to a 90-degree upwards angle for ease of cover and element removal.
- Release the 2 cover latches, tilt service cover forward to remove from housing body and set aside.
- Remove filter element from housing. After removing the filter, wipe the air cleaner housing interior and seal surface with a clean, damp cloth.



#### 3. Inspect wading plug

If wading plug is broken or missing, replace it.











#### 4. Installing the new filter element



Take extra care to ensure the element is seated correctly in position and the urethane seal is sitting flat on the housing sealing surface.

 Insert the filter element into the housing, locating the tabs of the housing to the pockets of the element until the gasket contacts the housing. Correct positioning is achieved when gasket is sitting flat on the housing sealing surface.



Take care to align the cover correctly. There should be minimum resistance when fitting the cover if everything is aligned properly.

#### 5. Fitting the service cover

- Place service cover in position and fasten the metal latches. If the cover doesn't align correctly remove and re-check the filter position and service cover placement.
- Reconnect intake tubing to the housing outlet. Align the tubing and secure clamps.
- Reset the service indicator.

# Why Choose Donaldson?



#### **PERFORMANCE**

First-fit choice of leading equipment manufacturers around the world.



#### **INNOVATION**

Continuous development of new technologies to meet changing filtration needs.



#### RELIABILITY

Comprehensive warranty covering our filters and your equipment.



#### QUALITY

The foundational principle driving the design, manufacture and delivery of every product.



#### SUPPORT

Knowledgeable technical support specialists available in-field when you need them.



# **AVAILABILITY**

Innovative, reliable distribution partners providing local support.

Scan the code to view installation guides online and read more on PowerCore® technology





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