

**PART NUMBER** 03324RW

FORD ESCAPE ZG CN CL4



### **PRODUCT DETAILS:**

**Part Number:** 03324RW **Maximum Towing Braked:** 1800 kg **ECU Number:** WLE70012 **Maximum Towing Unbraked:** 750 kg **Tail Harness Length Required:** 1200 mm **Maximum Static Ball Load:** 180 kg **TBM/Lug Part Number:** 21148

#### **FITTING DETAILS:**

**Wiring Part Number:** 

**Towbar Installation Time: Vehicle Coding Required:** 120 Mins. YES **RPA Disable/Other:** Wiring Installation Time: YES 30 Mins. **Total Installation Time:** 180 Mins.

WLL90014

**Bumper Cut Required:** Yes

### Note:

- Electric Brake Input Location: Blue Wire on patch harness
- To enable vehicle functionality when towing. Please follow coding procedure in this instruction manual.

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CORRECT

INCORRECT

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Figure 1

Figure 2

#### ENSURE THAT INSTRUCTIONS ARE UNDERSTOOD PRIOR TO FITMENT.



### **BEFORE YOU START:**

Hayman Reese recommends that instructions are read completely prior to fitment. Check all hardware items have been included refer to assembly diagram. Please ensure this towbar is only fitted to vehicle models as per Hayman Reese application guide (www.haymanreese.com.au).

#### **Bumper Cuts**

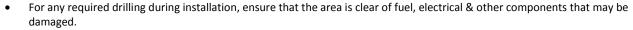


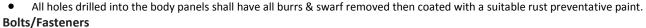
Vehicle and bumper variations can and do occur during vehicle manufacture after initial towbar design. Fitment of towbar to vehicle and accuracy of bumper cut must be assessed prior to any bumper modifications made. Incorrect bumper cuts are not covered under Hayman Reese warranty.

#### NOTE: Bumper cuts need to be approached with care, refer to notes below.

- Bumper centreline where the centreline of the bumper needs to be determined, the installer
  must assess centre point by measurement of bumper width or determining two symmetrical
  reference points to give centreline.
- Bumper edge To assist with accurate bumper cut measurement, reference to the start of the bumper edge is now being commonly used.
  - Measure from bottom edge along bumper and around corner to the 70 mm point (Figure 1).
  - Do not measure from visible bumper front of corner, upwards (Figure 2).

### Drilling





- Ensure that all hardware is fastened to correct torque as specified in this fitting instruction.
- All fasteners supplied with this product are used to achieve a specified clamp loading. If replacement is required ensure that fasteners of the same grade and class are used.



NOTE: Achieving correct torque is critical to proper installation and responsibility of the installer. Towbar failures attributed to tension issues from over tightening or under tightening are not covered by Hayman Reese warranty.

#### **Product Labels**

- a. Towbar load rating sticker provided with this product shall be conspicuously located on inside rear end of the driver's door.
- b. Powertrain Control Module (PCM)/Body Control Module (BCM) upgrade warning label will be provided in towbar kit for vehicles as required. Affix warning label in door and owner's handbook.





### **WARNING:**

Do not, drill, cut, weld or otherwise modify the towbar.

FOR TOWING PURPOSES ONLY - This towbar is designed and tested by Hayman Reese to adhere to ADR 62/02 which provides only for the expected load demands of towing.

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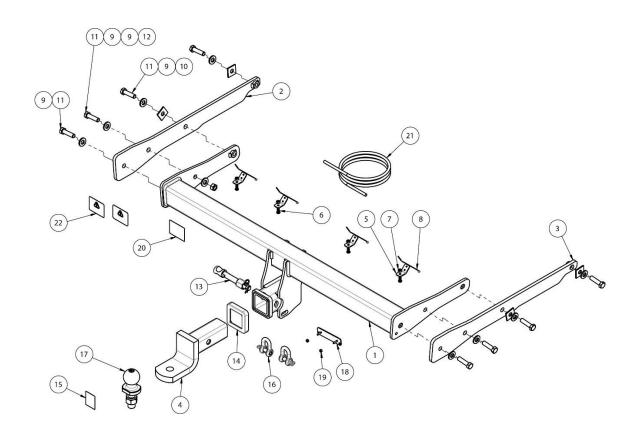


