ENTIRE DOCUMENT CONTAINS CONFIDENTIAL BUSINESS INFORMATION

PE22-003
Follow-Up Questions



American Honda
Product Regulatory Office
October 7, 2022

HONDA
The Power of Dreams

Follow-up Question R1

R1) Production Data → include firmware versions and resubmit response

a. Verify 2018 Civic production numbers
   i. Honda database (CoReMQ): [redacted]
   ii. NHTSA document All_Production_Counts_2022Q1: [redacted]

b. Obtain radar and camera firmware versions from suppliers and update response

a) Peer vehicle Civic 2018 Production counts from one of the plants was inadvertently excluded from summary totals table. Updated count is [redacted].

	Model	Model Year	Number of Units Manufactured
Subject Vehicles	ACCORD	2018	[redacted]
		2019	[redacted]
	CR-V	2017	[redacted]
		2018	[redacted]
		2019	[redacted]
Peer Vehicles	RDX	2017	[redacted]
		2018	[redacted]
	Civic	2017	[redacted]
		2018	[redacted]
		2019	[redacted]
	PILOT	2017	[redacted]
		2018	[redacted]
		2019	[redacted]
	PASSPORT	2019	[redacted]

b) It was confirmed that firmware version is tracked using the Part Number (please see R1 (a)-(h) previously submitted). Since there is no separate firmware version or software version number, there is no updated R1 (a)-(h) response to provide.

Follow-up Question R2

R2) Complaints, reports, claims, lawsuits → provide requested information

a. Verify counts in table in body of letter based on tallies from R3
   i. There appear to be [redacted](Honda to confirm) reports of crash/injury/fatality
   ii. Note: "Multiple reports of the same incident are also to be counted separately"

b. Comment for future IRs
   i. One-line summaries provided do not adequately capture "description of the alleged problem and causal and contributing factors… [and] significant underlying facts and evidence" for ODI to assess

c. f. Lawsuits
   i. Provide details for missing case PROD134471 listed in R3
   ii. Provide date claim was filed for incident PROD131854

a. Total for (c) is: [redacted] crashes, [redacted] injuries, [redacted] fatality = [redacted]
Our previous total was [redacted]: [redacted] injuries, [redacted] fatality, and crashes had been inadvertently not counted separately. NHTSA total of 43 was not reproducible.

Report Type/Category	Quantity (#)
a. Consumer complaints, including those from fleet operators:	[redacted]
b. Field reports, including dealer field reports:	
c. Reports involving a crash, injury or fatality:	[redacted]
d. Property damage claims:	
e. Third-party arbitration proceedings where Honda is or was a party to the arbitration:	[redacted]
f. Lawsuits, both pending and closed, in which Honda is or was a defendant or codefendant*:	[redacted]

b. Noted.

c. Available detail for PROD134471 and date for PROD131854 are provided in the updated versions of attached R2)f. Summary and REQUEST NUMBER TWO DATA

* Quantity for Item f. has been revised to move [redacted] claim-related matters from f. to a. and to add [redacted] matters that previously were inadvertently omitted. These are reflected in updated R3 and R4 files/folders.

Follow-up Question R4

R4) Documents related to R2 → resubmit response to FQR search criteria and FQRs

a. Update FQR search criteria and provide additional FQR/TREAD reports generated and update table in body of letter for R2 – currently states [redacted] Field reports ([redacted] Tech Line, [redacted] FQR/TREAD)
   i. Existing criteria only generated 6 FQR/TREAD reports
   ii. ODI search identified 130 Field Reports with "CMBS" found in the document text
b. Provide full list of trouble codes used in step 1 of Tech Line search criteria
c. Explain all trouble codes identified in R5 items i and j that were not included in Tech Line criteria

a. We believe your [redacted] were only sourced from non-dealer field reports (TREAD PDF reports), which include both FQR and Tech Line non-dealer field reports. However, the reports we submitted were sourced from databases that contain both dealer and non-dealer Tech Line field reports. After, using "CMBS" and its variations as search terms, the results were closely examined by reading through each case to determine whether the case is related to the issue, resulting in [redacted] reports we believe may concern the alleged defect. Thus, our results remain the same.

b. The full trouble codes list was provided in our original Tech Line search criteria/description submission.

c. DTCs were not used in the Tech Line search criteria because there are none specific to the alleged defect.
Problem codes were not used in Tech Line criteria because these are not used in Tech Line case coding. Trouble codes referred to in the Tech Line criteria are customer complaint codes, which are different from trouble codes in the R5 (Warranty) context.
Thus, Trouble codes or problem codes under R5 (i) & (j) are not the same as codes defined for use in R4 and therefore not used.

