Water Level Controller

DU KZ1



Owner's Manual #0798 061311	
Serial Number:	**Installation Date:**

IMPORTANT



Please read and understand this manual. Store in safe location for future reference.

Everyone who operates this unit should understand basic operations and safety precautions! The time you take to fully understand the proper installation, maintenance and use of the machine will prolong its service life, and assure you of trouble free operation.

When unpacking, check to make sure all the parts shown on the Parts Breakdown near the end of this manual are included. If any parts are missing or broken, please call Dultmeier Sales as soon as possible.

Consumers should notice that this manual may differ slightly from the actual product as more improvements are made to our products. Some of the pictures in this manual may differ slightly from the actual product as well. Dultmeier Sales reserves the right to update designs and / or change the specifications at any time without incurring any obligation to install them on units previously sold.

If you have any questions or suggestions about this manual, please contact us at:

800-228-9666
dultmeier@dultmeier.com
www.dultmeier.com

Table of Contents

Safety Information 1
Setup 2-3
Testing 3
Parts Breakdown 4
Warranty Information 5

To avoid serious or fatal personal injury or major property damage, read and follow all safety and operation instructions in the manual.

This is a **Safety Alert Symbol** -
When you see this symbol in the manual, look for the following signal words & be alert to the potential for personal injury or property damage.

DANGER Warns of potential hazards that **WILL** cause serious personal injury, death or property damage.

WARNING Warns of potential hazards that **CAN** cause serious personal injury, death or property damage.

CAUTION Warns of potential hazards that **WILL** or **CAN** cause minor personal injury, death or property damage.

IMPORTANT Indicates special instructions that **MUST** be followed but not related to hazards.

This manual is intended to assist in the installation and operation of this unit.
Do not attempt to operate this unit without reading and understanding this manual.

General Safety

To avoid the risk of serious bodily injury and property damage, read safety instructions carefully before installing this system. Follow all local and/or national plumbing and electrical codes when installing.

IMPORTANT

Do Not Allow System or Components to Freeze.
To do so may damage the system and will void the warranty.

WARNING

Never Run the System Dry.
Running the unit dry (without fluid) can damage internal parts, overheat pump (which can cause burns to people handling or servicing the pump), and will void the warranty.

WARNING



Risk of Electric Shock.
Keep the unit dry at all times -
Do not wash the motor or electrical panel or allow the unit to sit in standing water.

Use only Ground Fault Circuit Interrupter (GFCI) protected grounded outlet for the cord plug.
If you must use an extension cord, use only UL approved indoor/outdoor, 3-wire, grounding type cords. The cord must be rated to support amp draw. Do not allow any part of cord or receptacle ends to sit in water.

To avoid fatal shocks, proceed as follows if service is needed:

A. Turn off water to the system.
B. Disconnect the power at main electrical service before unplugging the unit.
C. Ground the electrical outlet box.
D. Take extreme care when changing fuses.

Setup

- Mount KZ1 Float Control Panel in a convenient location. Locate near 120 volt power supply.

⚠ WARNING **If an extension cord must be used than the 120 volt receptacle must be a Ground Fault Circuit Interrupter (GFCI)**

- The DU KZ1 is supplied with a 15' control cable to run a 24 volt KZ Valve. **(Fig. 1-A)** It is suggested to install the valve within reach of the control cable. If this is not possible an extension harness can be purchased. See Parts Breakdown for part numbers needed, order cable to specific length.

INSTALLING THE POLY FLOAT SWITCH -

Since all applications are different,
the following steps are suggestion only.

1. For through tank mounting you will have to remove to cable connector. **(Fig 1-B)** *(See page 3)*
2. Install a 1/2" tank fitting on the top or side of the tank at the desired shut down level. **(Fig. 2)** At this time determine if the 20' of cable is long enough for your application. If not, See Parts Breakdown for additional cables and connectors.
3. Install the strain relief on the outside of the tank fitting.
4. With the paddle on the inside of the tank, feed wire end of the float switch through the strain relief fitting until the metal weight is even with the stain relief.
5. Measure cord 12" from the outside of the tank and mark it.
6. Pull cord inside of tank until your marker is even with the strain relief fitting.
7. Hand tighten the strain relief until the cord is secure.
8. If additional cable was needed, install cable and connectors at the end of float switch.
9. Reassemble cable connector *(page 3)* and install on control box.

