



# /TLW-TEX2HE & /TLW-TEX3HE

USER MANUAL

Additional Manual for  
TEX-LCD series  
and TEX-LIGHT series



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21/06/2014	1.1	Expansion of functional description	J. H. Berti

/TLW-TEX2HE & /TLW-TEX3HE - User Manual  
Version 1.1

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## 1. /TLW-TEX2HE & /TLW-TEX3HE 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 **/TLW-TEX2HE & /TLW-TEX3HE** 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.*

#### 1.1.3 Dip Switch configuration

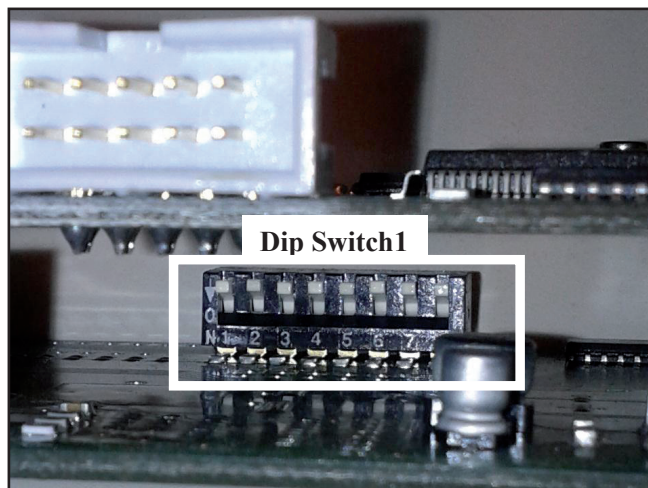


Figure 1.1: Dip Switch

	1	2	3	4	5	6	7	8
Config TX						X	X	X
Not used	X	X	X	X	X			

Table 1.2: Dip Switch

Dip Switch, from position 8 to position 6 (CONFIG TX), is to set as binary number based on the configuration number to which reference is made (for example the configuration 3 is equal to 110, or the configuration 6 is equal to 011).



**Note:** for insights on possible configurations, and on right setting of dip switch, read the chapter on Configurations present in the following manual.

#### 1.1.3.1 IIC addresses relating to configurations of transmitter

adr	TEX#1	HC o PA	PA	PA	PA	PA	PA
<b>Config 01</b>	1						
<b>Config 02</b>	1	2					
<b>Config 03</b>	1	2	3	4			
<b>Config 04</b>	1	2	3	4	5		
<b>Config 05</b>	1	2	3	4	5	6	
<b>Config 06</b>	1	2	3	4	5	6	7

Table 1.3: IIC address of equipment connected to telemetry

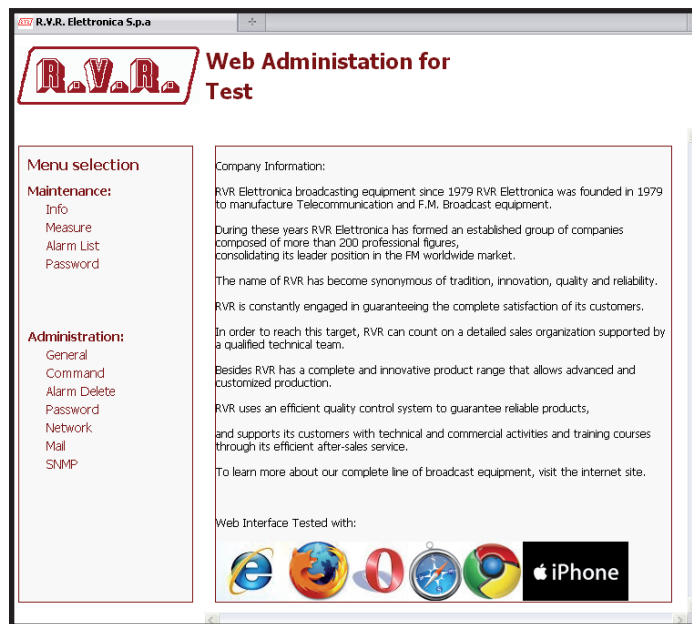
## 1.2 First Power-On and Set-Up

Perform this procedure upon first power-up and each time you make changes to the configuration this component is integrated into.

