Patent Right	Date	August 8, 2022	Court	Intellectual Property High Court, Fourth Division
	Case number	2019 (Ne) 10007		

- A case in which the court determined, concerning the claim for payment of compensation for damages based on the patent right related to the patent for an invention titled "Device for displaying a ladder circuit when an abnormality occurs with a programmable controller," that both the programmable indicator main body and its software fall under "any article indispensable for the solution of the problem by the invention" (Article 101, item (ii) of the Patent Act).
- A case in which the court determined that both the programmable indicator main body and its software that can also be used for a purpose other than the production of directly infringing products are transferred, etc. "knowing that they are used for working an invention."
- A case in which the court determined that in cases where there are indirectly infringing products that are not used for the production of directly infringing products, the quantity of said indirectly infringing products falls under the quantity corresponding to "circumstances that render the patentee or the exclusive licensee unable to sell" (Article 102, paragraph (1), item (i) of the Patent Act).
- A case in which the court determined that in cases where there are indirectly infringing products that are not used for the production of directly infringing products, the quantity of said indirectly infringing products becomes grounds for rebuttal of presumption of the amount of damages under Article 102, paragraph (2) of the Patent Act.

Case type: Claim for injunction against patent infringement (after withdrawal of the claim for injunction, claim for payment of compensation for damages)

Results: Partial modification of the prior instance judgment

References: Article 101, item (ii) and Article 102, paragraph (1), item (i) and paragraph (2) of the Patent Act

Related rights, etc.: Patent No. 3700528. Invalidation Trial No. 2018-800131

Judgment in prior instance: Osaka District Court, 2015 (Wa) 8974, rendered on December 13, 2018

Summary of the Judgment

No. 1 Outline of the case

1. In this case, the First-instance Plaintiff alleged that the act of manufacturing and

selling, etc. of the programmable indicator main body ("Defendant's Indicator A") and its software ("Defendant's Product 3") by the First-instance Defendant directly infringe or indirectly infringe (Article 101, item (i) or item (ii) of the Patent Act) of the patent right ("Patent Right 1") related to the invention indicated in the premises ("Invention 1") and three other patent rights ("Patent Rights 2 through 4"), and claimed against the First-instance Defendant an injunction against the manufacturing, selling, etc. of the First-instance Defendant's Products and the disposal thereof based on Patent Rights 1 through 4 and also claimed payment of compensation for damages based on the tort (all patent rights lapsed due to expiry of patent terms by March 31, 2020, and therefore, the claim for injunction, etc. was withdrawn.).

2. In the judgment in prior instance (Osaka District Court, 2015 (Wa) 8974, rendered on December 13, 2018), the court of prior instance determined that the manufacturing, selling, etc. of the Defendant's Product 3 fall under indirect infringement as defined in Article 101, item (ii) of the Patent Act of Patent Right 1 and ordered against the First-instance Defendant an injunction, etc. against the production, transfer, etc. of Defendant's Product 3 and the payment of compensation for damages of approximately 47,020,000 yen, and dismissed the remaining claims of the First-instance Plaintiff.

3. In this judgment, as stated in No. 2 below, the court determined that the manufacturing, selling, etc. of both the Defendant's Indicator A and Defendant's Product 3 fall under indirect infringement as defined in Article 101, item (ii) of the Patent Act of Patent Right 1, and ordered against the First-instance Defendant to pay compensation for damages of approximately 55,620,000 yen, which was calculated using the provisions of Article 102, paragraph (1), item (i) of the Patent Act, and dismissed the remaining claims of the First-instance Plaintiff.

No. 2 Determinations in this judgment

1. "Any article that is essential to the invention's solution of the problem" as defined in Article 101, item (ii) of the Patent Act

In this judgment, the court determined that not only Defendant's Product 3, but also Defendant's Indicator A fall under "any article that is essential to the invention's solution of the problem" as stated below.

"The purport of specifying articles for which the production, transfer, etc. is deemed to be an infringement is stipulated to be 'any article that is essential to the invention's solution of the problem' in Article 101, item (ii) of the Patent Act is construed as follows: since articles subject to said item can be used for the purpose of non-infringement in addition to the purpose of infringement, this provision aims to limit the articles for which the transfer, etc. is deemed to be infringement (indirectly infringing

articles) to important components, tools, raw materials, etc. (hereinafter collectively referred to as 'components, etc.') from the perspective of invention so that the effects of the patent right are not extended unjustly; and for this reason, said articles are stipulated to be not only 'essential for working the invention,' but also 'essential to the invention's solution of the problem.' In light of this purport, it is reasonable to construe that 'any article that is essential to the invention's solution of the problem' (an essential article for the solution of the problem) is any of the components, etc. with which 'problems that the invention intends to solve' are solved for the first time by using it, in other words, any of the characteristic components, etc. that directly bring a unique structure that characterizes a characteristic technical means newly disclosed by the invention as a method to solve problems of prior art.

... the characteristic technical means that Invention 1 newly disclose has a structure wherein 'a means for displaying a ladder circuit that monitored the occurrence of abnormal phenomena corresponding to the specified type of abnormality when the type of abnormality is specified by said touch' (Constituent Feature 1E) includes 'a touch panel for specifying ... the output element ... of the displayed ladder circuit by touch and a means for searching and displaying the ladder circuit that inputs an output element when the output element of the displayed ladder circuit is specified by said touch' (contact search) (hereinafter referred to as 'a contact search by touch when an abnormality occurs' in some cases)."

"As described in (A) above, Article 101, item (ii) of the Patent Act is construed to limit indirectly infringing products to characteristic components, etc. that directly bring a unique structure, etc. that characterizes the characteristic part of the invention in question. The scope of 'components, etc.' should be determined by examining whether the article has physical or functional integrity, while also observing from the socioeconomic perspective. Even if a component is an existing component, etc., in cases where it is manufactured and sold to be used as one of the components, etc. provided for solving the invention's problem, the component should also be construed to fall under an article that is essential to the invention's solution of the problem. It is based on the following grounds: in many cases, even characteristic components, etc. are created by the combination of well-known components, etc.; if the application of indirect infringement is immediately precluded in cases where an article that has integrity can be formally separated, the scope of the provisions of indirect infringement is extremely limited and it is significantly against the purport that the Patent Act deemed indirect infringement to be patent infringement and approved the protection of the patent right."

(D) "Defendant's Product 3

Defendant's Product 3 stores the parts, such as the circuit monitoring function, etc., from among the OS of extended/optional functions. When it is installed on Defendant's Indicator A, the circuit monitoring function, etc. can be used with Defendant's Indicator A. The part of circuit monitoring function, etc. of Defendant's Product 3 and other parts are found to be physically and functionally integrated.

Then, Defendant's Product 3 is found to be a characteristic component that directly brings the characteristic technical means of Invention 1 as a whole.

Therefore, Defendant's Product 3 falls under an essential article for the solution of the problem of Invention 1."

(E) "Defendant's Indicator A

The structure with a contact search by touch when an abnormality occurs, which is a characteristic technical means newly disclosed by Invention 1, can be achieved only when there are both Defendant's Indicator A and Defendant's Product 3. As the First-instance Defendant admits, the only OS that can be installed on Defendant's Indicator A in order to achieve the circuit monitoring function, etc. is Defendant's Product 3 and the only indicator on which Defendant's Product 3 can be installed to achieve said function is Defendant's Indicator A. Therefore, Defendant's Indicator A can function to achieve the aforementioned structure in limited cases where the OS of Defendant's Product 3 is installed. In addition, both Defendant's Indicator A and Defendant's Product 3 are produced and sold by the First-instance Defendant. The First-instance Defendant is familiar with the aforementioned structure, intentionally selected said structure, and has provided both to customers.

Based on the above, Defendant's Indicator A and Defendant's Product 3 happen to be physically separate products, and therefore, one function is divided in multiple components. However, originally, Defendant's Indicator A is functionally indivisible from Defendant's Product 3. Even if it is deemed to be an independent product, it constitutes a characteristic component, etc. that directly brings the characteristic technical means of Invention 1.

Therefore, Defendant's Indicator A falls under an essential article for the solution of the problem of Invention 1."

2. The point, "knowing that the article is used for the working of the invention" as defined in Article 101, item (ii) of the Patent Act (Subjective Requirement [ii])

In this judgment, the court determined, as stated below, that Defendant's Indicator A and Defendant's Product 3 that could be used for purposes other than the production of directly infringing products fulfill said subjective requirement.

"b. First, an examination is conducted below as to in what situation Subjective Requirement [ii] is considered to be fulfilled, in other words, in what situation it can be said that articles that can also be used lawfully are produced, transferred, etc. while 'knowing that they are used for the working of an invention.'

The indirect infringement defined in Article 101, item (ii) of the Patent Act positioned the production, transfer, etc. of articles that can also be used lawfully (hereinafter referred to as 'versatile products') as indirect infringement. Why the provisions require Subjective Requirement [ii] as a requirement for the establishment of indirect infringement is construed to be a consideration not to unnecessarily extend the scope where indirect infringement is established since whether the subject products (components, etc.) are used lawfully or with an aim or in a manner to infringe the patent right is left to the decision of individual users and it is hard for persons who intend to produce, transfer, etc. the article to be responsible for duty of care to that extent and it may undermine trade stability significantly.

In light of these purports, there are the general possibilities that said components, etc. are used with the aim or in the manner to infringe the patent right. If it is construed that Subjective Requirement [ii] is fulfilled when a person who produced, transferred, etc. components, etc. only recognized or admitted that there are said general possibilities, it results in discounting the purport to give a consideration to the trade stability of versatile products by Subjective Requirement [ii] and it is not reasonable. Therefore, in order to say that Subjective Requirement [ii] is fulfilled, it should be construed that there must actually be a situation where it is highly possible, more than a general possibility, to cause patent infringement due to the transfer, etc. of the components, etc., and a person who produced, transferred, etc. said components, etc. recognizes and admits said fact.

On the other hand, concerning Subjective Requirement [ii], if it is construed that a person who produces, transfers, etc. components, etc., is required to have a recognition that said components, etc. are actually used for the working of a patented invention at the individual transferee, etc. on each occasion of producing, transferring, etc. said components, etc., it results in the patent right not being in force even in cases where said person recognizes and admits that it is highly possible to cause a patent infringement by the transfer, etc. of said components, etc., unless said person does not actually recognize the intended use by individual transferee, etc. This is construed not to meet the original purport of Article 101, item (ii) of the Patent Act to affect the patent right on preliminary acts for which it is highly possible to result in a direct infringement.

In consideration of the above, in order to find the fulfillment of Subjective

Requirement [ii], it is reasonable to construe, in light of the nature of the components, etc., their objective use conditions, provision method thereof, etc., that there must be an actual situation where it is highly possible for persons in the non-exceptional scope from among persons, who purchase, etc. said components, etc., to use said products for patent infringement and that a person who produces or transfers, etc. the components, etc. must recognize and admit that fact, and the fulfillment of these requirements is considered to be sufficient. In light of the wording of the Patent Act, "knowing that the article is used for the working of the invention," it is not unreasonable to construe in this way.

c. When applying said understanding to this case, as stated in D. above, it is found that there is actually a situation where it is highly possible that persons in the non-exceptional scope from among users who purchase, etc. Defendant's Indicator A and Defendant's Product 3 produce products directly infringing Patent Right 1. Based on the fact explained in D. above, there is no way that the First-instance Defendant who produces, transfers, etc. Defendant's Indicator A and Defendant's Product 3 did not know that fact. Therefore, it is found that the First-instance Defendant produced, transferred, etc. Defendant's Indicator A and Defendant's Product 3 while recognizing and admitting the aforementioned situation.

3. Application of Article 102, paragraph (1) of the Patent Act to indirect infringement

In this judgment, the court determined that Article 102, paragraph (1) of the Patent Act also applies to indirect infringement, and then, determined that "articles consisting of the infringing act" as defined in said paragraph are the portion equivalent to the infringer's indirectly infringing products from among finished products sold by the patentee, etc. However, the court also determined that if there are indirectly infringing products that were not used for the production of directly infringing products, they fall under "circumstances that render the patentee or the exclusive licensee unable to sell" as defined in item (i) of said paragraph and the amount obtained by multiplying the quantity after deducting the quantity equivalent to said circumstances by the "amount of profit per unit" is the amount of damages defined by said item.

"(B) Quantity transferred

The First-instance Defendant alleged that 'articles that constitute the act of infringement' are directly infringing products and not all of persons who purchased Defendant's Indicator A and Defendant's Product 3 produce products working Invention 1 (directly infringing products) ... .

However, an act of indirect infringement is 'deemed to constitute infringement' of a patent right (Article 101 of the Patent Act) and the amount of damages from patent

infringement is stipulated for 'articles that constitute the act of infringement' (Article 102, paragraph (1) of said Act). As stated in A. (B) above, it is construed that as long as Article 102 of said Act also applies to indirect infringement, 'articles that constitute the act of infringement' should be construed to refer to indirectly infringing products.

However, components, etc. that are indirectly infringing products as stipulated in Article 101, item (ii) of the Patent Act may be used with an aim or in a manner not to infringe a patent right. In addition, in cases where it is found to have high possibility to cause patent infringement by the transfer, etc. of said components, etc., said transfer of components, etc. constitutes indirect infringement regardless of the use mode by a transferee; however, in cases where the components, etc. are not used with an aim or in a manner to infringe a patent right by a transferee, eventually said patent right does not contribute to the sale of indirectly infringing products. Then, concerning said transferee, it cannot be said that the patentee's products could have been sold if no indirect infringement had taken place, and damages to profits that the patentee, etc. could have received from the transfer of articles of the patented invention do not occur. Therefore, the amount of profits obtained from the transfer of said articles cannot be estimated as the amount of damages to the patentee, etc. In addition, it is reasonable to construe that such case falls under 'circumstances that render the patentee or the exclusive licensee unable to sell' as defined in Article 102, paragraph (1), item (i) of said Act. The allegation of the First-instance Defendant is construed to include the intention that if the allegation to use the quantity used for the production of directly infringing products alone as the basis for the calculation of damages is not accepted, the same circumstances are alleged as 'circumstances that render the patentee or the exclusive licensee unable to sell,' and it is accepted to that extent.

Therefore, when calculating the amount of damages to the patentee, etc., it is reasonable to construe that said quantity sold is deducted from the 'quantity transferred' as defined in Article 102, paragraph (1) of the Patent Act."

4. Application of Article 102, paragraph (2) of the Patent Act to indirect infringement

In this judgment, the court determined that Article 102, paragraph (2) of the Patent Act applies to indirect infringement and then determined that if there are indirectly infringing products that were not used for the production of directly infringing products, they can be deemed to be grounds for rebuttal of presumption (since the amount calculated based on paragraph (1) of said Article is higher, the higher amount is determined to be the amount of damages.).

"C. Grounds for rebuttal of presumption

(A) Article 102, paragraph (2) of the Patent Act is a provision for presumption.

Therefore, if the infringer alleged and verified that the corresponding causal relationship with the damages to the patentee is missing for all or part of the profits that the infringer received, the aforementioned presumption is rebutted to that extent.

If indirectly infringing products defined in Article 101, item (ii) of the Patent Act were not actually used for the production of directly infringing products, as a result, they are not in the relationship where the articles of the patented invention could have been transferred if the infringement had not taken place, and damages on profits that the patentee could have received from the transfer of articles of patented inventions do not occur. Accordingly, it is impossible to presume that the amount of profits received from the transfer of said articles is the amount of damages to the patentee. It is reasonable to construe that such case falls under circumstances to rebut the presumption defined in Article 102, paragraph (2) of said Act.

Judgment rendered on August 8, 2022
2019 (Ne) 10007, Case of appeal for injunction against patent infringement, etc.
(Court of prior instance: Osaka District Court, 2015 (Wa) 8974)
Date of conclusion of oral argument: June 8, 2022

Judgment

Appellant and Appellee: Jtect Corporation
(hereinafter referred to the "First-instance Plaintiff")

Appellee and Appellant: Mitsubishi Electric Corporation
(hereinafter referred to the "First-instance Defendant")

Main text

1. Based on the appeal by the First-instance Plaintiff, Paragraph 4. and Paragraph 5. in the main text of the judgment in prior instance shall be altered as shown below.
(1) The First-instance Defendant shall pay to the First-instance Plaintiff 55,629,205 yen and the amount accrued on the portion of 12,302,476 yen at the rate of 5% per annum for the period from September 26, 2015 until the completion of payment, and the amounts accrued on the portion of the amounts indicated in each column for "Amount of monthly damage" in "Sales period" sections 5 through 14 as indicated in Attachment 10 "List of Amount of Monthly Damage" at the rate of 5% per annum for the periods from dates indicated in each column for "Start date of delay damages" corresponding to said sections until the completion of each payment.
(2) The remaining claims of the First-instance Plaintiff shall be dismissed.
2. The appeal by the First-instance Defendant shall be dismissed.
3. Court costs in the first and second instances shall be divided into ten and the First-instance Defendant shall bear one-tenth of the costs and the First-instance Plaintiff shall bear the remaining costs.
4. This judgment may be enforced provisionally only for Paragraph 1. (1).
5. Paragraph 1. through Paragraph 3. of the main text of the judgment in prior instance are lapsed by withdrawal of the First-instance Plaintiff's appeal.

