



[ECI]

Engineering Change Instruction

Ver 3.0 / Sept. 2017

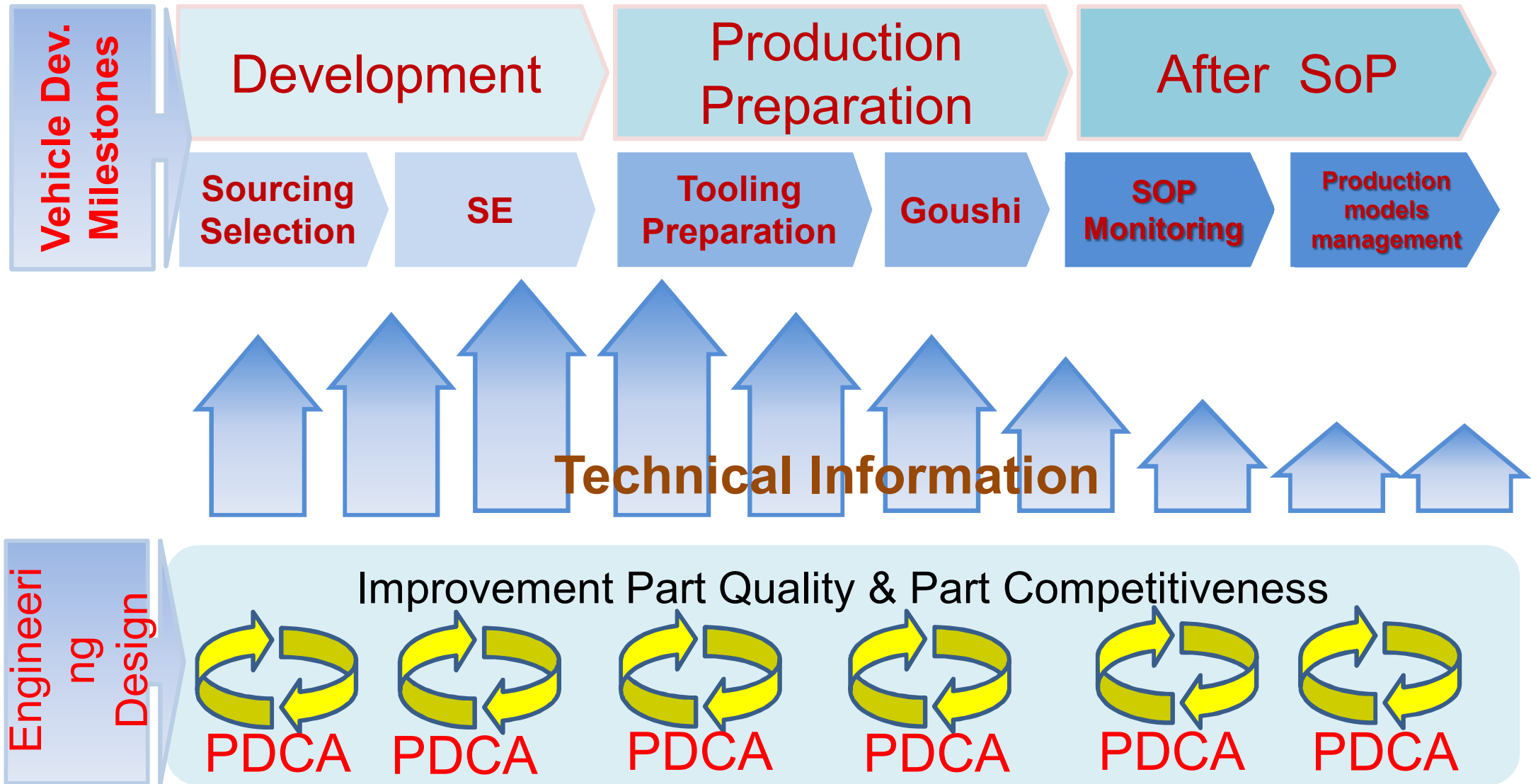
Currently ECI is not completely deployed before implementation due to not well understand what is ECI wants