Follow-up Questions R5 and R6

R5) Warranty Data → correct and resubmit response

a. Correct formatting error: items L - o are split across columns BE, BF, BG and BY, BZ, CA
b. Provide missing complaint description, cause, and correction for R70927

R6) Warranty Data Search Criteria → provide requested information

a. Provide descriptions for part numbers used:

'36163', '36166', '36803', '36804', '36806', '36809', '36810', '36820', '36160', '36176', '36801', '36802', '36805'

b. Explain why labor operations, problem codes, and DTCs were not part of search criteria like R4

R5) a. Please see the updated WARRANTY DATA file which contains the appropriate data per the table below.

Item	Columns	Description
k	AE-BX	Replaced P/N & Desc (up to 23 parts)
l	BY	Cust. Contention Desc.
m	BZ	RO_Cause Desc
n	CA	RO_Correction
o	CB	Add'l comments/Claim

R5) b. Please see updated WARRANTY DATA file.

R6) a. Part number descriptions

Part number	Part Description	Notes	
36160	CAMERA, MONOCULAR		peer vehicles
36163	CAMERA SET, MONO		subject vehicles
36166	COVER, SENSOR	Camera trim cover	subject vehicles
36176	COVER, SENSOR	Camera trim cover	peer vehicles
36801	BRACKET ASSY.		peer vehicles
36802	RADAR SUB-ASSY.		peer vehicles
36803	RADAR, MILLIWAVE		subject/peer vehicles
36804	BRACKET SET		subject/peer vehicles
36805	AIMING ASSY.		peer vehicles
36806	CLIP, ALIGNMENT BOLT		subject vehicles
36809	COVER, MILL RDR	Radar trim cover	subject vehicles
36810	BRACKET, RADAR (UPPER) (R)		subject vehicles
36820	BRACKET, RADAR (UPPER) (L)		subject vehicles

R6) b. Labor Operation codes are a warranty claim processing code and thus can not be used in R4. They were also not used in R6 because they are closely related to the repair being performed but not to the symptom or alleged defect.

Problem codes in the Warranty context refer to Defect codes (e.g. "broken") which describe general types of failures. These are not suitable for finding warranty claims related to the alleged defect.

DTCs were not used in the warranty search criteria because there are none specific to the alleged defect.

For warranty, P/N was used to cast a wide net for claims that may have involved the alleged defect and then the criterion ideology previously submitted were used to arrive at the data submitted.

Follow-up Question R7

R7) Labor operations, problem, DTC codes and descriptions → provide complete response

a. Provide full list of related trouble codes, DTCs and their descriptions and explain any omissions
   i. Request is not limited just to codes triggered by alleged defect
   ii. Response inconsistent with R4, Tech Line criteria includes “trouble code for “CMBS””
b. Provide clarification on labor operations codes
   i. Difference between 3 codes with description “With front multi purpose camera add”
   ii. 7381D4 CAMERA, FRONT MULTI PURPOSE → is this a replacement, aiming, or other?

R7)

a.i. As there are not any DTCs related to the alleged defect, Honda is providing all DTCs related to the camera unit and the radar unit, which are the two modules that contain CMBS related logic and hardware. Please see attachment R7a_DTC_List.xlsx.

a.ii. “Trouble codes” used in the Tech Line criteria, also called “complaint codes” are not the same as Diagnostic Trouble Codes. Tech Line’s trouble codes are used to classify cases by complaint, which is customer-centric.

