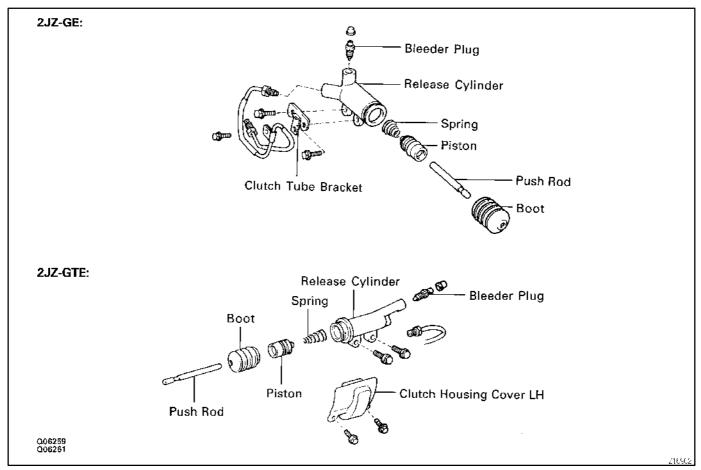
# CLUTCH RELEASE CYLINDER COMPONENTS

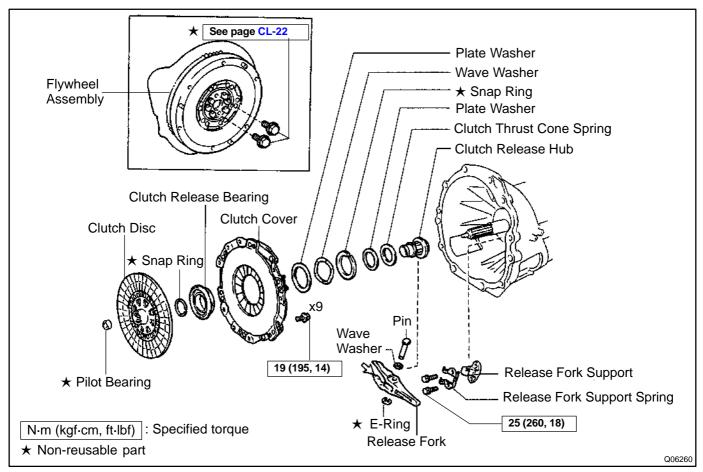
CL045-02



1997 SUPRA (RM502U)

# CLUTCH UNIT (2JZ-GTE) COMPONENTS

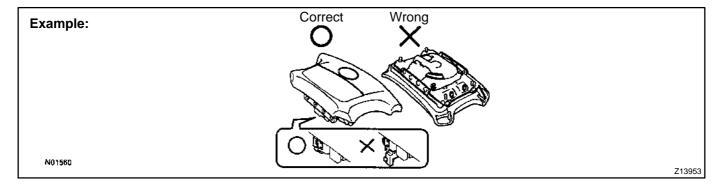
CL04A-03

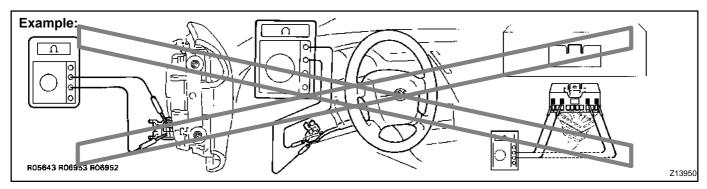


1997 SUPRA (RM502U)

#### (d) STEERING WHEEL PAD (with Airbag)

- (1) When removing the steering wheel pad or handling a new steering wheel pad, it should be placed with the pad top surface facing up. In this case, the twin-lock type connector lock lever should be in the locked state and care should be taken to place it so the connector will not be damaged. In addition do not store a steering wheel pad on top of another one. Storing the pad with its metallic surface facing upward may lead to a serious accident if the airbag inflates for some reason.