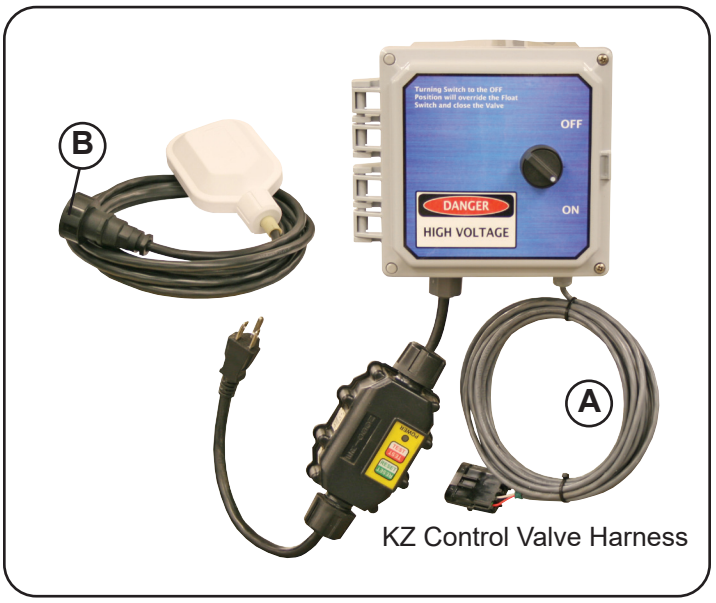


figure 1

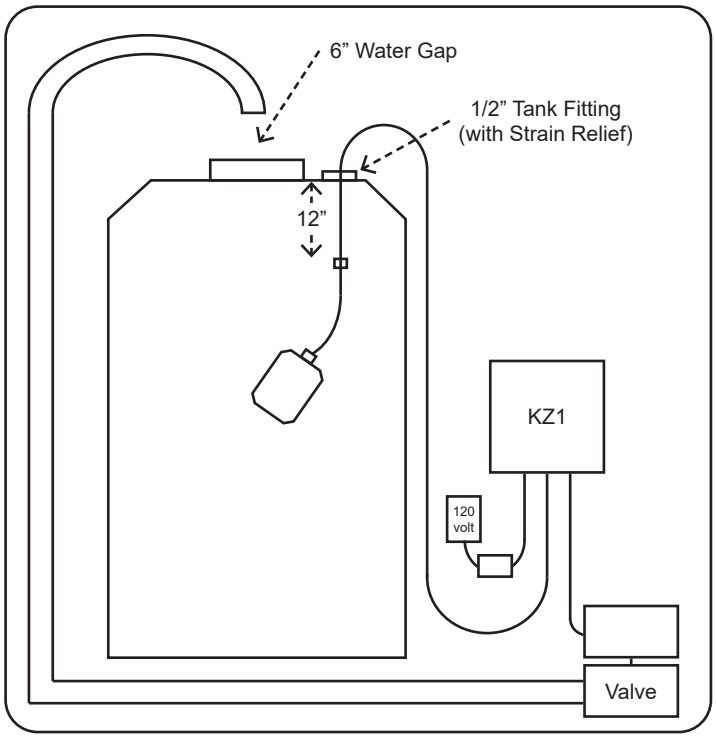


figure 2

Setup

1. Disassemble the cable connector. **(Fig. 3)**
2. Loosen the gland nut.
3. Insert the Float Cable approx. 6” into the cable connector.
4. Strip 1-1/2” of casing from cable and remove.
5. Cut blue wire even with casing. You will not use the blue wire.
6. Strip black and white wires, approx. 3/16” back.
7. Place wire into contact insert and tighten. Wires can be installed in either direction. **(Fig. 4)**
8. Pull cable until contact insert can be aligned in the housing then secure with the insert retaining ring. **(Fig. 4)**
9. Tighten the gland nut.

