OSMAC® G3 Satellite User's Guide

TORO Count on it.

The OSMAC® G3 offers intuitive faceplate capabilities, superior diagnostics and can be installed as a complete satellite or as a retrofit faceplate upgrade for existing E-OSMAC® satellites.

- 16 to 64 stations in 8-station increments
- Field programmable for future upgrades
- Operates as a stand-alone controller or under the management of a central computer
- Supports radio communications with the central computer
- 12 irrigation programs
- Independent stand-alone and central operation
- Multi-Manual, Program Start and Syringe manual operations
- Operates up to 16 stations simultaneously

Table of Contents

Introduction

The Toro® OSMAC® G3 Satellite combines modular flexibility, ease of use and increased programmability in a single controller.
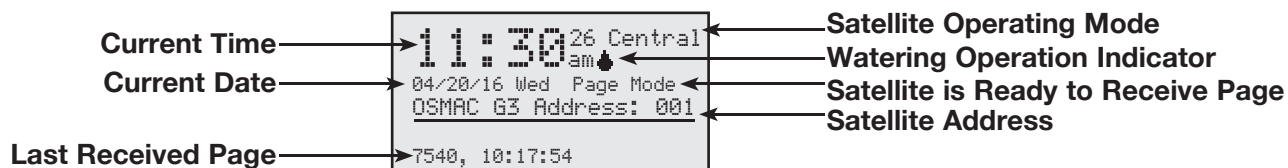
Modularity means flexibility. The OSMAC G3 is available from 16 to 64 stations, and can expand in 8-station increments to meet your needs. Optional station switch capability and surge protection provide simple operation and added security.

The intuitive OSMAC G3 user interface is easy to use and includes a back light for improved visibility in low-light conditions, yet it is completely viewable in direct sunlight. The faceplate's simple navigation arrows and Select button allows for easy navigation and faster menu selection.

With 12 irrigation programs, the OSMAC G3 satellite allows programming to the station level. Discrete local and central modes make stand-alone and central controlled operations independent from one another, while the ability to run up to 16 stations simultaneously lets you irrigate a wide variety of landscapes.

Home Screen

Press any button, except the left arrow, to access the menus and settings from the home screen.

Current Time

Current Date

Last Received Page

```
11:30  26 Central
 am
04/20/16 Wed  Page Mode
OSMAC G3 Address: 001
7540, 10:17:54
```

Satellite Operating Mode
Watering Operation Indicator
Satellite is Ready to Receive Page
Satellite Address

Menu Navigation

Select button – Press the **Select** button to select a menu or change a setting or value. When a setting or value is selected, the cursor changes to a dark background and the setting or value can be changed by using the **UP** and **DOWN** buttons. Pressing the **Select** button again will return the **UP** and **DOWN** buttons to navigation mode.

UP and **DOWN** button – In navigation mode, the **UP** and **DOWN** buttons navigate up and down though the menu selections. In the edit mode, they change settings and values. Use the **Select** button to change between navigation and edit mode.

LEFT and **RIGHT** button – The **LEFT** and **RIGHT** buttons are used to navigate left and right in a menu. The **LEFT** button is also used as a back button to return to the previous menu. If the **LEFT** button is pressed in the navigation mode, the menu will return to the previous one. To get back to the home screen, keep pressing the **LEFT** button in the navigation mode.

Modes of Operation

The Toro OSMAC G3 Satellite can be placed in three operating modes: Central mode, Local mode and Off mode.

```
 What's Running
 Manual Watering
 Scheduled Watering
▶Communication
 Diagnostics
 Settings
```
```
 Radio Monitor  Sig■
 Page History
 Radio Menu
 Sat Address:  001
▶Comm Mode:  Central
 Receive Only Radio
```
```
 Radio Monitor  Sig■
 Page History
 Radio Menu
 Sat Address:  001
▶Comm Mode:  Local
 Receive Only Radio
```
```
 Radio Monitor  Sig■
 Page History
 Radio Menu
 Sat Address:  001
▶Comm Mode:  Off
 Receive Only Radio
```

Central Mode – When placed in Central mode, the OSMAC G3 satellite will wait and execute radio commands sent by the central. The satellite will ignore all scheduled watering but will execute manual watering.

Local Mode – When placed in Local mode, the OSMAC G3 will execute scheduled watering as well as manual watering. Radio commands will be ignored.

Off Mode – When placed in Off mode, the OSMAC G3 will not execute any watering operation whether it is scheduled or manually initiated. Any watering operation will terminate once the satellite is placed in Off mode. Watering operations will resume once the satellite is placed back to Central or Local mode.

Setting the Clock and Mode

Clock Set

```
 What's Running
 Manual Watering
 Scheduled Watering
 Communication
 Diagnostics
▶Settings
```
```
▶Clock Set:  11:15am
 Clock Mode:  Am/Pm
 Date Mode:  MMDDYY
 Date:  01/01/16 Fri
 Sat Address:  001
 Max Sim Sta:  05
```

Step 1 – While at the Home display, press **Select** to access the controller menu.

Step 2 – Press **DOWN** until **Settings** is selected and press **Select**.

Step 3 – Press **DOWN** until **Clock Set** is selected and press **Select** to edit.

Step 4 – Use the **LEFT** and **RIGHT** buttons to navigate between the HOURS and MINUTES parameters. To edit the values, use the **UP** and **DOWN** buttons to increase or decrease the HOURS and MINUTES.

Step 5 – Press **Select** once the correct time is set.

Clock Mode

```
 What's Running
 Manual Watering
 Scheduled Watering
 Communication
 Diagnostics
▶Settings
```
```
 Clock Set:  11:15am
▶Clock Mode:  Am/Pm
 Date Mode:  MMDDYY
 Date:  01/01/16 Fri
 Sat Address:  001
 Max Sim Sta:  05
```

Step 1 – While at the Home display, press **Select** to access the controller menu.

