



Introductions	Page 1
System Components (FreeComm Control Unit)	Page 2
System Components (FreeComm Valve & Sprinkler Control Unit)	Page 3
Installing the FreeComm Valve	Page 4
Installing the FreeComm Sprinkler	Page 5
Wiring the DC latching Solenoid	Page 6
Welcome	Page 9
Course	Page 10
Valve Control on Hole.....	Page 11
Valve Control on Auxiliary.....	Page 12
Valve Control form	Page 13
Valve Control form (wake u[p valve)	Page 14
Valve Control form (open and close valve).....	Page 15
Administration	Page 16
Controller Setup.....	page 17
Routing table.....	page 18
Routing Table with Valve Info.....	Page 19
Routing Table with Routing Info	Page 20
Routing form	Page 21
Modifying Valve Address.....	Page 22
Adding Repeater in Routing	Page 23
Moving Repeater in Routing.....	Page 24
Removing Repeater from Routing	Page 25
New valve on Hole	Page 26
New valve in Auxiliary	Page 27
New Auxiliary Group.....	Page 28
Removing a Valve from Course	Page 29

1K Solutions

Repeaters List Form	page 30
Modifying Repeaters Address and Location	Page 31
Adding Repeaters.....	Page 32
Removing Repeaters	Page 33
FCC COMPLIANCE Notice.....	Page 37

Congratulations on purchasing your FreeComm™ battery operated 2-way wireless irrigation control system. The patent pending system operates in the license free 915 MHz band and is the perfect solution for retrofitting existing irrigation systems, supplemental irrigation systems or new irrigation systems. The system is adaptable to all major irrigation valves with a DC latching solenoid.

With active irrigation programming stored in the controller, wireless communications are reduced to performing the following activities; scheduled health check; changes to the irrigation schedule; real time activation. Communications to operate the controller or change control data can be sent from the Central Control Unit.

Each control unit has the following operational functionality

Modes of Operation

- Active: continuously listening for messages. If it does not recognize active communication over the network it enters sleep mode after a 3-minute timeout period.
- Sleep mode: Listens periodically for a message. It listens for 1.33 seconds every 60 seconds. When it registers that active communication over the network is taking place it goes into active mode
- Deep Sleep Mode: the unit is programmed to power down at certain periods of the day to minimize power consumption. In this mode communication is not active, however the will perform the specified irrigation program.
- Health Check: 2 times a day we prescheduled a communication health check to:
 - Update irrigation schedules
 - Retrieve irrigation and controller operation data
- Magnetic reset: All units have a magnetic reset for resetting units

Irrigation Programming:

- 6 custom irrigation programs are available
- Only 1 program is active at any one time
- Each program specifies:
 - Start time
 - Duration of the soak
 - Number of times the soak period is repeated for the irrigation schedule
- The active irrigation program is stored in the embedded micro in the controller and does not require communication over the network to initiate the program
- The program may be modified remotely from the hand held or from the FreeComm™ software.
- Manual activation of the valve/sprinkler does not require modification of the scheduled program

FREECOMM™ SYSTEM COMPONENT

The following provides an overview of the FreeComm™ system components:

- Central Control Unit (CU)
- Valve Controller (VCU) and or Sprinkler Controller (VCU-S)

FreeComm™ CONTROL UNIT



The Central Control Unit is comprised of a PC running the FreeComm™ software package on the windows operating system. The PC is connected to the main controller via a RS 232 serial port interface. All set-up, network programming, irrigation scheduling and operations of the FreeComm™ system are controlled with the Central Control Unit and FreeComm™ Software.



The FreeComm™ system use a series of repeaters to relay communication throughout the network to control and communicate with all FSC and FVC controllers in real time. The main controller's 2-way communication can send/receive data to/from the valve or sprinkler enabling unlimited flexible control, reporting and activation of the irrigation system and schedule. Actual network communication performance range and controllers varies depending upon the installation and the surrounding terrain.

FREECOMM™ VALVE OR SPRINKLER CONTROLLER UNIT

FreeComm™ FVC (valve) & FreeComm™ FSC (sprinkler) controllers independently store all irrigation programming and reporting data for each individual solenoid valve or sprinkler head. The controllers are capable of receiving and sending commands directly from the FCU, FHU, FVC, and FSC or from the network as required in real time or as a scheduled communication.

FreeComm™ valve (FVC) and sprinkler (FSC) retrofit kits are waterproof, dirt proof with 18" wire leads for wiring DC latching solenoids, each contains a sealed battery pack providing power for the control module and the 9v DC latching solenoid.

Valve (FVC)**Sprinkler (FSC) RAINBIRD™****Sprinkler (FSC) TORO™****Sprinkler (FSC) BEAR™**

Installing the FreeComm™ Valve unit

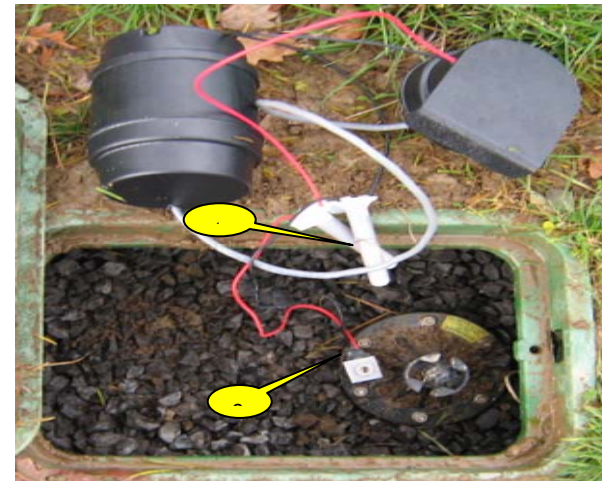
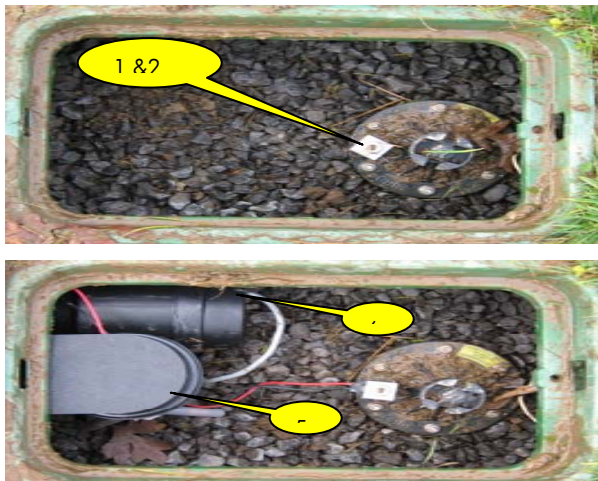
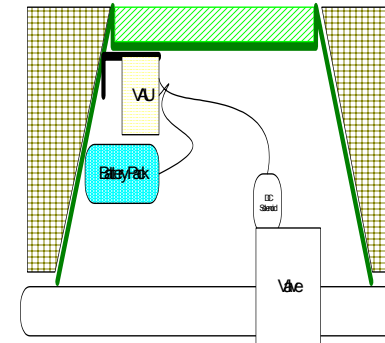
The universal FVC is a 2-component package consisting of the FVC Control unit and battery case.

Preparation

1. Connect the battery pack to the battery case
2. Close battery case (use lubricant supplied)
3. Enter the factory preset ID into the software with field location (see software set up)
4. Test communication (see software set up)

Installation

1. Remove existing AC Solenoid
2. Remove AC Solenoid adapter (if required)
3. Install DC latching solenoid
4. Connect the Solenoid wire to the Controller wire using 3M™ waterproof connectors (red to red and black to black)
5. Install FVC controller to side of valve box with 2 #8 self tapping screws just below ground level
6. Install battery pack in valve box. (Optionally bury battery pack outside valve box)
7. Using the FHU test solenoid operation

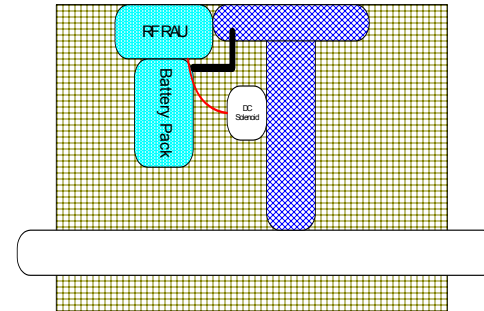


Installing the FreeComm™ FSC (Sprinkler unit)

The universal FSC is a single component package consisting of the Control unit and battery pack.

