



**WORLD'S BEST  
ALLOY BULLBARS**

**Strongest Built  
Australian Made  
Lifetime Warranty**

**PN:BM232SY**



# **Fitting Guide & Owners Manual**

**Mitsubishi Outlander  
Petrol and Diesel  
MY19 05/2018 ON**

Big Tube Bar with Bumper Lights  
VEHICLE FRONTAL PROTECTION SYSTEM (VFPS)  
FOR AIR BAG & ADR COMPLIANT VEHICLES



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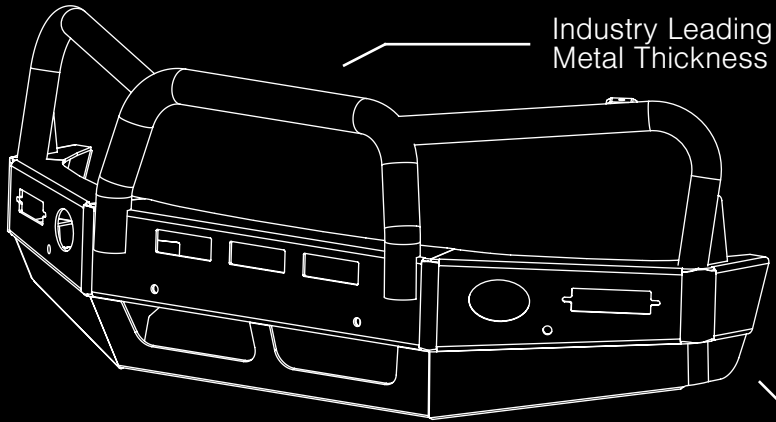
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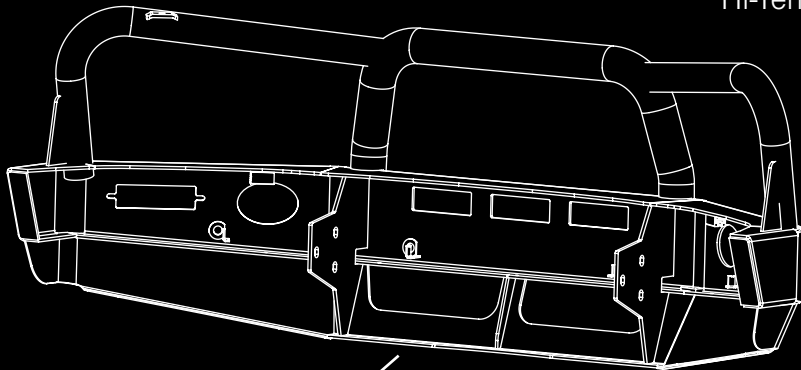
# The Features of ECB

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Industry Leading  
Metal Thickness

6mm Thick  
Hi-Tensile Alloy



Unmatched  
Strength

Fully Welded  
Construction

# ECB's Benefits

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## **Built to Perform - Not to a Price**

ECB are proud to claim that their channels are not jigsaw puzzles that are bolted together, or even multiple sections welded together. Where any welding is required, it is done to the highest standards by qualified welders, not machines.

## **Anti-Corrosive Nature of Alloy**

The composition of ECB's alloy has a very high resistance to corrosion. Rust not only looks unappealing but greatly reduces the strength of the metal. Rust can and will weaken the structural integrity of a steel bullbar effectively rendering it useless over time.

## **Australian Made**

Established in 1971, we utilise decades of experience designing, engineering and building products in Australia to suit Australian conditions. We can ensure the best quality controls and help support the local economy and employ over 90 proud Australians.

## **Weight Saving Benefits**

An ECB alloy bullbar is typically half the weight of a steel bullbar. Unnecessary suspension upgrades are not required. The reduced weight also contributes to increased fuel economy and less wear and tear on tyres, suspension and braking components.

## **Welds That Work**

ECB uses only the strongest welds and welding techniques to ensure every product is as structurally sound as possible. MIG (Metal Inert Gas) welding techniques are employed ensuring the welds are as thick as the thickest section of alloy's being joined together.

## **Lifetime Warranty**

ECB provide a lifetime warranty and consumer guarantee on all of our manufactured products. This guarantee highlights the confidence in our ability and provides complete peace of mind for your purchase for the lifetime you own your vehicle.

# Product Care

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## Polished Products

Being a premium mirror polished finish, regular maintenance will be required to keep that iconic ECB shine. We recommend using our own brand of Aluminium Polish. This formula has been tried and tested and in our opinion is the world's best standard.

**Directions:** Apply a small quantity of Aluminium Polish to a clean soft cloth and rub the metal surface. The longer the rubbing the brighter the surface becomes. Wipe off Aluminium Polish with clean soft cloth. Also suitable for motorised buffing machines.