Step 2 – Press **DOWN** until **Settings** is selected and press **Select**.

Step 3 – Press **DOWN** ▼ until **Clock Mode** is selected and press **Select** to edit.

Step 4 – Use the **UP** and **DOWN** buttons ▲ ▼ to select between **Am/Pm** (12-Hour format) or **24 Hrs** (International format).

Step 5 – Press **Select** once the correct format is selected.

Setting the Date and Mode

Date

```
What's Running          Clock Set:     11:15am
Manual Watering         Clock Mode:    Am/Pm
Scheduled Watering      Date Mode:     MMDDYY
Communication          ▶Date:  01/01/16 Fri
Diagnostics             Sat Address:   001
▶Settings               Max Sim Sta:   05
```

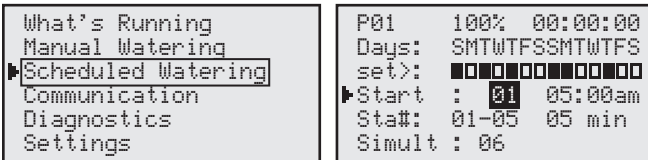**Step 1** – While at the Home display, press **Select** to access the controller menu.

Step 2 – Press **DOWN** ▼ until **Settings** is selected and press **Select** .

Step 3 – Press **DOWN** ▼ until **Date** is selected and press **Select** to edit.

Step 4 – Use the **LEFT** and **RIGHT** buttons ◀ ▶ to navigate between the DAY, MONTH and YEAR. To edit the values, use the **UP** and **DOWN** buttons ▲ ▼ to increase or decrease until the correct DAY, MONTH and YEAR is displayed.

Step 5 – Press **Select** once the correct date is set.

Date Mode

```
What's Running          Clock Set:     11:15am
Manual Watering         Clock Mode:    Am/Pm
Scheduled Watering     ▶Date Mode:     MMDDYY
Communication           Date:  01/01/16 Fri
Diagnostics             Sat Address:   001
▶Settings               Max Sim Sta:   05
```

Step 1 – While at the Home display, press **Select** to access the controller menu.

Step 2 – Press **DOWN** ▼ until **Settings** is selected and press **Select** .

Step 3 – Press **DOWN** ▼ until **Date Mode** is selected and press **Select** to edit.

Step 4 – Use the **UP** and **DOWN** buttons ▲ ▼ to select between **MMDDYY** (Month/Day/Year) or **DDMMYY** (Day/Month/Year) format.

Step 5 – Press **Select** once the correct format is selected.

Setting Scheduled Watering

```
What's Running        P01    100%  00:00:00
Manual Watering       Days:  SMTWTFSSMTWTFS
▶Scheduled Watering   set>:  ■□■□■□□■■□□■□□
Communication        ▶Start :  01   05:00am
Diagnostics           Sta#:  01-05  05 min
Settings              Simult : 06
```

📝 **Note:** In order to run Scheduled Watering, you must set the OSMAC G3 controller to Local mode operation. See **Comm Mode** under **Settings Menu** section.

Step 1 – While at the Home display, press **Select** 🔘 to access the controller menu.

Step 2 – Press **DOWN** 🔽 until **Scheduled Watering** is selected and press **Select** 🔘.

Step 3 – Use the **UP**, **DOWN**, **LEFT** and **RIGHT** 🔼 🔽 ◀ ▶ arrows to navigate between the parameters.

P01 - Program Designation

Select the Program you want to edit by selecting **P01** and pressing the **Select** button 🔘. Use the **UP** and **DOWN** 🔼 🔽 arrows to increase or decrease the program number. The OSMAC G3 controller will allow you to program up to 12 independent schedules. Press **Select** 🔘 to make the selection.
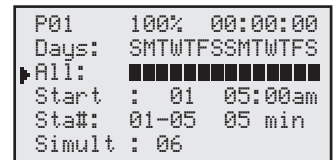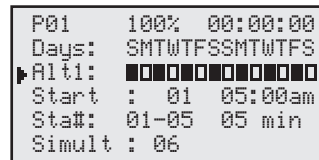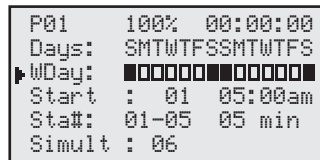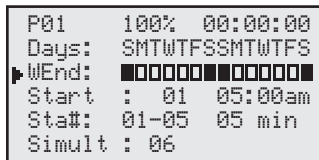
100% - Watering Percentage

Adjust the Schedule's watering percentage by selecting **100%** and pressing the **Select** button 🔘. Use the **UP** and **DOWN** 🔼 🔽 arrows to increase or decrease the watering percentage. Watering can be increased up to 250% of the scheduled watering time or decreased down to 10% of the scheduled watering time. Press **Select** 🔘 to finalize the change.

Days / Water Every - Assigned Active Watering Days

Select the watering interval by selecting **Days** and pressing the **Select** button 🔘. You can select between **Days** or **Water Every** option.

Selecting **Days** option allows you to select a unique 2-week watering combination. Press **DOWN** 🔽 until **set>:** option is selected and press **Select** 🔘. Scroll through the selection using the **UP** and **DOWN** 🔼 🔽 arrows.

```
P01    100%  00:00:00    P01    100%  00:00:00    P01    100%  00:00:00    P01    100%  00:00:00
Days:  SMTWTFSSMTWTFS    Days:  SMTWTFSSMTWTFS    Days:  SMTWTFSSMTWTFS    Days:  SMTWTFSSMTWTFS
▶WEnd: ■□□□□□■■□□□□□■   ▶WDay: ■□□□□□■■□□□□□■   ▶Alt1: ■□■□■□■□■□■□■□   ▶All:  ■■■■■■■■■■■■■■
Start :  01   05:00am    Start :  01   05:00am    Start :  01   05:00am    Start :  01   05:00am
Sta#:  01-05  05 min     Sta#:  01-05  05 min     Sta#:  01-05  05 min     Sta#:  01-05  05 min
Simult : 06              Simult : 06              Simult : 06              Simult : 06
```

None - disable all days for watering.
WEnd - Selects only Saturdays and Sundays for watering while weekdays are non-watering days.
WDay - Selects Monday through Friday for watering and weekends are non-watering days.
Alt1 - Selects every other day as active watering days starting with Sunday.
Alt2 - Selects every other day as active watering days starting with Monday.
All - Selects everyday as watering days.
set> - Allows you to activate and deactivate any of the days within the 2-week schedule. Use the **LEFT** and **RIGHT** ◀ ▶ arrows to navigate through the individual days and use the **UP** and **DOWN** 🔼 🔽 arrows to activate (solid box) or deactivate (empty box).
Press **Select** 🔘 to finalize the change.