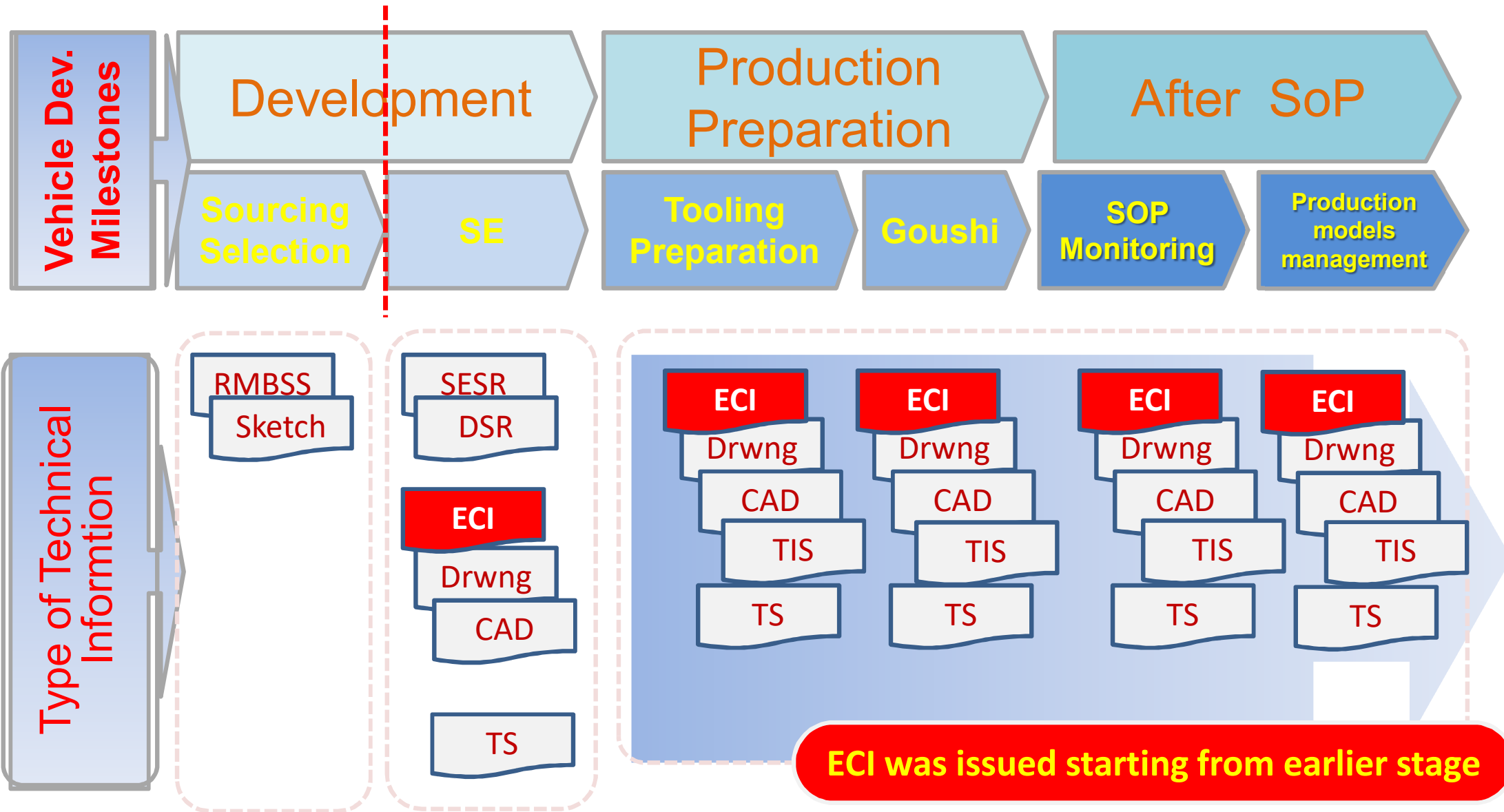
- ❖ Difference deployment
- ❖ Slow Follow up
- ❖ Delay Implementation
- ❖ Recall / Repair Vehicle @ Customer

- After finish this training, participants should be able to:
 - Understand the function and importance of Engineering Change
 - Able to use ECI and getting information from ECI content in order to start deployment
 - Able to investigate Part Modification Information and deliver feedback before implemented.

Concept of Technical Information



Concept & Type of Technical Information



Engineering Change Instruction Purpose

**Productivity
improvements**

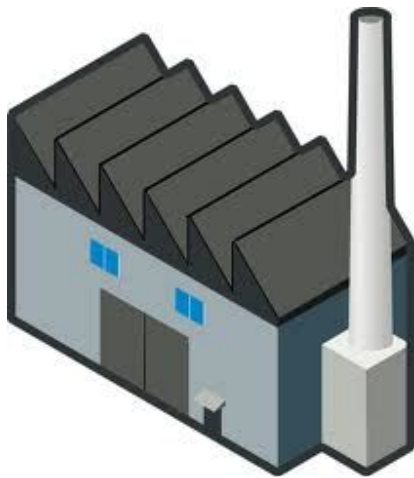
**Specification
Improvement**



**Functional
improvements**

**Cost
reductions**

- **Product Quality**
- **Product Competitiveness**



Part Maker

**Engineering
Change
Information**

**Engineering
changes**

- Spec
- Drawing Change
- CAD change
- TIS change
- Part Info Change etc
related to Part

Engineering Change Instruction

What is Engineering Change Instruction [ECI] ?