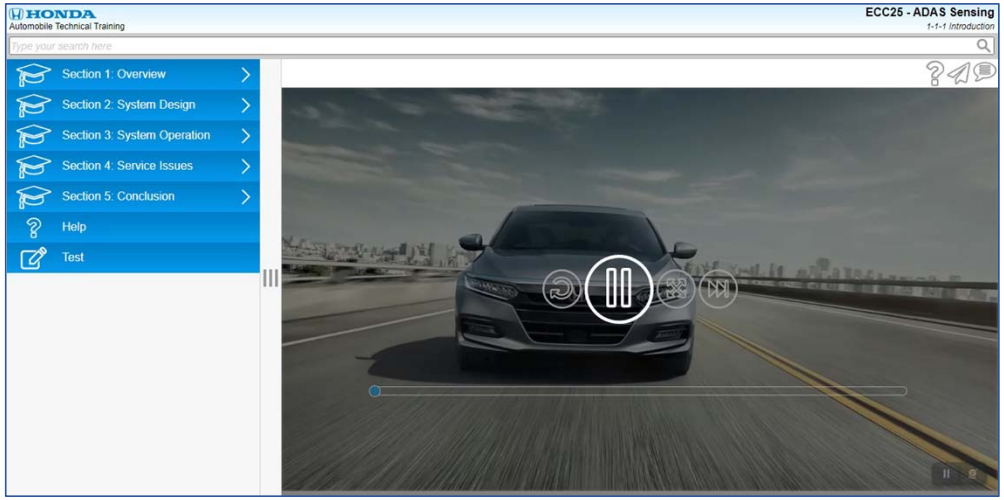
b.i. The three labor operations that contain the description "with front multi purpose camera add“ are “secondary” labor operations that must be used with a corresponding “primary” labor operation. Thus, one may be used when replacing the camera, another when replacing the windshield, etc.

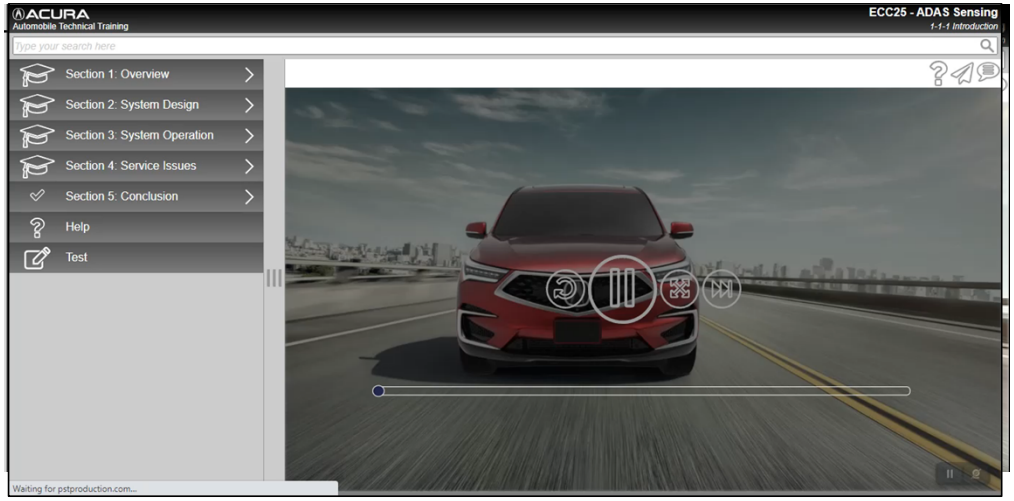
b.ii. Warranty Labor Op code 7381D4 is a code for the dealer to submit a claim for replacing the camera.

Follow-up Question R9) a.i. – ECC25 Training Videos

R9) Service, Warranty, MFR communications, other documents → provide responses to identified documents and resubmit identified videos
  a. Resubmit 2 videos listed below in different format/codec, cannot play files
    i. ECC25 Honda ADAS Sensing.mp4 and ECC25 Acura ADAS Sensing.mp4

R9) a. Click images to play embedded videos





Follow-up Question R9) b.i.

R9) Service, Warranty, MFR communications, other documents → provide responses to identified documents and resubmit identified videos
b. ODI identified 11 documents that may relate to the alleged defect, please address:
i. 1 Tech Line Summary Article: ATS 170204 (MC-10108698-9999)
1. MY17 CR-V, DTC P2583-76, "caused by the factory's radar aiming process, which has since been improved" → related to any modifications listed in R11?

R9) [redacted]

There is no relation to any of the modifications listed in the response to R11.

HONDA *Tech Line Summary Article*

[redacted]

Page 1 of 1

Follow-up Question R9)b.ii

R9) Service, Warranty, MFR communications, other documents → provide responses to identified documents and resubmit identified videos

b. ODI identified 11 documents that may relate to the alleged defect, please address:

ii. 2 Service News Articles:

1. A18080E (MC-10164164-0002): All models with Bosch radar, radar won't align, DTC P2583-76, check mount

2. A20090C (MC-10180014-0001): MY19-20 Civic w/ Bosch unit, resting foot on brake pedal causes CMBS warnings

R9) [redacted]

It was not previously included because it is not related to the alleged defect.

