

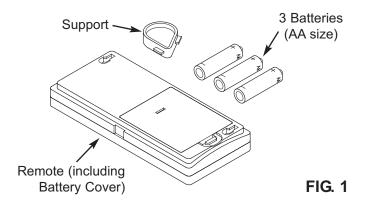
## INSTRUCTIONS EcoWater Systems HydroLink™ Remote

#### UNPACKING

The EcoWater Systems HydroLink™ remote is shipped from the factory in one carton. Thoroughly check for possible shipping damage and parts loss. Also note any damage to the shipping carton. Notify the transportation company if damage is present. EcoWater Systems is not responsible for in-transit damages.

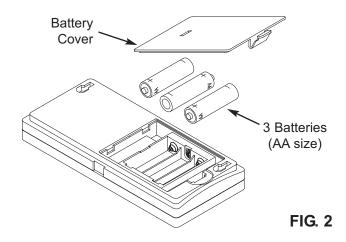
Remove and discard (RECYCLE) all packing materials.

### ITEMS INCLUDED WITH SHIPMENT



#### **INSTALLING BATTERIES**

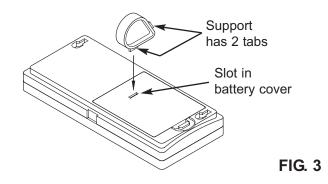
- Remove the battery cover from the back of the remote.
- Install three (3) AA size batteries, making sure that they are oriented to match the + and - markings inside the battery compartment (See Figure 2).
- 3. Snap the battery cover back in place.



#### INSTALLING THE SUPPORT

The EcoWater Systems HydroLink™ remote is shipped with a teardrop-shaped support to hold the unit at an angle when placed on a horizontal surface.

1. Snap one of the support's two tabs into the rectangular slot on the back of the remote's case (See Figure 3).



**2**. The angle may be adjusted by reorienting the support in the battery cover (See Figure 4).

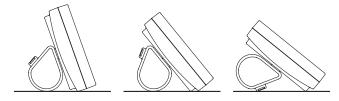


FIG. 4

#### **OPTIONAL WALL MOUNTING**

The EcoWater Systems HydroLink™ remote (without the support) may also be mounted on a wall. If this option is desired, install two fasteners (not included) at a convenient height, spaced 6-1/8" (156 mm) apart (See Figure 5).

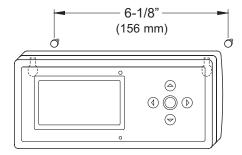
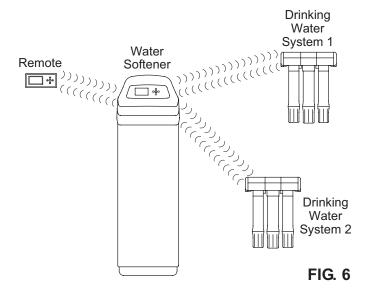


FIG. 5

EcoWater Systems LLC P.O. Box 64420, St. Paul MN 55164-0420



#### HYDROLINK™ REMOTE

The EcoWater Systems HydroLink™ remote is part of a wireless system which monitors multiple water treatment devices in a home. These water treatment devices include water softener(s) and drinking water filter(s) equipped to communicate with this type of system (See Figure 6). The remote displays, in a convenient, central location, useful operating information.

Once devices capable of communicating with the system have been added to the remote (See "Adding a Device" on Page 3), the remote's normal operating mode displays a sequence of screens showing the status of each device in the system (See Figure 7), and any active alerts, such as "Low salt."

In addition to monitoring water treatment devices, the remote can also control some water softener operations, such as initiating a manual recharge.