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**

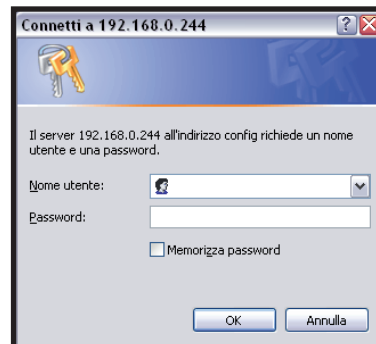


**Note :** If address **http://192.168.0.244** does not work, check and set IP address as **192.168.0.XXX** (where XXX is a figure between 0 and 255, excluding 244 that is /TLW-TEX2HE & /TLW-TEX3HE option default address). To change the IP address, follow the instructions in the manual or in the online 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 maintenance is **user**, while the user name to log in as administrator is **admin**.  
The user names are not modifiable by the user.



Menu 2



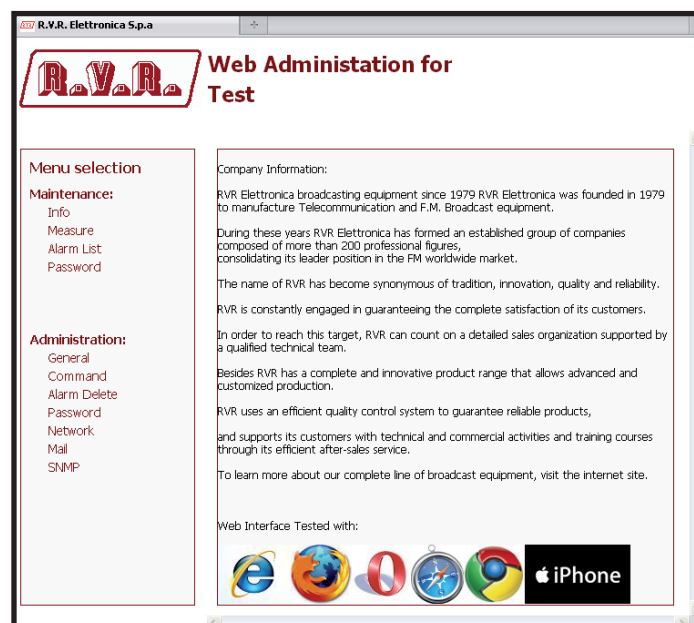
**Note :** Log in as maintenance enables only readings inside the WUI. If the administrator password is not set, you can not enable the maintenance password.

3) Now the 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.

Once logged in, you will see the **Main Menu** that shows the possible selections.



Menu 3



The image shows the **Main Menu** logging in normally. If you log in without administrative privileges, and then only as a maintainer, in the **WUI** will be available only the readings.

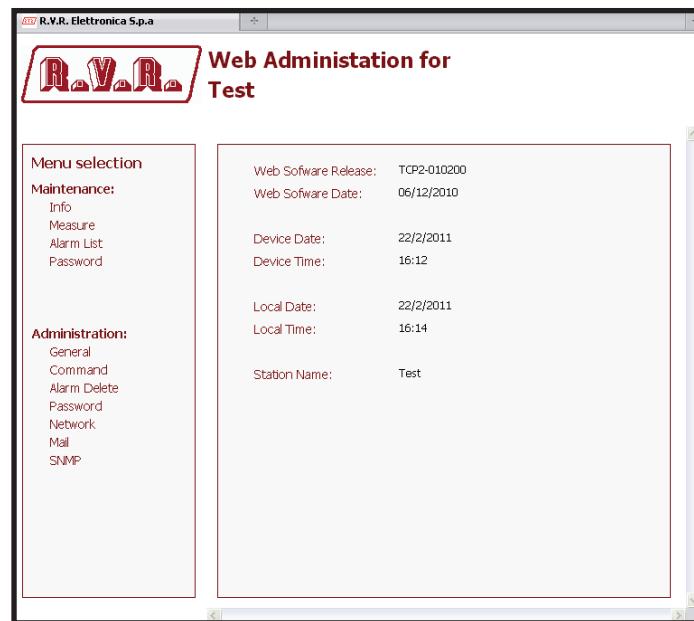
The page that appears is divided into three frames:

- 1) **Title:** it has the RVR logo and an identification of the current page displayed. It is located on the top of the page.  
If you still want return to the **Main Menu**, simply click on the RVR logo sited in all the submenus on top left.
- 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 - Maintenance

Values found here are “live readings”, and as such they can not be modified. To change the settings, use the **General menu** (chap. 1.3.5) by logging in as administrator.

This page shows the user the data of the exciter connected to the /TLW-TEX2HE & /TLW-TEX3HE interface:



*Menu 4*

WEB Software Release

Shows the release of WEB firmware.

WEB Software Date

Shows the date of issue of WEB firmware.

Device Date

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

Device Time

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

Local Date

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

Local Time

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

Station Name

Shows the ID name of transmitting station.

## 1.3.2 Measure Menu - Maintenance

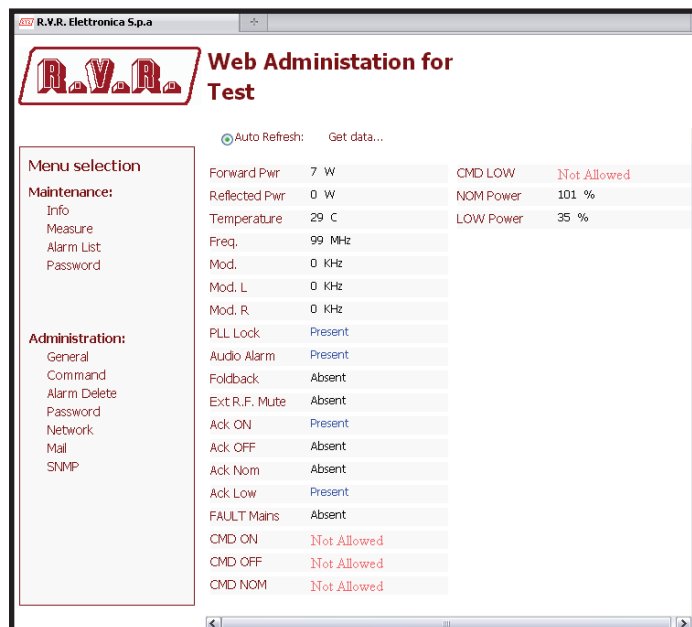
Values found here are “live readings”, and as such they can not be modified. To change the settings, use the **Command Menu** (chap. 1.3.6) by logging in as administrator.

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 exciter connected to the /TLW-TEX2HE & /TLW-TEX3HE interface:



Menu 5

Forward Power

Shows forward power of exciter.

Reflected Power

Shows reflected power of exciter.

Temperature

Shows internal temperature reading of equipment.

Freq.

Shows operating frequency of exciter.

Mod.

Shows modulation of exciter.

Mod. L

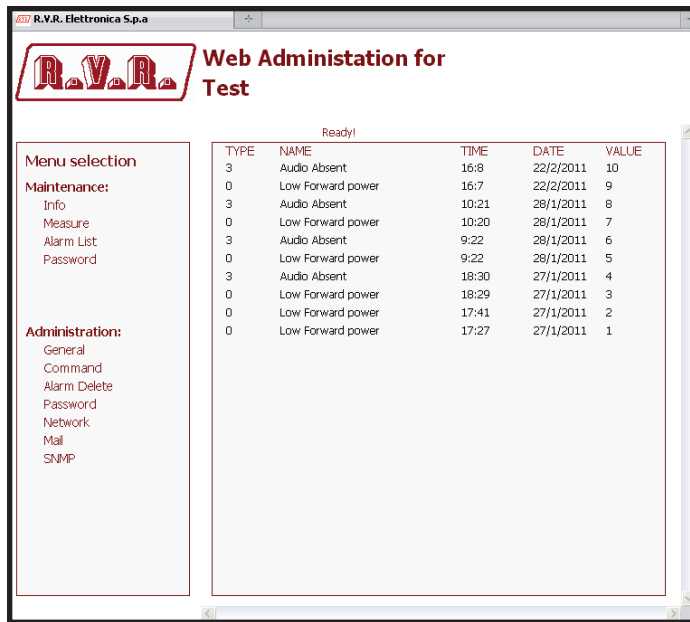
Shows modulation on left channel of exciter.