- ECI is the document of **engineering design** to **instruct the engineering change** and **the implementation timing** to supplier / part maker / manufacturing

What is Package of ECI ?

- When ECI is issued, some of document will be attached, depend on Technical Information Change area.
 - Drawing
 - Technical Instruction Sheet
 - Cad Data
 - Content of Part List *
 - Part Structure List *

Engineering Change Instruction Sheet

579W 設 切 替 依 頼 書 ENGINEERING CHANGE INSTRUCTIONS				No. 579WY0777				TASHIRO	
PAGE [2 / 11]									
要旨 Purpose		切替に対する希望・条件 Change Condition Requested by Engineer		事前連絡 Advance Notice		R/C・F/F切替制約 Restriction on Change over Timing Concerning Certification		111承認 設計室 TMC-ED	
標準化・共通化/STANDARDIZATION/C OMMUNIZATION		1次号試から/FROM 1A PRODUCTION TRIAL (001.0 02.004) (A) 単独/Independent Change 全品番/All Part No.		150223 MIK:40867		無/Unrestricted		IK730	
適用 範囲 Applica- bility		Key: Model: Group: Cmp.: Variation/Block Code		Key: Model: Group: Cmp.: Variation/Block Code		Key: Model: Group: Cmp.: Variation/Block Code			
001: 579W 0900 AA BA									
002: 579W 0900 AA CA (廃止/Total Disuse)									
003: 579W 0900 AA BA									
004: 579W 0900 AA									
工程 Routing (Process)		旧品番 Previous Part No.		品名 Part Name		変更事項 Revision		出図 Issue	
AA=AA (G-BID) -AE*AG* AH*AK		09111-0K150		JACK SUB-ASSY, SCREW		使用廃止/PARTIAL DISUSE		X X C -	
AE=AA-AENIS AG=AA-AGRTS									
AH=AA-AHAIS AK=AA-AKKIS									
YY=AA (G-BID) -AENIS* AGRTS*AHAIIS*AKKIS									
AA=AA (G-BID) -AE*AG* AH*AK		09111-0K180		JACK SUB-ASSY, SCREW		新設/NEW ADOPTION 21=09111-640AL 24=ATC X		LS LS - Z	
AE=AA AG=AA									
AH=AA-AHAIS AK=AA-AKKIS									
LB=AA-LBJIS YY=AA (G-BID) -AENIS* AGRTS*AHAIIS*AKKIS *LBJIS									
AA=AAG YY=AAG		09119-0K230		LABEL, JACK CAUTION		使用廃止/PARTIAL DISUSE		X X C -	
AA=AAG YY=AAG		09119-0K260		LABEL, JACK CAUTION		新設/NEW ADOPTION 19=EN, GH, FR, RU, TH, IN, SP, PO 21=09119-640AL 24=ATC		LS LS - Z	
承認 (GE) Approved		Date		担当室 Eng. Design		FUNCTIONAL PARTS DESIGN DEPT. NO. 1		TYBK3	
承認 Approved		Date		調査 Checked		作成 Prepared		Date	
設 切 替 依 頼 書 / E C I No. 1				新車進行管理部 H15001		Reference ECI No.		Printed Time	
								2015/03/19 01:46:17	

Engineering Change Instruction Sheet

1. Typical model code column.

The model code (vehicle/engine/transmission), which is the same as the first 4-digits of the ECI number reserved is indicated.

579W	設 變 切 替 依 賴 書
	ENGINEERING CHANGE INSTRUCTIONS

2. Signature column.

Engineering design staff code and the signature are indicated in this column.

承認(主査) Approved	p. p. MITSUYOSHI	Date 2015 MAR. 9	担当室 Eng. Design	FUNCTIONAL PARTS DESIGN DEPT. NO. 1	TYBK3	承認 Approved	GONDA HIRAYAMA	Date 2015 MAR. 5
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3. ECI No.

ECI Number is indicated in the technical information (such as drawing, Technical Instruction Sheet) released along with the ECI, Supplier should recognize the revised contents by ECI No.