- (2) Never measure the resistance of the airbag squib. (This may cause the airbag to deploy, which is very dangerous.)
- (3) Grease should not be applied to the steering wheel pad and the pad should not be cleaned with detergents of any kind.
- (4) Store the steering wheel pad where the ambient temperature remains below 93°C (200°F), without high humidity and away from electrical noise.
- (5) When using electric welding, first disconnect the airbag connector (yellow color and 2 pins) under the steering column near the combination switch connector before starting work.
- (6) When disposing of a vehicle or the steering wheel pad alone, the airbag should be deployed using an SST before disposal (See page RS-1 1). Carry out the operation in a safe place away from electrical noise.

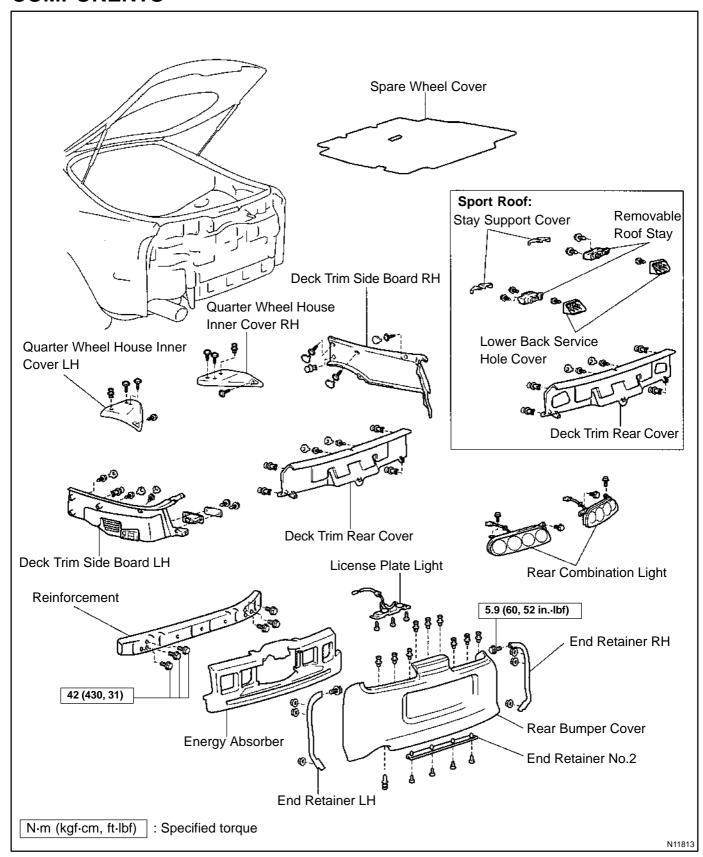




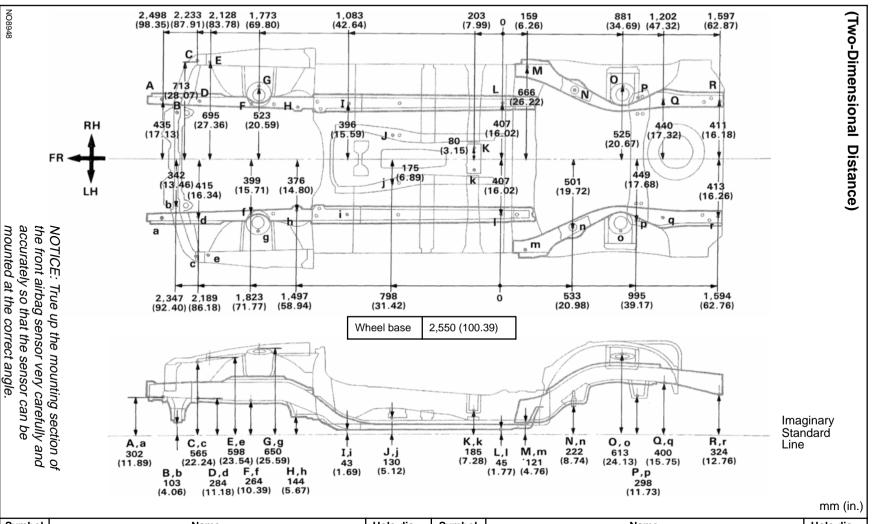
1997 SUPRA (RM502U)

