DCP

Digital Communication Platform

Installation Guide

MC-2CM10-100-F-20-000
MC-2CM10-100-F-40-000
MC-3CM10-100-F-20-000
MC-3CM10-100-F-40-000

CONNECTIONS

To access the dipswitches and connections open the DCP case by unfastening the front screw (PZ1) and removing the lid.

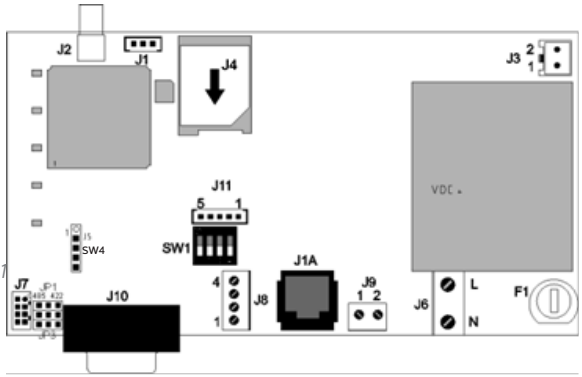


fig. 1

fig. 2

Connector	Connector Description	Terminal	Signal
J2	Antenna		
J3	Battery	1	+12V
		2	GND
J4	Sim Card		
NJ6	Power Supply	1	L
		2	N
J8	CAN BUS	1	VCC
		2	CANH
		3	CANL
		4	GND
J9 or J1A	Phone Line	1	TIP
		2	RING
J11	I/O Pins	AK1	Opto-Coupler Input
		AK2	Opto-Coupler Output
		VCC	Voltage Output
		O1	Mosfet N Open Collector
		GNDv	GND and reference

F1 - The device incorporates a fuse to protect it from damage. Please contact our sales team if you need a repacement fuse.

J10 CONNECTOR - RS-232 or RS-422/485 Serial Connector

The J10 connector is a standard serial communication port that allows connecting computers, controls, or any other device that needs remote communicaton through a reliable wireless data channel.

fig. 3

		PIN	RS-232	RS-422
J10	RS-232 or RS-422/485 Serial Connector	2	TX	T+ (a)
		3	RX	R-
		5 (6)	GND	GND
		7	RTS	T- (b)
		8	CTS	R+

(a) - T/R+ RS485 half-duplex (b) - T/R- RS485 half-duplex

INSTALLATION

Before fixing the device in place, check the network coverage within the immediate environment. The DCP can be used as a coverage meter by connecting the battery to J3 and turning the first dip switch SW1 to ON (fig.1). The five LEDs on the front will show the network signal level. Once a suitable location has been found, switch SW1 to OFF and fix in position.

To fix the device in position, drill two holes in the wall and insert the plugs and screws provided with the device. Then hang the DCP on these two points using the tear-shaped bracket.

SETTING UP THE DEVICE

Open the device with a PZ1 screwdriver then:

- Insert SIM card in connector J4, pressing it until it clicks
- Ensure that the antenna is screwed in completely – only use antennas authorised by Avire
- When connecting PSTN analogue phone in lift car connect the phone line to J1A or J9
- When connecting a Digital Audio Unit; connect the audio module or the MK-0819 CAN Hub splitter to J8 using a four-core cable
    - If the DCP forms a terminal in the CAN Bus system, ensure SW4 is also ON
        - If connecting a single Digital Audio Unit (DAU) or a single CAN-Bus Splitter, set SW4 to ON
        - If connecting a DAU and a pit phone, or if connecting two CAN-Bus Splitter units, set SW4 to OFF
- Connect battery to J3
- Connect the power supply to J6 (230VAC mains, or 8-28VDC when using MM-0805 power supply and back-up)
- To switch off the device, remove the power supply from J6 and then remove the battery connection from J3.

DEVICE HEALTH CHECK

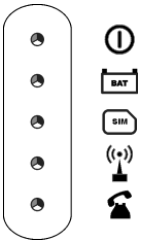
See page 4 for an overview of all LEDs. On start-up, you should see the following within 60s:

fig. 4

RUN LED flashes in green.	Power supply is OK
BAT LED is always on	Battery is OK
SIM LED is green or amber	Device is connected to the network
Coverage LED is green or amber	Good coverage
SLIC LED is green	Device is in standby

LED INDICATORS

fig. 5



The DCP has five indicator LEDs that constantly report the device status.

The indicators will be either red, amber or green.