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## 1

## **TOWBAR ASSEMBLY DIAGRAM**



ITEM	DESCRIPTION	QTY
1	FORD ESCAPE/KUGA WELDED ASSY	1
2	SIDE ARM ASSY, LH	1
3	SIDE ARM ASSY, RH	1
4	TRAILER BALL MOUNT	1
5	BOOT SENSOR BRACKET	4
6	SCREW BUTTON HD M6x16x1P	4
7	NUT NYLOC HEX M6x1P	4
8	CABLE TIE 102x2.5mm BLK CT102B	4
9	WASHER PLAIN 1/2x1-1/8x16	10
10	LOOSE PLATE 32x3x32 - 13 HOLES	4
11	SET SCREW HEX HD M12x45x1.25P	8

ITEM	DESCRIPTION	QTY
12	NUT HEX HD M12x1.25P	2
13	SMART PIN	1
14	HITCH BOX COLLAR COVER	1
15	HAYMAN REESE LOGO STICKER	1
16	"D" SHACKLE 10mm	2
17	TOWBALL 50mm	1
18	PLUG BRACKET	1
19	NUT NYLOC HEX M4x0.7	2
20	COMPLIANCE LABEL	1
21	16 STRANDx0.3mm 7 CORE CABLE	1
22	CAN TRAILER MODULE WARNING LABEL	2

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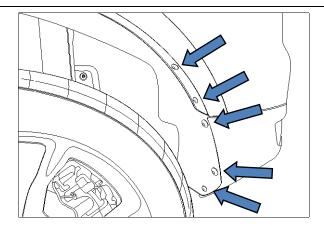


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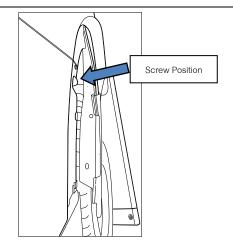
1. Remove 5x plastic scrivets inside wheel arch.

Repeat for the opposite side.



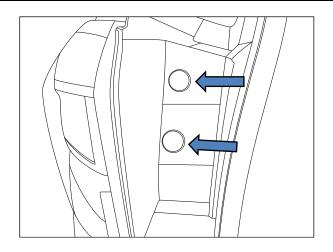
- Un-clip wheel arch skirting (2 x clips and 2 x retainer clips) to expose screw at top edge of bumper.
- 3. Remove the screw

Repeat for the opposite side.



- 4. Inside boot cavity, remove the 2 x plastic caps to expose screws securing the light assembly.
- 5. Remove the screws.
- 6. Remove light assembly (apply force rearwards) and disconnect the wiring harness.

Repeat the steps for opposite side.



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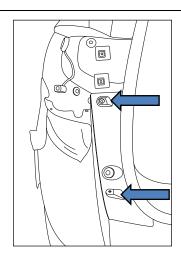


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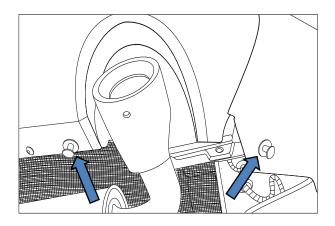
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7. Inside boot cavity, remove 2 x screws securing the bumper.

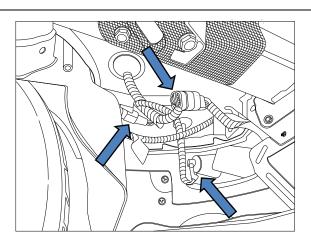
Repeat for opposite side.



8. Remove 4 x scrivets located under and along the width of the bumper. (2 x RHS, 2 x LHS)



- 9. Under RH side of bumper disconnect the 3 x wiring harnesses.
  - 1. RH side fog light. (Repeat for LH side).
  - 2. Main harness and remove from chassis panel.
  - 3. Sensor harness and remove from chassis panel



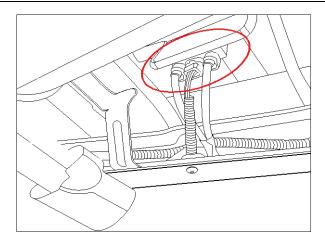
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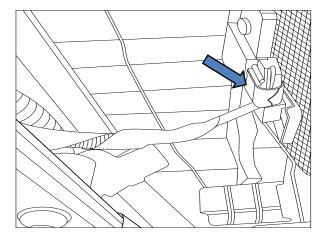
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10. Under bumper, inside of RH exhaust tailpipe, disconnect the 3 harness connectors.



11. Under bumper, towards RH side, disconnect sensor harness.



12. Peel away from the ends and remove the bumper assembly.

Ensure that no other sensors are connected to the bumper.

