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**Datasheet for the decision
of 21 January 2009**

Case Number: T 0418/06 - 3.5.02

Application Number: 99905113.9

Publication Number: 1095440

IPC: H02J 13/00

Language of the proceedings: EN

Title of invention:

System and method for monitoring a plurality of electric users,
particularly household appliances

Patentee:

Indesit Company S.p.A.

Opponent:

Diehl AKO Stiftung & Co. KG

Headword:

-

Relevant legal provisions:

EPC Art. 123(2), 54(2), 56

Relevant legal provisions (EPC 1973):

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Keyword:

"Main request - extension (no) - novelty (no)"

"Auxiliary request - admissibility (yes) - Inventive step
(no)"

Decisions cited:

-

Catchword:

See point 5 of the reasons.



Case Number: T 0418/06 - 3.5.02

D E C I S I O N
of the Technical Board of Appeal 3.5.02
of 21 January 2009

Appellant: Diehl AKO Stiftung & Co. KG
(Opponent) Pfannerstrasse 75
D-88239 Wangen im Allgäu (DE)

Representative: Tergau & Pohl Patentanwälte
Mögeldorf Hauptstrasse 51
D-90482 Nürnberg (DE)

Respondent: Indesit Company S.p.A.
(Patent Proprietor) Viale Aristide Merloni, 47
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Representative: Dini, Roberto
Metroconsult S.r.l.
Via Sestriere 100
I-10060 None (TO) (IT)

Decision under appeal: Interlocutory decision of the Opposition
Division of the European Patent Office posted
18 January 2006 concerning maintenance of
European patent No. 1095440 in amended form.

Composition of the Board:

Chairman: M. Ruggiu
Members: J.-M. Cannard
H. Preglau

Summary of Facts and Submissions

I. The opponent appealed against the decision of the opposition division concerning the maintenance of European patent No. 1 095 440 in amended form in accordance with the proprietor's first auxiliary request filed on 20 December 2005 during oral proceedings before the opposition division.

II. Prior art documents:

D3: EP-A-0 727 860,

D7: EP-A-0 846 991, and

D8: DE-A-3404211,

considered during the proceedings before the opposition division remain relevant to the present appeal.

III. With a letter faxed on the 19 December 2008 and confirmed by a copy received at the EPO on the 29 December 2008, the proprietor filed claims in respect of a main request, which was the one approved by the opposition division, and five auxiliary requests.

IV. Oral proceedings before the Board were held on 21 January 2009 in the course of which the proprietor filed a new first auxiliary request replacing the five auxiliary requests filed with the letter of 19 December 2008.

V. Independent claims 1 and 10 of the patent as maintained by the opposition division (main request) read as follows:

Claim 1:

"Method for monitoring a plurality of electric users, in particular household appliances belonging to a same household environment and connected to a network, each of said electric users comprising an electronic control system having a microcontroller, memory means and interface means, each electronic control system being programmed for generating and storing information which relate to operating conditions of the corresponding electric user, said information being made available outside said control system through said interface means to said network, the method comprising the following steps:

- the electronic control system provides for generating diagnostic information for the user's maintenance being representative of the efficiency status of particular components of the relevant user and/or statistical information for the user's maintenance being representative of the wear status of particular components of the relevant user,
- the electronic control system provides for storing, within said memory means, said information,
- the electronic control system provides for making the stored diagnostic and/or statistical information available on said network, through said interface means;

- providing a monitoring device, being interfaced with said network, for selecting, picking up and eventually storing the diagnostic and/or statistical information available on said network;

- the information that have been selected, picked up and eventually stored are made explicit through said monitoring device."

Claim 10:

"System for monitoring a plurality of electric users (C), in particular household appliances, belonging to a same household environment and connected to a network (R), said electric users (C) comprising each one an electronic control system having a microcontroller, memory means and interface means, each electronic control system being programmed for generating and storing information which relate to operating conditions of the corresponding electric user (C), said information being made available outside said control system through said interface means to said network, whereby

- said electronic control system is programmed for generating and storing within said memory means diagnostic information for the user's maintenance being representative of the efficiency status of particular components of the user (C) and/or statistical information for the user's maintenance being representative of the wear status of particular components of the user (C), and for making the stored diagnostic and/or statistical information available on said network (R), through said interface means;

- a monitoring device (F) is provided, connected to said network (R), which comprises first means (N, 1, MP) for selecting and picking up the diagnostic and/or statistical information available on said network (R), and second means (MP, V, K, L, M) for organizing and making explicit to the outside the information selected and picked up from said network (R)."

