

2019+ ND2 Mazda Global MX-5 Cup Homologation Document



Long Road Racing, Corporation
2668 Statesville, NC 28625
(980)-223-8547
www.LongRoadRacing.com

Contents

2019+ ND2 Mazda Global MX-5 Cup Homologation Document	
1) General Notes:.....	
2) Body	
3) Brakes	
4) Cooling: Water, Engine Oil, Transmission, Differential	
5) Data.....	
6) Differential	
7) Electrical.....	
8) Engine	
9) Exhaust.....	
10) Fluids.....	
11) Fuel	
12) Interior	
13) Safety Equipment	
14) Suspension and Suspension Bracing.....	
15) Tires and Wheels	
16) Transmission and Clutch.....	
17) Optional and / or Modified Components	

1) General Notes:

This document will be updated periodically to reflect cumulative changes made to the vehicle specification. A list of all vehicle updates can be found on the Long Road Racing web site:

<http://longroadracing.com/home/global-mx5-cup/gmx5-documentation/>

- a) All REQUIRED TSB items are also shown in this document, as well as items that are OPTIONAL but still homologated. All parts on vehicle must be stock 2019 Mazda MX-5 ND Chassis parts unless specifically listed in this document. Below is a list of all stock Mazda parts that are added during the assembly process:
 - i) Air box Cowl – N244-56-35X ii) Differential – MS14-27-100A
 - iii) Brake calipers – NAYF-33-98Z and NAYF-33-99Z iv) Brake caliper pins – NA5F-33-996
 - v) 2016-2018 Flywheel-PEES-11-500 vi) 2016-2018 Flywheel Lock Bolt-LF01-11-511 vii) 2016-2018

Front Clutch Cover- PE01-16-220 viii) 2016-2018
Filter Body for Oil Filter- PEES-14-311 ix) Modified
Stock Parts are shown in Section 18

b) The only allowed end user modifications to the car are installation of the following:

- i) FIA approved seat and seat side mounting brackets
- ii) FIA approved safety belts
- iii) Welding of additional brackets to the Shoulder Belt Bar for Safety Belt Attachment.



- iv) Interior rear view mirror
- v) Steering wheel

c) Allowable adjustments to the car are:

- i) Tire air pressure
- ii) Front anti-roll bar end link positions
- iii) Front and rear anti-roll bar end link lengths
- iv) Ride height and rake (to not less than TBD by sanctioning organization ground clearance) via spring perches
- v) Damper compression and rebound
- vi) Front and rear toe
- vii) Front and rear camber
- viii) Caster

If it not specifically listed above, no other adjustments, polishing, deburring, or modifications of any kind are allowed.

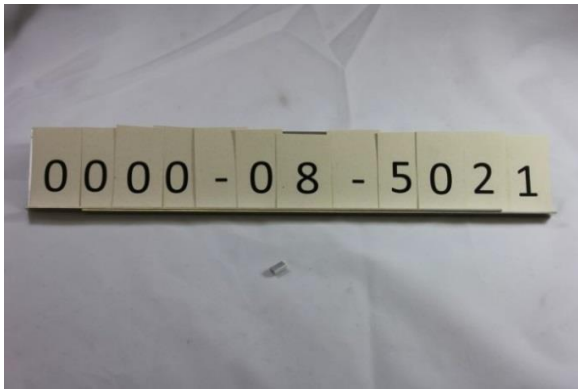
2) Body



Screen, Radiator-ND2 0000-08-D231



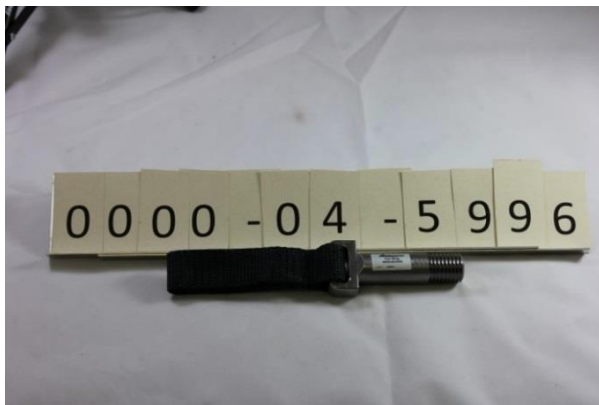
Grill, ND2 0000-08-D208



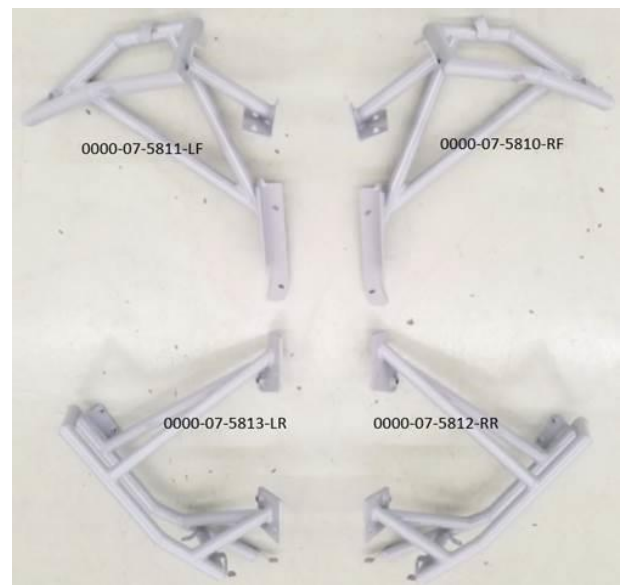
Hood / Trunk Release Wire Crush Sleeve
(front/rear access) 0000-08-5021



