



EuroSMC, S. A.

EMU-100

SMC-12

INSTALLATION AND OPERATION GUIDE

Quality is the core reference for EuroSMC's activities, aimed to fully satisfy our customers' needs and expectations.

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INTRODUCTION

This guide is intended to give the necessary steps to install and start working with one unit EMU-100 or a system composed of more than one unit (also called SMC-12 System). It describes the process of connecting the unit to the DSA interface, to the power and to other units, connecting the DSA to the PC and how to install the control software.

Safety considerations

Do not star using this equipment before thoroughly reading and understanding this manual.

About side notes in this document:

CAUTION identifies actions and situations that could damage the equipment.

WARNING identifies actions and situations that could cause harm to the operator.

Unpacking the Equipment.

Check that the box in which the equipment is packed is in good condition and that it is not broken, with apparent dents, nor wet or humid.

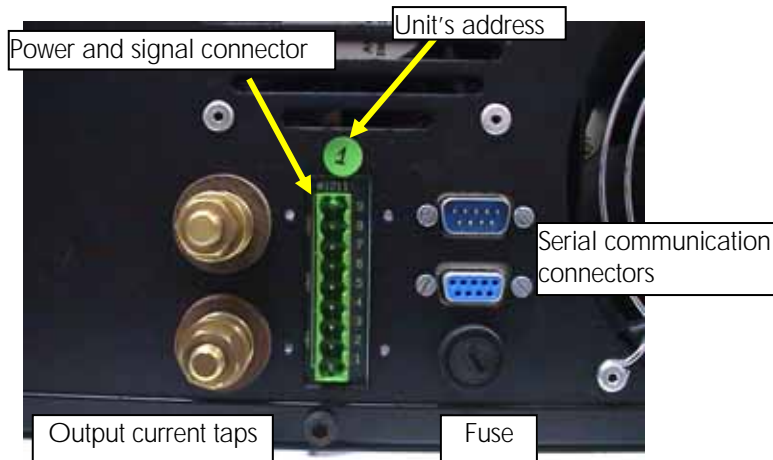
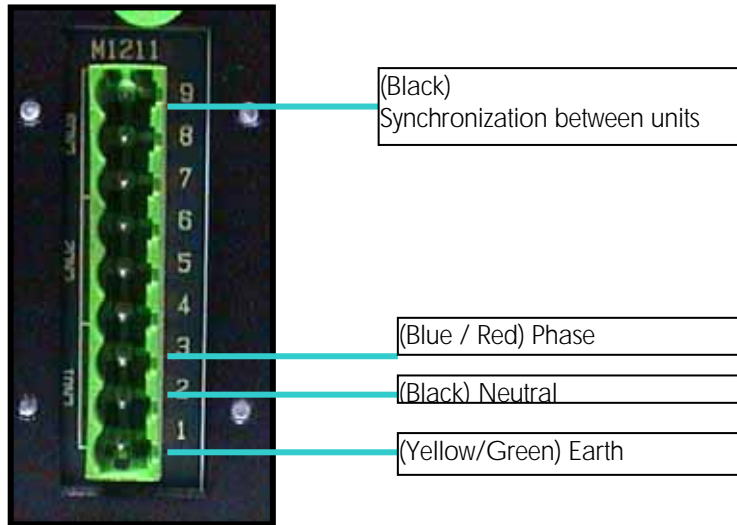
Check that all the items in the packing list are included inside the box.

Startup and Connections.

Make sure that the voltage supply and frequency that you are going to use match the characteristics printed on the label located on the rear side of the product's case.

CONNECTING THE EMU UNITS TO THE VOLTAGE SUPPLY

Connect the rear taps of the EMU-100 unit as follows:



CAUTION: IT IS VERY IMPORTANT NOT TO CHANGE THE EARTH POSITION FOR A PHASE. THE INTERNAL COMMUNICATION BOARD WILL BE DESTROYED IMMEDIATELY, IF THIS HAPPENS.

CAUTION: ENSURE THAT POWER SUPPLY CONNECTIONS OF ALL UNITS ARE IDENTICAL.

CAUTION: IF THERE IS MORE THAN ONE RACK, ENSURE THAT POWER SUPPLY CONNECTIONS OF ALL UNITS ARE IDENTICAL IN ALL OF THEM.

When the connection is finished and tested not only the EMU-100 taps, but in the socket in the other end of the cable, please verify that the POWER ON/OFF switch in the front panel of the EMU-100 is in the OFF position, and plug the unit to the voltage supply. Turn ON the unit. The following configuration of LED's must appear in the front panel:



If this configuration does not appear, the unit may be damaged. Turn it off immediately and contact EuroSMC or your local representative for service.