Claim 1 of the first auxiliary request comprises all the features recited in claim 1 of the main request followed by the additional feature ", and that said diagnostic and/or statistical information are transmitted, through said monitoring device, to a service and/or preventive maintenance center for said electric user."

VI. The arguments of the appellant opponent can be summarized as follows:

The restriction during the opposition proceedings to diagnostic and/or statistical information relating to particular components of the relevant user contravened Article 123(2) EPC. The application as originally filed referred to diagnostic information relating to certain components of a user, but did not contain the term "particular components" which had a different and more restricted meaning than the term "certain components". The application as filed also referred to the wear status of both the mechanical and electric components of a user, but did not disclose statistical information revealing the wear status of particular components of a user.

The subject-matter of the independent claims 1 and 10 of the main request was not novel having regard to

document D7. In D7, the user data, which were received by the central computer 7 and were representative of errors occurring during the execution of a programme in a user, indicated which specific component did not work properly and thus formed diagnostic information representative of particular components of the user. According to paragraph [0030] of the patent in suit, "statistical information may refer to the total number and/or type of wash cycles selected by the utilizer" of a laundry washer. In a similar way, the operation hours explicitly mentioned in D7, which indicated the total number of hours a user had been operating, were statistical information representative of particular components of a user. Moreover, the operation hours of a user indicated the wear status of active components, that is to say of particular components of said user. The diagnostic and/or statistical information generated and monitored in D7 was suitable "for the user's maintenance". Thus, all the features of claims 1 and 10 of the main request were disclosed in D7.

The method according to claim 1 of the first auxiliary request lacked an inventive step having regard to the combination of documents D8 and D3. The expression "particular components" was sufficiently broad to cover every possible group of components. In the method of monitoring described in D8, which for instance was able to detect a leakage, diagnostic information representative of the particular components of a user, namely those carrying water, was generated and monitored. It was obvious to incorporate in the control system of a user of D8 a microcontroller and memory means for storing diagnostic information. Document D3 concerned a system of the same type as the monitoring system

described in D8. For instance, the system of D3 generated an open-door status for an electric oven, namely diagnostic information revealing the efficiency status of particular components of said oven. The skilled person wishing to improve the system of D8 which was an old document thus would have considered D3. Moreover, the system of D3 had a control system having a microcontroller and memory means for storing the diagnostic information and transmitted said information to a remote service center via a monitoring device. The combination of D8 and D3 thus resulted, without the exercise of inventive skill, in a method having all the features of the alternative specified in claim 1 of the first auxiliary request relating to diagnostic information representative of the efficiency status of particular components of a user.

VII. The arguments of the respondent proprietor can be summarized as follows:

The amendments made to the independent claims 1 and 10 of the main request met the requirement of Article 123(2) EPC. The original description specified diagnostic information revealing the efficiency status of certain components of a user and the terms "certain components" and "particular components" had the same meaning. Claims 15 and 37 as originally filed supported statistical information revealing the wear status of particular components of a user. According to the original description, the statistical information in the instance of a laundry washer referred to the total number and/or type of wash cycles and to the water hardness value so that it directly and unambiguously

revealed the wear status of particular components of the washer.

Claims 1 and 10 of the main request were novel because neither diagnostic information representative of the efficiency status of particular components of the users, nor statistical information representative of the wear status of said particular components, were disclosed in document D7. In D7, the information generated in the control systems of the users were only described in general terms, as errors in the programmes executed or as operation hours of the user. Thus, it was not possible to determine which particular components of a user were not working properly. Nor was it clear whether the operation hours related to the working time since the start of a programme or to the working time from the first installation. In D7, the operation hours only revealed general information about the user as a whole, but were not able to provide the wear status of particular components of a user. Operation hours did not form statistical information in the sense of the patent in suit which was information about how many times some particular components had been operated.