HONDA *ServiceNews Article*

[redacted]

© 2019 American Honda Motor Co., Inc. — All Rights Reserved

R9) [redacted]

It was previously not included because it is not related to the alleged defect nor the subject vehicles.

HONDA *ServiceNews Article*

[redacted]

Follow-up Question R9)b.iii

R9) Service, Warranty, MFR communications, other documents → provide responses to identified documents and resubmit identified videos

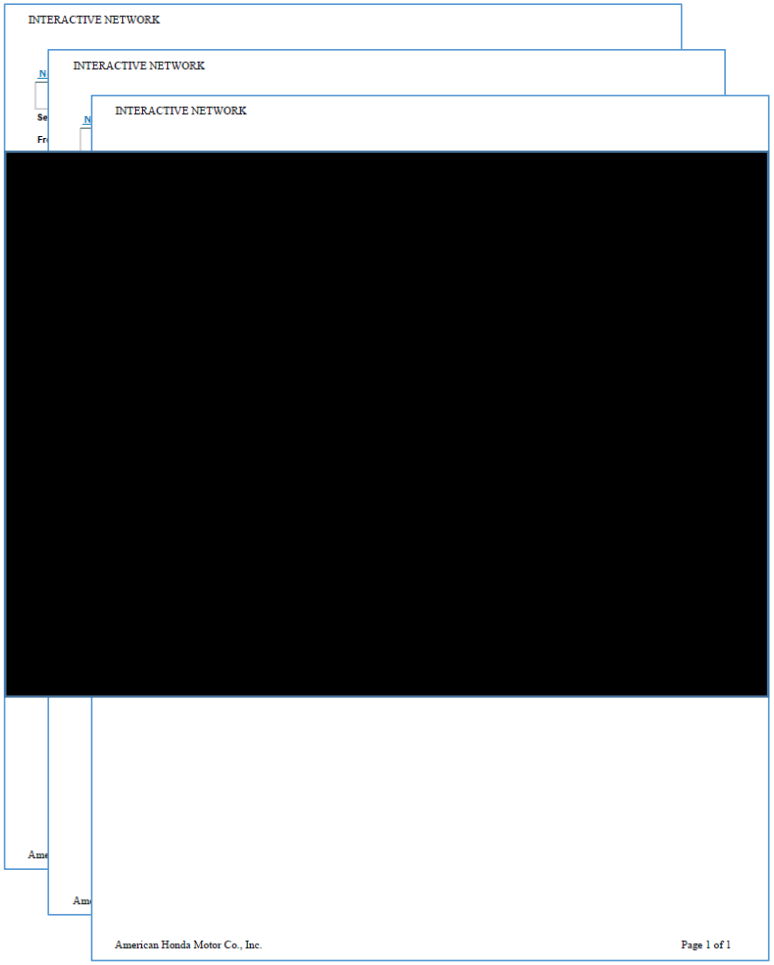
b. ODI identified 11 documents that may relate to the alleged defect, please address:

iii. 3 Other MFR Comms: MC-10133001-9999, MC-10133035-9999, MC-10134508-9999

1. **MY17-18 CR-V, DTC P2583-76, inspect radar alignment clips**
2. **Related to actions provided in R10? "Honda is investigating"**

R9)b.iii. [redacted]

It was not previously included because the issue being investigated results in the disablement of the CMBS and not related to the alleged defect.



Follow-up Question R9)b.iv

R9) Service, Warranty, MFR communications, other documents → provide responses to identified documents and resubmit identified videos

b. ODI identified 11 documents that may relate to the alleged defect, please address:

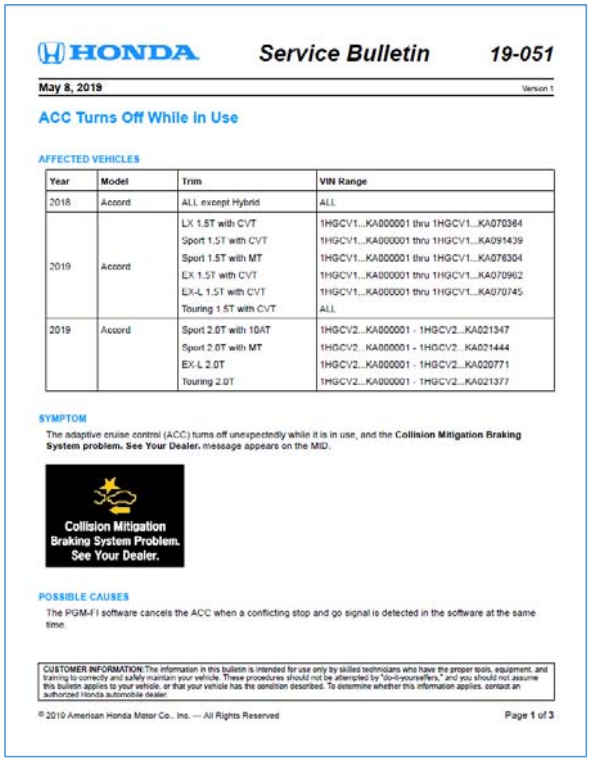
iv. 2 Service Bulletins:

