

**USA spec. - Modules Requiring Initialization (M-MDS Software : IDS 82)**

**Caution: This file is a quick chart of module initialization using M-MDS when they replaced subject modules. Please refer to workshop manual for the full repair procedures.**

\* The term "Initialization" encompasses the tasks shown on the table below, which are performed during module replacement.

Initialization Tasks	Description
1 Configuration	Configuration (hereinafter "Config"), the action of setting the constants in the software, is performed to ensure that the operating environment of the module is compatible with vehicle specifications. Modules will not function properly when replaced if they are not configured.
2 Immobilizer Registration (PATS Registration) (Only for immobi-equipped vehicles)	The Immobilizer System (hereinafter "Immobi") is a vehicle theft prevention system. The vehicle's engine will not start properly if the Immobi's settings are not reconfigured (key registration and/or parameter reset) when related modules and keys are replaced. When you work, you need to search Incode through immobilizer Incode Searchin
3 Initialization / Calibration / Learning	An electrically-controlled system will not function properly if this is not performed.
4 Module Reset / Data Reset	The module will not function properly if it is not reset.
5 Program Advanced Key (Only for advanced keyless system equipped)	The vehicle's engine will not start using advanced key if the settings are not reconfigured when related modules and keys are replaced.
6 Steering Lock Unit Initialization (Only for advanced keyless system equipped)	The vehicle's engine will not start if the initialization is not performed when steering lock unit is replaced.
8 ABS Air Bleed	Fill H/U with brake fluid and remove air from it.

**\* Models Requiring Initialization / Module List**

Numbers on the table refer to items described above.

Hyphens "-" indicate items that do not require initialization. For module names, refer to the Module Name List portion of this document.

For module names, refer to the list shown below.