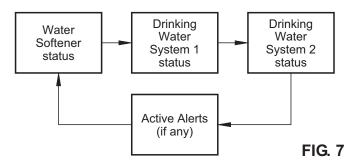
### HYDROLINK™ COMMUNICATION SYSTEM

The devices in the system exchange information in a loosely coupled network. AC powered devices, such as softeners, listen for new data all the time and act as data hubs. Battery powered devices like the remote check for information at regular intervals. Battery powered devices like drinking water systems do not communicate directly with each other or the remote, but pass along information through AC powered devices. An AC powered device with a transmitter must be part of any network (usually a water softener).

It is not necessary for every device in a network to be in radio range of all others. Information one device communicates to any other device will be passed along (like gossip) to all devices in the network.

#### **NAVIGATING THE SCREENS**

When the remote is powered up (by installing the batteries), a logo will briefly appear in the display. Once a device has been added, as shown in the procedure on Page 3, the display will automatically cycle between screens showing the status of water treatment devices communicating with the remote. To manually go to the next screen in the sequence, press the LEFT ( $\blacktriangleleft$ ) or RIGHT ( $\blacktriangleright$ ) buttons.



Some screens have more information than can be shown at one time (for example, the softener status display shown in Figure 8). A down arrow ( $\checkmark$ ) in the lower right corner indicates that there is more information below. Use the DOWN ( $\checkmark$ ) button to scroll through the additional lines.

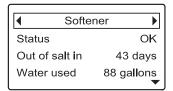


FIG. 8

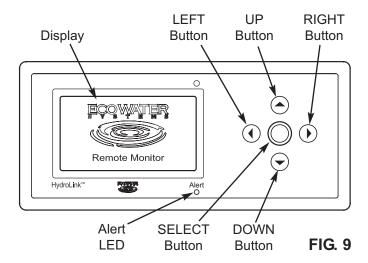
### **ACTIVE ALERTS**

The status screens described above will <u>not</u> be displayed in a rolling sequence when one of the following active alert messages is displayed:

- Low salt
- Time lost (Set the softener's clock)
- Service overdue
- Error code (Contact your dealer for service)

### MANUALLY REFRESHING THE DATA

If there has been no button activity for 30 seconds, pressing any button will refresh the data being displayed. Normally each data element refreshes at a much slower rate to conserve battery life.



#### REMOTE MENUS

#### Startup Menu

Before any devices have been added to the remote, the following menu is displayed:

- Display options
  - Set language (See Page 5)
- Network options
  - Add new device (See Page 3)

#### Softener Menu

After the softener has been added, the remote will display a softener status screen as one of the rolling status screens. Pressing the remote's SELECT (O) button when the softener status screen is displayed shows the following menu:

- Remote Control
  - Recharge (See Page 6)
  - Recharge time (See Page 6)
- Display options
  - Display data (See Page 7)
  - Display order (See Page 7)
  - Remote control data (See Page 8)
  - Rename device (See Page 8)
  - Set language (See Page 5)
- Network options
  - Add new device (See Page 3)
  - Delete current device (See Page 4)
  - RF signal strength (See Page 4)

#### **Drinking Water Status Menu**

If no drinking water system has been added, the remote will display a drinking water status screen as one of the rolling status screens. Pressing the remote's SELECT (O) button when the drinking water status screen is displayed shows the following menu:

- Display options
  - Drinking water message (See Page 5)
  - Set language (See Page 5)
- Network options
  - Add new device (See Page 3)

#### **ADDING A DEVICE**

To initiate communication between the remote and a device such as a water softener, it is necessary to add the device to the remote by doing the following:

1. If no device has been added to the remote, the menu shown in Figure 10 is displayed instead of status screens. In this case, skip to step 2. Otherwise, if status screens are shown, press the remote's SELECT (O) button to display a **Menu** screen (See Figure 10).

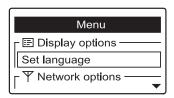


FIG. 10

 Press the DOWN (▼) button to scroll through the menu options until Add new device is highlighted in a box (See Figure 11).