Facts and reasons

No. 1 Object of the appeal
1. The First-instance Plaintiff

(1) The part of the judgment in prior instance which is against the First-instance Plaintiff shall be rescinded.
(2) The First-instance Defendant shall pay to the First-instance Plaintiff 550 million yen and the amount accrued thereon at the rate of 5% per annum for the period from September 26, 2015, until the completion of the payment.
2. The First-instance Defendant
(1) The part of the judgment in prior instance which is against the First-instance Defendant shall be rescinded.
(2) The claim of the First-instance Plaintiff shall be dismissed.
No. 2 Outline of the case
(Unless particularly noted, the same abbreviations used in the judgment in prior instance shall be used herein.)
1. Outline of the case
(1) In this case, the First-instance Plaintiff, who has [i] a patent right (hereinafter referred to as "Patent Right 1") for an invention (hereinafter referred to as "Invention 1") related to Claim 1 of the patent (hereinafter referred to as the "First Patent") for an invention titled "Device for displaying a ladder circuit when an abnormality occurs with a programmable controller"; [ii] a patent right (hereinafter referred to as "Patent Right 2-1") for an invention (hereinafter referred to as "Invention 2-1") related to Claim 1 of the patent (hereinafter referred to as the "Second Patent") for an invention titled "Control panel for PLC and method for displaying abnormality with the control panel"; [iii] a patent right (hereinafter referred to as "Patent Right 2-3") for an invention (hereinafter referred to as "Invention 2-3") related to Claim 3 of the Second Patent; [iv] a patent right (hereinafter referred to as "Patent Right 3") for an invention (hereinafter referred to as "Invention 3") related to Claim 1 of the patent (hereinafter referred to as the "Third Patent") for an invention titled "Operation control console panel"; and [v] a patent right (hereinafter referred to as "Patent Right 4") for an invention (hereinafter referred to as "Invention 4") related to Claim 1 of the patent (hereinafter referred to as the "Fourth Patent") for an invention titled "Screen definition device of operation panel," alleged against the First-instance Defendant that production, transfer, etc. of [i] Display Devices 1 through 3 and 5 through 7 indicated in the Attachment to the judgment in prior instance "List of the Defendant's Products" (hereinafter referred to as "Defendant's Product 1-1 through 1-3, Defendant's Products 2-1 through 2-3"; hereinafter collectively referred to as the "Defendant's Indicator"); [ii] License Keys 4 and 8 indicated in said list of software to have a personal computer function as a display operation device (hereinafter referred to as "Defendant's Products 1-4 and 2-4"); [iii]

Software 9 and 10 indicated in said list for the creation of OS and project data for the Defendant's Indicator (hereinafter referred to as "Defendant's Products 3-1 and 3-2"; hereinafter collectively referred to as "Defendant's Product 3"); and [iv] Support Tool 11 indicated in said list to support the creation of project data for the Defendant's Indicator (hereinafter referred to as "Defendant's Product 4"), fall under direct infringement or indirect infringement of Patent Rights 1 through 4, and demanded an injunction against production, transfer, lease, etc. of Defendant's Products based on Article 100, paragraph (1) and paragraph (2) of the Patent Act, as well as that the First-instance Defendant pay a deposit of 550 million yen as compensation for damages based on the tort of patent infringement and delay damages accrued thereon at the rate of 5% per annum as specified by the Civil Code before amendment by Act No. 44 of 2017 for the period from September 26, 2015, which is the day following the delivery day of the Complaint, until the completion of the payment.

(2) The judgment in prior instance found that Defendant's Product 1-1, Defendant's Product 1-2, Defendant's Product 2-1, and Defendant's Product 2-2 (hereinafter collectively referred to as "Defendant's Indicator A") on which Defendant's Product 3 is installed belong to the technical scope of Invention 1 and that production, transfer, etc. of Defendant's Product 3 fall under indirect infringement as defined in Article 101, item (ii) of the Patent Act of Patent Right 1. Then, the court of prior instance ordered against the First-instance Defendant an injunction against the production and transfer of Defendant's Product 3, an injunction against the licensing of programs related to Defendant's Product 3, and disposal of Defendant's Product 3, and also ordered the payment of 47,028,368 yen as compensation for damages and delay damages accrued thereon, while dismissing all of the remaining claims of the First-instance Plaintiff.

(3) Dissatisfied with the judgment in prior instance, both the First-instance Plaintiff and the First-instance Defendant filed Appeals respectively to seek rescission of all of the parts of the judgment in prior instance that were against each party.

While this case was pending, the First-instance Plaintiff withdrew claims to seek injunction and disposal related to Patent Rights 1 through 4.

2. Basic facts

The basic facts are as stated in No. 2, 2. ("Basic facts") in the "Facts and reasons" section of the judgment in prior instance, except for the corrections as stated below, and therefore, they are cited.

(1) After the phrase "請求のとおり訂正することを認めるとの審決がされ[it was decided to approve the correction as requested]" from line 1 to line 2, page 5, the phrase "（以下、この審決による訂正を「前件訂正」という。）[(hereinafter the correction

by this trial decision is referred to as the "Prior-instance Correction")]" is added and the following is added, starting as a new line after the end of line 2 on said page.

"Description 1 [0012] is altered as follows by the Prior-instance Correction (underlined part is the altered part; Exhibit Ko 19-2).

[0012]

[Means to solve the problem and action]

The display device related to the invention is used in a programmable controller, which controls controlled objects, such as machines, devices, equipment, etc., and includes a program for monitoring an occurrence of abnormal phenomena in controlled objects, a means for displaying the type of abnormality corresponding to the abnormal phenomena identified by the program, a means for specifying one type of abnormality among one or more types of abnormality by touching a touch panel, and a means for displaying a ladder circuit that monitored the occurrence of abnormal phenomena corresponding to the specified type of abnormality when the type of abnormality is specified."

(2) The term "本件発明 1 [Invention 1]" in line 6, page 6 is altered to "訂正前発明 1 [Invention 1 before Correction]" and the phrase "これに係る特許[the patent related thereto]" is altered to "これ（後記本件訂正後は本件発明 1）に係る特許[the patent related thereto (after the Correction as stated below, Invention 1)]" respectively; and the following is added, starting as a new line after the end of line 26, page 12.

"(6) The Correction

A. The First-instance Defendant filed a request for a trial for patent invalidation (Invalidation Trial No. 2018-800131) related to the patent for Invention 1 on November 22, 2018 (Exhibit Ko 62).

B. The First-instance Plaintiff received the announcement of a trial decision that the patent for Invention 1 before Correction would be invalidated on July 9, 2019 and filed a request for correction on September 17, 2019 (hereinafter the correction related to said request for correction is referred to as the "Correction"; Exhibits Ko 56 and 57 and Exhibit Otsu 32).

C. The Japan Patent Office (hereinafter referred to as the "JPO") approved the Correction on March 30, 2020, made a decision that the First-instance Defendant's request for a trial for patent invalidation was groundless (hereinafter referred to as the 'JPO Decision'), and delivered a certified copy of the decision to the First-instance Defendant on April 13, 2020 (Exhibit Ko 62 and Exhibit Otsu 71).

D. The First-instance Defendant filed an action on April 27, 2020 seeking rescission of the JPO Decision (Intellectual Property High Court, 2020 (Gyo-Ke) 10059; hereinafter

referred to as the 'unrelated case') (Exhibit Otsu 71).

E. On May 31, 2021, the Intellectual Property High Court determined to dismiss the First-instance Defendant's request in the unrelated case and the First-instance Defendant filed a petition for acceptance of final appeal against the judgment (Supreme Court, 2021 (Gyo-Hi) 237); however, the Supreme Court determined to reject the final appeal on October 12, 2021 and the JPO Decision became final and binding (Exhibit Ko 70 and Exhibit Otsu 71).

(7) Division of constituent features of Invention 1

The constituent features of the invention of Claim 1 of the First Patent after the Correction (hereinafter referred to as 'Invention 1') are divided as follows (the underlined parts are corrections by the Correction).

1A. and 1G. a display device which is used in a programmable controller, which controls controlled objects, such as machines, devices, equipment, etc. and is characterized by including

1B'. a program that monitors an occurrence of abnormal phenomena in said controlled objects and recognizes changes in address data corresponding to said programmable controller in response to the occurrence of said abnormal phenomena;

1C. a means for displaying the type of abnormality corresponding to the abnormal phenomena monitored when an occurrence of the abnormal phenomena is identified by the program;

1D. a touch panel for specifying the name of the abnormal phenomena related to one type of abnormality among one or more types of displayed abnormality by touch;

1E. a means for displaying a ladder circuit that monitored the occurrence of abnormal phenomena corresponding to the specified type of abnormality when the type of abnormality is specified by said touch;

1F. wherein the means for displaying said ladder circuit includes said touch panel for specifying either the input or output element of the displayed ladder circuit by touch and a means for searching and displaying the ladder circuit that outputs an input element when the input element of the displayed ladder circuit is specified by said touch, and for searching and displaying the ladder circuit that inputs an output element when the output element of the displayed ladder circuit is specified by said touch.

Description 1 [0012] is altered as follows by the Correction (underlined part is the altered part; Exhibit Ko 57).

[0012]

[Means to solve the problem and action]

The display device related to the invention is used in a programmable controller,

which controls controlled objects, such as machines, devices, equipment, etc., and includes a program that monitors an occurrence of abnormal phenomena in controlled objects and recognizes changes in address data corresponding to said programmable controller in response to the occurrence of said abnormal phenomena, a means for displaying the type of abnormality corresponding to the abnormal phenomena identified by the program, a means for specifying one type of abnormality among one or more types of displayed abnormality by touching a touch panel, and a means for displaying a ladder circuit that monitored the occurrence of abnormal phenomena corresponding to the specified type of abnormality when the type of abnormality is specified."

3. Issues

The issues are as stated in No. 2, 3. ("Issues") in the "Facts and reasons" section of the judgment in prior instance, except for the corrections as stated below, and therefore, they are cited.

(1) The section from the beginning to the end of line 23, page 13 is altered as follows.

"A. (A) Grounds for invalidation of Patent 1: Prior art effect for which Exhibit Otsu 28 serves as the prior art (Issue 5-1A)

(B) Grounds for invalidation of Patent 1: Breach of requirements for correction (Issue 5-1B)"

(2) The phrase "本件特許１及び２－１ [Patent 1 and Patent 2-1]" in line 25, page 13 is altered to "本件特許２－１ [Patent 2-1]" and the following is added, starting as a new line after the end of line 7, page 14.

"I. Grounds for invalidation of Patent 4: Lack of an inventive step for which Exhibit Otsu 6 serves as the primary prior art (Issue 5-9)"

(3) The section from the beginning of line 9 to the end of line 10, page 14 is altered as follows.

"(7) Whether there are grounds to hinder the exercise of the rights related to Patent Right 1 and whether there is a breach of the principle of good faith in a lawsuit (Issue 7)"

(omitted)

No. 3 Judgment of this court

1. Issue 1-1 (Whether the manufacturing, selling, etc. of Defendant's Indicator A and Defendant's Product 3 fall under a direct infringement of Patent Right 1)

(1) Invention 1

The technical meaning of Invention 1 is as stated in the section from the beginning

of line 16, page 81 to the end of line 23, page 82 of the judgment in prior instance, and therefore, it is cited. However, the term "[0001]" in line 19, page 81 is altered to "[0002]".

(2) Defendant's Indicator A and Defendant's Product 3

The outline of the Defendant's Product is as stated in the section from line 23, page 95 to the end of line 4, page 104 of the judgment in prior instance, and therefore, it is cited, except for the following amendments.

A. After the phrase "１５、１７、[15, 17,]" in line 23, page 95, the phrase "４６、５２、６３、７４、７５、[46, 52, 63, 74, 75,]" is added, and after the term "18" in said line, the phrase "、４３ないし４６、４９、５０、５７、６５ないし６７、７９ないし８１[, 43 through 46, 49, 50, 57, 65 through 67, 79 through 81]" is added respectively.

B. The following is added, starting as a new line after the end of line 7, page 103 and the term "イ(イ)[B. (B)]" in line 25 on said page is altered to "ウ[C.]".

"The circuit monitoring function has the following three search methods: 'coil search,' 'contact search,' and 'factor search.' 'Coil search' is a function to search and display a circuit block that uses the specified device as a coil (output element) and 'contact search' is a function to search and display a circuit block that uses the specified device as a contact (input element). On the other hand, 'factor search' is a function to search the continuity or non-continuity status of a contact that causes the specified device to be ON or OFF by tracking back a circuit."

C. The following is added, starting as a new line after the end of line 4, page 104.

"(D) Installing a one-touch circuit jump function

a. One-touch circuit jump function

The one-touch circuit jump function is a function to activate a circuit monitoring function while the device that the user configured with the project data is specified. It has two options of conditions to display an abnormal phenomenon: whether a circuit block is displayed after searching a circuit block that uses a device with a device number specified by a user as a coil ('coil search') or whether all circuit blocks that are included in a search route are displayed after searching by tracking back the causes of an alarm ('factor search'). Users specify either of the options with the project data. If a circuit monitoring function is activated by the one-touch circuit jump function, it is not different from the case of executing a circuit monitoring function by another method, except that it displays a circuit after performing a specified search that is configured immediately after the activation. Whichever search method is configured, once the circuit monitoring function is activated, all functions, including 'coil search,' 'contact

search,' and 'factor search,' can be used in the same way as activating the circuit monitoring function by another method.

Usually, there is no meaning in performing a contact search by specifying the device that is turned on by a program for monitoring abnormal phenomena. For example, however, if a device that is the cause of an abnormal phenomenon is specified and the contact search is performed after the factor search, multiple abnormal phenomena that may occur in association with the same cause may be identified.

b. Installation method

In the configuration of an extended function switch or extended user alarm display by the project data for Defendant's Products 1-1 and 1-2, and in the configuration of an extended function switch or alarm display for Defendant's Products 2-1 and 2-2, check 'Use one-touch circuit jump function.' and select either circuit search mode, 'coil search' or 'factor search' as the search method."

(3) Examination of whether constituent features are fulfilled

This court also finds that Defendant's Indicator A on which the OS of Defendant's Product 3 is installed fulfills all the constituent features of Invention 1. The reasons for this finding are as stated in the section from the beginning of line 6, page 104 to the end of line 14, page 108 of the judgment in prior instance, and therefore, they are cited, except for the following amendments.

A. All the terms "構成要件１Ｂ[Constituent Feature 1B]" in line 9 and line 25, page 104, and in line 25 and line 26, page 105 are altered to "構成要件１Ｂ′[Constituent Feature 1B']"; after the term "認められる[found]" in line 24 on said page, "（以下、これらアラーム表示を「アラーム機能等」ということがある。）[(hereinafter these alarm displays are referred to as 'alarm function, etc.' in some cases)]" is added; the following is added, starting as a new line after the end of line 24 on said page; the term "回路モニタ機能等[circuit monitoring function, etc.]" in line 25 on said page is altered to "回路モニタ機能及びワンタッチ回路ジャンプ機能（以下「回路モニタ機能等」という。）[circuit monitoring function and one-touch circuit jump function (hereinafter collectively referred to as "circuit monitoring function, etc.")]".

"In addition, the First-instance Defendant alleged, as stated in the section of No. 3, 1. (The Defendant's allegation), (1) A. above (the section added in No. 2, 4. (3) in this judgment), that Defendant's Indicator A on which the OS of Defendant's Product 3 is installed does not include 'a program for monitoring the occurrence of abnormal phenomena' (monitoring program) as specified by Constituent Feature 1B'. As explained above, however, Control Panel 10 (display device) has a program that identifies the type of abnormal phenomena that occurred in controlled objects of

Programmable Controller Main Body 20 by identifying changes in RAM 23 data of Programmable Controller Main Body 20. This is different from a 'ladder program for monitoring abnormality' included in Programmable Controller Main Body 20 ([0027] through [0029]). In addition, a program included in Control Panel 10 (display device) indirectly monitors the occurrence of abnormal phenomena through changes in RAM 23 data of Programmable Controller Main Body 20 and, therefore, it is determined to be 'a program for monitoring the occurrence of abnormal phenomena.' The programs specified by Constituent Features 1B and 1B' are originally nothing less than 'a program that identifies changes' as alleged by the First-instance Defendant. Furthermore, the First-instance Defendant also recognizes that Defendant's Indicator A on which the OS of Defendant's Product 3 is installed has said program. Therefore, even if 'a monitoring program' alleged by the Fist-instance Defendant is included in the programmable controller, it does not have an impact on whether Constituent Feature 1B' are fulfilled. Consequently, the First-instance Defendant's allegation related to this point cannot be accepted either."

B. The term "（ワンタッチ回路ジャンプ機能）[(one-touch circuit jump function)]" in line 11 and line 12, page 106 is deleted and the section from the beginning of line 15 to the end of line 26, page 108 is altered as follows.

"F. The First-instance Defendant alleged, as stated in No. 3, 1. (The Defendant's allegation) (1) B. above, that Defendant's Indicator A on which specified project data is not installed does not fulfill Constituent Features 1C through 1F.

However, in Invention 1, the project data itself is not specified as a matter required to identify the invention. Therefore, the decision on whether Defendant's Indicator A on which the OS of Defendant's Product 3 is installed belongs to the technical scope of Invention 1 is to examine whether it is a display device where a circuit monitoring function, etc. can be used if project data with a specified configuration, such as an alarm function, etc., is installed. It is sufficient to examine whether said constituent features are fulfilled on the premise that said specified project data is installed.

Consequently, the aforementioned allegation of the First-instance Defendant cannot be accepted.

