

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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ECOWATER SYSTEMS LLC,  
Petitioner,

v.

CULLIGAN INTERNATIONAL COMPANY,  
Patent Owner.

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Case IPR2013-00155  
Patent 8,180,489 B2

Before HOWARD B. BLANKENSHIP, KRISTEN L. DROESCH, and  
JUSTIN T. ARBES, *Administrative Patent Judges*.

DROESCH, *Administrative Patent Judge*.

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

## I. INTRODUCTION

EcoWater Systems LLC (“Petitioner”) filed a Petition (Paper 1, “Pet.”) to institute an *inter partes* review of claims 1–6 of U.S. Patent No. 8,180,489 B2 (“the ’489 Patent”) pursuant to 35 U.S.C. §§ 311–319. On August 7, 2013, the Board instituted *inter partes* review of all claims on two grounds of unpatentability (Paper 6, “Decision”).

Following institution, Patent Owner filed a Patent Owner Response (Paper 12, “PO Resp.”), and Petitioner filed a Reply to the Patent Owner Response (Paper 15, “Pet. Reply”). Along with its Response, Patent Owner filed a Motion to Amend (Paper 13, “Mot. Amend”), proposing substitute claims 16 and 17 if claims 1 and 2 of the ’489 Patent are found unpatentable, and substitute claim 18 to correct a typographical error in claim 6 of the ’489 Patent. Petitioner filed an Opposition to Patent Owner’s Motion (Paper 14, “Pet. Opp.”), and Patent Owner filed a Reply to Petitioner’s Opposition (Paper 16, “PO Reply Opp.”). Neither party requested Oral Hearing (Paper 17).

We have jurisdiction under 35 U.S.C. § 6(c). This final written decision is entered pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73.

For the reasons that follow, we determine that Petitioner has shown by a preponderance of the evidence that claims 1–6 of the ’489 Patent are unpatentable, and we deny Patent Owner’s Motion to Amend.

### A. *The ’489 Patent (Ex. 1001)*

The ’489 Patent relates to a “communication system for a water softener system that includes a controller configured for communicating with the water softener assembly and a remote display configured for sending and receiving at least one signal to and from the controller to a remote location.” Ex. 1001, Abs.

Figure 1 of the '489 Patent is reproduced below:

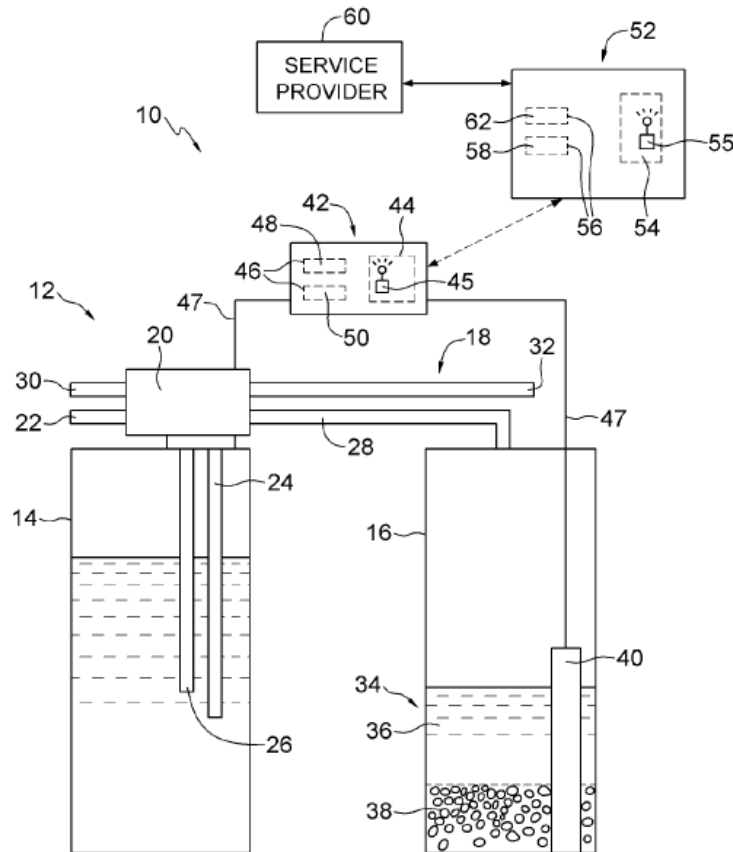


Figure 1 depicts communication system 10 and water softener assembly 12, which includes treatment tank 14 and brine tank 16 connected by piping 18. *Id.* at col. 2, ll. 46–49. Brine tank 16 is filled with brine solution 34 and includes sensor assembly 40 for measuring certain parameters, such as the amount of salt in the tank. *Id.* at col. 2, ll. 55–61. Valve assembly 20 controls the flow of water in the system. *Id.* at col. 2, ll. 49–54. Valve assembly 20 and sensor assembly 40 transmit data regarding the tanks to controller 42 via cables 47 or wireless connections. *Id.* at col. 3, ll. 10–20, 26–31. Controller 42 includes modem card 50, secondary circuit board 48, and primary circuit board 44, which includes radio transmitter 45. *Id.* at col. 3, ll. 21–26; col. 4, ll. 27–32. Controller 42 is configured for communicating with remote display 52. *Id.* at col. 3, l. 37–col. 4, l. 17. Remote display 52 enables a user to receive data at a location remote from

controller 42, and is configured for sending commands to controller 42. *Id.* at col. 3, ll. 32–34; col. 4, ll. 33–49. Remote display 52 includes minor circuit board 58, second modem card 62, and main circuit board 54, which includes radio transmitter 55. *Id.* at col. 3, ll. 34–37; col. 4, ll. 18–25. Data from water softener assembly 12 can be sent from remote display 52 to service provider network 60 by modem card 62, which translates data received from controller 42 into an email message, and sends it to service provider network 60 to display the message in a readable format. *Id.* at col. 4, ll. 18–25. Controller 42 also “optionally directly communicates with” service provider network 60 by sending a signal from primary circuit board 44 to modem 50, which connects to service provider network 60, logs in, and displays the message as an email. *Id.* at col. 4, ll. 27–32. Controller 42 and remote display 52 also are configured for automatically communicating with service provider network 60 to ensure, for example, that the system software is updated properly and has the correct time. *Id.* at col. 4, l. 50–col. 5, l. 3; col. 5, ll. 12–16.

Independent claims 1 and 3, reproduced below, are illustrative of the claims at issue (emphases added):

1. A communication system for a water softener system, comprising:
  - a water softener assembly;
  - a controller at a first location*, said controller configured for communicating with said water softener assembly;
  - a remote display at a second location*, said remote display configured for communicating with said controller and enabling a user to receive data from said controller, *wherein said first location is different from said second location*; and
  - a service provider at a third location configured for communicating with said controller or said remote display via an interne [sic] connection,

*said controller or said remote display automatically transmitting a condition of said water softener assembly to the service*

*provider* and said controller configured to download updated software from said service provider.

3. A method of communicating information about a water softener system, comprising:

providing a water softener assembly;  
providing a controller at a first location configured for communicating with the water softener assembly;  
providing a remote display at a second location configured for communicating with said controller, said remote display enabling a user to receive data from said controller, wherein said first location is different from said second location;  
providing a service provider at a third location in communication with said controller or said remote display, said service provider enabling communication over an internet network between said controller or said remote display, and said service provider;  
automatically sending error messages on an operating condition of the water softener assembly via said internet network to said remote display;  
controlling the water softener assembly using said internet network for transmitting control commands from the remote display to the water softener assembly;  
determining whether a current software version utilized by said controller is an updated software version; and  
*automatically downloading the updated software version to said controller from said service provider* when the current software version is not the updated software version.

#### *B. Prior Art Relied Upon*

1. Japan Patent Publication No. 2003-136057A, published May 13, 2003 (“Iizuka”) (Ex. 1006);<sup>1</sup>

2. Patent Application Publication No. 2001/0010516 A1, published Aug. 2, 2001 (“Roh”) (Ex. 1003); and

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<sup>1</sup> We refer to “Iizuka” as the English translation (Ex. 1006) of the original reference (Ex. 1002). Petitioner provided an affidavit attesting to the accuracy of the translation. *See* Ex. 1006; 37 C.F.R. § 42.63(b).

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