1. 19-051 (MC-10159788-00: MY18-19 Accord, ACC turns off, CMBS problem message
2. 21-068 (MC-10200833-0001): MY17-19 CR-V, MY18-19 Accord, DTC P2583-76

R9) [redacted]

[redacted]

It was not previously included because it is not related to the alleged defect.



HONDA Service Bulletin 19-051

May 8, 2019 Version 1

ACC Turns Off While in Use

AFFECTED VEHICLES

Year	Model	Trim	VIN Range
2018	Accord	ALL except Hybrid	ALL
2019	Accord	LX 1.5T with CVT	1HGCV1...KA000001 thru 1HGCV1...KA070364
		Sport 1.5T with CVT	1HGCV1...KA000001 thru 1HGCV1...KA091439
		Sport 1.5T with MT	1HGCV1...KA000001 thru 1HGCV1...KA076304
		EX 1.5T with CVT	1HGCV1...KA000001 thru 1HGCV1...KA070962
		EX-L 1.5T with CVT	1HGCV1...KA000001 thru 1HGCV1...KA070745
		Touring 1.5T with CVT	ALL
2019	Accord	Sport 2.0T with 10AT	1HGCV2...KA000001 - 1HGCV2...KA021347
		Sport 2.0T with MT	1HGCV2...KA000001 - 1HGCV2...KA021444
		EX-L 2.0T	1HGCV2...KA000001 - 1HGCV2...KA020771
		Touring 2.0T	1HGCV2...KA000001 - 1HGCV2...KA021377

SYMPTOM

The adaptive cruise control (ACC) turns off unexpectedly while it is in use, and the **Collision Mitigation Braking System problem. See Your Dealer.** message appears on the MID.

POSSIBLE CAUSES

The PGM-FI software cancels the ACC when a conflicting stop and go signal is detected in the software at the same time.

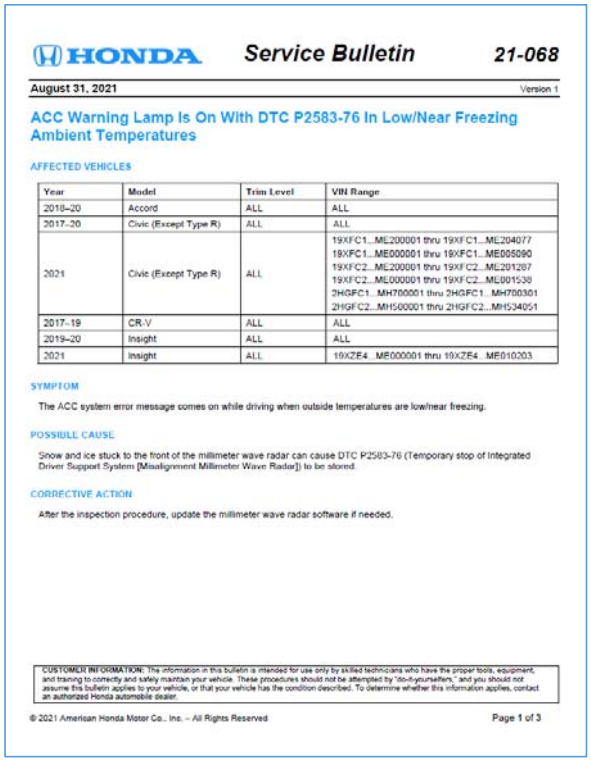
CUSTOMER INFORMATION: The information in this bulletin is intended for use only by skilled technicians who have the proper tools, equipment, and training to correctly and safely maintain your vehicle. These procedures should not be attempted by "do-it-yourselfers," and you should not assume this bulletin applies to your vehicle, or that your vehicle has the condition described. To determine whether this information applies, contact an authorized Honda automobile dealer.