Selecting **Water Every** option allows you to adjust how many interval days between scheduled watering. It also gives you the flexibility to set the position of the current day within the watering interval.

Example: Set watering to every 3 days with the current day being the 2nd day (water the next day).

```
P01    100%  00:00:00
Water Every: 03 Days
▶Today's Day: 02
 Start  :  01  05:00am
 Sta#:  01-05  05 min
 Simult : 06
```

Start - Scheduled Start Times

The OSMAC G3 allows you to set up to 24 start times. Select the **Start:** to set or edit the start time and press the **Select** button 🔘. Use the **UP** and **DOWN** 🔼 🔽 arrows to select the start time number you want to edit and press the **Select** button 🔘. Use the **LEFT** and **RIGHT** ◀ ▶ arrows to navigate between Minutes and Hours. Use the **UP** and **DOWN** 🔼 🔽 arrows to adjust the minutes and hours. Press **Select** 🔘 when the desired start time is set. Repeat the **Start** procedure to add additional start times.

Sta# - Assigned Station(s) and Runtime(s)

Set the stations you want to activate during the schedule by selecting **Sta#** and pressing the **Select** button 🔘. Use the **UP** and **DOWN** 🔼 🔽 arrows to select the station you want to activate, then use the **LEFT** and **RIGHT** ◀ ▶ arrows to navigate to the runtime. Use the **UP** and **DOWN** 🔼 🔽 arrows to set the desired runtime for that station.

Example: Activate station 1 with 5-minute runtime.

```
P01    100%  00:00:00
Days:   SMTWTFSSMTWTFS
set>:   ■□□■□□□■■□□■□□
Start  :  01  05:00am
▶Sta#:  01-01  05 min
 Simult : 06
```

If sequential stations will be running the same amount of runtime in the schedule, you can easily accomplish this by setting the 1st station in the sequence followed by the last station in the sequence and setting the runtime that each station will run.

Example: Activate stations 1 through 5 with 10-minute runtime per station.

```
P01    100%  00:00:00
Days:   SMTWTFSSMTWTFS
set>:   ■□□■□□□■■□□■□□
Start  :  01  05:00am
▶Sta#:  01-05  10 min
 Simult : 06
```

Repeat the **Sta#** procedure to set additional stations and runtimes. Press **Select** 🔘 when all the desired stations and runtimes are set.

Simult - Assigned the Maximum Number of Simultaneously Active Stations

Set the maximum number of stations that can simultaneously be activated. The OSMAC G3 controller will allow you to set a maximum of 16 total stations that can run simultaneously. However, there may be cases where less stations can be simultaneously activated.
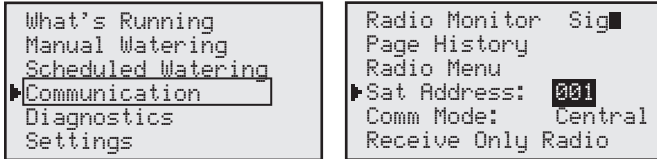
Set the maximum number of simultaneously active stations by selecting **Simult:** and pressing the **Select** button 🔘. Use the **UP** and **DOWN** 🔼 🔽 arrows to set the maximum number of station you want to activate simultaneously, then press the **Select** 🔘 button to accept.

Step 4 – Repeat **Setting Scheduled Watering** procedure for setting additional programs.

Setting OSMAC G3 for Radio Communications

In order to send page commands to the OSMAC G3 controller, you must set and coordinate the satellite address and the transmitting and receiving frequency with the radio system being used.

Satellite Address - Satellite address is the identification that is given to a particular satellite. In order to communicate with individual satellites, each satellite is given a unique satellite address. When a page is sent to that satellite address, only the intended satellite will respond and the other satellites will ignore the page command.

```
What's Running          Radio Monitor  Sig■
Manual Watering         Page History
Scheduled Watering      Radio Menu
▶Communication         ▶Sat Address:   001
Diagnostics             Comm Mode:    Central
Settings                Receive Only Radio
```

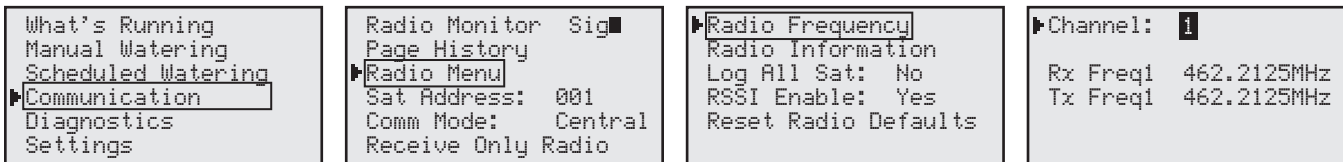**Step 1** – While at the Home display, press **Select** to access the controller menu.

Step 2 – Press **DOWN** until **Communication** is selected and press **Select**.

Step 3 – Press **DOWN** until **Sat Address** is selected and press **Select**.

Step 4 – Use the **UP** and **DOWN** arrows to select the satellite address you want to set.

Step 5 – Press **Select** to finalize.

