



# TCPIPINT-SCMN

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USER MANUAL



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TCPIPINT-SCMN - User Manual  
Version 1.0

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# 1. TCPIPINT-SCMN Option

## 1.1 Preparation

### 1.1.1 Preliminary checks

Provide for the following (applicable to operating tests and putting into service):

√ Connection cable kit including:

- Ethernet cable (cable with RJ45 connector, not included) for connection to ADSL router or LAN network;

or

- Crossover Ethernet cable (cable with RJ45 connector, not included) for direct connection to PC.

### 1.1.2 Connections

- Connect the **LAN** output of **TCPIPINT-SCMN** option to the appropriate input of your ADSL router or LAN network. If the connecting device is different, identify an equivalent.



**Note:** *If you intend to connect it directly to a PC, it is necessary to use a crossover ethernet cable. This is a basic prerequisite to ensure equipment correct operation.*

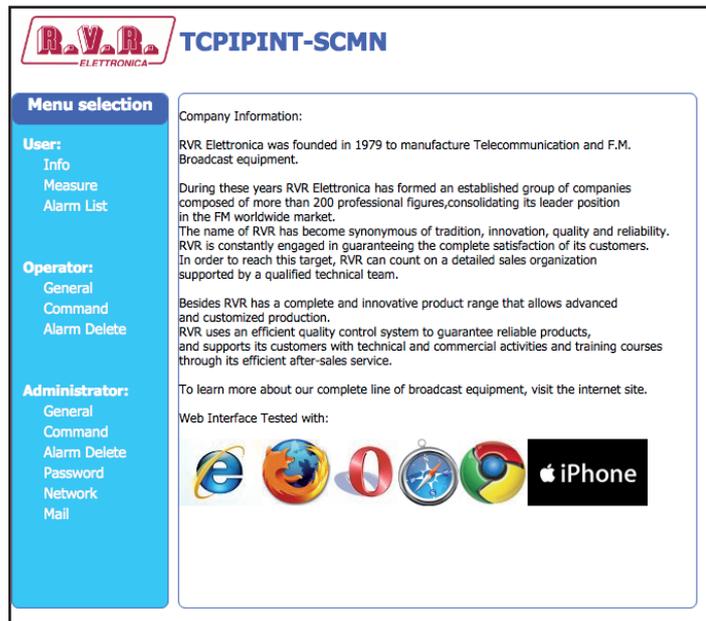
## 1.2 First Power-On and Set-Up

In case of first time, or after a change to the configuration in which this component is integrated, follow the instructions below.

Once all connections previously described are performed, the equipment is ready for commissioning.

Follow the procedure below to open the **WUI** (Web User Interface):

- 1) Open your web browser on your PC, and connect to **<http://192.168.0.244>** address to connect to the **WUI** (if LAN IP address was previously modified, it is necessary to use the new one). At this point the following page opens:



### Menu 1

By factory the RVR uses the following adjustments:

- IP address: **192.168.0.244**
- Netmask address: **255.255.255.0**
- Gateway address: **192.168.0.1**



**Note :** If address **http://192.168.0.244** does not work, check and set IP address as **192.168.0.XXX** (where XXX is a figure between 0 and 255, excluding 244 that is **TCPIPINT-SCMN** option default address). To change the IP address, follow the instructions in the manual or in the online guide and technical help, specific for the Operating System you use.

2) If you have changed the access mode , enter the **User Name** and **Password** previously saved. Enter your credentials to log on as administrator, or maintenance, and then click **OK** on the item.



**Note :** The username to log in as a user is **user**, that one to enter as operator is **operator**, while the username to log in as administrator is **admin**.

The user names are not modifiable by the user.