Type of ECI Number :



Car Family Code

Sequence number numeric

ECI Type

S = Initial matrix (SMS) issue

H = Service ECI

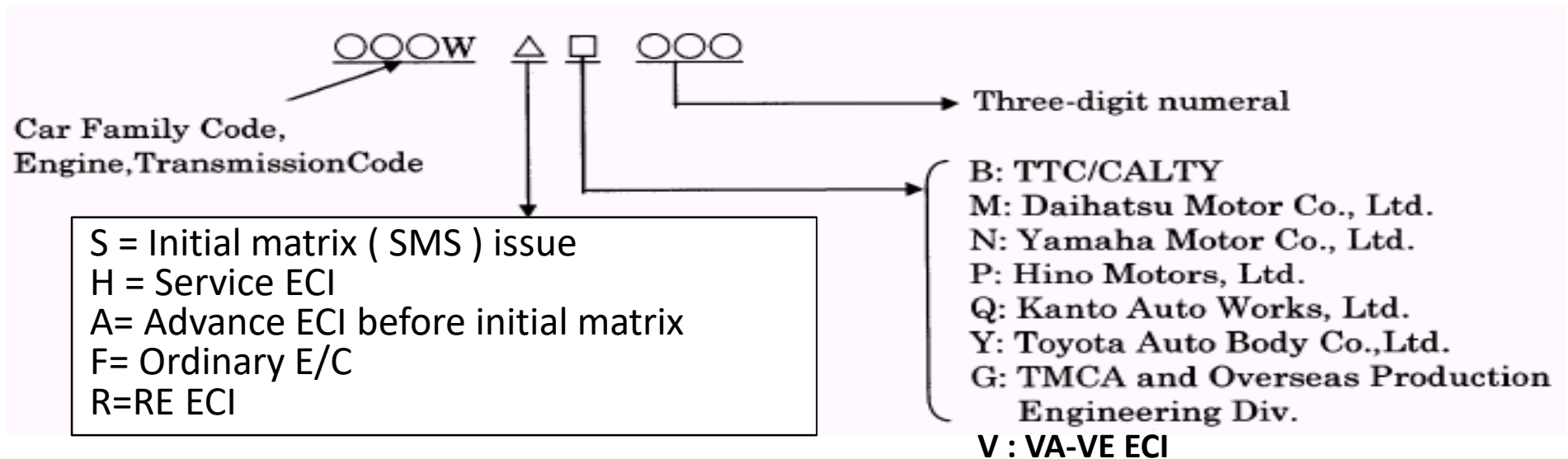
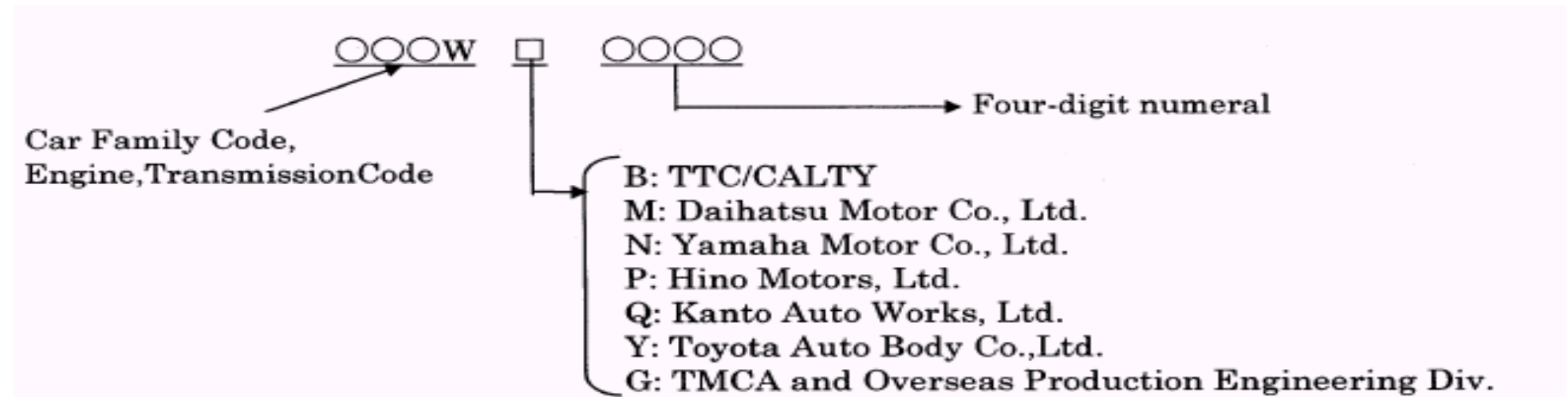
A= Advance ECI before initial matrix

F= Ordinary E/C

R=RE ECI

T =Limited ECI

3. ECI No (next).



Engineering Change Instruction Sheet

4. Purpose

This column indicates the purpose of the ECI. When necessary, the part name is indicated which the engineering is applied

要 旨 Purpose
標準化・共通化/STANDARDIZATION/C OMMUNIZATION

5. Change Condition Requested by Engineer

Change condition requested by engineer indicates engineer's proposed conditions for implementation of the ECI. The actual change implementation condition is instructed by "Implementation timing instruction sheet".

切替に対する希望・条件 Change Condition Requested by Engineer
1次号試から/FROM 1A PRODUCTION TRIAL (001, 002, 004)
(A) 単独/Independent Change
全品番/All Part No.