Satellite Radio Frequency - The OSMAC G3 radio is preprogrammed with 6 radio frequencies that are frequently used in Toro irrigation systems. In cases where these preprogrammed frequencies are not suitable or available for use in your area, each of the frequencies can be edited to the desired frequency.

```
What's Running          Radio Monitor  Sig■   ▶Radio Frequency      ▶Channel:  1
Manual Watering         Page History          Radio Information
Scheduled Watering     ▶Radio Menu            Log All Sat:  No       Rx Freq1  462.2125MHz
▶Communication          Sat Address:   001    RSSI Enable:  Yes      Tx Freq1  462.2125MHz
Diagnostics             Comm Mode:    Central  Reset Radio Defaults
Settings                Receive Only Radio
```

Step 1 – While at the Home display, press **Select** to access the controller menu.

Step 2 – Press **DOWN** until **Communication** is selected and press **Select**.

Step 3 – Press **DOWN** until **Radio Menu** is selected and press **Select**.

Step 4 – While **Radio Frequency** is selected, press **Select**.

Step 5 – While **Channel** is selected, press **Select**.

Step 6 – Use the **UP** and **DOWN** arrows to scroll through the frequency channel selections.

Step 7 – Press **Select** once the proper frequency channel is selected.

Step 8 – If the 6 preprogrammed frequencies are not suitable for your use, you can edit any of the frequency channels. Follow steps 5-7 to select the frequency channel you want to edit. Use the **UP** and **DOWN** arrows to select Rx (Receive) frequency, then press **Select**.

Step 9 – Use the **UP** and **DOWN** arrows to modify the values and use the **LEFT** and **RIGHT** arrows to navigate between values. Press **Select** once the correct frequency value is set. Repeat steps 8 and 9 for Tx (Transmit) frequency. Rx and Tx frequency should match for proper operation.
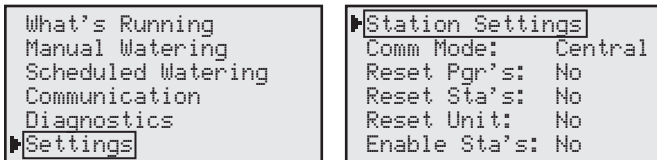
Station Settings

Station Settings allows you to configure each station as an irrigation station or a switch. When a station is configured as a switch, that station is not affected by the rain delay function. When a switch is activated, it does not activate the pump terminal.

Step 1 – While at the Home display, press **Select** to access the controller menu.

Step 2 – Press **DOWN** until **Settings** is selected and press **Select**.
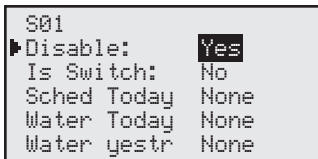
Step 3 – While **Station Settings** is selected and press **Select**.

```
 What's Running
 Manual Watering
 Scheduled Watering
 Communication
 Diagnostics
▶Settings
```
```
▶Station Settings
 Comm Mode:    Central
 Reset Pgr's:  No
 Reset Sta's:  No
 Reset Unit:   No
 Enable Sta's: No
```

S01 - Select which station you want to edit. While **S01** is selected, press **Select**. Use the **UP** and **DOWN** arrows to select the station number you want to edit. Press **Select** when the correct station number is displayed.

```
▶S01
 Disable:     No
 Is Switch:   No
 Sched Today  None
 Water Today  None
 Water yestr  None
```
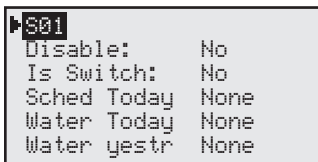
Disable - Use this function when you need to disable a station from activation indefinitely. Once disabled, the station will not activate for all scheduled and manual watering. Watering activity will only resume once the station's **Disable** function is set back to **No**. Use the **UP** and **DOWN** arrows to select **Disable** and press **Select**. Use the **UP** and **DOWN** arrows to select **Yes** or **No**. Press **Select** when the correct selection is set.

```
 S01
▶Disable:     Yes
 Is Switch:   No
 Sched Today  None
 Water Today  None
 Water yestr  None
```

Is Switch - Set the station to switch when using it to activate a relay or any devices other than the irrigation system. When the station is set to switch, it is not affected by the rain delay function. The pump terminal will also not activate when the switch is activated. Use the **UP** and **DOWN** arrows to select **Is Switch** and press **Select**. Use the **UP** and **DOWN** arrows to select **Yes** or **No**. Press **Select** when the correct selection is set.

Sched Today - Schedule today will indicate if the station is set to a schedule that will irrigate today. This is a monitor only parameter and can not be modified.

Water Today - Water today will indicate if the station was activated today. This is a monitor only parameter and can not be modified.

Water Ystr - Water yesterday will indicate if the station performed watering the day before. This is a monitor only parameter and can not be modified.

Comm Mode

```
 What's Running          Station Settings       Station Settings       Station Settings
 Manual Watering        ▶Comm Mode:   Central   ▶Comm Mode:    Local   ▶Comm Mode:      Off
 Scheduled Watering      Reset Pgr's:  No        Reset Pgr's:  No       Reset Pgr's:  No
 Communication           Reset Sta's:  No        Reset Sta's:  No       Reset Sta's:  No
 Diagnostics             Reset Unit:   No        Reset Unit:   No       Reset Unit:   No
▶Settings                Enable Sta's: No        Enable Sta's: No       Enable Sta's: No
```

Central Mode – When placed in Central mode, the OSMAC G3 satellite will wait and execute radio commands sent by the Central mode. The satellite will ignore all scheduled watering but will execute manual watering.

Local Mode – When placed in Local mode, the OSMAC G3 will execute scheduled watering as well as manual watering. Radio commands will be ignored.

Off Mode – When placed in Off mode, the OSMAC G3 will not execute any watering operation whether it is scheduled or manually initiated. Any watering operation will terminate once the satellite is placed in Off mode. Watering operations will resume once the satellite is placed back to Central or Local mode.