**Note:** There are more specific details on the polish bottle. Please read before use.

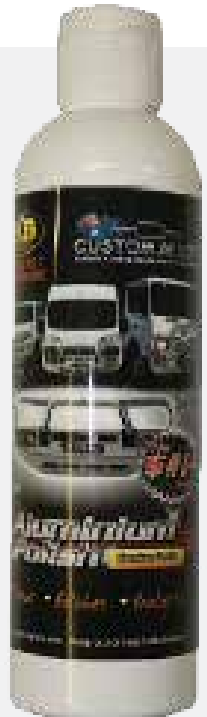
## Powdercoated Products

Our powdercoated finishes are very low maintenance. In fact there is actually very little you will ever need to do for this product. Just clean it as you would your car and it will stay looking good as new.

## ECB Aluminium Polish

When you're looking for that showroom finish look for your polished automotive products, you can depend on the no compromise quality of East Coast Bullbars Aluminium Polish. This specifically designed product is the best polish available and we guarantee that this \$#!+ works. Within our decades of manufacturing polished alloy products we have trialed a large range of different polishes on the market and believe without a doubt that nothing beats the finish quality of East Coast Bullbars Aluminium Polish.

East Coast Bullbars Aluminium Polish is excellent for use by hand and is ideal for polished bullbars, nudge bar and stainless steel products. This polish will clean, polish and protect your product from the elements whilst bringing your products back to that showroom finish look.



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## Stage 1

- Test drive vehicle to ensure all driver assists are correctly working and to gauge effectiveness. Park on a flat level surface.
- Apply parking brake and lift bonnet.
- Unwrap ECB Protection bar and disconnect mounts. Discard bolts.
- Ensure these instructions are left with the vehicle owner and/or operator.



## Stage 2

- Remove trim from top of radiator support twelve (12) push pull clips.



## Stage 3

- From outer edge of grill remove two (2) plastic push pull clips, pull firmly on grill to release three (3) lower clips.



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## Stage 4

- Remove one (1) 10 mm head bolt from wheel arch flare per side.
- Gently pull flare away from vehicle to remove flare.
- Remove two (2) push pull clips from wheel arch (per side) and one (10) push pull clip from rear wing to gaurd per side.
- From top of bumper between headlights remove five (5) push pull clips.
- Remove three (3) 10mm head bolts from underside of bumper and two (2) from lower grill.



## Stage 5

- Remove four (4) hex plastic screw clips from underside of bumper and six (6) push pull clips from underbelly guard.



## Stage 6

- Unplug fog light/sensor and camera from drivers side of bumper reinforcement.
- Unclip headlight washer washer hose from bumper.
- Carefully pull out on rear wing to unclip bumper from guard and then forward from headlight to remove.



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## Stage 7

- Remove top and lower air dams, from drivers side and remove headlight washer hose from air dam.
- Remove plastic cover under bonnet latch, release two (2) push pull clips.



## Stage 8 (For petrol vehicle)

- Disconnect temperature sensor from bumper support.
- Remove transmission cooler from bumper support, two (2) 12mm head bolts at base and one (1) at top on bonnet release bracket. Retain for refitment



## Stage 9

- Disconnect sonar from harness. Remove two (2) 12mm head bolts from bumper support and one (1) 12mm nut top of sonar carefully remove unit.





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## Stage 10

- (For diesel vehicle) At rear of bumper support remove top intercooler support brackets one (1) 12mm head bolt per side .
- (For diesel vehicle) Remove rubber from support and place into ECB steel support brackets (supplied).
- Remove bumper support four (4) 12mm head bolts each side.



## Stage 11

- On Drivers side, remove neck assembly from water bottle.
- On passenger side remove 10mm head bolt.



## Stage 12

- (For Diesel Vehicles) Remove horn from driver side under headlight.
- Trim corner from mount as per photo.



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## Stage 13

- Install ECB steel mounting brackets to vehicle, place two (2) M8 x 1.25 x 30mm bolts, flat washer and spring washer (supplied) into two lower holes each side to support mount (supplied).
- Attach steel support brackets to front of steel mounting bracket two (2) M8 x 1.25 x 30mm bolts, flat washer and spring washer (supplied).
- Align mounting brackets and **TIGHTEN ALL BOLTS.**
- On drivers side place M8 x 1.25 x 30mm bolt, flat washer and spring washer (supplied) into captive nut on side rail.
- Passengers side, replace 10mm head bolt and earth wire.



## Stage 14

- Using steel support bracket as a guide drill two (2) 10mm holes into side wall of chassis.
- NOTE: Blow all filings clear and treat all exposed metal with a rust inhibitor.



