YeloDeer
PLUG IN·HEAT UP

Model: DGK-EK

DrainGuard Y-Fitting Cable Entry Kit

For 1 in., 1-1/4 in., and 1-1/2 in.
Non-Pressurized Drain Lines

INSTALLATION MANUAL



Heating cable is required and sold separately.

To Be the #1 HEATING CABLE BRAND for Homes

PRODUCT OVERVIEW

The YeloDeer DrainGuard Y-Fitting Cable Entry Kit (DGK-EK) provides the fittings and sealing components needed to install a compatible YeloDeer Self-Regulating In-Drain Heating Cable inside non-pressurized drain lines.

The kit supports the following nominal pipe sizes:

- 1 in.
- 1-1/4 in.
- 1-1/2 in.

A 1-1/2 in. Y-fitting forms the main cable-entry point. The included reducers and pipe nipples adapt the assembly to 1 in. and 1-1/4 in. drain lines.

The angled branch allows the heating cable to enter the drain line in the downstream direction, helping protect freeze-prone sections from inside the pipe.

Heating cable is required and sold separately.

APPLICATIONS AND LIMITATIONS

Suitable Applications

DGK-EK is designed for non-pressurized drain lines that may be exposed to freezing conditions.

Typical applications may include:

- Water filtration system drain lines
- Water softener drain lines
- Commercial or larger condensate drain lines
- Condensing boiler or water-heating system drain lines
- Ice maker or refrigeration drain lines
- Humidifier or dehumidifier drain lines
- Other non-pressurized drain applications using a supported pipe size

Actual applications vary by installation. Always confirm that the drain line uses one of the supported nominal pipe sizes.

Pipe Compatibility

Designed for:

- 1 in., 1-1/4 in., and 1-1/2 in. nominal pipe sizes
- PVC drain pipe
- ABS drain pipe
- Pipe conforming to applicable ASTM/NPS dimensional standards

The supplied fittings are PVC.

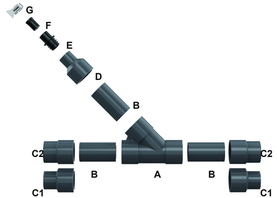
When connecting the supplied PVC fittings to ABS drain pipe, use an appropriate PVC-to-ABS transition method where permitted by local code and follow the joining-material manufacturer's instructions.

Do Not Use This Kit For

Do not use DGK-EK with:

- Pressurized plumbing systems
- Applications exposed to continuous internal water pressure
- Fuel or gas piping
- Chemical transfer lines
- Pipe sizes not listed in this manual
- Heating cables not compatible with this kit

WHAT'S INCLUDED



Mark	Component	Qty	Function
A	1-1/2 in. Y-Fitting	1	Main drain connection and angled cable-entry branch
B	1-1/2 in. Pipe Nipple, 2.36 in. / 60 mm Long	3	Connects the Y-fitting to reducers
C1	1-1/2 in. to 1 in. Reducer	2	Adapts the assembly to 1 in. drain pipe
C2	1-1/2 in. to 1-1/4 in. Reducer	2	Adapts the assembly to 1-1/4 in. drain pipe
D	1-1/2 in. to 3/4 in. Reducer	1	Provides the socket for the cable-entry sealing assembly
E	Rubber Gasket	1	Receives the sealing grommet and helps seal the cable entry
F	Sealing Grommet	1	Fits around the heating cable to form the cable seal
G	Lock Nut	1	Secures and compresses the sealing assembly

Before Installation

Confirm that:

1. All required components are present.
2. The existing drain pipe is 1 in., 1-1/4 in., or 1-1/2 in. nominal size.
3. The drain line is non-pressurized.
4. The pipe and fittings are free of cracks, deformation, contamination, or damage.
5. The drain line is open and draining normally.

Do not install damaged or incorrectly sized components.

BEFORE YOU CUT THE PIPE

1. Read the complete installation instructions before cutting the existing drain line.
2. Keep the heating cable disconnected from power during installation.
3. Wear appropriate eye and hand protection when cutting or preparing pipe.
4. Use primer, solvent cement, transition cement, or other joining materials appropriate for the pipe and fittings being connected. Follow the joining-material manufacturer's instructions.
5. Keep primer and solvent cement away from the heating cable, rubber gasket, and sealing grommet.

Do not modify the sealing components. Do not force, kink, crush, or sharply bend the heating cable.

