UMS Charge Code Form – Signals and Miscellaneous

ALL APPLICATIONS ARE SUBJECT TO INDUSTRY APPROVAL. IF AN APPLICATION IS LARGE OR CONTENTIOUS, THE APPROVAL PROCESS MAY TAKE LONGER.

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Please complete all of the questions below using the Guidance Notes supplied on pages 2-5. All fields are mandatory.

Your Test Data and Supporting Evidence

***Please place a cross against all completed steps and attach relevant documents to your email.**

1	Has your equipment been tested by an ISO 17025 accredited test house?	*
2	Have you included evidence of the test house's accreditation?	*
3	Have you included test data for your equipment that meets the requirements outlined in the Guidance Notes below?	*
4	Have you included a product specification and a photo of your equipment?	*
5	Have you provided evidence that your equipment's consumption is predictable?	*

Your Product

		Details
6	What type of equipment are you submitting an application for?	79 – Traffic Equipment 29 – Vehicle Activated Sign [Dimmed Activated]
7	What is the nominal wattage of your equipment?	23.18 Watts – maximum brightness level 31. 8.78 Watts – minimum brightness level 0. 8.48 Watts – Radar standby.
8	How does the equipment operate?	The unit is in a constant standby state, the display is only activated when a vehicle triggers the unit. During the day the unit operates at maximum brightness level 31 [23.18W], and night-time hours the unit dims to minimum brightness level 0 [8.78W].
9	What is the product's name or model number?	Invinca – VAS [240V] Speed Indicator Device
10	Is your company the manufacturer of this product?	Yes

Guidance

For detailed guidance on the UMS arrangements, please refer to the UMS Operational Information Document (OID)

This Guidance is intended for use with the UMS Charge Code Form for Signals and Miscellaneous equipment.

Questions 1-2

The test house must have ISO 17025 accreditation, but can be located anywhere in the world. A PDF of their accreditation certificate and the schedule to their certificate, or a link to their certification/schedule on their website would be sufficient evidence of their fitness to perform testing for UMS purposes. The ISO accreditation of the test house must include the ability to carry out testing on the electrical properties of equipment. It is important that you verify with the test house that their accreditation includes this capability, and discuss any uncertainties with ELEXON in advance of committing to testing, as otherwise we may be unable to process your application.

Question 3

To be issued with a Charge Code, the Circuit Watts and Volt Ampere (VA) of the product should be measured at five different voltage levels, from 210V, increasing in 10V increments up to 250V (at 50Hz). A sample size of five is required **unless, on review of the test data, it is determined that more samples are needed**. Here is an example of the format:

Manufacturer's name and equipment model name

Voltage		Sample 1	Sample 2	Sample 3	Sample 4	Sample 5
210	Watts					
	VA					
220	Watts					
	VA					
230	Watts					
	VA					
240	Watts					
	VA					
250	Watts					
	VA					

The power measurements must include any voltage transformers necessary to operate the equipment from the mains and samples must be tested after operating for sufficient time to reach their steady load state. The accuracy of the measurements shall be stated and the minimum accuracy shall be ±2% of the recorded value.

Some equipment has functionality which requires a larger number of test samples to be submitted:

Equipment type	Functionality	Additional Testing Requirements
Traffic Lights	N/A	We require 5 samples of test data for each aspect (red, amber and green).
LED Traffic Lights which work with a Halogen Lamp Monitoring System	A dummy load may be used to step up the power so that the Halogen Lamp Monitoring System would be able to detect a failure.	If a dummy load is used, please include its power consumption in the test samples.
Variable elements	Equipment that has variable load due to varying customer requirements or heating and cooling elements	Each of the variable elements should be measured and details of when they will be used provided. Please discuss these variable elements with ELEXON prior to testing as it is possible they may make the equipment unsuitable for an Unmetered Supply and hence a Charge Code to be issued.

