



Technology Made Simple

Compatible Identifiers for Tour Identification Devices:

Identifiers are microchips – electronic devices that come with an identification number, otherwise known as a serial number, that the tour identification device reads. There are no identifiers with the same serial number. When used for tours, the identifier is installed at a location that needs to be checked by the patrol officer – in this case they are referred as “checkpoints”. They can also be attached to the patrol officer’s identification badge. The identifiers can be used in a variety of ways. The identifiers are:



iButtons:

iButtons are semiconductor chips that are encapsulated in a stainless steel shell with a diameter of 16mm and heights of 3mm or 5 mm. This serial number is read by the tour verification device with a simple touch. iButtons are propriety technology of Maxim/Dallas Semiconductor, a North American company that manufactures.

iButton checkpoints are usually mounted using a metal mounting plate, each mounting plate is attached at a location the patrol officer is required to visit and inspect during the tour.



RF-Tags:

RF-Tags are discs with a diameter between 30mm and 60mm containing a unique serial number that is read by Contronics tour verification devices when they are at a distance of around 2.5cm to the tag. The shape of an RF-Tag may vary according to the manufacturer and model. There are many patterns and technologies available. The standard that the Guardus and Traxxer tour verification devices work with is 125KHz compatible with EM Marin EM4102. Contact Contronics for a list of approved manufacturers and models of RF-Tags.



In this image you can see a patrol officer using a Guardus GBT to register he has visited a location by reading a checkpoint. Behind the sign an RF-Tag is installed. Note: to register that the location has been visited, the device does not need to make physical contact with the RF-Tag checkpoint, it just needs to be in close proximity to the checkpoint.



The sequence of how to read an iButton checkpoint with a Guardus G3. Note: to register that the location has been visited, the device needs to make physical contact with the checkpoint.



Technology Made Simple

Guardus – Tour Verification Device Product Line:

The Guardus product line is entirely developed, designed and manufactured in-house by Contronics and is now used in more than 60 countries. We believe the Guardus tour verification device product line is the most sold in the world.



Guardus G3 Classic:

The Guardus G3 Classic is a Guardus model that works with iButtons.

Guardus G3 classic specifications	
iWT: Intelligent Wand Technology	Yes
Identifiers technology	iButton (contact reading)
Data download	1-Wire interface
Power supply	9 V Battery – NEDA 1604 size - Alkaline.
Estimated battery life	3 - months
Storage Capacity	Over 5,000 readings, this is sufficient for approximately 3-months of information without download under normal conditions
Non-Volatile Memory	Data is retained indefinitely without a main battery
Estimated life of device	10 - years
Material	Duralinium body with a stainless steel head and protective rubber cover
Alerts	Light and sound
Protection Class	IP62 Complete protection against dust. Rain resistant.



Guardus G7:

The Guardus G7 is the Guardus model that works with RF-Tags (read by proximity).

Guardus G7 specifications	
iWT: Intelligent Wand Technology	Yes
Identifiers technology	RF-ID 125KHz compatible with EM4102 standard
Data download	1-Wire interface
Power supply	Standard 1.5V C size Alkaline battery
Estimated battery life	4 - months
Storage capacity	Over 5,000 readings, this is sufficient for approximately 3-months of information without download under normal conditions
Non-Volatile Memory	Data is retained for up to 10-years without a main battery.
Estimated life of device	10 or more years
Material	Duralinium body with a polymer head (as tough as steel) and protective rubber cover
Alerts	Light and sound
Protection Class	IP62 Complete protection against dust. Resistant to rain.