Each indicator will be fully on, fully off or flashing. Details of each indicator and function are detailed below:`

RUN LED	OFF	ON			FLASHING		
		Green	Amber	Red	Green	Amber	Red
	CRITICAL SYSTEM ERROR				Proper Operation (AC)	Proper Operation (BAT)	Restarting System

BATTERY	OFF	ON			FLASHING
		Green	Amber	Red	Red
BAT		OK	Charging	Low	Error

SIM	OFF	ON			Flashing		
		Green	Amber	Red	Green	Amber	Red
SIM	AT modem	Available GSM and GPRS	GSM available GPRS not available	Out of Service / Initialising	Ongoing Data Transmission	Ongoing voice call	Sim error or missing pin
						Amber/Red Missing PUK	

COVERAGE	OFF	ON		
		Green	Amber	Red
	AT modem	OK	Medium	Low

SLIC	OFF	ON			Flashing
		Green	Amber	Red	Green
	RS-232 local configuration	Local line ready	Initialising local line	Local line out of service	Local line in use

ENVIRONMENT CONDITIONS

This device is designed to be used indoors (0°C to 45°C with relative humidity between 20% to 80% not condensing). Sudden changes of temperature and humidity should be avoided.

CLEANING AND MAINTENANCE

Use a soft dry cloth. Do not use solvent or abrasive products.

SAFETY

Please read these safety instructions before starting the device.

+ Do not expose this device to liquids or excessive humidity. The DCP is an indoor device and is not waterproof.
+ Do not expose the device to fire.
+ Do not try to modify the device.
+ Do not use the device in potentially hazardous areas or where there is risk of explosion.

The DCP emits low levels of radio frequency when in operation.

BATTERY

The DCP includes a NiCd 12 V/600 mAh battery that allows it to keep functioning in the event of a mains power failure.

This battery should be replaced every 4 years. Only install batteries authorized by Avire, and only allow qualified personnel to replace the battery.

This battery should be properly recycled and not disposed of with unsorted household waste.

DISPOSAL

The device complies with regulations 2002/95/CE and 2003/108/CE regarding the use and disposal of hazardous substances in electric appliances.

Do not dispose of this device with unsorted household waste. Disposing of the device in an unauthorised way could result in a fine in line with local regulations.

ENVIRONMENTAL REGULATIONS

RoHS

Avire certifies that its production process complies with the 2002/95/CE European Directive of 27 January 2003 regarding the restriction of use of hazardous substances in electric and electronic appliances.

CONFIGURATION METHODS

The DCP can be configured in three ways: remotely via the Avire Hub, via SMS, or via an analogue phone plugged into the J1A or J9 connection.

1) THE AVIRE HUB

All settings can be configured remotely via the AvireHub once a digital connection has been made. Please contact technical support if you require further information including a complete list of parameters and system commands.

2) SMS COMMANDS

Most DCP parameters can be remotely configured via SMS. Each SMS message should begin with the word “PIN” followed by the configuration commands. You can modify or check several parameters in each SMS by separating them with commas ",". To retrieve a parameter, add a question mark “?”.

Example SMS sent to the DCP to update Alarm numbers 1 and 2 for all connected CAN Bus Audio Modules to “09876543210”, and to check the current Alarm number 3 and the SIM card APN address:

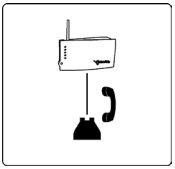
Sent: PIN1234, P031 09876543210, P032 09876543210, P033?, P060?

Reply: P031=09876543210 P032=09876543210 P033=01234567890 P060=wap.vodafone.co.uk

If the PIN is incorrect, the DCP will not send a response SMS. If the PIN is correct, the DCP will send a SMS indicating "ERROR" or "OK".

3) LOCAL PHONE CONFIGURATION

To enter the configuration via local telephone mode (such as MM handset), you need to pick up the handset and, after hearing the dial tone, enter the access command for configuration using the phone keypad. For a device with PIN code 1234, this command would be:



*#*1234*#*

To retrieve a parameter value XX, use the keypad to enter *0XX* and the value will be read back to you. For example, to hear Alarm number 1 for all connected CAN Bus Audio Modules, type *031* and the number 09876543210 will be read back.

To edit a parameter value XX, use the keypad to enter *0XX#N# where N is the new value. For example, to update Alarm number 2, type *032#01234567890# and the number will be updated to 01234567890. After you have entered the update, the device will respond: “Option 0XX is N”.

To finish local phone configuration, just hang up the phone. Alternatively, when no activity is detected after 30 seconds, the configuration session will automatically end and you will hear the busy tone.

