MCS-32 Control Unit

BUILT TO RSG ENGINEERING SPECIFICATION AND STANDARDS FOR THE UK EMERGENCY SERVICES

PRODUCT OVERVIEW

The MCS-32 Control Unit consists of a main control box which contains everything required to control a vehicle mounted hazard warning system, typically comprising rooftop lighting, secondary hazard warning lights and audio equipment. It has 32 outputs and 24 configurable inputs with power management functions including runlock, split charging, load shedding and headlight flash, plus many more, some of which may be implemented via the vehicle CAN Bus system. It also includes a logic switch module to facilitate the control of a Gateway radio with voice alerts.

Operate the controller through one of our range of compatible hand held or dash mounted switch units and you have an economical hazard warning control system that does not compromise on features or functionality.

System Intelligence

The main control unit is supplied with default settings that will suit a variety of applications, however it can be simply customised to match the end users specific application by plugging in to a laptop/desktop PC and utilising the 'easy to use' complimentary software.

Human Machine Interface (HMI)

We have developed a collection of switch units specifically designed to interface with the MCS-32. They range from a 5-way switch unit through to a 16-way flush/DIN mount unit. Handsets have the facility to operate a Public Address (PA) system via an integral microphone and the option to allocate any button to operate the Push to Talk (PTT) feature.

One Source, One Solution

In order to simplify the installation process each unit is supplied fully loaded with all the necessary features and functions to implement a comprehensive system. Simply enable the required function via the 'easy to use' software.

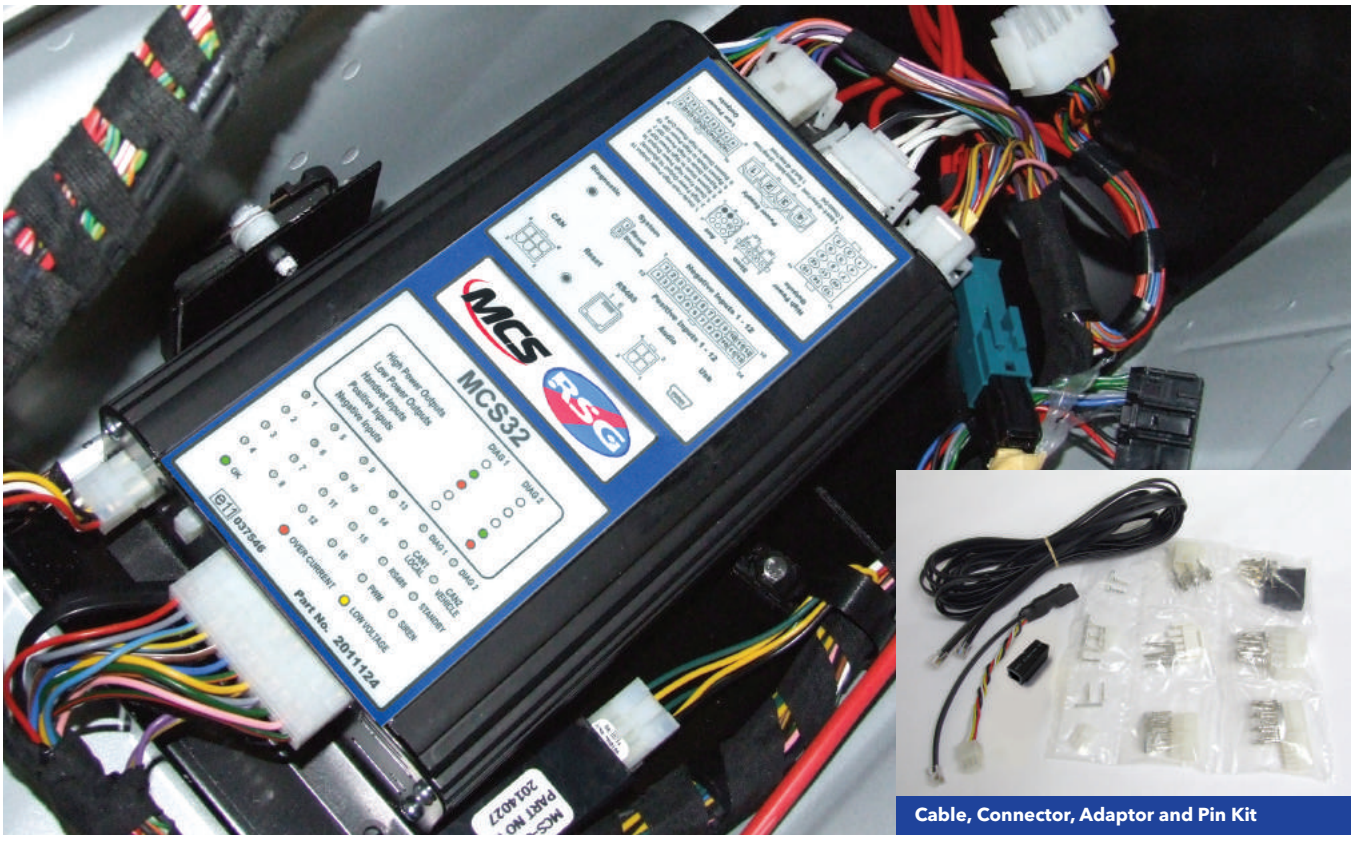
Logic Functions

An abundance of logic functions means complex applications are no longer difficult to implement, particularly where certain operations are interlinked with others. So, carrying out 'and/or' functions and implementing 'do this when' or 'stop this when' are simple to apply together with the facility to alter functions allowing continual client synchronisation.