## Stage 15

- Place M10 x 1.25 x 30mm bolts, flat washers, spring washer and M10 nut (supplied) into drilled holes.
- Align steel mounting bracket to centre of vehicle and horizontal across vehicle. **Tighten all bolts.**
- Refit washer bottle neck on drivers side of vehicle.



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## Stage 16 (For diesel vehicle)

- Place intercooler mounts into position and secure with two (2) M8 x 1.25 x 30mm bolt, flat washer and spring washer (supplied) into nutsert in rear of mount. NOTE: Use rivnut in mount to suit your intercooler.
- Install horn back to original mount. With corner removed (in step 12), the horn will clear the ECB steel mounting bracket.



## Stage 17 (For petrol vehicle)

- Secure transmission cooler to ECB steel mounting bracket using upper and lower mounting brackets (supplied) and three (3) M8 x 1.25 x 30mm bolts, flat washers, spring washers and nuts (supplied).
- Refit temperature sensor to underside of mounting bracket.



## Stage 18

- Remove parking sensors and harness from bumper.
- Unclip headlight washer hoses and move to top of bumper.



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## Stage 19

- Mask area of bumper to be trimmed.
- Measure templates to ensure correct sizing, as printers and printer settings vary, templates may be out of scale.
- Using template provided mark bumper.
- Re-check marking to ensure correct.
- Cut bumper using jigsaw or similar.



## Stage 20

- Using four (4) 300mm lengths of single core wire and solder joiners (supplied) extend wiring harness for sonar. Tape and fit wiring inside split loom tubing to give protection.



## Stage 21

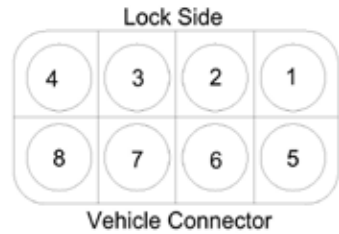
- Remove sonar mount from mounting bracket retain four (4) 10mm nuts for refitment .



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## Stage 22

- Splice ECB wiring harness into wiring harness behind headlight using cable locks (supplied) . Ensure harness is clear of sharp edges and moving parts.
- NOTE: Wire colour has been taken from vehicle side connector of drivers side headlight on development vehicle. This may be different on your vehicle. Check all lights for correct operation before proceeding



Pin Number	Colour	Use
3	Black/ White	Indicator
4	Light Green	Parking light
7	Black	Ground
8	Brown	Daylight running light

## Stage 23

- Reinstall bumper onto vehicle in reverse of stages 2 to 6



## Stage 24

- Install parking sensors into protection bar. Place 26mm clear sensor spacer (supplied) on sensor head, place sensor into housing and secure with zip tie.
- Attach parking sensor harness into rear of protection bar using cable ties (supplied).



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## Stage 25

- Mount sonar onto steel bracket (supplied), with plastic protection cover using three (3) M6 x 20 mm bolts, flat washers and nyloc nuts (supplied). Fasten sonar to inside of protection bar on left hand side using two (2)M6 x 20mm bolts, flat washers and nyloc nuts (supplied).
- Align so central to hole in front of protection bar.



## Stage 26

- Carefully remove two (2) small phillips screws from rear of camera. Fit camera to mounting bracket (supplied) using original screws and mount to bracket inside protection bar using M5 x 12mm bolts, flat washers and nyloc nuts (supplied).



## Stage 27

- Disconnect wiring harness for camera and sensors from bonnet latch support. feed wiring harness through centre grill.
- Run wiring harness for sonar through bumper beside ECB steel mounting bracket.
- Ensure all wiring is clear of any sharp edges or moving parts.



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## Stage 28

- Fit ECB LED indicator / DRL / park lights into protection bar as per instructions supplied with the LED indicator kit.  
NOTE: Ensure park light is to top.



## Stage 29

- Attach ECB bumper lights to protection bar. Place M6 x 20mm bolts, spring washers (supplied) through light mount from inside and attach nut to top. Slide assembly into light mount in Protection bar and centralize light to hole.  
**TIGHTEN FIRM ONLY.**
- Install bumper light surrounds (supplied) to bumper light openings. Large side of surround to inside of opening.



## Stage 30

- Attach 6mm clip lock trim (supplied) to top of ECB protection bar. NOTE: Trim off lower edge on an angle so trim will sit flush with end of protection bar.



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## Stage 31

- Fit protection bar onto steel mount using six (6) M12 x 1.75 x 40mm bolts, flat washers, spring washers and nuts (supplied).
- Align protection bar to vehicle, ensuring bottom of tube is above light reflectors.
- **Tighten all bolts.**



## Stage 32

- Connect indicator and fog lights, camera, sonar and parking sensors. Check for correct operation.
- Test drive vehicle to ensure parking sensors and driver aids are working correctly.

