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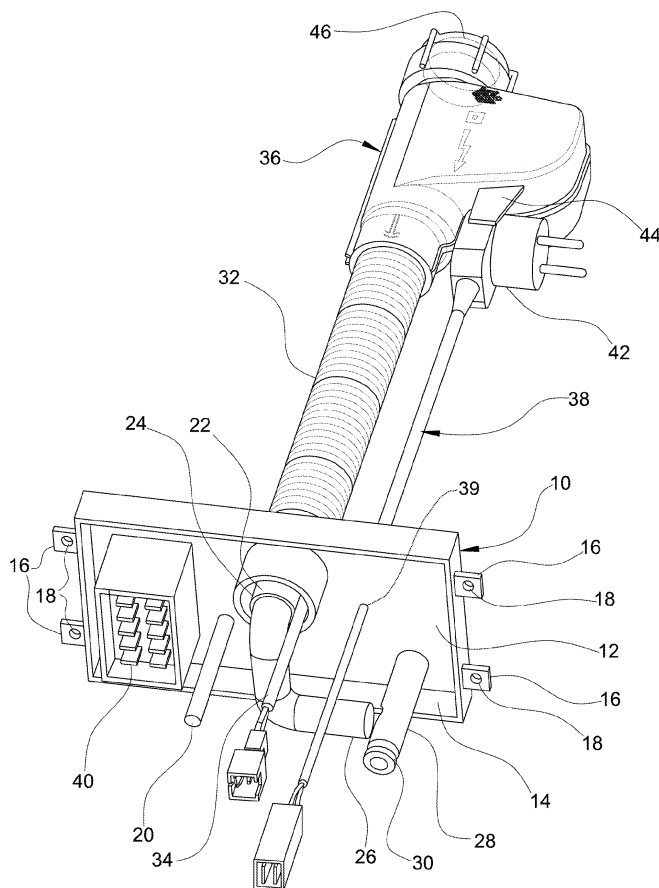
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(54) **Integrated accessory for supplying a dishwasher**

(57) The integrated accessory for a dishwasher comprises at least an electric power supply cable (38) and a water supply tube (24), each having a first end associated

with a casing (10), the latter having means for electrical connection to an electric circuit inside the dishwasher. A second end of the water supply tube (24) is also connected to an anti-flood device (36).

FIG 1



Description

[0001] The present invention relates to the power and water supply for a dishwasher.

[0002] According to the prior art, dishwashers are supplied with power by an electric cable and with water by a tube, both these components being connected separately to the dishwasher, typically at the rear of the machine.

[0003] The aim of the present invention is to reduce the time and costs involved in assembling the power and water supply components to a dishwasher.

[0004] This aim is achieved by virtue of an integrated accessory for a dishwasher having the features described in Claim 1 below. Preferred features of this integrated accessory for a dishwasher are described in dependent Claims 2 to 12.

[0005] Integrating several functions into a single accessory simplifies the logistical operations for dishwasher manufacturers, who have fewer components to manage.

[0006] The accessory of the invention may be made separately to the dishwasher and connected thereto only at the point of installation, thus simplifying the packaging, while the dishwasher can be made and tested without said accessory.

[0007] The present invention also relates to a dishwasher provided with an integrated accessory of the abovementioned type.

[0008] Further advantages and features of the present invention will become evident from the following detailed description, which makes reference to the attached drawing provided by way of non-limiting example, the single figure of which shows a perspective view of an accessory according to the invention.

[0009] An integrated accessory for a dishwasher comprises a casing 10 with an end wall 12, which is substantially rectangular, and side walls 14. The casing 10 has means for fixing it to the dishwasher, which take the form of projecting tabs 16 each with a hole 18 therethrough for the passage of a screw (not shown) for assembly to the dishwasher. A centring peg 20 also protrudes from the inside surface of the end wall 12, to facilitate assembly.

[0010] A hole 22 is entirely made through the end wall 12 for the passage of a first end of a water supply tube 24. The latter is connected via a connecting piece 26 to a nozzle 28 that is integral with the end wall 12 and enables quick coupling to the dishwasher. The mouth of the nozzle 28 has an O-ring seal 30.

[0011] The tube 24 is enclosed within a corrugated tubular sheath 32, along with an electric wire 34 belonging to an anti-flood device 36, to which the second end of the tube 24 is connected and which therefore is integrated in the accessory. As is known, an anti-flood device comprises valve means for stopping the supply water from flowing through the associated tube 24 when an anomaly is detected, for example leaked water collecting in the

annular space between the tube 24 and the sheath 32.