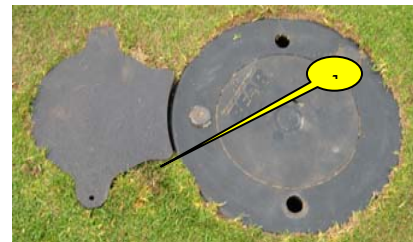
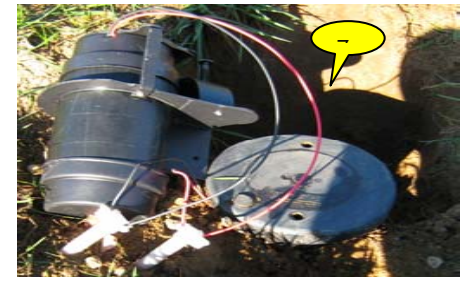
Preparation

1. Connect the FSC controller to the battery pack
1. Close kit housing (use lubricant supplied)
2. Enter the factory preset ID into the software with field location (see software configuration)
3. Test communication (see software communication set up)
- 4.



Installation

1. Dig a hole parallel to the existing sprinkler 12" deep by 8 "wide
2. Fit the FSC to the sprinkler
3. Mark the location of the pilot hole to be drilled into the sprinkler using the guide supplied
4. Drill the 3/8" pilot hole for the mounting bracket
5. Remove existing AC Solenoid
6. Remove AC Solenoid adapter (if required)
7. Install DC latching solenoid
8. Connect the Solenoid wire to the controller wire using 3M™ waterproof connectors (red to red and black to black)
9. Fasten the FSC controller bracket through the pilot hole with the supplied bolt.
10. Using the FHU test solenoid operation
11. Back fill the bottom of the open reinstall sod

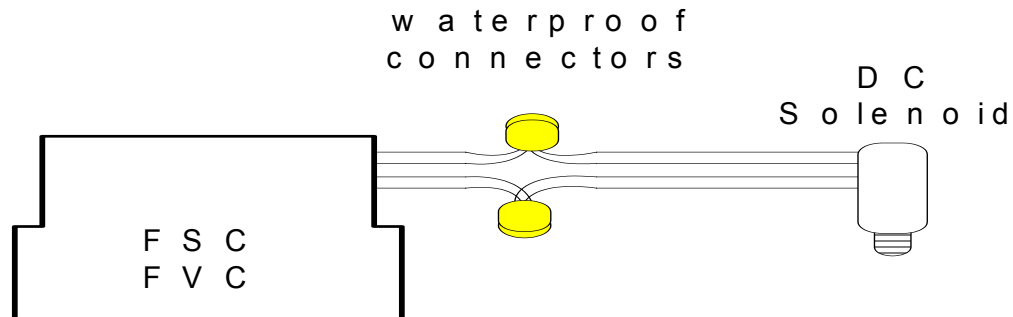


Wiring DC Latching Solenoids to the Valve or Sprinkler

Both FreeComm™ Valve and FreeComm™ Sprinkler are provided with 18-gauge wire for attaching to DC latching solenoids.

To Connect DC Latching Solenoids:

1. Remove 1/2" (13M™m) of insulation from the wire (Red and black wire) on the Valve or Sprinkler.
2. Twist the red and black leads from the solenoid to the red and black leads on the Valve or Sprinkler as shown in the figure.
3. Make sure that 3 M waterproof connectors are used to secure all wire connections.

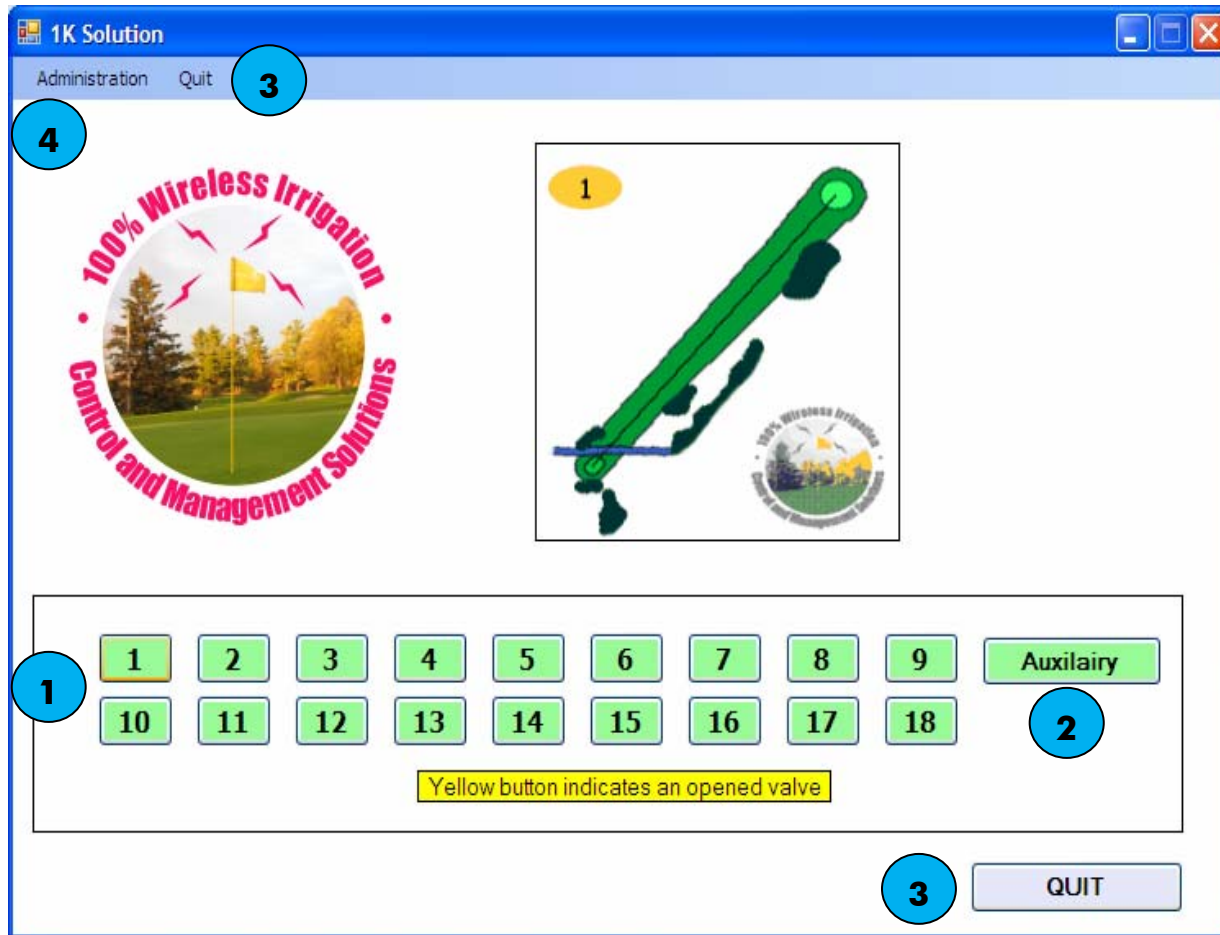




Click here to open the course form (See page 2)



Click here to quit the application



- 1** Click here to open the Valve Control form. (See page 3)
- 2** Click here to open the Auxiliary Valve Control form. (See page 4)
- 3** Click here to quit the application
- 4** Click here to open the Administration form.

Note

The hole button or auxiliary button color will change from green to yellow if there is an opened valve.

Location	Hole#	Place	Program	Water Time	Battery	Other
TEE	1	0	-	-	-	-

- 1 Click on any of these buttons to see the valves in the valve list.
- 2 Double click on any row to open the Valve Control form. (See page 5)
- 3 Click here to open the Valve Control form. (See page 5)
- 4 Click here to close the form.

Note

To add or remove a valve, see the Administration form on page 10

100% Wireless Irrigation Control and Management Solutions

Auxiliary

- 10F
- 9F
- PRACTICE GREEN

Valve list on 10F

Location	Hole#	Place	Program	Water Time	Battery	Other
10F	0	0	-	-	-	-

Control Valve **Close**

Close

Yellow button indicates an opened valve.