SIM CARD SETTINGS

SIM

Avire SIM cards come preconfigured to be used with our products immediately after plugging them in. If you are using a different SIM card, you may need to unlock it via its PIN code in order to connect with the mobile operator. In this case, follow either of these steps:

OPTION 1 (RECOMMENDED)

You can program the PIN code of the SIM card into the DCP using an analogue phone plugged into to the J1A or J9 connection.

Enter configuration mode : [*][#][*][1][2][3][4][*][#][*]

Update SIM card PIN parameter: [*][0][9][0][#][X][X][X][X][#]

[X][X][X][X] is the PIN code given by the service provider.

At this point, the SIM card LED will stop flashing in red. If it does not, make sure the SIM is correctly inserted and you entered the correct PIN.

OPTION 2

Disable the blocking PIN code using a conventional mobile phone. Plug the SIM into a different mobile device and unlock it in the device settings.

BASIC GSM GATEWAY

In this operation mode, the DCP can be used as a converter for an analogue phone line into a GSM line. It can send and receive data by DTMF and place voice calls for trapped personnel.

Parameter P020 must be set to 00 in configuration mode.

DIGITAL COMUNICATION PLATFORM

This mode is automatically enabled once the DAU module is connected to J6. Please refer to the DAU Install Guide when adding these devices.

When the DCP is a terminal in a CAN Bus system, ensure that the dipswitch SW4 is ON.

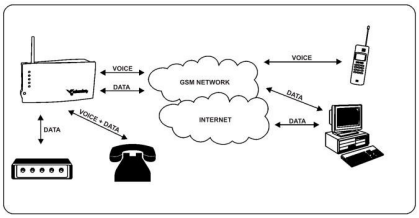


fig. 6

This operation mode allows the DCP to show its full potential. The DCP uses its CAN Bus connection for all attached DAU Digital Audio Modules and its serial port to connect to any other device such as the lift controller. In this setup, it can offer telemetry, remote control and monitoring via the mobile data network.

BASIC CONFIGURATION

The DCP is preconfigured to work out of the box when using an Avire SIM card and AvireHub.

All configuration and monitoring can be carried out through the AvireHub platform using default settings.

If the entrapment alarm numbers are not set remotely within AvireHub, the installer can do this by defining the following parameters:

P031: Alarm number 1
P032: Alarm number 2
P033: Alarm number 3
P034: Alarm number 4

You can set these by using a phone handset plugged into terminal J1A or by sending an SMS to the DCP SIM phone number (see page 6).

If Avire SIM cards are not used, the following parameters must also be set by the installer:

P060: APN address
P061: APN username
P062: APN password

These parameters must be configured by sending an SMS (see page 6). Examples for various regional providers are shown below:

fig. 7

Carrier	P060	P061	P062
Vodafone UK	wap.vodafone.co.uk	wap	wap
O2 Germany	surfo2	(blank)	(blank)
Orange France	Orange.fr	orange	orange

To set up monitoring on a different system to AvireHub, please contact your local technical support team.