Hood / Trunk Release Wire (front/rear access) 0000-08-5025



Tow Hooks 0000-04-5996



Fascia Supports – Structures (Optional)



Fascia Supports – frame brackets (Optional)

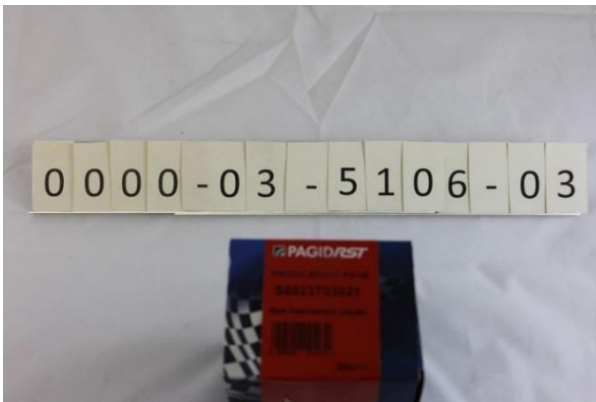


Fascia Support weld in bungs (Optional)

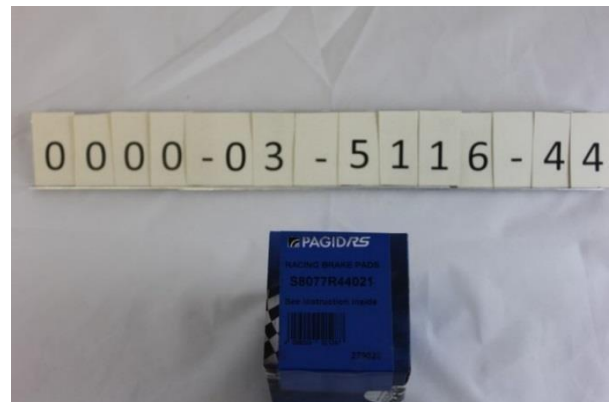


Adaptor, Battery Tray (Optional) –ND2
0000-08-D202

3) Brakes



Brake Pads (Front) 0000-03-5106-03



Brake Pads (Rear) 0000-03-5116-44



SS Brake Lines 0000-03-5213



Rotors LF 0000-03-5406-LT



Rotors RF 0000-03-5406-RT



Brake Duct Clamps 0000-03-5601-CL

4) Cooling: Water, Engine Oil, Transmission, Differential



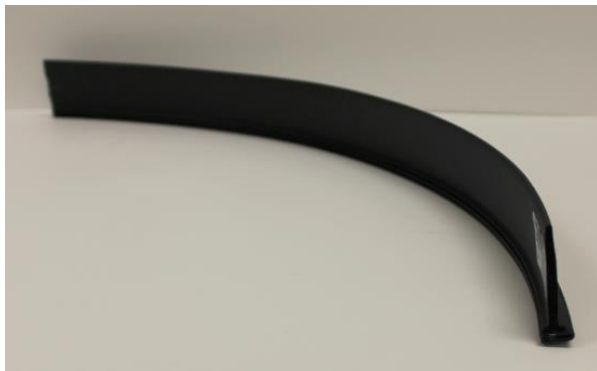
Radiator-ND2 0000-08-D221 (ND2 Tank width 2-9/16" Thick)



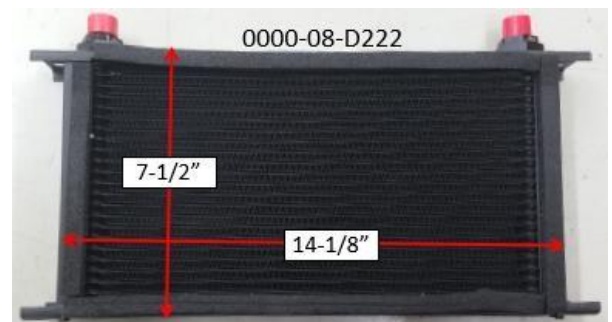
Duct, Radiator-Left-ND2
0000-01-5662-LT



Duct, Radiator-Right-ND2
0000-01-5662-RT



1.75"x24" Flap Trim (Radiator) 0000-01-566B



Oil Cooler SET 925-ND2 0000-08-D222



Engine oil cooler fittings m22- an8
0000-08-5014



Line, Oil Cooler-Short-ND2 0000-08-D223



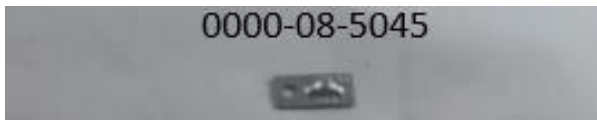
Line, Oil Cooler-Long-ND2 0000-08-D224



Bracket, Oil Cooler-Short-ND2 0000-08-D225



Mounting Hardware and Foam, Diff/Trans Cooler-ND2 0000-08-D209



Zip Ty Saddles 0000-08-5045



Oil Line, Trans-Housing to Filter-ND2
0000-08-D210



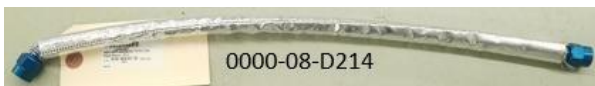
Oil Line, Trans-Filter to Cooler-ND2
0000-08-D211