### Menu 2



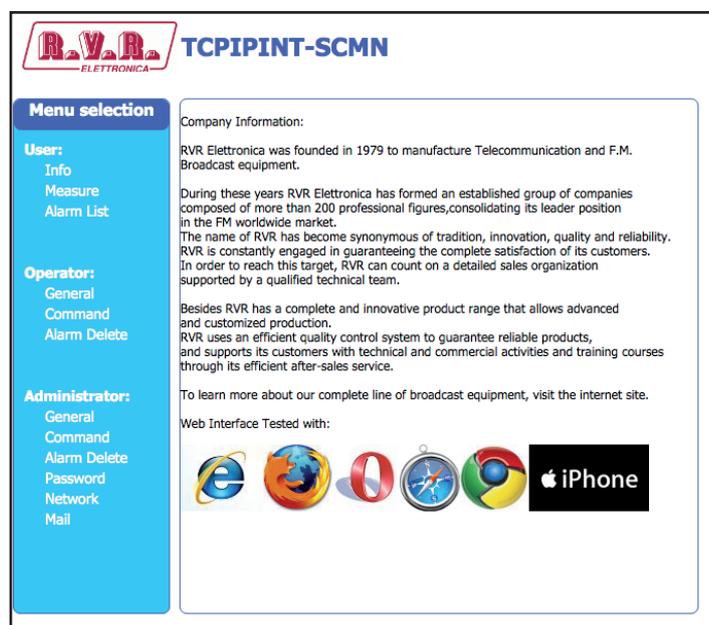
**Note:** Login as user enables read-only mode through the menus. If the administrator password is not set, it can not be enabled for user or operator.

- 3) Modify the parameters in accordance with the own needs.
- 4) Now interface is ready to remotely read data and modify the various settings of the equipment.

## 1.3 Web User Interface (WUI)

The **WUI** (Web User Interface) allows you to adjust, modify or display the configuration variables and the operation data.

After access is made, the **Main Menu** opens and shows possible viewing options. This picture shows the **Main Menu** after access:



Menu 3

To enter in one of the sub-menus, select the name and then click on item to enter.

To go back to **Main Menu**, just press the F5 key on your computer's keyboard to force the WEB page reload.

The page that appears is divided into three frames:

- 1) **Title:** it has the RVR logo and an identification of the current page displayed. It is located on the top of the page.
- 2) **Navigation menu:** it allows you to select the page to display. To enter into a submenu, select the name and then click on the item to enter.
- 3) **Body:** area where the page displays information about the selected menu.

### 1.3.1 Info Menu - User

Values found here are “live readings”, and as such they can not be modified. To change the settings, use the **operator** or **administrator** “**Command**” menu.

This page shows the user the data of **TCPIPINT-SCMN** interface:



Menu selection	
<b>User:</b>	
Info	
Measure	
Alarm List	
<b>Operator:</b>	
General	
Command	
Alarm Delete	
<b>Administrator:</b>	
General	
Command	
Alarm Delete	
Password	
Network	
Mail	

Web Software Release:	TCP2-060300
Web Software Date:	25/11/2015
Device Date:	27/11/2015
Device Time:	9:50
Local Date:	27/11/2015
Local Time:	9:50
Station Name:	TCPIPINT-SCMN

*Menu 4*

Web Software Release

Shows the release of WEB firmware.

Web Software Date

Shows the issue date of WEB firmware.

Device Date

Shows the day stored on the equipment (dd/MM/yyyy).

Device Time

Shows the time stored on the equipment (hh:mm).

Local Date

Shows the day stored in your browser/PC (dd/MM/yyyy).

Local Time

Shows the time stored in your browser/PC (hh:mm).

Station Name

Shows the ID name of transmitting station.

### 1.3.2 Measure Menu - User

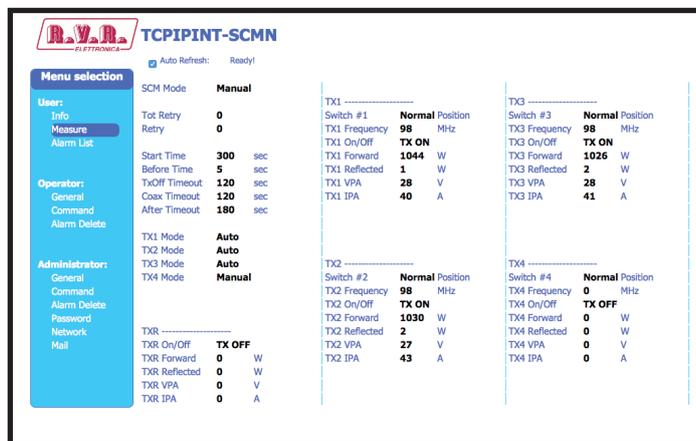
Values found here are “live readings”, and as such they can not be modified. To change the settings, use the **operator** or **administrator Command Menu**.

The upper part allows you to enable or disable the Auto-refresh by clicking on the relevant box.