System Configuration

This is a simple 3-stage process which entails enabling and labelling inputs and outputs, configuring the system operation and downloading the application onto the unit. This operation need only be done once, when completed it can simply be transferred onto other units via a laptop.

MCS-32 CONTROL UNIT COMPONENTS	
UNI-PLS-001	MCS-32 Control Unit with Siren, 12/24v
UNI-PLS-002	MCS-32 Control Unit without Siren, 12/24v
UNI-PRO-002	Universal MCS Software CD
ACC-256	MCS Programming Lead and CD



Cable, Connector, Adaptor and Pin Kit

GENERAL FEATURES AND FUNCTIONS

OUTPUTS

32 Outputs:

- 16 Hi Power Outputs
  - 20 Amps per channel
  - Current limiting
  - Multi flash patterns
  - Timer shutdown
  - Voltage drop out
- 12 Low Power Outputs
  - 600mA per channel
  - Positive or Negative switching
  - Provide monitoring signal inputs (not high impedence)
  - Negative polarity to switch low power relays
- 4 Medium Power Outputs
  - 2.5 Amps per channel
  - Positive & Negative polarity switching
  - Provide monitoring signal inputs
  - Drive relays
  - Small motors
- 2 diode pairs built in for headlight and/or tail light flashers
- Output to data logger
- Electronic Fuses
  - Electronically adjustable
  - Electronically tripped

INPUTS

- 24 Configurable Inputs
  - 12 negative switching
  - 12 positive switching
  - Software configurable
- 4 Standard Inputs
  - Mic input
  - Radio input
  - Reset
  - Standby

MULTI-WAY SWITCH OPTIONS

- Universal Multi-Way handset can be fully configured using the MCS software
- Single or up to 4 handsets

SERIAL DATA PORT

- RS485 protocol
- RS232 - via adaptor
- Link with third party MDT terminals
- USB Port

CAN OR CAN TYPE DATA PORT

- Link to RSG complementary devices such as a lightbar
- Link to other industry new standard devices
- Link with legacy equipment

USER INTERFACE

- 24 illuminated status indicators
- Indicates flash pattern
- Communication status
- Provides output status
- Green - OK
- Red - Over current
- Amber - Low voltage

SPECIFICATION

- 12/24 volt operation
- 100 Amps total output
- Spec 5 approved
- e-approved

SOFTWARE OPERATIONAL MODULES

100 WATT SIREN

- Supports 8 or 11 ohm speakers
- Can be enabled from an input or handset
- Air horn input
- HRT positive or negative activation
- Multiple siren tones selected from software
- Monitor signal active when siren on
- PA and radio re-broadcast facility
- UK and European sounds
- City Mode volume reduction feature
- Workshop mode volume suppression feature for testing
- Can be linked with other MCS siren devices to give two vehicle effect

LOAD SHEDDING MODULE

- Via internal or external monitoring
- Automatic in conjunction with other equipment activation

FAN CONTROL MODULE

- Control up to 4 intake/extractor fans
- Reverses power supply to fans
- Optional 4-way Relay Expansion Module

SALOON LIGHTING MODULE

- Ideal to control internal ambulance lighting
- Manual, semi and full automatic operation

CABINET ANTI-TAMPER MODULE

- Monitor 16 ambulance medical lockers
- Ideal for monitoring medical consumables/medicines
- Cabinet re-stock indication

AUDIO INTERCOM CONTROLLER

(operates with external device)

- Announce pre-recorded messages
- Duplex or simplex intercom

SPLIT CHARGE CONTROLLER

- Monitors primary battery voltage
- Output drives charging solenoid to charge secondary battery
- Solenoid in and out voltage programmable

RUN LOCK CONTROLLER

- Outputs
  - 3 dedicated runlock outputs (2 with diodes)
  - Additional outputs assigned from software
- Enable Inputs
  - Inputs assigned in software
  - From handset, handbrake, remote button etc.
  - Hi or Lo inputs
- Reset Inputs
  - Inputs assigned in software
  - From brake light, remote button etc.
  - Hi or Lo inputs

HEADLIGHT FLASH

- Dedicated outputs x 4 (with built-in diodes) to control headlights and/or complementary flashing lamps

GATEWAY RADIO CONTROLLER

- Automatically switches between the Main & Gateway Radio (for built-up areas) within a 30 second window for the driver to exit the vehicle
- Automatic handbrake detection

ADDITIONAL FEATURES

- 16 x AND logic modules
- 16 x OR logic modules
- 32 x timer modules (1 second increments)