

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

FORD MOTOR COMPANY, JAGUAR LAND ROVER NORTH AMERICA,
LLC, VOLVO CARS OF NORTH AMERICA, LLC, TOYOTA MOTOR NORTH
AMERICA, INC., and SUBARU OF AMERICA, INC.,
Petitioner,

v.

CRUISE CONTROL TECHNOLOGIES LLC,
Patent Owner.

Case IPR2014-00281
Patent 6,324,463 B1

Before JOSIAH C. COCKS, HYUN J. JUNG, and GEORGE R. HOSKINS,
Administrative Patent Judges.

HOSKINS, *Administrative Patent Judge.*

FINAL WRITTEN DECISION
35 U.S.C. § 318(a) and 37 C.F.R. § 42.73

I. INTRODUCTION

Ford Motor Company et al. (“Petitioner”) filed a Petition (Paper 1, “Pet.”) requesting an *inter partes* review of claims 1–5, 12–31, and 34–36 of U.S. Patent No. 6,324,463 B1 (Ex. 1001, “the ’463 patent”). Petitioner submitted the Declaration of Daniel A. Crawford (Ex. 1011) in support of the Petition. Cruise Control Technologies LLC (“Patent Owner”) filed a Preliminary Response (Paper 13, “Prelim. Resp.”). On July 2, 2014, we instituted an *inter partes* review of claims 1–3, 5, 12–19, 21–26, and 28–31 based on seven of the eight unpatentability grounds alleged in the Petition. Paper 17 (“Inst. Dec.”).

After institution of trial, Patent Owner filed a Patent Owner Response (Paper 26, “PO Resp.”). Petitioner filed a Reply (Paper 38, “Pet. Reply”). An oral hearing was held March 24, 2015. Paper 54 (“Tr.”). The Board has jurisdiction under 35 U.S.C. § 6.

For the reasons provided below, Petitioner has shown, by a preponderance of the evidence, that claims 1–3, 5, 12–19, 21–26, and 28–31 of the ’463 patent are unpatentable.

A. *Related Proceedings*

Petitioner and Patent Owner have identified several district court proceedings that would affect, or be affected by, a decision in this proceeding. Pet. 4; Paper 12, 2–4. The ’463 patent is also the subject of four other *inter partes* review proceedings (IPR2014-00279, IPR2014-00280, IPR2014-00289, and IPR2014-00291). Final decisions in those proceedings are being entered concurrently with this final decision.

B. The '463 Patent

The '463 patent discloses cruise control systems for use in a human operated vehicle. Ex. 1001, Abst. Figures 1 and 2 of the '463 patent are shown below:

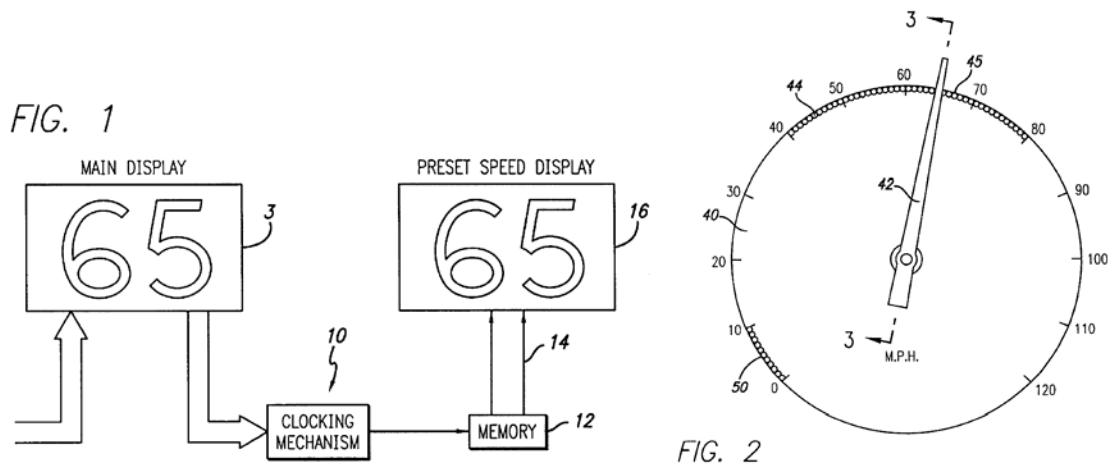


Figure 1 illustrates a digital speed display, while Figure 2 illustrates an analog speedometer. *Id.* at 3:8–13. In Figure 1, main speed display 3 shows the current speed at which the vehicle is operating. *Id.* at 3:49–53. When a cruise control set button (not shown in Figure 1) is pressed, the vehicle speed is stored in digital memory 12 as a preset speed. *Id.* at 3:53–60. Second speed display 16 shows that preset speed. *Id.*

Figure 2's analog speedometer 40 incorporates several LED assemblies 45. *Id.* at 4:19–26. Each LED assembly 45 has an LED and a detector. *Id.* at 4:29–30. When a cruise control set button (not shown in Figure 2) is pressed, all of the detectors are activated, and all of the LEDs momentarily light up. *Id.* at 4:48–51. The back of needle 42 reflects the light of the lit LEDs behind the needle, and that reflected light is detected by the detector of the LED assembly disposed at the location of needle 42. *Id.*

at 4:51–57. The LED of that assembly is then activated to indicate the speed at which cruise control was engaged. *Id.* at 4:57–64.

C. Illustrative Claim

Claim 1 of the '463 patent is illustrative:

1. A cruise control system for [a] vehicle having a human operator, comprising:
 - a speed controller that automatically maintains the vehicle speed at a preset speed;
 - an enable switch associated with said controller for enabling the system;
 - a set speed input in communication with said controller for manually setting the speed of the vehicle at said preset speed, thereby engaging the system;
 - a memory which stores information indicative of said preset speed; and
 - a feedback system for communicating said information in said memory to the operator of the vehicle.

Ex. 1001, 6:7–20.

D. Prior Art Supporting Instituted Unpatentability Grounds

Narita (translation, Ex. 1004) ¹	JP S60-174329	Sept. 1985	Ex. 1003
Nagashima (translation, Ex. 1009)	JP H4-102059	Sept. 1992	Ex. 1008
Beiswenger	US 5,381,388	Jan. 1995	Ex. 1006

¹ Our opinion cites to the translations of the prior art, including the page numbers of the Narita translation, and the paragraph numbers of the Nagashima translation.

John Pollard & E. Donald Sussman, Nat'l Highway Traffic Safety Admin., <i>An Examination of Sudden Acceleration</i> ("the NHTSA Report")	Jan. 1989	Ex. 1007
Admitted Prior Art in the '463 Patent		Ex. 1001, 1:10–2:12
Knowledge of a Person of Ordinary Skill		Exs. 1011 & 1012

E. Instituted Unpatentability Grounds

We instituted an *inter partes* review of the '463 patent based on the following seven unpatentability grounds alleged in the Petition. Inst. Dec. 5, 39–40.

Basis	Reference(s)	Claim(s) Challenged
§ 102(b)	Narita	1–3, 5, 12–16, 18, 19, 21, 25, 26, and 28
§ 103(a)	Narita and Knowledge of Person of Ordinary Skill	17 and 22–24
§ 103(a)	Narita and Beiswenger	17 and 22–24
§ 103(a)	Narita and Nagashima	17, 23, and 24
§ 103(a)	Narita and Admitted Prior Art	1–3, 5, 12, and 15
§ 103(a)	Narita and the NHTSA Report	1–3, 5, 12, and 15
§ 102(b)	Nagashima	18, 19, 26, and 29–31

II. ANALYSIS

A. Claim Construction

As a step in our analysis, we determine the meaning of the claims for purposes of this decision. In an *inter partes* review, a claim in an unexpired

patent shall be given its broadest reasonable construction in light of the specification of the patent in which it appears. 37 C.F.R. § 42.100(b) (2014); *In re Cuozzo Speed Techs., LLC*, 778 F.3d 1271, 1279–83 (Fed. Cir. 2015). Under that construction, claim terms are given their ordinary and customary meaning, as would be understood by a person of ordinary skill in the art, in the context of the entire patent disclosure. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). We construe the terms below in accordance with that standard.