With Auto-refresh enabled the measures are taken every 3 seconds (“Get Data ..”) and gave available in a legible form by the current page (“Ready”).

With Auto-refresh disabled the measures are frozen (“Stopped”) at the time when you uncheck the box and gave available in a legible form by the current page.

This page shows the user the data of the transmitter connected to the **TCPIPINT-SCMN** interface:



Menu 5

SCM Mode

Shows the SCM status.

Tot Retry

Shows the total number of retry before passing in “MANUAL” status.

Retry

Shows the actual number of retry before passing in “MANUAL” status.

Start Time

Shows the period during which the device remains in a status of inactivity after being started up. Said time is also used if power failures occur so that when power is supplied again the transmitters can attain full power.

Before Time

Shows the wait period from the moment in which a transmitter malfunctions, before initiating the change over procedure.

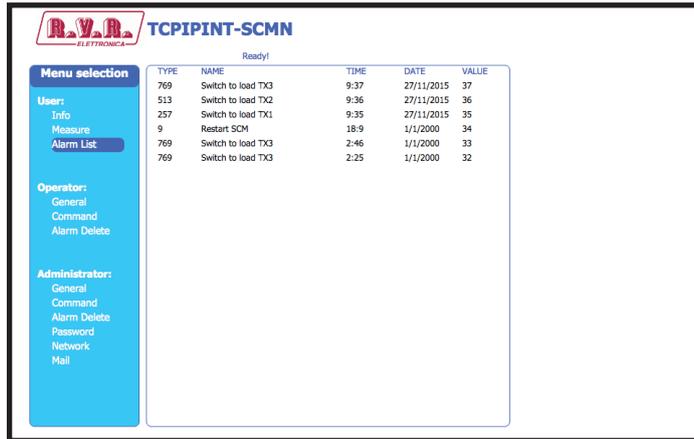
TxOff Timeout	Shows the maximum wait period for the switching off condition of the faulty transmitter.
Coax Timeout	Shows the maximum wait period for the coaxial relay to stabilize in the correct position.
After Timeout	Shows the maximum wait period after the completion of the change over procedure to permit the transmitter, which was switched on during the procedure, to attain full power.
TXn Mode	Shows the transmitter mode status.
TXn	Shows the reference of the transmitter taken into consideration.
Switch #n	Shows the changeover status.
TXn Frequency	Shows the working frequency of the transmitter expressed in MHz.
TXn On/Off	Shows the transmitter status.
TXn Forward	Shows the forward power of the transmitter expressed in W.
TXn Reflected	Shows the reflected power of the transmitter expressed in W.
TXn Vpa	Shows the transmitter amplifier module voltage expressed in V.
TXn Ipa	Shows the transmitter amplifier module current expressed in A.

## 1.3.3 Alarm List menu - User

Values found here are “live readings”, and as such they can not be modified. To change the settings, use the **operator** or **administrator Alarm Delete** Menu.

Within this menu you can display all alarms saved by the system: any new event will automatically delete the older ones.

This page shows the user the data of the exciter connected to the **TCPIPINT-SCMN** interface:



Menu selection		TYPE	NAME	TIME	DATE	VALUE
User:		769	Switch to load TX3	9:37	27/11/2015	37
Info		513	Switch to load TX2	9:36	27/11/2015	36
Measure		257	Switch to load TX1	9:35	27/11/2015	35
Alarm List		9	Restart SCM	18:9	1/1/2000	34
Operator:		769	Switch to load TX3	2:46	1/1/2000	33
General		769	Switch to load TX3	2:25	1/1/2000	32
Command						
Alarm Delete						
Administrator:						
General						
Command						
Alarm Delete						
Password						
Network						
Mail						

Menu 6

Type

Shows the alarm code.

Name

Shows the description for the error that led to event recording.

Time

Shows event recording time (hh:mm).

Date

Shows the day event was recorded (dd/MM/yyyy).

Value

Shows progressive number for event recording.