Check the Drain Line First

1. If the drain line is frozen or blocked, thaw or clear the line and restore normal drainage before installation.
2. Do not attempt to force the heating cable through ice, debris, or another blockage.
3. Use a thawing or clearing method appropriate for the pipe material and avoid damaging the drain pipe.

Check Working Clearance Before Cutting

1. Before cutting the drain pipe, confirm that there is enough working clearance and pipe movement to install the complete fitting assembly.
2. The standard installation assumes that the existing pipe has enough movement for the fitting sockets to be fully seated.
3. If both pipe ends are rigidly fixed and cannot be moved, an appropriate repair/slip coupling or other approved plumbing method may be required.

Additional repair fittings are not included with DGK-EK.

Do not force the existing pipe or reduce the required socket insertion depth to make the assembly fit.

TOOLS AND MATERIALS REQUIRED

Typical installation tools and materials include:

- Pipe cutter or fine-tooth saw
- Deburring tool
- Clean cloth
- Safety glasses
- Cut-resistant gloves
- Measuring tape
- Marker
- Appropriate primer and solvent cement
- Appropriate PVC-to-ABS transition method when required
- Compatible YeloDeer Self-Regulating In-Drain Heating Cable

A fish tape or strong guide line may also be useful for long or difficult cable runs.

SUGGESTED INSTALL ORIENTATION

For best installation, position the Y-fitting so the heating cable enters the drain line in the direction of drainage.

Recommended Direction

Upstream Drain → Y-Fitting → Downstream Drain Outlet

1. The cable-entry branch should point upward or upward at an angle.
2. Route the heating cable through the angled branch toward the downstream drain outlet.
3. This orientation:
   - Provides a smoother cable-entry path
   - Helps reduce unnecessary cable bending
   - Keeps the cable-entry opening above the main drainage path

INSTALLATION

1 Measure and Cut the Drain Pipe

- Identify the section where the DGK-EK assembly will be installed.
- Mark the section to be removed.
- Recommended cut lengths:

Existing pipe	Section to remove
1-1/2 in.	3.5 in. / 9 cm
1-1/4 in.	11.8 in. / 30 cm
1 in.	11.8 in. / 30 cm

Cut Conservatively

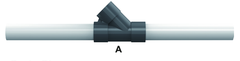
- If the opening is slightly too short, additional pipe can be trimmed.
- If too much pipe is removed, the fittings may not achieve the required insertion depth, which can result in a weak or leaking connection.

After cutting:

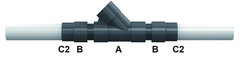
1. Remove burrs and sharp edges.
2. Clean both cut ends.
3. Confirm the pipe ends are properly aligned.
4. Make sure no sharp edge can contact the heating cable.

2 Select the Correct Pipe Configuration

A. For 1-1/2 in. Drain Pipe



B. For 1-1/4 in. Drain Pipe



C. For 1 in. Drain Pipe



All three configurations use the same cable-entry sealing assembly: B + D + E + F + G.

3 Bond the Pipe Components

Before applying cement, confirm that:

- The correct pipe-size configuration has been selected.
- The Y-fitting is facing the correct direction.
- The cable-entry branch points upward or upward at an angle.
- All components are properly aligned.

Then:

1. Apply the appropriate primer and solvent cement to the mating surfaces according to the joining-material manufacturer's instructions.
2. Assemble the selected pipe configuration.
3. Fully seat each pipe and fitting connection.
4. Hold each bonded joint as required by the adhesive manufacturer.
5. Allow all bonded connections to cure for the required time.

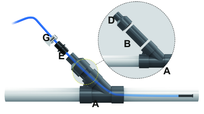
Do not insert or operate the heating cable until the bonded assembly is secure.

4 Insert the Heating Cable

After all bonded pipe connections have cured:

1. Make sure the heating cable is disconnected from power.
2. Feed the cable end through the Lock Nut G and Rubber Gasket E.
3. Insert the heating cable through the 3/4 in. opening of Reducer D.
4. Continue feeding the cable through Pipe Nipple B and the angled branch of Y-Fitting A.
5. Guide the heating cable downstream toward the drain outlet.
6. Continue feeding the cable until the freeze-prone section is adequately covered.

Do not force the cable through an obstruction or sharp bend. Refer to the heating cable instruction manual for additional cable-routing requirements.



Optional Tip for Long or Difficult Cable Runs

For a long drain run or a route where the heating cable is difficult to feed from the Y-fitting alone, a fish tape or strong guide line may be used.

1. Feed the fish tape or guide line from the accessible drain outlet back toward the Y-fitting.
2. Secure the heating cable to the guide.
3. Gently pull from the outlet while simultaneously feeding the heating cable from the Y-fitting side.
4. Continue until the cable reaches the desired position.