G. The First-instance Defendant alleged, as stated in No. 3, 1. (The Defendant's allegation) (1) E. above (the section added in No. 2, 4. (4) above in this judgment), that if a one-touch circuit jump function that specified 'factor search' is installed, circuit diagrams are displayed in a list, including a circuit diagram where the abnormal phenomenon occurred and also a circuit diagram that is considered to be a factor thereof. Therefore, Defendant's Indicator A for which a factor search is specified does not fulfill

'a means for displaying a ladder circuit that monitored the occurrence of abnormal phenomena corresponding to the specified type of abnormality' of Constituent Feature 1E.

However, it is enough for 'a means for displaying a ladder circuit that monitored the occurrence of abnormal phenomena corresponding to the specified type of abnormality' of Constituent Feature 1E to provide displays, including said ladder circuit diagram, and it cannot be interpreted that it must be a means to display said ladder circuit diagram only. Also, with regard to an indicator installed by specifying a factor search, there may be cases where all the history from a ladder circuit that is considered to be a factor of an abnormal phenomenon until a ladder circuit that monitored the occurrence of the abnormal phenomenon is displayed and the screen requires scrolling in order to display the ladder circuit that monitored the occurrence of the abnormal phenomenon. Therefore, Constituent Feature 1E are construed to be fulfilled.

Consequently, the aforementioned allegation of the First-instance Defendant cannot be accepted."

(4) Whether the manufacturing, selling, etc. of Defendant's Indicator A and Defendant's Product 3 fall under direct infringement of Patent Right 1

This court also finds that the manufacturing, selling, etc. of Defendant's Indicator A and Defendant's Product 3 do not fall under direct infringement of Patent Right 1. The reasons for this finding are as indicated in the section from the beginning of line 3, page 109 to the end of line 19, page 112 of the judgment in prior instance, and therefore, they are cited, except for deleting the section from the beginning of line 8 to the end of line 14, page 111 of the judgment in prior instance.

2. Issue 1-2 (Whether the manufacturing, selling, etc. of Defendant's Indicator A and Defendant's Product 3 fall under indirect infringement of Patent Right 1)

(1) Whether indirect infringement as defined in Article 101, item (i) of the Patent Act is established

This court also finds that the manufacturing, selling, etc. of Defendant's Indicator A and Defendant's Product 3 do not fall under indirect infringement as defined in Article 101, item (i) of the Patent Act concerning Patent Right 1. The reasons for this finding are as indicated in the section from the beginning of line 25, page 112 to the end of line 14, page 113 of the judgment in prior instance, and therefore, they are cited.

(2) Whether indirect infringement as defined in Article 101, item (ii) of the Patent Act is established

A. "Any article that is used in the production of the product"

According to the holding in 1. above, Defendant's Indicator A and Defendant's

Product 3 are found to fall under "any article that is used in the production of the product" of a directly infringing product (product wherein a patent is worked) of Patent Right 1. In this case, whether they fall under "any article that is essential to the solution of the problem" (hereinafter referred to as an "essential article for the solution of the problem") by Invention 1 becomes an issue.

B. "Any article that is essential to the invention's solution of the problem"

(A) Meaning of an essential article for the solution of the problem

The purport of specifying articles for which the production, transfer, etc. is deemed to be an infringement is stipulated to be "any article that is essential to the invention's solution of the problem" in Article 101, item (ii) of the Patent Act is construed as follows: since articles subject to said item can be used for the purpose of non-infringement in addition to the purpose of infringement, this provision aims to limit the articles for which the transfer, etc. is deemed to be infringement (indirectly infringing articles) to important components, tools, raw materials, etc. (hereinafter collectively referred to as "components, etc.") from the perspective of invention so that the effects of the patent right are not extended unjustly; and for this reason, said articles are stipulated to be not only "essential for working the invention," but also "essential to the invention's solution of the problem." In light of this purport, it is reasonable to construe that "any article that is essential to the invention's solution of the problem" (an essential article for the solution of the problem) is any of the components, etc. with which "problems that the invention intends to solve" are solved for the first time by using it, in other words, any of the characteristic components, etc. that directly brings a unique structure that characterizes a characteristic technical means newly disclosed by the invention as a method to solve problems of prior art.

(B) Characteristic technical means of Invention 1

a. Problems of Invention 1 and the means to solve them

A characteristic technical means to be newly disclosed as a method to solve problems of prior art in Invention 1 is examined below from the perspective of (A) above. According to 1. (1) above, the following are found: there are the following problems with a display device used in a programmable controller: [i] in order to search the ladder circuit that caused an abnormal display, the conventional method where the person in charge of maintenance refers to ladder circuit diagrams requires a lot of time; and [ii] searching multiple ladder circuit diagrams to identify the true cause of an abnormality takes a long time; Description 1 states that Invention 1 solves (A) the problem defined in [i] above by including a means for displaying a ladder circuit that monitored the occurrence of abnormal phenomena corresponding to the specified type

of abnormality when the type of abnormality is specified by touch (Constituent Features 1D and 1E); and also solves (B) the problem defined in [ii] above by including a means for displaying said ladder circuit that includes a touch panel for specifying either the input or output element of the displayed ladder circuit by touch and a means for searching and displaying the ladder circuit that outputs an input element when the input element of the displayed ladder circuit is specified by said touch, and for searching and displaying the ladder circuit that inputs an output element when the output element of the displayed ladder circuit is specified by said touch (Constituent Feature 1F).

b. Prior art

According to the statements in the documents that are found to be publications distributed before filing of an application for Patent 1, including the statements (pages 8, 14, and 25) in "Catalog for Mitsubishi Graphic Operation Terminal MELSEC-GOT 900 Series" (Exhibit Otsu 1; hereinafter referred to as "Exhibit Otsu 1 Document"); statements (page 6-16 through page 6-17) in "Mitsubishi Graphic Operation Terminal GOT MELSEC Operating Manual" (Exhibit Otsu 2; hereinafter referred to as "Exhibit Otsu 2 Document"); and statements (page 1-10 through page 1-11, page 6-4 through page 6-6, and page 6-7) in "Mitsubishi Graphic Operation Terminal GOT MELSEC Operating Manual (Extended Function / Optional Function)" (Exhibit Otsu 3; hereinafter referred to as "Exhibit Otsu 3 Document"), it is found that the following product is disclosed: a product that includes a circuit monitoring function wherein when highlighting multiple types of displayed messages using a finger and selecting a touch-key, a circuit monitoring function is activated while searching the device with which the error occurred, and a circuit block including the searched device alone is displayed, and wherein the circuit monitoring function enables a coil search to display a circuit block, including the retrieved search device, by specifying a touch-key by touch and inputting the device name or device number on the input screen, and a contact search to display a circuit block, including the retrieved search device, by specifying a touch-key by touch and inputting the device name or device number on the input screen.

In addition, according to the statements (sheet 2 and sheet 3) in "MELSEC QnA Catalog" (Exhibit Otsu 20: hereinafter referred to as "Exhibit Otsu 20 Document"), it is found that the following is disclosed: a ladder circuit editing device wherein a cursor moves to the position of a device contact or coil when the coil or contact on the ladder circuit diagram is specified by dragging a cursor over it.

Furthermore, according to the statements ([0001], [0014] through [0016], [FIG. 2], and [FIG. 3]) in "Unexamined Patent Application Publication No. 1994-195111" (Exhibit Otsu 29; hereinafter referred to as "Exhibit Otsu 29 Document"), it is found

that the following is disclosed: A monitoring device that displays a ladder circuit that outputs an input element by touching the input element of the displayed ladder circuit when an abnormal phenomenon occurs.

c. Review

In comparison with the prior art defined in b. above, Invention 1 is different from the prior art in the following points: in terms of the devices defined in Exhibit Otsu 1 Document through Exhibit Otsu 3 Document, searching the input element or output element is a touch search; in terms of the device defined in Exhibit Otsu 20 Document, a coil search or contact search is a touch search and a search is performed when an abnormal phenomenon occurs; and in terms of the device defined in Exhibit Otsu 29 Document, a touch search can be performed by inputting the output element. In consideration of these points, it is found that the structure of Invention 1 wherein "a means for displaying a ladder circuit that monitored the occurrence of abnormal phenomena corresponding to the specified type of abnormality when the type of abnormality is specified by said touch" (Constituent Feature 1E) includes "a touch panel for specifying... the input element ... of the displayed ladder circuit by touch and a means for searching and displaying the ladder circuit that outputs an input element when the input element of the displayed ladder circuit is specified by said touch" (coil search) is only prior art and it is also found that the characteristic technical means that Invention 1 newly discloses has the following structure wherein "a means for displaying a ladder circuit that monitored the occurrence of abnormal phenomena corresponding to the specified type of abnormality when the type of abnormality is specified by said touch" (Constituent Feature 1E) includes "a touch panel for specifying... the output element ... of the displayed ladder circuit by touch and a means for searching and displaying the ladder circuit that inputs an output element when the output element of the displayed ladder circuit is specified by said touch" (contact search) (hereinafter referred to as "a contact search by touch when an abnormality occurs" in some cases).

(C) Characteristic components, etc.

As described in (A) above, Article 101, item (ii) of the Patent Act is construed to limit indirectly infringing products to characteristic components, etc. that directly bring a unique structure, etc. that characterizes the characteristic part of the invention in question. The scope of "components, etc." should be determined by examining whether the article has physical or functional integrity, while also observing from the socioeconomic perspective. Even if a component is an existing component, etc., in cases where it is manufactured and sold to be used as one of the components, etc. provided for solving the invention's problem, the component should also be construed to fall

under an article that is essential to the invention's solution of the problem. It is based on the following grounds: in many cases, even characteristic components, etc. are created by the combination of well-known components, etc.; if the application of indirect infringement is immediately precluded in cases where an article that has integrity can be formally separated, the scope of the provisions of indirect infringement is extremely limited and it is significantly against the purport that the Patent Act deemed indirect infringement to be patent infringement and approved the protection of the patent right.

(D) Defendant's Product 3

Defendant's Product 3 stores the parts, such as the circuit monitoring function, etc., from among the OS of extended/optional functions. When it is installed on Defendant's Indicator A, the circuit monitoring function, etc. can be used with Defendant's Indicator A. The part of circuit monitoring function, etc. of Defendant's Product 3 and other parts are found to be physically and functionally integrated.

Then, Defendant's Product 3 is found to be a characteristic component that directly brings the characteristic technical means of Invention 1 as a whole.

Therefore, Defendant's Product 3 falls under an essential article for the solution of the problem of Invention 1.

(E) Defendant's Indicator A

The structure with a contact search by touch when an abnormality occurs, which is a characteristic technical means newly disclosed by Invention 1, can be achieved only when there are both Defendant's Indicator A and Defendant's Product 3. As the First-instance Defendant admits, the only OS that can be installed on Defendant's Indicator A in order to achieve the circuit monitoring function, etc. is Defendant's Product 3 and the only indicator on which Defendant's Product 3 can be installed to achieve said function is Defendant's Indicator A (Exhibits Ko 5 and 8). Therefore, Defendant's Indicator A can function to achieve the aforementioned structure in limited cases where the OS of Defendant's Product 3 is installed. In addition, both Defendant's Indicator A and Defendant's Product 3 are produced and sold by the First-instance Defendant. The First-instance Defendant is familiar with the aforementioned structure, intentionally selected said structure, and has provided both to customers.

Based on the above, Defendant's Indicator A and Defendant's Product 3 happen to be physically separate products, and therefore, one function is divided in multiple components. However, originally, Defendant's Indicator A is functionally indivisible from Defendant's Product 3. Even if it is deemed to be an independent product, it constitutes a characteristic component, etc. that directly brings the characteristic

technical means of Invention 1.

Therefore, Defendant's Indicator A falls under an essential article for the solution of the problem of Invention 1.

(F) The First-instance Defendant's allegation

a. The First-instance Defendant alleged that, as stated in No. 3, 2. (The Defendant's allegation), B. (the section amended in No. 2, 4. (6) above in this judgment) of the judgment in prior instance related to the citation, the contact search with a structure of Constituent Feature 1F "for searching and displaying the ladder circuit that inputs an output element when the output element is specified by said touch" does not contribute to specifying the cause of the abnormality and, when a coil search is performed too far, it cannot return to the original circuit by contact search; therefore, even if the coil search has the technical meaning alleged by the First-instance Plaintiff "to see other impacts on equipment by the identified cause of the abnormality," it does not fall under either a means for solving the problems of Invention 1 or a characteristic technical means; and therefore, it is a function only necessary for a circuit editing device, which is in a different technical field from Invention 1.

b. Examining this point, Description 1 has the following statements.

"[0010]

In a conventional programmable controller, when an abnormality occurs, an abnormality is displayed corresponding to the type of the abnormality, and therefore, an operator can find the fact that an abnormality occurred and the type of abnormal phenomenon that occurred; however, the reason for the occurrence is not displayed.

Therefore, in a conventional programmable controller, when an abnormality occurs, the person in charge of maintenance of the system needs to find the ladder circuit that turned on the abnormality indicator while referring to ladder circuit diagrams that were prepared in advance, and searches for a cause of the abnormality in accordance with the ladder circuit.

[0011]

[Problems to be solved by the invention]

In general, ladder circuit diagrams are thick with over 100 pages, and it takes a lot of time to look for a ladder circuit that caused the abnormality display.

In addition, multiple ladder circuits must be searched until the true cause of the abnormality is identified in many cases, and a long period of time is wasted until the required ladder circuit is found from the ladder circuit diagrams.

Accordingly, the present invention aims to solve the above problem by displaying the ladder circuit that caused the abnormality when an abnormal phenomenon occurs,

and thereby making it possible to promptly perform the recovery process.

[0015]

For the ladder circuit that caused the abnormality in cases where the abnormality is displayed, the input element that resulted in the abnormality is immediately specified and the recovery process is easily performed. At this point, the input element may also be an output element. Therefore, in some cases, the input element that caused the abnormality is not the true cause, but another input element that outputs said input element is the true cause of the abnormality. For example, if Input Element 1 causes an anomality display, Input Element 2 that switches the operation status of said Input Element 1 (which is also Output Element 1) may be the true cause of the abnormality in some cases. Moreover, the chain may be traced further back.

[0016]

In cases where said situation occurs, the display device can specify the input and output elements of the displayed ladder circuit using a touch panel. When the input element of the displayed ladder circuit is specified, the ladder circuit that outputs the specified input element is searched and displayed. In addition, when the output element of the displayed ladder circuit is specified, the ladder circuit that inputs the specified output element is searched and displayed. For this reason, ladder circuits can be retrieved one after another until a true cause is identified. Moreover, the operation is completed only by touching a touch panel with a hand, which is very simple.

[0040]

Further, with Control Panel 10, the ladder circuit can be switched. In this regard, the operator touches either the input element (in this case, M001)) or output element EM 600.

When the input element is touched, Step S54 in FIG. 12 becomes YES, and in Step S55, the address corresponding to the input element is stored in the variable Add. In this state, in order to perform Step S51 next, in Step S51 performed at this time, the ladder circuit that outputs input element (M001) in the previous steps is searched and displayed. FIG. 8 illustrates said operations and the ladder circuit is replaced with one that outputs input element in the previous steps.

The operator can track the ladder circuit back to upstream in order to search the true cause using this function and can accurately identify the cause while the system guides the chain of causal relationship.

[0041]

When the chain of causal relationship is tracked back too far, the operator touches the output element. Then, Steps S57 and S58 are executed this time and it becomes

possible to return to the ladder circuit that inputs output elements in the previous steps. For example, if Output Element M001 is touched in the state shown in FIG. 8, it becomes possible to return to a ladder circuit that inputs Output Element M001, in other words, to the ladder circuit shown in FIG. 7.

[0042]

In Steps S55 and S51 in FIG. 12, the ladder circuit can be pursued to the retroactive side and if the ladder circuit is tracked back by Steps S57 and S58 too far, it is possible to return to the original circuit. Therefore, this control panel is very easy to use and enables effective performance of recovery process in the event of an abnormality.