Step 1 – While at the Home display, press **Select** to access the controller menu.

Step 2 – Press **DOWN** until **Settings** is selected and press **Select**.

Step 3 – Press **DOWN** until **Comm Mode** is selected and press **Select**.

Step 4 – Use the **UP** and **DOWN** arrows to select between **Central**, **Local** and **Off** modes.

Step 5 – Press **Select** when the proper mode of operation is set.

Reset Prg's

```
 Station Settings
 Comm Mode:    Central
▶Reset Pgr's:  Yes
 Reset Sta's:  No
 Reset Unit:   No
 Enable Sta's: No
```

Selecting **Yes** to this menu will erase all scheduled programs and reset all their parameters to 100% watering adjustment, everyday watering, no start time, no set station, and one simultaneous station only.

Step 1 – While at the Home display, press **Select** to access the controller menu.

Step 2 – Press **DOWN** until **Settings** is selected and press **Select**.

Step 3 – Press **DOWN** until **Reset Prg's** is selected and press **Select**.

Step 4 – Use the **UP** and **DOWN** arrows to select **Yes**.

Step 5 – Press **Select** when finished.

Reset Sta's

```
Station Settings
Comm Mode:    Central
Reset Pgr's:  No
▶Reset Sta's: Yes
Reset Unit:   No
Enable Sta's: No
```

Selecting **Yes** to this menu will reset all the stations to the default settings. All the stations that were set as switches will reset as stations once again. All the stations that were disabled will once again reset as active.

Step 1 – While at the Home display, press **Select** to access the controller menu.

Step 2 – Press **DOWN** until **Settings** is selected and press **Select** .

Step 3 – Press **DOWN** until **Reset Sta's** is selected and press **Select** .

Step 4 – Use the **UP** and **DOWN** arrows to select **Yes**.

Step 5 – Press **Select** when finished.

Reset Unit

```
Station Settings
Comm Mode:    Central
Reset Pgr's:  No
Reset Sta's:  No
▶Reset Unit:  Yes
Enable Sta's: No
```

Selecting **Yes** to this menu will reset the OSMAC G3 controller to factory default values. All the parameters will reset except for satellite address, radio frequency and Communication mode.

Step 1 – While at the Home display, press **Select** to access the controller menu.

Step 2 – Press **DOWN** until **Settings** is selected and press **Select** .

Step 3 – Press **DOWN** until **Reset Unit** is selected and press **Select** .

Step 4 – Use the **UP** and **DOWN** arrows to select **Yes**.

Step 5 – Press **Select** when finished.

Enable Sta's

```
Station Settings
Comm Mode:    Central
Reset Pgr's:  No
Reset Sta's:  No
Reset Unit:   No
▶Enable Sta's: Yes
```

Selecting **Yes** to this menu will reset all the stations to active status. When a few stations are set to switches, you can easily reset them to stations all at once by using **Enable Sta's**.

Step 1 – While at the Home display, press **Select** to access the controller menu.

Step 2 – Press **DOWN** until **Settings** is selected and press **Select** .

Step 3 – Press **DOWN** until **Reset Sta's** is selected and press **Select** .

Step 4 – Use the **UP** and **DOWN** arrows to select **Yes**.

Step 5 – Press **Select** when finished.

Clock Set

```
►Clock Set:    12:00am
 Clock Mode:   Am/Pm
 Date Mode:    MMDDYY
 Date: 01/01/16  Fri
 Sat Address:  001
 Max Sim Sta:  06
```

Step 1 – While at the Home display, press **Select** to access the controller menu.

Step 2 – Press **DOWN** until **Settings** is selected and press **Select**.

Step 3 – Press **DOWN** until **Clock Set** is selected and press **Select**.

Step 4 – Use the **LEFT** and **RIGHT** arrows to navigate between the hour and minute parameters. Use the **UP** and **DOWN** arrows to set the correct hour and minute values.

Step 5 – Press **Select** when finished.

Clock Mode

```
 Clock Set:    12:00am
►Clock Mode:   Am/Pm
 Date Mode:    MMDDYY
 Date: 01/01/16  Fri
 Sat Address:  001
 Max Sim Sta:  06
```

Step 1 – While at the Home display, press **Select** to access the controller menu.

Step 2 – Press **DOWN** until **Settings** is selected and press **Select**.

Step 3 – Press **DOWN** until **Clock Mode** is selected and press **Select**.

Step 4 – Use the **UP** and **DOWN** arrows to select between **Am/Pm** (12-hour mode) and **24 Hrs** (24-hour mode).

Step 5 – Press **Select** when finished.

Date Mode

```
 Clock Set:    12:00am
 Clock Mode:   Am/Pm
►Date Mode:    MMDDYY
 Date: 01/01/16  Fri
 Sat Address:  001
 Max Sim Sta:  06
```

Step 1 – While at the Home display, press **Select** to access the controller menu.

Step 2 – Press **DOWN** until **Settings** is selected and press **Select**.

Step 3 – Press **DOWN** until **Date Mode** is selected and press **Select**.

Step 4 – Use the **UP** and **DOWN** arrows to select between **MMDDYY** (Domestic mode) and **DDMMYY** (International mode).

Step 5 – Press **Select** when finished.

Date

```
 Clock Set:    12:00am
 Clock Mode:   Am/Pm
▶Date Mode:    MMDDYY
 Date: 01/01/16  Fri
 Sat Address:  001
 Max Sim Sta:  06
```

Step 1 – While at the Home display, press **Select** SELECT to access the controller menu.

Step 2 – Press **DOWN** until **Settings** is selected and press **Select** SELECT.

Step 3 – Press **DOWN** until **Date** is selected and press **Select** SELECT.

Step 4 – Use the **LEFT** and **RIGHT** arrows to navigate between the Day, Month and Year parameters. Use the **UP** and **DOWN** arrows to set the correct Day, Month and Year.

Step 5 – Press **Select** SELECT when finished.