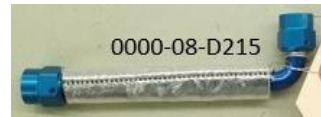
Oil Line, Trans-Cooler to Pump-ND2
0000-08-D212



Oil Line, Trans-Pump to Housing – ND2
0000-08-D213



Oil Line, Diff-Housing to Filter-ND2
0000-08-D214



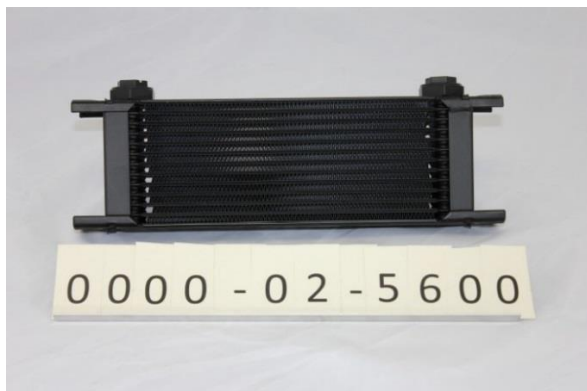
Oil Line, Diff-Filter to Cooler-ND2
0000-08-D215



Oil Line, Diff-Cooler to Pump-ND2
0000-08-D216



Oil Line, Diff Pump to Housing-ND2
0000-08-D217



Diff & Trans Oil cooler (one each) 0000-02-5600



Diff & Trans Oil Cooler Fittings (4 per kit)
0000-02-5603



0000-08-5012-KT
Diff & Trans Oil Cooler Shroud with Fan



0000-08-5012-KT
Diff & Trans Oil Cooler Shroud with Fan



-6 Male to 3/8 NPT Pipe Male 0000-08-5030



Diff & Trans Fluid Transfer Pump with Viton Seals (one each)
0000-08-5031



Diff & Trans Oil Filter and Housing (one each) 0000-08-5032



Diff Pump Bracket Welded to Left Rear Frame

5) Data



AiM MXL2 Data Logger w/GPS 0000-10-9303



0000-10-9304

AiM 22 Pin Harness for MXL2



Shaft Collar 1.75", MXL2 Mount-ND2
0000-08-D230



0000-10-9305

AiM 3.5m Patch Cable



0000-10-9306

AiM

PT-100 Temp Sensor for differential, transmission
and engine oil temp.