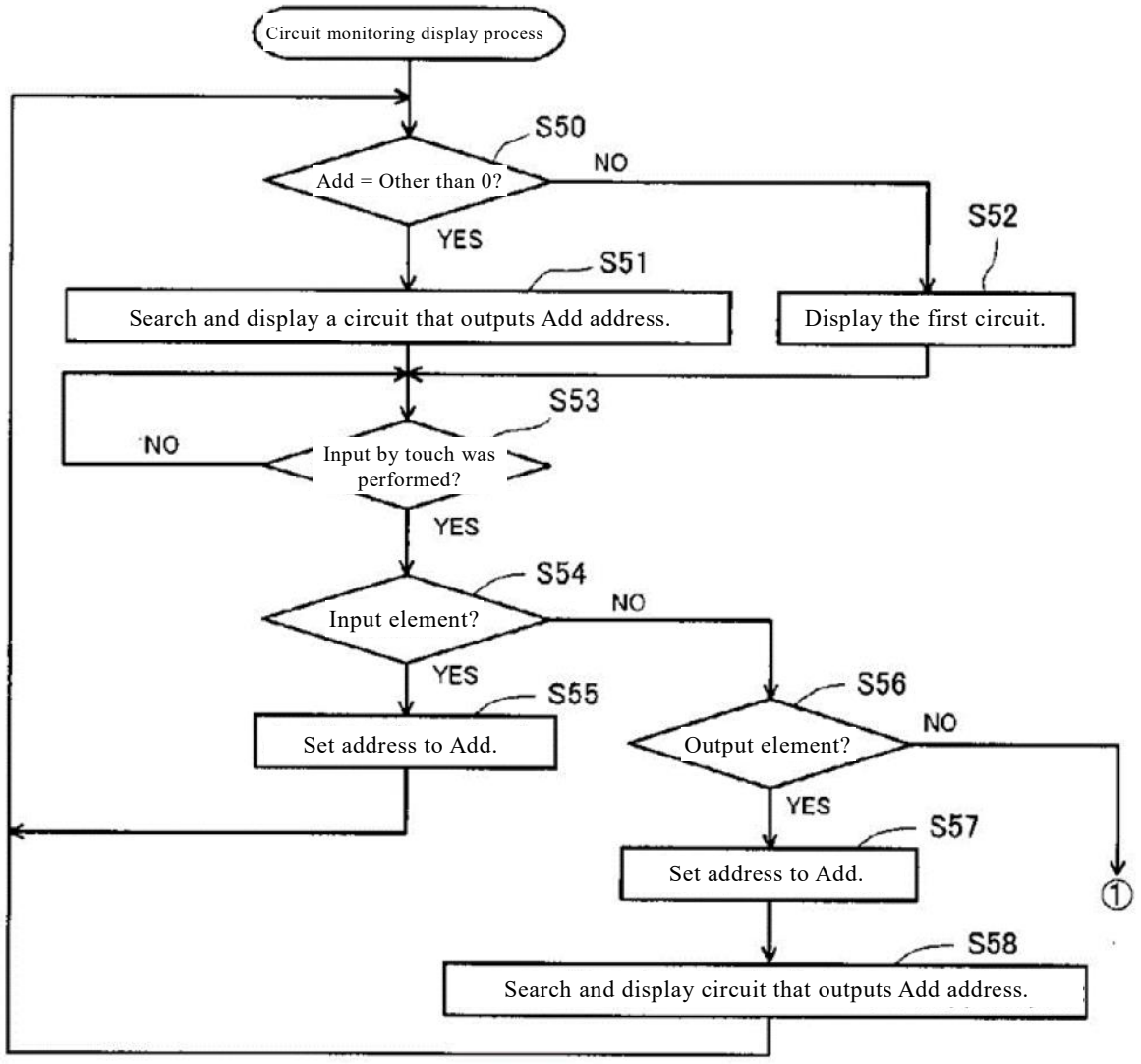
[0045]

[Effects of the Invention]

According to the device described in Claim 1, the ladder circuit that caused the abnormality is displayed when the abnormality occurred. Therefore, an operator can immediately start the recovery process and can avoid a situation of wasting time in searching the relevant ladder circuits from a thick list of ladder circuit diagrams as done in the past.

If the chain of causal relationship relates to multiple ladder circuits, it is possible for an operator to display relevant ladder circuits one after the other by touching a touch panel. It supports the search for causes very effectively in cases where the abnormal phenomenon is very complicated, and thereby effectively shortens the time for searching causes.

[Figure 12]



"

c. According to the statement in b. above, it is found that there is a statement that, as the function and effect of the contact search in Constituent Feature 1F of Invention 1, if tracking back too far during the search for a cause of an abnormality by the coil search ("a means for searching and displaying the ladder circuit that outputs an input element), it returns to the original circuit ([0041], [0042], and [FIG. 12]). A circuit that is tracked back by a coil search is also displayed. Therefore, it is obvious that it is possible to return to the original circuit if tracking back too far. This may not be said to be the optimal means to return to the original circuit, but the contact search has a function to return to the original circuit.

In addition, there is no necessity to understand that the statement in b. above only means that the function and effect of the contact search are merely to return to the

original circuit. The function and effect of Invention 1 are: "it takes a lot of time to look for a ladder circuit that caused the abnormality display. ... the present invention aims to solve the above problem by displaying the ladder circuit that caused the abnormality when an abnormal phenomenon occurs, and thereby make it possible to promptly perform the recovery process." ([0011]) and "If the chain of causal relationship relates to multiple ladder circuits, it is possible for an operator to display relevant ladder circuits one after the other by touching a touch panel. It supports the search for causes very effectively in cases where the abnormal phenomenon is very complicated, and thereby effectively shortens the time for searching causes." ([0045]). It also includes broadly an objective of recovery process to shorten the time required for recovery process when an abnormal phenomenon occurs by displaying a variety of ladder circuits. There is also the following collateral objective in the recovery process: after tracking a ladder circuit back, identifying an abnormality at a contact, and pursuing the cause of the abnormality, to check whether the impact of the abnormality with the contact affected output elements other than the coil on the tracked back route and to also confirm other impacts on equipment from the identified cause of the abnormality. These are also found to contribute to identifying the cause of the abnormality (Exhibit Ko 69) and the First-instance Defendant does not deny that the contact search has the intended use to confirm the impacts on downstream. Consequently, it is reasonable to find that the contact search in Constituent Feature 1F is a means to solve the problem of Invention 1 in the display device to shorten the recovery process when an abnormality occurs.

In addition, a characteristic technical means of Invention 1 is a contact search function by touch when an abnormality occurs, but not simply to include a contact search function by touch. Therefore, usefulness as a means to solve said problem in a different technical field from that of the conventional circuit editing device is found.

Based on the above, the allegation of the First-instance Defendant indicated in a. above cannot be accepted.

C. Whether the invention falls under a general-purpose product

In light of the functions, etc. of Defendant's Indicator A and Defendant's Product 3, it cannot be found that Defendant's Indicator A and Defendant's Product 3 fall under articles that are widely distributed within Japan.

In this regard, the First-instance Defendant alleged, as stated in No. 3, 2. (The Defendant's allegation), (3) C. (B) of the judgment in prior instance related to the citation (the section amended in No. 2, 4. (6) in this judgment), that the circuit monitoring function is an independent function from the occurrence of abnormality and

can be used under conditions where a ladder circuit is displayed without going through the alarm list function, and, therefore, this function is provided as a general-purpose function.

However, the purport of Article 101, item (ii) of the Patent Act to exclude "those widely distributed within Japan" from subjects of indirect infringement is the fact that it is not preferable to include standard products and popular products that are generally available on the market in the subject of indirect infringement from the perspective of ensuring trade stability. Since Defendant's Indicator A and Defendant's Product 3 are not found to be such standard products or popular products, even if the circuit monitoring function is a general-purpose function, Defendant's Indicator A and Defendant's Product 3 do not fall under general-purpose products.

Therefore, even in consideration of the allegation of the First-instance Defendant, the aforementioned finding is not changed.

D. Conditions under which directly infringing products are produced

(A) Regarding the point, "knowing that the article is used for the working of the invention" (Subjective Requirement [ii]), first, the conditions where Defendant's Indicator A and Defendant's Product 3 are used for the working (production) of Invention 1 are examined.

The First-instance Plaintiff alleged, as stated in No. 3, 2. (The Plaintiff's allegation), B. (C) of the judgment in prior instance related to the citation (the section amended in No. 2, 4. (5) above in this judgment), that selling of Defendant's Indicator A and Defendant's Product 3 is substantially the same as the selling of the indicator on which the OS of Defendant's Product 3 is installed or the production thereof as directly infringing products if a circuit monitoring function is installed on Defendant's Indicator A. On the other hand, the First-instance Defendant alleged, as stated in No. 3, 2. (The Defendant's allegation), (3) D. of the judgment in prior instance related to the citation (the section amended in No. 2, 4. (6) above in this judgment), that in order for Defendant's Indicator A and Defendant's Product 3 to be produced as directly infringing products, it is required to connect them with a specified type of sequencer manufactured by the First-instance Defendant; therefore, it has low probability to use Defendant's Indicator A and Defendant's Product 3 for producing directly infringing products; and using the contact search function of Invention 1 when an abnormal phenomenon occurs is meaningless or is an unrealistic function to return to the original circuit; therefore, Defendant's Indicator A and Defendant's Product 3 will not be used as a product working Invention 1.

(B) As examined in 1. (2) and (3) above, in order for Defendant's Indicator A on which

the OS of Defendant's Product 3 is installed to belong to the technical scope of Invention 1, a ladder circuit must be displayed when the name of the abnormality displayed on the touch panel is touched. For this purpose, users are found to be required not only to purchase Defendant's Indicator A and Defendant's Product 3, but also to have a sequencer manufactured by the First-instance Defendant with which a circuit monitoring function, etc. can be used in Defendant's Indicator A, and to create project data, including a circuit monitoring function, etc.

The First-instance Plaintiff alleged that the purchase, etc. of Defendant's Indicator A and Defendant's Product 3 or the installation of the circuit monitoring function on Defendant's Indicator A are immediately deemed to be production of directly infringing products. Based on the constituent features of Invention 1, however, for the production of directly infringing products, it is not necessary that users actually operate a one-touch circuit jump function, but a state where the function can be operated is necessary, and therefore, said allegation of the First-instance Plaintiff cannot be accepted.

(C) In order to use Defendant's Indicator A, it is necessary to install the OS of Defendant's Product 3. Therefore, there are no users who purchased, etc. Defendant's Indicator A but have not purchased Defendant's Product 3. In addition, Defendant's Indicator A is to be connected to a programmable controller (sequencer), which is a control device to control equipment and machines in a plant, etc. Based on its nature, it is difficult to find it to be an exceptional phenomenon that when an abnormality occurs with equipment or a machine, users who purchased, etc. Defendant's Indicator A check a ladder circuit to confirm and identify the cause and that users use the circuit monitoring function during the check.

Furthermore, as it is found in No. 4, 2 (2) of the judgment in prior instance related to the citation (1. (2) above in this judgment), the First-instance Defendant stated about the one-touch circuit jump function at the beginning of the section "Case Study 1" on page 6 of a catalog for Defendant's Products 1-1 and 1-2 and Defendant's Product 3-1 (Exhibit Ko 5) and emphasized its good points, such as "A few touches on the screen make it possible to search the causes of an abnormality!" This page follows the statements of "Contents," etc. on pages 2 and 3 the statements of "Line-up" of equipment in GOT1000 on pages 4 and 5. This is the page that refers to the product's functions for the first time and the one-touch circuit jump function is explained at its beginning (Exhibit Ko 5). The First-instance Defendant also stated the function in the section stating the linkage with the general-purpose sequencer on page 12 of said document. At the beginning of page 1 of an advertisement document titled "GOT 1000 Series Information No. 2: Computer-free Maintenance [i]" (Exhibit Ko 35; created in

June 2013), there is a statement "Only GOT can do it!!" In this document, there is also a statement, "For maintenance! For solving problems! Equipped with a one-touch circuit jump function! Very popular! [Ladder editing function]" and "Promptly solved at the worksite!" Under said statement, with the title "Broad access range and useful functions for effective maintenance!," the following statement follows: "It also corresponds to the one-touch circuit jump function and is useful for identifying the causes of malfunction." (Exhibit Ko 35) In addition, the First-instance Defendant alleged that the one-touch circuit jump function can also be used with Defendant's Products 2-1 and 2-2 and Defendant's Product 3-2 (Exhibit Ko 8).

Considering these circumstances together, it is obvious that the First-instance Defendant regarded the one-touch circuit jump function as a key advertising point for Defendant's Indicator A and Defendant's Product 3. As stated in (2) above, since Defendant's Indicator A is a high-specification or middle-specification model among the Defendant's indicators and its price is high, it is natural for users to intend to use the functions fully. Then, persons who purchased Defendant's Indicator A and Defendant's Product 3 reasonably act to use the circuit monitoring function, etc. As stated in 1. (2) above, when a user creates project data where the extended function switch, etc., whose operation setting is set as a circuit monitor, is installed, upon transfer of project data to Defendant's Indicator A, the circuit monitoring function unit is automatically selected as a target of the transfer from among the OS of extended/optional function of Defendant's Product 3 and then automatically transferred to Defendant's Indicator A, unless the user takes a special action to eliminate these procedures. In addition, concerning the installation of a one-touch circuit jump function, as stated in No. 4, 2. (2) of the judgment in prior instance related to the citation (the section amended in 1. (2) above in this judgment), configuration is completed by checking boxes when configuring an extended function switch, etc. of project data (Exhibits Ko 15, 37, and 52). Therefore, the possibility of installing the circuit monitoring function, etc. is quite high.

Furthermore, the market share in Japan of sequencers manufactured by the First-instance Defendant accounts for approximately 50% (Exhibits Otsu 58 through 64). The First-instance Defendant alleged that the percentage of sales of sequencers manufactured by the First-instance Defendant with which the circuit monitoring function, etc. can be implemented by connecting to Defendant's Indicator A is as stated in 4. in Attachment 7. There are no grounds to question it, and therefore, it is found that said percentage of sales is considerably high. Based on the above, eventually, the market share in Japan of sequencers manufactured by the First-instance Defendant with which

the circuit monitoring function, etc. can be implemented by connecting to Defendant's Indicator A is also considered to be considerably high. In addition, the quantity sold of sequencers manufactured by the First-instance Defendant is higher than the quantity sold of programmable indicators manufactured by the First-instance Defendant (Exhibits Otsu 58 through 64). Based on the fact that "compatibility with PLC" accounts for 63.9%, which is the highest percentage of selection criteria of programmable indicators (page 34 of Exhibit Ko 30), it is assumed that there is a trend to prepare a programmable controller (sequencer) and programmable indicator of the same manufacturer. Consequently, a programmable controller held by a customer who purchased Defendant's Indicator A is highly likely to be a programmable controller manufactured by the First-instance Defendant and it is highly possible that it is a programmable controller with which a circuit monitoring function, etc. can be used.

As described above, it is found that a user who purchases, etc. Defendant's Indicator A always purchases, etc. Defendant's Product 3; the circuit monitoring function is a function that is originally required for a programmable indicator; the First-instance Defendant considered the one-touch circuit jump function to be a key point for advertisement; users, who purchased, etc. Defendant's Indicator A and Defendant's Product 3, are strongly motivated to use the circuit monitoring function, etc. and it is highly possible that the function is installed; and the percentage of users who are in the equipment environment where the circuit monitoring function, etc. can be used is considered to be very high. In consideration of these circumstances, it is estimated to be highly possible that persons in a non-exceptional scope from among persons who purchased, etc. Defendant's Indicator A or Defendant's Product 3, produce products directly infringing Patent Right 1 and there is no allegation or presentation of evidence to overturn this presumption.

In addition, concerning Defendant's Product 1-2 among Defendant's Indicator A, users who use the circuit monitoring function, etc. must purchase an optional function board, and therefore, the usage rate of the circuit monitoring function, etc. may be lower than the other types of Defendant's Indicator A (Exhibit Ko 5). Comparing the quantities sold of Defendant's Product 1-2 stated in Attachment 3 and the quantities sold of optional function board, which are found to be as stated in 5. of Attachment 7, users who can use the circuit monitoring function, etc. from among users who purchased, etc. Defendant's Product 1-2 account for at a maximum of approximately 25% (not all users who purchased the optional function board use the circuit monitoring function, etc.). This percentage does not preclude estimating that it is highly possible that persons in the non-exceptional scope from among persons who purchased, etc. Defendant's

Product 1-2, produce products that directly infringe Patent Right 1.
(D) The First-instance Defendant alleged that using the contact search function of Invention 1 when an abnormal phenomenon occurs is meaningless or it is an unrealistic function. However, the contact search function of Invention 1 is not a meaningless or unrealistic function as stated in B. (F) above.
E. Subjective requirements

This court also finds that the First-instance Defendant has produced, transferred, etc. infringing products "knowing that" Invention 1 "is a patented invention" (Subjective Requirement [i]) and "knowing that" Defendant's Indicator A and Defendant's Product 3 that are used for the production of products directly infringing Patent Right 1 "is used to work the invention" of Invention 1 (Subjective Requirement [ii]) on April 2, 2013 and thereafter.

The reasons for this finding are as stated in the section from the beginning of line 19, page 116 to the end of line 4, page 125 of the judgment in prior instance, and therefore, they are cited, except for the following amendments.
(A) The term "被告製品３[Defendant's Product 3]" in line 26, page 117 is altered to "被告製品３のＯＳをインストールした被告表示器Ａ[Defendant's Indicator A on which the OS of Defendant's Product 3 is installed]".
(B) The section from the beginning of line 22, page 120 to the end of line 24, page 125 is altered as follows.
"(C) Subjective Requirement [ii]
a. The First-instance Defendant alleged that Defendant's Indicator A and Defendant's Product 3 have practical use in which Invention 1 is not worked; and that the First-instance Defendant only sells Defendant's Indicator A and Defendant's Product 3 to distributors in principle, and therefore, does not know that Defendant's Indicator A and Defendant's Product 3 are used by users to work Invention 1.
b. First, an examination is conducted below as to in what situation Subjective Requirement [ii] is considered to be fulfilled, in other words, in what situation it can be said that articles that can also be used lawfully are produced, transferred, etc. while 'knowing that they are used for the working of an invention.'

The indirect infringement defined in Article 101, item (ii) of the Patent Act positioned the production, transfer, etc. of articles that can also be used lawfully (hereinafter referred to as 'versatile products') as indirect infringement. Why the provisions require Subjective Requirement [ii] as a requirement for the establishment of indirect infringement is construed to be a consideration not to unnecessarily extend the scope where indirect infringement is established since whether the subject products

(components, etc.) are used lawfully or with an aim or in a manner to infringe the patent right is left to the decision of individual users and it is hard for persons who intend to produce, transfer, etc. the article to be responsible for duty of care to that extent and it may undermine trade stability significantly.