1. “engaging the system” (claim 1) and
“engaging the cruise control system” (claim 21)

In the Institution Decision, we construed “engaging the system” in claim 1, and “engaging the cruise control system” in claim 21, to mean “operating the cruise control system to automatically control the vehicle at the preset speed.” Inst. Dec. 8–9. Neither party has disputed these constructions during trial, and we do not find any reason to deviate from them.

2. “enabling” (claims 1 and 2) and “enabled” (claims 2 and 4)

In the Institution Decision, we construed “enabling the system” in claim 1, and “enabling . . . the controller” in claim 2, to mean a “system on” state for the cruise control system, which we also applied to the descriptor “enabled” in claims 2 and 4. Inst. Dec. 9–10. Neither party has disputed these constructions during trial, and we do not find any reason to deviate from them.

3. *“indicating to the operator the unset status of the preset speed” (claim 15) and “displaying a symbol indicative of an unset state of the preset speed” (claim 21)*

In the Institution Decision, we construed “unset status” and “unset state” in these two claim limitations to mean “a state or status in which there is no preset speed for the cruise control system.” Inst. Dec. 10–11. Neither party has disputed these constructions during trial, and we do not find any reason to deviate from them.

4. *“activating the cruise control system” (claims 12 and 15) and “deactivated” (claims 12, 13, and 21)*

In the Institution Decision, we construed “activating” in these claims to mean “turning on,” and “deactivated” as “turned off.” Inst. Dec. 11–12. Neither party has disputed these constructions during trial, and we do not find any reason to deviate from them.

5. *Remaining Claim Terms*

All other terms of the claims are given their plain and ordinary meaning that is consistent with the specification. For purposes of this decision, we need not construe those terms expressly.

B. *Anticipation by Narita*

Petitioner contends claims 1–3, 5, 12–16, 18, 19, 21, 25, 26, and 28 of the ’463 patent are unpatentable as anticipated by Narita. Pet. 13–31.

1. *Claim 1*

Claim 1 recites a cruise control system for a vehicle, including a speed controller. We are persuaded Narita discloses a cruise control speed controller. Pet. 19; Ex. 1011 ¶¶ 25–26. For example, Narita describes a “vehicle speed automatic control device that is used to automatically control

travel speed of a vehicle to a certain set value,” including controller 7.

Ex. 1004, 2, Figs. 1 & 4.

Claim 1 also recites an enable switch and a set speed input. We are persuaded the “main switch” of Narita is an enable switch as claimed. Pet. 13–14, 19; Ex. 1011 ¶ 27. In particular, Narita states: “[T]he operation of the vehicle speed automatic control device begins with turning on the main switch.” Ex. 1004, 3, Fig. 3. We also are persuaded set switch 2 of Narita corresponds to the claimed set speed input. Pet. 15, 19; Ex. 1011 ¶ 29. In particular, Narita provides “when turning on the set switch 2 . . . when reaching a speed of 70 km/hr, a constant speed travel is initiated at a speed of 70 km/hr” Ex. 1004, 5, Fig. 5; *see also id.* at 3 (describing operation of set switch 2).

Patent Owner contends Narita’s main switch cannot be the enable switch of claim 1. PO Resp. 4, 6. Patent Owner alleges Narita discusses the main switch only with regard to the “conventional” speed control device depicted in Figures 1–3, and Narita’s inventive speed control device depicted in Figures 4–7 does not include expressly that main switch or any other enable switch. *Id.* at 4. Thus, according to Patent Owner, Petitioner improperly alleges anticipation based on a combination of two different embodiments in Narita. *Id.* (citing *Net MoneyIN, Inc., v. VeriSign, Inc.*, 545 F.3d 1359, 1369 (Fed. Cir. 2008)).

We are not persuaded by Patent Owner’s contention that Narita discloses the main switch only in connection with the conventional speed control device, and not in connection with the inventive speed control device. Narita states: “In FIG. 4, the portions of the configuration that are the same as FIG. 1 are given the same reference numerals and descriptions

thereof are omitted.” Ex. 1004, 5. We agree with Petitioner that Narita thereby expressly discloses that the main switch of the conventional speed control device is part of the inventive speed control device shown in Figure 4, even though it is otherwise not discussed expressly in connection with Figure 4. Pet. 19; Pet. Reply 1–3. This is consistent with Narita’s description of the inventive speed control device as an improvement of the conventional device, wherein the display of stored vehicle display unit 37 is canceled upon operation of failsafe 10. Ex. 1004, 4, 7–8.

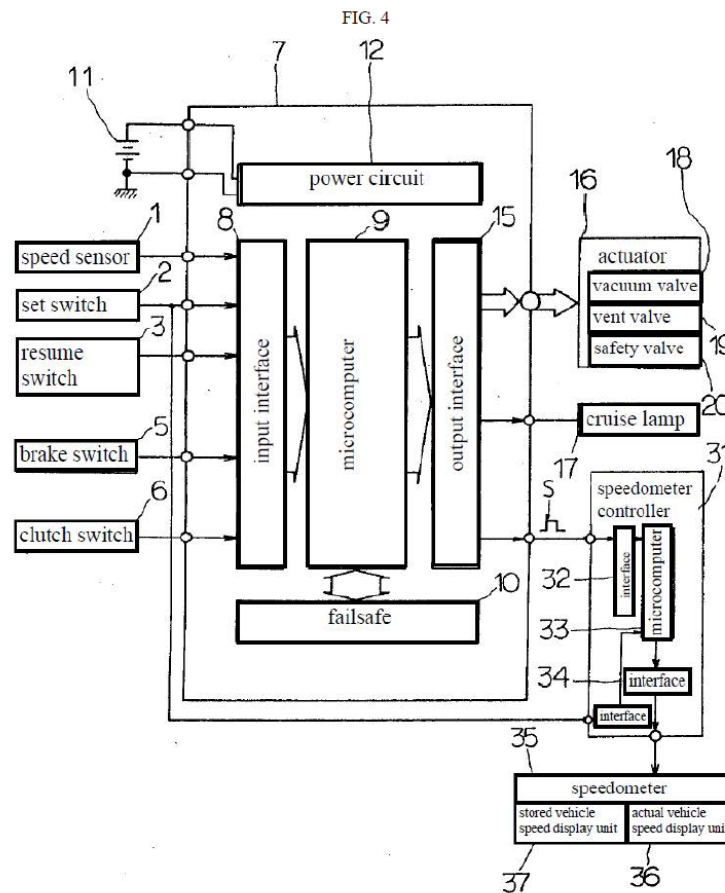
Petitioner’s reading of Narita is bolstered further by Narita’s description of Figure 5 as “illustrating display changes in the speedometer 35 according to operation of the command to switch *after turning on power*.” Ex. 1004, 5 (emphasis added). The reference therein to “turning on power” refers to beginning operation of the conventional speed control device (or the inventive speed control device) “with turning on the main switch.” Ex. 1004, 3; Ex. 1011 ¶ 27; Pet. Reply 3–4; Ex. 1012 ¶ 4. Patent Owner’s rebuttal—that the “command to” or set switch 2 mentioned in the same sentence as “turning on power” at Narita page 5 is not the claimed enable switch—is not persuasive because it is not responsive to Petitioner’s argument. PO Resp. 4–5. Petitioner’s reading of the disclosure on page 5, which we find to be persuasive, is that the main switch is used to turn on the power, and then set switch 2 is used to perform the operations illustrated in Figure 5. Ex. 1011 ¶¶ 27, 29; Pet. Reply 3–4; Ex. 1012 ¶ 4.