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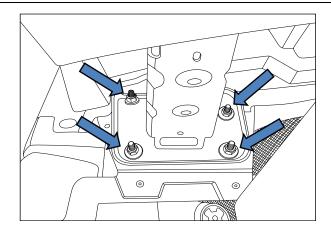


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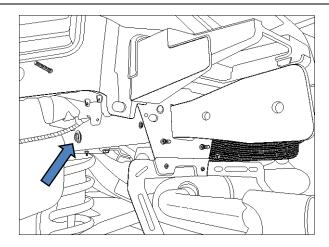
13. Remove and discard the impact beam, secured with 4 x nuts on LH.

Repeat for opposite side.



14. Insert side arms into chassis and loosely attach the most forward position using 1x M12 bolts complete with 1x washers and 1x washer plate.

Repeat for the opposite side



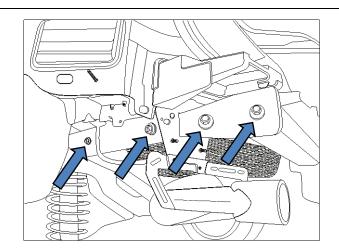
15. Loosely attach centre section of the towbar to the side arms.

Fasteners as fitted from the rear:

- 1x M12 bolt complete with 1x washer (into crosstube).
- 1x M12 bolt complete with 2x washer and 1x nut.
- 1x M12 bolt complete with 1x washer and 1x washer plate.

Repeat for opposite side.

Position the towbar and torque all fasteners to 125Nm.



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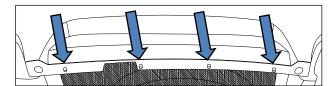


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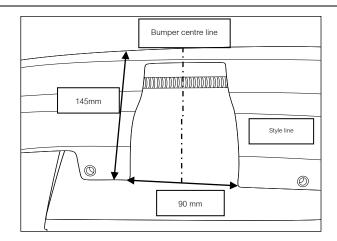
For vehicle fitted with a foot activated boot sensor.

16. On the bumper, remove the 4x screws securing the automatic boot sensor wire cover and remove the automatic boot sensor.



17. Locate the centre (use inside emboss for reference) and perform the bumper cut 90mm wide x 145mm long measured outside, from the bottom edge of the bumper (up to style line).

Ensure that all harnesses are clear prior to cutting the bumper.



18. Refit the bumper and follow steps 1 to 12 in reverse order to reinstall the vehicle components.

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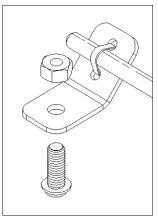
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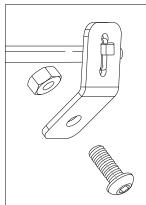
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19. If the vehicle was fitted with a foot activated boot sensor. (Removed in step 16).

Re-fit the sensor wire to the inside lower edge of the bumper using the 4 x angled brackets complete with 1x 6mm Bolt and 1 x Nut through the single hole and attach the sensor wire itself using 1x small cable tie provided through the 2 smaller holes on each bracket as shown.

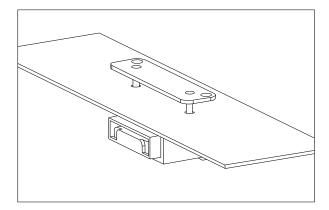
Ensure the sensor plug is reconnected to the main harness.





20. Determine an appropriate position for the plug bracket. Mark out and drill 2x ø5mm holes 69mm apart on bumper skin to support plug bracket.

Ensure that all wires are clear during this process.



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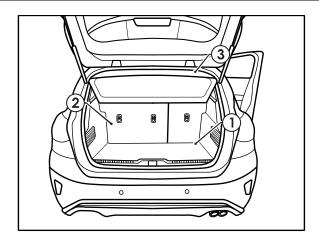
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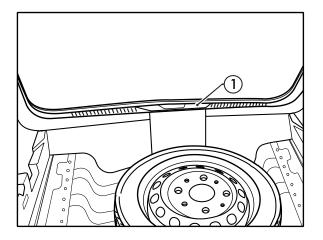
### **IMPORTANT**

Due to possible vehicle variations, always confirm any noted vehicle colour wires with a multi-meter to ensure the correct function is identified before soldering or scotch locking. For vehicle wires denoted with two colours (example; RED/GREEN) the first colour will always be the main wire colour while the second colour is the thinner trace colour on the wire.

- 21. In the luggage compartment, remove the floor cover (1).
- 22. Fold the rear seats (2) forward.
- 23. Remove the rear sunshade (3).
- 24. Remove the cargo barrier if present.
- 25. Remove the floor carpet.



