TOWING MIRRORS
FITTING INSTRUCTIONS

AUSTRALIAN OWNED AND OPERATED SINCE 2000

LANDCRUISER 70 SERIES

1984-CURRENT

POWER FOLD **TM450 - TM455**
NON POWER FOLD **TM402 - TM405**



MSA 4X4 ACCESSORIES

GEAR FOR **LIFE**

5 YEAR WARRANTY

CERTIFIED ADR COMPLIANT

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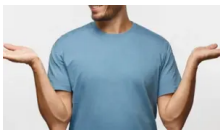
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CONGRATULATIONS

ON PURCHASING A QUALITY SET OF MSA 4X4 TOWING MIRRORS!



MSA 4X4 Towing Mirrors are simple to fit as they mount onto the vehicle door in the same position as the existing mirrors, using existing holes and wiring.

Getting Started:
Here's what comes inside the box:

- **1 x** Left hand side mirror
- **1 x** Right hand side mirror
- **1 x** Complete fitting kit
- **1 x** Installation instructions

If anything is missing, please contact us via:
warranties@msa4x4.com.au

IMPORTANT INFORMATION

WHAT TO KNOW BEFORE INSTALLING MSA 4X4 TOWING MIRRORS:

MSA 4X4 Towing Mirrors are labelled 'Left' and 'Right', on the packaging and on the mirror bases. The Left mirror is installed on the Passenger's side and the Right mirror is installed on the Driver's side.

RECOMMENDED TOOLS FOR INSTALLATION

- PHILLIPS HEAD SCREWDRIVER
- FLAT HEAD SCREWDRIVER
- SMALL RATCHET WITH 10MM SOCKET
- TRIM PANEL REMOVAL TOOLS
- DRILL
- 3-4MM PILOT DRILL BIT
- 7MM DRILL BIT



Image for illustration purposes only.

INSTALL STEPS

1 PREPARE THE VEHICLE

Remove the door panels as per recommended manufacturer's instructions. Remove the factory fitted OE mirrors. The Toyota badge on the **76 & 78 Series** vehicles will need to move to allow for the **MSA Towing Mirror** installation. Use a heat gun to heat up the badge to soften the glue, or use a small piece of fishing line behind the badge and pull through to cut the tape away.





PLEASE NOTE

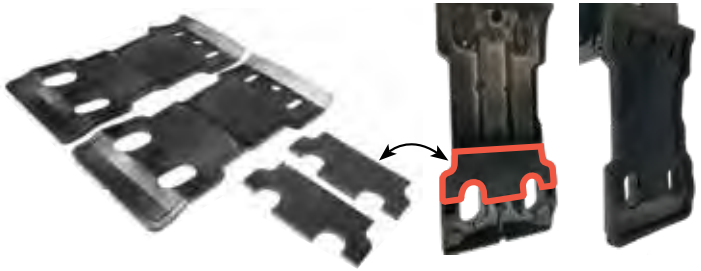
REMOVING THE BADGE WILL LEAVE SMALL HOLES SHOWING IN THE DOOR AFTER THE FINAL MIRROR FITMENT AS THE BADGE IS HELD IN PLACE WITH LOCATOR PINS.

If the preference is to leave the badge in place and allow the mirror to partly cover it. Do not use the small secondary rubber insert provided.



2 SUPPLIED RUBBER BACKING

Fit the supplied **Rubber Backing Inserts** to the **Towing Mirror** prior to installing on the vehicle. If the Toyota badge has been removed, place the small **Infill Rubber** as shown, if the badge is left in place, the small **Infill Rubber** will **NOT** be required.



3 PREPARE THE MIRROR BASES

When fitting the **MSA Towing Mirrors** to a **79 Series**, with four pre-existing fixing points, the bottom two holes maybe factory fitted with rivet nuts. In this case we recommend removing the rivet nuts and using the backing plate supplied in the fitting kit.

All model vehicles will require drilling an access hole for the indicators/electric and/or power fold functions *(MSA POWER FOLD Towing Mirror models ONLY)* switch wires. The **76 & 78 Series** vehicles will also require drilling two base fitting holes.

PLEASE NOTE

ENGAGING ASSISTANCE FROM A TRUSTED INSTALLER IS RECOMMENDED, IF YOU ARE NOT CONFIDENT TO DRILL THROUGH THE VEHICLE DOOR SKIN.