Neither document D8, nor document D3 disclosed the idea of an electric user comprising a control system which was able to generate and store information relating to the efficiency or wear status of particular components of the electric user. Thus combining D8 and D3 could not result in the method of claim 1 of the first auxiliary request. More specifically, in D8, alarm signals were generated when a too high temperature had been reached in a refrigerator, or when a leakage had been detected in a washing machine. Both alarms related to general

problems of a user, and were not representative of diagnostic or statistical information about particular components of the user. The users of the invention disclosed in D8 neither comprised an electronic control system having a microcontroller and memory means, nor a monitoring device storing the information received from the user.

All the examples given in D3 related to the operating or functional status of an appliance, i.e. an user, and not to the efficiency or wear status of an appliance. It was not derivable from D3 whether the information transmitted to a remote center concerned particular components or the user as a whole. The electric appliances disclosed in D3 were not equipped with electronic control systems having a microcontroller and memory means for storing the generated operating information.

D3 did not relate to a monitoring method, but to a method for remotely controlling electric appliances. There was no good reason for the skilled person starting from D8, which was concerned with problems occurring in a remote monitoring system, to consider the teaching of D3, nor the prior art acknowledged in D3.

VIII. The appellant (opponent) requested that the decision under appeal be set aside and that the European patent No. 1 095 440 be revoked.

IX. The respondent (patentee) requested that the appeal be dismissed, subsidiarily that the decision under appeal be set aside and the patent be maintained on the basis

of claims 1 to 8 of the first auxiliary request received during the oral proceedings.

Reasons for the Decision

1. The appeal is admissible.

Main request - Admissibility of the amendments

2. The Board is satisfied that the amendments made during the opposition proceedings to the claims of the patent as granted do not contravene Article 123(2) or (3) EPC. More specifically:
 - 2.1 The independent claims 1 and 10 of the main request are respectively based on granted claims 1 and 10 with diagnostic information and/or statistical information now specified to be "for the user's maintenance" and to relate to "particular components" of the relevant user.
 - 2.2 It is not disputed that the application as originally filed (see for instance the published application, page 10, lines 10 to 20) discloses a method and a system which provide diagnostic and/or statistical information for the maintenance of household appliances or users.
 - 2.3 The term "components" of a user has in the relevant field a very broad meaning and is not defined precisely in the originally filed application which merely refers to mechanical, electric and electronic components (page 7, line 11 and page 8, line 17). From the non-limiting examples of diagnostic information relating to a freezer (page 7, lines 1 to 6), it also appears that

the term "certain components" (page 6, line 26) can be understood as relating to various mechanical, electric and electronic parts of a user, as for instance a compressor.

2.4 According to the patent description as originally filed (see the published application, page 6, lines 25 to 27), the term diagnostic information reveals "the *efficiency status* of certain components related to each household user (C)". The word "certain" is commonly used to refer to a "particular" thing that can be specified. In view of the application as a whole, and in particular of the examples of diagnostic information relating to certain components of a user (page 6, line 25 to page 7, line 6), the Board sees no reason to depart from this common meaning and is convinced that the expressions "certain components" and "particular components" have the same meaning, specifying "definite components" of a user. "Diagnostic information representative of the efficiency status of particular components of the relevant user" therefore is a feature which is disclosed in the application as originally filed.

2.5 Originally filed dependent claims 15 and 37 specify that the system and method of the invention make explicit statistical data or information "revealing the wear status of determined components related to each of said electric users". This feature is supported by the example of statistical information for a laundry washer, (page 7, lines 12 to 17), which refers to the water hardness value. It is derivable from this example that the water hardness value is a piece of information which can be used in statistically assessing the wear status of some particular components that are in contact with

water. Moreover, this example shows that the "statistical information" in the context of the patent is not limited to information about how many times a particular component is operated, but should be understood more generally as any information allowing a statistical estimation of the wear of a user. Accordingly, statistical information representative of the wear status of particular components of a relevant user is a feature which is disclosed in the application as originally filed.

- 2.6 It follows from the foregoing that, on the basis of the application as a whole, the Board understands the expressions "diagnostic information for the user's maintenance being representative of the efficiency status of particular components" of the user and "statistic information for the user's maintenance being representative of the efficiency status of particular components" of the user as specifying those particular components that are in relation with the respective diagnostic and statistical information.

