Edition: March 2012	QUICK REFERENCE INDEX		
Revision: March 2013	A GENERAL INFORMATION	GI	General Information
Publication No. SM3E-1H51U1	B ENGINE	EM	Engine Mechanical
Publication No. SWISE-1715101		LU	Engine Lubrication System
		CO	Engine Cooling System
		EC	Engine Control System
		FL	Fuel System
		EX	Exhaust System
		A C C	Assolution Control Cristians
	C ELECTRIC POWER TRAIN	ACC HBC	<u> </u>
	C ELECTRIC FOWER TRAIN	HBB	Hybrid Battery System
		IIDD	Trybild Dattery Cystem
		TMS	Traction Motor System
		НСО	High Voltage Cooling System
	D TRANSMISSION & DRIVELIN		Clutch
		TM	Transaxle & Transmission
		DLN FAX	Driveline Front Axle
		RAX	Rear Axle
(Λ)	E SUSPENSION	FSU	Front Suspension
4	2 000. 2.10.011	RSU	Rear Suspension
INFINIT			
INFINITI®		WT	Road Wheels & Tires
M Hybrid	F BRAKES	BR	Brake System
		PB	Parking Brake System
MODEL HY51 SERIES		BRC	Brake Control System
	G STEERING	ST	Steering System
		STC	Steering Control System
	H RESTRAINTS	SB	Seat Belt
		SBC	Seat Belt Control System
		SR	SRS Airban Control Sustant
	I VENTILATION, HEATER & AIR	SRC VTL	SRS Airbag Control System Ventilation System
	CONDITIONER	HA	Heater & Air Conditioning System
		HAC	Heater & Air Conditioning Control System
	J BODY INTERIOR	INT	Interior
		IP	Instrument Panel
		SE	Seat
		ADP	Automatic Drive Positioner
	K BODY EXTERIOR, DOORS,	DLK	Door & Lock
	ROOF & VEHICLE SECURITY	OLO	Security Control System
		GW	Glass & Window System
		PWC	Power Window Control System
		RF	Roof
		EVT	Exterior
		EXT BRM	Exterior Body Repair
	L DRIVER CONTROLS	MIR	Mirrors
	_ DAILER CORTROLO	EXL	Exterior Lighting System
		INL	Interior Lighting System
		WW	Wiper & Washer
		DEF	Defogger
		HRN	Horn
		VSP	Approaching Vehicle Sound for Pedestrians (VSP)
	M ELECTRICAL & POWER CON		Power Outlet
	TROL	BCS	Body Control System
All Rights Reserved. No part		LAN	LAN System
of this Service Manual may		PCS	Power Control System
		De	Power Complex Community of the Community
be reproduced or stored in a	N DDIVED INCODMATION C	PG	Power Supply, Ground & Circuit Elements
retrieval system, or transmit-	N DRIVER INFORMATION & MULTIMEDIA	MWI WCS	Meter, Warning Lamp & Indicator Warning Chime System
ted in any form, or by any		SN	Sonar System
means, electronic, mechani-		AV	Audio, Visual & Navigation System
cal, recording or otherwise,	O CRUISE CONTROL &	CCS	Cruise Control System
without the prior written per-	DRIVER ASSISTANCE	DAS	Driver Assistance System
mission of NISSAN MOTOR		DMS	Drive Mode System
CO., LTD.	P MAINTENANCE	MA	Maintenance
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FOREWORD

This manual contains maintenance and repair procedure for the 2013 INFINITI M Hybrid.

In order to assure your safety and the efficient functioning of the vehicle, this manual should be read thoroughly. It is especially important that the PRECAUTIONS in the GI section be completely understood before starting any repair task.

All information in this manual is based on the latest product information at the time of publication. The right is reserved to make changes in specifications and methods at any time without notice.

IMPORTANT SAFETY NOTICE

The proper performance of service is essential for both the safety of the technician and the efficient functioning of the vehicle. The service methods in this Service Manual are described in such a

The service methods in this Service Manual are described in such a manner that the service may be performed safely and accurately. Service varies with the procedures used, the skills of the technician and the tools and parts available. Accordingly, anyone using service procedures, tools or parts which are not specifically recommended by NISSAN must first be completely satisfied that neither personal safety nor the vehicle's safety will be jeopardized by the service method selected.





PLEASE HELP MAKE THIS SERVICE MANUAL BETTER!

Your comments are important to INFINITI and will help us to improve our Service Manuals. Use this form to report any issues or comments you may have regarding our Service Manuals. Please print this form and type or write your comments below. Mail or fax to:

Nissan North America, Inc. Technical Service Information 39001 Sunrise Drive, P.O. Box 9200 Farmington Hills, MI USA 48331 FAX: (248) 488-3880

SERVICE MANUAL: Model: ______ Year: _____ PUBLICATION NO. (Refer to Quick Reference Index): _____ Please describe any Service Manual issues or problems in detail: Page number(s) ______ Note: Please include a copy of each page, marked with your comments. Are the trouble diagnosis procedures logical and easy to use? (circle your answer)

YES NO If no, what page number(s)?_____Note: Please include a copy of each page, marked with your comments. Please describe the issue or problem in detail: Is the organization of the manual clear and easy to follow? (circle your answer)

YES NO Please comment: What information should be included in INFINITI Service Manuals to better support you in servicing or repairing customer vehicles? DATE: _____ YOUR NAME: _____ _____ POSITION: _____ DEALER: _____ DEALER NO.: ____ ADDRESS: ___ _____ STATE/PROV./COUNTRY: _____ ZIP/POSTAL CODE: ____