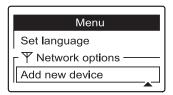


FIG. 11

3. Press the SELECT (O) button, and the screen shown in Figure 12 appears. The remote waits up to two minutes for the device to be activated (following the instructions in that device's manual). For complete instructions on adding the softener, refer to "Connecting to Remote" in the softener's manual.



FIG. 12

4. When the remote detects a signal from the device, the display will change to show that it has been added to the remote (See Figure 13). If another message appears instead, indicating the device was not added successfully, press the LEFT ( ◀ ) button to return to the screen in Figure 11. Repeat Step 3. If this does not work, contact your dealer for service.



FIG. 13

5. To exit this screen, press the LEFT ( ◀ ) button or wait 30 seconds for it to exit automatically.

#### CHECKING RF SIGNAL STRENGTH

During installation of a system, it is useful to check the strength of the signal from a water treatment device. As described on Page 2 (HydroLink™ Communication System), the remote receives direct signals only from AC powered devices, such as softeners. Battery-powered devices like drinking water systems pass their information along indirectly, by way of the AC devices. If you check the signal strength of a device not in direct communication with the remote, the display will show the strength of the "weakest link" in the chain of communication to the remote.

Begin by checking the signal strength between the softener and the remote. If the signal is weak (2 bars or less on the display shown in Figure 16), move the remote to a different location to try improving the signal strength.

To check the signal strength for a particular device:

 Press the remote's LEFT (◀) or RIGHT (▶) buttons to manually advance to the status screen for the device you want to check. The device name will show in the header. (See Figure 14).

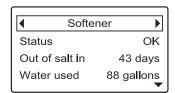


FIG. 14

- Press the remote's SELECT (O) button to display the device menu.
- Press the DOWN (▼) button to scroll through the menu options until RF signal strength is highlighted in a box (See Figure 15).

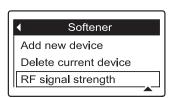


FIG. 15

4. Press the SELECT (O) button, and the screen shown in Figure 16 will appear. The more bars that are filled in black, the stronger the signal. The signal strength display updates every 15 seconds.



FIG. 16

**5**. To exit this screen, press the LEFT ( ◀ ) button.

#### **DELETING A DEVICE**

To delete a device from the remote (possible reasons for deleting a device include replacing or upgrading the softener's electronic control):

 Press the remote's LEFT (◀) or RIGHT (▶) buttons to manually advance to the status screen for the device to delete. The device name will show in the header. (See Figure 17).

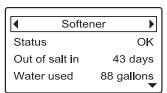


FIG. 17

2. Press the remote's SELECT (O) button to display the device menu (See Figure 18).

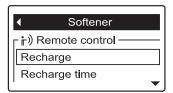


FIG. 18

 Press the DOWN (▼) button to scroll through the menu options until Delete current device is highlighted in a box (See Figure 19).

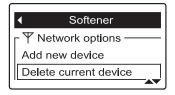


FIG. 19

**4**. Press the SELECT (O) button. The screen shown in Figure 20 will appear.



FIG. 20

**5**. Press the RIGHT ( ▶ ) button. The screen shown in Figure 21 will appear.

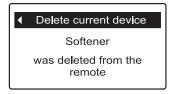


FIG. 21

**6**. To exit this screen, press the LEFT ( **4** ) button or wait 30 seconds for it to exit automatically.

#### SETTING THE LANGUAGE

Language is set independently on the remote and softener (See the softener's manual to set the softener's language). Fewer languages are available on the remote. To change the remote's language:

- Press the remote's SELECT (O) button to display a Menu screen.
- Press the DOWN (▼) button to scroll through the menu options until Set language is highlighted in a box (See Figure 22). Press the SELECT (○) button.

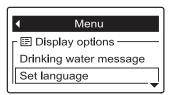


FIG. 22

- Depending on which devices are added, you could see a message saying "This will delete all devices! Continue?" If so, you would need to add the devices again after changing the language. Press the RIGHT ( ) button to continue (or skip to Step 4 if this message is not displayed).
- **4**. The Set language menu is displayed (See Figure 23). The current language has a black dot next to it.