Claim 10 of the main request - Lack of novelty

3. Claim 10 of the main request relates to a system for monitoring a plurality of electric users, each having an electronic control system programmed for generating and storing, according to a first alternative, diagnostic information for the user's maintenance being representative of the efficiency status of particular components of the user and, according to a second alternative, statistical information for the user's maintenance being representative of the wear status of particular components of the user. Both alternatives of

the system of claim 10 lack novelty having regard to the system disclosed in document D7.

4. D7 is a prior art document according to Article 54(3) EPC 1973 and designates all states designated in the patent in suit. It discloses a system for monitoring a plurality of household appliances, or users, 1 to 4 connected to a network 5 (columns 1 and 2, bridging paragraph). This system comprises:

- in each user, an electronic control system which has a microcontroller (6a-d) and memory means (13a-d), and is programmed for generating and storing information relating to operating conditions of said user (Programm- und Gerätedaten), said information being made available outside said control system through implicit interface means to the network 5, and

- a monitoring device comprising first means (computer 7) for selecting and picking up the information available on the network and second means (computer 7, displays 8 and 12) for organizing and making explicit to the outside the information selected and picked up from the network (column 2, lines 6 to 34).

4.1 Giving the word "diagnostic" the meaning which it has normally in the relevant art, "diagnostic information representative of the efficiency status of particular components of the user" relates to pieces of information which can be used to discover particular components of a user which do not work properly, as this also appears from the example of diagnostic information relating to a freezer in paragraph [0028] of the patent in suit. The electronic control system of the users of D7 are used

for generating and storing errors occurring during the execution of programmes ("Programmfehler", column 2, line 11; "aufgetretene Fehler während des Programmablauf", column 2, lines 26 and 27). As these errors are necessarily caused by an improper use of the user or by a technical defect of particular components thereof, namely the components which should be activated during the execution of a programme, D7 discloses a monitoring system for processing diagnostic information with the meaning that this feature has in claim 10.

4.2 To be consistent with the examples of statistical information relating to a laundry washer, "Statistical information representative of the wear status of particular components of the user" should be understood as information allowing a statistical estimation of the wear of particular components of a user (*supra* paragraph 2.5). As a particular example of such statistical information, the patent mentions the total number and type of wash cycles selected by the utilizer. The electronic control system of the users of D7 is used for generating and storing the number of operation hours of a user ("Betriebsstunden", column 2, line 11). As this number of operation hours allows a statistical estimation of the wear status of particular components of a user, D7 discloses a monitoring system for processing statistical information, as specified in claim 10.

4.3 Specifying in claim 10 that the diagnostic and/or the statistical information are for the user's maintenance merely means that the claimed system is suitable for the user's maintenance. Thus, these features cannot distinguish the system over the monitoring system of D7

which is also suitable for the user's maintenance. In view of the foregoing, D7 thus discloses a monitoring system which comprises all the features of each one of the alternatives recited in claim 10. The subject-matter of claim 10 of the main request lacks novelty (Article 54 EPC).

Claim 1 of the first auxiliary request - Admissibility - Inventive step

5. Claim 1 of the first auxiliary request corresponds in substance to a combination of claim 1 and dependent claim 8 of the main request and has been filed after the Board had indicated that claim 1 of the main request lacked novelty. The Board considers that, in the circumstances, the appellant could be expected to deal with the amended claim 1 without adjournment of the oral proceedings because the added features are identical with those of claim 8 of the patent as granted which had already been considered in the notice of opposition (page 4, second paragraph). Accordingly, the first auxiliary request was admitted into the proceedings (Article 13(3) of the Rules of Procedure of the Boards of Appeal, OJ EPO 2007, 536 to 547).

6. Claim 1 of the first auxiliary request specifies an alternative relating to a monitoring method in which diagnostic information representative of the efficiency status of particular components of the relevant user is generated, stored and made explicit. This particular alternative, which falls within the scope of claim 1 of the first auxiliary request, lacks an inventive step having regard to the combination of documents D8 and D3.