© 2019 American Honda Motor Co., Inc. — All Rights Reserved

R9) [redacted]

[redacted]

It was not previously included because it is not related to the alleged defect.



HONDA Service Bulletin 21-068

August 31, 2021 Version 1

ACC Warning Lamp Is On With DTC P2583-76 In Low/Near Freezing Ambient Temperatures

AFFECTED VEHICLES

Year	Model	Trim Level	VIN Range
2018–20	Accord	ALL	ALL
2017–20	Civic (Except Type R)	ALL	ALL
2021	Civic (Except Type R)	ALL	19XFC1...ME200001 thru 19XFC1...ME204077 19XFC1...ME000001 thru 19XFC1...ME005090 19XFC2...ME200001 thru 19XFC2...ME201287 19XFC2...ME000001 thru 19XFC2...ME001538 2HGFC1...MH700001 thru 2HGFC1...MH700301 2HGFC2...MH500001 thru 2HGFC2...MH534051
2017–19	CR-V	ALL	ALL
2019–20	Insight	ALL	ALL
2021	Insight	ALL	19XZE4...ME000001 thru 19XZE4...ME010203

SYMPTOM

The ACC system error message comes on while driving when outside temperatures are low/near freezing.

POSSIBLE CAUSE

Snow and ice stuck to the front of the millimeter wave radar can cause DTC P2583-76 (Temporary stop of Integrated Driver Support System [Misalignment Millimeter Wave Radar]) to be stored.

CORRECTIVE ACTION

After the inspection procedure, update the millimeter wave radar software if needed.

CUSTOMER INFORMATION: The information in this bulletin is intended for use only by skilled technicians who have the proper tools, equipment, and training to correctly and safely maintain your vehicle. These procedures should not be attempted by "do-it-yourselfers," and you should not assume this bulletin applies to your vehicle, or that your vehicle has the condition described. To determine whether this information applies, contact an authorized Honda automobile dealer.

© 2021 American Honda Motor Co., Inc. – All Rights Reserved

Follow-up Question R9) b.v & vi

R9) Service, Warranty, MFR communications, other documents → provide responses to identified documents and resubmit identified videos

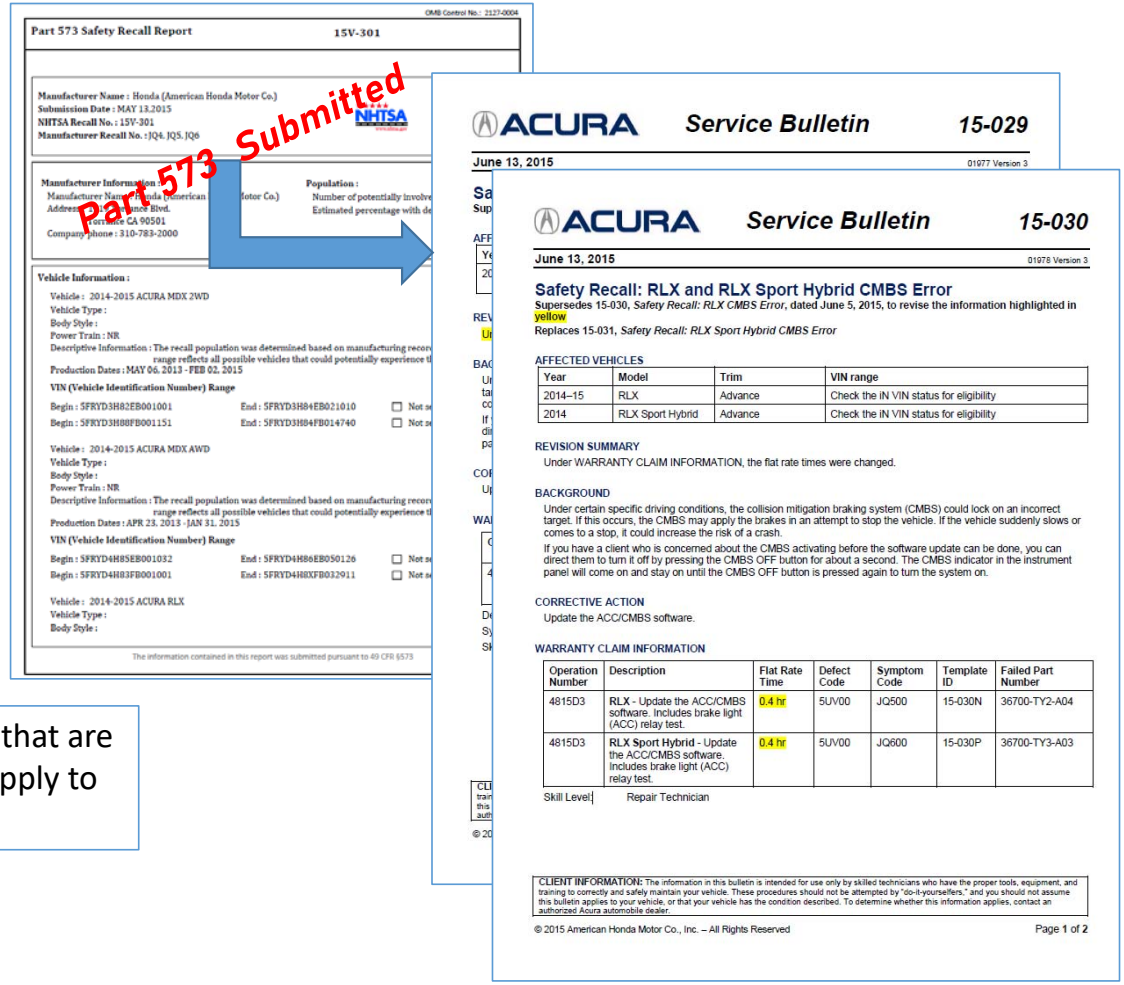
b. ODI identified 11 documents that may relate to the alleged defect, please address:

v. 1 Recall: NHTSA 15V-301 / Honda JQ4, JQ5, JQ6 (RCLRPT-15V301-1881)

1. "(CMBS) may unexpectedly activate while operating the vehicle. In rare cases, the system may interpret certain roadside objects, such as metal fences or metal guardrails, as obstacles"

vi. 2 Service Bulletins w/ subject "Safety Recall: [model] CMBS Error": 15-029 (RCRIT-15V301-7709), 15-030 (RCRIT-15V301-4385)

1."CMBS could lock on an incorrect target" and may apply brakes



R9) b. v. & vi. Recall 15V-301 and recall bulletins cover vehicles that are neither members of subject nor peer vehicles, and do not apply to the subject system supplied by Bosch.

Follow-up Question R10, R11, R13-17

Responses to R10, R11, R13-R17 Follow-up Requests

Follow-up Question R10

Follow-up requests:
R10) MFR Actions (tests, analyses, studies, etc.) → brief both actions to ODI
- a. Response to item f appears to be inaccurate, presentation discusses system failures related to railway crossings and pedestrian overpasses and related c/m
- b. What prompted the actions? How are the 2 actions related?
- c. Why was MY17-18 Civic 5D not included (also has Bosch unit)?
- d. Is claim rate a proportion of total production population or just those equipped w/ CMBS?
- e. Assessment of differing rates between models?
- f. Provide criteria for each issue rank
- g. Any other A rank issues related to CMBS? B rank issues?
- h. Detail all c/m taken, dates implemented for each MMY, and any relation to mods in R11

" Judgment Criteria for the Importance Ranking of Market Quality Information"

Importance Ranking	Judgment Criteria
A	1 Problems have the risk or may have the risk for personal injury, accident, fire or explosion. 2 Problem is noncompliant to laws and/or regulations (related laws and regulations of the applicable country) for safety and/or environmental pollution. 3 Problems have the risk or may have the risk of the critical failure of safety functions or environmental pollution prevention functions as vehicles. 4 The head of the Market Quality Information Collection Section determines immediate action is necessary from the level of inconvenience to customers and influence to the affected market.
B	1 Functional failures that do not apply to Importance Rank A and affect or may affect vehicles.
C	1 Those that do not apply to either Importance Rank A or B.

Follow-up Question R10

Follow-up requests:
R10) MFR Actions (tests, analyses, studies, etc.) → brief both actions to ODI

a. Response to item f appears to be inaccurate, presentation discusses system failures related to railway crossings and pedestrian overpasses and related c/m
b. What prompted the actions? How are the 2 actions related?
c. Why was MY17-18 Civic 5D not included (also has Bosch unit)?
d. Is claim rate a proportion of total production population or just those equipped w/ CMBS?
e. Assessment of differing rates between models?
f. Provide criteria for each issue rank
g. Any other A rank issues related to CMBS? B rank issues?
h. Detail all c/m taken, dates implemented for each MMY, and any relation to mods in R11

Q for SN: Do 2014/2015 RLX and MDX systems use NIDEC or Bosch?