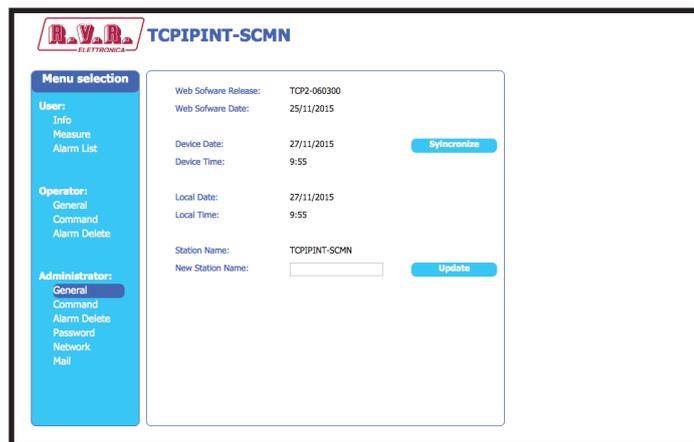
### 1.3.4 General Menu - Operator & Administrator



**Note :** Access to this menu and modification of these parameters are only possible after login with operator or administrator rights.

This page not only shows the user the information about the exciter connected to **TCPIPINT-SCMN** interface, but also allows setting various parameters.

Below will be described only items that allow the modification of the parameter, with respect to the Info menu. Press the buttons to confirm your choice; if you let timer to time out, the parameter setting will remain as previously set.



The screenshot shows the TCPIPINT-SCMN web interface. On the left is a 'Menu selection' sidebar with categories: User (Info, Measure, Alarm List), Operator (General, Command, Alarm Delete), and Administrator (General, Command, Alarm Delete, Password, Network, Mail). The 'Info' menu is selected. The main content area displays the following information:

Web Software Release:	TCP2-060300	
Web Software Date:	25/11/2015	
Device Date:	27/11/2015	<b>Synchronize</b>
Device Time:	9:55	
Local Date:	27/11/2015	
Local Time:	9:55	
Station Name:	TCPIPINT-SCMN	
New Station Name:	<input type="text"/>	<b>Update</b>

Menu 7

Web Software Release

Shows ID number of firmware release.

Web Software Date

Shows the date of firmware release.

Device Date

Allows you to align the date stored in the equipment with that of browser device, by pressing the **Synchronize Clock** button (dd/MM/yyyy).

Device Time

Allows you to align the time stored in the equipment with that of browser device, by pressing the **Synchronize Clock** button (hh:mm).

Local Date

Shows the current local Date stored relates on own browser/PC (dd/MM/yyyy).

Local Time

Shows the current local Time stored relates on own browser/PC (hh:mm).

Station Name

Shows ID (identifier) name of transmitting station.

New Station Name

Setting of the station name. Write the name in the box that you want to assign, then press the **Change Name** button to apply the choice.

## 1.3.5 Command Menu - Operator & Administrator



**Note :** Access to this menu and modification of these parameters are only possible after login with operator or administrator rights.

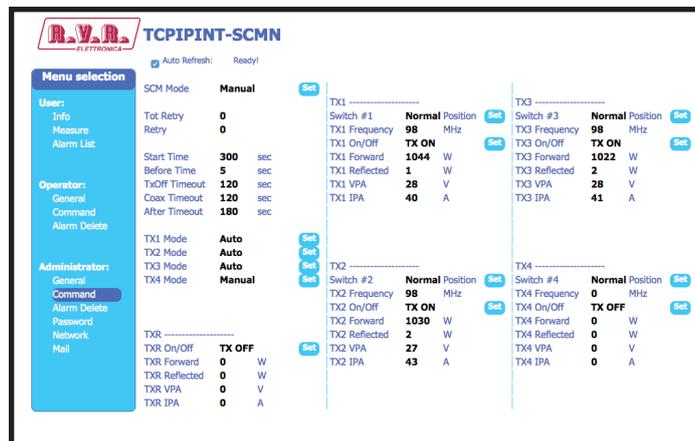
This page not only shows the user the information about the transmitter connected to the **TCPIPINT-SCMN** interface, but also allows setting various parameters.

The upper part allows you to enable or disable the Auto-refresh by clicking on the relevant box.

With Auto-refresh enabled the measures are taken every 3 seconds (“Get Data ..”) and gave available in a legible form by the current page (“Ready”).

With Auto-refresh disabled the measures are frozen (“Stopped”) at the time when you uncheck the box and gave available in a legible form by the current page.

Following is a description of the items that allow modification of the parameter, with respect to the Info menu. Press the buttons to confirm your choice; if you let timer to time out, the parameter setting will remain as previously set.