Water Pressure Sensor 0000-01-5662-WP

6) Differential



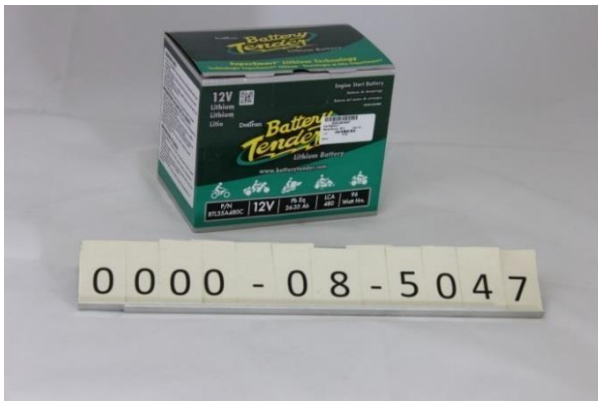
Diff Cover, Top with -6 0000-08-5033



0000-08-5033

Diff Cover, Bottom with Temperature Sensor

7) Electrical



Battery Tender Li Battery 0000-08-5047



0000-08-5044

AMB Flex Transponder



Battery Capture-ND2 0000-08-D219



Wing Nuts, Battery Capture-ND2 0000-08-D220



ECU, Bosch MS6 Cup – ND2
0000-08-D227



Mount Assy, ECU W/Dual Lock-ND2
0000-08-D228



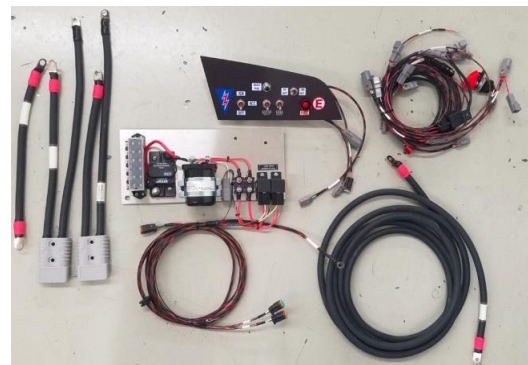
Adaptor Harness, ECU-ND2 0000-08-D203



Mount Assy, ECU Adaptor-ND2 0000-08-D204



Harness, Start/Stop 0000-08-D234



Long Road Racing Wiring Kit



Switch Panel Closeup



Switch Panel, Back Side



Rear Power Distribution Panel View



Sensor, O2-Bosch LSU 4.9-ND2 0000-08-D226



Stud, Cage Ground M8x20-ND2 0000-08-0D205



Nut, Cage Ground M8-ND2 0000-08-0D206



Speed Limiter, Pit Lane-ND2 0000-08-D233



MPI Single External Button Holder: Mazda P/N 0000-10-5660-1B



MPI Dual External Button Holder: Mazda P/N 0000-10-5660-2B

8) Engine



Oil filter Sandwich Plate 0000-01-5600-KT



Vacuum Control Unit Bracket
68_Vac_CNTRL_BKT



Engine Mount Reinforcement Bracket Left
0000-02-5702LT



Engine Mount Reinforcement Bracket Right
0000-02-5702RT



Engine Bracket Left 0000-02-5712-LT



Engine Bracket Right 0000-02-5712-RT

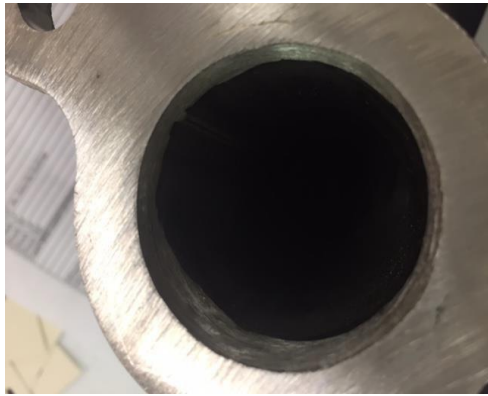
9) Exhaust



Header 0000-06-5410



Header 0000-06-5410



Header 0000-06-5410



Header 0000-06-5410



Header 0000-06-5410



Mid Pipe 0000-06-5430



Muffler 0000-06-5440-01

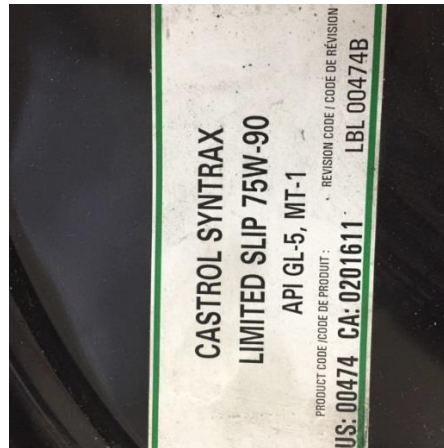


Muffler 0000-06-5440-01

10) Fluids



Castrol Edge Full Synthetic SAE 0W-30 or 5W- 30 European formula Motor Oil. For reference only the engine oil capacity is 5qts with the cooler added.



Transmission & Differential Lubricant Castrol Syntrox Limited Slip 75W-90. Transmission is approximately 5 quarts, and differential is approximately 2 quarts.



Castrol React SRF Brake Fluid 0000-08-5026



Engine Coolant 0000-08-5028

11) Fuel



Fuel Pump Out Kit 0000-06-5210 Only **RED** fuel tee is allowed, **black** tee must **NOT** be used



Fuel Vent Hose, 1/4" 0000-08-5059



Fuel Tube Hose Clamps 0000-08-5060



Fuel Tube, 1" Stainless Steel 0000-08-5061



Fuel Tube, 1" Tygon Tubing 0000-08-5062

12) Interior



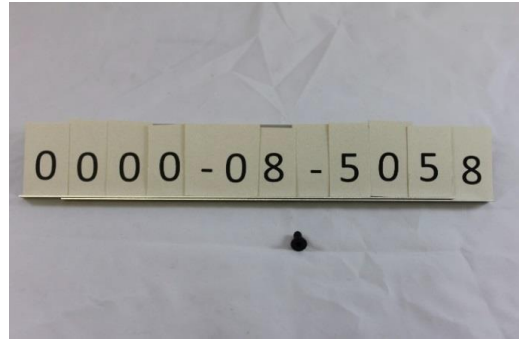
Ballast box 0000-08-5053



0000-08-5128-05
5 lbs Ballast Plate (1/4" Steel) 0000-08-5128-08



0000-08-5128-10
10 lbs Ballast Plate (1/2" Steel)
0000-08-5128-10



Floor Pan Bolts, M6 x 1.0 x 16mm Flat Allen 0000-08-5058



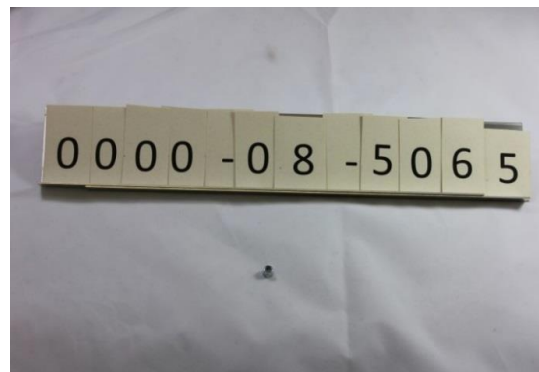
1.15Kg Ballast Plate 0000-08-5128-1.1K-JP