Sat Address

```
 Clock Set:    12:00am
 Clock Mode:   Am/Pm
 Date Mode:    MMDDYY
 Date: 01/01/16  Fri
▶Sat Address:  001
 Max Sim Sta:  06
```

Step 1 – While at the Home display, press **Select** SELECT to access the controller menu.

Step 2 – Press **DOWN** until **Settings** is selected and press **Select** SELECT.

Step 3 – Press **DOWN** until **Sat Address** is selected and press **Select** SELECT.

Step 4 – Use the **UP** and **DOWN** arrows to set the desired satellite address. For independent operation, use a unique address from other satellites. If the satellite belongs to a group that will operate in synchronous with each other, use the same address as the satellites within the group.

Step 5 – Press **Select** SELECT when finished.

Max Sim Sta

```
 Clock Set:    12:00am
▶Clock Mode:   Am/Pm
 Date Mode:    MMDDYY
 Date: 01/01/16  Fri
 Sat Address:  001
 Max Sim Sta:  06
```

Step 1 – While at the Home display, press **Select** SELECT to access the controller menu.

Step 2 – Press **DOWN** until **Settings** is selected and press **Select** SELECT.

Step 3 – Press **DOWN** until **Max Sim Sta** is selected and press **Select** SELECT.

Step 4 – Use the **UP** and **DOWN** arrows to set the number of maximum stations that are simultaneously active. Depending on water source supply and power demand, you can set as many as 16 stations to be active at the same time.

Step 5 – Press **Select** SELECT when finished.

Display Adj

```
Date Mode:    MMDDYY
Date:  01/01/16  Fri
Sat Address:  001
Max Sim Sta:  06
▶Display Adj: darker.
 Radio Settings
```

It is possible to adjust the contrast to the LCD screen if the clarity is poor.

Step 1 – While at the Home display, press **Select** to access the controller menu.

Step 2 – Press **DOWN** until **Settings** is selected and press **Select**.

Step 3 – Press **DOWN** until **Display Adj** is selected and press **Select**.

Step 4 – Adjust the display contrast by using the **UP** arrow to increase and **DOWN** arrow to decrease.

Step 5 – Press **Select** when the desired display clarity is achieved.

Radio Settings

Radio Settings allows you to set the communication frequency OSMAC G3 radio. OSMAC G3 radio is preprogrammed with 6 radio frequencies that are commonly used in Toro irrigation systems. If the preprogrammed frequencies are not suitable for your use, you can edit any of the frequencies to your desired radio frequency.

Step 1 – While at the Home display, press **Select** to access the controller menu.

Step 2 – Press **DOWN** until **Settings** is selected and press **Select**.

Step 3 – While **Radio Settings** is selected and press **Select**.

```
 What's Running
 Manual Watering
 Scheduled Watering
 Communication
 Diagnostics
▶Settings
```

```
Date Mode:    MMDDYY
Date:  01/01/16  Fri
Sat Address:  001
Max Sim Sta:  06
Display Adj: _____
▶Radio Settings
```

```
▶Radio Frequency
 Radio Information
 Log All Sat:  No
 RSSI Enable:  Yes
 Reset Radio Defaults
```

Radio Frequency - Use this menu to select the radio frequency in order to be able to send a radio page command to the OSMAC G3 controller. Use the **UP** and **DOWN** ▲ ▼ arrows to select from the 6 preprogrammed frequencies. If the 6 preprogrammed frequencies are not suitable for your use, you can edit any of the frequency channels. Use the **UP** and **DOWN** ▲ ▼ arrows to select Rx (Receive) frequency, then press **Select** ⊙. Use the **UP** and **DOWN** ▲ ▼ arrows to modify the values and use the **LEFT** and **RIGHT** ◄ ► arrows to navigate between values. Press **Select** ⊙ once the correct frequency value is set.
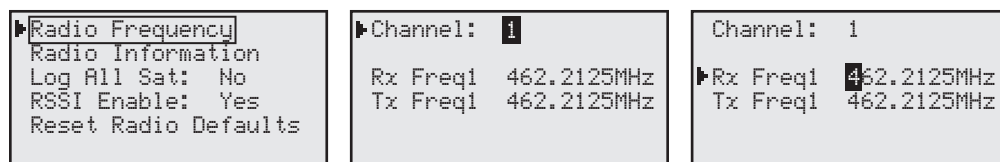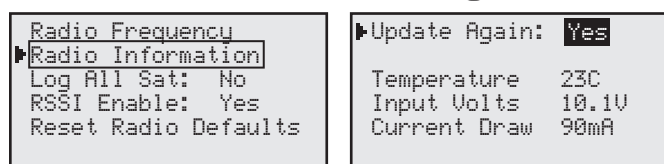
```
▶Radio Frequency       ▶Channel:   1          Channel:   1
 Radio Information
 Log All Sat:   No       Rx Freq1  462.2125MHz ▶Rx Freq1  462.2125MHz
 RSSI Enable:  Yes       Tx Freq1  462.2125MHz  Tx Freq1  462.2125MHz
 Reset Radio Defaults
```

Radio Information - You can access the radio information when you select this menu. The radio Model, Firmware Version, Serial Number and the last RSSI information will be provided. To access the radio module temperature, input voltage and the current draw, press the **DOWN** ▼ arrow and select **Get Other**, then press **Select** ⊙. To get the latest values, press **Select** ⊙ while at the Update Again menu. Select **Yes** to refresh the information.

```
 Radio Frequency       ▶Update Again:  Yes
▶Radio Information
 Log All Sat:   No       Temperature   23C
 RSSI Enable:  Yes       Input Volts   10.1V
 Reset Radio Defaults    Current Draw  90mA
```

Log All Sat - Used for troubleshooting at the direction of Toro support. Leave value at **No**.

RSSI Enable - Used for troubleshooting at the direction of Toro support. Leave value at **Yes**.