Place masking tape around the area where the **Mirror** will sit, using the top two fixing points as a guide. Then place the **Mirror Base** onto the door and align the pre-existing fixing points holes in the door to the centre line of the **Mirror Base**. Finger tighten the top two bolts to hold firm. Draw around the **Rubber Base**. Remove the **Rubber Base**.

Place the **Rubber Backing Insert** back on the door inside the marked lines and mark the wire access spot and the bottom two fixing points on the 7**6 & 78 Series** vehicles



79 SERIES



76 & 78 SERIES



MSA TOWING MIRRORS

Once alignment has been confirmed. Drill a small pilot hole, where required. For the wire access hole widen the hole with a 8.5mm drill bit, large enough to allow fitting of the **Rubber Gromet** and the wiring to pass through. For the bottom two fixing point holes, on the **76 & 78 Series** vehicles, widen the hole with a 7mm drill bit to allow a slight amount of play for the **Fixing Bolts**. These holes should be 70mm apart center to center.





PLEASE NOTE

PLEASE COVER BARE METAL FROM THE NEW DRILL HOLES WITH RUST PROTECTOR. (RUST PROTECTOR NOT SUPPLIED).

BE SURE TO CLEAN ANY DRILL SWARF THAT DROPPED INSIDE THE VEHICLE DOOR.

4 SECURE THE BASE HOLES

To secure the base holes the supplied base securing plate is required on the inside of the door skin. This plate has already been fitted with fixing tape. Clean the area inside the door with wax and grease remover prior to placing the plate over the pre-drilled holes.



5 INSTALLING THE MIRROR BASE



Hold the **Mirror** in place feed the wiring through the wire access hole. Pass a **Bolt** with a **Flat** and **Split Washer**, through a **Adjusting Washer** and **Mirror Base** then into the **Securing Plate** on the inside the vehicle door. The **Washers** are designed to allow for any discrepancy in the alignment of the holes previously drilled for the original mirrors. Tighten all the bolts with a Phillips head screwdriver. Check for correct alignment and tighten to 8nm. Finish by placing the push in covers over the securing bolts (*four per mirror)*. These only go in one position and one way. Carefully place them in and make sure they are secure.







INSTALL STEPS

PLEASE NOTE

FOR MIRROR MODELS TM404-405 & TM452-453 SUITED TO 76 AND 78 SERIES LANDCRUISERS (09/2023-CURRENT), A PLUG AND PLAY LOOM THAT PLUGS DIRECTLY INTO THE ORIGINAL PLUG IS SUPPLIED. RUN THE MSA MIRROR LOOM THE SAME WAY AS THE ORIGINAL MIRROR LOOM, SECURE THIS LOOM AND FIRMLY PLUG IT TOGETHER. STEP 6 NOT REQUIRED, GO TO STEP 7 FOR POWER FOLD MODELS AND STEP 8 FOR NON POWER FOLD MODELS.

6 INSTALLING THE SWITCHES AND WIRING



These models require the placement of the **Switches** in the **Dash**, for wiring up of the **Indicators,** powering up of the **Mirrors** and added the **Power Fold** feature.





Pull the **Speaker Cover Panel** directly straight out from the **Dash** taking care not to damage the clips.

Pull **Switch Mounting Panel** directly straight out from the **Dash** taking care not to damage the clips.





Remove **Bolt** holding **Speaker Cover Panel** and retain for later.

From the back of the **Panel** push the **Mirror Blank** out.





Feed main **Wiring Loom** through **Mirror Control** surround.

Please note the LHS wires are the longest ones.

Make sure that all wiring is clear of moving parts.





Feed wiring through blank hole and down towards the pedals.

Once done, insert **Mirror Control** and surround into blank.

MSA TOWING MIRRORS

7 INSTALLING THE POWER FOLD FUNCTION SWITCH AND WIRING







PLEASE NOTE

FOR MIRROR MODELS TM452-455 SUITED TO 76,78 AND 79 SERIES LANDCRUISERS (09/2023-CURRENT), USE THE SQUARE SWITCH AND NOT THE RECTANGLE SWITCH.

For the power fold function loom, repeat the previous electrical wiring process.

Two switch covers are supplied due to changes in the dash design. 2021-Current model vehicles require the wiring loom to run to the blank centre switch and use the horizonal switch cover.