Claim 1 further recites a memory which stores the cruise control’s preset speed. We are persuaded Narita has such a memory. Pet. 19; Ex. 1011 ¶ 30. In particular, Narita indicates microcomputer 9 of controller 7 includes “[a] vehicle speed storage part that stores the vehicle

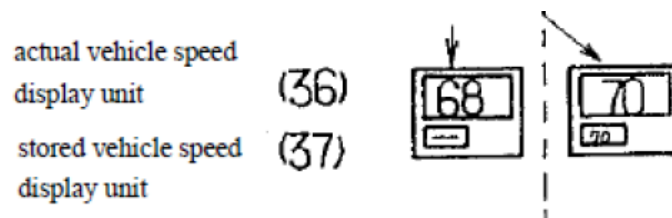
speed when the set switch 2 is operated.” Ex. 1004, 2; *see also id.* at 3 (when set switch 2 sends a set signal, “microcomputer 9 stores the pulse count according to the vehicle speed at that time into the vehicle speed storage part”).

Patent Owner contends the memory of microcomputer 9 cannot be the memory of claim 1, because it is discussed with respect to Narita’s conventional speed control device, and not Narita’s inventive speed control device. PO Resp. 6–7. We are not persuaded. Narita indicates the components of the inventive speed control device having the same reference numerals as the conventional speed control device are the same in both devices. Ex. 1004, 5. Those common components include microcomputer 9, and its memory. *Id.* at Figs. 1 & 4; Pet. Reply 4–5.

Claim 1 finally recites a “feedback system” for communicating the cruise control’s preset speed to the vehicle operator. Narita’s disclosure in this regard is exemplified by its Figure 4, reproduced below:



Ex. 1004, 12. Figure 4 is a system block diagram of Narita's inventive speed control device, including "driver seat side speedometer 35." *Id.* at 5. Speedometer 35 includes actual vehicle speed display unit 36 and stored vehicle speed display unit 37. *Id.* The following excerpt from Narita's Figure 5 illustrates the respective displays of units 36 and 37:



Id. at 5, 13. This excerpt illustrates display changes in units 36, 37 when the cruise control is set. *Id.* at 5–6. In particular, unit 36 shows the actual vehicle speed increasing from 68 km/hr to 70 km/hr. *Id.* at 5, Fig. 5. Cruise

control is then set, and “the stored vehicle speed 70 km/hr is displayed on the stored vehicle speed display unit 37.” *Id.* at 5. We are persuaded unit 37 corresponds to the feedback system recited in claim 1. Pet. 15–16, 20; Ex. 1011 ¶ 31.

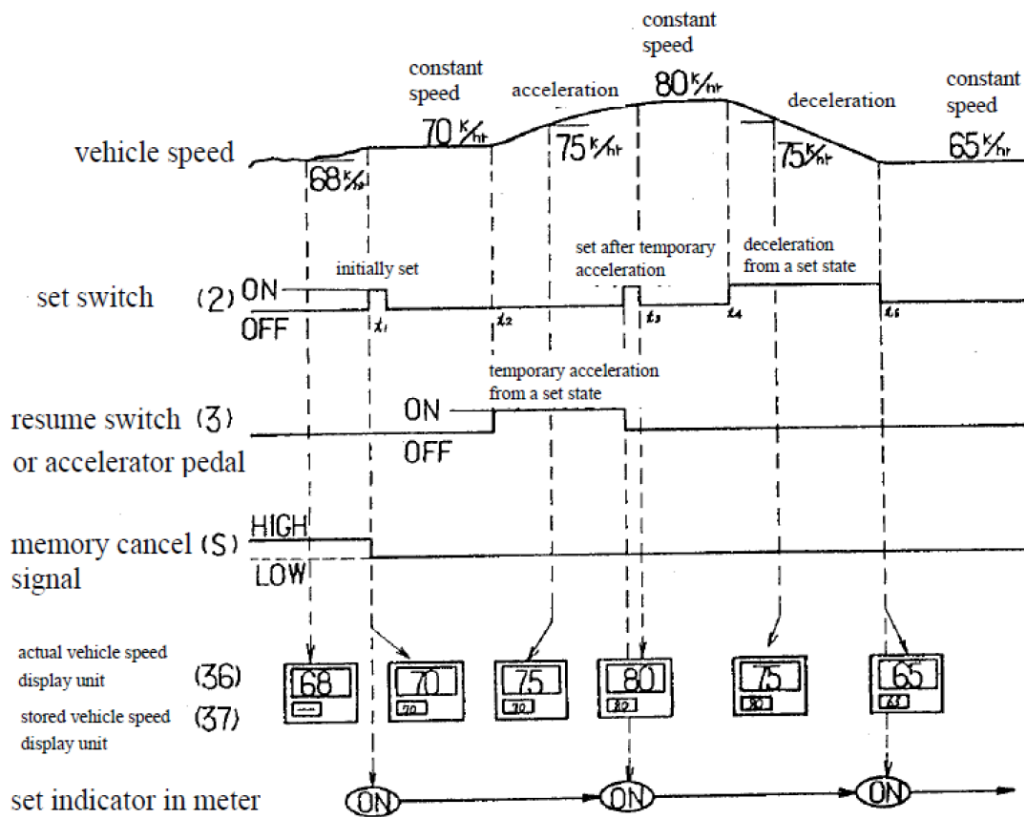
For the foregoing reasons, a preponderance of the evidence establishes claim 1 is unpatentable as anticipated by Narita.

2. *Claims 2, 3, and 5*

Claim 2, similarly to claim 1, recites a cruise control system for a vehicle including a speed controller, a cruise control enable switch, a set speed input, a memory, and a feedback system. We are persuaded these claim limitations are disclosed in Narita, for the reasons provided above. *See supra* Part II.B.1; Pet. 19–21. For those same reasons, Patent Owner’s assertions that Narita has not been shown to disclose an enable switch or a memory in connection with its inventive speed control device are not persuasive. PO Resp. 7–8.

Claim 2 further specifies the feedback system “substantially continuously communicates the selected cruising speed . . . until either the operator selects a subsequent cruising speed or the controller is disabled.” We are persuaded Narita discloses this claim requirement. Pet. 17, 21. Figure 5 of Narita, reproduced below, is representative:

FIG. 5



Ex. 1004, 13. Concerning a subsequent cruising speed, Narita describes Figure 5 as illustrating:

[A]fter a temporary acceleration [between time t_2 and time t_3], when turning the set switch 2 on and off again . . . upon reaching 80 km/hr at time t_3 , constant speed travel begins at 80 km/hr while *at the same time the stored vehicle speed at this time is displayed on the stored vehicle speed display unit 37 . . .*

Id. at 6 (emphasis added). As to disabling the controller, Narita indicates: “[W]hen the system is canceled due to movement by the failsafe 10 for some reason during constant speed travel . . . display on the stored vehicle speed display unit 37 is canceled . . .” *Id.* at 7, Fig. 7.

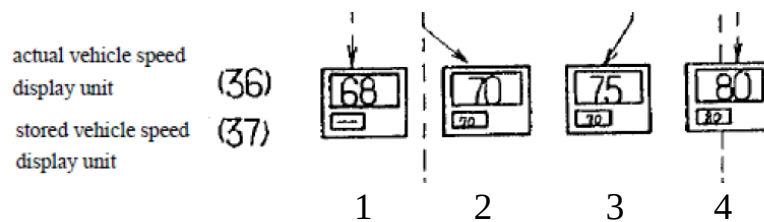
Claims 3 and 5 depend from claim 2, and specify respectively “the feedback system includes a digital display,” which “displays information indicative of the selected cruising speed of the vehicle.” We are persuaded these requirements are met by Narita’s display of the preset cruising speed as a digital readout in unit 37. Pet. 21, 22; Ex. 1004, 7, Figs. 5–7.

For the foregoing reasons, a preponderance of the evidence establishes claims 2, 3, and 5 are unpatentable as anticipated by Narita.

3. *Claim 12*

Claim 12 recites a method for visually communicating, to a vehicle operator, a cruising speed at which a cruise control system is set. The first two steps of the method are “determining the speed at which the vehicle is traveling” and “activating the cruise control system at a desired cruising speed.” We are persuaded Narita discloses these two steps. Pet. 22; Ex. 1011 ¶¶ 25–27, 29–31. For example, Narita describes turning on cruise control via a main switch, and then operating set switch 2 when reaching a speed of 70 km/hr to initiate constant speed travel at a speed of 70 km/hr. Ex. 1004, 3, 5–6, Fig. 5.