26. Remove the rear scuff trim (1) by pulling firmly in an upwards direction.



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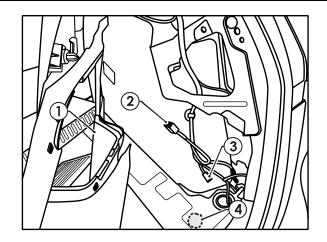
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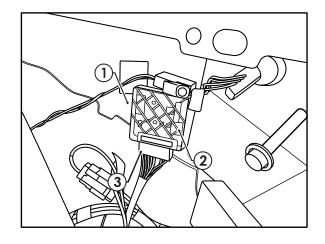
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- 27. Dislodge the RHS trim (1).
- 28. Locate the vehicle power (2) and CAN connectors (3).
- 29. Remove the tape and connect the CAN connector and the power connector to the mating connectors on the patch loom (WLL90014).
- 30. Drill a 30mm grommet hole in a suitable location (4) to enable the tail harness to be routed from the towbar to the ECU.



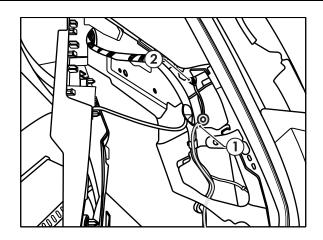
- 31. Using an alcohol wipe, clean a suitable area of sheet metal (1) and the underside of the ECU (WLE70017) (2).
- 32. Connect the trailer patch 18-way connector (3) to the ECU.
- 33. Apply double sided tape to the ECU (2) and secure it to the vehicle sheet metal.

Note: Mount the ECU, ensuring the connector is orientated downwards.



34. Connect the ground wire ring terminal (1) to a suitable vehicle earthing point (2).

Note: Tie up and secure excess wire to existing vehicle harness using supplied cable ties.



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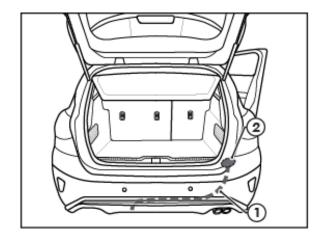
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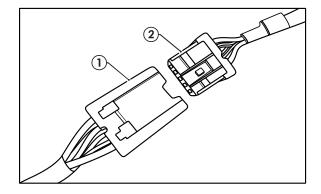
- 35. With the rear bumper removed, secure the tail harness (1) to the towbar.
- 36. Route the tail harness up through chassis hole to trailer harness blue connector on wiring loom.
- 37. Seat the tail harness 30mm grommet (2) in the previously drilled hole.

Note: Keep harness routing clear of all sharp edges, moving parts and places of extreme heat.

Note: Ensure grommet is seated correctly and makes a good seal.



- 38. Connect the tail harness (tail length 1200mm) 8-way connector (1) to the trailer patch 8-way mating connector (2).
- 39. Secure all harness using supplied Cable Ties.



- 40. Re-fit all removed parts and secure all fasteners, ensuring there are no squeaks or rattles.
- 41. Test the trailer patch function using a light board.
- 42. Place the fitting instructions in the glove box after fitment.
- 43. To unlock full functionality, pay attention to the "SmartCODE" Instruction (Appendix).

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## **CUSTOMER INFORMATION**

PLACE THESE INSTRUCTIONS IN THE VEHICLE'S GLOVEBOX AFTER INSTALLATION

THANK YOU FOR PURCHASING HAYMAN REESE.
WITH CORRECT MAINTENANCE AND CARE THIS PRODUCT WILL PROVIDE A
LIFETIME OF TROUBLE-FREE OPERATION.



### **TOWBAR MAINTENANCE AND CARE:**

- 1. Hayman Reese recommend that the towbar LUG or TBM (tow ball Mount) Pull Pin and R-clip are removed and stored when not in use. Removal of LUG or TBM (tow ball mount) is advisable when not in use to assist with any of the following.
  - Ensure rear number plate is not obscured.
  - Allow maximum available departure angle and prevent any potential interference.
  - Prevent possible interference with vehicles reverse sensors or camera detecting a tow ball mount as an obstruction during reversing.
  - Removes towball mount as an obstruction for when moving around the rear of the vehicle.
- 2. Hayman Reese recommends routine inspection of your towbar to ensure trouble free towing.
  - Bolt security and tension should be regularly inspected and checked for correct tension. Replace
    any worn or defective parts with suitable grade & class fasteners. Inspection should be requested
    to coincide with vehicle major services.
- 3. It is the owner's responsibility to ensure towing and down ball weight capacities of the towing vehicle are not exceeded.
  - Towing and down ball weights allowable may differ according to model variations. Please refer to owner's manual or vehicle dealer to confirm exact rating for your vehicle model variant.
  - It is not uncommon for the vehicle tow rating to differ from the towbar rating. When this occurs, the lesser rating must be adhered to.
  - For vehicles fitted with enhanced vehicle functions that may be altered/changed when towing i.e
     Trailer sway mitigation, blind spot detection, adaptive cruise control etc. Please consult owner's manual to understand changes enabled when towing and after towing.