1.15Kg Ballast Plate 0000-08-5128-1.1K-JP



Bulk Head Fastener, M4 Flat Washer
0000-08-5064



Bulk Head Fastener, M4 Nylock Nut
0000-08-5065



Bulk Head Fastener, M4 x 12mm
0000-08-5066



0000-08-5074

Dead Pedal Assembly, 1/8" Steel Plates
Welded to Stock Panel 0000-08-5074



Floor

Pan, 1/8" Aluminum 0000-08-5076LT



Rear Bulk Head Center, 0.063" AL
0000-08-5078



Rear Bulk Head Fuel Cover, 0.063" AL 0000-08-5079



0000-08-5080

Rear Bulk Head Left, 0.063" AL
0000-08-5080



0000-08-5081

Rear Bulk Head Right, 0.063" AL
0000-08-5081

Roll cage 0000-08-5082

(See FIA Homologation Safety
Cage Certificate, IMSA
20150723_MAZDA_MX-5)



0000-08-5083

Steering wheel adaptor 0000-08-5083



7/8 Grommet, Bulkhead, 0000-08-5095

13) Safety Equipment



FIA Compliant Driver Door Net 0000-08-5097



Driver Door Net Mounting Heim 0000-08-5099



Driver Door Net Mounting Jam Nut
0000-08-5100



Driver Door Net Mounting Nut (Nylock)
0000-08-5101



0000-08-5102
Driver Door Net Rod Assembly 0000-05-5102



Fire system 0000-08-5103



Bracket, Fire Bottle w/Clamps
ND2 0000-08-D201



Leg Brace / Wire Cover Panel 0000-08-5105



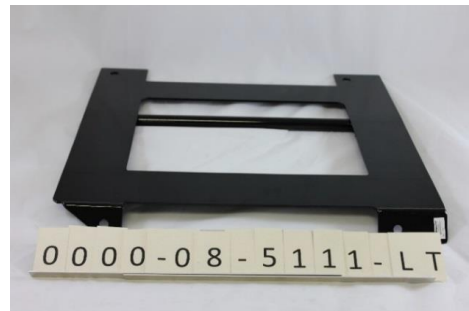
0000-08-5131
Leg Brace Stand-Off (Rear) 0000-08-5131



0000-08-5130
Leg Brace Stand-Off (Front) 0000-08-05130



Roll Bar Padding 0000-08-5107



Seat Mount Baseplate 0000-08-5111-LT



Right Side Net 0000-08-5106

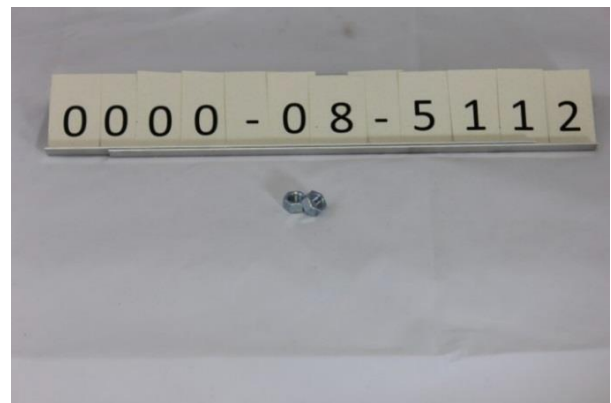
14) Suspension and Suspension Bracing

0000-04-5901

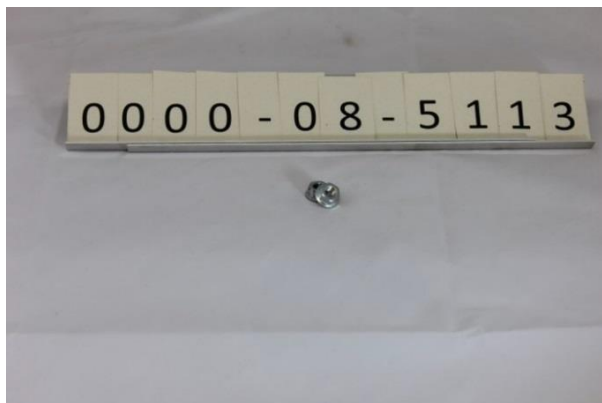
Differential Bushing Inserts



Differential Bushing Inserts 0000-04-5901



Lower Strut Tower Brace JIS Nut 0000-08-5112



Upper Strut Tower Brace Flanged Nut
0000-08-5113



Sway Bar End Links – Front
0000-04-5495



0000-04-5496
Sway Bar End Links – Rear 0000-04-5496



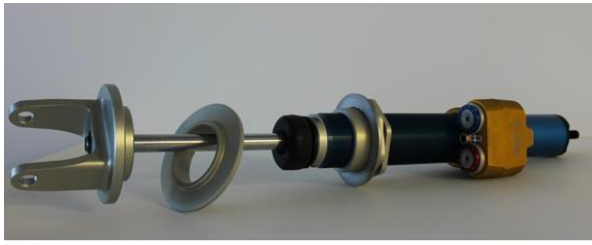
0000-08-5606-BS
1.25" Front Sway Bar Bushings 0000-08-5606BS