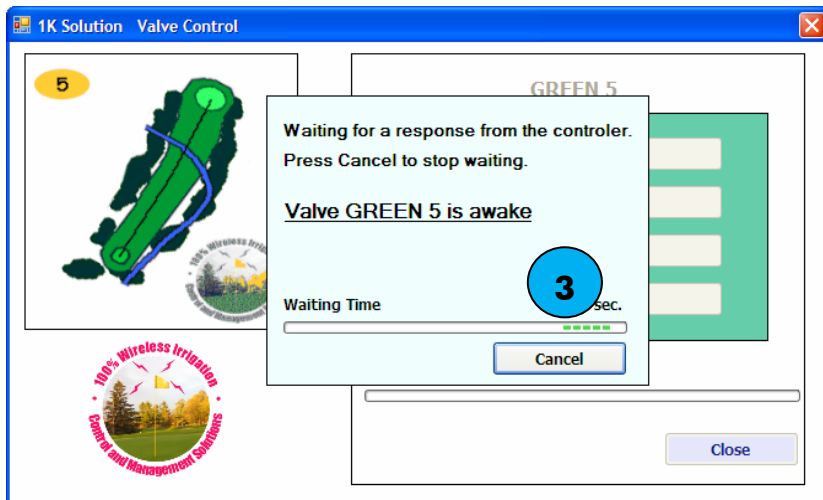
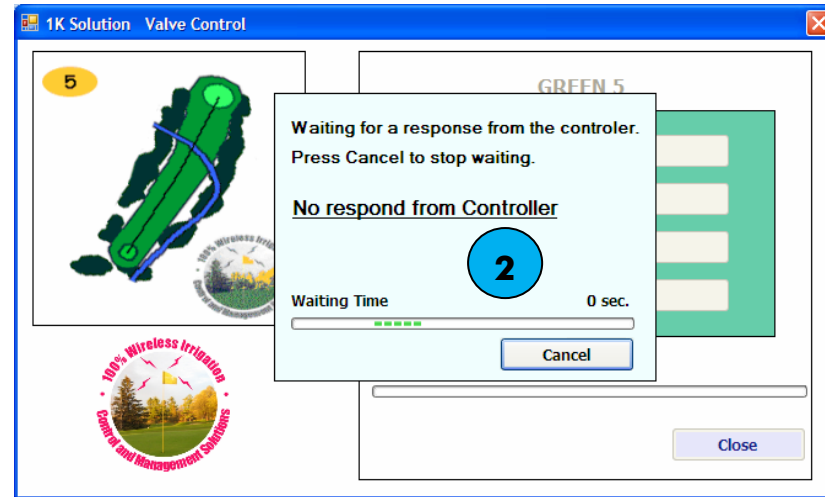
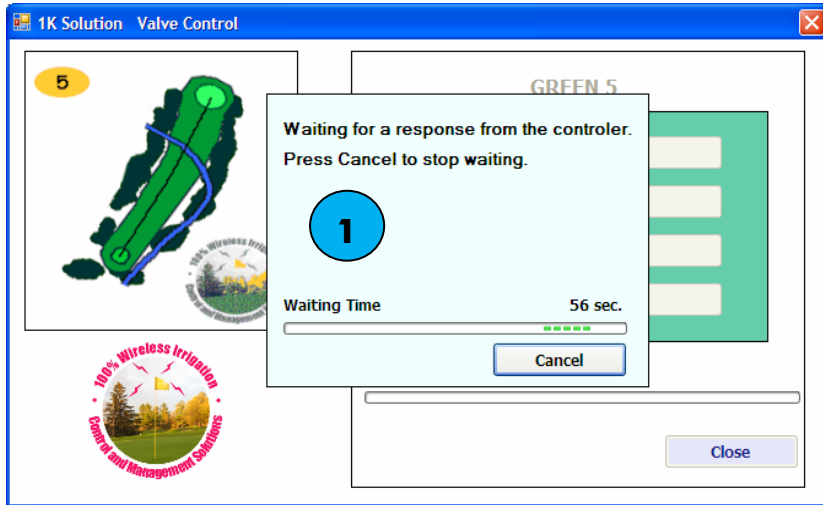
Yellow item indicates an opened valve.

- 1** Click on any Auxiliary group to see the valves in the valve list.
- 2** Double click on any valve to open the Valve Control form. (See page 5)
- 3** Click here to open the Valve Control form. (See page 5)
- 4** Click here to close the form.

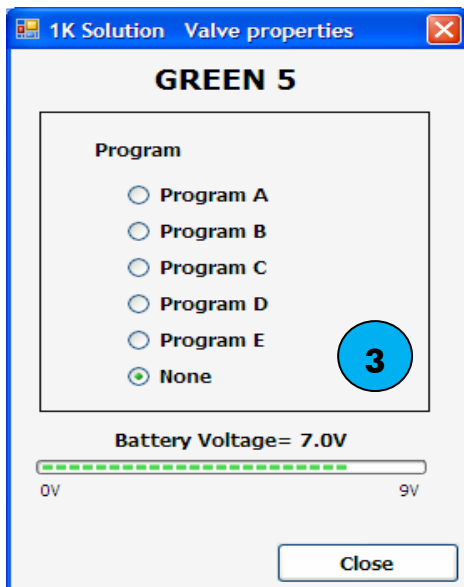
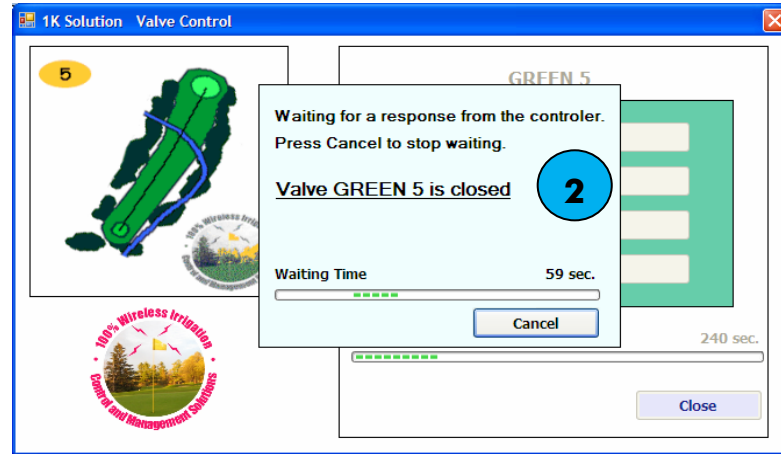
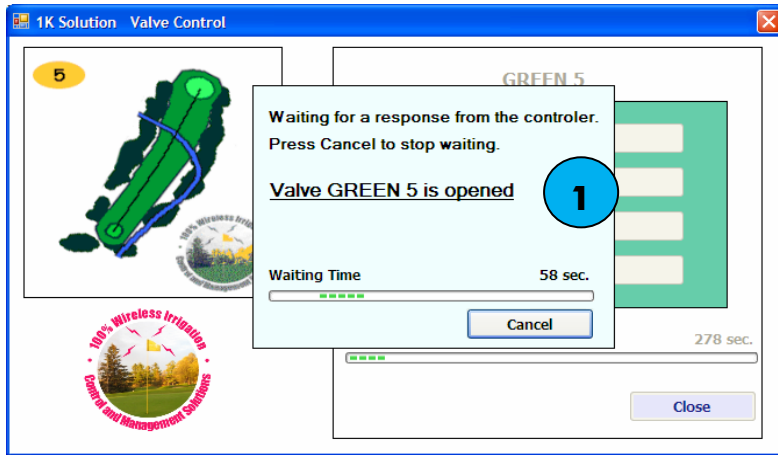
Note

To add or remove a valve, see the Administration form on page 10.

- 1** Click here to wake up the valve.
- 2** Click here to open the valve.
- 3** Click here to close the valve.
- 4** Click here to open the Valve Property form.
- 5** Wake Up Time progress bar.
- 6** Click here to close the form.



- 1** To awake a valve the controller will wait 60 seconds for a response from the valve.
- 2** Result of a non-response from the controller.
- 3** When the valve is awake it sends back a response to the controller and the controller sends the response to your computer.



- 1 Message showing when your PC receives a positive response from the controller after it opens a valve.
- 2 Message showing when your PC receives a positive response from the controller after it opens a valve.
- 3 Valve Properties form showing irrigation program on the valve and voltage remaining on the battery after it opens the valve.




- 1** Click here to access the irrigation program software.
- 2** Click here to open the Controller Setup form. This form allows you to modify the golf course name, change the controller hexadecimal address, and the serial port name on which the controller is connected to. (See page 9)
- 3** Click here to open the Routing Table form. This form allows you to see all valves routing, to modify routing, to add and remove valves and auxiliary groups. (See page 10-21)
- 4** Click here to open the repeaters list form. This form allows you to add, modify and delete repeaters. Allow you to modify the hexadecimal address on any repeater. (See page 22-25)
- 5** Click here to close the Administration form.

1K Solution Administration - [1K Solution General SetUp]

Program **Controller Setup** Routing Table Repeater List

Save Controller Setup

Close Administration
Close Controller SetUp



Course Name
1K Solution

Controller Address **8002**

Port Name **COM1**

Test

Routing Length

- Full Routing
- From Last Repeater
- From Sprinkler

Save **Close**

No	V.Add	Location	HoleNo	Place	Program	WaterTime	Battery	Other
1	0207	TEE	1	0	-	-	-	-
2	0107	TEE	2	0	-	-	-	-
3	8006	TEE	3	0	-	-	-	-
4	100b	TEE	4	0	-	-	-	-
5	020a	TEE	5	0	-	-	-	-
6	0217	TEE	6	0	-	-	-	-
7	0240	TEE	7	0	-	-	-	-
8	0210	TEE	8	0	-	-	-	-

- 1** Click here to view the valve info on the routing table grid. (See page 11)
- 2** Click here to view the valve routing info on the table grid. (See page
- 3** Click here to view or modify the selected valve routing. (See page 13-17)
- 4** Click here to add a valve on the selected valve. (See page 18)
- 5** Click here to manage auxiliary group and valves on auxiliary. (See page 19-
- 6** Click here to delete a selected valve. (See page 21)
- 7** Click here to close the Routing Table form.