工 程 Routing (Process)	自給区分 Pur Key	構成Lvl. IB 新 PP NP	Group Code	旧品番 Previous Part No.	新品番 New Part No.	選別 個数Qt.	精給 Ser. Det.	品 名 Part Name	変 更 事 項 Revision	後日出図予定日 Later Dwg. Issue	Condition RDDPNo.	出図Dwg. 国内 海外 Jpn. Eng.	互換性Int. IB 新 PP NP	CAD 型C
AA=AA (G-P1S+S1S) YY=AA (G-P1S+S1S)		A	1		4260B-0K310			COVER SUB-ASSY, WHEEL HUB	新設/NEW ADOPTION 21=N	2017/07/28	B01 FMC3-1123	IS LS	- X	N
AA=AK-AA (P1S+S1S) AK=AK (G-S3D)-AA		A	1		90942-T1005		S 24	NUT, HUB W/WASHER	使用追加/ADDITIONAL ADOPTION		A	X X	- X	N

6. Advance Notice

In case engineer make arrangements with Supplier in advance, the Supplier name and the person name in charge are indicated.

事前連絡 Advance Notice
150223 MIK:40867

7. Restriction on Change over Timing Concerning Certification

- When there is no restriction, “Unrestricted” is indicated.
- When the ECI has a restriction for running change or field fix, running change application request sheet number is indicated.

R/C・F/F切替制約 Change over Timing Concerning Certification	Restriction on
無/Unrestricted	

R/C F/F切替制約 over Timing Concerning Certification	Restriction on Change
R/C 申請依頼 No.:28B003 Request sheet No.:28B003	
001Wと同時に切替: with 001W	To be change Simultaneously

8. Applicability & Key

In the ECI for Production parts, this column indicates information in reference to the Toyota Part List.

Key	Model	Group	Cmp	Variation / Block Code
001	579W	0900	AA	BA
002	579W	0900	AA	CA (廃止/Total Disuse)
003	579W	0900	AA	BA
004	579W	0900	AA	
区分 Key	構成Lv1.		Group Code	旧品番 Previous Part No.
	旧 PP	新 NP		新品番 New Par
001	1			09111-0K150
001		1		09111-0K1

9. Routing [Processes]

Routing (Processes) indicates production process or part flow for each part / component using Process Codes.

工 程 Routing (Process)
AA=AA (G-BID) -AE*AG* AH*AK
AE=AA-AENIS AG=AA-AGRIS
AH=AA-AHAIS AK=AA-AKKIS
YY=AA (G-BID) -AENIS* AGRIS*AHAIS*AKKIS

10. Structure Level

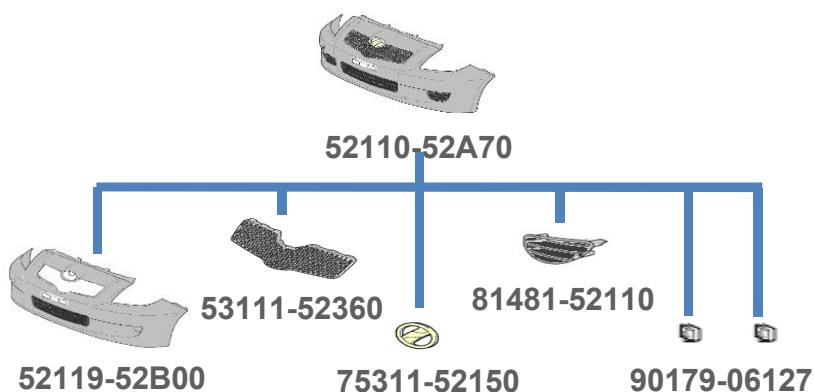
This column indicates the structure level of parts/ components changed in the ECI.

PP : before engineering change ;

NP : after engineering change

If structure level is not changed by ECI,
NP column is left in blank.

構成Lvl. 旧 PP	新 NP	Group Code	旧品番 Previous Part No.	新品番 New Part No.
1			09111-0K150	
	1			09111-0K180
2			09119-0K230	
	2			09119-0K260



L V L C	G R O U P	PART No.	SEL	STC	NUMBER ASS
01		52110-52A70			1
02		52119-52B00		COVER, FR	1
02		53111-52360-C		GRILLE, RA	1
02		75311-52150		ENVELO, RA	1
02		81481-52110-B		COVER, FOG	1
02		90179-06127-D		NUT, 1	2

Simulation of Change Leveling

- Please make a Change of Part in :

Minor

Major

Level	Part No
1.	82100-0K101
2.	82101-0K101
3.	82121-0K010
2.	82102-0K101
3.	82121-0K010

11. Part Number

This column indicates all the part numbers changed by the ECI.