0000-04-5606-FT
Front Sway Bar 0000-04-5606-FT



Front Sway Bar 0000-04-5606-FT



0000-04-5617

Damper – Rear 0000-04-5617,
shown with intermediate spring
perch and Bump Stop Mazda Part #
F151-28-775B

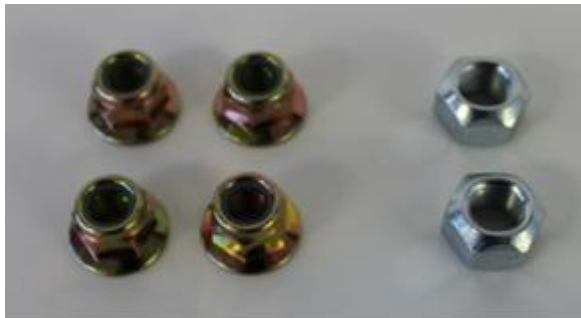


0000-04-5616

Damper – Front 0000-04-5616, shown with intermediate
spring perch and Bump Stop



Mazda Part # F151-28-775B



0000-04-5619

Damper Lock Nut Kit, 4 Upper, 2 Rear Lower Nuts



0000-04-5618

Damper Top Mount Kit 0000-04-5618



0000-08-5116

Rear Lower Damper Lock Nut, 0000-08-5116



Strut Tower Brace 0000-04-5626



Strut Tower Brace 0000-04-5626



Strut Tower Brace 0000-04-5626



Wheel Studs 0000-04-5905



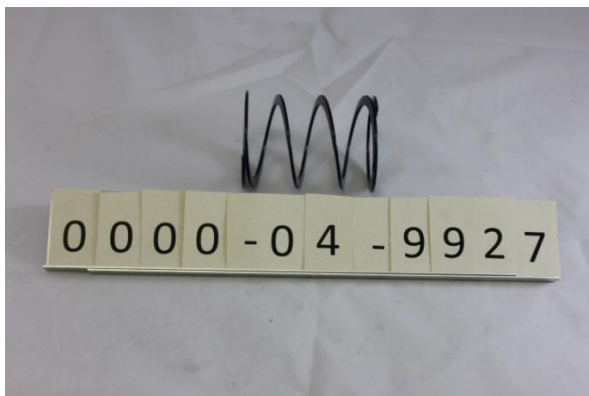
Lug Nuts 0000-04-5906-LN



Rear Spring 300 2.25 ID X 7" 0000-04-5300-07



Front Spring 500 2.25 ID X 7" 0000-04-5500-07



Helper Spring 0000-04-9927



Torrington Bearing 0000-08-5119

15) Wheels & Tires



Tire

GMX5 BFG dry, 215/610R17 g-Force 0000-08-5118



Tire

GMX5 BFG wet 0000-08-5118-WE view 1



Tire GMX5 BFG wet 0000-08-5118-WE view 2



GMX5 BFG wet 0000-08-5118-WE view 3



0000-04-5806

Rays 17x7-1/2 x 40 Wheel, Face 0000-04-5806



0000-04-5806

Wheel, Back 0000-04-5806



0000-04-5806

Wheel, Inside 0000-04-5806

16) Transmission and Clutch



Clutch kit 0000-02-5006-SS (Optional)



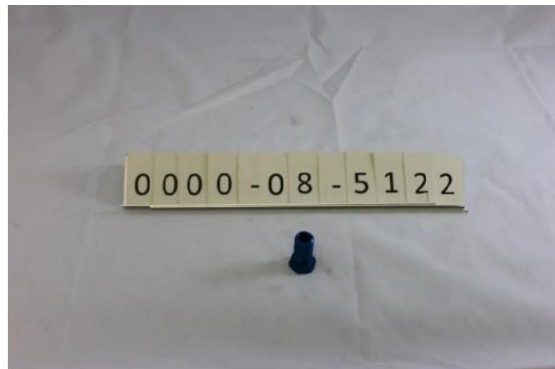
Clutch kit 0000-02-5006-SS (Optional)