Do not use excessive pulling force. If the cable stops at an obstruction, stop and identify the cause before continuing.

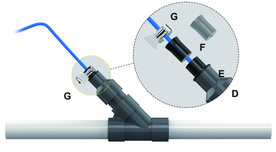
5 Install the Cable-Entry Seal

1. Seat Rubber Gasket E fully into the 3/4 in. socket of Reducer D.
2. Position Sealing Grommet F around the heating cable.
3. Seat Sealing Grommet F fully into Rubber Gasket E.
4. Position Lock Nut G around the sealing assembly as shown in the installation illustration.
5. Tighten Lock Nut G evenly until the sealing components are secure.

The completed assembly should form a secure, leak-resistant cable-entry seal.

IMPORTANT

- Do not overtighten.
- Do not deform, cut, modify, or remove material from the Rubber Gasket or Sealing Grommet.



6 Route Any Remaining Heating Cable

The heating cable does not need to be fully inserted into the drain pipe.

Any remaining cable may:

- Remain outside the drain pipe, or
- Be routed around nearby exposed drain sections that also require freeze protection.

Do not sharply bend, kink, pinch, or damage the cable.

Where appropriate, pipe insulation may be installed over protected drain sections after the installation and leak test are complete.

Follow the heating cable manual for additional requirements concerning cable routing and insulation.



7 Final Inspection and Leak Test

Before connecting power:

1. Confirm that all bonded joints have fully cured.
2. Check that the Y-fitting and reducers are fully seated and aligned.
3. Confirm that the Rubber Gasket, Sealing Grommet, and Lock Nut are correctly positioned.
4. Run water through the drain line.
5. Check every bonded connection for leakage.
6. Check the cable-entry assembly for leakage.
7. Confirm that drainage is unobstructed.
8. Confirm that the heating cable has not shifted into a position that restricts drainage.

If any leak is found, correct the installation before using the heating cable.

After the drain assembly passes the leak test, complete the electrical connection and operation according to the instruction manual supplied with the YeloDeer Self-Regulating In-Drain Heating Cable.

TROUBLESHOOTING

Problem	Possible Cause	Corrective Action
Assembly will not fit between existing pipe ends	Incorrect cut length, insufficient working clearance, or rigidly fixed pipe ends	Verify the cut length and configuration. Do not force the pipe or reduce fitting insertion depth. A suitable repair/slip coupling or other approved plumbing method may be required when both ends are fixed.
Pipe will not fully seat in fitting	Burrs, debris, misalignment, or incorrect fitting	Deburr and clean the pipe. Realign the components and confirm that the correct fitting is being used.
Bonded joint leaks	Incomplete insertion, contaminated surfaces, incorrect joining material, or insufficient curing	Stop use. Repair or rebuild the leaking joint using the appropriate joining method.
Cable-entry seal leaks	Rubber Gasket E or Sealing Grommet F is not fully seated, components are misaligned, or Lock Nut G is loose	Disconnect power if connected. Reposition E and F and tighten G evenly. Replace damaged sealing components.
Drainage is slow or blocked	Existing blockage, debris, incorrect slope, cable position, or installation misalignment	Disconnect power. Clear the drain line and reposition the cable if necessary. Confirm normal drainage before restarting.
Heating cable is difficult to insert	Debris, obstruction, sharp bend, or difficult routing	Do not force the cable. Clear the path or use a fish tape/guide line where appropriate.
Heating cable jacket is damaged	Sharp pipe edge, abrasion, forced insertion, or improper cable routing	Do not energize or continue using a damaged heating cable. Replace the cable before operation.
Sealing components will not seat	Incorrect installation order, debris, damaged component, or incompatible heating cable	Remove and inspect the components. Clean and reinstall them in the correct order. Replace any damaged parts.

WARRANTY

1-Year Limited Warranty

The YeloDeer DGK-EK is covered by a 1-year limited warranty against defects in materials and workmanship under normal use.

The warranty does not cover damage resulting from:

- Improper installation or use
- Incorrect pipe cutting or preparation
- Incorrect bonding or joining methods
- Use with an incompatible heating cable
- Modification of fittings or sealing components
- Misuse, abuse, or accidental damage
- Failure to follow this instruction manual
- Normal wear and tear
- Leakage or other damage caused by improper installation

For warranty service or technical support, provide your order information, product photos, and a description of the issue.

Scan for support

Email: yelodeer@yelodeer.com

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