

# 400 m<sup>2</sup> (4,300 sq ft) Kit

## Your Kit Components



1 x 50m<sup>2</sup> Complete Kit



Tap Assembly



11 x Auto-flushing valve (spinlock)



7 x 50m<sup>2</sup> Extension Kit



7 x Straight joiner (spinlock)



10 x Tee joiner (spinlock)



1 x Header Kit Large



2 x End cap (spinlock)



20m (60') Header pipe



800m (2,600') x KISS in 8 x rolls



Install this way up.

## Warnings!!

- J **STORE IN COOL PLACE OUT OF DIRECT SUNLIGHT!!**  
The deflection tape and base tape may delaminate if kept in hot environment.
- J Do not remove the Pressure Reduction Valve!  
The system comes with a pressure regulator in the tap assembly. It is set at 100 Kpa which is the drip tube manufacturer's specified pressure. If removed, normal residential water pressure may rupture the KISSS pipe.
- J Check authorities for local rules such as back-flow prevention.
- J Check authorities for the location of electricity, water and gas lines in your garden.
- J A filter may be needed.  
Most residential water is very clean. However, if you use water from a source where the quality is uncertain, you will need to purchase a 120 mesh filter and connect it before the Tap Assembly.
- J You may need to "winterize" your system.  
In very cold climates, water inside the KISSS pipe may freeze and rupture the system. To prevent this, perform the following BEFORE the ground freezes:
  - a) Turn off the system.
  - b) Disconnect it from the tap for the whole period.
  - c) Allow the water to drain out of the pipe.

## Tools

Additional materials and tools you will need:

- J Sharp spade to cut the edges of the trench
- J Trenching shovel (75mm/3" wide) to remove grass and soil
- J Measuring tape
- J String line and pegs or spray marking paint (to mark layout)
- J Gloves
- J Hose for watering
- J Scissors

### TIPS:

Check the installation video at [www.kisslawnandgarden.com](http://www.kisslawnandgarden.com).

Print out the example layout diagram and have it handy.

Other materials that would be handy but not essential:

- J 5kg bag of Gypsum (11 lbs)
- J Plastic sheeting to load soil onto while digging (this protects the grass around the trench)

## Preparation

Things to do before installation:

- J If your site already has lawn, water it well the day before so it's moist and easy to dig out.
- J If your site is bare soil, water it well 2 days before so it's not muddy on the day of installation.

## Suggestions

Add a battery powered timer to your tap in order to set watering schedules.

This minimizes water wastage but maximizes growth.

## Installation Steps

### 1. Install the Tap Assembly

*It is assumed that your tap (faucet) is adjacent to the point from which the KISSS lines will run. If not, you may need a KISSS Header Extension Kit.*

- a) Replace the Spinlock Elbow at the base of the Tap Assembly with the Spinlock Tee.
- b) Connect the pressure regulator on your tap assembly to the tap.
- c) Make sure all the fittings are screwed tight.
- d) The spinlock Tee at the base of the tap assembly should be approximately the same level as the KISSS trench (200mm/8" below the surface).



### 2. Mark out the Header Trench

*Because your kit is a larger one, it has been supplied with a Header Kit which will connect to the Spinlock Tee at the base of the Tap Assembly. The KISSS lines will connect to the Spinlock Tees in the Header line (see below).*

- a) Start from the bottom of the tap assembly (the Spinlock Tee).
- b) Mark out where the Header Trench will go as per drawing(s) supplied. Your lawn will be different but you can use the diagrams as a guide.
- c) Roll out the Header pipe and put it where the Header trench will be (weigh it down).
- d) Using a pen, mark where the Spinlock Tees will be on the Header pipe. These Spinlock Tees will be the ones connected to the Tap Assembly and each of the KISSS lines.



### 3. Mark out the KISSS Trench(s)

*Your Kit will have eight (8) KISSS lines of 100m (325') each. Each line will connect to a Spinlock Tee in the Header Line. Note that the maximum amount of KISSS in one line is 150m (485') but multiple lines may be connected to the Tap Assembly or a KISSS Header line.*

- a) Start from each of the Spinlock Tee locations on your Header pipe.
- b) Mark out the "serpentine" trench for each line as per drawing(s) supplied. Your lawn will be different but you can use the diagrams as a guide.
- c) The lines of KISSS should be 0.5m (20") apart.
- d) When making the first turn in the trench line, make sure it is no less than a 0.5m (20") semi-circular shape then come back in a straight line.
- e) Repeat for each KISSS line until the area has been fully marked as per the diagram.

### 4. Dig the Header Trench

***Have you checked for POWER LINES beneath the surface?***

- a) Commence digging the Header trench at the tap assembly with a sharp spade following the trench outlines you made. Go out in one direction from the Tap first then out in the other direction when finished.
- b) The Header trenches should be 100mm (4") wide and 200mm (8") deep.