In light of these purports, there are the general possibilities that said components, etc. are used with the aim or in the manner to infringe the patent right. If it is construed that Subjective Requirement [ii] is fulfilled when a person who produced, transferred, etc. components, etc. only recognized or admitted that there are said general possibilities, it results in discounting the purport to give a consideration to the trade stability of versatile products by Subjective Requirement [ii] and it is not reasonable. Therefore, in order to say that Subjective Requirement [ii] is fulfilled, it should be construed that there must actually be a situation where it is highly possible, more than a general possibility, to cause patent infringement due to the transfer, etc. of the components, etc., and a person who produced, transferred, etc. said components, etc. recognizes and admits said fact.

On the other hand, concerning Subjective Requirement [ii], if it is construed that a person who produces, transfers, etc. components, etc., is required to have a recognition that said components, etc. are actually used for the working of a patented invention at the individual transferee, etc. on each occasion of producing, transferring, etc. said components, etc., it results in the patent right not being in force even in cases where said person recognizes and admits that it is highly possible to cause a patent infringement by the transfer, etc. of said components, etc., unless said person does not actually recognize the intended use by individual transferee, etc. This is construed not to meet the original purport of Article 101, item (ii) of the Patent Act to affect the patent right on preliminary acts for which it is highly possible to result in a direct infringement.

In consideration of the above, in order to find the fulfillment of Subjective Requirement [ii], it is reasonable to construe, in light of the nature of the components, etc., their objective use conditions, provision method thereof, etc., that there must be an actual situation where it is highly possible for persons in the non-exceptional scope from among persons, who purchase, etc. said components, etc., to use said products for patent infringement and that a person who produces or transfers, etc. the components, etc. must recognize and admit that fact, and the fulfillment of these requirements is considered to be sufficient. In light of the wording of the Patent Act, 'knowing that the article is used for the working of the invention,' it is not unreasonable to construe in this way.

c. When applying said understanding to this case, as stated in D. above, it is found that

there is actually a situation where it is highly possible that persons in the non-exceptional scope from among users who purchase, etc. Defendant's Indicator A and Defendant's Product 3 produce products directly infringing Patent Right 1. Based on the fact explained in D. above, there is no way that the First-instance Defendant who produces, transfers, etc. Defendant's Indicator A and Defendant's Product 3 did not know that fact. Therefore, it is found that the First-instance Defendant produced, transferred, etc. Defendant's Indicator A and Defendant's Product 3 while recognizing and admitting the aforementioned situation.

d. The First-instance Defendant's allegation

The First-instance Defendant indicated, as stated in No. 3, 2. (The Defendant's allegation) (3) C. of the judgment in prior instance related to the citation (the section amended in No. 2, 4. (6) above in this judgment), that as a basis for denying malicious intentions, the First-instance Defendant was selling Defendant's Product 3 through distributors. Even if it is true, this fact only allows to presume that the First-instance Defendant did not specifically know the actual usage of individual users; and said fact does not have an impact on the aforementioned finding that upon producing, transferring, etc. Defendant's Indicator A and Defendant's Product 3 that are found to be indirectly infringing products, the First-instance Defendant recognized and admitted a high possibility that persons in the non-exceptional scope from among users who purchase, etc. Defendant's Indicator A and Defendant's Product 3 would use said products for patent infringement.

However, the First-instance Defendant alleged, as stated in No. 3, 2 (The Defendant's allegation) (3) B. of the judgment in prior instance related to the citation (the section amended in No. 2, 4. (6) above in this judgment), that the invention before the correction related to Invention 1 before Correction in this case is prior art itself and, in this regard, it is impossible that any article falls under an essential article for the solution of the problem and, therefore, there is no room for indirect infringement to be established. This allegation is construed that, in order to find the fulfillment of Subjective Requirement [ii], it is necessary to have a recognition that said products are 'essential to the invention's solution of the problem.' However, as described above, since the purport of Article 101, item (ii) of the Patent Act to require Subjective Requirement [ii] is to facilitate the trade stability of persons who intend to produce, transfer, etc. subject articles (components, etc.) because said articles are also used lawfully, it is reasonable to construe that it is enough that malicious intentions in the aforementioned meaning are found in relation to the use of said products for the purpose of infringement, and it is not required that the relevant person has a recognition that said products are

'essential to the invention's solution of the problem.' Consequently, the aforementioned allegation of the First-instance Defendant cannot be accepted.

e. Based on the above, it is found that the First-instance Defendant produced, transferred, etc. Defendant's Indicator A and Defendant's Product 3 and licensed a computer program related to Defendant's Product 3 (in cases of a program, it is construed that licensing falls under leasing) while knowing that they are used for the working of Invention 1."

F. Summary

Consequently, indirect infringement as defined in Article 101, item (ii) of the Patent Act is established concerning the production, transfer, etc. of Defendant's Indicator A and Defendant's Product 3 by the First-instance Defendant on April 2, 2013 and thereafter.

3. Issue 2-1 (Whether manufacturing, selling, etc. of the Defendant's Indicator and Defendant's Product 3 fall under direct infringement of Patent Right 2-1), Issue 2-2 (Whether manufacturing, selling, etc. of Defendant's Products 1 and 2 and Defendant's Product 3 fall under indirect infringement of Patent Right 2-1), Issue 2-3 (Whether manufacturing, selling, etc. of Defendant's Indicator and Defendant's Product 3 fall under direct infringement of Patent Right 2-3), and Issue 2-4 (Whether manufacturing, selling, etc. of Defendant's Products 1 and 2 and Defendant's Product 3 fall under indirect infringement of Patent Right 2-3)

(1) Invention 2

The technical meaning of Inventions 2-1 and 2-3 is as stated in the section from the beginning of line 5, page 126 to the end of line 2, page 128 of the judgment in prior instance, and therefore, it is cited.

(2) Constituent Feature 2E

Constituent Feature 2E stipulates "to establish a program displaying the name of an abnormality for selectively displaying at least one name of various abnormalities that is generated during the execution of said sequence control in the section to display the name of the abnormality, which is part of said display board and is installed independently from the display section of said soft lamp and said soft switch," and to establish "the section to display the name of the abnormality," which is part of the "display board," independently from "the section to display said soft lamp and soft switch."

In addition, looking at Description 2, as it was found in (1) above, Inventions 2-1 and 2-3 have the structures as a means to solve the problem that it is troublesome to switch screens when making responses to an abnormal display, with the aim to display

multiple abnormalities in the order of highest priority in the limited area of the part of the display board and to display lamps for multiple abnormal items, lamps indicating the operation status of equipment and devices, and switches to give instructions to said equipment and devices at the same time on one screen. As a result, on the screen displaying the name of the abnormality, other display areas can be assigned to display other information so that multiple abnormalities can be displayed on the display board in order of highest priority when they occur at the same time. Therefore, operators can identify which abnormality is the most serious and urgent and it has the effect of preventing problems caused by leaving a critical abnormality for a long time. In the embodiment of the invention, the section consisting of four areas in First Display Area DPY1 on the upper side of the screen to display many soft lamps SL is indicated as "Section to display the name of abnormality" (FIG. 3]). Skilled operators who can take actions only by the name of the abnormality, can identify the operation conditions of the programmable controller or machine tool MT based on soft lamp SL displayed on the screen and can eliminate the cause of the abnormality by operating soft switch SS displayed on said screen ([0047]).

(3) Defendant's Indicator and Defendant's Product 3

The extended alarm pop-up display by the Defendant's Indicator on which the OS of Defendant's Product 3 is installed (concerning Defendant's Product 2, an alarm pop-up display; hereinafter collectively referred to as "alarm pop-up display, etc." in some cases) can display an alarm only when an alarm occurs without placing an alarm display object on the screen and can display an alarm regardless of the display screen even if another object is placed at the display position of the alarm. It is naturally assumed that another object may be hidden by the extended alarm pop-up display (page 11-8, page 11-9, and page 11-240 of Exhibits Ko 7).

Then, the alarm pop-up display, etc. of the Defendant's Indicator does not place an alarm display but displays in a state overlapping the soft lamp and soft switch. Therefore, it is not displayed in the "section to display the name of the abnormality," which is an independent section from the section displaying the soft lamp and soft switch.

(4) The First-instance Plaintiff's allegation

The First-instance Plaintiff alleged that the alarm pop-up display, etc. is also a fringed area and is "the section to display the name of the abnormality that is established independently." As stated in (2) above, however, the "section" to display the name of the abnormality is "independently" established in Constituent Feature 2E in order to prevent the display of the name of the abnormality from overlapping the soft lamp and

soft switch. Therefore, it is not enough that the section is established as a section for displaying the name of the abnormality. The alarm pop-up display, etc. that is in the status where the alarm display object overlaps the soft lamp and soft switch and the Constituent Feature 2E are based on totally different technical ideas.

The display position of the extended alarm pop-up can be switched to the top of the screen, center of the screen, and bottom of the screen (page 11-240 of Exhibit Ko 7) and the layout of the soft lamp and soft switch on the display screen can be optionally configured by users (see page 6 of Exhibit Otsu 33). As shown in Photographs 13 and 14 of Exhibit Ko 11, it is possible to set the display position of the soft lamp and soft switch in the position that does not overlap the bottom of the screen where an extended alarm pop-up is displayed. However, the pop-up display highlights the display by showing it in a different window overlapping the display screen, regardless of what is displayed on the display screen, while making it possible to use the part of the display screen for a display other than the pop-up display when the pop-up display is not shown on the screen. The alarm pop-up display, etc. of the Defendant's Indicator is also characterized by not requiring setting of the section itself (alarm display object). Therefore, if users bother setting the section to display the soft lamp and soft switch not to overlap the position for displaying the pop-up alarm, it is opposite to the original purpose and it is not a practical and realistic use method. Therefore, even if constituent features are formally fulfilled by such an abnormal use, it should be deemed that users made an alternation or modification exceeding its original usage, and it is difficult to say that the Defendant's Indicator that is made possible to use alarm pop-up display, etc. by said alternation or modification belongs to the technical scope of Inventions 2-1 and 2-3.

As described above, the aforementioned allegation of the First-instance Plaintiff cannot be accepted.

(5) Summary

Based on the above, the Defendant's Indicator that is made possible to use an alarm pop-up display, etc. by installing the OS of Defendant's Product 3 does not fulfill Constituent Feature 2E and does not belong to the technical scope of Inventions 2-1 and 2-3. Therefore, there is no room for the production, transfer, etc. of the Defendant's Indicator and the Defendant's Products alleged by the First-instance Plaintiff to directly or indirectly infringe Patent Rights 2-1 and 2-3.

4. Issue 3 (Whether manufacturing, selling, etc. of Defendant's Indicator A, Defendant's Product 3, and Defendant's Product 4 fall under an indirect infringement of Patent Right 3)

(1) Invention 3

The technical meaning of Invention 3 is as stated in the section from the beginning of line 26, page 145 to the end of line 6, page 147 of the judgment in prior instance, and therefore, it is cited. However, the term "[0006]," is added before "[0008]" in line 5, page 147.

(2) Defendant's Indicator A and Defendant's Products 3 and 4

The functions of Defendant's Products 3 and 4 and the method to display a screen on Defendant's Indicator A are as stated in the section from the beginning of line 6, page 152 to the end of line 10, page 155 of the judgment in prior instance.

(3) Conditions where direct infringement of Patent Right 3 is established

According to (1) above, in order to solve the problem that individual operations, such as recovery, etc. after abnormal stoppage, can be performed only by skilled operators, Invention 3 makes operation buttons on the touch panel of the operation control panel displayed in a manner enabling the visual distinguishing of three conditions: [i] when "operation conditions" are not fulfilled; [ii] when "operation conditions" are fulfilled, but "activation conditions" are not fulfilled; and [iii] when both "operation conditions" and "activation conditions" are fulfilled, and thereby makes it possible to visually identify three types of situations of operation buttons: operation buttons that cannot be operated currently, operation buttons that can be operated currently, and operation buttons to be operated next.

On the other hand, according to (2) above, Defendant's Product 3 and Defendant's Indicator A themselves have no function to guide the screen display to become an operation button display as specified in Invention 3. The screen display changes to an operations button display as specified in Invention 3 when project data created by Defendant's Product 4 is installed. Eventually, unless project data created by Defendant's Product 4 is installed along with the OS of Defendant's Product 3 on Defendant's Indicator A, direct infringement is not established.

(4) Whether indirect infringement of Patent Right 3 is established

The time when the First-instance Defendant manufactured and distributed Defendant's Product 4 is as stated in the section from the beginning of line 8, page 158 to the end of line 2, page 162 of the judgment in prior instance (however, the term "11.1" in line 1, page 161 is altered to "11.4"); and the time when the First-instance Defendant learned of patent registration for Invention 3 is as stated in the section from the beginning of line 4 to the end of line 24, page 162 of the judgment in prior instance, and therefore, they are cited.

Based on the above, it cannot be found that the First-instance Defendant knew that

Invention 3 was a registered invention when the First-instance Defendant manufactured and distributed Defendant's Product 4 (until February 2011) (the First-instance Defendant learned of the patent registration on April 2, 2013) and the First-instance Defendant has not been manufacturing and distributing Defendant's Product 4 after the First-instance Defendant learned that Invention 3 is a registered invention. Therefore, without the need to make determinations on the remaining points, in any way, there is no room that indirect infringement as defined in Article 101, item (ii) of the Patent Act of Patent Right 3 is established.

5. Issue 5-1A (Grounds for invalidation of Patent 1: Prior art effect for which Exhibit Otsu 28 serves as the prior art) and Issue 5-1B (Breach of requirements for correction)

Concerning the grounds for invalidation of Patent 1, the First-instance Defendant withdrew the allegation of a lack of an inventive step using Exhibit Otsu 1 Document through Exhibit Otsu 3 Document as the prior art in the prior instance and newly alleged as stated in No. 2, 4. (9) above. Therefore, these points are examined below.

(1) Issue 5-1A (Grounds for invalidation of Patent 1: Prior art effect for which Exhibit Otsu 28 serves as the prior art)

A. Statements in Exhibit Otsu 28 Document

Exhibit Otsu 28 Document has the following statements.

"[0023] In addition, Display Panel 14 is connected to Programmable Controller 10. On said Display Panel 14, the operation status of Controlled Object 12 by execution of a ladder program is displayed. ...

[0026] Controlled Object 12 includes a limit switch, operation switch, hydraulic valve, pressure valve, motor, operation panel, etc. Usually, there are multiple pieces of each controlled object and Programmable Controller 10 controls their operations. Consequently, display symbols indicating the operation status of these controlled objects are displayed on Display 26.

[0028] Here, an address (relay address) identifying Controlled Object 12 used in the ladder program for Controlled Object 12 is used as data identifying Controlled Object 12. Memory 24 of Display Panel 14 responds to the relay address and stores associated data to display Controlled Object 12. In other words, the display symbol of Controlled Object 12 is associated with each relay address. For example, if there is Controlled Object 12 which is a lamp, the display symbol of the on-state lamp and off-state lamp are associated with the relay address and the on- or off-state display symbol is selected based on the operation status signal.

[0030] When a contact or coil is touched while operation status is displayed on Display 26, a cursor moves over the contact or coil. This action causes a state where the contact

or coil is selected and a comment responding to the contact or coil is displayed. Then, users can touch the contact or coil that they want to know about as necessary and can learn the details. It may be set to display a relay address along with a comment to describe the details of Controlled Object 12 when the contact or coil is selected.

[0032] If an error (alarm state) occurs with any of Controlled Object 12 in said system, Programmable Controller 10 detects the error based on the operation status signal from Controlled Object 12. Then, the operation status of corresponding Controlled Object 12 (relay address) is provided to Display Panel 14 as an alarm occurrence status. Consequently, an alarm is displayed for said display symbol on Display 26.

[0033] In the system of the present embodiment, when a user touches the display symbol for an alarm on Display 26 in this status, a ladder circuit associated with the display symbol is displayed. In addition, if it is not in the alarm occurrence status, the corresponding ladder circuit is displayed by touching the display symbol.

[0040] Next, in the system of the present embodiment, when a displayed contact symbol is touched to display a ladder circuit diagram, the ladder for the contact symbol is displayed; and when the symbol for returning is touched, it is possible to return to the previous display. This ladder search process is explained based on FIG. 5.

[0041] First, when the display of the ladder circuit diagram is started, a pointer indicating the number of searches in the display of the ladder circuit diagram is initialized and set to zero (S21). Next, it is determined whether a contact symbol or a return symbol has been touched (S22).

[0042] In this determination, if the contact symbol is touched, a command for searching for a coil (OUT order) having the same contact number as the touched contact is issued (S23). This command is transmitted to Programmable Controller 10; Programmable Controller 10 searches for a coil having the same contact number, and transmits (answers back to) a ladder program for it. Therefore, when receiving the answer back from Programmable Controller 10, the ladder program for the coil specified by the touched contact symbol can be obtained. Usually, a ladder program is also obtained in units of 16 words as in the case described above, and this is repeated as necessary.

[0043] When the ladder program is obtained, a ladder circuit diagram is displayed based on the ladder program (S24). Next, the relay address of the displayed ladder circuit coil is set as the display address and is stored in association with the pointer (S25). Then, the pointer is incremented by 1 (S26), and the process returns to the determination in S22.

[0045] If a return touch is detected in S22, it is determined whether the pointer is zero (S27). If the determination is YES, this touch is invalidated (S28) because there is no

screen to return to and the process returns to S22. If the determination in S27 is NO, the pointer is decremented by 1 (S29), and a ladder program using the relay address stored in association with the obtained pointer value as a coil is acquired from Programmable Controller 10, and then, the ladder circuit diagram is displayed (S30). Then, the process returns to the determination in S22. When displaying each ladder circuit diagram, as described above, relay state data is also obtained and displayed. Then, users can determine which relay should be searched based on the state of each relay. Although it is not shown in the figure, the process described in FIG. 5 is terminated by a command to terminate the display of the ladder circuit.