1K Solution Administration - [1K Solution Routing Table]								
Program Controller Setup Routing Table Repeater List								
Show Valve Info Show Routing Info View Routing Add New Valve on Hole Add New Valve on Auxiliary Repeater List								
No	V.Add	Location	HoleNo	Place	Program	WaterTime	Battery	Other
1	0207	TEE	1	0	-	-	-	-
2	0107	TEE	2	0	-	-	-	-
3	8006	TEE	3	0	-	-	-	-
4	100b	TEE	4	0	-	-	-	-
5	020a	TEE	5	0	-	-	-	-
6	0217	TEE	6	0	-	-	-	-
7	0240	TEE	7	0	-	-	-	-
8	0210	TEE	8	0	-	-	-	-
9	0249	TEE	9	0	-	-	-	-
10	0104	TEE	10	0	-	-	-	-
11	0106	TEE	11	0	-	-	-	-
12	0246	TEE	12	0	-	-	-	-
13	0242	TEE	13	0	-	-	-	-
14	0244	TEE	15	0	-	-	-	-
15	0212	TEE	16	0	-	-	-	-
16	0202	TEE	17	0	-	-	-	-
17	0247	TEE	18	0	-	-	-	-
18	0206	GREEN	1	0	-	-	-	-
19	0200	GREEN	2	0	-	-	-	-
20	0205	GREEN	3	0	-	-	-	-
21	0248	GREEN	4	0	-	-	-	-
22	0208	GREEN	5	0	-	-	-	-
23	021c	GREEN	6	0	-	-	-	-
24	0213	GREEN	7	0	-	-	-	-
25	0219	GREEN	8	0	-	-	-	-
26	020b	GREEN	9	0	-	-	-	-
27	0250	GREEN	10	0	-	-	-	-

Valve Info column description

No: Row number. Can be used to reset the sort order

V.Add: Hexadecimal valve address

Location: Valve location

Hole No: Valve location hole number. Hole number for auxiliaries is zero.

Place: This number represents the valve number on a specific hole location or auxiliary.
Ex: You have 4 valves on the Fairway for hole no 16. The place number will go from 0 to 3.

Program: The irrigation program the valve is scheduled on.

Water Time: How many hours the valve has been open in the last 7 days.

Battery: Unused voltage on the battery after the valve gets open.

No	V.Add	Location	HoleNo	Place	Ctrl	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8	Unit 9	Unit 10	
1	0207	TEE	1	0	8002	RPT 1	VT1-0									
2	0107	TEE	2	0	8002	RPT 2	RPT 3									
3	80	Valve info			0	8002	Valve routing info									
4	10				0	8002										
5	020a	TEE	5	0	8002											
6	0217	TEE	6	0	8002											
7	0240	TEE	7	0	8002											
8	0210	TEE	8	0	8002											
9	0249	TEE	9	0	8002											
10	0104	TEE	10	0	8002											
11	0106	TEE	11	0	8002	RPT 6	VT11-0									
12	0246	TEE	12	0	8002	RPT 5	VT12-0									
13	0242	TEE	13	0	8002	RPT 5	VT13-0									
14	0244	TEE	15	0	8002	RPT 1	VT15-0									
15	0212	TEE	16	0	8002	RPT 1	VT16-0									
16	0202	TEE	17	0	8002	RPT 1	VT17-0									
17	0247	TEE	18	0	8002	RPT 1	VT18-0									
18	0206	GREEN	1	0	8002	RPT 2	VG1-0									
19	0200	GREEN	2	0	8002	RPT 3	VG2-0									
20	0205	GREEN	3	0	8002	RPT 2	RPT 4	VG3-0								
21	0248	GREEN	4	0	8002	RPT 4	VG4-0									
22	0208	GREEN	5	0	8002	RPT 3	VG5-0									
23	021c	GREEN	6	0	8002	RPT 2	VG6-0									
24	0213	GREEN	7	0	8002	RPT 5	VG7-0									
25	0219	GREEN	8	0	8002	RPT 6	VG8-0									
26	020b	GREEN	9	0	8002	RPT 2	VG9-0									
27	0250	GREEN	10	0	8002	RPT 6	VG10-0									
28	0218	GREEN	11	0	8002	RPT 6	VG11-0									
29	0203	GREEN	12	0	8002	RPT 5	VG12-0									
30	0214	GREEN	13	0	8002	RPT 2	VG13-0									

The routing info starts from the controller and finishes with the valve.
 Ex.: To open the valve VT1-0 (Location TEE, Hole No. 1, Place 0) the controller 8002 will pass the command to the repeater RPT1. The repeater RPT1 will then pass the command to the valve VT1-0.

1K Solution Routing

Valve Address: 0207

Location: TEE

Hole No: 1

Place: 0

Routing

TEE 1-0

RPT 1

Repeaters List

RPT 2 RPT 3 RPT 4 RPT 5 RPT 6

- 1 Click here to modify the hexadecimal valve address.
- 2 Routing View.
- 3 Available repeaters list.
- 4 Click here to save your changes.
- 5 Click here to close the Routing form.