Claim 12 additionally recites “displaying a symbol indicative of the speed at which the cruise control system is activated.” Narita indicates “the stored vehicle speed 70 km/hr is displayed on the stored vehicle speed display unit 37.” *Id.* at 5. This is illustrated by the following excerpt from Narita’s Figure 5, to which we have added numerals “1” through “4,” identifying four states of the system, for specific reference below:



Id. at 13. This excerpt illustrates display changes in stored vehicle speed display unit 37 in response to various cruise control and vehicle operation states. *Id.* at 5–6. We are persuaded operation of Narita’s display 37 in state 2, wherein display 37 indicates constant speed travel at a speed of 70 km/hr, corresponds to displaying a speed-indicative symbol as claimed. Pet. 15–16, 22; Ex. 1004, 5–6, Fig. 5.

Claim 12 further recites “maintaining the activated cruise control speed symbol upon temporary acceleration or deceleration of the vehicle.” We are persuaded Narita discloses the “acceleration” portion of this limitation in state 3 above. Pet. 16, 23. In particular, state 3 illustrates stored vehicle speed display unit 37 continuing to show 70 km/hr when the vehicle is temporarily accelerated to a speed of 75 km/hr. Ex. 1004, 6, Fig. 5. We are further persuaded the “deceleration” claim requirement is met by Narita’s disclosure that “the change in the actual vehicle speed due to the deceleration is displayed on the actual vehicle speed display unit 36 while the stored vehicle speed continues to be displayed as is on the stored vehicle speed display unit 37.” *Id.* at 6, Fig. 6; Pet. 16–17, 23.

Claim 12 finally recites “removing said symbol when the cruise control system is deactivated or a new cruising speed is selected.” We are persuaded Narita discloses this claim requirement. Pet. 16–17, 24. As to the deactivating component, Narita indicates: “When the system is canceled due to movement by the failsafe 10 for some reason during constant speed

travel . . . display on the stored vehicle speed display unit 37 is canceled” Ex. 1004, 7, Fig. 7. As to selecting a new cruising speed, Narita indicates unit 37 changes from “70” to “80” in state 4 above, to reflect changing the cruising speed from 70 km/hr to 80 km/hr. *Id.* at 6, Fig. 5.

Patent Owner contends operation of failsafe 10 does not “deactivate” the cruise control system as recited in claim 12, which we have construed to mean turning the system off. PO Resp. 8. Rather, according to Patent Owner, operation of failsafe 10 cancels constant speed travel, but the cruise control system remains on, as evidenced by Narita’s disclosure that a new constant speed can be set by operating set switch 2.² *Id.* (citing Ex. 1004, 7).

Patent Owner’s argument is not persuasive. Mr. Crawford has testified, on behalf of Petitioner, that a person of ordinary skill in the art would understand that a cruise control system being “canceled” by a “failsafe” due to an abnormality, as those terms are used in Narita, means that the system is turned off. Ex. 1012 ¶¶ 10–11 (citing Ex. 1004, 2, 4); Pet. Reply 6, 8–9. Mr. Crawford particularly cites Narita’s disclosure that one such abnormality is “putting the shift lever of an automatic vehicle into the N or P position,” because turning the system off when the vehicle is placed in park makes sense from a safety perspective. Ex. 1012 ¶ 11; Ex. 1004, 4.

² During the oral hearing, Patent Owner’s representative additionally relied on Narita’s disclosure that its conventional speed control device maintains display of the preset speed upon system cancellation by the failsafe. Tr. 28:7–14; Ex. 2004, 12; Ex. 1004, 4. However, Narita’s inventive device specifically improves upon the conventional device, by canceling the preset speed display upon system cancellation by the failsafe. Ex. 1004, 4.

We find Mr. Crawford’s testimony to be more persuasive of the meaning of Narita’s disclosure than the interpretation set forth in the Patent Owner Response. Moreover, as Petitioner argues, the broadest reasonable construction of claim 12 is that the symbol is removed upon the occurrence of either of two options—system deactivation “or” a new cruising speed selection—and Patent Owner does not dispute the symbol is removed in the latter circumstance. Pet. Reply 5–6; PO Resp. 8; Tr. 9:8–24, 27:24–28:24.

For the foregoing reasons, a preponderance of the evidence establishes claim 12 is unpatentable as anticipated by Narita.

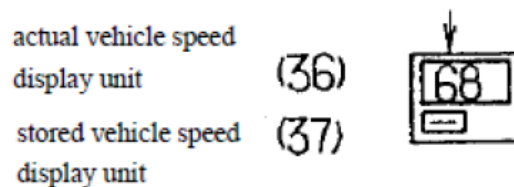
4. *Claims 13–16*

Claim 13, similarly to claim 12, recites a method for indicating, to a vehicle operator, a preset speed for which a cruise control system is set, including setting the preset speed, displaying a symbol indicative of the preset speed, maintaining the display, and discontinuing the display when the cruise control system is deactivated or a new preset speed is selected. We are persuaded these claim limitations are disclosed in Narita, for the reasons provided above. *See supra* Part II.B.3; Pet. 24–25. For those same reasons, Patent Owner’s argument that Narita fails to disclose the “discontinuing display” step of claim 13 is not persuasive. PO Resp. 8–9.

Claim 14 depends from claim 13, and specifies “displaying a second symbol upon the selection of a new preset speed, said second symbol indicative of the new preset speed.” We are persuaded Narita discloses this claim limitation when stored vehicle speed display unit 37 changes from “70” to “80” to reflect changing the cruising speed from 70 km/hr to 80 km/hr. Pet. 16, 25; Ex. 1004, 6, Fig. 5.

Claim 15 depends from claim 13, and specifies “before setting the preset speed, activating the cruise control system.” We are persuaded Narita correspondingly discloses “turning on the main switch” in order to activate the cruise control system, before using set switch 2 to set the preset speed. Ex. 1004, 3; Pet. 25; Ex. 1011 ¶¶ 27, 29. For the reasons discussed above in connection with claim 1, Patent Owner’s assertion that Narita has not been shown to disclose use of its main switch in connection with its inventive speed control device is not persuasive. PO Resp. 9.

Claim 15 also specifies “after activating the cruise control system, but before setting the preset speed, indicating to the operator the unset status of the preset speed.” In this regard, Petitioner cites the following excerpt from Narita’s Figure 5:



Pet. 14–15, 26; Ex. 1011 ¶ 33. Narita describes that excerpt as illustrating speedometer 35 “after turning on power, and when the memory cancel signal S . . . is in a Hi state.” Ex. 1004, 5. We are persuaded the dashed line in the excerpt indicates the unset status of the preset speed. Pet. 15; Ex. 1011 ¶ 33.

Claim 16 depends from claim 15, and specifies “wherein indicating the unset status of the preset speed includes displaying a visual symbol to the operator.” We are persuaded the dashed line of Figure 5 is a visual symbol as claimed. Pet. 15, 26; Ex. 1011 ¶ 33.