[0046] When a ladder circuit diagram is displayed in this way, by touching the contact symbol in the ladder circuit diagram, a ladder circuit diagram for a coil corresponding to the contact can be displayed. Therefore, by sequentially touching the contact symbols, the ladder circuit diagram that is considered to be related to the occurrence of the alarm can be sequentially displayed, and users can easily investigate the cause of the occurrence of the alarm. Furthermore, since the display can be returned to the original state by touching the return symbol, when the superior ladder circuit is checked for one contact and it is found not to be the cause, it is possible to return to the original ladder circuit diagram and search the cause of occurrence of the alarm in a different relay.

[0049] As described above, according to the system of the present embodiment, by touching a display symbol on the display panel, the ladder program for the display symbol can be obtained and displayed as a ladder circuit diagram. Therefore, the necessary ladder circuit diagram can be easily obtained by touching the display when an alarm occurs. In particular, the ladder program itself does not need to be rewritten, and creation of the ladder program does not become difficult.

[0053] Also, while the ladder circuit diagram is displayed, by touching the contact symbol, a ladder circuit diagram for the coil corresponding to the contact symbol can be displayed. Therefore, by sequentially performing these operations, the ladder of the superior coil can be sequentially displayed, and the cause of the alarm occurrence can be easily searched.

[0054] Further, since the display can be returned to the original state by touching the return symbol, it is possible to easily search again for a different route.

[0055] In addition, a symbol can be selected by moving a cursor by touching a contact and coil, and a comment on the contact and coil is displayed in the selected state. Therefore, the details of each contact and coil can be easily understood. Further, since a comment is not always displayed, the display does not become difficult to see as a whole. Furthermore, when a contact is selected by the cursor, touching the contact

causes to move to the ladder circuit diagram display for the coil corresponding to the contact. Therefore, the operation to display the ladder circuit diagram is very simple and preferable."

B. Finding on Exhibit Otsu 28 Invention

According to the statement in A. above, it is found that the following invention alleged by the First-instance Defendant (hereinafter referred to as "Exhibit Otsu 28 Invention") is stated in Exhibit Otsu 28 Document.

1a" and 1g" an indicator which is a display device used in a programmable controller to control controlled objects, such as machines, devices, equipment, etc.;

1b" wherein when Programmable Controller 10 detects the occurrence of abnormal phenomena of said controlled subject, said information is provided;

1c" which includes a means for displaying a display symbol corresponding to the error (alarm status) when the error (alarm status) occurs;

1d" a touch panel on which users touch the specified display symbol that is displayed as an alarm;

1e" and a means for displaying a ladder circuit associated with a display symbol that is touched;

1f" wherein the means for displaying a ladder circuit includes a touch panel for specifying either the input or output element of the displayed ladder circuit by touch and a means for searching and displaying a ladder circuit using the contact as a coil when the contact of the displayed ladder circuit is touched in a state where it is selected by touch and for returning to the original ladder circuit diagram by touching "return" symbol.

C. Virtual identicalness with Invention 1

Comparing Invention 1 and Exhibit Otsu 28 Invention, the following point at least is different: in Invention 1, by touching an output element, a ladder circuit that inputs the output element is searched and displayed (Constituent Feature 1F), while in Exhibit Otsu 28 Invention, even if the user touches a coil, only the relay address is displayed with a comment ([0030] and [0055] of Exhibit Otsu 28 Document) and, in order to return to the original circuit diagram, the "return" symbol must be touched (Structure 1f").

As stated in A. above, according to [0045] in Exhibit Otsu 28 Document, in Exhibit Otsu 28 Invention, when the "return" symbol is touched, based on the stored address, one circuit diagram before the one that is tracked by the ladder search is displayed. On the other hand, in Invention 1, the ladder circuit that inputs said output element is searched and displayed. Therefore, it does not display a ladder circuit tracked by coil

search only.

Therefore, to "search a ladder circuit that inputs output element" in Invention 1 and to "touch the return symbol" in Exhibit Otsu 28 Invention are completely different means. Also in terms of the function, there is a difference as to whether the "original ladder circuit diagram" alone is displayed. Therefore, it is obvious that due to said difference, Invention 1 and Exhibit Otsu 28 Invention are not virtually identical.

The First-instance Defendant alleged that the structure of said contact search in Invention 1 is the addition of a meaningless structure. However, as explained in 2. (2) B. (F) above, the contact search in Invention 1 is also found to be contributing to identifying the cause of abnormality and, therefore, the First-instance Defendant's allegation cannot be accepted. In addition, based on the difference in the function, it is obvious that the contact search and touching the "return" symbol both fall under a mere replacement of well-known conventional art that shows the same effects.

D. Summary

Based on the above, the grounds for invalidation of prior art effect for which Exhibit Otsu 28 serves as the prior art are groundless.

(2) Issue 5-1B (Breach of requirements for correction)

Description 1 has the following statements: "[0027] While the machine tool MT is controlled in accordance with the ladder program, Programmable Controller Main Body 20 continues to execute the abnormality monitoring ladder program stored in RAM 23 at a predetermined time interval ... ." and "[0029] The ladder program for abnormality monitoring has a ladder circuit that inputs an element that switches the signal state by the occurrence of the abnormal phenomenon when said abnormal phenomenon occurs and switches the operation state of the output element that has been assigned for each type of abnormality in advance. The ladder circuit … rewrites data stored in the address in RAM 23 that has been assigned in advance to the output element ... ." According to these statements, the programmable controller main body has a "ladder program for abnormality monitoring" in RAM 23 and the "ladder program for abnormality monitoring" monitors the occurrence of abnormal phenomena in the controlled object (machine tool MT).

On the other hand, [0031] of Description 1 has the following statement: "Operation Panel 10 … is programmed to read the details of address of RAM 23 ... of Programmable Controller Main Body 20 and recognizes changes to the data of the address that responds to the occurrence of an abnormal phenomenon. In other words, … the abnormal data table ... is also stored in RAM 13. ... Operation Panel 10 recognizes the type of the abnormal phenomenon that has occurred based on the data table." According

to this statement, Operation Panel 10 has a program that recognizes the type of abnormal phenomenon that occurred with the controlled object (machine tool MT) by recognizing changes in RAM 23 data of the programmable controller main body. It is understood that the function is to monitor the occurrence of abnormal phenomena of controlled objects through changes in RAM 23 data of the programmable controller main body.

As described above, in Description 1, the program to monitor the occurrence of abnormal phenomena of the controlled object through changes in RAM 23 data of the programmable controller main body is disclosed as the program of the display device. Then, a person skilled in the art, who came across Description 1 through before and after the Prior-instance Correction and the Correction, would have understood that the "program to monitor the occurrence of abnormal phenomena of the controlled object" before the Prior-instance Correction, the "program to monitor the occurrence of abnormal phenomena of the controlled object" after the Prior-instance Correction (Constituent Feature 1B), and the "program to monitor the occurrence of abnormal phenomena of the controlled object that recognizes the changes in the data of address corresponding to said programmable controller in response to the occurrence of abnormal phenomena" after the Correction (Constituent Feature 1B') all refer to the same program that a display device originally had.

Therefore, the First-instance Defendant's allegation that the "program to monitor the occurrence of abnormal phenomena of the controlled device" became a completely different program by the Correction cannot be accepted.

As described above, the First-instance Defendant's grounds for invalidation related to the breach of requirements for correction are groundless.

6. Issue 5-8 (Grounds for invalidation of Patent 4: Lack of an inventive step based on Exhibit Otsu 6) and Issue 5-9 (Grounds for invalidation of Patent 4: Lack of an inventive step for which Exhibit Otsu 6 serves as the primary prior art)

(1) Invention 4

The technical meaning of Invention 4 is as stated in the section from the beginning of line 11, page 163 to the end of line 17, page 164 of the judgment in prior instance, and therefore, it is cited. However, the term "[0005]," is added before "[0007]" in line 10, page 164.

(2) Finding on Exhibit Otsu 6 Invention

According to the statement in Unexamined Patent Application Publication No. 1992-139503 (Exhibit Otsu 6; hereinafter referred to as "Exhibit Otsu 6 Document"), Exhibit Otsu 6 Invention is found to be as follows.

4a" and 4f" an operation panel for equipment in the production line, whose data setting

device can change the display mode of display elements and which is connected with a sequence control unit that controls a sequence for operations to be performed by each piece of equipment sequentially, and displays an operation screen where multiple Cells C are aligned as display elements (including operation elements, such as switches, etc.) to display operation monitoring on the face plate unit, and in which a correspondence relationship displayed in the face plate unit between the position of each of Cells C and the position on the touch panel is set;
(page 2, lower right column, line 18 through page 3, upper left column, line 9; page 3, upper right column, line 20 through page 3, lower left column, line 16; page 6, upper left column, line 6 through page 6, upper right column, line 17; Figure 1; and Figure 3)
(page 3, upper left column, line 20 through page 3, lower left column, line 16)
4b" based on the operation panel data map that is set by having the details displayed on the screen of said operation panel correspond to the cell number of Cell C (Table-A),
(page 3, lower right column, lines 4 through 13; page 4, Table-A; page 4, lower left column, lines 1 through 14; and Figure 3)
4c" in the operation panel data map (Table-A), multiple information items consisting of the names to be set in Cells C (matters to be displayed), property (display or switch), display color (ON color, OFF color), and names of devices (Operation DEV, Display DEV) are aligned and stored on Hard Disc Device 77;
(page 3, lower right column, lines 4 through 13; page 4, Table-A; and page 4, lower left column, lines 1 through 14)
4d" the data setting windows (W1, W2, and W3) to select and input said multiple information items that are specified by the operation panel data map;
(page 2, lower right column, line 18 through page 3, upper left column, line 9; page 4, lower left column, line 15 through page 4, lower right column, line 15; and Figure 3)
4e" and the information items input on the operation panel data map by Cell C that are set on the operation panel data map and data setting windows (W1, W2, and W3), displays the name (matters to be displayed) and the display color on each Cell C and implements the screen definition that associates the face plate unit of CRT78 with the device of the sequence control unit.
(page 6, upper left column, line 6 through page 6, upper right column, line 17; and Figure 3)
(3) Comparison between Invention 4 and Exhibit Otsu 6 Invention

Based on the findings in (2) above, Exhibit Otsu 6 Document has the following statement "If 'data editing' is selected by touch-input, cell editing (copy, transfer, insert, etc.) can be performed by Keyboard 79 (P6) and, at the same time, if 'data setting' is

selected by touch-input on the first window W1, the second window W2 opens on the online operation screen and requests a decision to be made on the operation panel data, such as the name, operation device, property, display color (ON color, OFF color), etc., to change display mode (P7, P8, P9, etc.)." (page 6, upper left column, line 19 through page 6, upper right column, line 8). The "display element" refers to "name, operation device name, property, and display color." In Figure 3, it is stated that color and text ("name," "Operation DEV," and "display color") alone are displayed. However, "pictures of operation keys and lamps" in Invention 4 refer to "drawings or pictures indicating lamps, operation keys, counters, etc. by defining the shape, size, color, etc." (Description 4, [0003], and [FIG.5]).

Then, Invention 4 and Exhibit Otsu 6 Invention are different in regards to the following points: in Invention 4, in the means to set areas of Constituent Feature B, "pictures of operation keys and lamps" and information to identify multiple sections to display them have been configured in advance; in the means to store the screen definition matrix of Constituent Feature 4C, multiple information items to identify "pictures of operation keys and lamps" are stored; in the screen definition means of Constituent Feature 4E, pictures are drawn by combining "pictures of operation keys and lamps" with multiple information items to identify them, while in Exhibit Otsu 6 Invention, data setting and display are not "pictures of operation keys and lamps," but only colors and matters (Difference 4-1) (hereinafter referred to as "Difference 4-1"), and the remaining points are common features.

On the other hand, the First-instance Plaintiff alleged that Exhibit Otsu 6 Document does not disclose that the device in Exhibit Otsu 6 Invention is a screen definition device and does not disclose drawing function, and therefore, the Constituent Features 4A and 4E are not disclosed. However, in Exhibit Otsu 6 Document, it is stated that CRT Operation Panel Device 53 includes Hard Disc Device 77 in which an operation panel data map is stored and that a voluntary screen can be created by setting items of the operation panel data map (page 3, lower right column, line 4 through page 4, lower left column, line 14). Therefore, it is obvious that the device in Exhibit Otsu 6 Invention is a screen definition device and the fact that the device in Exhibit Otsu 6 Invention is an operation panel does not establish a substantial difference from the screen definition device of the operation panel in Invention 4.

(4) Novelty

As described in (3) above, it is found that there is Difference 4-1 between Invention 4 and Exhibit Otsu 6 Invention, and therefore, Invention 4 has novelty.

(5) Inventive step

A. Finding on Exhibit Otsu 55 technical matters

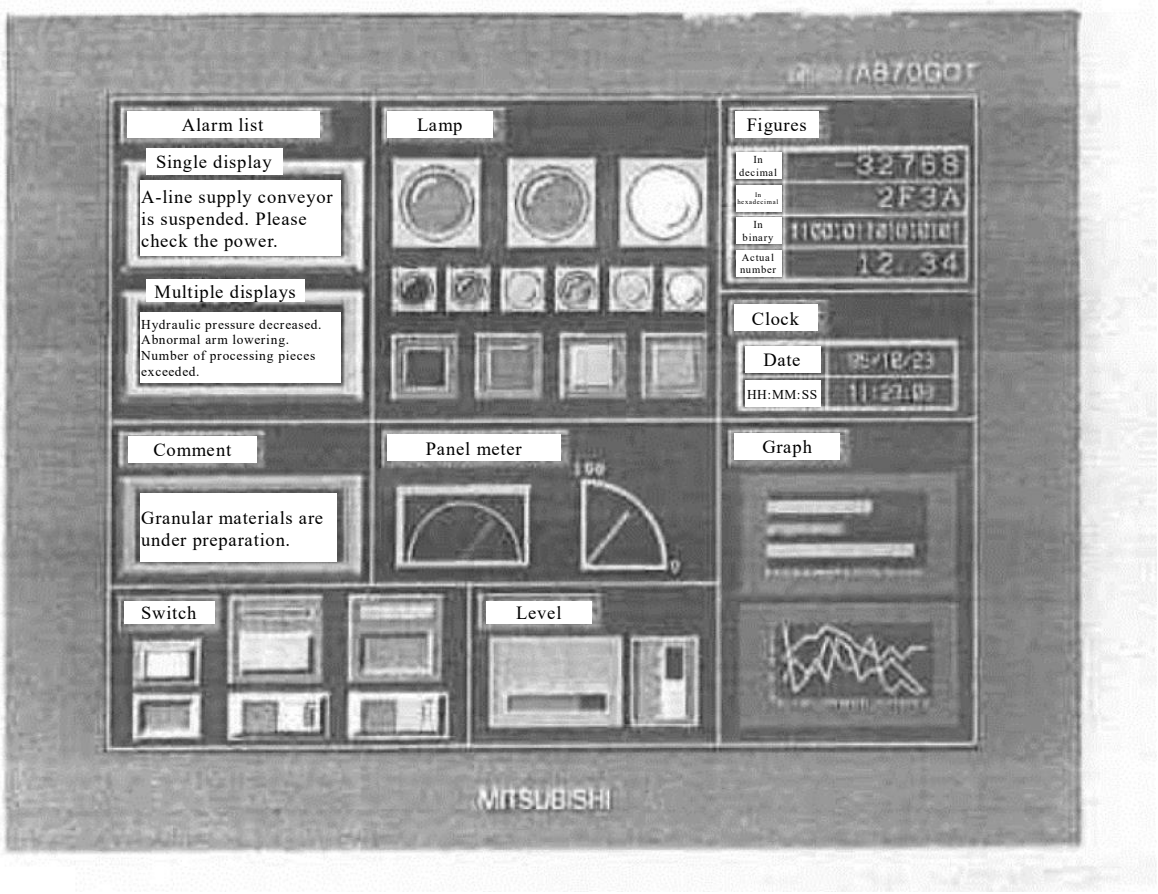
Exhibit Otsu 55 Document has the following statements along with the following drawing.

"Basic monitor

Basic function as an electronic operation panel

Basic functions as an electronic operation panel, such as functions of switches and lamps, display of numerical data and message, etc., are enhanced. Sprites, including touch-switches, can be freely located at 1-dot intervals. This allows a flexible layout on the screen."

"



"

According to the statements and drawing above, it is found that in Exhibit Otsu 55 Document, technology for displaying the functions of switches and lamps as an electronic operation panel in the form of touch switches with pictures (hereinafter referred to as "Exhibit Otsu 55 Technical Matter") is stated.

B. Whether Difference 4-1 could have been conceived of by a person skilled in the art

As described in A. above, in Exhibit Otsu 55 Document, Exhibit Otsu 55 Technical

Matter, which is a technology for displaying the functions of switches and lamps as an electronic operation panel in the form of touch switches with pictures, is stated. Applying this technology to Exhibit Otsu 6 Invention to display pictures of said operation keys and lamps in addition to display matters and to include it as a structure of Invention 4 related to Difference 4-1 is found to create a motivation for combination due to a commonality of the field, but no precluding factors are found. Therefore, Difference 4-1 could have been easily conceived of by a person skilled in the art.