System Architectures

DCP

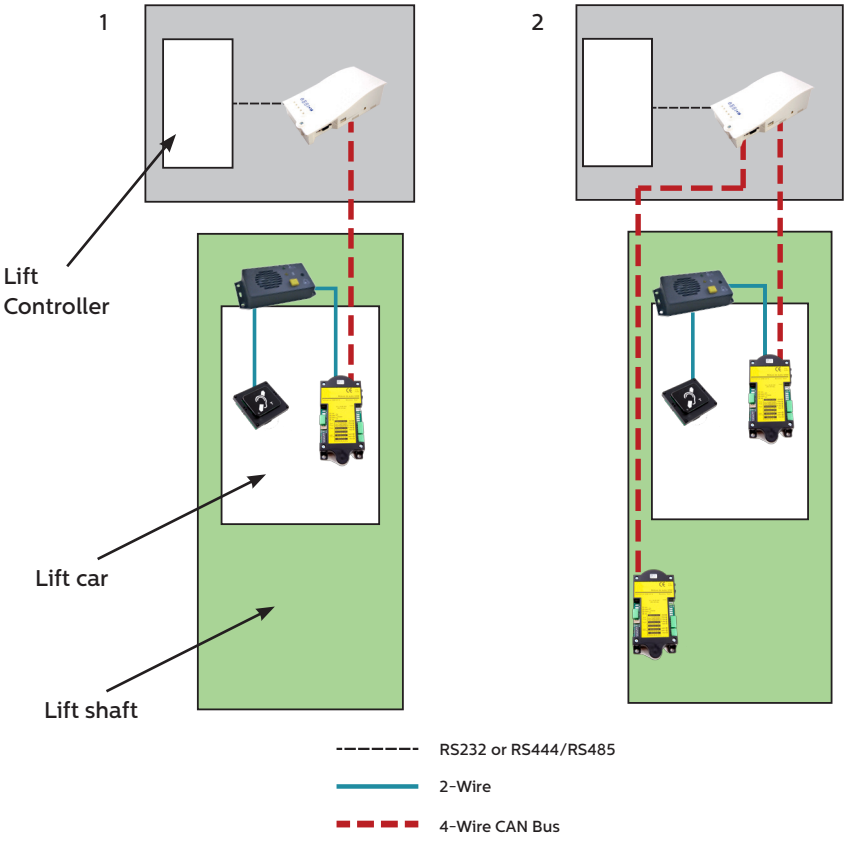
Triphony Unit

Universal Power Display

Digital Audio Unit
(and PIT variant)

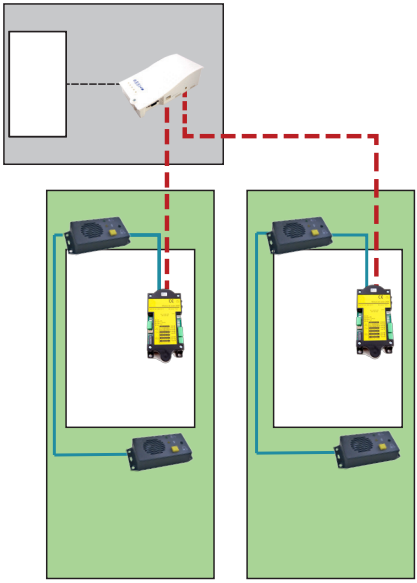
Induction Loop

CAN Bus Splitter

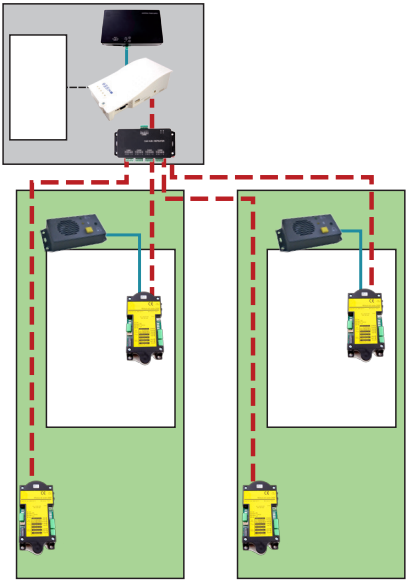


MEMCO

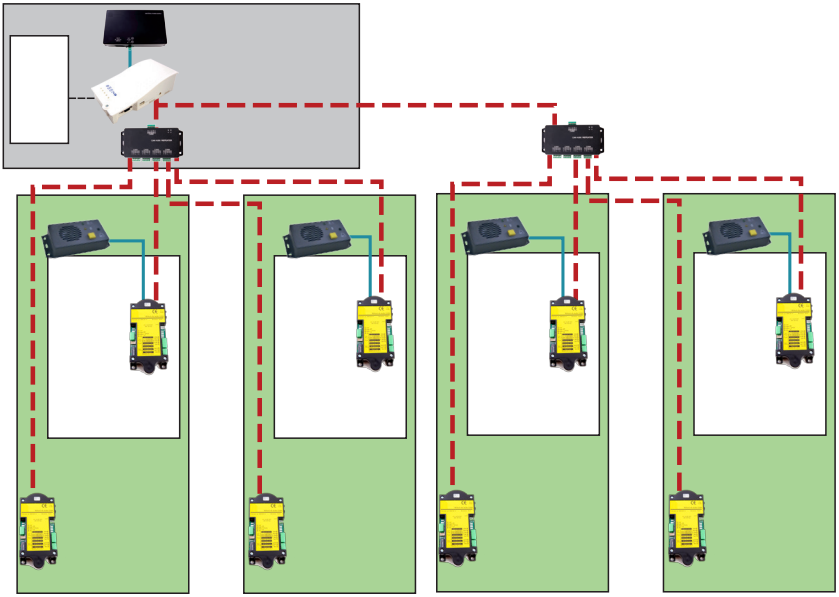
3



4



5



DCP IG (GB) V01 _ PA_ 16/03/2018

AVIRE

Memco is a brand of Avire

Avire Ltd

Unit 1, The Switchback
Gardner Road
Maidenhead
Berkshire
SL6 7RJ, UK

T: 01628 540100
F: 01628 621 947
E: sales.uk@avire-global.com
W: www.avire-global.com