## 5. Dig the KISSS Trenches

**Have you checked for POWER LINES beneath the surface?**

- a) Start digging **each KISSS trench** from the Header Trench.
- b) Make sure the location of the Spinlock Tee marked on the Header pipe still lines up with the trench. Use a sharp spade following the trench outlines you made.
- c) The trenches should be 75mm (3") wide and 150mm-200mm (6"-8") deep.
- d) Take care to remove the turf and soil **TOGETHER** as it will be easier to put back in the trenches. A trenching shovel will do this very neatly.
- e) Clean out the bottom of the trenches to make them free of rocks, sticks and sharp objects.

### TIPS:

Placing the grass and soil on a plastic sheet will protect the grass which is not being dug up.

Adding a handful of gypsum every 1.0m (3 ft) helps the water spread in the soil.

## 6. Lay the Header Line

- a) Go back to the Tap Assembly.
- b) Make sure the Header pipe lying on the grass is still in the correct position.
- c) Cut the Header pipe directly below the Tap Assembly. You will now have two sections of Header pipe.
- d) Each section of Header pipe will be joined to the Spinlock Tee on the end of the Tap Assembly.
- e) Spin back both blue collars of the Spinlock Tee to reveal the barbs.
- f) Push the Header pipe over the barb.
- g) Spin the collar firmly back in place over the barb. Tug firmly to ensure it is locked.
- h) Repeat for the other length of Header pipe.



You now need to put the other Spinlock Tees into the Header pipe.  
(these are the ones that will join to the KISSS lines going into your lawn).

- i) Move down the Header pipe until you come to a KISSS trench.
- j) Cut the Header line at that point (your mark should be there).
- k) Select another Spinlock Tee and spin back both blue collars to reveal the barbs.
- l) Push the Header pipe over the barb.
- m) Spin the collar firmly back in place over the barb. Tug firmly to ensure it is locked.
- n) Repeat for the other side of the Tee. That Spinlock Tee is now installed.
- o) Repeat for all KISSS trenches.

You now need to put End Caps on the ends of the Header pipe.

- p) Trim Header pipe at each end if it is too long.
- q) Spin back the collar of the End Cap to reveal the barb.
- r) Push End Cap into the Header pipe over the barb.
- s) Spin the collar firmly back in place over the barb. Tug firmly to ensure it is locked.
- t) Repeat for the other end of the Header pipe.



## 7. Lay the KISSS Lines

- a) Remove the KISSS rolls from the boxes (be careful not to let them unravel).
- b) Starting at the Spinlock Tee in the Header, leave an extra 30cm (12") *beyond* the Tee fitting to ensure you have enough KISSS to connect to the Tee later.
- c) Weigh the KISSS line at the Tee with a heavy object to prevent it moving.
- d) Begin unrolling the KISSS line into the trench with the **thin deflection tape (with writing on it) facing up**.
- e) Every 1.0m (3ft) place some soil on top of the KISSS line so it remains flat and stays in place.
- f) The KISSS line can be gradually banked around the corners (the blue tape is up to 90° to the soil). Make sure the pipe inside the KISSS line does not "kink". Use soil to hold it in position.
- g) As you come out of the corner turn it back to the flat position with the blue tape facing up.
- h) Repeat the above steps for each trench coming from the Header pipe.



## 8. Connect the Auto-Flushing Valves

*You will need 8 x Flushing Valves which are in your kit. Repeat the steps below for each KISSS line.*

- a) Spin back the blue collar of the flushing valve to reveal the barb.
- b) At the end of the KISSS line peel back the base adhesive and white geotextile leaving the drip tube exposed.
- c) Squeeze the sides of the drip tube to make it round in shape then slowly push it onto the flush valve. The drip tube must go *past* the barb.
- d) Spin the flush valve collar firmly back in place over the barb and drip tube locking them together.
- e) Hold the flush valve in one hand and the KISSS line in the other and tug firmly to make sure they hold together.
- f) Place the connected flushing valve back in the trench.



### TIP:

Wiggle the drip tape from side-to-side to slide it onto the flush valve more easily.

## 9. Check Water Flow

- a) Turn on the tap and walk along each KISSS line making sure that the water is getting to the far end at the flush valve. If there are any kinks in the KISSS lines move the line as necessary to remove them (use soil to support the line if necessary).
- b) The flushing valve will release some water until the line is fully pressurized - then it will close off. Each time the water is turned on the flushing valve will flush debris from the line.

## 10. Back-fill the Trenches

- a) Turn off the tap before back-filling the trenches.
- b) Start back-filling the trenches with soil from the tap or Header end and then replace the turf.
- c) Compact the soil/grass firmly.
- d) Water the grass well to help it sit into the soil.