# REAR BUMPER COMPONENTS

BO0QA-0



# **UNDER BODY (Cont'd)**



					` ′
Symbol	Name	Hole dia.	Symbol	Name	Hole dia.
A, a	Front side member standard hole	7 (0.28)	K, k	Propeller shaft center support bearing installation nut	10 (0.39)nut
B, b	Front crossmember working hole	9 (0.35)	L, I	Front floor reinforcement standard bole	10 (0.39)
C, c	Front airbag sensor installation hole	9 (0.35)	M, m	Rear floor side member standard hole	18 (0.71)
D, d	Front side member standard bole	18 (0.71)	N, n	Rear suspension member installation nut	14 (0.55)nut
E, e	Front airbag sensor installation nut	8 (0.31) nut	О, о	Rear spring support hole-outer	9 (0.35)
F, f	Front suspension crossmember installation hole	13 (0.51)	P, p	Suspension member bracket installation nut-front, outer	10 (0.39)nut
G, g	Front spring support hole-outer	13 (0.51)	Q, q	Rear floor side member rear standard hole	18 (0.71)
H, h	Front suspension crossmember installation nut	14 (0.55) nut	R	Tank band installation nut	10 (0.39)nut
I, i	Front side member standard hole	18 (0.71)	r	Transport hook installation nut	12 (0.47)nut
J, j	Engine rear mounting member installation nut-front	10 (0.39) nut	_	_	

DI4T4-01

DTC	P0402	Exhaust Gas Recirculation Flow Excessive Detected

#### CIRCUIT DESCRIPTION

Refer To Exhaust Gas Recirculation Flow Insufficient Detected on page DI-217.

DTC No.	DTC Detecting Condition	Trouble Area
P0402	EGR gas temp. sensor value is high during EGR cut-off when engine is cold (Race engine at about 4,000 rpm without load so that vacuum is applied to port E) (2 trip detection logic)  EGR valve is always open (2 trip detection logic)	EGR valve stuck open  EGR VSV open malfunction  Open in VSV circuit for EGR  Short in EGR gas temp. sensor circuit  ECM

See DTC P0401 for CONFIRMATION CHECK DRIVING PATTERN and WIRING DIAGRAM.

#### **INSPECTION PROCEDURE**

#### **TOYOTA hand-held tester**

Connect the TOYOTA hand-held tester and read EGR gas temperature value.

#### **PREPARATION:**

- (a) Connect the TOYOTA hand-held tester to the DLC3.
- (b) Turn ignition switch ON and push the TOYOTA hand-held tester main switch ON.

#### **CHECK:**

1

Read EGR gas temperature on the TOYOTA hand-held tester.

OK:

EGR gas temp.: 150°C (302°F) or less. (Not immediately after driving)

HINT:

If there is a short circuit, the TOYOTA hand-held tester indicates 159.3°C (318.7°F).

OK Go to step 4.

NG

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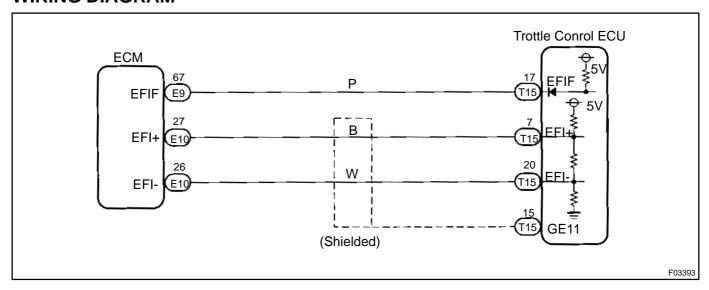
DI4W4-01