Menu 8



**Nota:** an example of **TCPIPINT-SCMN** connected to **TEX-LCD**, made by **RVR**, is in the case shown above. The **x** next to **EXC** words is refer to the number of exciter to which the measure makes reference.

SCM Mode

Press **Set** to change “AUTO” or “MANUAL” status.

Tot Retry

Shows the total number of retry before passing in “MANUAL” status.

Retry

Shows the actual number of retry before passing in “MANUAL” status.

Start Time

Shows the period during which the device remains in a status of inactivity after being started up. Said time is also used if power failures occur so that when power is supplied again the transmitters can attain full power.

**Before Time**

Shows the wait period from the moment in which a transmitter malfunctions, before initiating the change over procedure.

**TxOff Timeout**

Shows the maximum wait period for the switching off condition of the faulty transmitter.

**Coax Timeout**

Shows the maximum wait period for the coaxial relay to stabilize in the correct position.

**After Timeout**

Shows the maximum wait period after the completion of the change over procedure to permit the transmitter, which was switched on during the procedure, to attain full power.

**TXn Mode**

Press **Set** to change the priority of selected TX in "AUTO" or "MANUAL" status. The management of the priorities has effect only when more faulties are present at the same time and come taken in consideration only the transmitters that are in automatic mode.

**TXn**

Shows the reference of the transmitter taken into consideration.

**Switch #n**

Press **Set** to change the transmitter taken into consideration in "NORMAL" (TX connected to antenna) or in "SWITCHED" position (TX reserve connected to antenna).

**TXn Frequency**

Shows the working frequency of the transmitter expressed in MHz.

**TXn On/Off**

Press **Set** to switches the selected TX On or Off.

**TXn Forward**

Shows the forward power of the transmitter expressed in W.

**TXn Reflected**

Shows the reflected power of the transmitter expressed in W.

**TXn Vpa**

Shows the transmitter amplifier module voltage expressed in V.

**TXn Ipa**

Shows the transmitter amplifier module current expressed in A.

## 1.3.6 Alarm Delete Menu - Operator & Administrator



**Note :** Access to this menu and modification of these parameters are only possible after login with operator or administrator rights.

Values found here are “live readings”, and as such they can not be modified.

Within this menu you can display the last 20 alarms saved by the system: any new event will automatically delete the older ones. Using **Reset** item at bottom right of the menu, you can delete all pending alarms.

This page shows the user the alarms of the exciter connected to the **TCPINT-SCM** interface:

Menu selection		Ready!				
	TYPE	NAME	TIME	DATE	VALUE	
<b>User:</b>	769	Switch to load TX3	9:37	27/11/2015	37	
Info	513	Switch to load TX2	9:36	27/11/2015	36	
Measure	257	Switch to load TX1	9:35	27/11/2015	35	
Alarm List	9	Restart SCM	18:9	1/1/2000	34	
<b>Operator:</b>	769	Switch to load TX3	2:46	1/1/2000	33	
General	769	Switch to load TX3	2:25	1/1/2000	32	
Command						
Alarm Delete						
<b>Administrator:</b>						
General						
Command						
Alarm Delete						
Password						
Network						
Mail						

Menu 9

Type

Shows the alarm code.

Name

Shows the description for the error that led to event recording.

Time

Shows event recording time (hh:mm).

Date

Shows the day event was recorded (dd/MM/yyyy).

Value

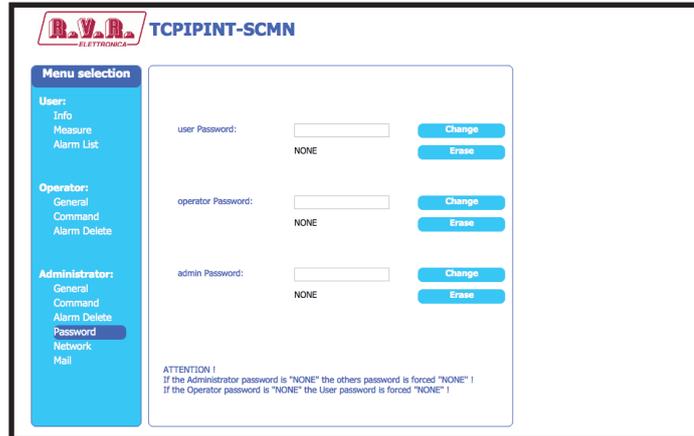
Shows progressive number for event recording.