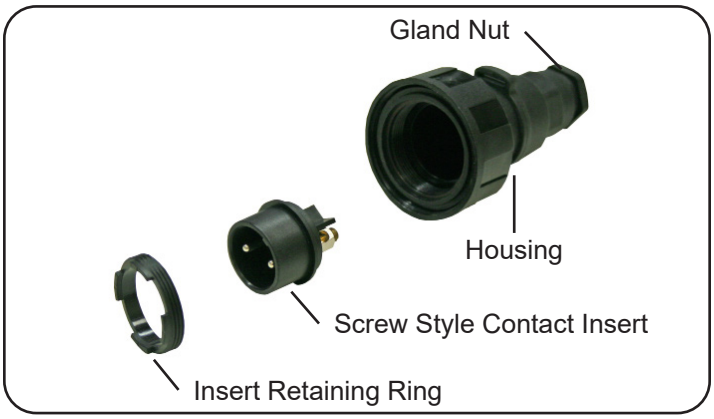


figure 3

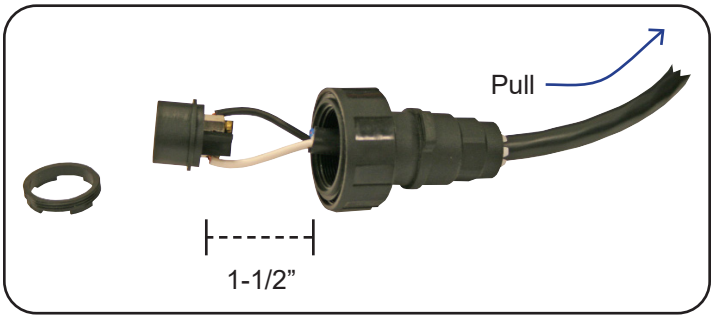


figure 4

Testing

IMPORTANT **Keep main water valve closed until testing is complete.**

1. Turn On-Off switch to the OFF position.
2. With all control cables connected, plug in 120v power cord.
3. Press the TEST and then RESET button on the GCFI to ensure it functions properly.
4. Turn On-Off switch to the ON position.

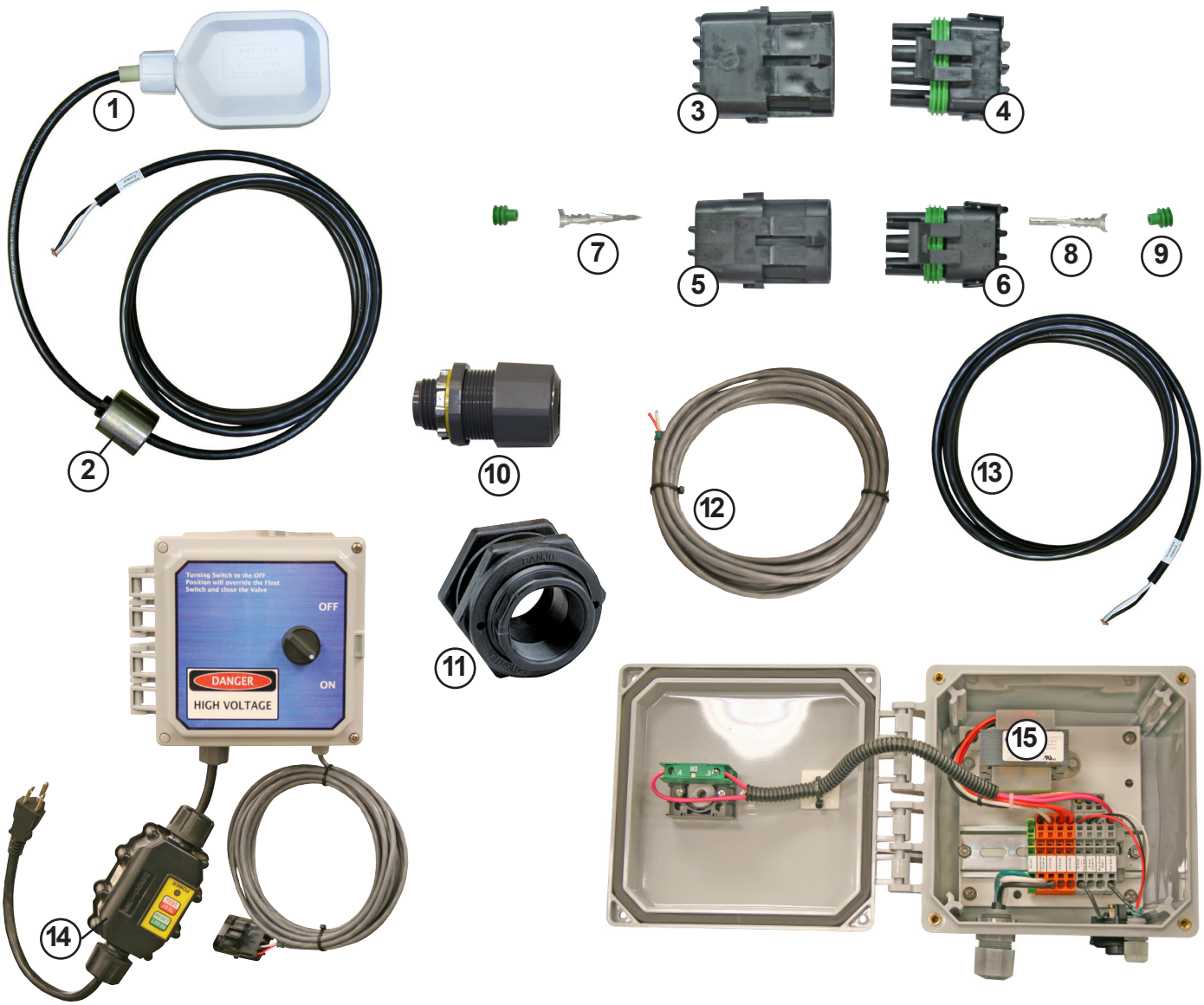
   The KZ Valve should now open.
5. Lift the paddle of the float switch.