1K Solution Routing

Valve Address: 0207 Modify **1**

Location: TEE

Hole No: 1

Place: 0

1K Solution Routing

Valve Address: 0207 Accept **2** Cancel

Location: TEE

Hole No: 1

Place: 0

1K Solution Routing

X This address already used **3**

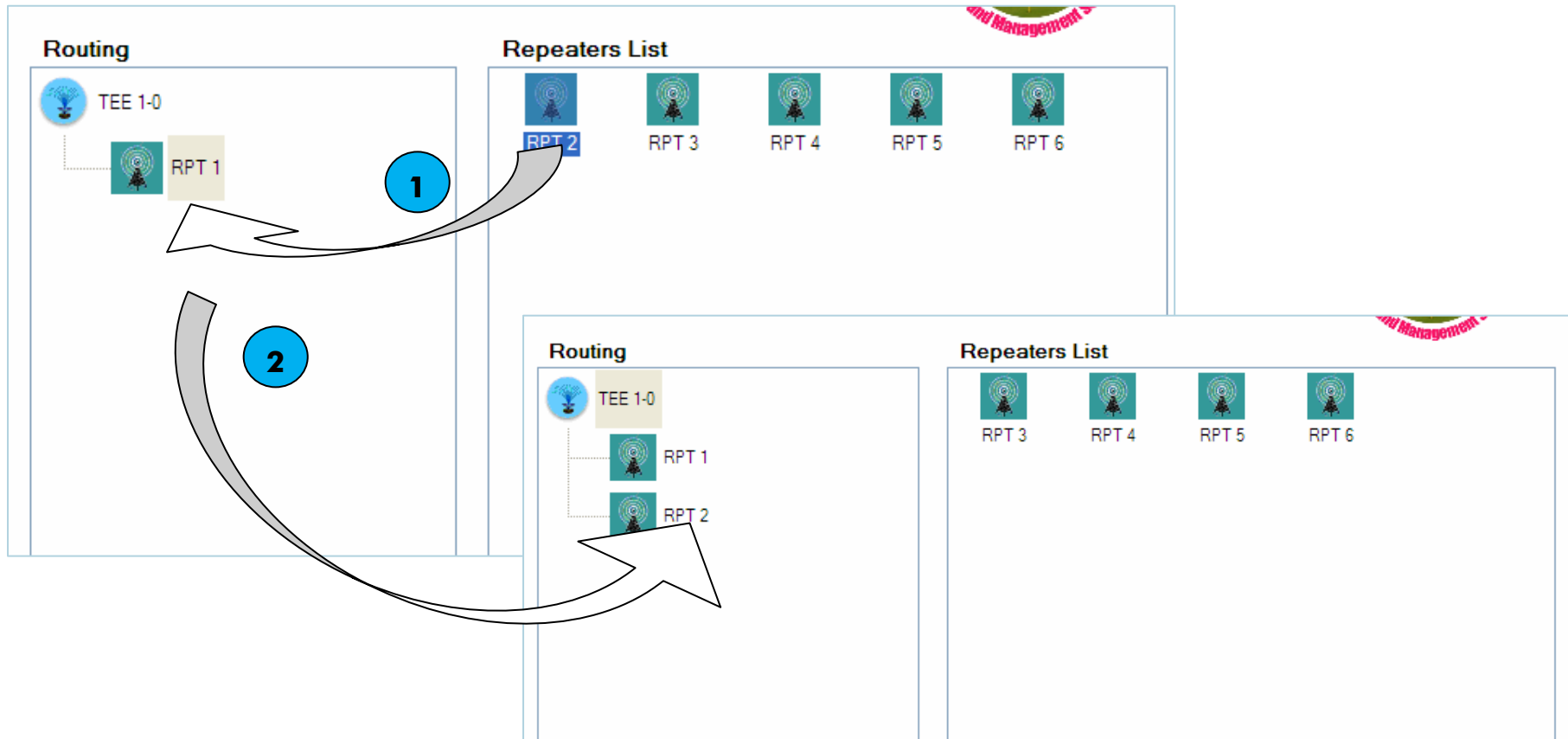
Valve on : TEE
Hole No : 8
Place : 0

OK

4 **5**

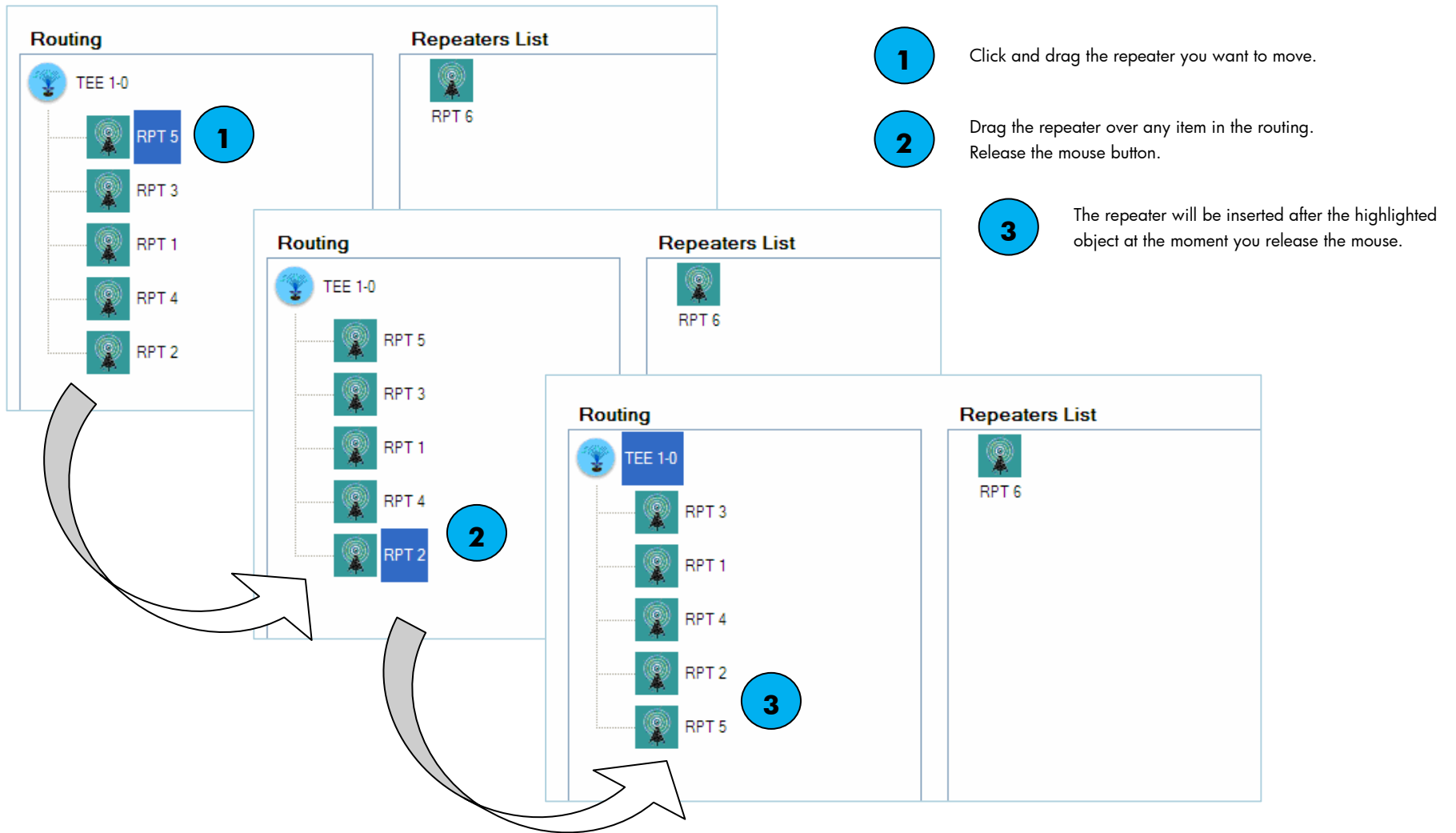
Save Close

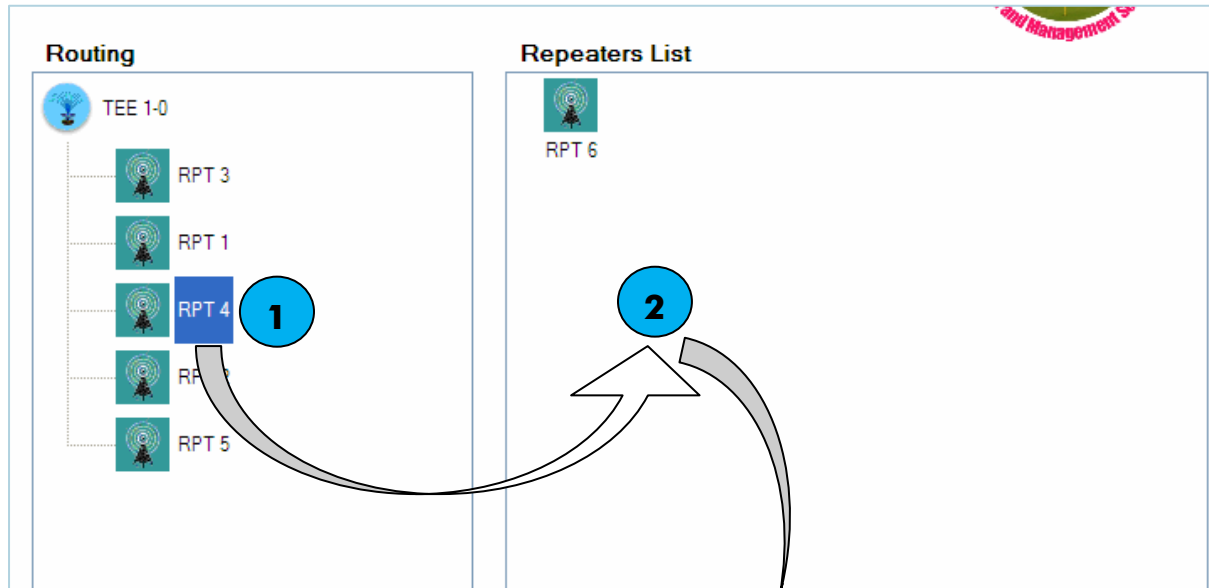
- 1** Click here to enable the valve address box.
- 2** Click the Accept button to validate your entry.
- 3** This message box will appear when a different valve on the course already uses the hexadecimal address.
- 4** Click here to save your change.
- 5** Click here to close the Routing form.



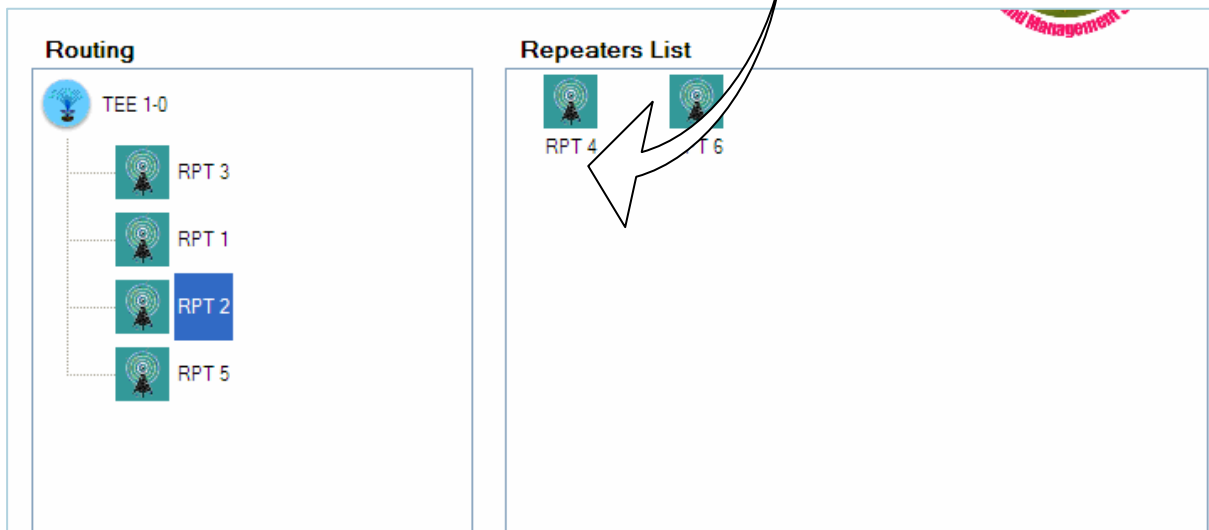
1 Click and drag the repeater from the Repeaters List over any item in Routing view. Release the mouse button.