### 1.3.7 Password Menu - Administrator



**Note :** Access to this menu and modification of these parameters are only possible after login with administrator rights.

This page allows the configuration of login as an administrator and maintenance of **TCPIPINT-SCM** interface via WUI:



Menu 10

#### User Password

Shows and set the password for user functions (parameter read-only enabling).

The **Erase** button allows you to delete the password set for maintenance.

#### Operator Password

Shows and set the password for operator functions (parameter reading and partial change enabling).

The **Erase** button allows you to delete the password set for maintenance.

#### Admin Password

Shows and set the password for administrator functions (parameter reading and full change enabling).

The **Erase All** button allows you to delete the password set both for the administrator and for the maintenance.

## 1.3.8 Network Menu - Administrator



**Note :** Access to this menu and modification of these parameters are only possible after login with administrator rights.

This page not only shows the user the information about **TCPIPINT-SCMN** interface network connection, but also allows setting various parameters.

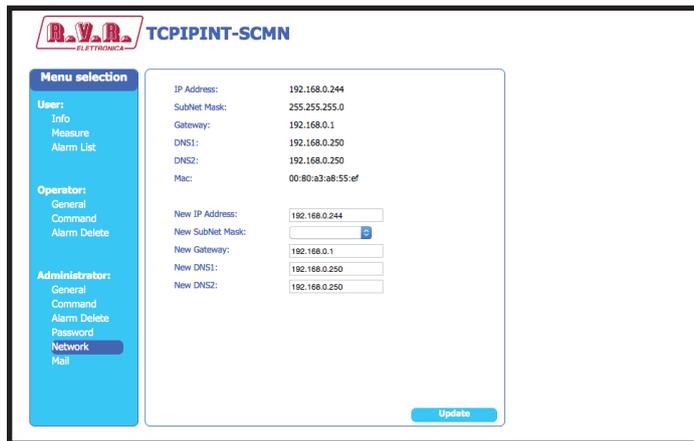
Press the **Change Settings** button to confirm selection; if you let timer to time out, the parameter setting will remain as previously set.



**Nota :** to make changes within these sub-menus you need to have through technical knowledge of network management. It is recommended to have changes performed by trained or qualified personnel.



**Note:** The IP address must be set to static and does not have the opportunity to acquire an address from DHCP server on network.



Parameter	Value
IP Address:	192.168.0.244
SubNet Mask:	255.255.255.0
Gateway:	192.168.0.1
DNS1:	192.168.0.250
DNS2:	192.168.0.250
Mac:	00:80:a3:a8:55:ef
New IP Address:	<input type="text" value="192.168.0.244"/>
New SubNet Mask:	<input type="text" value="255.255.255.0"/>
New Gateway:	<input type="text" value="192.168.0.1"/>
New DNS1:	<input type="text" value="192.168.0.250"/>
New DNS2:	<input type="text" value="192.168.0.250"/>

Menu 11

### IP Address

Shows the number that unequivocally identifies, within a single network, the devices connected to an IT network that uses the IP standard (Internet Protocol).

### Subnet Mask

Shows the subnet mask, necessary for the computer that must communicate with another IP address to know if it should route packages toward the gateway of its local network or use the address of the receiver local network.

### Gateway

Shows gateway address. In simpler networks, there is only one gateway that forwards to the internet network all the outbound traffic. In more complicated networks where many subnets are available, each of them refers to a gateway that will route data traffic towards the other subnets or forward it to other gateways.

**DNS1 server**

Shows the first DNS server address (Domain Name System); in case the server should change the server hosting a service, or it is necessary to change its IP address, it is enough to change the DNS record, without changing client settings.

**DNS2 server**

Shows the second DNS server address (Domain Name System); in case the server should change the server hosting a service, or it is necessary to change its IP address, it is enough to change the DNS record, without changing client settings.

**MAC Address**

Shows the MAC (Media Access Control) address; this address is uniquely assigned to the ethernet network card present on exciter. It can be useful if you want to add in your router, or firewall, a list of MAC addresses of network cards authorized to connect to the network.

**New IP address**

Set the new IP (Internet Protocol) number.

**New Subnet Mask**

Set the new subnet mask.

**New Gateway**

Set the new gateway address.