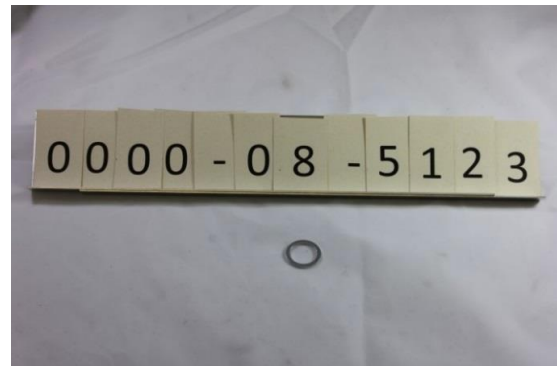
Transmission Stud 0000-02-STUD-GM



Banjo Adapter 0000-08-5121



Banjo Bolt 0000-08-5122



Banjo Bolts Kit (Crush Washer for Banjo Bolts and Cooler Lines) 0000-08-5123



-6 Male to -8 Female Adaptor 0000-08-5124



90° -6 Male to 3/8 NPT Pipe Male 0000-08-5125

17) Optional and / or Modified Components



Trimmed Yaw Sensor Bracket



Right Side Dash Bar Modification / Trim



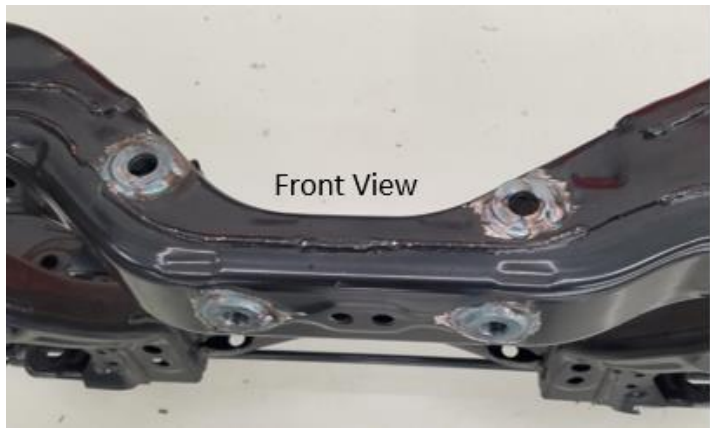
Left Side Under Dash Modification / Trim



Right Side Under Dash Modification / Trim

Rear Subframe Modification for Sadev Sequential Gearbox:

The Rear Subframe may have 2 threaded bungs and 2 steel sleeves welded in to allow installation of a Sadev Sequential Gear Box. These bungs and sleeves must be empty and unused when a standard transmission is being used.



Sleeve – 121 SDVND SLV



Bung – LT = 128L SDVND DMSF Bung LT/ RT = 128R SDVND DMSF Bung RD

Optional polycarbonate windscreen and brace



polycarbonate windscreen 0000-07-5116-PT



Brace 0000-07-5116-BR

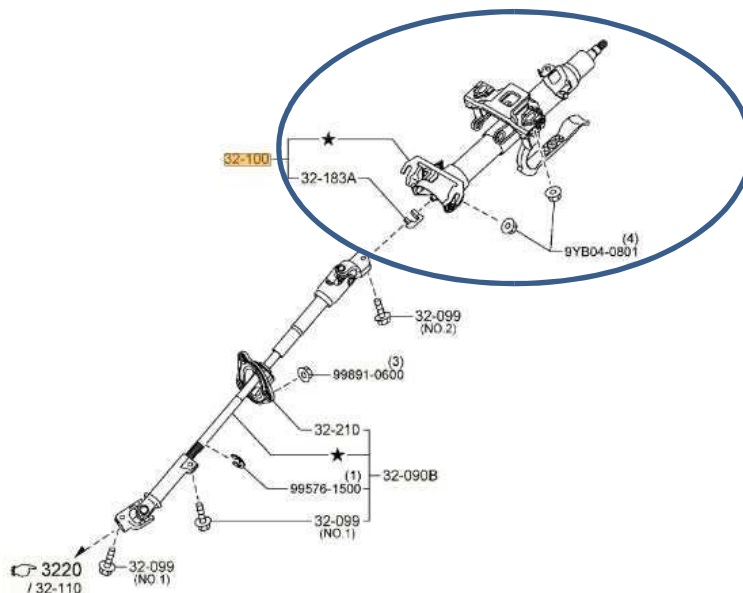
You can now purchase directly from Mazda, the donor transmission ND2 part number (ND2 = M604-03-000 at racer price of \$1352.64 versus ND1 = M602-03-000 at a racer price of \$2999.40) which Long Road Racing will then convert into a “single GMX-5 transmission” (the sealed transmissions are exactly the same in both the ND1 and ND2). At today’s pricing, there is a cost savings to you of over \$1,600.00

Your cart contains:

QUANTITY	ITEM	PRICE	TOTAL	
1	Part #: M602-03-000 ND1 TRANSMISSION, COMPLETE, MANUAL	\$5,000.00 \$2,999.40	\$2,999.40	☐ REMOVE
1	Part #: M604-03-000 ND2 MANUAL T/MISSION CPT.	\$2,254.85 \$1,352.64	\$1,352.64	☐ REMOVE

Optional changes to the GMX-5 cup car steering column with the addition of the telescoping feature to assist with driver comfort.

- a. 0000-08-D230 Updated MXL2 mount
- b. 0000-08-D234 Modified start/stop wiring harness
- c. 0000-08-D235 Fire bottle line

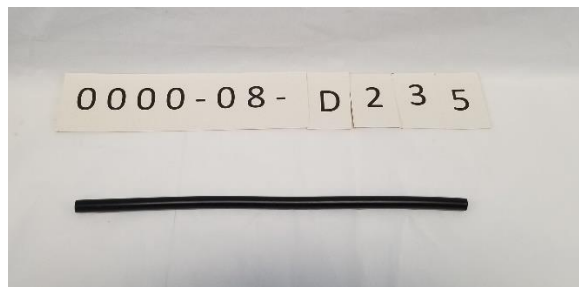




Updated MXL2 mount - 0000-08-D230
(Already pictured on pg. 10)