The First-instance Plaintiff alleged that there is no motivation to apply Exhibit Otsu 55 Technical Matter to Exhibit Otsu 6 Invention. Since the technical fields of Exhibit Otsu 6 Invention and Exhibit Otsu 55 Technical Matter are very close, it is found to be sufficient motivation for a person skilled in the art to include Exhibit Otsu 55 Technical Matter that implement screen setting of pictures of switches and lamps in Exhibit Otsu 6 Invention, for which the problem is "to provide data setting method of the operation panel where the display mode of each display element on the display operation panel can be changed accurately to the desired mode" (Page 2, upper right column, lines 4 through 7 of Exhibit Otsu 6) and to solve the problem, and, therefore, it could have been easily conceived of by a person skilled in the art.

(6) Summary

As mentioned above, it is found that Invention 4 should be invalidated by a trial for patent invalidation.

Consequently, the First-instance Plaintiff cannot exercise Patent Right 4 against the First-instance Defendant (therefore, there is no need to make determinations on Issue 4.).

7. Issue 7 (Whether there are grounds to hinder the exercise of the rights related to Patent Right 1 and whether there is a breach of the principle of good faith in a lawsuit)

The First-instance Defendant newly alleged, as stated in No. 2, 4. (17) (The First-instance Defendant's allegation) above, that since the First-instance Plaintiff obtained Patent 1 by giving a false explanation of the contact search, the exercise of the right is hindered or the scope of the patent claim must be interpreted based on the false explanation; and that the First-instance Plaintiff alleged that the Plaintiff's products are products working Invention 1 although they are not and this allegation represents the First-instance Plaintiff's attitude that the contact search is not an important part, and therefore, under the principle of good faith, the First-instance Plaintiff cannot allege that the contact search is essential for solving the problem of Invention 1.

However, as explained in 2. (2) B. (F) above, the contact search in Invention 1 is also found to contribute to identifying the cause of abnormality and to have a function

to return to the original ladder circuit. In addition, even though the First-instance Plaintiff emphasized the aspect that the contact search in Invention 1 does not need to secure storage capacity to store the original ladder circuit to return to the original circuit, as a difference from the prior art that has a function to return to the original ladder circuit (Exhibit Otsu 25), this cannot be said to be a sufficient means to obtain a patent illegally and it is also difficult to find the fact to consider that the allegation caused examiners to fall into a mistake and misconstrue the inventive step. Therefore, it cannot be a basis for construing the scope of the patent claim in a limited manner.

In addition, the allegation of the First-instance Plaintiff that the Plaintiff's products are products working Invention 1 is only found to be a simple mistake and there are little grounds for considering the allegation to be a breach of the principle of good faith by revealing the mistake purposely.

Consequently, all the aforementioned allegations of the First-instance Defendant are unreasonable.

8. Issue 6 (Amount of damages to the First-instance Plaintiff due to infringement of Patent Rights by the First-instance Defendant)

According to the determinations on issues above, indirect infringement (Article 101, item (ii) of the Patent Act) of Patent Right 1 is established concerning the production and transfer of Defendant's Indicator A and Defendant's Product 3 and the licensing (leasing) of the computer program related to Defendant's Product 3 by the First-instance Defendant. The amount of damages to the First-instance Plaintiff from said indirect infringement is examined below.

(1) The Plaintiff's products

The facts found in this case related to the Plaintiff's products are as stated in the section from the beginning of line 13, page 173 through the end of line 19, page 176 of the judgment in prior instance, and therefore, they are cited. However, the term "セット[set]" in line 5, page 176 is altered to "リセット[re-set]".

(2) Defendant's Indicator A and Defendant's Product 3

Quantities sold, sales amounts, etc. of Defendant's Product 1, Defendant's Product 2, and Defendant's Product 3 for the period from April 1, 2013 through the end of March 2020 are as stated in Attachments 3 through 6 (there are no disputes between the parties).

(3) Damages based on Article 102, paragraph (1) of the Patent Act

A. Application

(A) Amendment by Act No. 3 of 2019

The infringement of Patent Right 1 ended by March 31, 2020 due to expiry of the patent term. Article 102, paragraph (1) of the Patent Act after amendment by Act No. 3

of 2019 came into effect on April 1, 2020. Since there are no transitional measures in the supplementary provisions to the amended Act, Article 102, paragraph (1) of the Patent Act after said amendment is applied to the infringement of Patent Right 1.

The First-instance Defendant alleged that paragraph (1) of the former Act should be applied, instead of applying the amended Act retroactively (see No. 2, 4. (16) above). Article 102, paragraph (1), item (ii) of the Patent Act after the amendment stipulates that the amount equivalent to the royalties based on the quantity exceeding the workable quantity or specified quantity (limited to cases where non-exclusive licensing could have been granted) is to be the amount of damages. However, it cannot be found that the damages of the amount equivalent to the royalties would not accrue under the substantive laws, and therefore, it cannot be said that the amended Act newly created the right to claim under substantive laws. Consequently, said item is only a provision to estimate damages under the substantive laws that could have constituted damages since before the amendment objectively. Therefore, the aforementioned allegation of the First-instance Defendant cannot be accepted.

(B) Whether Article 102, paragraph (1) of the Patent Act may be applied to indirect infringement

The First-instance Defendant alleged that Article 102, paragraph (1) of the Patent Act is not applied to indirect infringement (see No. 2, 4. (16) above). Therefore, this point is examined below.

The main clause of Article 102, paragraph (1) of the Patent Act stipulates that the amount obtained by multiplying the "quantity transferred" of "articles that constitute the act of infringement" by an infringer by "the amount of profit per unit" for "the articles" that the patentee, etc. "would have been able to sell if the infringement had not taken place," can be considered as the amount of damages to the patentee, etc. This provision is based on the purport to reduce the burden on the patentee, etc. to prove the amount of damages on the assumption that there is the relationship that the patentee, etc. would have been able to gain profits if the infringement had not taken place, and therefore, it is found that damages to the patentee, etc. occurred. Based on the calculation method of the amount of damages specified in this provision, it is construed to be based on the assumption that the amount of damages calculated based on this method is the amount of damages related to the lost profit of the patentee, etc. for "articles that would have been able to be sold if the infringement had not taken place" and that the infringer's act of transferring "articles that constitute the act of infringement" and the act of the patentee, etc. of selling "articles that would have been able to be sold if the infringement had not taken place" are in a competitive relationship

on the same market.

On the other hand, indirect infringement related to an invention that is a product covers the transfer, etc. of "any article used in the production" of products working the invention. Not only the transfer, etc. of components constituting the products working the invention, but also the transfer, etc. of tools, raw materials, etc. for producing the products working the invention are included. Therefore, the infringer's act of transfer of indirectly infringing products and the act of the patentee, etc. of selling the products (they may be components, etc. or finished products) do not always become competitive on the same market. In addition, in cases where indirectly infringing products are components and where articles sold by the patentee, etc. are finished products like in this case, the former target the components market and the latter target the finished product market. Therefore, both parties' acts of transfer and sale are not directly competitive on the same market. However, also in this case, the products working the invention that are directly infringing products produced using components that are indirectly infringing products and the finished products sold by the patentee, etc. are indirectly competitive over profits on the same market of finished products and components carrying the same function are included in both products. Based on the above, to the extent related to market profits for the portion of components on the finished product market, the act of transferring components that are indirectly infringing products is in a competitive relationship with the act of selling the portion of components included in the finished products of the patentee, etc. through the act of production or transfer of finished products using said components. Therefore, to that extent, Article 102, paragraph (1) of the Patent Act may be applied to the indirect infringement in this case.

Consequently, the aforementioned allegation of the First-instance Defendant cannot be accepted.

B. "Articles that would have been able to be sold if the infringement had not taken place"

(A) "Articles that would have been able to be sold if the infringement had not taken place" should be interpreted to be nothing but products of a patentee or an exclusive licensee (hereinafter collectively referred to as the "patentee, etc.") who suffer an impact on their quantity sold due to the infringement, in other words, products of the patentee, etc. who are in a competitive relationship in the market with infringing products.

According to the explanation in A. above, it is reasonable to interpret "articles that would have been able to be sold if the infringement had not taken place" to be the

portion equivalent to indirectly infringing products of an infringer from among finished products sold by the patentee, etc.

(B) Looking at the above in this case, as is found in (1) above, the Plaintiff's products and Defendant's Indicator A on which the OS of Defendant's Product 3 are installed can be said to be goods substituting each other with the same usages, and therefore, the part equivalent to software unit of the Plaintiff's products can be considered to be an "article that would have been able to be sold if the infringement had not taken place" of Defendant's Product 3 that was produced, etc. and the part equivalent to the hardware unit of the Plaintiff's products can be considered to be an "article that would have been able to be sold if the infringement had not taken place" of Defendant's Indicator A that was produced, etc. Eventually, in this case, the Plaintiff's products overall are found to be "articles that would have been able to be sold if the infringement had not taken place."

(C) The First-instance Defendant alleged that Defendant's Indicator A on which the OS of Defendant's Product 3 is installed is a product working Invention 1 only when it is connected to the sequencer manufactured by the First-instance Defendant; and that the Plaintiff's products cannot be connected to the sequencer manufactured by the First-instance Defendant, and therefore, there is no relationship that if Defendant's Indicator A is not sold, the Plaintiff's products are sold, and both products are not competitive on the market (see No. 2, 4. (16) above).

However, in order for certain products to fall under "articles that would have been able to be sold if the infringement had not taken place," it is enough that they are the products of the patentee, etc. who may be in a competitive relationship with infringing products from the perspective of the overall structure of the market, and it does not go so far as to require the existence of a relationship, in consideration of specific customers, where said customers purchase the patentee's products as a replacement if there are none of said infringing products. Even if compatibility between a programmable controller and a programmable indicator is limited, it is enough to examine the competitive relationship on the market by including persons who do not yet have a programmable controller and persons who already have a programmable controller compatible with an indicator (the latter have no hindrance on purchasing the Plaintiff's products) in potential customers. Therefore, the competitive relationship on the market should not be discussed only for persons who have a programmable controller compatible with the Plaintiff's products.

Consequently, the aforementioned allegation of the First-instance Defendant cannot be accepted.

C. "The amount of profit per unit"

There are no disputes between the parties that the amount of marginal profit per piece of the Plaintiff's product is as stated in (1) of Attachment 1-1.

D. Quantity transferred, etc. of "articles that constitute the act of infringement"

(A) Quantity sold

In this case, establishment of indirect infringement is found for the acts of the production, transfer, etc. of Defendant's Indicator A and Defendant's Product 3 by the First-instance Defendant. Defendant's Product 3 constitutes an act of infringement to the extent of producing products equivalent to Defendant's Indicator A and the Plaintiff's products by providing the OS to Defendant's Indicator A. Therefore, when calculating damages as defined in Article 102, paragraph (1) of the Patent Act, it is not necessary to argue the quantity transferred independently from Defendant's Indicator A.

Consequently, when calculating damages as defined in Article 102, paragraph (1) of the Patent Act, it is enough to use the quantity transferred of Defendant's Indicator A alone as the basis for the calculation.

There are no disputes between the parties that the quantities sold of Defendant's Indicator A for the period from April 1, 2013 to March 31, 2020 are as stated in Attachment 5. (Concerning Defendant's Indicator A, the quantity sold per month is not clear. Therefore, hereinafter, the amount of damages is calculated based on the quantities sold every 6 months as stated in Attachment 5. In addition, as stated in 2. (2) E. above, indirect infringement of Patent Right 1 was established on April 2, 2013 and thereafter. The presence of the quantity sold of Defendant's Indicator A as of April 1, 2013 or the relevant figure is not clear; however, the transfer, etc. on that day has little impact on the overall amount of damages for the period of seven years, and the difference in whether the portion of said one day is included or not is absorbed in the following calculation, and is unlikely to have any impact. Therefore, the quantity sold on that day will not be calculated again and the quantities sold as indicated in Attachment 5 are used as they are.)

(B) Quantity transferred

The First-instance Defendant alleged that "articles that constitute the act of infringement" are directly infringing products and not all of persons who purchased Defendant's Indicator A and Defendant's Product 3 produce products working Invention 1 (directly infringing products) (see No. 2, 4. (16) above).

However, an act of indirect infringement is "deemed to constitute infringement" of a patent right (Article 101 of the Patent Act) and the amount of damages from patent infringement is stipulated for "articles that constitute the act of infringement" (Article

102, paragraph (1) of said Act). As stated in A. (B) above, it is construed that as long as Article 102 of said Act also applies to indirect infringement, "articles that constitute the act of infringement" should be construed to refer to indirectly infringing products.

However, components, etc. that are indirectly infringing products as stipulated in Article 101, item (ii) of the Patent Act may be used with an aim or in a manner not to infringe a patent right. In addition, in cases where it is found to have high possibility to cause patent infringement by the transfer, etc. of said components, etc., said transfer of components, etc. constitutes indirect infringement regardless of the use mode by a transferee; however, in cases where the components, etc. are not used with an aim or in a manner to infringe a patent right by a transferee, eventually said patent right does not contribute to the sale of indirectly infringing products. Then, concerning said transferee, it cannot be said that the patentee's products could have been sold if no indirect infringement had taken place, and damages to profits that the patentee, etc. could have received from the transfer of articles of the patented invention do not occur. Therefore, the amount of profits obtained from the transfer of said articles cannot be estimated as the amount of damages to the patentee, etc. In addition, it is reasonable to construe that such case falls under "circumstances that render the patentee or the exclusive licensee unable to sell" as defined in Article 102, paragraph (1), item (i) of said Act. The allegation of the First-instance Defendant is construed to include the intention that if the allegation to use the quantity used for the production of directly infringing products alone as the basis for the calculation of damages is not accepted, the same circumstances are alleged as "circumstances that render the patentee or the exclusive licensee unable to sell," and it is accepted to that extent.

Therefore, when calculating the amount of damages to the patentee, etc., it is reasonable to construe that said quantity sold is deducted from the "quantity transferred" as defined in Article 102, paragraph (1) of the Patent Act.

E. "Circumstances that render the patentee or the exclusive licensee unable to sell"

(A) Circumstances that render the patentee or the exclusive licensee unable to sell (1)

The First-instance Defendant alleged that [i] the Plaintiff's products can only be connected to the programmable controller manufactured by the First-instance Plaintiff; [ii] since the First-instance Plaintiff does not have a meaningful share on the market of indicators for programmable controllers and the contribution of the technical features of Invention 1 to the sale is extremely small, most of the purchasers of Defendant's Indicator A and Defendant's Product 3 purchase products of manufacturers other than the First-instance Plaintiff; [iii] since the Plaintiff's products are not products working Invention 1, there is no room for damages to the First-instance Plaintiff to occur by the

infringement of Patent Right 1 (hereinafter circumstances related to these allegations are referred to as "circumstances that render the patentee or the exclusive licensee unable to sell (1)").

The "circumstances that render the patentee or the exclusive licensee unable to sell" as defined in Article 102, paragraph (1), item (i) of the Patent Act refer to circumstances to hinder a corresponding causal relationship between the act of infringement and reduction in the sales of the patentee's products.

As found in 2. (2) B. (B) above, the characteristic technical means of Invention 1 is only a contact research by touch when an abnormality occurs and is not an overall circuit monitoring function; and there are products, as conventional products, which display a ladder circuit that monitored the occurrence of abnormal phenomena corresponding to the type of abnormalities that have been specified after specifying the specific type of abnormalities displayed on the monitor by touch, and then, the coil or contact causing the type of abnormality is specified by inputting the device name or device number on the input screen of the touch panel. Then, even if there are no products other than the Plaintiff's products that can use all functions related to Invention 1, there are products with which the coil or contract is specified by inputting the device name or device number on the input screen on the touch panel. Therefore, such products can specify the true cause of an abnormality without referring to ladder circuit diagrams when an abnormal phenomenon occurs or can retrieve ladder circuits one after the other in order to specify causes, which does not require very complicated operations. Furthermore, if a display device, which is not included in the technical scope of Invention 1, can perform a coil search only when an abnormality occurs and has a return function without using the search function when returning to the original circuit, it is difficult to consider that such display device has a hindrance to achieve objectives to specify the true cause of abnormality without referring to ladder circuit diagrams when an abnormal phenomenon occurs and to retrieve ladder circuits one after the other to specify causes. In addition, the contact search, which is the characteristic technical means of Invention 1, is not used even with the Plaintiff's products. Therefore, it is obvious that this characteristic technical means does not contribute to the sale of the Plaintiff's products. And the contact search, which is the characteristic means, is related to only one point from among many functions of Defendant's Indicator A and Defendant's Product 3, and it accounts for a very limited part of the functions.

Based on the above, it is difficult to presume that the technical characteristic part of Invention 1 greatly contributed to the quantity sold of Defendant's Indicator A and Defendant's Product 3. In addition, the First-instance Plaintiff's share on the market of

programmable indicators (display devices) is included in (Other) in Attachment 7-2, which is very small (Exhibit Ko 31). The Plaintiff's products can be connected only to the programmable controller manufactured by the First-instance Plaintiff (there are no disputes). Therefore, even if the quantity sold slightly decreased because Defendant's Indicator A and Defendant's Product 3 do not have the characteristic technical part of Invention 1, it is difficult to presume that all demand to offset the portion of that decrease will lead to products of the First-instance Plaintiff.

Consequently, in this case, it should be found that the corresponding causal relationship between the decrease in sales of the Plaintiff's products and the infringement of Patent 1 by Defendant's Indicator A and Defendant's Product 3 is hindered to a significant extent and it is reasonable to find that there are circumstances where 99% of the quantity sold of Defendant's Indicator A cannot be sold.