Reset Radio Defaults - Select Reset Radio Defaults and press **Select** ⊙ when you want to reset all radio communication parameters. All radio parameters will revert back to factory defaults. All 6 frequencies will revert back to their default values. If a unique frequency was set for any of the six frequency numbers, that frequency will need to be entered and set again in order to be used.

```
 Radio Frequency
 Radio Information
 Log All Sat:   No
 RSSI Enable:  Yes
▶Reset Radio Defaults
```
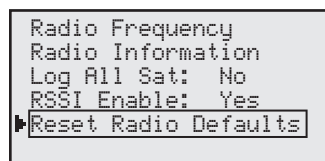
M-Manual - Manually start a station or stations manually and specify a runtime.
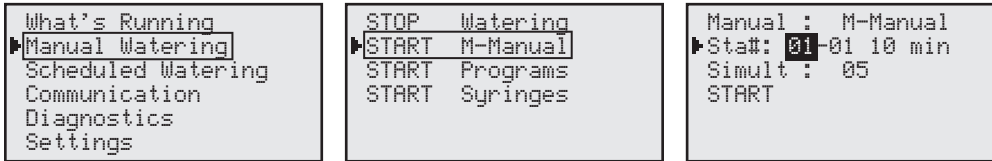
```
 What's Running          STOP    Watering        Manual :  M-Manual
▶Manual Watering        ▶START   M-Manual        ▶Sta#: 01-01 10 min
 Scheduled Watering      START   Programs         Simult :  05
 Communication           START   Syringes         START
 Diagnostics
 Settings
```

Step 1 – While at the Home display, press **Select** to access the controller menu.

Step 2 – Press **DOWN** until **Manual Watering** is selected and press **Select** .

Step 3 – Press **DOWN** until **START M-Manual** is selected and press **Select** .

Step 4 – Use the **UP** and **DOWN** arrows to select the station you want to activate, then use the **LEFT** and **RIGHT** arrows to navigate to the runtime. Use the **UP** and **DOWN** arrows to set the desired runtime for that station.

If sequential stations will be running the same amount of runtimes, you can easily accomplish this by setting the first station in the sequence followed by the last station in the sequence and setting the runtimes that each station will run.

Step 5 – Repeat **Step 4** for additional station or group of stations.

Step 6 – Once all the stations you want to activate are set, press **DOWN** until **START** is selected and press **Select** to activate.

Programs - Manually start a scheduled program before the set start time.

```
 What's Running          STOP    Watering        Manual :  Start Prog
▶Manual Watering         START   M-Manual        ▶Program: 01
 Scheduled Watering     ▶START   Programs
 Communication           START   Syringes         START
 Diagnostics
 Settings
```
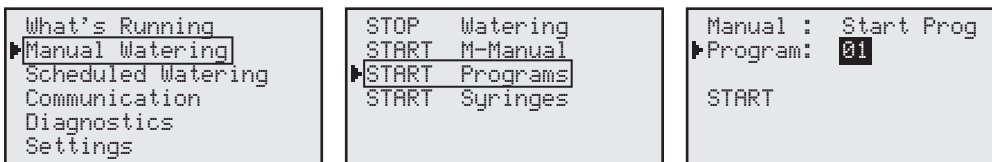
Step 1 – While at the Home display, press **Select** to access the controller menu.

Step 2 – Press **DOWN** until **Manual Watering** is selected and press **Select** .

Step 3 – Press **DOWN** until **START Programs** is selected and press **Select** .

Step 4 – Use the **UP** and **DOWN** arrows to select the scheduled program number you want to activate and press **Select** .

Step 5 – Press **DOWN** until **START** is selected and press **Select** to activate.

Syringe - Manually start a scheduled program before the set start time with a different runtime.

```
 What's Running
▶Manual Watering
 Scheduled Watering
 Communication
 Diagnostics
 Settings
```

```
 STOP    Watering
 START  M-Manual
 START  Programs
▶START  Syringes
```

```
 Manual :  Syringe
▶Runtime: ▉▉ min
 Program:  01
 START
```

Step 1 – While at the Home display, press **Select** <img> to access the controller menu.
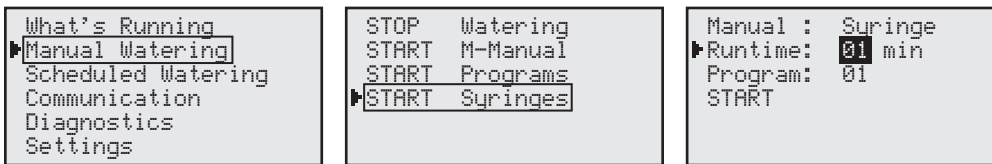
Step 2 – Press **DOWN** <img> until **Manual Watering** is selected and press **Select** <img>.

Step 3 – Press **DOWN** <img> until **START Syringes** is selected and press **Select** <img>.

Step 4 – Press **DOWN** <img> until **Runtime** is selected and press **Select** <img>. Use the **UP** and **DOWN** <img> <img> arrows to set the runtime duration and press **Select** <img>.

Step 5 – Press **DOWN** <img> until **Program** is selected and press **Select** <img>. Use the **UP** and **DOWN** <img> <img> arrows to select the scheduled program number you want to syringe and press **Select** <img>.

📝 **Note:** Only stations that are set in the selected scheduled program will activate.

Step 6 – Press **DOWN** <img> until **START** is selected and press **Select** <img> to activate.

Communication

```
 What's Running
 Manual Watering
 Scheduled Watering
▶Communication
 Diagnostics
 Settings
```

```
▶Page Monitor  Sig▉
 Page History
 Radio Menu
 Sat Address:  001
 Comm Mode:    Central
 Receive Only Radio
```

Page Monitor - This menu is for troubleshooting and diagnostic servicing purposes only. It is used to monitor real time radio page commands.

Page History - Select this menu to review all received radio page commands.

Radio Menu - This menu is a duplicate of the Radio Settings inside the Settings Menu.
See **Radio Settings** on page 12.

