Valerann Smart road system – User manual

REV01

1. General

a) The following describes the method for installing and operating Valerann's Smart road system, comprising of road stud sensors, road-side communication gateway, and the cloud-based server.

b) The entire system is pre-configured. Therefore, once the devices (i.e. the stud and gateway) are connected, the system will start running automatically.

c) The protocol applies to AS3100 gateway and AS2200 road stud (see figure 1+2).

Figure 1- AS3100 - Roadside communication gateway

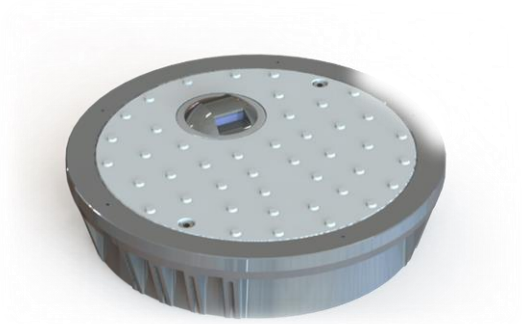

Figure 2- AS2200 Smart road stud sensor unit

2. Procedure:

a) Power-up the road studs by removing the battery-cutoff-magnet at the bottom of the unit (will be done by Valerann personnel):

b) Install the gateway on near-by pole and connect its power and ethernet cables according to "Valerann Gateway - Installation Protocol - REV02"

c) Install the road studs according to "Valerann Smart Road Stud -

Installation Protocol - REV04”

d) At that point, the system should run and present the data from the road at the server (i.e. cloud control center). The data can be displayed live through a given link, a username, and password.

3. Safety and Precautions:

a) Any maintenance on the system will be done by Valerann personnel or an approved contractor/electrician.

b) The antenna used for stud sensor transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

c) This device complies with FCC Rules Part 15. Operation is subject to two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference that may be received or that may cause undesired operation.

d) Changes or modifications to this equipment not expressly approved by the party responsible for compliance (Valerann Ltd.) could void the user’s authority to operate the equipment.

e) 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. These limits are designed to provide reasonable protection against harmful interference in a residential 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.