**DNS1 server**

Set the new first DNS server address (Domain Name System).

**DNS2 server**

Set the new second DNS server address (Domain Name System).

## 1.3.9 Mail Menu - Administrator



**Note :** Access to this menu and modification of these parameters are only possible after login with administrator rights.

This page not only shows the user the information about sending messages through **TCPIPINT-SMN** interface network connection, but also allows setting various parameters.

Press the **Change Settings** button to confirm selection; if you let timer to time out, the parameter setting will remain as previously set.



**Note :** the e-mails can be sent only via MX record, which is a DNS record that identifies the mail server associated with a domain. This feature can be useful if you want to use your mail server and it is absolutely necessary that the DNS domain supports this function for its proper functioning.



**Note:** to make changes within these sub-menus you need to have thorough technical knowledge of network management. It is recommended to have changes performed by trained or qualified personnel.



Menu 12

Sender Address

Shows the transmission address used for sending messages.

Destination 1

Shows the first address to which alarm warning mail messages shall be sent.

Destination 2

Shows the second address to which alarm warning mail messages shall be sent.

Destination 3

Shows the third address to which alarm warning mail messages shall be sent.

Destination 4

Shows the fourth address to which alarm warning mail messages shall be sent.

Subject

Shows the description of the “subject” field of the mail.

Server Port

Shows the port used by TCP transmission protocol.

New Sender Address

Set the new transmission address used for sending messages.

New Destination 1

Set the new first address to which alarm warning mail messages shall be sent.

New Destination 2

Set the new second address to which alarm warning mail messages shall be sent

New Destination 3

Set the new third address to which alarm warning mail messages shall be sent

New Destination 4

Set the new fourth address to which alarm warning mail messages shall be sent

New Subject

Set the new description of the “subject” field of the mail.

New Server Port

Set the new port used by TCP transmission protocol..

## 2. Connecting to Internet network

In order to connect the system to the public network **TCPIPINT-SCMN** you must have an internet connection typically provided through a router with NAT (Network Address Translation), which allows devices connected to the LAN to go out with the number router's public IP and protect any attempts at forcing.

In case you have connecting directly with the public IP address on the LAN socket is advisable to insert a router / firewall to avoid exposing the system **TCPIPINT-SCMN** directly to the public network but manage only the ports used by **TCPIPINT-SCMN** for the functions of the web interface and SMTP .

The system uses incoming port 80, can not be changed, such as web interface visible from any Web Browser.

For sending the email **TCPIPINT-SCMN** uses port 25, modifiable.

To ensure that the **TCPIPINT-SCMN** is visible from the outside is necessary that the router / firewall is set up port forwarding, the function can have different names depending on the brand of your router.

The public port 80 from IP to the IP of **TCPIPINT-SCMN** for WEB.

To ensure that the unit can send the Trap and the Email needs to be able to use the network at its output port 25 for email.

To send the e-mail system **TCPIPINT-SCMN** uses the MX record for the target domain DNS asked that must be set correctly in the appropriate fields otherwise not be able to send emails.

Also for the emails you must make sure that the destination server accept email from the public IP of our digestive system because the ships directly to the destination SMTP server without going through a server forward as is usual practice for mailers electronics installed on personal computers.

The apparatus as said default IP is set to RVR as 192.168.0.244 and will be adjusted on the network configured as your router's LAN port is used for port forwarding.

If you have multiple devices connected to the LAN after the router is necessary to use different ports on the public interface that will be routed to the fixed ports of the devices **TCPIPINT-SCMN** must have a LAN IP different from each other.

- **TCPIPINT-SCMN#1** IP 192.168.0.244 Port forwarding port 80 > port 80 of 192.168.0.244
- **TCPIPINT-SCMN#2** IP 192.168.0.245 Port forwarding port 81 > port 80 of 192.168.0.245

With this configuration, the apparatus **TCPIPINT-SCMN # 1** will be visible from WEB as `http://public.ip` and apparatus **TCPIPINT-SCMN # 2** will be visible from as `http://public.ip:81 WEB`.

To send the Trap or Email being output there is no problem, as long as there are no restrictions on using port 25 are wanted by the service provider.

To know the public IP of our apparatus is desirable to have a FIXED IP connection service that is provided by the provider, if the service has a dynamic IP you will have to rely on a DNS service that gives a name to our IP and keep updated in the event of a change of IP in order to reach the **TCPIPINT-SCMN** always writing the same name.