DTC	43	ECM Communication Circuit Malfunction
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#### **CIRCUIT DESCRIPTION**

DTC No.	DTC Detecting Condition	Trouble Area
	ECM normal communication data is not received for 5 sec. or	●Wire harness and connector (EFI+ and EFI- circuit)
43	more.	●ECM
		●Throttle control ECU

#### **WIRING DIAGRAM**



#### **INSPECTION PROCEDURE**

1 Check for open and short in harness and connector between terminals EFI+ and EFI- of throttle control ECU and ECM (See page IN-28).

NG

Repair or replace harness or connector.

OK

Check and replace ECM or throttle control ECU.

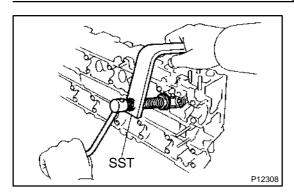
1997 SUPRA (RM502U)

Author: Date:

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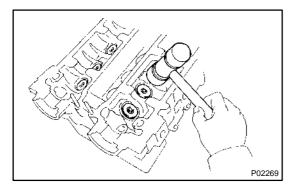
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Stop Light RH [Rear Comb. Light RH]	Taillight RH [Rear Comb. Light RH]	Rear Side Marker Light LH	Rear Side Marker Light RH	Rear Wiper Motor and Relay	Remote Control Mirror and Mirror Heater LH	Remote Control Mirror and Mirror Heater RH	Radiator Fan Motor No.2	Seat Heater SW	Shift Lock ECU	Stereo Power Amplifier	Stop Light SW		Seat Heater (Front Passenger's Seat)	Seat Heater Relay (Driver's Seat)	Seat Heater Relay (Front Passenger's Seat)	Sub Heated Oxygen Sensor (Bank 1 Sensor 2)	Theft Deterrent Horn	ABS Warning Light [Telltale Light LH]	Malfunction Indicator Lamp [Telltale Light LH]	Telltale Light LH	Charge Warning Light [Telltale Light RH]	Open Door Warning Light [Telltale Light RH]	Rear Light Warning Light (Telltale Light RH)		SRS Warning Light [Telltale Light RH]	Telltale Light RH
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<sup>(4):</sup> R/B No. 5 (See page 23)



(c) Using SST, compress the valve spring and place the 2 keepers around the valve stem.

SST 09202-70020 (09202-00010)



(d) Using a plastic-faced hammer, lightly tap the valve stem tip to ensure a proper fit.

#### 3. INSTALL VALVE LIFTERS AND SHIMS

- (a) Install the valve lifter and shim.
- (b) Check that the valve lifter rotates smoothly by hand.
- 4. INSTALL EGR COOLER

Install a new gasket and the EGR cooler with the 8 bolts.

Torque: 8.8 N-m (90 kgf-cm, 78 in.-lbf)

5. INSTALL CAMSHAFT POSITION SENSORS

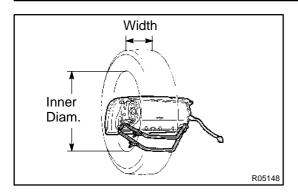
Install the gasket and sensor with the 2 bolts.

Torque: 8.8 N·m (90 kgf·cm, 78 in.-lbf)

6. INSTALL ENGINE HANGERS AND GROUND STRAP

Torque: 39 N-m (400 kgf-cm, 29 ft-lbf)

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(3) Position the front passenger airbag assembly inside the tire with the airbag deployment direction facing inside.

Tire size: Must exceed the following dimensions-

Width: 185 mm (7.28 in.)

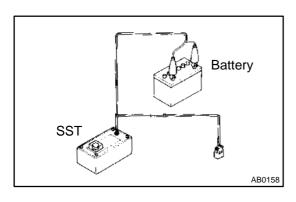
Inner diameter: 360 mm (14.17 in.)