Question 4

A product specification, brochure or photo assists us in understanding your product, provides additional information to the expert group who approve Charge Codes and therefore improves the chances of your product being given a Code in a timely fashion.

Question 5

The electrical load of a piece of equipment must be of a predictable nature for an Unmetered Supply to be considered. If your equipment is capable of variable loads, you will need to demonstrate that the load can be deemed predictable and why a metered supply is not practical.

Section 3.2.1 of the Operational Information Document provides examples of modes of operation and components that can cause variable loads.

If submitting test data for miscellaneous equipment which includes various components or modes of operation, **please include additional documentation which provides a weighted average of all test data, as well as an explanation for how the average was calculated**. For equipment which functions differently depending on the time of day, or equipment which has fans/heaters that will operate differently over the year, please explain how often these will impact the load.

Traffic signal equipment usually have separate Charge Codes for different modes of operation and/or components. While a weighted average of the load may not need to be calculated, you must still provide test data for various modes of operation and/or components that impact the load.

ELEXON and/or the UMSUG may reject the Charge Code application if you have not provided enough evidence to prove predictability for your equipment's load.

Question 6

Please see section 2.3.2 (Signals) or section 2.3.3 (Miscellaneous) of the Operational Information Document for a complete list of possible equipment, with codes.

If your product has multiple intended uses, or modes of operation, please list all of the relevant codes against Question 6, so that ELEXON can provide you with Charge Codes to cover off all of the

equipment's likely applications. For example, an LED Belisha Beacon might be capable of operating as either a dimmable or un-dimmable product, and would therefore need to be given two Charge Codes, i.e. one for situations where it is being used with dimming, and one for situations where it is being used without.

Question 7

If you are applying for a Charge Code for miscellaneous equipment you do not need to supply a nominal wattage. The nominal wattage for such equipment will always equal its average circuit wattage, as derived from your test data.

The nominal wattage of your equipment is the wattage you declare to customers. We use this wattage to construct the Charge Code and will assist your customers in finding your product on the Charge Code spreadsheet.

If you are applying for dimmed Charge Codes, we only require a nominal wattage for the product at full power.

Question 8

This question is intended to flag equipment that operates in an unusual way, so that we can take account of its characteristics when producing a Charge Code. The way that we calculate circuit wattages for Charge Codes is based on certain assumptions about how equipment operates. If your equipment doesn't conform to these assumptions, and we aren't aware of the fact, there is a risk that their circuit wattages will not be calculated accurately. For example, if your pedestrian push/wait button has an alternating red/green man that only illuminates when the wait button is pressed, and we aren't aware of this, we can't apply a downward adjustment to the circuit wattages for the equipment to allow for times when the button hasn't been pressed. Similarly, miscellaneous equipment might have any number of unusual characteristics, which we need to be aware of to provide a Charge Code that accurately reflects its mode of operation.

If the product has fixed times at which it turns on, turns off, or dims, these can also be listed under this question.

Question 9

The name or model number you give for the product should be what appears 'on the box', as sold to customers. The entry for your product on the Charge Code spreadsheet will include a cell with this description, and customers and UMSOs will use it to select the correct product for their inventories. It is therefore important that this description is clear, and matches the name under which your product is sold.

If you are applying for dimmed Charge Codes, please note that your codes will be given dimmed percentage values based on the circuit wattages in your test data. We do not use dimmed values based on Lumen levels in any of the descriptions on the Charge Code spreadsheet.

Question 10

If you are not the manufacturer of the equipment you are applying for, please specify the manufacturer in the field provided. Generally, the manufacturer of the equipment is the party who must apply for a Charge Code. The only instance in which an exception can be made to this rule is where the manufacturer will be using you as their sole distributor, and is willing to provide written assurance of the fact to ELEXON. If you are unsure about how to answer this question, please contact us at UMS.Operations@elexon.co.uk.

Need more information?

For more information please contact the **BSC Service Desk** at **bscservicedesk@cgi.com** or call **0370 010 6950**.