

Last Modified: 12-04-2024	6.11:8.1.0	Doc ID: RM100000002C0N6
Model Year Start: 2023	Model: Prius Prime	Prod Date Range: [03/2023 -]
Title: SPECIFICATIONS: HYBRID / BATTERY CONTROL: TORQUE SPECIFICATIONS; 2023 - 2024 MY Prius Prius Prime [03/2023 -]		

TORQUE SPECIFICATIONS

for HEV Model

PART TIGHTENED	N*M	KGF*CM	FT.*LBF	IN.*LBF	
Battery clamp sub-assembly x Body (for 2ZR-FXE)	15.4	157	11		
Air cleaner case sub-assembly x Body (for M20A-FXS)	4.0	41		35	
Air cleaner bracket x Body (for M20A-FXS)	7.0	71		62	
No. 3 engine wire x No. 1 engine room relay block	8.35	85		74	
Vacuum switching valve assembly x Inverter with converter assembly (for M20A-FXS)	10	102	7		
Engine wire x Inverter with converter assembly	10	102		89	
Floor under wire x Inverter with converter assembly	8.0	82	6		
No. 7 engine wire x Inverter with converter assembly	10	102		89	
Inverter with converter assembly x Hybrid vehicle transaxle assembly	55	561		487	
Inverter cover x Inverter with converter assembly	8.0	82	6		
Motor cable x Inverter with converter assembly	with SST	7.0	71	5	
	without SST	8.0	82	6	
No. 2 inverter bracket x Inverter with converter assembly	15	153	11		
No. 1 inverter bracket x Inverter with converter assembly	15	153	11		
No. 3 engine wire x Inverter with converter assembly	Nut	16	163	12	

PART TIGHTENED		N*M	KGF*CM	FT.*LBF	IN.*LBF
	Bolt	10	102	7	
Wire harness clamp bracket x Inverter with converter assembly		10	102	7	
Wire harness clamp bracket x Inverter with converter assembly		8.0	82		71
HV air conditioning wire x Inverter with converter assembly	Bolt A	8.0	82		71
	Bolt B	10	102	7	
Fuel hose bracket x Inverter with converter assembly (for M20A-FXS)		13	133	10	
HV floor under wire x Inverter with converter assembly		8.0	82		71
Connector cover assembly x HV floor under wire		2.0	20		18
Engine wire x Wire harness clamp bracket		10	102	7	
Battery ECU assembly x HV battery		7.5	76		66
Upper HV battery cover sub-assembly x HV battery		9.5	97		84
No. 1 HV battery cover panel RH x HV battery		7.5	76		66
HV battery x Body		19	194	14	
No. 1 HV battery carrier bracket sub-assembly x HV battery		8.5	87		75
No. 2 HV battery carrier bracket sub-assembly x HV battery		8.5	87		75
No. 3 HV battery carrier bracket		8.5	87		75
No. 4 HV battery carrier bracket		8.5	87		75
Inverter water pump with motor assembly x Fan shroud assembly		7.0	71		62
Dash panel heat insulator x Body		5.0	51		44

PART TIGHTENED	N*M	KGF*CM	FT.*LBF	IN.*LBF
Floor under wire x Engine room main wire	10	102	7	
Floor under wire x Body	8.0	82		71
Front frame tube clamp bracket RH x Body	4.8	49		42
Radio earth bracket x Floor under wire	9.0	92		80
Radio earth bracket x Body	9.0	92		80
Floor under wire x Positive auxiliary battery terminal (for M20A-FXS)	6.0	61		53
Accelerator pedal (with sensor) rod assembly x Body	7.5	76		66
No. 2 hybrid battery intake duct	7.5	76		66
Battery cooling blower assembly x Body	7.5	76		66
No. 1 traction battery device box x HV battery	7.5	76		66
Rear seat cushion leg sub-assembly x Body	16	163	12	
Electric vehicle charger assembly x Vehicle body	19	194	14	
No. 1 EV charger protector x Electric vehicle charger assembly	8.0	82		71

INVERTER WITH CONVERTER for PHEV Model

PART TIGHTENED	N*M	KGF*CM	FT.*LBF	IN.*LBF
Air cleaner case sub-assembly x Body	4.0	41		35
Air cleaner bracket x Body	7.0	71		62
No. 3 engine wire x No. 1 engine room relay block	8.35	85		74
Vacuum switching valve assembly x Inverter with converter assembly	10	102	7	
Engine wire x Inverter with converter assembly	10	102		89