6.1 D8, which forms the prior art to be treated as the starting point of the invention, discloses a method for monitoring household appliances, or users, (page 3, lines 1 to 6; page 5, lines 1 to 20) which are connected to a network 3 and comprise an electronic control system 5. This method comprises the following features of claim 1 of the first auxiliary request:

- each electronic control system 5 generates information which relates to operating conditions of the electric user, said information being made available outside said control system through interface means to said network (page 6, line 7 to page 7, line 3),
- the electronic control system provides for generating diagnostic information for the user's maintenance being representative of the efficiency status of particular components of the relevant user, with the meaning that said diagnostic information has in paragraphs [0027] and [0028] of the patent in suit (pages 7 and 8, bridging paragraph, the too high temperature or leakage of water),
- the electronic control system provides for making the stored diagnostic available on said network, through said interface means (page 6, lines 7 to 18; page 7, lines 4 to 26),
- providing a monitoring device 14, being interfaced with said network 3, for selecting and picking up the diagnostic information available on said network,
- the information that has been selected and picked up is made explicit (displays 15 to 19) through said monitoring device (page 7, lines 4 to 29).

6.2 Thus, the method according to said alternative of claim 1 differs from the method disclosed in D8 in that:

- it provides in the electronic control system, a microcontroller and memory means for storing, within said memory means, said diagnostic information, and
- the diagnostic information is eventually stored in the monitoring device, and
- said diagnostic information is transmitted, through said monitoring device, to a service and or preventive maintenance center for said electric user.

7. Starting from D8 and having regard to the effects provided by the claimed invention, two independent technical problems can be identified:

- providing specific embodiments for the electronic control systems of the relevant users and the interface means of the monitoring device because such specific embodiments are not described in D8, and
- facilitating the maintenance of the users.

8. Document D3 relates to a system for remote control of household appliances, or electric users, which are connected through communication means to a central control unit; this system also necessarily monitors said users remotely because it aims at improving the control functions of an acknowledged prior art which is a remote monitoring and control system of users (column 2, lines 1 to 21). In any case, it is obvious to provide

each electric user of D3, as in said acknowledged prior art, with an electronic control system having a microcontroller and memory means for generating, storing and making available to the central control unit information relating to the relevant user (column 1, lines 45 to 50). Said information relates to anomalies in the operations of a user and is transmitted, through the monitoring device where it is are stored (column 2, line 31), to a service center for the relevant electric user (column 3, lines 8 to 13). Accordingly, the information which is selected, picked up, stored and made explicit in the monitoring device (column 2, lines 22 to 33) is necessarily for the user's maintenance and is also representative of the efficiency status of particular components of the relevant user with the meaning that this feature has in claim 1.

9. As D8 and D3 both relate to the remote monitoring of household appliances belonging to the same household environment and their basic principles of operation are similar, D3 would be taken in consideration by the skilled person wishing to solve the objective technical problems mentioned in the foregoing.
- 9.1 Doing so, the skilled person would, on the one hand, consider carrying out the coding and decoding operations performed in the user control systems and the interface device of the monitoring device mentioned in D8 by means of an electronic control system which has a microcontroller and memory means for generating, storing and making available to the network the relevant diagnostic information and a monitoring device storing said information, as described in D3. This is an obvious

use of more recent techniques known to be suitable for the purpose.

9.2 On the other hand for facilitating maintenance, the skilled person would consider transmitting the diagnostic information, through the monitoring device, to a service center for the relevant electric user, as specified in D3. As the solutions to both technical problems are functionally independent from each other and do not achieve effects going beyond the sum of their respective individual effects, the skilled person, combining in an obvious way the teaching of documents D8 and D3, would arrive at a method having all the features of the method according to the alternative in claim 1 relating to diagnostic information representative of the efficiency status of particular components of a relevant user. Accordingly, the subject-matter of claim 1 of the first auxiliary request does not involve an inventive step (Article 56 EPC).

10. As none of the proprietor's requests is suitable for maintaining the patent, the patent has to be revoked.

Order

For these reasons it is decided that :

1. The decision under appeal is set aside.
2. The patent is revoked.

The Registrar:

The Chairman:

U. Bultmann

M. Ruggiu