[0012] The accessory also comprises an electric power supply cable 38 passing through another hole 39 entirely made through the end wall 12 of the casing 10. The casing also has (for example fixed thereto or incorporated therein) an electric component 40 that acts as electric anti-jamming filter and/or means for electrically connecting the accessory to an electric circuit inside the dishwasher. In embodiments of the invention not shown in the figure, the component 40 may also be directly connected to at least a first end of the cable 38 or an end of the electric wire 34, and advantageously to both.

[0013] The electric cable 38 also has a second end with a plug 42 held by retention means taking the form of tongues 44 that are integral with the housing of the anti-flood device 36.

[0014] To assemble the accessory, all that is required is to connect the nozzle 28 and integrated component 40 to the water circuit and electric circuit of the dishwasher, respectively, and then attach the casing 10 to the housing of the dishwasher. The plug 42 of the cable 38 is then removed from the retention tongues 44 and connected to an electricity point, while the supply connector 46 of the anti-flood device 36 must be connected to a mains water point. Following assembly of the integrated accessory - which affords logistical advantages from the viewpoint of production and transport owing to the reduction in the number of different components to be managed - the operation and bulk of the dishwasher when in use are substantially the same as in the prior art. It should also be noted that because the holes for passing through the electric power supply cable and water supply tube (and the drainage tube, if applicable) are made entirely within the end wall of the casing - and not partially at an edge thereof - the accessory with the associated cables and tubes constitutes a standalone component. The latter component - which thus includes the anti-flood device, casing, tubes and cables - can be handled and assembled to the dishwasher as a unit, much more easily and practically than in the case where the cables and/or tubes are held between the edge of the casing and the base of the dishwasher, thus constituting for all intents and purposes separate, independent components until assembly has been completed.

[0015] Naturally, without prejudice to the principle of the invention, the details of embodiments and the forms of implementation may vary widely from what has been described herein purely by way of example, without exceeding the scope of the claims. For example, one end of a water drainage tube and/or a dishwasher filling valve and/or any other element may also be associated with the casing of the accessory, to increase the degree of integration thereof and the related advantages.

Claims

1. Integrated accessory for a dishwasher, comprising

- at least one electric power supply cable (38) and one water supply tube (24), each having a first end associated with a casing (10), the latter having means for electrical connection to an electric circuit inside the dishwasher, a second end of said water supply tube (24) being connected to an anti-flood device (36).
2. Accessory according to Claim 1, in which said anti-flood device (36) has means for retaining a plug (42) connected to a second end of said electric power supply cable (38). 10
 3. Accessory according to any one of the preceding claims, in which said tube (24) is enclosed within a tubular sheath (32), along with an electric wire (34) connected to the anti-flood device (36). 15
 4. Accessory according to any one of the preceding claims, in which said means for electrical connection is electrically connected to at least the first end of the electric power supply cable (38) or an end of the electric wire (34). 20
 5. Accessory according to any one of the preceding claims, in which a water drainage tube and/or a valve are also associated with said casing (10). 25
 6. Accessory according to any one of the preceding claims, in which an anti-jamming filter is also associated with said casing (10). 30
 7. Accessory according to Claim 6, in which said anti-jamming filter and said means for electrical connection to an electric circuit inside the dishwasher constitute an integrated electric component (40). 35
 8. Accessory according to any one of the preceding claims, in which said first end of the water supply tube (24) is connected via a connecting piece (26) to a nozzle (28) that is integral with the casing (10) and enables quick coupling to the dishwasher. 40
 9. Accessory according to any one of the preceding claims, in which said casing (10) has an end wall (12), which is preferably substantially rectangular, at least one hole (22) for the passage of the first end of the water supply tube (24) being made entirely through said end wall (12). 45
 10. Accessory according to Claim 10, in which another hole (39) for the passage of the first end of the electric power supply cable (38) is also made entirely through said end wall (12). 50
 11. Accessory according to Claim 9 or 10, in which a centring peg (20) protrudes from the inside surface of said end wall (12). 55
 12. Accessory according to any one of the preceding claims, in which said casing (10) has means for fixing it to the dishwasher.
 13. Dishwasher with an integrated accessory according to any one of the preceding claims.

FIG 1