FIG. 23

- Press the DOWN (▼) or UP (▲) buttons to scroll through the list to the desired language, then press SELECT (O) to choose it.
- **6**. Press the SELECT (O) button. The display will go back to the menu shown in Figure 17, in the newly set language.
- To exit this menu, press the LEFT ( ◆ ) button or wait 30 seconds for it to exit automatically.

## TO SET THE REMOTE TO ENGLISH IF ANOTHER LANGUAGE IS DISPLAYED:

From the rolling status screens, press SELECT (O). Press DOWN ( $\checkmark$ ) to scroll through the list until the line immediately **above** the antenna ( $\Upsilon$ ) symbol is highlighted (See Figure 24), then press SELECT (O). Press UP ( $\blacktriangle$ ) to scroll to **English** at the top of the list, then press SELECT (O) twice. Press LEFT ( $\blacktriangleleft$ ) to exit the menu.

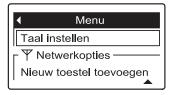


FIG. 24

#### DRINKING WATER STATUS MESSAGE

If a communications-capable drinking water filtration (RO) system has been added to the remote, it will have its own status screen displayed during normal operation. Otherwise, a drinking water status screen will display a message like the one shown in Figure 25.

If the message displayed is not appropriate to your system, change it as follows:

 Press the remote's LEFT ( ◆ ) or RIGHT ( ▶ ) buttons to manually advance to the **Drinking water status** screen (See Figure 25).

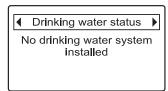


FIG. 25

- 2. Press the remote's SELECT (O) button to display the drinking water status menu (See Figure 26).
- 3. If necessary, press the DOWN (▼) button to scroll through the menu options until **Drinking water message** is highlighted in a box (See Figure 26).

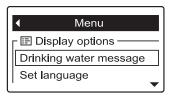
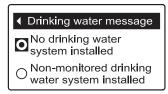


FIG. 26

**4**. Press the SELECT (O) button to display the Drinking water message menu (See Figure 27).



- 5. The current message has a black dot next to it. Press the DOWN (▼) or UP (▲) buttons to scroll between the two messages, then press SELECT (○) to choose one.
- **6**. Press the SELECT (O) button. The display will go back to the menu shown in Figure 26.
- 7. Press the LEFT (◀) button to exit this menu, or wait 30 seconds for it to exit automatically.

#### RECHARGING THE SOFTENER

This feature may be used to assure an adequate supply of softened water at times of unusually high water use. For example, if you have guests and the "Capacity remaining" line on the softener status screen is at or below 50%, you could deplete softened water capacity before the next automatic recharge. Initiating a manual recharge will restore 100% softened water capacity after complete.

 Press the remote's LEFT ( ◆ ) or RIGHT ( ▶ ) buttons to manually advance to the **Softener** status screen (See Figure 28).

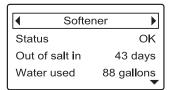


FIG. 28

- Press the remote's SELECT (O) button to display the device menu (See Figure 29).
- If necessary, press the DOWN (▼) button to scroll through the menu options until Recharge is highlighted in a box (See Figure 29).

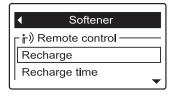


FIG. 29

Press the SELECT (O) button to display the Recharge menu (See Figure 30).

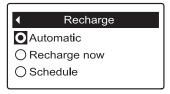


FIG. 30

- The currently selected option has a black dot next to it. Press the DOWN (▼) or UP (▲) buttons to scroll to the desired option, then press SELECT (○) to choose it.
  - Automatic cancels a manually scheduled recharge (if it has not already begun) and lets the electronic control determine when to recharge next.
  - Recharge now begins a recharge after the SELECT (○) button is pushed again in Step 6.\*
  - **Schedule** sets a recharge to begin at the preset recharge time (set according to the instructions at right).