#### **CAUTION:**

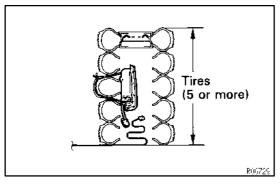
- Make sure that the wire harness is tight. It is very dangerous if looseness in the wire harness results in the front passenger airbag assembly coming free due to the shock of the airbag deploying.
- Always tie down the front passenger airbag assembly with the airbag door facing inside.

#### **NOTICE:**

The tire will be marked by the airbag deployment, so use a redundant tire.



(c) Confirm functioning of the SST. SST 09082-00700



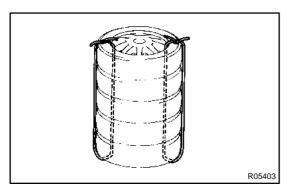
- (d) Place tires.
  - (1) Place at least 2 tires under the tire to which the front passenger airbag assembly is tied.
  - (2) Place at least 2 tires over the tire to which the front passenger airbag assembly is tied. The top tire should have the wheel installed.
  - (3) Tie the tires together with 2 wire harnesses.

#### **CAUTION:**

Make sure that the wire harnesses are tight. It is very dangerous if loose wire harnesses result in the tires coming free due to the shock of the airbag deploying.

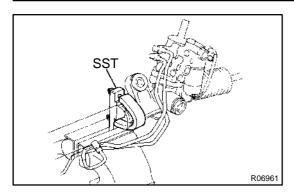
#### HINT:

Place the SST connector and wire harness inside tires. Provide at least 1 m (3 ft) of slack for the wire harness.



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SR14B-01



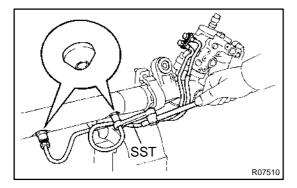
#### DISASSEMBLY

#### NOTICE:

When using a vise, do not overtighten it.

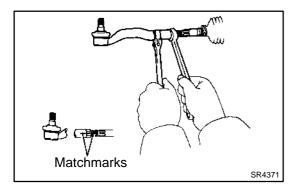
1. SECURE PS GEAR ASSEMBLY IN VISE

Using SST, secure the gear assembly in a vise. SST 09612-00012



#### 2. REMOVE 2 TURN PRESSURE TUBES

- (a) Remove the union bolt and 2 gaskets.
- (b) Using SST, remove the tube. SST 09633-00020
- (c) Remove the 2 union seats from the rack housing.



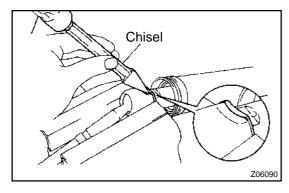
## 3. REMOVE RH AND LH TIE ROD ENDS AND LOCK NUTS

Place matchmarks on the tie rod end and rack end, and loosen the lock nut.

4. REMOVE RH AND LH CLIPS, RACK BOOTS AND CLAMPS

#### NOTICE:

- ♦ Be careful not to damage the boot.
- ♦ Mark the RH and LH boots.

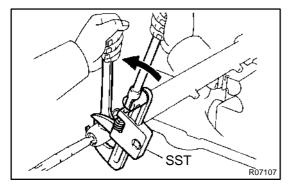


## 5. REMOVE RH AND LH RACK ENDS AND CLAW WASHERS

(a) Using a chisel and a hammer, unstake the washer.

#### **NOTICE:**

Avoid any impact to the steering rack.



(b) Using a spanner (22 mm) to hold the steering rack and using SST, remove the rack end.

SST 09922-10010

#### NOTICE:

- ♦ Use SST 09922-10010 in the direction shown in the illustration.
- ♦ Mark the RH and LH rack ends.