	PCM	TCM	4x4M	RCM	(Seat Weight Sensor)	HEC/IC	ABS	DSC/ RSC	HCM/ HID/ AFS (Auto Leveling Sensor)	RKE/SKE/SSU	(Steering Lock Unit)	GEM/ PJB/ LCM	GEM/ BCM/ FBCM/ RBCM	(Rain Light Sensor)	EPS/ EHPAS	TPMS	(Tire)	AM	MID	BSM	FSC	SCBS	EATC	RAP
Mazda2(DE)	1, 2	-	-	1	3	1, 2	-	3	-	-	6	-	1	-	1, 3	(included in HEC)	-	-	-	-	-	-	-	-
Mazda3 (BK) (-MY06)	1*B, 2	-	-	1	3	1, 2	1*C	1*C, 3	-	-	-	1, 4	-	-	1	1	-	-	-	-	-	-	-	-
Mazda3 (BK) (MY07-)	1*B, 2	-	-	1	3	1*G, 2	1*C	1*C, 3	-	-	-	1, 4	-	-	1	1*G	-	-	-	-	-	-	-	-
Mazda3 (BK) (MY07-) (w/ Advanced Keyless)	1*B, 2	-	-	1	3	1*G	1*C	1*C, 3	-	1*E, 2, 5, 6	6	1, 4	-	-	1	1*G	-	-	-	-	-	-	-	-
Mazda3 (BL) (MY10-)	1, 2	-	-	1	3	1, 2	1*K	1*K, 3	3*D	-	-	-	1	-	1	(included in HEC)	1*L	-	1	-	-	-	-	-
Mazda3(BL) (MY10-) (w/ Advanced Keyless)	1, 2	-	-	1	3	1	1*K	1*K, 3	3*D	1*E, 2, 5, 6	6	-	1	-	1	(included in HEC)	1*L	-	1	-	-	-	-	-
Mazda3 (BL) (MY12-)	1, 2	3 (6AT only)	-	1	3	1, 2	1*K	1*K, 3	3*D	-	-	-	1	-	1	(included in HEC)	1*L	-	1	-	-	-	-	-
Mazda3(BL) (MY12-) (w/ Advanced Keyless)	1, 2	3 (6AT only)	-	1	3	1	1*K	1*K, 3	3*D	1*E, 2, 5, 6	6	-	1	-	1	(included in HEC)	1*L	-	1	-	-	-	-	-
Mazda5 (CR)	1*B, 2	-	-	1	3	1, 2	1*C	1*C, 3	3*D	1*E, 2, 5, 6	6	-	-	3*D	1	1 (*G: MY08-)	-	-	-	-	-	-	-	-
Mazda6 (-04MY)	1, 2	-	-	-	-	1	1	1, 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mazda6 (05MY-)	1, 2	3*H	-	-	3	1	1	1, 3	-	-	-	-	-	-	-	1(MY08 -)	-	-	-	-	-	-	-	-
Mazda6 MPS (GG)	1, 2	-	-	1	3	1	1	1, 3	-	1*E, 2, 5, 6	6	-	-	-	-	-	-	-	-	-	-	-	-	-
Mazda6 (GH)	1, 2	3 (6AT only)	-	1	3	1, 2	1	1	-	-	-	-	-	3*D	-	(included in HEC)	-	-	-	3	-	-	-	-
Mazda6 (GH) (w/ Advanced Keyless)	1, 2	3 (6AT only)	-	1	3	1	1	1	-	1*E, 2, 5, 6	6	-	-	3*D	-	(included in HEC)	-	-	-	3	-	-	-	-
MPV (LW)	1(MY05- and 3.0L) *F	-	-	1 (04MY-)	3 (04MY-)	-	1 (04MY-)	1 (04MY-)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mazda MX5 Miata (NC)	1, 2	-	-	1	3	1, 2	1	1, 3	-	1*E, 2, 5, 6	6	-	-	-	-	(included in HEC)	-	-	-	-	-	-	-	-
RX-8 (FE)	1, 2	-	-	1	-	1	-	1, 3	-	1*E, 2	-	-	-	-	3	1	-	-	-	-	-	-	-	-
RX-8 (FE) (w/ Advanced Keyless)	1, 2	-	-	1	3	1	-	1, 3	-	1*E, 2, 5, 6	6	-	-	-	3	1	-	-	-	-	-	-	-	-
RX-8 (FE) (09MY-)	1, 2	-	-	1	-	1	-	1, 3	-	1*E, 2	-	-	-	-	3	1	1*J	-	-	-	-	-	-	-
RX-8 (FE) (09MY-) (w/ Advanced Keyless)	1, 2	-	-	1	3	1	-	1, 3	-	1*E, 2, 5, 6	6	-	-	-	3	1	1*J	-	-	-	-	-	-	-
Tribute (-02MY)	1, 2	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Tribute (03MY-)	1, 2	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
CX-5 (KE)	1, 2	1, 3	1	1	3	1	-	1*K, 3	1*K, 3*D	1, 2	-	-	1	-	1*K	-	-	-	3	1, 3	1*K	1*K	-	-
CX-7 (ER)	1, 2	1, 3	-	1	3	1, 2	-	3	-	-	-	-	-	-	-	(included in HEC)	-	1	-	-	-	-	-	-
CX-7 (ER) (w/ Advanced Keyless)	1, 2	3	-	1	3	1	-	3	-	1*E, 2, 5, 6	6	-	-	-	-	(included in HEC)	-	1	-	-	-	-	-	-
CX-7 (ER) (10MY-)	1, 2	3 (6AT only)	-	1	3	1, 2	-	3	-	-	-	1	-	-	-	(included in HEC)	-	1	1	3	-	-	-	-
CX-7 (ER) (10MY-) (w/ Advanced Keyless)	1, 2	3 (6AT only)	-	1	3	1	-	3	-	1*E, 2, 5, 6	6	1	-	-	-	(included in HEC)	-	1	1	3	-	-	-	-
CX-9 (TB)	1, 2	3	-	1	3	1, 2	-	3, 8	-	-	-	1	-	3*D	-	(included in HEC)	-	1	-	3 (MY08 -)	1, 3	-	-	-
CX-9 (TB) (w/ Advanced Keyless)	1, 2	3	-	1	3	1	-	3, 8	-	1*E, 2, 5, 6	6	1	-	3*D	-	(included in HEC)	-	1	-	3 (MY08 -)	1, 3	-	-	-

\*A : Setting immobi is required without Diagnostic Tester. (Refer to Workshop Manual)

\*B : Body Type configuration is required for DSC equipped vehicles. (Programmable Parameters > TireSize / Axle Ratio)

\*C : Configuration data is VIN data only. (When As-Built data is required, you will be able to complete the procedure by entering VIN only. You do not need to obtain the As-Built data sheet.)