2 The repeater will be inserted after the highlighted object at the moment you release the mouse.





- 1** Click and drag the repeater you want to remove from the routing.
- 2** Release the selected repeater in the repeaters list.



- 1** Type the hexadecimal address of the new valve.
- 2** Select the hole number where the new valve be will used.
- 3** Select the location on the hole on where the new valve will be used.
- 4** Place number assigned to the new valve.
- 5** This line gets updated as you go.
- 6** Click here to save the new valve.
- 7** Click here to close the New Valve on Hole form.



Note

A message box will show if the hexadecimal address is already used by another valve.


1K Solution New Valve on Auxiliary

Create New Auxiliary Group **7**

Valve Address: **1**

Auxiliary Group
10F
9F
PRACTICE GREEN

2

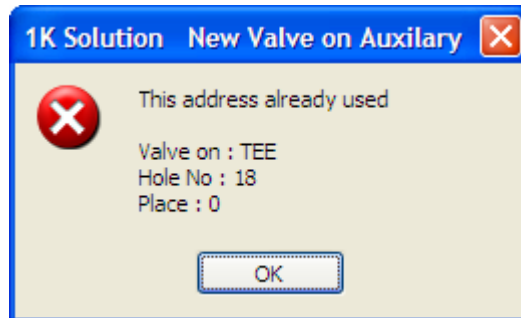


auxiliary PRACTICE GREEN **3**

Place: **4**

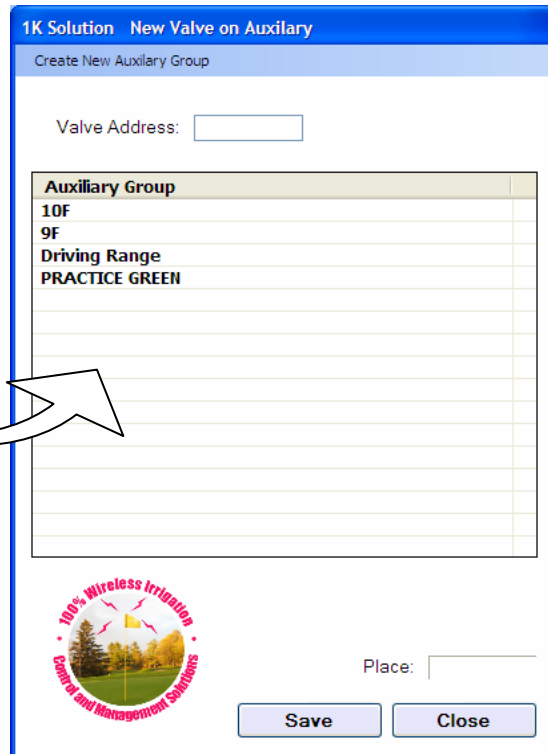
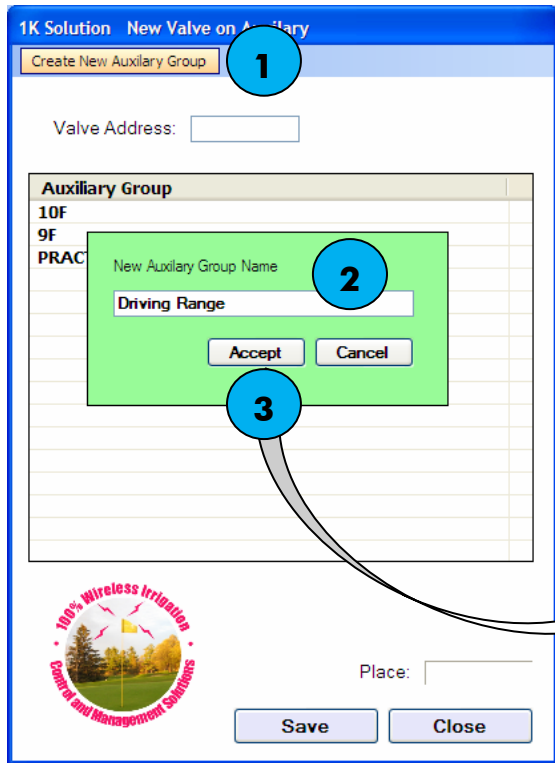
5 **6**




- 1** Type the hexadecimal address of the new valve.
- 2** Select from the list where the new valve will be used.
- 3** This line gets updated as you go.
- 4** Place number assigned to the new valve.
- 5** Click here to save the new valve.
- 6** Click here to close the new Valve on Auxiliary form.
- 7** Click here to create a new auxiliary group. (See next



Note

A message box will show if the hexadecimal address is already used by another valve.

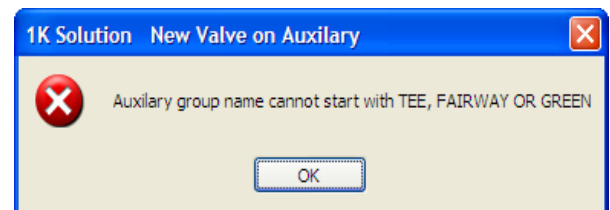


-  Click here to create a new auxiliary
-  Type the new auxiliary group name
-  Click here to validate your entry.

Note

Auxiliary groups with no valve do not get saved.

Tee, **Fairway** and **Green** are reserved word. They cannot be use at the beginning of an auxiliary



1K Solution Administration - [1K Solution Routing Table]

Program Controller Setup Routing Table Repeater List

Show Valve Info Show Routing Info View Routing Add New Valve on Hole Add New Valve on Auxiliary **Remove Valve** **1** Close Administration Close Routing Table

No	V.Add	Location	HoleNo	Place	Ctrl	Unit1	Unit2	Unit3	Unit4	Unit5	Unit6	Unit7	Unit8	Unit9	Unit10
1	0207	TEE	1	0	8002	RPT 1	V T1-0								
2	0107	TEE	2	0	8002	RPT 2	RPT 3								
3	8006	TEE	3	0	8002	RPT 3	V T3-0								
4	100b	TEE	4	0	8002	RPT 4	V T4-0								
5	020a	TEE	5	0	8002	RPT 4	V T5-0								
6	0217	TEE	6	0	8002	RPT 3	V T6-0								
7	0240	TEE	7	0	8002	RPT 2	V T7-0								
8	0210	TEE	8	0	8002	RPT 5	V T8-0								
9	0249	TEE	9	0	8002	V T9-0									
10	0104	TEE	10	0	8002	RPT 2	V T10-0								
11	0106	TEE	11	0	8002	RPT 6	V T11-0								
12	0246	TEE	12	0	8002	RPT 5	V T12-0								
13	0242	TEE	13	0	8002	RPT 5	V T13-0								
14	0244	TEE	15	0	8002	RPT 1	V T15-0								
15	0212	TEE	16												
16	0202	TEE	17												
17	0247	TEE	18												
18	0206	GREEN	1												
19	0200	GREEN	2												
20	0205	GREEN	3												
21	0248	GREEN	4												
22	0208	GREEN	5												
23	021c	GREEN	6												
24	0213	GREEN	7	0	8002	RPT 5	V G7-0								
25	0219	GREEN	8	0	8002	RPT 6	V G8-0								
26	020b	GREEN	9	0	8002	RPT 2	V G9-0								
27	0250	GREEN	10	0	8002	RPT 6	V G10-0								
28	0218	GREEN	11	0	8002	RPT 6	V G11-0								
29	0203	GREEN	12	0	8002	RPT 5	V G12-0								
30	0214	GREEN	13	0	8002	RPT 2	V G13-0								

1K Solution Routing Table

Are you sure you want to remove valve 0246 ?

2

1

Click here to delete the selected valve.

2

Click YES to confirm your action.