(B) Circumstances that render the patentee or the exclusive licensee unable to sell (2)

As stated in D. (B) above, the quantity of Defendant's Indicator A used for the production of directly infringing products as alleged by the First-instance Defendant can be considered as one element of the "circumstances that render the patentee or the exclusive licensee unable to sell." The First-instance Defendant alleged, as stated in No. 2, 4. (16) above (No. 3, 18. (The Defendant's allegation) (1) A. (D) c. of the judgment in prior instance), that [i] exclusion of export; [ii] exclusion of usage mode without connecting to a programmable controller; [iii] circumstances calculated based on the percentage of usage mode to connect to a sequencer, etc. manufactured by the First-instance Defendant; [iv] circumstances calculated based on the usage mode to connect to a compatible sequencer, etc.; [v] circumstances calculated based on the percentage of purchase of an optional function board for Defendant's Product 1-2; and [vi] circumstances calculated based on the percentage of Defendant's Indicator A that has project data using a one-touch circuit jump function (see No. 2, 4. (16) above; hereinafter the circumstances related to these allegations are referred to as "circumstances that render the patentee or the exclusive licensee unable to sell (2).").

They are examined below. First, it is found that the quantities of exports of Defendant's Indicator A identified by the First-instance Defendant are as stated in 1. of Attachment 7; the quantities sold, sales amounts, and market shares in Japan of programmable indicators manufactured by the First-instance Defendant in 2013 are as stated in 2. of Attachment 7; the total quantities sold in Japan and market shares in Japan of programmable controllers of the First-instance Defendant from 2013 to 2020 are as stated in 3. of Attachment 7; the sales results of sequencers (programmable controllers) manufactured by the First-instance Defendant and the percentages of

sequencers, etc. with which the circuit monitoring function can be executed are as stated in 4. of Attachment 7; and the quantities sold of optional function boards attachable to GT15 (Defendant's Product 1-2) are as stated in 5. of Attachment 7 (Exhibit Ko 31, Exhibits Otsu 58 through 64; and the entire import of oral arguments), and there is no evidence against the allegation.

Examining further based on the aforementioned facts found in this case, [i] concerning Defendant's Indicator A exported abroad, Invention 1 is worked outside Japan and the infringement of Patent Right 1 cannot occur based on the principle of territoriality, and, therefore, it is reasonable to exclude the quantity of exports disclosed by the First-instance Defendant. The First-instance Defendant alleged that the First-instance Defendant identified the quantities of exports as stated in 1. of Attachment 7 and there are no grounds to question it. However, the percentages of these quantities in the overall quantities sold are very small. [ii] Infringement of Patent Right 1 does not occur with Defendant's Indicator A that is not connected to a programmable controller either. The quantities are only indicated by approximate percentages even by the First-instance Defendant (Attachment 2-1), but as stated in 2. (2) D. (C) above, users will take reasonable actions to use the circuit monitoring function, etc. in order to fully use the functions of Defendant's Indicator A, which is an expensive device, and therefore, it is assumed that the percentage of those connecting Defendant's Indicator A to a programmable controller becomes very high. [iii] Concerning the percentage of usage mode to connect to the sequencer, etc. manufactured by the First-instance Defendant, as stated in 2. (2) D. above, it is presumed that there is a trend to prepare a programmable controller and a programmable indicator of the same manufacturer, and therefore, it is unnatural that Defendant's Indicator A is connected to the sequencer manufactured by the First-instance Defendant at the percentage in accordance with the market share in Japan of the sequencer manufactured by the First-instance Defendant (Attachment 7-3). It is reasonable to presume that Defendant's Indicator A is connected to the sequencer manufactured by the First-instance Defendant at a percentage higher than the percentage of said share to a certain extent; however, it is difficult to find that the combinations with products of other companies are very small in number. [iv] Concerning the percentage of usage mode to connect to a compatible sequencer, etc., there is no evidence to find that there is a special trend to use Defendant's Indicator A with a specific sequencer from the perspective of its specifications, functions, etc. Therefore, it is reasonable to consider the percentage of sales of sequencers that cannot use the circuit monitoring function (Attachment 7-4) as it is. [v] Concerning the percentage of users who purchased optional function boards for Defendant's Product 1-

2 (approximately one-fourth at a maximum), a certain consideration is to be given; however, the percentage of Defendant's Product 1-2 in Defendant's Indicator A is only approximately ● percent. Therefore, in any case, it has almost no impact on overall Defendant's Indicator A. Lastly, [vi] concerning the percentage of users that create project data using the one-touch circuit jump function, as found in No. 4, 2. (2) of the judgment in prior instance related to the citation (the section amended in 1. (2) above of this judgment), in light of the facts that the First-instance Defendant used the one-touch circuit jump function as a key point for advertisement, a user who purchased, etc. Defendant's Indicator A and Defendant's Product 3 is strongly motivated to use the circuit monitoring function, and the possibility that the function is installed is considerably high, etc., it is considered that the number of persons who intend to use the one-touch circuit jump function is considerably high; however, there is no data to determine the specific percentage.

From the aforementioned perspectives, concerning [i], [ii], and [v] above, the impact on the quantity of Defendant's Indicator A used for the production of directly infringing products is little or small; however, concerning [iv] and [vi] above, the impact on the quantity of Defendant's Indicator A used for the production of directly infringing products is very large, and [iii] also has considerable impact. These circumstances have been considered as independent elements up until now. However, users who create project data using the one-touch circuit jump function, for example, have a device that can use the circuit monitoring function, etc. and these elements may have a mutual relationship in some cases. Then, considering the aforementioned circumstances together while also adding these points, it is reasonable to presume that ●●% of the quantity sold of Defendant's Indicator A was not used for the production of directly infringing products. Consequently, it is found that there are "circumstances that render the patentee or the exclusive licensee unable to sell" to that extent.

(C) The First-instance Defendant's allegation

The First-Instance Defendant alleged that the quantity of Defendant's Indicator A used for the production of products working Invention 1 can be estimated based on the project data obtained from users in response to actions for users' requests for defect investigation or technical support (see No. 2, 4. (16) above). However, said project data refers to those obtained from users who requested technical support from the First-instance Defendant, users who returned products as defective products, and users who switched from indicators manufactured by other companies to the First-instance Defendant's products (Exhibit Otsu 72), and they are not randomized at all. It is difficult to find that said users are at the average technical level of all users of the First-instance

Defendant's products, and therefore, the aforementioned allegation cannot be accepted.

Other allegations of the First-instance Defendant also do not have an impact on the findings in (A) and (B) above.

(D) The First-instance Plaintiff's allegation

The First-instance Plaintiff alleged, concerning the circumstances defined in (B) [iii] above, as stated in No. 3, 18. (1) A. (D) c. of the judgment in prior instance related to the citation (the section amended in No. 2, 4. (12) above in this judgment), that the use mode to connect a programmable indicator to a programmable controller manufactured by another company is minor. However, there is a company whose market share of programmable controllers is low but whose market share of programmable indicators is high (Exhibits Otsu 58 through 64). Such company's programmable indicators are considered to be produced on the assumption of being connected to programmable controllers manufactured by other companies. In consideration of these points, it is presumed to be a possible action in the industry to combine a programmable indicator and a programmable controller that are manufactured by different companies. Then, even if the compatibility between a programmable indicator and a programmable controller is preferred, it cannot be found that combinations with devices manufactured by different companies are minor. Therefore, the aforementioned allegation of the First-instance Plaintiff cannot be accepted.

In addition, the First-instance Plaintiff alleged, as stated in No. 3, 18. (1) A. (D) c. (b) of the judgment in prior instance related to the citation (the section amended in No. 2, 4. (12) above in this judgment), that [i] it is hardly possible for users who purchased a sequencer that cannot be connected to Defendant's Indicator A in some cases, such as "MELSEC QnA series," "MELSEC A series," "MELDAS C6/C64," "MELSEC iQ-L series," and "CNC C80 series," etc., purchase Defendant's Indicator A; and [ii] there are no users who connect an expensive Defendant's Indicator A, which has a circuit monitoring function, etc., with a sequencer for stand-alone for which the use mode is simple. Concerning [i] above, if the sequencer indicated by the First-instance Plaintiff cannot be connected to Defendant's Indicator A, as stated in 4. of Attachment 7, the percentage of its sales among all sequencers manufactured by the First-instance Defendant is ● to ●●●%, which is very small and has no impact on the overall trend at all. Concerning [ii] above, there is no evidence to find that it can be said with confidence as alleged by the First-instance Defendant.

Other allegations of the First-instance Plaintiff also do not have impact on the findings in (A) and (B) above.

(E) As described above, the deduction of 99% mainly from the perspective related to

the contribution to the sales of Invention 1 as "circumstances that render the patentee or the exclusive licensee unable to sell (1)," and the deduction of ●●% from the perspective of not being used for the production of directly infringing products as "circumstances that render the patentee or the exclusive licensee unable to sell (2)" are admitted. Both are deduction elements that can be considered independently, and therefore, eventually as stated in Attachment 8, it is reasonable to find "circumstances that render the patentee or the exclusive licensee unable to sell" for the quantity obtained by deducting 99% of the quantity transferred, and then further deducting ●●% of the quantity transferred (quantity deducted accounts for ●●●●% in total) from the quantity transferred of Defendant's Indicator A (this figure does not fall below 59/60 ≒ 0.983, which the First-instance Plaintiff admitted.).

F. Damages defined in Article 102, paragraph (1), item (i) of the Patent Act

Based on the decision in B. through E. above, it is reasonable to find that the amount of damages to the First-instance Plaintiff based on Article 102, paragraph (1), item (i) of the Patent Act is 50,629,205 yen as stated in Attachment 8.

G. Damages defined in Article 102, paragraph (1), item (ii) of the Patent Act

Article 102, paragraph (1), item (ii) of the Patent Act stipulates that, if there is specified quantity, the amount equivalent to royalties based on the quantity may be determined as the amount of damages. On the other hand, however, the entry in parentheses in said item excludes the part other than the part where it is not found that the patentee, etc. could have granted the license for the patent right of said patentee, etc. Therefore, if it cannot be said that the patentee lost an opportunity for licensing due to the act of the infringer's infringement, it is stipulated that lost profits of the amount equivalent to royalties will not be generated.

As stated in E. above, the specified quantity found in this case is the total sum of the quantity for which it is not found that the characteristic technical part of Invention 1 contributes to the quantity sold of Defendant's Indicator A and Defendant's Product 3, the quantity of user demand that does not go to the Plaintiff's products, but to the purchase of products manufactured by any company other than the First-instance Plaintiff due to restrictions on function or based on the percentage of the share of the First-instance Plaintiff, and the quantity of indicators that are not used for the production of directly infringing products and do not belong to the technical scope of Invention 1. Therefore, it is not found that the First-instance Plaintiff could have licensed Invention 1 to the First-instance Defendant for the products for which Invention 1 could not contribute to increasing the quantity sold and the products sold by companies other than the First-instance Defendant.

Consequently, damages defined in Article 102, paragraph (1), item (ii) of the Patent Act cannot be found.

(4) Damages based on Article 102, paragraph (2) of the Patent Act

A. Whether Article 102, paragraph (2) of the Patent Act can be applied to an indirect infringement in this case

Article 102, paragraph (2) of the Patent Act stipulates that the amount of profit that the infringer received from the act of infringement is estimated to be the amount of damages to the patentee, etc. The purport of this provision is construed to be the same as stated concerning paragraph (1) of said Article above. Consequently, based on the same idea stated about paragraph (1) of said Article above, it is reasonable to affirm the application of paragraph (2) of said Article to this case.

B. The amount of profit that the infringer received from the act of infringement

There are no disputes between the parties that the amounts of sales of Defendant's Indicator A and Defendant's Product 3 for the period from April 2013 to March 2020 are as stated in Attachments 3 through 6; the marginal profit rates of Defendant's Indicator A are not less than 20%; and the marginal profit rates of Defendant's Product 3 are as stated in the Attachment to the judgment in prior instance "Details of the Defendant's Variable Costs, Weighted Average Price, and Marginal Profit Rate."

C. Grounds for rebuttal of presumption

(A) Article 102, paragraph (2) of the Patent Act is a provision for presumption. Therefore, if the infringer alleged and verified that the corresponding causal relationship with the damages to the patentee is missing for all or part of the profits that the infringer received, the aforementioned presumption is rebutted to that extent.

If indirectly infringing products defined in Article 101, item (ii) of the Patent Act were not actually used for the production of directly infringing products, as a result, they are not in the relationship where the articles of the patented invention could have been transferred if the infringement had not taken place, and damages on profits that the patentee could have received from the transfer of articles of patented inventions do not occur. Accordingly, it is impossible to presume that the amount of profits received from the transfer of said articles is the amount of damages to the patentee. It is reasonable to construe that such case falls under circumstances to rebut the presumption defined in Article 102, paragraph (2) of said Act. Then, the circumstances stated regarding Article 102, paragraph (1), item (i) of the Patent Act above ((3) E. (C) above; hereinafter referred to as "grounds for rebuttal of presumption (1)") can be deemed to be grounds for rebuttal of presumption as defined in Article 102, paragraph (2) of the Patent Act. Therefore, it is reasonable to find that there are grounds for rebuttal for 99%

of profits from Defendant's Indicator A and Defendant's Product 3. Furthermore, it should be said that there are circumstances to rebut the presumption that the portion that was not used for the production of directly infringing products from among Defendant's Indicator A and Defendant's Product 3 is the amount of damages to the First-instance Plaintiff (hereinafter referred to as "grounds for rebuttal of presumption (2)"); however, the quantity of Defendant's Indicators A that were not used for the production of directly infringing products is found to amount to ●●% of the entirety due to the same reasons as (3) E. (B) above. Therefore, it is reasonable to find that the presumption is rebutted for ●●% of the profits. In addition, concerning Defendant's Product 3 as well, there is the portion that was used for the production of directly infringing products and the portion that was not; however, there is no particular evidence of bias in favor of either of them. Therefore, it is reasonable to find that the presumption is rebutted for ●●% of the profits at the same percentage of Indicator A, on which Defendant's Product 3 is installed.

(B) As stated above, it is found that the amount is reduced by 99%, which is led mainly from the perspective related to the contribution to the sales of Invention 1, as grounds for rebuttal of presumption (1), and the amount is reduced by ●●%, which is led from the perspective of whether it is used for the production of directly infringing products, as grounds for rebuttal of presumption (2). Since both are reduction elements that can be considered independently, eventually, it is reasonable to find grounds for rebuttal of presumption at ●●●●% of the amount from among the profits received (this figure is not less than 59/60 ≒ 0.983, which the First-instance Plaintiff admitted.).

D. Damages defined in Article 102, paragraph (2) of the Patent Act

Based on the determinations in B. and C. above, it is reasonable to find that the amount of damages to the First-instance Plaintiff based on Article 102, paragraph (2) of the Patent Act is 24,247,080 yen as stated in Attachment 9.

E. Double application defined in Article 102, paragraph (3) of the Patent Act

Even if double application of Article 102, paragraph (2) and paragraph (3) of the Patent Act is not excluded due to the interpretation of the Patent Act, the application should meet the purport of paragraph (1), item (ii) of said Article. In this case, as stated in C. (A) and (B) above, the grounds for rebuttal defined in paragraph (2) of said Article are originally applicable in the case where paragraph (1), item (ii) of said Article is not applied. Therefore, this is not a case where paragraph (3) of said Article can apply doubly.

Consequently, in any case, the aforementioned allegation of the First-instance Plaintiff cannot be accepted.

(5) Summary

Based on the determinations made in (3) and (4) above, since the amount of damages to the Plaintiff (50,629,205 yen) based on Article 102, paragraph (1) of the Patent Act that is found in (3) above is higher, the amount is found to be the damages to the First-instance Plaintiff.

(6) Attorney's fees

The First-instance Plaintiff entrusted the Plaintiff's litigation representative to conduct, etc. this litigation (obvious facts to this court). It is reasonable to find that the amount of attorney's fees that have a corresponding causal relationship with the act of patent infringement by the First-instance Defendant is 5,000,000 yen.

(7) Overview

Based on the above, the amount of damages to the First-instance Plaintiff is 55,629,205 yen in total.

9. Conclusion

Consequently, the claim of the First-instance Plaintiff has grounds to the extent of seeking the payment of 55,629,205 yen as compensation for damages based on the tort of infringement of Patent Right 1, and the amounts of delay damages accrued on the portion of 12,302,476 yen ("Sales period" sections 1 through 4 of Attachment "List of Amount of Monthly Damage") for the period from September 26, 2015, which is the day after the tort and the day following the day on which the complaint was served, until the completion of the payment, and the amounts accrued on the portion of the amounts indicated in each column for "Amount of monthly damage" in "Sales period" sections 5 through 14 as indicated in Attachment 10 "List of Amount of Monthly Damage" for the periods from dates indicated in each column for "Start date of delay damages" corresponding to said sections until the completion of each payment at the rate of 5% per annum as prescribed by the Civil Code before amendment by Act No. 44 of 2017. The remaining claims based on the tort of infringement of Patent Right 1 in this case and claims based on the infringement of Patent Rights 2 through 4 are groundless, and therefore, they are dismissed.

Consequently, the judgment in prior instance is altered based on the appeal of the First-instance Plaintiff and the appeal of the First-instance Defendant is groundless and dismissed. The judgment is rendered as stated in the main text.

Intellectual Property High Court, Fourth Division
Presiding judge: KANNO Masayuki
Judge: MOTOYOSHI Hiroyuki

Judge: NAKAMURA Kyo

Attachments 1 through 10: Omitted.