\*D : You can do the same operation without Diagnostic Tester. (Refer to Workshop Manual)

\*E : Keyless Control Unit configuration is required for Advanced Keyless equipped vehicle. Regarding RX-8, configuration is required for not only Advanced Keyless but also Immobilizer equipped vehicle.

\*F : This operation is required for the applicable vehicles or modules only. (This functionality is available on the face-lifted models or models with module design changes.) Refer to workshop manual.

\*G : Meter set has both Meter ECU and TPMS ECU. If the meter set is replaced, IC/HEC and TPMS configuration procedures are required.

\*H : 3.0L only.

\*J : When you change tire size (ex. you change wheel for 18 inch), you need to write tire size to PCM (change configuration data of PCM).

\*K : Configuration using M-MDS is not required, however you need to set IG ON and keep it for specified time (see workshop manual). This procedure allows the module to install/refer configuration data from HEC/IC.

\*L : When you change tire size (ex. you change wheel for 18 inch), you need to write tire size to PCM and HEC/IC (change configuration data of PCM and HEC/IC).

**\* Module Name List**

Module Name (M-MDS Name)	Workshop Manual Name	Function	Module Numbers on the As-built Sheet
PCM	Powertrain Control Module	Controls the engine.	PCM1 - PCM9 7E0-0*-01 (*A)
TCM	Transmission Control Unit	Controls transmission functions.	-
RCM	SAS Control Module	Sensors detect the degree of impact and transmit a signal, deploying (opening) the air bag.	58 or 737
HEC (IC)	Instrument Cluster	Controls the meters.	60 or 720
ABS (ABS/TCS)	Antilock Brake System	Controls brake fluid pressure to prevent the wheels from locking when the brakes are applied.	28 or 760
DSC (ABS/TCS/DSC)	Dynamic Stability Control	Controls brakes and engine output in order to prevent the vehicle from spinning and drifting laterally while moving.	28 or 760
SCBS	Smart City Brake Support	Operates the automatic brakes to reduce collision impact.	793
RSC (ABS/TCS/DSC)	Roll Stability Control	Controls brakes and engine output in order to prevent the vehicle from spinning, drifting and rolling while moving.	28 or 760
GEM	Generic Electronic Module	Controls the electronic components of the body, such as the door locks and the keyless entry system.	52
BCM (GEM)	Body Control Module	Controls the body's electronic components.	726
FBCM	Front Body Control Module	Controls the body's electronic components.	726
RBCM	Rear Body Control Module	Controls the body's electronic components.	7B7
PJB (GEM)	Passenger Junction Box	Controls the body's electronic components. (Contains fuses and relays.)	726
LCM	Auto Light/Wiper Control Module	Controls the headlamp and wiper.	70
RKE/SKE	Keyless Control Module	Controls door lock and keyless entry systems; issues engine start permission.	731
SSU	Start Stop Unit	Controls door lock and keyless entry systems; issues engine start permission.	731
EPS	Electric Power Steering	Electronically controls steering assistance.	730
EHPAS (EPS)	Electro Hydraulic Power Assist Steering	Electronically controls hydraulic (oil pressure) steering assistance.	730
TPMS (TPM)	Tire Pressure Monitoring System	Monitors the tire status and alerts the driver with the warning light and buzzer if there is a problem.	751
AM	Audio Amplifier	Controls the audio.	7A4
MID	Multi Information Display	Show various information.	773
BSM	Blind Spot Monitoring	Controls Blind Spot Monitoring system.	7C6
FSC	Forward Sensing Camera	Controls the high beam control (HBC) system and lane departure warning system (LDWS).	706
EATC	Electronic Air Temperature Controller	Controls air temperature condition.	733
RAP	Remote Anti-Theft / Personality Module		-

\*A : If we use IDS/PDS 45 or older, "VIN", "Vehicle Data" and "PCM 1 through 13" (for non-applicable models, PCM 1 through 9) of the As-Built data must be entered during PCM configuration. However, if we use IDS/PDS 46 or newer, 7E0-01-01 through 7E0-04-01 must be entered instead of PCM 10 through 13. (Ref. Tool Equipment T046/06)

**\* Additional Notes**

**1) Check service codes after completing configuration!**

**2) M-MDS will require As-Built data in the following circumstances:**

M-MDS makes decisions automatically and reports the results to service engineers.

- (1) When configuration data cannot be retrieved from the old module. (including cases in which the old module was lost.)
- (2) If one of the following service codes was configured on the module: P0602, P0601, or B2477.