## HOW TO INSTALL SYSTEM

Each component in the Freeze Free system includes complete and well-illustrated instructions. Follow these instructions closely when installing the system. Remember to use only EasyHeat Freeze Free components. You may wish to consult your local electrical code.

## Step One

The first step is to prepare the cable for installation
EasyHeat's special Freeze Free end seal must be installed to protect the end of the cable.


# EASYHITAT 

Warming Your World

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Step Three
Apply the cable to the pipe. If a spiral is required, the distance between the spirals will ensure that the pipe has the appropriate coverage. See Chart 1 or 2 inside.


## Step Four

Secure the cable to the pipe using the Freeze Free HCA tape or a high quality electricians tape.

## Step Five

Wrap the entire pipe and cable with insulation. Complete the installation with the weatherproof wrap and the caution signs.


## PRODUCT SELECTION GUIDE

| CABLE (maximum cable length: 75 feet per application) |  |
| :--- | :--- |
| 2102 | 100 feet of Freeze Free cable |
| 2302 | 300 feet of Freeze Free cable |
| 2502 | 500 feet of Freeze Free cable |

## ACCESSORIES

10802 Connection Kit (plug \& end seal),
clamshell individual or 10-pack tray

30 feet of application/caution tape

## KITS

10805 Includes $5^{\prime}$ of cable with plug and end seal
10815 Includes 15 of cable with plug and end seal
EasyHeat products are provided with a limited warranty: see owner's manual or contact EasyHeat for complete terms and conditions

## Stop Pipe Freeze-up

WITH A FREEZE FREE PIPE HEATING SYSTEM
EasyHeat, the leader in residential pipe freeze protection, presents the Freeze Free pipe heating system. Using self-regulating technology, this cable actually produces only the heat that is needed, where and when it is needed, to prevent pipe freeze-up. This system, cULus Listed, can be installed with confidence and with the assurance that it will operate for years without requiring service.
A Freeze Free system is easy to install and includes all the materials needed for a safe and proper installation. This product is suitable for use on plastic and metal water pipes. Use the Freeze Free system to make sure your pipes don't freeze.

## COLLECT THE FOLLOWING

 NECESSARY INFORMATION:Pipe SizeEXAMPLE

- outside diameter

$$
1 \frac{1}{2 \prime \prime} \text { pipe }
$$

$$
\text { length. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . } 12 \text { feet }
$$

Lowest expected air temperature .
(disregard windchill, it has been figured
into the length selection chart)
Number of valves and spigots.
1 ball valve
Distance from pipe to electrical outlet $\qquad$

Freeze Free plugs come with a 30" cord-set to bridge the gap between the pipe and the electrical outlet.

## REFER TO THE LENGTH SELECTION CHARTS

 These charts will tell you the length of the cable you need per foot of pipe and also the recommended distance to leave between each spiral wrap of cable on the pipe.HOW TO USE THE LENGTH SELECTION CHART Choose either Chart \#1 or Chart \#2 for your type of pipe (plastic or metal). Read down to find your pipe diameter, then read across to the box below your lowest expected temperature. The first number appearing in the box will tell you the length (feet) of cable you need per foot of pipe. The second number indicates the recommended distance between each spiral wrap of cable on the pipe. The abbreviation "str" indicates that the cable should be run in a straight line instead of Cable Lngth. Req. spiral wrap.




## HOW IT WORKS

A special self-regulating core is at the center of the Freeze Free cable. This core is conductive and adjusts according to the surrounding temperatures. When it is cold, the cable's core has many conductive paths that generate enough heat to keep the water flowing in the pipe. As the surrounding temperature warms, there are fewer conductive paths and less heat is generated. This self-regulating technology ensures the right amount of heat when and where it is needed.