QUICK REFERENCE CHART M HYBRID

PFP:00000

ENGINE TUNE-UP DATA (VQ35HR)

ELS0003W

Engine model			VQ35HR
Firing order			1-2-3-4-5-6
Idle speed (In "P" position) (INSPEC	CTION MODE1)	rpm	930 ± 50
Ignition timing (BTDC at (In "P" position) (INSPEC			25° ± 5°
Radiator cap relief press	ure	kPa (kg/cm², psi)	
	Standard		122.3 - 151.7 (1.2 - 1.5, 18 - 22)
	Limit		107 (1.1, 16)
Engine cooling system le	akage testing pressure	kPa (kg/cm², psi)	157 (1.6, 23)
Sub radiator reservoir tar	nk cap relief pressure	kPa (kg/cm², psi)	
	Standard		19 - 34 (0.2 - 0.3, 2 - 5)
	Limit		16 (0.2, 2)
High voltage cooling syst	em leakage testing pressure	kPa (kg/cm², psi)	32 (0.3, 5)
Compression pressure	!	kPa (kg/cm², psi)/rpm	
	Standard		950 (9.69, 138)/300
	Minimum		730 (7.45, 106)/300
	Differential limit between cyl	inders	100 (1.0, 14.5)/300
	Make		DENSO
Spark plug (Iridium-tipped type)	Standard type		FXE22HR11
(Gap (Standard)	mm (in)	1.1 (0.043)

FRONT WHEEL ALIGNMENT

ELS0003X

Item		Standard	
		Minimum	-0° 55′ (-0.91°)
Camber		Nominal	-0° 10′ (-0.17°)
Degree mir	Degree minute (Decimal degree)	Maximum	0° 35′ (0.58°)
		Left and right difference	0° 33′ (0.55°) or less
		Minimum	3° 10′ (3.17°)
Caster		Nominal	4° 30′ (4.50°)
Degree mir	egree minute (Decimal degree)	Maximum	5° 50′ (5.83°)
		Left and right difference	0° 39′ (0.65°) or less
		Minimum	6° 25′ (6.42°)
Kingpin inc	lination nute (Decimal degree)	Nominal 7° 10′ (7.17°)	
Dogroo IIII	, ,	Maximum	7° 55′ (7.91°)
		Minimum	Out 1 mm (Out 0.03 in)
	Total toe-in Distance	Nominal	In 1 mm (In 0.04 in)
Toe-in	2.0.000	Maximum	In 3 mm (In 0.11 in)
		Minimum	Out 0 ° 04′ 48″ (Out 0.08°)
	Total toe-angle Degree minute (Decimal degree)		In 0° 04′ 48″ (In 0.08°)
	25g.55 milato (255miai degree)	Maximum	In 0° 14′ 24″ (In 0.24°)

REAR WHEEL ALIGNMENT

ELS0003Y

	Item		Standard
		Minimum	-1° 30′ (-1.50°)
Camber Degree min	ute (Decimal degree)	Nominal	-1° 00′ (-1.00°)
2 og. 00	Maximum	-0° 30′ (-0.50°)	
		Minimum	0 mm (0 in)
	Total toe-in Distance	Nominal	In 2.9 mm (In 0.114 in)
Toe-in	Diotalios	Maximum	In 5.8 mm (In 0.228 in)
106-111		Minimum	0° 00′ (0.00°)
	Total toe-angle Degree minute (Decimal degree)	Nominal	In 0° 14′ 24″ (In 0.24°)
	= 19.11	Maximum	In 0° 28′ 12″ (In 0.47°)

Measure value under unladen* conditions.

Measure value under unladen* conditions.
*: Fuel, engine coolant and lubricant are full. Spare tire, jack, hand tools and mats are in designated positions.

^{*:} Fuel, engine coolant and lubricant are full. Spare tire, jack, hand tools and mats are in designated positions.

BRAKE PEDAL

Unit: mm (in)

Item	Standard
Brake pedal height	170.5 - 180.5 (6.71 - 7.11)
Depressed brake pedal height [Depressing 196 N (20 kg, 44 lb) while turning the engine ON]	124.0 (4.88) or more

FRONT DISC BRAKE

Unit: mm (in)

	Item	Limit
Brake pad	Wear limit thickness	2.0 (0.079)
	Wear limit thickness	26.0 (1.024)
Disc rotor	Thickness variation (measured at 8 positions)	0.015 (0.0006)
	Runout (with it attached to the vehicle)	0.035 (0.0014)

REAR DISC BRAKE

Unit: mm (in)

	Item	Limit
Brake pad	Wear limit thickness	2.0 (0.079)
	Wear limit thickness	14.0 (0.551)
Disc rotor	Thickness variation (measured at 8 positions)	0.015 (0.0006)
	Runout (with it attached to the vehicle)	0.055 (0.0022)

REFILL CAPACITIES

ELS00040

UNIT		Liter	US measure
Fuel tank		67.4	17-7/8 gal
Engine coolant capacity [With reservoir tank ("MAX" level)]	8.6	9-1/8 qt
	Drain and refill		
Engine oil	With oil filter change	4.9	5-1/8 qt
	Without oil filter change	4.6	4-7/8 qt
	Dry engine (Overhaul)	5.7	6 qt
Transmission		7.0	7-3/8 qt
Final drive		1.15	2-3/8 pt
Power steering system		1.0	1-1/8 qt
Air conditioning system	Compressor oil	0.15	5.07 fl oz
	Refrigerant	0.55 kg	1.21 lb