This service is provided by many providers, some free and some paid, and usually some routers include this function that can handle some of the service providers, and in case you need to use this service will need to be programmed into your router by following the instructions in that, given the various methods used to manage this function, we can not include this function in the system **TCPIPINT-SCMN**.

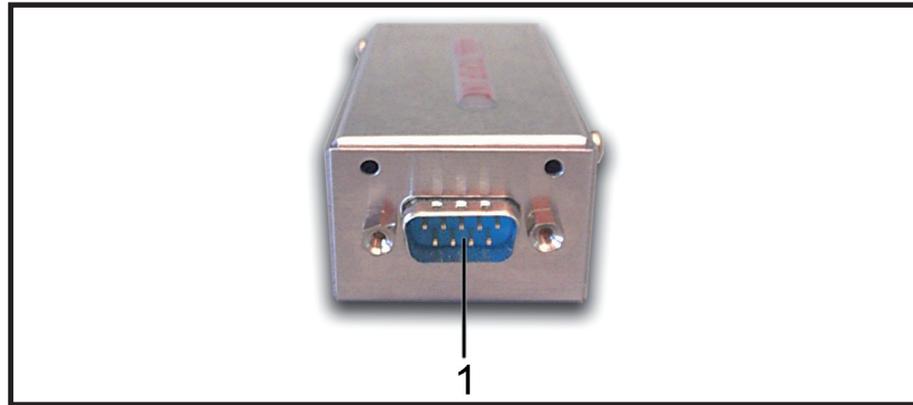
In case your network **TCPIPINT-SCMN** has many systems connected to the Internet the safest way to manage and functional systems is to create a VPN between all stations and the headquarters in order to have all the devices in the same network in order to view them directly with their IP without the limitations of different ports for devices in the same location, not all routers have this programming possibilities, limits the output ports and having to manage any dynamic IP with a DNS service.

In this case, the customer will have to rely on a company that specializes in networks to configure your VPN between locations.

### 3. External Description

This section describes the components found on the front and rear panel of TCPIPINT-SCMN.

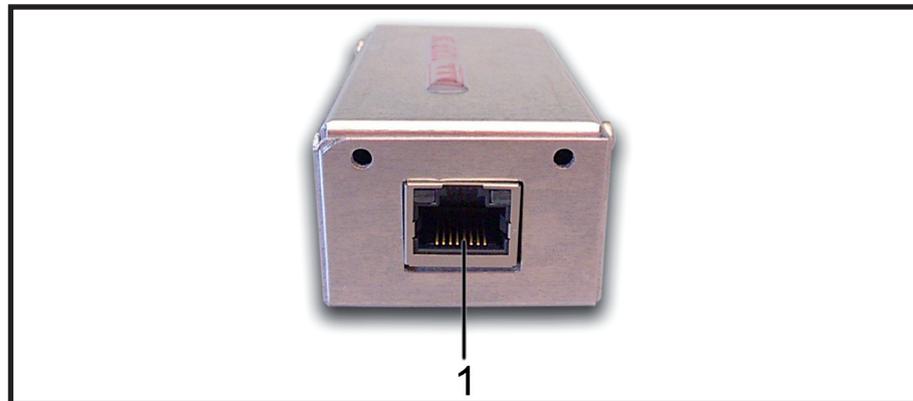
#### 3.1 Front Panel



*Figure 6.1*

[1] SERIAL                      DB9 connector for interface to SCMLCDN+1.

#### 3.2 Rear Panel



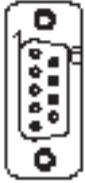
*Figure 6.2*

[1] NETWORK                      RJ45 connector for connection to LAN network, ADSL router or PC.

### 3.3 Connector Pinouts

#### 3.3.1 RS232

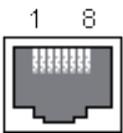
Type: Female DB9



- 1 NC
- 2 SDA
- 3 SCL
- 4 NC
- 5 GND
- 6 NC
- 7 NC
- 8 NC
- 9 NC

#### 3.3.2 LAN

Type: female RJ45



- 1 TX+
- 2 TX-
- 3 RX+
- 4 NC
- 5 NC
- 6 RX-
- 7 NC
- 8 NC









**R.V.R. Elettronica S.p.A.**

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