Check applicable part numbers to relevant supplier because part numbers which are not applicable to the supplier, may be included in the ECI.

There are two types in Part Number change :

- a. Major Engineering Change
- b. Minor Engineering Change.

旧品番 Previous Part No.	新品番 New Part No.
09111-0K150	
	09111-0K180
09119-0K230	
	09119-0K260
09111-0K150	-A
579W 0900 AA BA	
579W 0900 AA	

12. Selection Code (for local supplier)

When selective-use parts/components are adopted or disused, selection codes are indicated.

Lvl.		Clr.	Previous Part No.		Sl.
PP	NP	G.C.	New Part No.		Qt.
1			44320-04010	A	1
2			44330-04010		S 1
	2		44330-04011		S 1
2			44330-04020		S 1
	2		44330-04021		S 1

Selection code

Example ECI :

Either 44330-04010 or 44330-04020 may be selected as the components of 44320-04010 before the Engineering Change.

Now after the Engineering Change, either 44330-04011 or 44330-04021 is useable as the component of 44320-04010-A

The final decision which part is used depends on the instruction of Toyota

13. Quantity

When quantity of part/components is changed, the change is shown.
When this column is blank, quantity does not change.

Previous Part No.		Sl.
	New Part No.	Qt.
44330-04010	NO CHANGE 同左	1-2

Figure 10-31

Quantity change
2 → 1

14. Service Determination

Service Determination Code indicates whether the part is treated as service supply unit or not. Definitions of the Service Determination Codes are explained in the Table.

Table 11-1 Service determination and definition

Service Determination	Definition
H	Service Part
HK	This part can be supplied with other part as Service Part.
HS	
HT	Within a limited period, the part can be supplied as Service Part.
HF	To limited countries or for limited vehicles, the part can be supplied as Service Part.
HG	Not Service Part
HD	This part has been replaced with some other part as Service Part since the part was discontinued.
NR	This part has been replaced with some other part as Service Part.
N	Not Service Part
NC	

15. Part Name

Toyota part names are indicated.

品 名 Part Name
REINFORCEMENT, BACK DOOR OPENING, LWR RH

16. Revision

Revision indicates brief explanation of Engineering Change for each part/component.

変 更 事 項 Revision
形状変更/SHAPE CHANGE

Note : Frequently used revision comments are tabled on next page.

Engineering Change Instruction Sheet

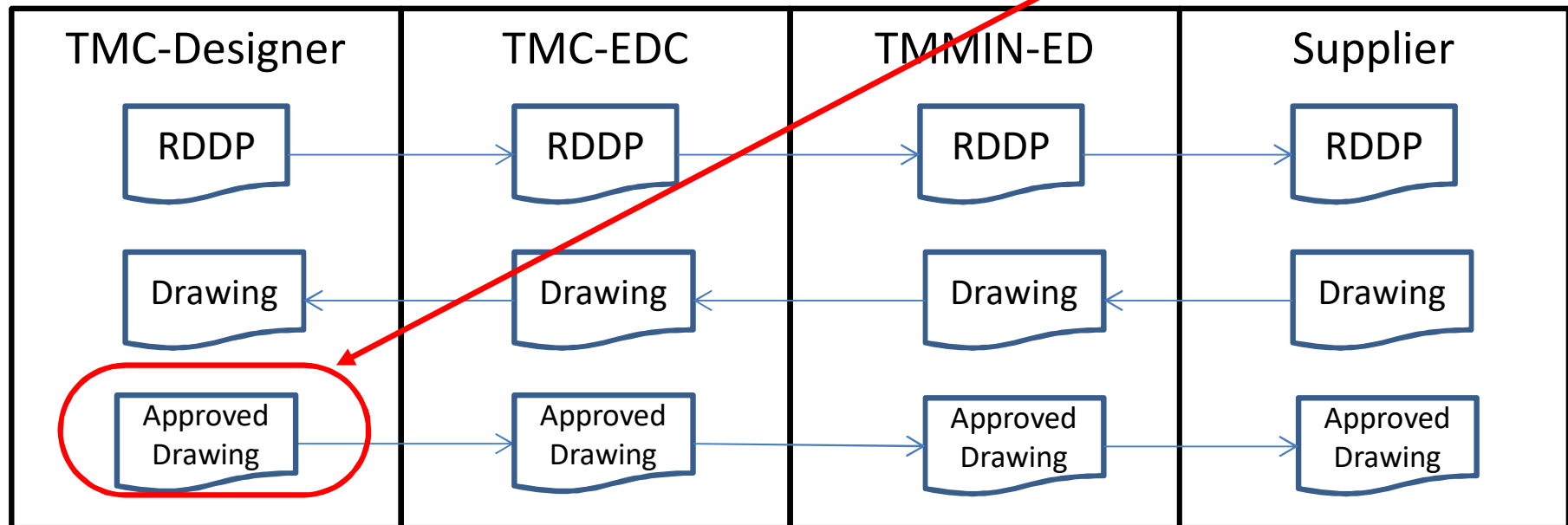
Table 10-2 Comments Used Frequently in the Revision Column of ECI's