PART TIGHTENED		N*M	KGF*CM	FT.*LBF	IN.*LBF
Floor under wire x Inverter with converter assembly		8.0	82	6	
No. 7 engine wire x Inverter with converter assembly		10	102		89
Inverter with converter assembly x Hybrid vehicle transaxle assembly		55	561		487
Inverter cover x Inverter with converter assembly		8.0	82	6	
Motor cable x Inverter with converter assembly	with SST	7.0	71	5	
	without SST	8.0	82	6	
No. 2 inverter bracket x Inverter with converter assembly		15	153	11	
No. 1 inverter bracket x Inverter with converter assembly		15	153	11	
No. 3 engine wire x Inverter with converter assembly	Nut	16	163	12	
	Bolt	10	102	7	
Wire harness clamp bracket x Inverter with converter assembly		10	102	7	
Wire harness clamp bracket x Inverter with converter assembly		8.0	82		71
HV air conditioning wire x Inverter with converter assembly	Bolt A	8.0	82		71
	Bolt B	10	102	7	
Fuel hose bracket x Inverter with converter assembly		13	133	10	
HV floor under wire x Inverter with converter assembly		8.0	82		71
Connector cover assembly x HV floor under wire		2.0	20		18

ELECTRIC VEHICLE CHARGER ASSEMBLY for PHEV Model

PART TIGHTENED		N*M	KGF*CM	FT.*LBF	IN.*LBF
Electric vehicle charger assembly x Vehicle body		19	194	14	

PART TIGHTENED	N*M	KGF*CM	FT.*LBF	IN.*LBF
Wire harness clamp bracket x Electric vehicle charger assembly	8.0	82		71

CHARGE INLET for PHEV Model

PART TIGHTENED	N*M	KGF*CM	FT.*LBF	IN.*LBF
Inlet AC charger cable x Battery charger connector opening lid sub-assembly	Nut	8.0	82	71
	Bolt	10	102	7

BATTERY VOLTAGE SENSOR for PHEV Model

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
Battery voltage sensor x HV supply battery aseembly	7.5	76	66
No. 1 traction battery cover x HV supply battery aseembly	7.7	79	68

BATTERY ECU for PHEV Model

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
Battery ECU assembly x HV supply battery aseembly	7.5	76	66

HV BATTERY for PHEV Model

PART TIGHTENED	N*M	KGF*CM	FT.*LBF	IN.*LBF
HV supply battery aseembly x Vehicle body	Bolt (A)	43	438	32
	Bolt (B)	20	204	15
Valve to connector tube x HV supply battery aseembly	9.8	100		87
Floor under wire x HV supply battery aseembly	7.5	76		66
No. 20 traction battery bracket x HV supply battery aseembly (w/ Solar Charging System)	10	102	7	
No. 8 discharge tube x HV supply battery aseembly	9.8	100		87
Liquid tube sub-assembly c x HV supply battery aseembly	9.8	100		87

PART TIGHTENED	N*M	KGF*CM	FT.*LBF	IN.*LBF
No. 1 center floor heat insulator sub-assembly x Vehicle body	5.0	51		44
Battery box panel sub-assembly x Vehicle body	17	173	13	
Battery box cover x HV supply battery aseembly	7.5	76		66

WATER PUMP WITH MOTOR for PHEV Model

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
Inverter water pump assembly x Cooler bracket	7.0	71	62

FRAME WIRE for PHEV Model

PART TIGHTENED	N*M	KGF*CM	FT.*LBF	IN.*LBF
Floor under wire x Engine room main wire	10	102	7	
Wire harness protector x Floor under wire	4.8	49		42
Floor under wire x Relay block	6.0	61		53
Center floor heat insulator x Vehicle body	5.0	51		44
Floor under wire x Inverter with converter assembly	8.0	82		71

ACCELERATOR PEDAL SENSOR for PHEV Model

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
Accelerator pedal assembly x Vehicle body	7.5	76	66
Accelerator pedal sensor assembly x Vehicle body	7.5	76	66

HV RELAY ASSEMBLY for PHEV Model

PART TIGHTENED	N*M	KGF*CM	FT.*LBF	IN.*LBF
No. 1 traction battery device box assembly x HV supply battery aseembly	7.5	76		66

HEATER RELAY for PHEV Model

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
No. 1 traction battery heater relay x HV supply battery aseembly	7.5	76	66

SERVICE PLUG GRIP for PHEV Model

PART TIGHTENED	N*M	KGF*CM	FT.*LBF	IN.*LBF
No. 2 traction battery cover x HV supply battery aseembly	11.4	116	8	

HV BATTERY STACK for PHEV Model

PART TIGHTENED	N*M	KGF*CM	FT.*LBF
No. 1 HV supply stack sub-assembly x HV supply battery aseembly	11	112	8
No. 2 HV supply stack sub-assembly x HV supply battery aseembly	11	112	8
No. 3 HV supply stack sub-assembly x HV supply battery aseembly	11	112	8
No. 16 traction battery bracket x HV supply battery aseembly	16	163	12

REFRIGERANT LINE for PHEV Model

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
No. 10 traction battery bracket x HV supply battery aseembly	7.5	76	66
No. 1 traction battery cooler tube x HV supply battery aseembly	7.5	76	66
No. 2 traction battery cooler tube x HV supply battery aseembly	7.5	76	66