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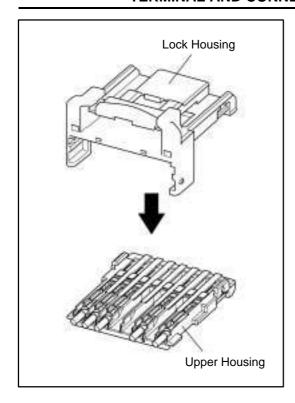
### **TORQUE SPECIFICATION**

SS0DZ-07

Part tightened		N⋅m	kgf-cm	ft-lbf
A/C compressor x Cylinder block	Stud bolt	26	265	19
	Bolt and nut	52	530	38
Oil pressure switch x Cylinder block		14	150	11
Drive belt tensioner Damper x Tensioner arm	2JZ-GTE M/T	20	200	14
Drive belt tensioner Damper x Drive belt tensioner brack	et			
	2JZ-GTE M/T	20	200	14
Oil drain plug x No.2 oil pan		38	375	27
Oil pump body cover x Oil pump body		10	105	8
Plug x Oil pump body	2JZ-GE	49	500	36
	2JZ-GTE	29	300	22
Oil pump x Cylinder block		21	210	15
No.1 oil pan x Cylinder block	12 mm head	21	210	15
	14 mm head	39	400	29
Turbo oil outlet pipe (2JZ-GTE) x No.1 oil pan		27	280	20
Oil pan baffle plate x No.1 oil pan		8.8	90	78 in.·lbf
Oil strainer x No.1 oil pan		8.8	90	78 in.·lbf
No.2 oil pan x No.1 oil pan		8.8	90	78 in.·lbf
Oil level sensor x No.1 oil pan		5.4	55	48 in.·lbf
Drive belt tensioner bracket (2JZ-GTE M/T) x Oil pump		27	280	20
Crankshaft position sensor x Oil pump		8.8	90	78 inlbf
Oil cooler (2JZ-GTE) x Oil filter bracket		78	800	58
Oil nozzle (2JZ-GTE) x Cylinder block		8.8	90	78 in.·lbf

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#### TERMINAL AND CONNECTOR REPAIR-TERMINAL REPLACEMENT

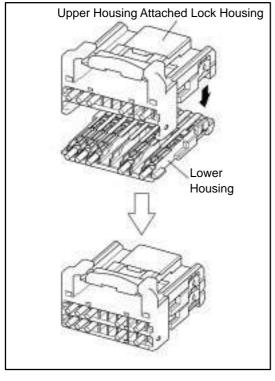


#### **Insulation Displacement Connector (0.64 Type)**

(a) Install the upper housing to the lock housing.

#### NOTICE:

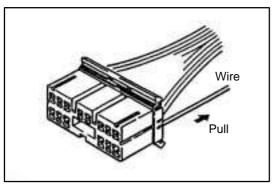
- Securely Lock it.
- Be careful not to mistake the upper housing and lower housing when putting together.



(b) Make the projection of the front lock of the upper housing attached lock housing meet the ditch of the front lock of the lower housing and fix the rear lock.