Follow-up Question R11

Follow-up requests:

R11) Modifications to design, manufacture, install → provide requested information and address questions

a. Clarify MY for each modification
b. Item a, modification 5 and 7(?) clarify “not applied to subject vehicle production”
c. Item b, what does “etc.” mean specifically here, need exact vehicle MY modification applies to
d. Item b/c, need more detail than provided, what was functionally changed by each mod
e. Item b/c, mod 4 and 6 provide updated drawings and what was changed
f. Item d/e, clarify “PET” abbreviation (petrol?)
g. Item h, clarify if withdrawn from production or sale for mods 1-3 and 6
h. Are software modifications developed exclusively by Honda?
i. Are countermeasures discussed in R10 included here? Which modifications?

Follow-up Question R13

Follow-up requests:
R13) Configuration and Integration differences → provide requested information

a. Item e, quantify any differences in sensor installed height, and any lateral offsets from center
b. Item e, quantify any orientation angle differences
c. Item g, specify/quantify any mounting bracket differences (bolt torques, spring stiffness, etc)
d. Item g, specify any differences in installation procedure
e. Item h, do radars have 2 beams? Provide MRR4 and Nidec spec sheets
f. Item l, specify any differences in calibration procedure or calibration settings

Follow-up Question R14

Follow-up requests:
R14) Performance differences → provide requested information
- a. Item a, provide min detection range for radar units
- b. Item b and c, characterize any differences Honda is aware of (e.g. limitations)
- c. Item c, provide more detail on wave reflection characteristics
- d. Item d, provide further detail on threshold variability of Bosch unit so that difference to Nidec unit can be characterized
- e. Item e, provide details of reference target so that difference to Nidec unit can be characterized
- f. Item e, provide Bosch MRR4 noise floor

Follow-up Question R15

Follow-up requests:
R15) System Behavior differences → provide requested information and address questions

a. Item a, provide detail on system limitations between 3-10 mph
   i. Training video provided in R9 states CMBS capability is limited below 10 mph
b. Item b, clarify speed difference discrepancy
   i. Training video provided in R9 states CMBS operates when difference exceeds 10 mph
c. Item b, is capability above 62 mph limited by detection range and/or object/hazard identification/classification?
d. Other, what is max deceleration above and below 56 mph threshold? Related to any mods in R11 for "marketability"?
e. What is the max deceleration for Stage 2 braking response? Related to any mods in R11 for "marketability"?
f. Honda ADAS brief to NHTSA in 2021 states CMBS w/ Low-Speed Braking Control uses sonar to detect obstacles at low speed or "if accelerator is depressed too hard" and can brake or suppress drive power
   i. Can subject or peer vehicles be equipped with Low-Speed Braking Control feature?
   ii. If so, address in items a-c as well as in all other Responses as applicable

Follow-up Question R16

R16) Interaction between Honda Sensing Features → address questions
- a. Item e, Honda ADAS brief to NHTSA in 2021 states RDM can apply braking to keep vehicle in lane
  - i. Does RDM interact with CMBS control unit to command brake engagement?
  - ii. What is RDM behavior when lane boundary is no longer detected?

R17) Impact of Environmental Factors on Performance and Fault Detection → provide requested information, address questions
- a. Item d, what other RF characteristics are used to determine if an object is a vehicle (or hazard)?
- b. Describe in detail which if any factors degrade system fault detection i.e. when system won't automatically shut off and set the CMBS indicator

Follow-up requests:
R16) Interaction between Honda Sensing Features → address questions
- a. Item e, Honda ADAS brief to NHTSA in 2021 states RDM can apply braking to keep vehicle in lane
  - i. Does RDM interact with CMBS control unit to command brake engagement?
  - ii What is RDM behavior when lane boundary is no longer detected?

Follow-up requests:
R17) Impact of Environmental Factors on Performance and Fault Detection → provide requested information, address questions
- a. Item d, what other RF characteristics are used to determine if an object is a vehicle (or hazard)?
- b. Describe in detail which if any factors degrade system fault detection i.e. when system won't automatically shut off and set the CMBS indicator

Follow-up Question R90 a. –ECC25 - ACURA