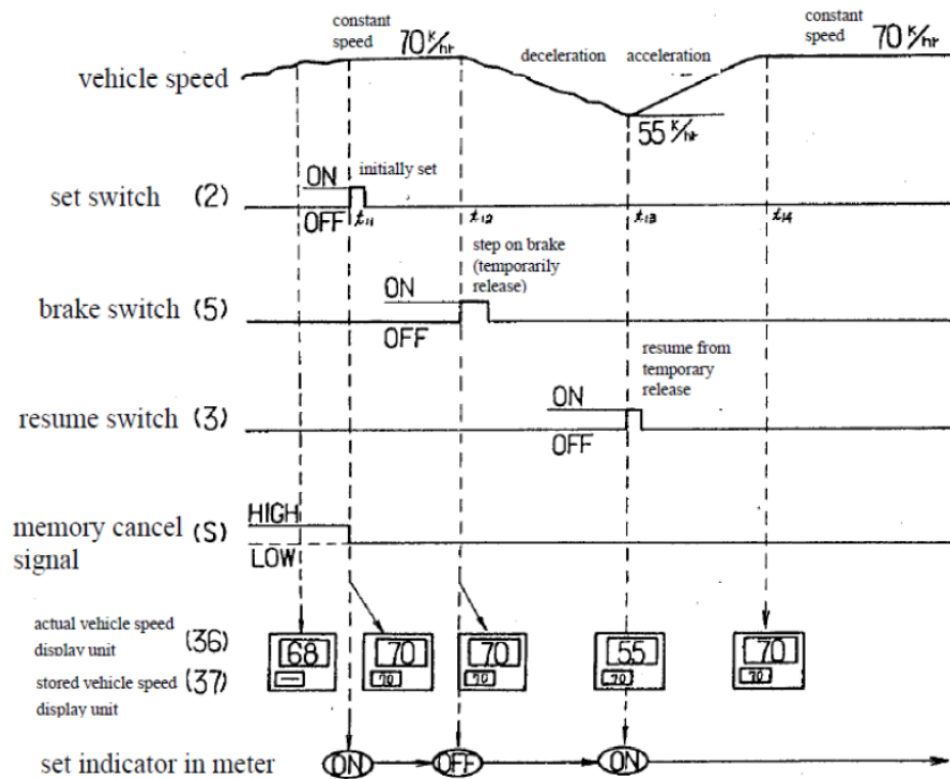
For the foregoing reasons, a preponderance of the evidence establishes claims 13–16 are unpatentable as anticipated by Narita.

5. *Claims 18 and 19*

Claim 18, similarly to claim 12, recites a method for indicating, to a vehicle operator, a preset speed for which a cruise control system is set, including setting the preset speed, displaying a symbol indicative of the preset speed, and maintaining the display. We are persuaded Narita discloses these claim limitations for the reasons provided above. *See supra* Part II.B.3; Pet. 22, 26.

Claim 18 also recites “upon braking the vehicle, discontinuing maintaining the vehicle speed at substantially the preset speed while keeping data corresponding to the preset speed in a memory device,” as well as “at a time after braking and during which time the vehicle is not being maintained at substantially the preset speed, displaying to the operator a symbol indicative of the preset speed.” We are persuaded Narita discloses these limitations. Pet. 16–17, 27. In particular, Narita’s disclosure in this regard is exemplified by its Figure 6, reproduced below:

FIG. 6



Ex. 1004, 14. Figure 6 illustrates changes in stored vehicle speed display unit 37 when decelerating by a braking operation after constant speed travel. *Id.* at 6. Immediately prior to time t_{12} , cruise control is engaged at a speed of 70 km/hr. *Id.* The brakes are operated temporarily at time t_{12} , and thereafter “the change in the actual vehicle speed due to the deceleration is displayed on the actual vehicle speed display unit 36 while the stored vehicle speed continues to be displayed as is on the stored vehicle speed display unit 37.” *Id.* (emphasis added). Thus, between time t_{12} and time t_{13} , stored vehicle speed display unit 37 continues to display the preset speed of 70 km/hr as stored in the vehicle speed storage part. *Id.* at 6–7.

Patent Owner contends neither Petitioner nor Mr. Crawford addresses the limitation of, upon braking the vehicle, “keeping data corresponding to

the preset speed in a memory device.” PO Resp. 10 (citing Pet. 27). We are not persuaded. The Petition cites Narita’s page 6 for this limitation. Pet. 27; Pet. Reply 6–7. As just discussed, Narita therein discloses that when the brakes are operated, unit 37 continues to display the stored vehicle speed. Ex. 1004, 6, Fig. 6. As explained by Mr. Crawford, that display corresponds to the speed stored in the vehicle speed storage part, that is, Narita’s memory. Ex. 1011 ¶¶ 25, 30.

Claim 19 depends from claim 18, and specifies “the symbol indicative of the preset speed displayed at the time after braking and during which time the vehicle is not being maintained at substantially the preset speed, is distinguishable by the operator from the symbol indicative of the preset speed while the vehicle is being maintained at substantially the preset speed.” We are persuaded Narita discloses that limitation. Pet. 18, 27. In particular, as shown in Figure 6 of Narita, the “set indicator in meter” is “on” while cruise control is working to maintain the preset speed (before time t_{12} and after time t_{13}), but is turned “off” when the brakes are applied to suspend cruise control (between times t_{12} and time t_{13}). Ex. 1004, 6–7, Fig. 6.

Patent Owner objects that Narita does not discuss what the “set indicator in meter” of Figure 6 is, or how it functions. PO Resp. 10–11. This contention is not persuasive. As set forth by Petitioner and Mr. Crawford, a person of ordinary skill in the art would understand the set indicator of Figure 6 to be the cruise lamp described elsewhere in Narita. Pet. 18, 27; Ex. 1011 ¶¶ 31–32; Pet. Reply 8; Ex. 1012 ¶¶ 7–9. And, Figure 6 provides an exemplary illustration of how the set indicator cruise lamp functions.

We are persuaded, further, as an alternative to the set indicator, that the preset speed symbol is “distinguishable,” as recited in claim 19, based on the operation of actual speed display unit 36 and stored speed display unit 37. Pet. 27; Pet. Reply 7–8. In particular, before braking, the readouts of both display units 36 and 37 will be substantially the same; and after braking, the readout of display unit 36 will decrease with the vehicle speed, while the readout of display unit 37 will remain the same. Pet. Reply 7–8.

Patent Owner contends stored speed display unit 37—the “symbol indicative of the preset speed” in claim 19—does not change upon braking, so it is not “distinguishable” as claimed. PO Resp. 10–11. This contention is not persuasive, because it misconstrues the scope of claim 19. All that claim 19 requires in this regard is that the symbol indicative of the preset speed is distinguishable; the claim does not specify that the symbol itself changes in order to be distinguishable.

For the foregoing reasons, a preponderance of the evidence establishes claims 18 and 19 are unpatentable as anticipated by Narita.

6. *Claim 21*

Claim 21, similarly to claim 12, recites a method for indicating, to a vehicle operator, a preset speed for which a cruise control system is set, including engaging the system and setting the preset speed, displaying a symbol indicative of the preset speed, maintaining the display, and discontinuing the display after the system is deactivated or a new preset speed is selected. We are persuaded Narita discloses these claim limitations for the reasons provided above. *See supra* Part II.B.3; Pet. 28. For those same reasons, Patent Owner’s argument that Narita fails to disclose the “discontinuing display” step of claim 21 is not persuasive. PO Resp. 11.

Claim 21 additionally recites “after the cruise control system is deactivated, displaying a symbol indicative of an unset state of the preset speed.” We are persuaded Narita discloses this limitation. Pet. 17, 28; Ex. 1011 ¶ 33. In particular, Narita states: “When the system is canceled due to movement by the failsafe 10 for some reason during constant speed travel . . . display on the stored vehicle speed display unit 37 is canceled” Ex. 1004, 7, Fig. 7. As shown in Figure 7, upon the cancellation, unit 37 displays a dashed line rather than a stored preset speed, to indicate an unset state of the preset speed. *Id.* at Fig. 7.

For the foregoing reasons, a preponderance of the evidence establishes claim 21 is unpatentable as anticipated by Narita.

7. Claim 25

Claim 25, similarly to claim 12, recites a method for indicating, to a vehicle operator, a preset speed for which a cruise control system is set, including setting the preset speed, and displaying a symbol indicative of the preset speed. We are persuaded Narita discloses these claim limitations for the reasons provided above. *See supra* Part II.B.3; Pet. 29.

Claim 25 additionally recites “accelerating the vehicle to a speed above the preset speed” and “maintaining the display of the symbol indicative of the preset speed while the vehicle is at the speed above the preset speed.” We are persuaded Narita discloses these requirements, between times t_2 and t_3 in Figure 5, when stored vehicle speed display unit 37 continues to show 70 km/hr as the vehicle is accelerated temporarily from 70 km/hr to 80 km/hr. Pet. 16, 29; Ex. 1004, 6, Fig. 5.

