

TOYOTA

SERVICE BULLETIN

TOYOTA MOTOR SALES, U.S.A., INC.

VOLUME
10

REFERENCE	ENGINE
NUMBER	024
DATE	08-31-90
MODEL	MX8 MA7 '86-'90

Page 1 of 3

7M-G(T)E ECU / COLD START INJECTOR TIME SWITCH MODIFICATION

This bulletin contains additional information to TSB Volume 10, Engine #010 previously issued 09-01-89.

The modified cold start thermal time switch listed in Engine TSB #010 is still available for 1986-1989 Supras and Cressidas equipped with 7M series engines to improve **startability only**.

A modified TCCS ECU is now available for 1989-1990 Supras and Cressidas which improves both **cold driveability** and **startability**.

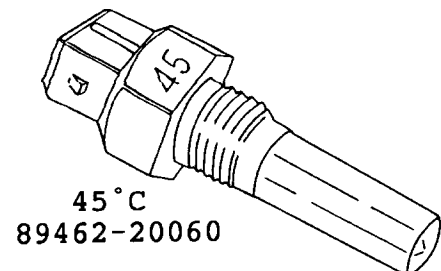
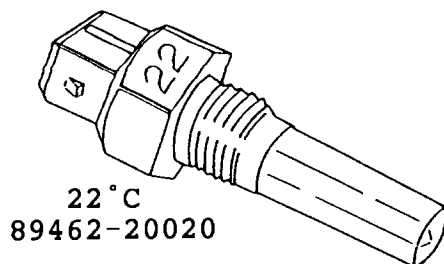
The proper repair for these conditions should be determined by the customer complaint as listed below:

CONDITION	MODEL APPLICATION/REPAIR		
	1986-1988 MA7	1989 MX8/MA7	1990 MX8/MA7
Hard Starting/Long Cranking Time <u>Only</u>	New 45° C Thermal Time Switch	New 45° C Thermal Time Switch	New TCCS ECU
Cold Driveability <u>OR</u> Hard Starting and Cold Driveability		New TCCS ECU	

NOTE: 1989 model Cressidas and Supras have **both** repairs available. If the only complaint is hard starting, the Thermal Time Switch should be replaced. If there is a cold driveability complaint, you **must** install the ECU.

CAUTION: The new TCCS ECU **should not be used** with the new 45° C Thermal Time Switch. This ECU has improved cold start injector control logic and is designed to work with the original 22° C time switch only.

The illustration below shows how to identify the temperature range of a cold start injector time switch.



7M-G(T)E ECU / COLD START INJECTOR TIME SWITCH MODIFICATION (CONT'D)

PART NUMBER INFORMATION:

PART NAME	PREVIOUS P/N	NEW PART NO.	MODEL APPLICATION
TCCS ECU	89661 -22170	89661-22171-84	'89-'90 7M-GE Cressida CAL
TCCS ECU	89661 -22210	89661-22330-84	'89-'90 7M-GE Cressida FED
TCCS ECU	89661 -14300 -14301	89661-14302-84	'89-'90 7M-GE Supra CAL MTM
TCCS ECU	89661 -14310 -14311	89661-14312-84	'89-'90 7M-GE Supra CAL ATM
TCCS ECU	89661 -14320 -14321	89661-14430-84	'89-'90 7M-GE Supra FED MTM
TCCS ECU	89661 -14330 -14331	89661-14440-84	'89-'90 7M-GE Supra FED ATM
TCCS ECU	89661 -14240 -14241	89661-14242-84	'89-'90 7M-GTE Supra CAL MTM
TCCS ECU	89661 -14250 -14251	89661-14252-84	'89-'90 7M-GTE Supra CAL ATM
TCCS ECU	89661 -14260 -14261	89661-14450-84	'89-'90 7M-GTE Supra FED MTM
TCCS ECU	89661 -14270 -14271	89661-14460-84	'89-'90 7M-GTE Supra FED ATM
Thermal Time Switch	89462 -20020 (22°C)	89462-20060 (45°C)	'89 7M-GE and 7M-GTE Supra and Cressida
Thermal Time Switch	89462 -40010 (22°C)	89462-20050 (45°C)	'86-'88 7M-GE and 7M-GTE Supra

7M-G(T)E ECU / COLD START INJECTOR TIME SWITCH MODIFICATION (CONT'D)

PRODUCTION EFFECTIVE:

The new (45°C) cold start injector time switches are available for field repair parts only.

Production change information for the modified TCCS ECU is as follows:

<u>From Frame No.</u>		<u>Production Date</u>
JT2MX83E*L0044138	(ALL)	November, 1989
JT2MA70#*L0145025	(CAL MTM)	February, 1990
JT2MA70#*L0143961	(CAL ATM)	December, 1989
JT2MA70#*L0143374	(FED MTM)	December, 1989
JT2MA70#*L0143191	(FED ATM)	November, 1989
JT2MA71#*L0145051	(CAL MTM)	February, 1990
JT2MA71#*L0144197	(CAL ATM)	January, 1990
JT2MA71#*L0143974	(FED MTM)	December, 1989
JT2MA71#*L0143976	(FED ATM)	December, 1989

SERVICING INFORMATION:

Before replacing an ECU or a cold start injector time switch, perform a thorough inspection to verify that all engine mechanical, fuel and electrical/electronic systems are to recommended specifications.

PARTS RETURN INFORMATION:

The replacement ECU's are remanufactured by Nippondenso—Los Angeles (NDLA). In order to maintain cores for rebuilt units, the original ECU must be sent to NDLA as soon as it has been replaced.

Note: Please complete the core information and core credit forms which are enclosed with the remanufactured ECU.

Return Cores to: Toyota Motor Distributors
C/O Nippondenso—Los Angeles
3900 Via Oro Avenue
Long Beach, CA 90810