Sat Address - Select this menu to set/edit the Satellite's address. Satellite address is the identification that is given to a particular satellite. In order to communicate with individual satellites, each satellite is given a unique satellite address. When a page is sent to that satellite address, only the intended satellite will respond and the other satellites will ignore the page command.

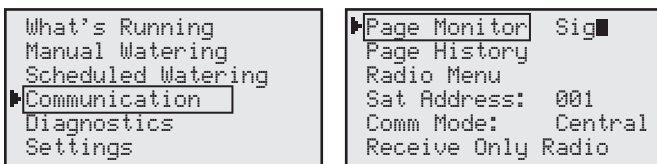**Step 1** – While at the Home display, press **Select** <img> to access the controller menu.

Step 2 – Press **DOWN** <img> until **Communication** is selected and press **Select** <img>.

Step 3 – Press **DOWN** <img> until **Sat Address** is selected and press **Select** <img>.

Step 4 – Use the **UP** and **DOWN** <img> <img> arrows to select the satellite address you want to set.

Step 5 – Press **Select** <img> to finalize.

Comm Mode - Select this menu to edit the OSMAC G3 controller's communication mode.

Central Mode – When placed in Central mode, the OSMAC G3 satellite will wait and execute radio commands sent by the central. The satellite will ignore all scheduled watering but will execute manual watering.

Local Mode – When placed in Local mode, the OSMAC G3 will execute scheduled watering as well as manual watering. Radio commands will be ignored.

Off Mode – When placed in Off mode, the OSMAC G3 will not execute any watering operation whether it is scheduled or manually initiated. Any watering operation will terminate once the satellite is placed in Off mode. Watering operations will resume once the satellite is placed back to Central or Local mode.

Step 1 – While at the Home display, press **Select** to access the controller menu.

Step 2 – Press **DOWN** until **Settings** is selected and press **Select** .

Step 3 – Press **DOWN** until **Comm Mode** is selected and press **Select** .

Step 4 – Use the **UP** and **DOWN** arrows to select between **Central**, **Local** and **Off** modes.

Step 5 – Press **Select** when the proper mode of operation is set.

What's Running

Select this menu item to monitor the current watering activity of the OSMAC G3 controller.

Diagnostics

```
▶Menu:  Revision

  Revision:  1.00
  Rev Date:  4/21/16
```

```
▶Menu:  Event Codes
  Clear log: No
  Last code: 02, 002
  01/02/16, 17:34:08
```

```
▶Menu:  VA Monitor

  RDV:  3.3    BV:   3.2
  17V: 18.1    9V:  10.0
  LCD: 31 C RSSV:   0.7
```

```
▶Menu:  Station Test
  Sta: Pump

  Press ▶to start
```

```
▶Menu:  Seq Stations

  On each for:   1   sec
  Press ▶to start
```

```
▶Menu:  Power Detect
  Defaults Set
  Detect: 64sta,  00sen
  PD  01/07/16 08:00:00
  PU  01/01/16 12:00:01
  Slot 1 card: Output
```

Revision – Displays the firmware's version number and date it was created.

Event Codes – Displays diagnostic codes that the OSMAC G3 controller encountered. The codes could help Toro troubleshoot your system. Clear the codes by navigating to **Clear log**, select **Yes** and press **Select** .

VA Monitor – Displays the real time values of the following:

RDV - Radio Voltage	BV - Battery Voltage
17V - 17-volt Terminals	9V - 9-volt Terminals
LCD - LCD Voltage	RSSV - Signal Strength

Station Test – Utilize this function to test any of the OSMAC G3 controller outputs. You can activate the pump and any stations by selecting **Sta** and press **Select** . Use the **UP** and **DOWN** arrows to select the output terminal you want to test and press the **RIGHT** arrow to activate. The station will remain activated until you press the **LEFT** arrow to turn off. While a station is active, you may test other stations by editing **Sta** value.

Seq Stations – Utilize this function to test all of the OSMAC G3 stations. To activate, navigate to **On each for** and press **Select** . Use the **UP** and **DOWN** arrows to set the amount of time for each of the stations to run, then press the **RIGHT** arrow to activate. OSMAC G3 controller will continually sequence the stations until the **LEFT** arrow is pressed to cancel.

Specifications

Line Voltage: 115-120 or 230-240 V a.c. 50/60 Hz (switchable), 130 VA

Current Draw (no load): 0.21A @ 115-120 V a.c., 60 Hz or 0.10A @ 230-240 V a.c., 50 Hz

Current Draw (maximum load): 0.91A @ 115-120 V a.c., 60 Hz or 0.45A @ 230-240 V a.c., 50 Hz

Secondary Voltage Output: 24 V a.c., 50/60 Hz, 3.0A (85 VA)

Maximum Load Per Station Output: 0.75A (18 VA)

Maximum Load Per Pump/Master Valve Output: 1A (24 VA)

Operating Temperature: -10°C to +60°C (14°F to 140°F)

Storage Temperature: -30°C to +65°C (-22°F to 149°F)

Power Supply:
1.5A On/Off Switch/Circuit Breaker – Main Power Input
3.2A Fuse – Power Supply (Slow Blow)
4.0A Circuit Breaker – Control Functions

Control Modules:
Pump – 1.0A Fuse (Fast Blow, Automotive Type)
Station Output – 3.0A Fuse (Fast Blow, Automotive Type)

Electromagnetic Compatibility

Domestic: This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a FCC Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause 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 the receiving antenna.

- Relocate the irrigation controller with respect to the receiver.

- Move the irrigation controller away from the receiver.

- Plug the irrigation controller into a different outlet so that the irrigation controller and receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful: "How to Identify and Resolve Radio-TV Interference Problems". This booklet is available from the U.S. Government Printing Office, Washington, DC 20402. Stock No. 004-000-00345-4.

International: This is a CISPR 22 Class B product