The Patent Owner Response does not address claim 25. For the foregoing reasons, a preponderance of the evidence establishes claim 25 is unpatentable as anticipated by Narita.

8. *Claims 26 and 28*

Claim 26, similarly to claim 1, recites a cruise control system for a vehicle, including a speed controller, a set speed input, and a memory. We are persuaded Narita discloses these claim limitations for the reasons provided above. *See supra* Part II.B.1; Pet. 29–30. For those same reasons, Patent Owner’s assertion that Narita has not been shown to disclose a memory in connection with its inventive speed control device is not persuasive. PO Resp. 12.

Claim 26 also recites a “first visual display apparatus operable to display the indicative of the actual speed of the vehicle.” We are persuaded Narita’s actual vehicle speed display unit 36 corresponds to the first visual display apparatus. Pet. 14–15, 30; Ex. 1004, 5–6, Fig. 5.

Claim 26 further recites a second visual display apparatus operable to display visual information indicative of an operation status of the speed controller, including the preset speed. We are persuaded Narita’s stored vehicle speed display unit 37 corresponds to the second visual display apparatus recited in claim 26. Pet. 14–16, 30; Ex. 1004, 5–6, Figs. 5–7.

Claim 28 depends from claim 26, and specifies “the second visual display apparatus comprises a digital numerical indicator.” We are persuaded this requirement is met by Narita’s display of the preset speed as a digital readout in unit 37. Pet. 31; Ex. 1004, 7, Figs. 5–7.

For the foregoing reasons, a preponderance of the evidence establishes claims 26 and 28 are unpatentable as anticipated by Narita.

C. Obviousness Based on Narita and the Knowledge of a Person of Ordinary Skill, or on Narita and Beiswenger, or on Narita and Nagashima

Petitioner contends claims 17 and 22–24 of the ’463 patent are unpatentable as obvious over Narita and the knowledge of a person of ordinary skill in the art, or over Narita and Beiswenger. Pet. 33–36. Petitioner also contends claims 17, 23, and 24 are unpatentable as obvious over Narita and Nagashima. *Id.* at 46–47.

Dependent claim 17 requires “the visual symbol indicating the unset status of the preset speed comprises a blinking ‘0.’” Dependent claims 22–24 require “the symbol indicative of an unset state of the preset speed” is “a ‘0’” (claim 22), or “a blinking numerical indicator” (claim 23), or “a blinking ‘0’” (claim 24).

We have reviewed Petitioner’s argument and Mr. Crawford’s testimony that a person of ordinary skill in the art would have known the use of a blinking numerical display to highlight a different or particular status of a system was long known in the prior art (Pet. 34–35; Ex. 1011 ¶¶ 34–39); Beiswenger discloses the digital numerals of a digital clock display “initially blink and display preferably 0:00” before the time is set for the clock (Pet. 35; Ex. 1011 ¶ 41; Ex. 1006, 5:14–17); and Nagashima discloses indicator lights 31 blink to show, upon braking, that the system is no longer maintaining the vehicle at the set speed (Pet. 47; Ex. 1011 ¶¶ 47–49; Ex. 1009 ¶¶ 24, 29). We have further reviewed Petitioner’s argument and Mr. Crawford’s testimony that modifying Narita’s display unit 37 to display a blinking “0” rather than the dashed line symbol to indicate the unset status or state of the preset speed would have been obvious at the time the ’463 patent invention was made, based on the knowledge of a person of ordinary

skill in the art, Beiswenger, or Nagashima. Pet. 33–36, 46–47; Pet. Reply 9–10; Ex. 1011 ¶¶ 40, 42, 50.

In opposition to these unpatentability grounds, Patent Owner relies on its argument and evidence alleging deficiencies in the Narita disclosure as to parent claims 13, 15, and 21. PO Resp. 14. For reasons provided above, those arguments are unpersuasive. *See supra* Parts II.B.4, II.B.6. The Scheduling Order cautioned Patent Owner that any arguments not raised in the Response would be deemed waived. Paper 18, 3. Accordingly, after due consideration of the argument and evidence advanced by both parties, we find a preponderance of the evidence establishes claims 17 and 22–24 are unpatentable as obvious over Narita and the knowledge of a person of ordinary skill in the art, or over Narita and Beiswenger, or over Narita and Nagashima, as set forth in the Petition.

D. Obviousness Based on Narita and Admitted Prior Art

Petitioner contends claims 1–3, 5, 12, and 15 of the ’463 patent are unpatentable as obvious over Narita and admitted prior art. Pet. 36–37. We are persuaded a preponderance of the evidence establishes these claims are each anticipated by Narita, which discloses for example the “enable switch” of claims 1–3 and 5, and the “activating” of claims 12 and 15. *See supra* Parts II.B.1–4. Petitioner nonetheless presents an alternative obviousness ground, in the event it is finally determined that Narita fails to disclose those claim limitations. Pet. 36–37. Thus, Narita is cited as disclosing each and every claim limitation except for the “enable switch” / “activation” feature, and the admitted prior art is cited as disclosing that feature. *Id.*

We are persuaded by Petitioner’s argument and Mr. Crawford’s testimony that the admitted prior art includes a cruise control enable switch

to turn on the system, before the system is engaged to maintain a preset cruise speed. Pet. 37; Ex. 1011 ¶¶ 16, 20–21, 43; Ex. 1001, 1:17–21. We are further persuaded by Petitioner’s argument and Mr. Crawford’s testimony indicating that it would have been obvious to a person of ordinary skill in the art to use such an enable switch with Narita’s inventive cruise control system, even if not already disclosed therein, to provide a known safety function: preventing inadvertent engagement of the system. Pet. 37; Ex. 1011 ¶ 44.

Patent Owner contends column 1, lines 17–21 of the ’463 patent is not admitted prior art, because there is no “express designation as ‘prior art.’” PO Resp. 14–15. We are not persuaded. The ’463 patent therein describes an enable switch in the “Background of the Invention” section as “found in many automobiles today” and as “conventional.” Ex. 1001, 1:12–25, 1:42–58. Those descriptions establish the enable switch was admitted to be in the prior art by the ’463 patent specification.³

Patent Owner also contends, even if an enable switch is admitted to be prior art in the ’463 patent, the admission does not establish that the enable switch is “associated with” a speed controller as set forth in claims 1 and 2. PO Resp. 15. Further, Patent Owner alleges Petitioner does not allege such a speed controller to be inherent in the admitted prior art. *Id.*

³ The decision in *In re Nomiya*, 509 F.2d 566 (CCPA 1975), cited by Patent Owner, is not to the contrary. While in that case the admitted prior art was labeled as “prior art” in the Figures and in the specification, the decision did not hold such language is required to establish an admission. *Id.* at 570–71.

We are not persuaded that the lack of a “speed controller” in the admitted prior art is fatal to Petitioner’s case. We, rather, agree with Petitioner that Patent Owner’s argument overlooks the Narita disclosure of a conventional speed control device, which indicates that a “main switch,” i.e., an enable switch, would be associated with and operate to turn a speed controller on and off. Pet. Reply 11; Ex. 1011 ¶ 27; Ex. 1004, 3, Figs. 1 and 3. Thus, in viewing both Narita and the admitted prior art as a whole, a person of ordinary skill in the art would associate the enable switch with a speed controller as claimed to provide an important safety function by preventing inadvertent engagement of the system. Ex. 1011 ¶ 44.

Patent Owner further contends the admitted prior art does not cure Narita’s deficiencies in disclosing the “memory” of claims 1 and 2, or the symbol removal when the system is “deactivated” in claims 12 and 15. PO Resp. 15. We are not persuaded in these regards because, as discussed above, a preponderance of the evidence establishes Narita discloses these claimed features in connection with its inventive speed control device. *See supra* Parts II.B.1–4.

For the foregoing reasons, a preponderance of the evidence establishes claims 1–3, 5, 12, and 15 are unpatentable as obvious over Narita and admitted prior art.