Modified start/stop wiring harness - 0000-08-D234



Fire bottle line - 0000-08-D235

Optional: Global MX-5 Cup Cooling management tools



1/2 inch cooling system bypass cap (Mazda Part -0000-08-D237)



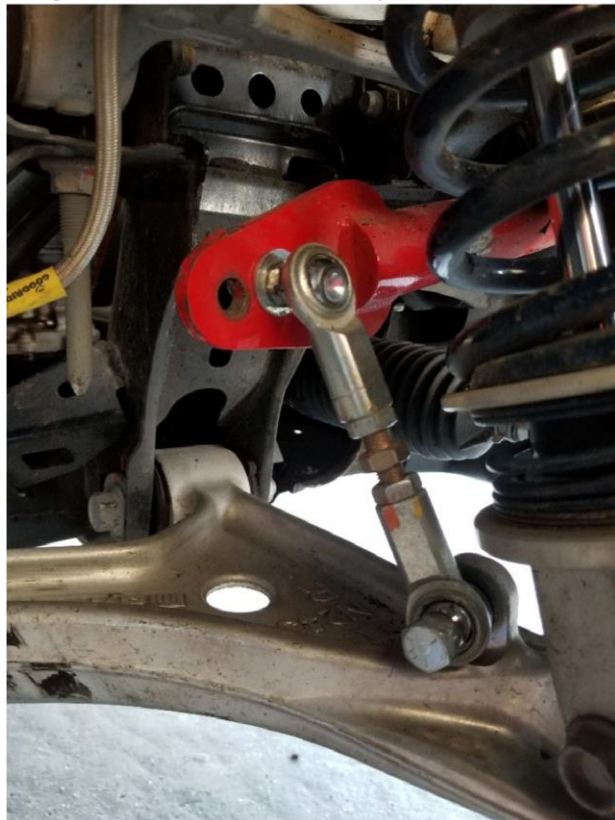
3/8 cap (Mazda Part - 0000-08-D237)



Updated High-Pressure Cooling System Cap (Mazda Part 0000-08-D236)

Optional*: 2017 Global MX-5 Update: Front sway bar end link washer placement

The front sway bar end link attachment washers' sequence, may be altered from how the car was delivered which are 4 in total per side of the car. The total number of four washers may not change per side, but their location (top to bottom or bottom to top) may. The homologated washer is still the only allowed washers.



Optional: Global MX-5 Cup Radiator Cap Safety wire hole(s)



Optional: Global MX-5 Cup battery option – Odyssey PC1200 and new mounting tray



New Battery Tray 0000-08-5043-HL



Odyssey Battery 0000-08-5043



New Battery hold down 0000-08-5043-CL

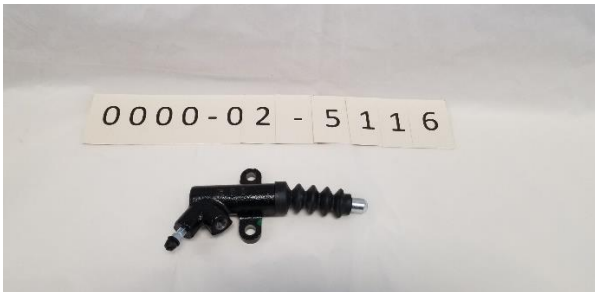


Hold Down Hardware 0000-08-5043-HD

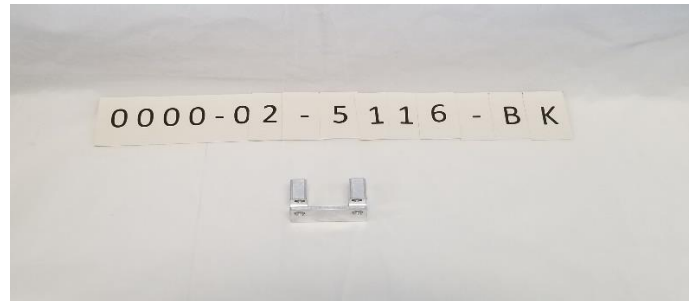


Upgrade Battery Kit 0000-08-5043-KT

Optional: Global MX-5 Cup slave cylinder option



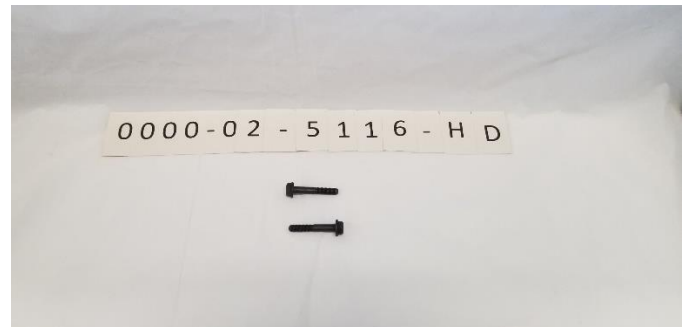
Slave Cylinder - 0000-02-5116



Slave Cylinder Bracket - 0000-02-5116-BK



Slave Cylinder Line - 0000-02-5116-LN



Slave Cylinder Hardware - 0000-02-5116-HD



Slave Cylinder Kit - 0000-02-5116-KT