   The KZ Valve should now shut.
6. Lift and lower the float switch paddle to assure free movement of the KZ Valve.
7. Turn On-Off switch to OFF position.

   At this time the KZ Valve should be in the closed position, lifting and lowering the paddle should have no effect on the KZ Valve.
8. Turn on main water supply.
9. Turn On-Off switch to ON position.

   The KZ Valve should open and tank will fill.
10. Monitor the tank until full and KZ Valve shuts off.

Parts Breakdown: DU KZ1



Item	Part Number	Description
1	AR 2P055-50	Float Switch
2	AR CW5	Float Switch Cable Weight
3	RV WPS4	4 Port Weatherpack, Female *(For KZ Valve Extension Cable)*
4	RV WPT4	4 Port Weatherpack, Male *(For KZ Valve Extension Cable)*
5	RV WPS3	3 Port Weatherpack, Female *(For Float Switch Extension Cable)*
6	RV WPT3	3 Port Weatherpack, Male *(For Float Switch Extension Cable)*
7	RV WPM-19	Weatherpack Pins, Male *(3 qty For KZ Cable, 4 qty For Float Switch Cable)*
8	RV WPF-19	Weatherpack Pins, Female *(3 qty For KZ Cable, 4 qty For Float Switch Cable)*
9	RV WPS-GRN	Weatherpack Dust Seal *(6 qty For KZ Cable, 8 qty For Float Switch Cable)*
10	UT LPCG50	Strain Relief
11	TK TF050	Tank Fitting, 1/2”
12	UT 18/4	KZ Control Cable, Specify Length & Use Items 3, 4, 7, 8 & 9
13	UT CRLSJ0143	Float Switch Cable, Specify Length & Use Items 5, 6, 7, 8 & 9
14	DU XG2-14-2S	2’ GFI Cord
	DU XG2-14-25S	*25’ GFI Extension Cord (Not Shown)*
15	GN 3TZ67	Transformer

Notice Regarding Manufacturer's Limited Warranty

Dultmeier Sales Limited Liability Company (hereinafter Dultmeier), notifies you that component part(s) carry a manufacturer's limited warranty provided by the manufacturer of said component part(s). These warranties do not pertain to normal wear of component part(s) that may occur within any specified period. While Dultmeier is not the manufacturer of any of the component part(s), Dultmeier will assist you in processing any and all manufacturer's warranty claim if applicable and available. Any and all manufacturer's claims must be submitted in writing to the manufacturer within the warranty periods provided by the manufacturer.

Defective component part(s) that are to be considered for manufacturer's limited warranty must be returned to the manufacturer by prepaid shipment with the applicable manufacturer's limited warranty period. If the component part(s) are deemed to be defective under the manufacturer's warranty, Dultmeier will assist in obtaining a replacement or repair of the component part(s). Said component part(s) will be returned F.O.B. Omaha, Nebraska. Replacement or repair shall be the exclusive remedy for any breach of warranty. Labor for installation, either with respect to original or replacement part or components, is not covered under the manufacturer's limited warranty.

Neither the manufacturer nor Dultmeier warrants loss of income or consequential damages for injury or commercial loss resulting from any breach of warranty or warranties stated above.

The manufacturer's limited warranty as stated does not apply to component part(s) which have been improperly installed, misused, altered, neglected, abused or not installed, adjusted, maintained, or used in accordance with applicable codes and ordinances and in accordance with the manufacturer's specifications as to such factors.

Notwithstanding Dultmeier's willingness to assist in the processing of the manufacturer's limited warranty, Dultmeier makes no warranty against infringement of the like, makes no warranty of merchantability, makes no warranty of fitness for a particular purpose, and makes no other warranty, express or implied, including implied warranty arising from the course of dealing or usage of trade.

Compliance with all local, state and federal codes regarding the installation and operation of said equipment, parts and components shall be the responsibility of the purchaser. The rights and obligations of the parties shall be governed by the laws of the State of Nebraska.

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