E. Obviousness Based on Narita and the NHTSA Report

Petitioner contends claims 1–3, 5, 12, and 15 of the ’463 patent are unpatentable as having been obvious over Narita and the NHTSA Report. Pet. 37–39. We are persuaded a preponderance of the evidence establishes these claims are each anticipated by Narita, which discloses for example the “enable switch” of claims 1–3 and 5, and the “activating” of claims 12 and

15. *See supra* Parts II.B.1–4. Petitioner nonetheless presents an alternative obviousness ground, in the event it is finally determined that Narita fails to disclose those claim limitations. Pet. 37–39. Thus, Narita is cited as disclosing each and every claim limitation except for the “enable switch” / “activation” feature, and the NHTSA Report is cited as disclosing that feature.⁴ *Id.*

We are persuaded by Petitioner’s argument and Mr. Crawford’s testimony that the NHTSA Report discloses it was known in the art to include an enable switch to activate and deactivate a cruise control system, separately from engaging the system at a preset cruise speed with a set switch. Pet. 38–39; Ex. 1011 ¶ 45; Ex. 1007, 8–9 & App. H, 4-1, Fig. 4-3. We are further persuaded by Petitioner’s argument and Mr. Crawford’s testimony indicating that it would have been obvious to a person of ordinary skill in the art to use such an enable switch with Narita’s inventive cruise control system, based on the NHTSA Report’s disclosure that such a switch provides “the safety benefit that a driver would need to perform two steps rather than one before turning over control of vehicle acceleration to the automated system.” Pet. 38–39; Ex. 1011 ¶ 46; Ex. 1007, 8–9.

Patent Owner contends Petitioner does not make clear whether the NHTSA Report’s “cruise control master switch,” “neutral safety switch,” or “operating switch” (or some combination thereof) allegedly meets the

⁴ In the Reply Brief, Petitioner states the Petition did not rely on the NHTSA Report to teach the “activating” limitation of claims 12 and 15. Pet. Reply 12 n. 5. However, the Petition does exactly that in the paragraph bridging pages 37 and 38.

claimed “enable switch.” PO Resp. 16. We are not persuaded. Different portions of the over 400 pages in the NHTSA Report use different terms to describe the claimed enable switch. The main body of the NHTSA Report calls it a “cruise-control master switch” (Ex. 1007, 8–9), while the study results in Appendix H, Section 4, instead refer to a “driver’s operating switch” (*id.* at App. H, 4-1). The functionality of both those switches corresponds to the claimed enable switch. Pet. 38–39; Ex. 1011 ¶¶ 45–46; Pet. Reply 12. The “neutral safety switch” of Appendix H, Section 4, like the driver’s operating switch, supplies power to the cruise control system, albeit under different conditions. Ex. 1007, App. H, 4-1, Fig. 4-3. It, too, therefore, corresponds to the claimed enable switch.

Patent Owner also contends Petitioner does not establish the NHTSA Report discloses an enable switch “associated with” a speed controller as set forth in claims 1 and 2. PO Resp. 16. We, however, agree with Petitioner that the NHTSA Report discloses such as association in describing the driver’s operating switch and a control unit. Pet. Reply 12 (citing Ex. 1007, App. H, 4-1, Fig. 4-3).

Patent Owner further contends the NHTSA Report does not cure Narita’s deficiencies in disclosing the “memory” in claims 1 and 2, or the symbol removal when the system is “deactivated” in claims 12 and 15. PO Resp. 16. We are not persuaded in these regards because, as discussed above, a preponderance of the evidence establishes Narita discloses these claimed features in connection with its inventive speed control device. *See supra* Parts II.B.1–4.

For the foregoing reasons, a preponderance of the evidence establishes claims 1–3, 5, 12, and 15 are unpatentable as obvious over Narita and the NHTSA Report.

F. Anticipation by Nagashima

Petitioner contends claims 18, 19, 26, and 29–31 of the '463 patent are unpatentable as anticipated by Nagashima. Pet. 39–46.

1. Claims 18 and 19

Claim 18 recites a method for indicating, to a vehicle operator, a preset speed for which a cruise control system is set. The first step of the method is “setting the preset speed.” We are persuaded Nagashima discloses that step. Pet. 40, 42; Ex. 1011 ¶ 48. For example, Nagashima describes “cruise control setting SW [switch] 7 which turns the cruise control on and off” and “setting speed change SW 8 which changes the setting speed of cruise control.” Ex. 1009 ¶ 16 & “Summary.”

Claim 18 additionally recites “displaying to the operator a symbol indicative of the preset speed while maintaining the vehicle speed at substantially the preset speed,” and “maintaining the display of the symbol indicative of the preset speed.” We are persuaded Nagashima discloses these steps. Pet. 40–42; Ex. 1011 ¶ 48. In particular, Nagashima discloses a “setting speed display readout which displays said setting speed of cruise control unit controlling vehicle travel in order to travel at preset constant speed.” Ex. 1009 ¶ 9. Nagashima’s disclosure in this regard is exemplified by its Figure 1, reproduced below:

[Figure 1]

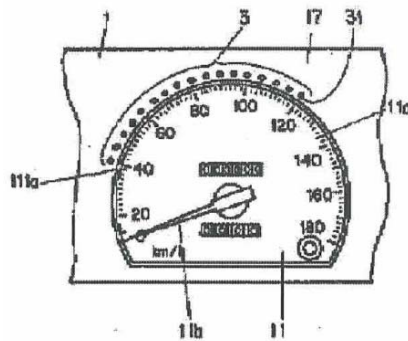


Figure 1 depicts one embodiment of Nagashima's setting speed display 3. Ex. 1009 ¶¶ 11–13. Display 3 includes a plurality of LED indicators 31 arranged in dots in 5 km/hr increments along scale 111a of speedometer 11. *Id.* ¶ 13. Indicators 31 are “lit to display the setting speed.” *Id.* ¶¶ 9–10.

Claim 18 also recites “upon braking the vehicle, discontinuing maintaining the vehicle speed at substantially the preset speed while keeping data corresponding to the preset speed in a memory device,” as well as “at a time after braking and during which time the vehicle is not being maintained at substantially the preset speed, displaying to the operator a symbol indicative of the preset speed.” We are persuaded Nagashima discloses these limitations. Pet. 43; Ex. 1011 ¶ 49. In particular, Nagashima discloses “in the case . . . brake operation is performed,” then “the cruise control is temporally released, *and indicators (31) blink.*” Ex. 1009 ¶ 24 (emphasis added). Nagashima further indicates “in the case the cruise control is temporarily released by deceleration of more than the set amount by brake operation, etc., the difference large or small is *determined between the actual speed and the display of the setting speed by the blinking of indicators (31) of setting speed display readout 3 . . .*” *Id.* ¶ 29 (emphasis added).

Patent Owner contends neither Petitioner nor Mr. Crawford addresses the limitation of, upon braking the vehicle, “keeping data corresponding to the preset speed in a memory device.” PO Resp. 12 (citing Pet. 43). We are not persuaded. The memory device claim requirement is addressed in the Petition, which cites Nagashima’s “speed memory (RAM)” as disclosing the limitation. Pet. 41 (quoting Ex. 1009 ¶ 20); Pet. Reply 13. Further, Nagashima discloses that the vehicle may resume the preset speed after a braking operation temporarily releases cruise control, by pressing a resume switch. Ex. 1009 ¶ 29; Pet. 43; Ex. 1011 ¶¶ 48–49; Pet. Reply 13. We agree with Petitioner that Nagashima, therefore, indicates the memory keeps the preset speed upon braking. Pet. Reply 13.