# Final Checks

## Ensure Number Plate is Clearly Visible

Note: When fitting/refitting the licence plate to the vehicle, ensure there is no obstruction to licence plate vision in accordance with local authorities. If required relocate licence plate to an alternate location.

## Further VFPS Notes

1. Do not attach VFPS to the vehicle using anchorages not intended for this purpose (e.g. engine mounting bolts).
2. Do not use this product for any vehicle make or model, other than those specified by the VFPS manufacturer.
3. Do not remove the plaque or label from the VFPS.
4. Do not modify the structure of the VFPS in any way.
5. No accessory or fitment should project forward of the VFPS forward profile.
6. **Ensure these instructions are left with the vehicle owner and/or operator.**



# Final Checks

## Important Information

Periodically check bolts and nuts for correct tightness, especially if traveling on rough roads.

## Installation Kit

1 - ECB steel mounting bracket	4 - M8 nuts
1 - ECB steel support bracket D/S (BM230SY D/S)	7 - M6 x 20mm bolts
1 - ECB steel support bracket P/S (BM230SY P/S)	10 - M6 flat washers
1 - ECB steel upper oil cooler mount (BM34SY_4MS)	2 - M6 spring washers
1 - ECB steel lower oil cooler mount (NBM34SY_4MS)	2 - M6 nuts
2 - ECB steel intercooler brackets (BM232SY-4MS)	5 - M6 nyloc nuts
1 - ECB alloy camera mount (BM36SY_A2AL)	2 - M5 x12mm bolts
1 - ECB sonar mount (BM34SY_4MS)	4 - M5 flat washers
1 - Clear plastic cover (NBF160SY_2PL)	2 - M5 nyloc nuts
4 - Plastic sensor spacer (EAMB100SY_A2PL)	1 - Indicator/DRL/park light kit
6 - M12 x 1.75 x 40mm bolts	8 - Cable locks
12 - M12 flat washers	1 - Bumper light kit
6 - M12 spring washers	1 - Quick click kit(IC10D40S1004ECBH)
6 - M12 x 1.75 nuts	2 - Bumper light surrounds
4 - M10 x 1.25 x 30mm bolts	1 - 2300mm length 6mm clip lock trim
8 - M10 flat washers	4 - 300mm lengths single core wire
4 - M10 spring washers	8 - Solder joiners
4 - M10 x 1.25 nuts	1 - 400mm length convoluted tubing
14 - M8 x 1.25 x 30mm bolts	6 - 150mm zip ties
18 - 5/16 x 1 1/4 flat washers	14 - 300mm zip ties
14 - M8 spring washers	

# Finished Product

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# Warranty Registration

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## Contact Details

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Product: BM232SY \_\_\_\_\_

Email: \_\_\_\_\_

Phone: \_\_\_\_\_

Work Order Number: \_\_\_\_\_

You can find this on the silver label  
of your ECB product.

By submitting this registration you automatically subscribe to ECB's mail outs.  
You can unsubscribe at any time.

## Register Online

For online registration please go online to [www.ecb.com.au/warranty-registration](http://www.ecb.com.au/warranty-registration)  
If you have any questions please contact our national office on 1800 069 145 or  
[www.ecb.com.au](http://www.ecb.com.au).

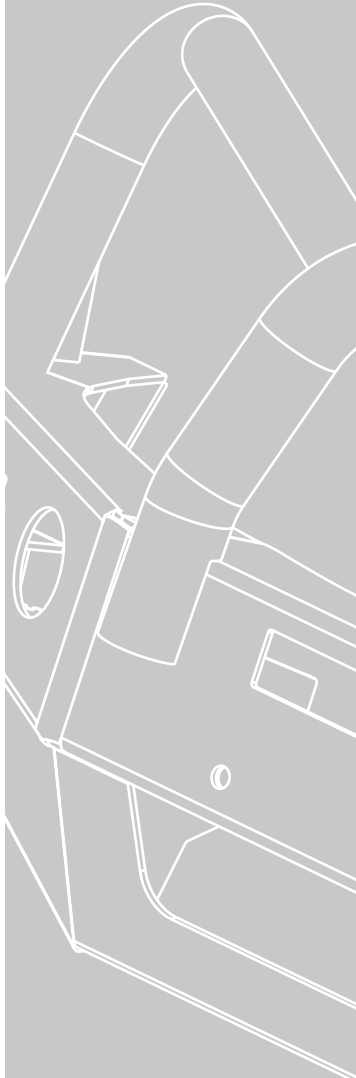
## Or Post To:

PO Box 122, Margate, QLD 4019



REPLACES: 05.03.20

REVISED: 09.03.21



1800 069 145  
[www.ecb.com.au](http://www.ecb.com.au)

# **Strongest Built Australian Made Lifetime Warranty**

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