



# Gator

## Budget Parallel

### Wireless Irrigation Control System

The **Gator Budget Parallel** wireless irrigation control system can be interfaced with most standard irrigation controllers on the market. The Gator system can be either newly installed or retrofitted to any existing irrigation system. Which ever irrigation controller is used, it would simply be linked to the Gator radio transmitter via one or more interface input module/s. The interface input module/s will convert the outputs normally generated by the irrigation controller to control: valves, pumps and other devices, into a unique radio signal which will be broadcast via a Gator radio transmitter. Our Gator radio field switching modules will recognise the coded radio signal and activate or deactivate the attached device/s such as an irrigation valves, pumps, filters, etc.

The **Gator Budget Parallel** wireless irrigation control system is ideal for medium sized agricultural units; sports fields; shopping malls; residential complexes as well as applications within the nursery / tunnel crop industries.

Two options of interface input modules are available to accommodate both conventional 24VAC output irrigation controllers as well as DC pulse output irrigation controllers:

#### **Gator Parallel Budget AC system for controllers with a 24VAC outputs**

AC interface input modules are available to support up to 16 independent irrigation outputs. Up to 4 AC input modules can be daisy chained to increase system output capabilities to a maximum of 64 outputs.

#### **Gator Parallel Budget DC system for controllers with a 6 to 20VDC pulse outputs**

DC interface pulse input modules are available to support up to 8 independent irrigation outputs. Up to 4 AC input modules can be daisy chained to increase system output capabilities to a maximum of 32 outputs.

## Main Features

Wireless control of irrigation valves, pumps, filters, etc. making it simple to fit to any new or to retrofit any previously hard wired irrigation control systems

Allows for modular system expansion as and when the budget allows

Robust tried and tested radio switching modules with 1 to 4 outputs that make use of 12VDC latching relays and solenoids and powered by long lasting Lithium batteries

An Eco-Friendly system using minimal copper wiring



# General Overview

The Gator Budget Parallel wireless control system converts the output signal of any conventional irrigation controller that makes use of 24VAC or DC pulse type outputs into a wireless signal that can be passed over the air to control and switch the various devices such as valves, pumps, filters, etc. within an irrigation system.

## Hardware at the irrigation controllers location -

Gator 24VAC or DC pulse input module/s are interfaced with a hardwired connection to the outputs of any standard irrigation controller. The input module/s are in turn connected to a Gator radio transmitter via a cat 5 type cable. The Gator radio transmitter is programmed with it's own unique system ID and is fitted within a waterproof enclosure which is mounted on an externally positioned antennae pole in free air. A dipole antenna is fitted on the same antenna pole just above the transmitter unit and interconnected with a short antenna cable.

## Hardware required in the field at the location of the valves, pumps, filters, etc. -

Gator G series radio switching modules capable of controlling from 1 to 4 independent outputs (devices) are installed in the field at a location close to the devices that are to be controlled by the system. The Gator G series radio switching module makes use of DC latching solenoids or relays to control hydraulic devices such as valves and electrical devices such as pumps. Each radio module is programmed to match the transmitters system ID as well as with it's own series of output numbers.

## How the system works -

When the irrigation systems controller activates or deactivates an output which is interfaced to the Gator Budget Parallel wireless control system, the input module/s convert the signal into a protocol which is broadcast over the air via the Gator radio transmitter unit. In the field, the Gator G series radio switching modules are continuously listening to the transmitted signal which carries the matching system ID and an instruction to activate or deactivate one or more of the output/s under the control of each of the G series radios installed in the field.

Irrigation controller with either 24VAC continuous on or 12VDC pulse type outputs which are wired to the Gator AC or DC input module/s



One or multiple Gator AC or DC input modules wired to an irrigation controller and cable connected to the Gator radio transmitter unit



Gator radio transmitter unit with dipole antenna installed on the outside of building/structure and cable connected to the interface module/s situated at the controllers position

Encoded messages sent wirelessly to the field



Gator G series radio switching modules coupled to Gator valves in the field

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