1 Add Repeater 2 Remove Repeater 3 View Routing

Repeater Address: 8012 Modify

Repeater Location: RPT 1

Repeaters list

RPT 1	RPT 2	RPT 3	RPT 4	RPT 5
RPT 6	RPT 10	RPT 7	RPT 8	RPT 9

Repeater used in routing (Green)
Repeater in no routing (Red)

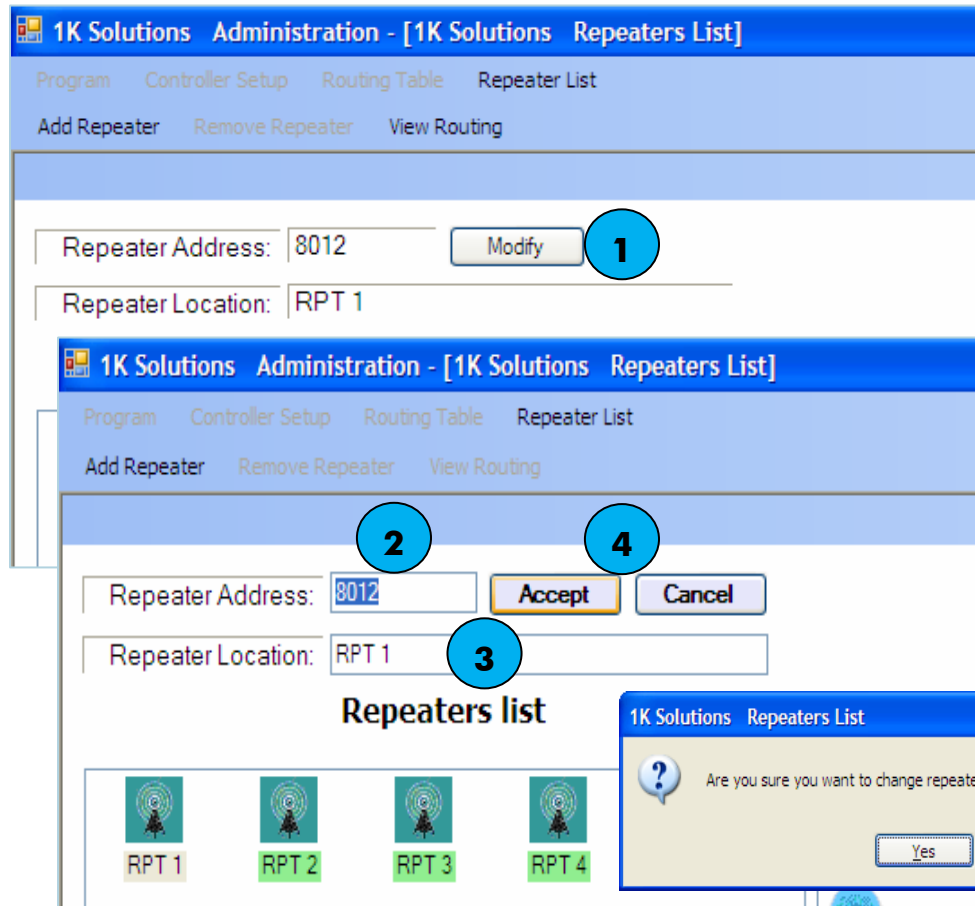
Where use list for repeater RPT 1

Location	Hole#	Place	Program	Water Time	Battery	Other
GREEN	14	0	-	-	-	-
GREEN	15	0	-	-	-	-
GREEN	16	0	-	-	-	-
GREEN	17	0	-	-	-	-
GREEN	18	0	-	-	-	-
TEE	1	0	-	-	-	-
TEE	15	0	-	-	-	-
TEE	16	0	-	-	-	-
TEE	17	0	-	-	-	-
TEE	18	0	-	-	-	-

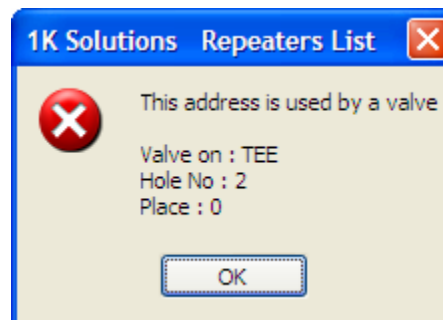
- 1 Click here to add a repeater.
- 2 Click here to remove a repeater.
- 3 Click here to see the routing from a selected valve
- 4 Click here to modify the repeater hexadecimal address and location.
- 5 Repeaters list.
- 6 Valve list using the selected repeater.
- 7 Close Repeaters list form.

Note

Repeaters highlighted in green are used in a routing.
Those in red are not used in any routing.



- 1 Click to enable the repeater address box.
- 2 Type the hexadecimal repeater address here.
- 3 Type the repeater location here.
- 4 Click here to validate your modification.
- 5 Press Yes to save your modification




Note

A message box will show if a valve or another repeater already uses the hexadecimal address.

1K Solutions New Repeater

Repeater's Location 1

Repeater's Address 2



3


- 1 Type the repeater location here.
- 2 Type the hexadecimal repeater address here.
- 3 Click here to save your modification
- 4 Click here to close the New Repeater

1K Solution New Repeater

Repeater's Location

Repeater's Address

New repeater 56E4 added to the list.



4

From the main software select Administration



Select Program from menu



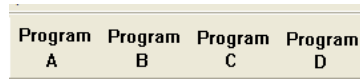
Main Irrigation Programming

1K au10Control - 1K Solutions Irrigation Control								
File View Help Controls Test								
	Program A	Program B	Program C	Program D				
Name	Status	Program	Start Time	Duration	Repetitions	Repetition Period		
((>)) 2	(sleeping)	None	N/A	N/A	N/A	N/A		
((>)) Green 6 RPTR	(sleeping)	None	N/A	N/A	N/A	N/A		
10 Tee M	(sleeping)	Program B	21 : 40	10 minutes	2 cycles	70 minutes		
Green 9	(sleeping)	Program B	21 : 30	10 minutes	4 cycles	70 minutes		
((>)) Tee 16 RPTR	(sleeping)	None	N/A	N/A	N/A	N/A		
Green 18	(sleeping)	Program B	21 : 40	10 minutes	4 cycles	70 minutes		
Tee 1	(sleeping)	Program B	21 : 00	10 minutes	2 cycles	70 minutes		
Tee 5	(sleeping)	Program B	21 : 40	10 minutes	2 cycles	70 minutes		
15 Tee	(sleeping)	Program B	21 : 40	10 minutes	2 cycles	70 minutes		
Green 1	(sleeping)	Program B	21 : 00	10 minutes	4 cycles	70 minutes		
((>)) Green 2 RPTR	(sleeping)	None	N/A	N/A	N/A	N/A		
Tee 2	(sleeping)	Program B	21 : 10	10 minutes	2 cycles	70 minutes		
Green 2	(sleeping)	None	00 : 00	0 minutes	1 cycle	N/A		
Green 5	(sleeping)	None	00 : 00	0 minutes	1 cycle	N/A		
((>)) Tee 11 RPTR	(sleeping)	None	N/A	N/A	N/A	N/A		
Green 10	(sleeping)	Program B	21 : 00	4 minutes	4 cycles	70 minutes		
9 Tee	(sleeping)	Program B	22 : 00	10 minutes	2 cycles	70 minutes		
11 Tee	(sleeping)	Program B	21 : 10	10 minutes	2 cycles	70 minutes		
Green 8	(sleeping)	Program B	21 : 30	10 minutes	4 cycles	70 minutes		
((>)) 12green RPTR	(sleeping)	None	N/A	N/A	N/A	N/A		
green 11	(sleeping)	Program B	21 : 20	10 minutes	4 cycles	70 minutes		
Tee 12	(sleeping)	Program B	21 : 30	10 minutes	2 cycles	70 minutes		

MAIN CONTROLS



Irrigation Cancellation Icon



Master Irrigation Programs

1K au10Control - 1K Solutions Irrigation Control

File View Help Controls Test

	Program A	Program B	Program C	Program D			
Name	Status	Program	Start Time	Duration	Repetitions	Repetition Period	
1	2	3	4	5	6	7	



Valve Location



Scheduled Duration of Irrigation Soak Time



Communication Status (Awake/Sleep)



Number of Repetitions of the Scheduled Soak Time



Current program stored on Valve (A,B,C or D)



Irrigation Cycle Repetition Time



Scheduled Irrigation Start Time



Irrigation Cancellation Icon

- Selecting this function will cancel all irrigation scheduled programs.