If the led configuration is correct, the unit is O.K. and you can proceed with the next step.

INSTALLING THE DSA RS-485 ADAPTER IN YOUR COMPUTER

The DSA communication adapter only needs a free RS-232 COM port (the DCB7 program only work with COM 1 or COM 2). If you have a 25 pin connector you will need an adapter to 9 pin.

Follow these steps to install the DSA (see the Chapter 6 diagrams):

1. Connect the PC RS-232 cable to a unused COM port.
2. Connect the SMC BUS connector with the cable DSA-EMU.
3. Connect the DSA-EMU cable with the last EMU-100 unit (the one with the highest address)
4. Connect the DSA to the voltage supply.

INSTALLING THE EMU-DCB SOFTWARE IN YOUR COMPUTER

Browse the supplied software CD for the INSTALL file and execute it. A folder named DCB7 will be created in your C:\ directory. After the installation is finished go to C:\ and execute the file DCB. A presentation screen will remain during a few seconds and another screen named Communications test, will appear as follows (if there is a COM error):

M12TEST Ver.7.XX (C) Copyright * EUROSMC * 1995					
Communications test					
	OPEN COM2:	OPEN COM1:	T/R COM2:	T/R COM1:	
2F8	OK	OK	ERROR	ERROR	ERROR
(PRESS ANY KEY)					

If the communications test fails, do the following:

1. Check that the DSA is ON.
2. Press a key on the screen named "Communications test" to go to the main menu.
3. Select UTILITIES on the main menu (see chapter 4).
4. Select CONFIGURATION on the utilities menu.
5. When the program asks "COM:" type the number of the COM port to use and press ENTER.
6. Follow the screen instruction and you will return to the utilities menu.
7. Press ESCAPE twice and you will leave the M12TEST software.
8. Type DCB again, and, after the presentation screen, the communication test screen should appear similar as follows (selecting COM2 in this example):

M12TEST Ver.7.XX (C) Copyright * EUROSMC * 1995					
Communications test					
	OPEN COM2:	OPEN COM1:	T/R COM2:	T/R COM1:	
2F8	OK	OK	OK	ERROR	OK
(PRESS ANY KEY)					

If the screen appears like this, it means that you have correctly installed the DSA adapter. If not, repeat the process until you get this screen.

CONNECTING THE EMU-100 UNIT TO YOUR DSA.

Turn OFF all the EMU's units.

Connect the free end of your DSA communication cable to the matching connector on the unit's rear panel.

Press the space key in the computer to display the MAIN MENU screen.

Select the UTILITIES option using the ↓ (down) arrow and press ENTER.

Once in the UTILITIES menu, use the ↓ (down) arrow to highlight the CONFIGURATION option and press ENTER.

You are now in the CONFIGURATION screen and the following question will appear:

How many RS-485 boards do your have ? 1

You must answer 1 (one), and press ENTER. A new question will appear as follows:

COM: 2

You must answer and type the COM port that your DSA is using. The next question will appear:

How many EMU-100 units do you have? 3

You must answer and type n, and press ENTER. Where n is the number of units that you are interconnecting. A message will appear in the screen:

M12TEST Ver.7.XX (C) Copyright * EUROS MC * 1995		
WARNING		
Connect the cables to the RS-485 communications board. Disconnect the rest of the serial communication devices (mouse, modem...) and press any key		

Ignore this message and press any key. The communication test screen will appear and should be similar as follows:

M12TEST Ver.7.XX (C) Copyright * EUROS MC * 1995					
Communications test					
	OPEN COM2:	OPEN COM1:	T/R COM2:	T/R COM1:	
2F8	OK	OK	OK	ERROR	OK
(PRESS ANY KEY)					

Press any key and the Test Power Module Screen appears with the following advice:

M12TEST Ver.7.XX (C) Copyright * EUROS MC * 1995	
Test Power Module	
WARNING	
Turn On all EMU-100 powers supplies and after press any keys	

Follow the on-screen instructions, then power up your EMU-100 unit and press any key. The following screen will be displayed:

M12TEST Ver.7.XX (C) Copyright * EUROS MC * 1995	
Test Power Module	
Checking ... Wait please	

After a few seconds, a message like this one will indicate that the connection has been established successfully:

M12TEST Ver.7.XX	(C) Copyright * EUROS MC * 1995
Test Power Module	
EMU 1: M12G/1	
EMU 2: M12G/1	
EMU 3: M12G/1	
Press any key	

If there are communication errors between the computer and the EMU-100 unit, the following message will appear:

M12TEST Ver.7.XX	(C) Copyright * EUROS MC * 1995
Test Power Module	
EMU 1: NOT FOUND	
EMU 2: NOT FOUND	
EMU 3: NOT FOUND	
Press any key	

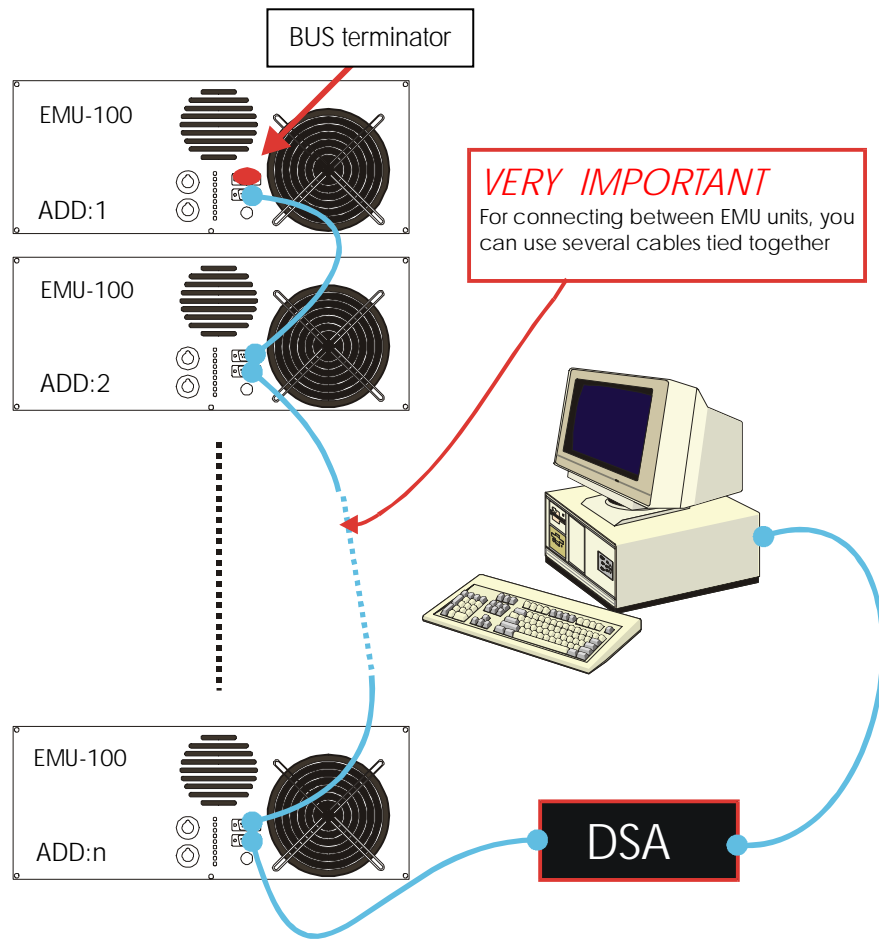
If this occurs, check the connection from the DSA to the EMU-100 unit and repeat all the process. If you do not succeed, please, turn OFF the EMU-100 unit and contact us or your local representative.

If the message M12G/1 appears, it means that everything is all right and you can proceed to use the system as described in the Instruction Manual.

If the next screen does not include the serial number of your EMUs, you must type it.

M12TEST Ver.7.XX	(C) Copyright * EUROS MC * 1995
Test Power Module	
EMU 1: 101.027	
EMU 2: 101.031	
EMU 3: 101.032	
Press any key	

Your system is now correctly installed and you can begin to work with it.



DAISY CHAIN INTERCONNECTION

AFTER SALES SERVICE AND WARRANTY

WARRANTY

The warranty covers the free replacement or repair of defective components for one year in the terms specified in the supplied warranty statement and registration card.

Damages resulting from improper handling of the product, use outside the scope and limits of the product's specifications, negligence, and installation not in accordance with the standards or warnings listed in the Instructions Manual and servicing or manipulation by unauthorized persons are not covered by the warranty.

CUSTOMER SUPPORT

EUROSMC guarantees the supply of materials and components for its products up to 3 years after discontinuation. This support is extendable to 5 years for technical service.

OTHER EUROSMC PRODUCTS

- Portable Relay Test Equipment and Software
- Primary injection units up to 20,000 A
- Digital portable three-phase circuit breaker analyzer
- Digital handheld chronometer
- Digital handheld phase angle meter
- Digital Portable micro ohmmeter up to 100 A Test current
- Test systems for automatic miniature circuit breakers
- Voltage and current regulation equipment
- Step & Touch Voltage measurement equipment
- Power transformer maintenance products
- Rotary machine condition analysis products