8 CONNECTING TO A POWER SOURCE

TIP

PLEASE PULL THE FUSE FROM ITS HOLDER PRIOR TO CONNECTING TO A POWER SOURCE.



Connect the red fused power wires to a switched auxilary power source and earth the black wire.

The wiring connecting plugs have all been left off for ease of running through the body and the door rubbers. The connecting plugs will need to be attached once all the wires are in place.

With the door open, find the wiring for the electric windows passing from the body to the door. Feed these wires through by making a small slit in these rubbers and taping the wiring to the OE loom. Then, feed the wiring tight up inside the door and away from the window mechanism.



Connect the small barbed terminals into the three-pin male connector and match them into the female plug. Do the same for the two-pin BLUE and BLACK wires and also the two pin BLUE and GREEN wires

Run the indicator wires out through the guard and splice them into the wires from the back of the indicator in the guard, this will power up the indicators on the MSA 4x4 Towing Mirrors.

Once the wiring is complete, replace the fuse and check the functions of the mirrors.

INSTALL STEPS

9 RE-FIX BADGE

Re-fix the badge, with double sided 3M tape or something similar.

PLEASE NOTE

ALL THAT IS NOW LEFT TO DO IS CHECK THE MIRROR IS FUNCTIONING CORRECTLY AND ADJUSTS TO SUIT THE DRIVERS POSITION.




MSA4X4
All-Terrain T/A
BFGoodrich

FITTED MIRROR DIMENSIONS



POSITION 1

Fit into garages and tight parking spaces



POSITION 2

Perfect for towing camper trailers, horse floats and smaller vans



POSITION 3

Perfect for tray backs and wider service bodies



POSITION 4

Perfect for towing large vans or wider loads

		Non Power Fold	Power Fold
4	Towing Extended Position	**2535**mm	**2535**mm
3	Standard Horizontal Position	**2390**mm	**2445**mm
2	Standard Driving Extended	**2310**mm	**2310**mm
1	Standard Driving Position	**2160**mm	**2215**mm



PLEASE NOTE

ALL DIMENSIONS ARE TAKEN FROM THE WIDEST PART OF THE MIRROR BODY ON THAT POSITION.

MSA 4X4 WARRANTY





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+61 7 5594 6664

EMAIL:
warranties@msa4x4.com.au

WEBSITE:
msa4x4.com.au

All MSA 4X4 Accessories products are designed and manufactured to the highest quality standards to perform as they should. We stand behind our Driving Mirrors with a 5-year Manufacturer's Warranty.

All claims under this warranty should be made by returning the product at your cost to MSA 4X4 Accessories Pty Ltd, 43 Harrington Street, Arundel, QLD 4214, with the detail of the fault, proof of purchase, proof of identification and vehicle fitment details where relevant. 5-year manufacturer's warranty applies to the original purchaser only.

If we determine that an MSA 4X4 Towing Mirror is defective in materials or workmanship during the 5-year Warranty, we will either repair or replace the product. Repair or replacement is solely at the discretion of MSA 4X4 Accessories Pty Ltd.

This warranty does not apply to failure or damage caused by incorrect or faulty fitment, accidental or intentional damage, misuse or abuse, failure of other products, operation of the product outside of its environmental or technical specifications, or repair or modification carried out by anyone other than MSA 4X4 Accessories Pty Ltd. No charges will be accepted for external labour or materials. MSA 4X4 Accessories 5-year warranty does not cover any scratches, cracks or chips.

MSA 4X4 Accessories products are designed for lifestyle applications. Due to the harshness of the mining environment, MSA 4X4 Accessories products used in mining applications that may be operating outside of their environmental and technical specifications, are therefore excluded from the 5-Year Warranty. MSA 4X4 Accessories products used in mining applications are warranted for up to 1 year.

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.

Maintenance of MSA 4X4 Towing Mirrors:

To help maintain the MSA 4X4 Towing Mirrors warranty, ensure that no harsh chemicals are used when washing the mirrors. Truck wash is NOT advisable. When a vehicle, fitted with MSA 4X4 Towing Mirrors, travels through coastal areas it is important to clean the mirrors regularly, as salt can damage the power coated finish. MSA 4X4 recommends using a soft sponge and a regular car washing liquid diluted with water, for cleaning. Rinse well and dry with a soft towel or microfibre cloth.


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