Comments	Meaning
TOTAL DISUSE	Parts/components are to be disused completely for all the Toyota vehicles.
PARTIAL DISUSE	Parts/components are to be disused for specific portions of Toyota vehicles and/or specific Toyota vehicles. The parts/components are still used for other portions/vehicles.
NEW ADOPTION	Completely new parts/components are to be used.
ADDITIONAL ADOPTION	Parts/components which are already in use for Toyota vehicles are to be used additionally for specific portions/vehicles.
REVIVAL	Parts/components which have been disused are to be used again.
TOLERANCE CHANGE	Tolerances indicated in drawings are to be changed.
SHAPE CHANGE	Shape of parts/components is to be changed.
MATERIAL CHANGE	Materials indicated in drawings are to be changed.
THICKNESS CHANGE	Thickness indicated in drawings are to be changed.
QUANTITY CHANGE	Quantity of parts per a vehicle and/or quantity of components per a part are to be changed.
CORRECTION	Wrong indication (including schematic expression) in drawings is to be corrected.
COMPONENT PART CHANGE	Components for sub-assembly/assembly parts are to be changed.
SERVICE DETERMINATION CHANGE	Service Determinations are to be changed.

17. Later Drawing Issue

When Toyota issue drawing after released ECI, drawing issuance plan date is indicated. In the case of approval drawing, RDDP number is indicated.

変更事項 Revision	後日出図予定日 Later Dwg. Issue	Condition RDDP No.
形状変更 / Shape Change	2001/01/31	DD30-0332



18. Color Code Change

When a Part change have relation with Color Code , this column will add color code

工 程 Routing (Process)	白紙区分 Pur Key	機組L/L IB NP PP NP	Group Code	旧品番 Previous Part No. 新品番 New Part No.	延保SL 個数Det.	補給 Ser. Det.	品 名 Part Name	変 更 事 項 Revision	後日出図予定日 Later Dwg. Issues	Condition RDDPNo.	出図Dwg. 国内 Jpn. 海外 Eng.	互換性Int. 旧 PP 新 NP	CAD 認 C
AA=AA (G-P1S*S1S) YY=AA (G-P1S*S1S)		A	1	4260B-OK310	4		COVER SUB-ASSY, WHEEL HUB	新設/NEW ADOPTION 21=N	2017/07/28	B01 FMC3-1123	LS LS	- X	N

19, 20. Drawing/CAD data release

Drawing, and CAD column indicate availability and release of new/revised drawing/CAD data for each part/component with the following symbols:

Symbol	Definition	Symbol	Definition
T	When the Toyota Drawing/CAD data is issued with ECI.	LS	When the Supplier's Drawing/CAD data will be issued after releasing ECI.
LT	When the Toyota Drawing/CAD data will be issued after releasing ECI.	×	The drawing/CAD data is prepared but not issued.
S	When the Supplier's Drawing/CAD data is issued with ECI.	N	The drawing/CAD data is not prepared.

出図 Dwg.		互換性 Int.		CAD
国内 Jpn.	海外 Eng.	旧 PP	新 NP	認 C
	LS			N

Availability and release timing of drawing →

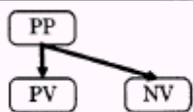
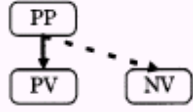
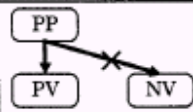
← Availability and release timing of CAD data

21. Interchangeability

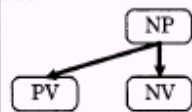
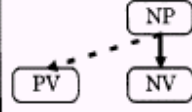
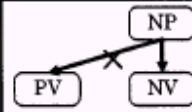
Interchangeability (Int.) indicates whether new parts/components are interchangeable with previous part/components. Meaning of interchangeability codes (A,B,C,X,Y and Z) is explained table below.

互换性 Int.	
旧 PP	新 NP
A	X

Treatment of previous part
(Parts before engineering change)

Type of judgment	Classification	Contents
A		Parts useable on a new vehicle as they are.
B		Parts useable on a new vehicle by partial modification or combination. In this case, procedures for modification or combination are explicitly specified in the same engineering change.
C		Parts not useable on a new vehicle.

Interchangeability
(Parts after engineering change)

Type of judgment	Classification	Contents
X		Parts useable on a previous vehicle as they are.
Y1~Y3		Parts useable on a previous vehicle by partial modification or combination. In this case, procedures for modification or combination are explicitly specified in the same engineering change.
Z		Parts not useable on a previous vehicle.