Chart \#1: Length Selection for Plastic Pipes (based on the use of $1 / 2^{\prime \prime}$ insulation)

| Pipe Dia. | Lowest Expected Temperature |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $+20^{\circ} \mathrm{F}$ | $0^{\circ} \mathrm{F}$ | $-20^{\circ} \mathrm{F}$ | $-40^{\circ} \mathrm{F}$ | $-60^{\circ} \mathrm{F}$ |
| 1/2" | $1^{\prime \prime}$ | $1^{\prime}$ | $1.5^{\prime} 2$ | $\begin{array}{lll} \hline 2^{\prime} & 111 \end{array}$ | $\begin{array}{lll} 2.4^{\prime} & 11 / 4 \\ \hline \end{array}$ |
| 3/4" |  | $\text { 1.1' } 71$ | $1.7^{\prime} 23 /$ | $2.3^{\prime} 15 / 8$ | $2.9^{\prime} 11 / 4$ |
| 1" |  | $1.3^{\prime}$ | $\begin{array}{lll} 2 & 2 \\ \hline \end{array}$ | $\begin{array}{lll} 2.7 & 15 / 8 \\ \hline \end{array}$ | $3.3^{\prime}$ |
| $11 / 4^{\prime \prime}$ | $1^{\prime}$ | $1.6^{\prime} 41$ | $2.3^{\prime} 21$ | $3.2^{\prime} 13 /$ | $4.1^{\prime} 13$ |
| $11 / 2^{\prime \prime}$ | $1^{\prime}$ | $1.8^{\prime}$ | $2.5^{\prime} \quad 25$ | $\begin{array}{lll} 3.6^{\prime} & 13 / 4 \\ \hline \end{array}$ | $4.7^{\prime} 13 / 8^{\prime \prime}$ |
| 2" | $1^{\prime}$ | $2.1^{\prime}$ | $\begin{array}{lll} \hline 3 & 25 \\ \hline \end{array}$ | $4.3^{\prime} 13 /$ | $5.4^{\prime}$ |

Chart \#2: Length Selection for Metal Pipes (based on the use of $1 / 2^{\prime \prime}$ insulation)

| Pipe Dia. | Lowest Expected Temperature |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $+20^{\circ} \mathrm{F}$ | $0^{\circ} \mathrm{F}$ | $-20^{\circ} \mathrm{F}$ | $-40^{\circ} \mathrm{F}$ | $-60^{\circ} \mathrm{F}$ |
| 1/2" |  |  | $1^{\prime}$ | ${ }^{1.3^{\prime}} 3$ | $1.7^{\prime} 2$ |
| 3/4" |  |  |  | $1.5^{\prime}$ | , |
| 1" |  |  | $1.3^{\prime}$ | $1.8^{\prime}$ | $2.4^{\prime}$ |
| 11/4" | $1^{\prime}$ | $111$ | $\text { 1.6. } 41 / 2$ | $2.1^{\prime} 27$ | $2.9^{\prime} 17 / 8^{\prime}$ |
| $11 / 2^{\prime \prime}$ | $1^{\prime}$ |  | $1.8^{\prime}$ | $\begin{array}{lll} \hline 2.4^{\prime} & 231 \\ \hline \end{array}$ | $\begin{array}{\|lll} \hline 3.2^{\prime} & 17 / 8 \\ \hline \end{array}$ |
| 2" |  | $65$ | $\frac{2.2}{3}$ |  | $3.9^{\prime}$ |

CALCULATE THE EXACT HEATER LENGTH YOU NEED

- Multiply the cable length required per foot of pipe by the length of your pipe. Add one extra foot for each valve located in your line. Maximum cable length is 75 feet.

Cable length required per foot of pipe x pipe length

+ one foot for each valve or spigot
= total cable length


## EXAMPLE

Your pipe diameter is $1 \frac{1}{2}$
Your lowest expected temperature is $-20^{\circ} \mathrm{F}$
Your pipe length is 12 feet

## From Chart \#1:

You need 2.5 feet of cable per foot of pipe for plastic pipes

## From Chart \#2:

You need 1.8 feet of cable per foot of pipe for metal pipes

## EXAMPLE

You Have: 12 feet of plastic pipe length one ball valve
You Need: 2.5 feet of cable per foot of plastic pipe
Calculate: ( 12 feet $\times 2.5$ ) +1 foot for ball valve Total cable length $=31$ feet

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 Pipe Heating System