- **6**. Press the SELECT (O) button. The display will go back to the softener menu (Figure 29).
- Press the LEFT (◀) button to exit this menu, or wait 30 seconds for it to exit automatically.

#### SETTING SOFTENER RECHARGE TIME

When the softener's electronic control is first powered up, the default time for starting an automatic recharge is 2:00 a.m. This is a good time in most households because water is not being used.

To change the softener's recharge time using the remote:

- Press the remote's LEFT ( ◆ ) or RIGHT ( ▶ ) buttons to manually advance to the **Softener** status screen (See Figure 28).
- 2. Press the remote's SELECT (O) button to display the device menu (See Figure 29).
- 3. Press the DOWN (▼) button to scroll through the menu options until **Recharge time** is highlighted in a box (See Figure 31).

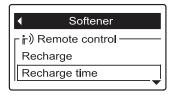


FIG. 31

**4**. Press the SELECT (O) button to display the Recharge time screen (See Figure 32).



- Press the UP (▲) or DOWN (▼) buttons to change the recharge time in 1 hour increments. Hold the button down to rapidly advance. Be sure that AM or PM is correct (unless softener is set for a 24-hour clock).
- **6**. Press the SELECT (O) button. The display will go back to the softener menu (Figure 31).
- **7**. Press the LEFT ( **4** ) button to exit this menu, or wait 30 seconds for it to exit automatically.

<sup>\*</sup> The softener may not respond instantly to the remote's command. Because of the way information is distributed in the HydroLink™ network, it may take a few seconds (or even minutes if multiple AC powered devices are in the network).

## CHANGING WHICH DATA ITEMS ARE DIS-PLAYED IN THE STATUS SCREENS

Each device added to the remote (softener, drinking water system, etc.) has a status screen which the remote displays during normal operation. The status screen may be customized by turning items on or off.

To turn data items on or off:

- Press the remote's LEFT ( ◆ ) or RIGHT ( ▶ ) buttons to manually advance to the status screen you want to customize. For example, to change the data for the softener, manually advance to the **Softener** status screen.
- Press the remote's SELECT (O) button to display the device menu.
- Press the DOWN (▼) button to scroll through the menu options until **Display data** is highlighted in a box (See Figure 33).

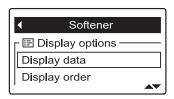


FIG. 33

**4**. Press the SELECT (O) button to display the Display data screen (See Figure 34).

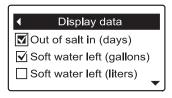


FIG. 34

- 5. Press the DOWN (▼) or UP (▲) buttons to scroll through the list of display data items. Items with a check mark in the box next to them will be displayed during normal operation.
- 6. To select an unchecked display data item, make sure the box next to the item's name is highlighted (box is black inside). Then press the SELECT (O) button. The check mark will appear in the box.
- 7. To un-select a checked display data item, make sure the box next to the item's name is highlighted (box is black inside). Then press the SELECT (O) button. The check mark will disappear.
- 8. When selections are complete, exit this menu by pressing the LEFT ( ◀ ) button. The display will go back to the device menu (Figure 33).
- Press the LEFT (◀) button to exit this menu, or wait 30 seconds for it to exit automatically.

# CHANGING THE ORDER OF DATA ITEMS DISPLAYED IN THE STATUS SCREENS

In addition to changing which data items the remote displays during normal operation, the order of these items may be customized, as follows:

- Press the remote's LEFT ( ◆ ) or RIGHT ( ▶ ) buttons to manually advance to the status screen you want to customize. For example, to change the order of the softener's screen, manually advance to the **Softener** status screen.
- Press the remote's SELECT (O) button to display the device menu.
- 3. Press the DOWN (▼) button to scroll through the menu options until **Display order** is highlighted in a box (See Figure 35).