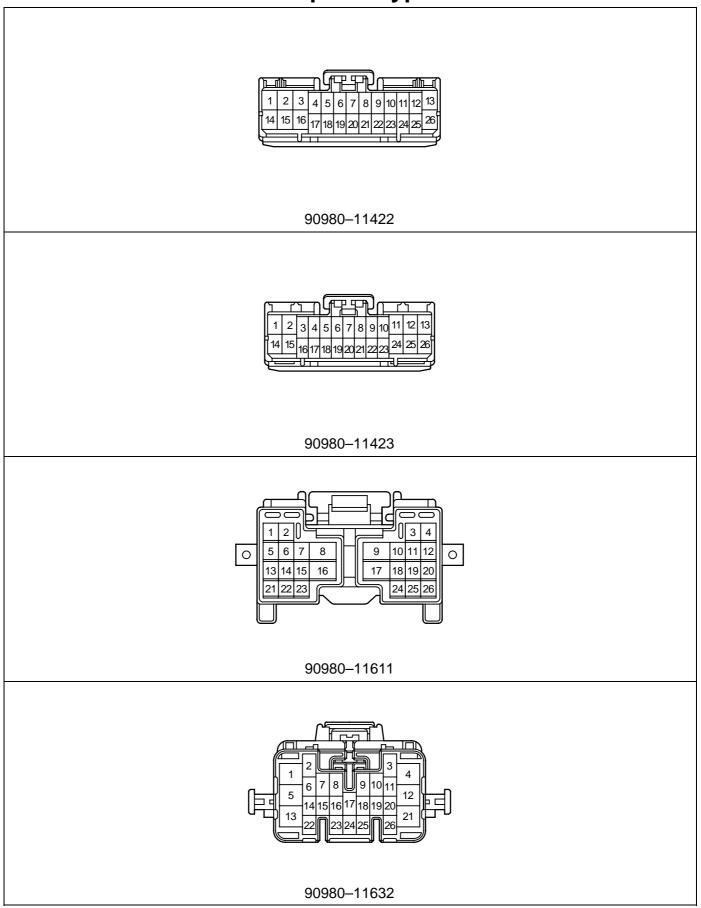
#### NOTICE:

- Afteruniting, securely lock it for not leaving the rear lock arm deformed.
- Make sure that the terminals will not become loose by pulling the wires lightily.
- Be careful not to mistake the upper housing and lower housing when putting together.



3. When properly installed, pulling gently on the wire lead will prove the terminal is locked in the connector.

## <FEMALE> 26P Non-waterproof Type



#### **HOUSING PART NUMBER LIST**

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of I 160 mm Type	Repair Wire 500 mm Type	Sleeve Color	Memo
90980-						82998–	82998–		
11036	0	4.8	F	4	S	12480	_	Y	
11037	0	2.3 II	F	4	S	12440*	12590	L,Y	
11038	0	2.3 II	F	2	S	12440*	12590	L,Y	
11039	Х	1.8 1.0	М	16 18	U	- -		_ _	PCB
11040	Х	1.3 2.3 II	М	47 4	U	_ _	-	_ _	РСВ
11041	0	1.3	F	11	U	12420	_	L	
11042	0	1.3 2.3 II	F	11 4	U	12420 12340*	_ _	L L,Y	
11043	0	1.3	F	25	U	12420	_	L	
11044	0	4.8 8.0	М	2	S	12470 12490	-	Y Y	
		4.8		2		12480	_	Y	
11045	0	8.0	F	1	S	12500	_	Υ	
11046	Х	2.3 II	М	17	U	12330*	_	L,Y	
11049	0	2.3 II	F	5	S	12440*	12590	L,Y	
11050	0	2.3 II	М	2	S	12430*	_	L,Y	
11051	0	2.3 II	F	2	S	12440*	12590	L,Y	
11052	0	1.3	М	3	U	12410	_	L	
11053	0	1.3	F	3	U	12420	_	L	
11054	Х	1.3 2.3 II	М	55 8	U	_ _	_ _	_	PCB
11055	0	1.3	F	25	U	12420	_	L	
11056	0	1.3 2.3 II	F	11 4	U	12420 12340*	_ _	L L,Y	
11057	Х	1.3 2.3 II	М	21 4	U	- -	- -	-	РСВ
11058	0	1.3 2.3 II	F	21 4	U	12420 12340*	_ _	L L,Y	
11059	Х	1.8 1.0	М	18 16	U	- -	- -	- -	РСВ
11060	0	2.3 II	М	2	U	12330*	_	L,Y	
11061	Х	1.8	F	2	S	12620	_	L	
11062	0	1.8	F	2	S	12620	_	L	
11063	0	1.3	М	4	S	12630	_	L	Outer
11064	0	1.3	М	4	S	12630	_	L	Inner
11065	0	1.3	F	4	S	12650	_	L	Outer
11066	0	1.3	F	4	S	12650	_	L	Inner