### TIP:

Use liquid fertilizer and overhead watering for a few days to help heal the damage.

## Irrigation Schedules

### Summer:

) 30 minutes every 2<sup>nd</sup> day (vary this according to local conditions)

### Cool Months:

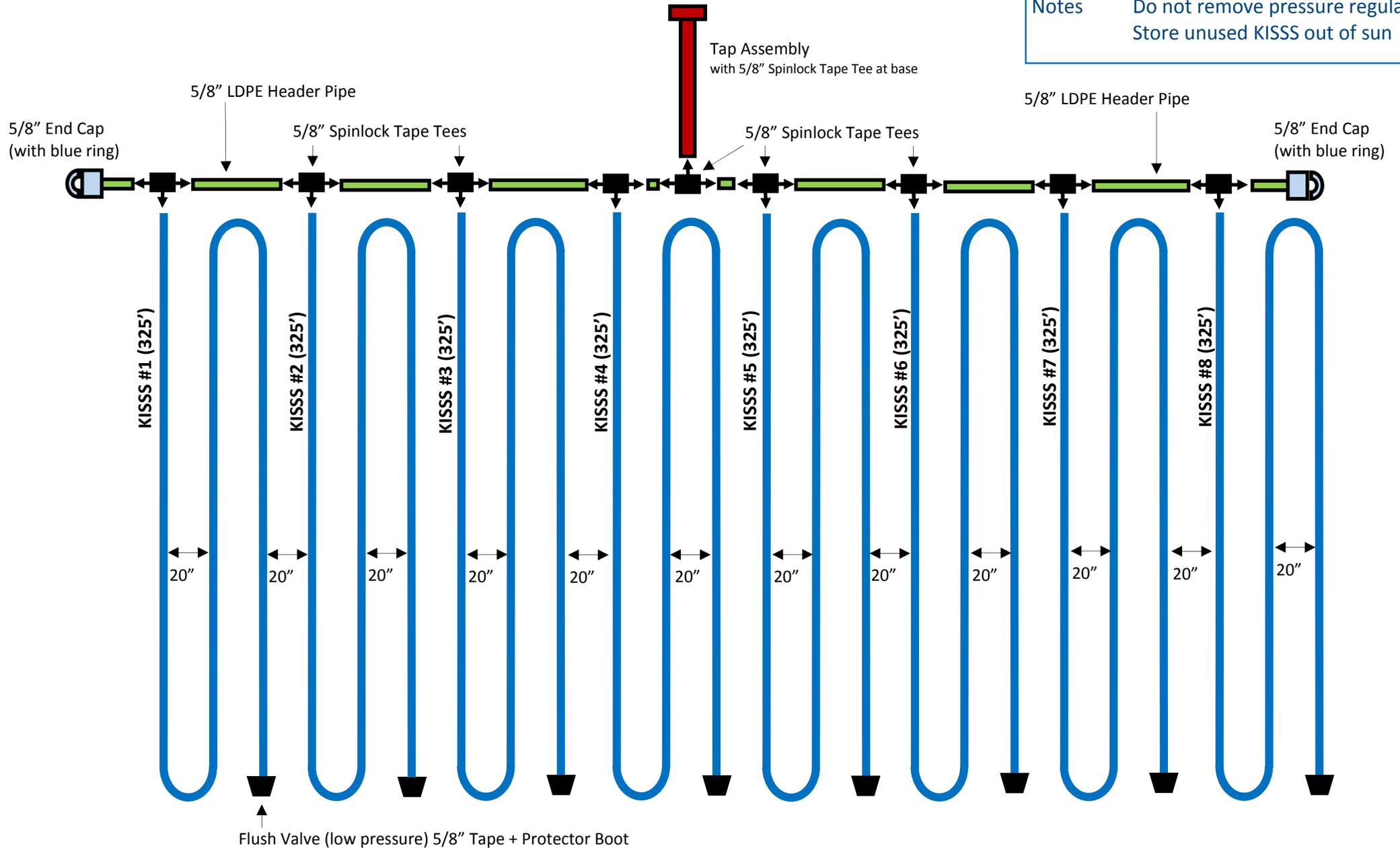
) 30 minutes twice per week

# 4,300ft<sup>2</sup> Kit

(2,600ft of KISSS)

## Layout Example (1 of 2)

HINTS	
Depth:	8" below surface
Spacing:	20" between rows
Angle:	Flat with blue tape facing up OK to angle around corners
Notes	Do not remove pressure regulator Store unused KISSS out of sun



# 4,300ft<sup>2</sup> Kit

(2,600ft of KISSS)

## Layout Example (2 of 2)

<b>HINTS</b>	
Depth:	8" below surface
Spacing:	20" between rows
Angle:	Flat with blue tape facing up OK to angle around corners
Notes	Do not remove pressure regulator Store unused KISSS out of sun