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## **WARRANTY INFORMATION:**

Hayman Reese Towbars are covered by a Lifetime Warranty.

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

For further details please visit www.haymanreese.com.au/warranty or contact customer service on 1800 812 017 or info@haymanreese.com.au.

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## **HAYMAN REESE SMART PIN**

Your Hayman Reese towbar is equipped with Smart Pin technology to help reduce towbar tongue rattle in most driving conditions. Please ensure below instructions are understood and routine maintenance is carried out to ensure best towing experience.



Regularly inspect for wear and check the tightness of the Smart Pin Nut. Follow instructions below to retighten the nut as necessary when movement and noise in the tow ball mount is noted.

• Before towing, ensure R-Clip is properly installed and Smart pin nut is installed and tensioned. Replacement parts are available from your Hayman Reese Distributor.

## **TOWBALL MOUNT REMOVAL/INSTALLATION**

#### STEP 1

Insert Trailer Ball Mount (TBM) (a) into towbar hitchbox (b), aligning hole in TBM shank (c) with hole in hitchbox (d) (Fig. 1)

#### STEP 2

Insert Smart Pin (e) through hole in hitchbox and hole in TBM shank (g); ensure the locators are inserted into the notches in the hitchbox (Fig. 2)

#### STEP 3

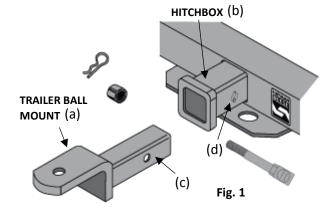
Screw Smart Pin Nut (f) onto Smart Pin (g); tighten Smart Pin Nut until finger tight, ensuring TBM is restrained from up and down movement.

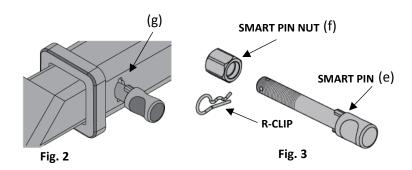
#### STEP 4

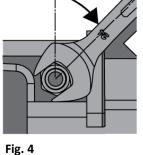
Tighten Smart Pin Nut by turning nut a further 1/8th of a turn in the clockwise direction using a 24mm spanner (Fig. 4).

#### STEP 5

Install Smart Pin R-Clip through the hole that provides best clearance or easiest access. (Fig. 5)







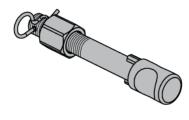


Fig. 5

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## <u>Appendix</u>





WARNING: This vehicle requires a system setting to ensure the trailer wiring and control module are correctly recognised. This process (referred to as 'coding') must be carried out to enable correct vehicle functionality when trailer is connected. Towing features enabled by correct control module and coding support OE functionality as set by OE manufacturer. Please read the vehicles owner's manual for proper operation and understanding.

Coding can be carried out using the Hayman Reese SmartCODE (HRSC) using the following steps. Note, if HRSC is unavailable, vehicle coding can be carried out by OE manufacturer as needed.

#### Before you start:

- Ensure the HRSC software is up to date using the HAYMAN REESE SMARTCODE PC APP.
- Ensure the vehicle battery is fully charged
- Use of a battery support unit (BSU) is advised during the coding process.
- Ensure towbar, wiring loom and ECU are correctly installed as per Hayman Reese fitting instructions.
- 1. Locate the OBD2 port under the drivers footwell on the right-hand side and plug in the HRSC.
- 2. Close all doors and turn the ignition on
- 3. Follow the directions on the screen of the HRSC
- 4. Once the vehicle has been coded successfully proceed to the "clear codes" tab
- 5. Remove disconnect HRSC from OBD2 port.
- 6. Check the dash to make sure there are no warning faults.
- 7. Check the operation of trailer lights and ensure the Reverse Park Assist (RPA) is disabled and 'trailer on' icon is active where available.

For technical support and further information on Hayman Reese SmartCODE tool and coding process contact your nearest Hayman Reese stockist.

Australia: 1800 812 017

New Zealand: 0800 237 886