1K aug3Control - 1K Solutions Irrigation Control							
File View Help Controls Test							
	Program A	Program B	Program C	Program D			
Name	Status	Program	Start Time	Duration	Repetitions	Repetition Period	
2	(sleeping)	None	N/A	N/A	N/A	N/A	
Green 6 RPTR	(sleeping)	None	N/A	N/A	N/A	N/A	
10 Tee M	(sleeping)	None	00 : 00	0 minutes	1 cycle	N/A	
Green 9	(sleeping)	None	00 : 00	0 minutes	1 cycle	N/A	
Tee 16 RPTR	(sleeping)	None	N/A	N/A	N/A	N/A	
Green 18	(sleeping)	None	00 : 00	0 minutes	1 cycle	N/A	
Tee 1	(sleeping)	None	00 : 00	0 minutes	1 cycle	N/A	
Tee 5	(sleeping)	None	00 : 00	0 minutes	1 cycle	N/A	
15 Tee	(sleeping)	None	00 : 00	0 minutes	1 cycle	N/A	
Green 1	(sleeping)	None	00 : 00	0 minutes	1 cycle	N/A	
Green 2 RPTR	(sleeping)	None	N/A	N/A	N/A	N/A	
Tee 2	(sleeping)	None	00 : 00	0 minutes	1 cycle	N/A	
Green 2	(sleeping)	None	00 : 00	0 minutes	1 cycle	N/A	
Green 5	(sleeping)	None	00 : 00	0 minutes	1 cycle	N/A	
Tee 11 RPTR	(sleeping)	None	N/A	N/A	N/A	N/A	
Green 10	(sleeping)	None	00 : 00	0 minutes	1 cycle	N/A	
9 Tee	(sleeping)	None	00 : 00	0 minutes	1 cycle	N/A	
11 Tee	(sleeping)	None	00 : 00	0 minutes	1 cycle	N/A	
Green 8	(sleeping)	None	00 : 00	0 minutes	1 cycle	N/A	
12green RPTR	(sleeping)	None	N/A	N/A	N/A	N/A	
green 11	(sleeping)	None	00 : 00	0 minutes	1 cycle	N/A	
Tee 12	(sleeping)	None	00 : 00	0 minutes	1 cycle	N/A	

Program A	Program B	Program C	Program D
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Master Irrigation Programs

- Each master program is fully customizable, for soak time (DURATION), number of cycles (REPETITIONS) of the soak time and the time between soak cycles (REPETITION PERIOD).
- Changing master schedules is as simple as selecting the program from the program menu.
- To change from no scheduled program to master scheduled program, the user simply selects the Icon "Program B" and the software will automatically communicate the change in the master program with each valve and confirm the new master program by listing it in the main irrigation control software.

1K aug3Control - 1K Solutions Irrigation Control

Name	Status	Program	Start Time	Duration	Repetitions	Repetition Period
2	(sleeping)	None	N/A	N/A	N/A	N/A
Green 6 RPTR	(sleeping)	None	N/A	N/A	N/A	N/A
10 Tee M	(sleeping)	None	00 : 00	0 minutes	1 cycle	N/A
Green 9	(sleeping)	None	00 : 00	0 minutes	1 cycle	N/A
Tee 16 RPTR	(sleeping)	None	N/A	N/A	N/A	N/A
Green 18	(sleeping)	None	00 : 00	0 minutes	1 cycle	N/A
Tee 1	(sleeping)	None	00 : 00	0 minutes	1 cycle	N/A
Tee 5	(sleeping)	None	00 : 00	0 minutes	1 cycle	N/A
15 Tee	(sleeping)	None	00 : 00	0 minutes	1 cycle	N/A
Green 1	(sleeping)	None	00 : 00	0 minutes	1 cycle	N/A
Green 2 RPTR	(sleeping)	None	N/A	N/A	N/A	N/A
Tee 2	(sleeping)	None	00 : 00	0 minutes	1 cycle	N/A
Green 2	(sleeping)	None	00 : 00	0 minutes	1 cycle	N/A
Green 5	(sleeping)	None	00 : 00	0 minutes	1 cycle	N/A
Tee 11 RPTR	(sleeping)	None	N/A	N/A	N/A	N/A
Green 10	(sleeping)	None	00 : 00	0 minutes	1 cycle	N/A
9 Tee	(sleeping)	None	00 : 00	0 minutes	1 cycle	N/A
11 Tee	(sleeping)	None	00 : 00	0 minutes	1 cycle	N/A
Green 8	(sleeping)	None	00 : 00	0 minutes	1 cycle	N/A
12green RPTR	(sleeping)	None	N/A	N/A	N/A	N/A
green 11	(sleeping)	None	00 : 00	0 minutes	1 cycle	N/A
Tee 12	(sleeping)	None	00 : 00	0 minutes	1 cycle	N/A

Idle

1K au10Control - 1K Solutions Irrigation Control

Name	Status	Program	Start Time	Duration	Repetitions	Repetition Period
2	(sleeping)	None	N/A	N/A	N/A	N/A
Green 6 RPTR	(sleeping)	None	N/A	N/A	N/A	N/A
10 Tee M	(sleeping)	Program B	21 : 40	10 minutes	2 cycles	70 minutes
Green 9	(sleeping)	Program B	21 : 30	10 minutes	4 cycles	70 minutes
Tee 16 RPTR	(sleeping)	None	N/A	N/A	N/A	N/A
Green 18	(sleeping)	Program B	21 : 40	10 minutes	4 cycles	70 minutes
Tee 1	(sleeping)	Program B	21 : 00	10 minutes	2 cycles	70 minutes
Tee 5	(sleeping)	Program B	21 : 40	10 minutes	2 cycles	70 minutes
15 Tee	(sleeping)	Program B	21 : 40	10 minutes	2 cycles	70 minutes
Green 1	(sleeping)	Program B	21 : 00	10 minutes	4 cycles	70 minutes
Green 2 RPTR	(sleeping)	None	N/A	N/A	N/A	N/A
Tee 2	(sleeping)	Program B	21 : 10	10 minutes	2 cycles	70 minutes
Green 2	(sleeping)	None	00 : 00	0 minutes	1 cycle	N/A
Green 5	(sleeping)	None	00 : 00	0 minutes	1 cycle	N/A
Tee 11 RPTR	(sleeping)	None	N/A	N/A	N/A	N/A
Green 10	(sleeping)	Program B	21 : 00	4 minutes	4 cycles	70 minutes
9 Tee	(sleeping)	Program B	22 : 00	10 minutes	2 cycles	70 minutes
11 Tee	(sleeping)	Program B	21 : 10	10 minutes	2 cycles	70 minutes
Green 8	(sleeping)	Program B	21 : 30	10 minutes	4 cycles	70 minutes
12green RPTR	(sleeping)	None	N/A	N/A	N/A	N/A
green 11	(sleeping)	Program B	21 : 20	10 minutes	4 cycles	70 minutes
Tee 12	(sleeping)	Program B	21 : 30	10 minutes	2 cycles	70 minutes

Idle

Customizing individual valves in the master schedules

By selecting the individual valve the user has the option of adjusting any variable in the preset master irrigation schedule.

The screenshot displays the '1K au10Control - 1K Solutions Irrigation Control' interface. It features a menu bar (File, View, Help, Controls, Test) and a main table with columns for Name, Status, Program, Start Time, Duration, Repetitions, and Repetition Period. A dialog box titled 'Program B' is open, allowing for the configuration of a specific program. The dialog includes fields for Name (10 Tee M), Start Time (09:40 PM), Duration (10 minutes), Repetitions (two cycles), and Repetition Period (70 minutes). There are also checkboxes for 'Disable Timing' and 'One Time Only', and 'OK' and 'Cancel' buttons.

Name	Status	Program	Start Time	Duration	Repetitions	Repetition Period
(I) 2	(sleeping)	None	N/A	N/A	N/A	N/A
(I) Green 6 RPTR	(sleeping)	None	N/A	N/A	N/A	N/A
10 Tee M	(sleeping)	Program B	21 : 40	10 minutes	2 cycles	70 minutes
Green 9						
(I) Tee 16 RPTR						
Green 18						
Tee 1						
Tee 5						
15 Tee						
Green 1						
(I) Green 2 RPTR						
Tee 2						
Green 2						
Green 5	(sleeping)	None	00 : 00	0 minutes	1 cycle	N/A
(I) Tee 11 RPTR	(sleeping)	None	N/A	N/A	N/A	N/A
Green 10	(sleeping)	Program B	21 : 00	4 minutes	4 cycles	70 minutes
9 Tee	(sleeping)	Program B	22 : 00	10 minutes	2 cycles	70 minutes
11 Tee	(sleeping)	Program B	21 : 10	10 minutes	2 cycles	70 minutes
Green 8	(sleeping)	Program B	21 : 30	10 minutes	4 cycles	70 minutes
(I) 12green RPTR	(sleeping)	None	N/A	N/A	N/A	N/A
green 11	(sleeping)	Program B	21 : 20	10 minutes	4 cycles	70 minutes
Tee 12	(sleeping)	Program B	21 : 30	10 minutes	2 cycles	70 minutes
Idle						

FCC NOTICE

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. Any changes or modifications not expressly approved by 1K Solutions could void the user's authority to operate the equipment.

These limits are designed to provide reasonable protection against harmful interference in a commercial or residential environment installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.