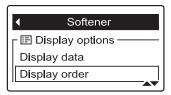


FIG. 35

**4**. Press the SELECT (O) button to display the Display order screen (See Figure 36).

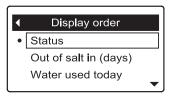
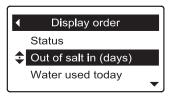


FIG. 36

- Press the DOWN (▼) or UP (▲) buttons to scroll through the list of display data items. Stop when the item you want to move is highlighted in a box.
- **6**. Press the SELECT (O) button. Arrows will appear next to the item (See Figure 37).



- 7. Press the UP ( ) or DOWN buttons to move the item higher or lower in the list.
- **8**. When the item is where you want it in the list, press the SELECT (O) button. The arrows next to the item will disappear.
- To move another item, return to Step 5. When finished moving items, press the LEFT (◀) button. The display will go back to the device menu (Figure 35).

# CHANGING WHICH DATA ITEMS MAY BE REMOTELY CONTROLLED

Some devices (softeners, for example) have a list of data items which may be controlled by the remote. Remote control items may be customized, as follows:

- Press the remote's LEFT ( ) or RIGHT ( ) buttons to manually advance to the status screen of the device you want to customize. For example, to change the data for the softener, manually advance to the **Softener** status screen.
- Press the remote's SELECT (O) button to display the device menu.
- Press the DOWN (▼) button to scroll through the menu options until Remote control data is highlighted in a box (See Figure 38).

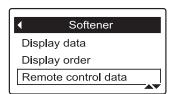


FIG. 38

**4**. Press the SELECT (O) button to display the Remote control data screen (See Figure 39).

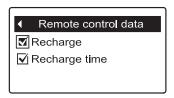


FIG. 39

- 5. Press the DOWN (▼) or UP (▲) buttons to scroll through the list of remote control items. Items with a check mark in the box next to them will be controllable using the remote.
- 6. To select an unchecked remote control item, make sure the box next to the item's name is highlighted (box is black inside). Then press the SELECT (O) button. The check mark will appear in the box.
- 7. To un-select a checked remote control item, make sure the box next to the item's name is highlighted (box is black inside). Then press the SELECT (O) button. The check mark will disappear.
- When selections are complete, exit this menu by pressing the LEFT ( ◀ ) button. The display will go back to the device menu (Figure 38).
- Press the LEFT (◀) button to exit this menu, or wait 30 seconds for it to exit automatically.

#### **RENAMING A DEVICE**

Each device (softener, drinking water system, etc.) in the system has a default name in the header of its status screen. The name may be customized (up to 20 characters long), as follows:

- Press the remote's LEFT (◀) or RIGHT (▶) buttons to manually advance to the status screen of the device you want to rename. For example, to rename the softener, manually advance to the **Softener** status screen.
- Press the remote's SELECT (O) button to display the device menu.
- Press the DOWN (▼) button to scroll through the menu options until Rename device is highlighted in a box (See Figure 40).

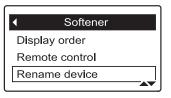


FIG. 40

**4**. Press the SELECT (O) button to display the Rename device screen (See Figure 41).

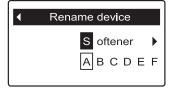
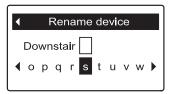


FIG. 41

- 5. Two lines are displayed below the header. The upper line shows the device name. The lower line is the list of available characters (upper and lower case alphabets, space character, numbers and common punctuation marks). Use the RIGHT ( ) or LEFT ( ) buttons to highlight the first character you want to replace in the old device name.
- 6. Press DOWN (▼) to switch to the lower line.
- Press the RIGHT (►) or LEFT (◄) buttons to scroll through the character list.. Stop when the character you want to select is highlighted (See Fig. 42).



- **8**. Press the SELECT (O) button. The character you picked is added to the upper line.
- 9. To select the next character, return to Step 7. When finished entering the device name, press the UP (▲) button to switch to the upper line, then press SELECT (○) to go back to the device menu (Figure 40).