Patent Owner also contends Nagashima fails to disclose, as recited in claim 18, at a time after braking and during which the preset speed is not being maintained, displaying a symbol indicative of the preset speed. PO Resp. 12–13. Patent Owner relies on Nagashima’s disclosure that “indicators (31) blink” upon braking. *Id.* at 13 (quoting Ex. 1009 ¶ 24). Patent Owner asserts that, if all the indicators blink upon braking, “there is no symbol that could possibly be ‘indicative of the preset speed.’” *Id.*

Patent Owner’s argument is not persuasive. While Nagashima paragraphs 24 and 29 state “indicators” (plural) blink upon braking, Nagashima also discloses that “the difference large or small is determined between the actual speed and the display of the setting speed by the blinking of indicators (31)” Ex. 1009 ¶ 29. We agree with Petitioner that, in light of that description, Nagashima in fact discloses multiple indicators are lit to indicate the preset speed, and those multiple indicators blink upon

braking. Pet. Reply 14; Ex. 1009, ¶¶ 20, 24, 29; Tr. 16:11–19:2, 30:6–32:5, 36:9–40:19.

Claim 19 depends from claim 18, and specifies “the symbol indicative of the preset speed displayed at the time after braking and during which time the vehicle is not being maintained at substantially the preset speed, is distinguishable by the operator from the symbol indicative of the preset speed while the vehicle is being maintained at substantially the preset speed.” We are persuaded Nagashima discloses this limitation in that indicators 31 blink after cruise control is released by performing a brake operation. Pet. 43–44; Ex. 1011 ¶ 49; Ex. 1009 ¶¶ 24, 29.

For the foregoing reasons, a preponderance of the evidence establishes claims 18 and 19 are unpatentable as anticipated by Nagashima.

2. *Claims 26 and 29–31*

Claim 26 recites a cruise control system for a vehicle including a speed controller. We are persuaded Nagashima discloses a cruise control speed controller. Pet. 40, 44. For example, Nagashima describes “a cruise control unit controlling vehicle travel in order to travel at preset constant speed.” Ex. 1009 ¶ 1; *id.* ¶ 16, Fig. 2.

Claim 26 also recites “a set speed input in communication with the controller for selecting the preset speed.” We are persuaded Nagashima has a set speed input. Pet. 42, 44; Ex. 1011 ¶ 48. In particular, “setting speed change SW 8” of Nagashima corresponds to the set speed input. Ex. 1009 ¶¶ 2, 16.

Claim 26 further recites “a memory device operable to store information representative of the preset speed.” We are persuaded Nagashima has such a memory. Pet. 41, 44. In particular, Nagashima

indicates the preset speed is stored in a “speed memory (RAM).” Ex. 1009 ¶ 20.

Claim 26 further recites a “first visual display apparatus operable to display the indicative of the actual speed of the vehicle,” which dependent claim 29 further requires to “comprise[] an analog speedometer including a speed indicator operably disposed adjacent an indicator dial.” Nagashima’s disclosure in this regard is exemplified by its Figure 1, reproduced below:

[Figure 1]

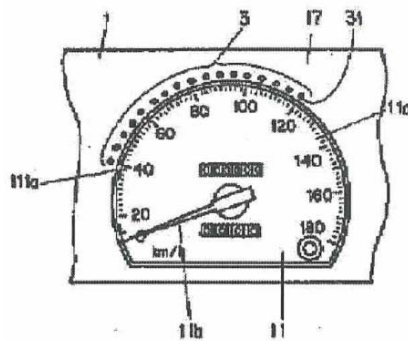


Figure 1 depicts one embodiment of Nagashima’s set speed display meter 1. Ex. 1009 ¶ 11. It includes speedometer 11, having dial face 11a and indicator needle 11b, which displays vehicle speed. *Id.* ¶¶ 4, 12. We are persuaded speedometer 11 corresponds to the first visual display apparatus of claims 26 and 29. Pet. 45; Ex. 1011 ¶ 48.

Claim 26 also recites a second visual display apparatus operable to display visual information indicative of an operation status of the speed controller, including the preset speed. Claim 29 further requires the second visual display apparatus to “comprise[] a plurality of individual visual indicators, wherein each of said individual visual indicators is associated with a particular vehicle speed, and wherein each of said individual visual indicators is operable between and [sic] ‘on’ condition and an ‘off’

condition.” Again referring to Figure 1, reproduced above, Nagashima’s meter 1 has “a plurality of indicators (31) made of LED . . . arranged in dots respectively at 5 km speed per hour increments along the scale (111a) over a range from 40 km speed per hour to 120 km speed per hour.” Ex. 1009 ¶ 13. “This plurality of indicators (31) functions as the setting speed display readout (3) of the cruise control unit in cooperation with the scale (111a) of the speedometer (11).” *Id.* We are persuaded Nagashima’s indicators 31 correspond to the second visual display apparatus of claims 26 and 29. Pet. 45; Ex. 1011 ¶ 48.

Patent Owner contends Nagashima’s indicators 31 are not, as recited in claim 26, “visual information indicative of the preset speed,” because indicators 31 are disposed only at 5 km/hr increments. PO Resp. 13–14. In particular, according to Patent Owner, indicators 31 are not sufficient because each indicator 31 presumably indicates a range of possible speed values. *Id.* at 13.

Patent Owner’s contention is not persuasive, because it misconstrues the scope of claim 26. All that claim 26 requires in this regard is a display of “visual information *indicative of* the preset speed” (emphasis added). That language does not support the specificity being urged by Patent Owner. Indeed, the ’463 patent Specification indicates intervals other than 1 mph may be used if desired. Ex. 1001, 4:19–27. We find that the 5 km/hr increments of Nagashima are sufficiently precise to be indicative of the preset speed, as recited in claim 26.

Claim 30 depends from claim 29 to specify “the individual visual indicators include a plurality of LEDs,” and claim 31 depends from claim 29 to specify “the individual visual indicators are disposed on the indicator dial

of the analog speedometer.” We are persuaded these requirements are met by Nagashima’s LED indicators 31 disposed on dial 11a of speedometer 11. Pet. 45–46; Ex. 1009 ¶ 13, Fig. 1.

For the foregoing reasons, a preponderance of the evidence establishes claims 26 and 29–31 are unpatentable as anticipated by Nagashima.

III. CONCLUSION

Based on the complete record before us, we determine that Petitioner has shown, by a preponderance of the evidence, that:

- A. Claims 1–3, 5, 12–16, 18, 19, 21, 25, 26, and 28 are unpatentable under 35 U.S.C. § 102(b) as anticipated by Narita;
- B. Claims 17 and 22–24 are unpatentable under 35 U.S.C. § 103(a) as obvious over Narita and the knowledge of a person of ordinary skill;
- C. Claims 17 and 22–24 are unpatentable under 35 U.S.C. § 103(a) as obvious over Narita and Beiswenger;
- D. Claims 17, 23, and 24 are unpatentable under 35 U.S.C. § 103(a) as obvious over Narita and Nagashima;
- E. Claims 1–3, 5, 12, and 15 are unpatentable under 35 U.S.C. § 103(a) as obvious over Narita and admitted prior art;
- F. Claims 1–3, 5, 12, and 15 are unpatentable under 35 U.S.C. § 103(a) as obvious over Narita and the NHTSA Report; and
- G. Claims 18, 19, 26, and 29–31 are unpatentable under 35 U.S.C. § 102(b) as anticipated by Nagashima.

IV. ORDER

For the foregoing reasons, it is:

ORDERED that claims 1–3, 5, 12–19, 21–26, and 28–31 of the
'463 patent are unpatentable; and

FURTHER ORDERED that, because this is a final decision, parties to
the proceeding seeking judicial review of the decision must comply with the
notice and service requirements of 37 C.F.R. § 90.2 (2014).

IPR2014-00281
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FOR PETITIONER

Eric A. Buresh
Jason R. Mudd
ERISE IP, P.A.
eric.buresh@eriseip.com
Jason.mudd@eriseip.com

Matthew J. Moore
Clement Naples
Chi Cheung
LATHAM & WATKINS LLP
matthew.moore@lw.com
clement.naples@lw.com

Matthew D. Satchwell
DLA PIPER LLP (US)
matthew.satchwell@dlapiper.com

William H. Mandir
SUGHRUE MION PLLC
wmandir@sughrue.com

FOR PATENT OWNER:

John R. Kasha
Kelly L. Kasha
KASHA LAW LLC
john.kasha@kashalaw.com
kelly.kasha@kashalaw.com