- Notes: 1. PP: Previous part
 2. NP: New part
 3. PV: Previous vehicle, a vehicle equipped with parts before engineering change
 4. NV: New vehicle, a vehicle to be equipped with parts after engineering change

Please make sample of Change

- C – Z
- B – Y
- A – X

22. CAD Certification

When CAD data is available on Drawing, the CAD status will be informed in this column
(same code with Drawing Status

出図Dwg.		互換性Int.		CAD
国内 Jpn.	海外 Eng.	旧 PP	新 NP	認 可
				N
LS	LS	-	X	

23. Certification

When Engineering Changes of parts/components concern certifications required by foreign regulation, O mark will be put in CERTIFICATION column for each of such parts/components.

出図Dwg.		互換性Int.		CAD
国内 Jpn.	海外 Eng.	旧 PP	新 NP	認 可
				N
LS	LS	-	X	

578W 設 変 切 替 依 頼 書 ENGINEERING CHANGE INSTRUCTIONS										No. 578WF7214										JAROT																													
PAGE [2 / 8]																																																	
要旨 Purpose				切替に対する希望・条件 Change Condition Requested by Engineer				事前連絡 Advance Notice				R/C・F切替制約 Restriction on Change over Timing Concerning Certification				旧車設計書 TMC-ED		重複先 Overlap		共用先 Common		関係先 Related																											
その他/OTHERS				AS SOON AS READY (A, B, C, D, 002) (A) 単独/Independent Change (B) 同時/Simultaneous Change (with) 01:578WF169 (F) 重複/Duplicate Description 01:578WF7432				REFER TO MIK NO. 48567				無/Unrestricted				DN150		FMC30				FMC30																											
適用範囲 Applicability										Key: Model Group Omp. Variation/Block Code										Key: Model Group Omp. Variation/Block Code										Key: Model Group Omp. Variation/Block Code																			
A:578W:4260:52:06																																																	
B:578W:4260:52:07																																																	
C:578W:4260:52:08																																																	
D:578W:4260:52:N6																																																	
001:578W:4260:52:N4																																																	
002:578W:4260:52:																																																	
工 程 Routing (Process)				白紙 Pur		区分 Key		構成 Lvl.		Group		旧品番 Previous Part No.		新品番 New Part No.		返戻 個数Qt.		補給 Ser. Det.		品 名 Part Name		変 更 事 項 Revision		後日出国予定日 Later Dwg. Issue		Condition		出 国 Dwg.		互換性 Int.		CAD																	
AA=AA (G-P1S+S1S) YY=AA (G-P1S+S1S)				A		1						4260B-0K310				4				COVER SUB-ASSY, WHEEL HUB		新設/NEW ADOPTION 21=N		2017/07/28		B01 FMC3-1123		LS LS		- X		N																	
AA=AK-AA (P1S+S1S) AK=AK (G-S3D)-AA				A		1						90942-T1005				S 24				NUT, HUB W/WASHER		使用追加/ADDITIONAL ADOPTION				A		X X		- X		N																	
YY=AK (G-S3D)-AA (P1S+S1S)																																																	
JT=JT (G-K1D)-AA AA=JT-AA (P1S+S1S)				A		1						90942-01109				S 24				NUT, HUB W/WASHER		使用追加/ADDITIONAL ADOPTION				A		X X		- X		N																	
YY=JT (G-K1D)-AA (P1S+S1S)																																																	
AA=AA (G-P1S) YY=AA (G-P1S)				B		1						4260B-0K320				4				COVER SUB-ASSY, WHEEL HUB		新設/NEW ADOPTION 21=N		2017/07/28		B01 FMC3-1123		LS LS		- X		N																	
AA=AK-AAP1S AK=AK (G-S3D)-AA				B		1						90942-T1005				S 24				NUT, HUB W/WASHER		使用追加/ADDITIONAL ADOPTION				A		X X		- X		N																	
YY=AK (G-S3D)-AAP1S																																																	
JT=JT (G-K1D)-AA AA=JT-AAP1S				B		1						90942-01109				S 24				NUT, HUB W/WASHER		使用追加/ADDITIONAL ADOPTION				A		X X		- X		N																	
YY=JT (G-K1D)-AAP1S																																																	
承認/GE Approved		Date		担当室 Eng. Design		IMV SECTION CHASSIS ENGINEERING		FMC30		承認 Approved		Date		調査 Checked		Date		作成 Prepared		Date		Tel: 27906172 Fax: 27905007																											
設 変 切 替 依 頼 書 / E C I No. 1										新車進行管理部 H15001										Reference ECI No.										Printed Time										2017/06/10 01:46:30									

Thank You