- Mod. R  
Shows modulation on right channel of exciter.
- PLL LOCK  
Shows the lock status at frequency set by PLL.
- Audio Alarm  
Shows the status of an impasse due to excessive SWR.
- Foldback  
Shows the triggered status of the foldback function (automatic reduction of output power).
- Ext R.F. Mute  
Shows the status of power inhibition by an interlock signal.
- Ack ON  
Shows the power on status of the exciter.
- Ack OFF  
Shows the power off status of the exciter.
- Ack Nom  
Shows the delivery status of fixed nominal power.
- Ack Low  
Shows the delivery status of fixed reduced power.
- FAULT Mains  
Shows the status of alarm conditions that affect the proper functioning.
- CMD ON  
Not Used.
- CMD OFF  
Not Used.
- CMD Nom  
Not Used.
- CMD Low  
Not Used.
- NOM Power  
Shows the efficiency about the adjustment of nominal power.
- LOW Power  
Shows the efficiency about the adjustment of reduced power.

## 1.3.3 Alarm List Menu - Maintenance

Values found here are “live readings”, and as such they can not be modified. To change the settings, use the **Alarm Delete Menu** (chap. 1.3.7) by logging in as administrator.

This page shows the user the data of the exciter connected to the /TLW-TEX2HE & /TLW-TEX3HE interface:



Ready!

TYPE	NAME	TIME	DATE	VALUE
3	Audio Absent	16:8	22/2/2011	10
0	Low Forward power	16:7	22/2/2011	9
3	Audio Absent	10:21	28/1/2011	8
0	Low Forward power	10:20	28/1/2011	7
3	Audio Absent	9:22	28/1/2011	6
0	Low Forward power	9:22	28/1/2011	5
3	Audio Absent	18:30	27/1/2011	4
0	Low Forward power	18:29	27/1/2011	3
0	Low Forward power	17:41	27/1/2011	2
0	Low Forward power	17:27	27/1/2011	1

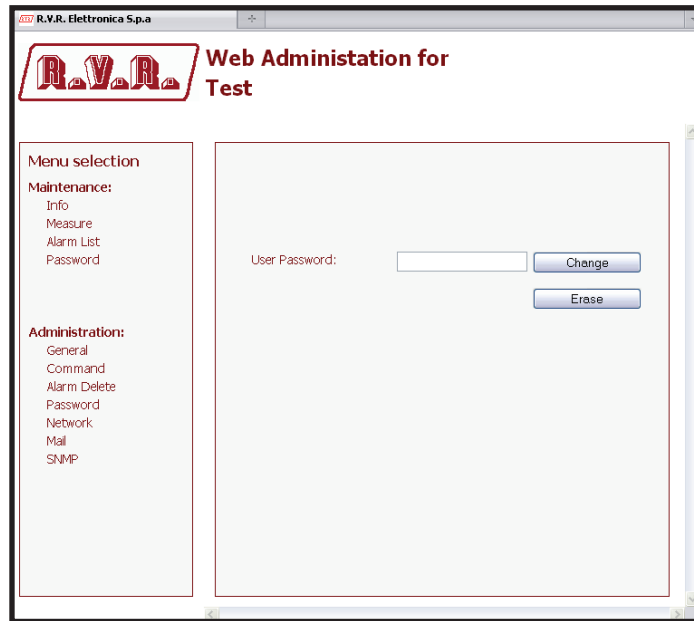
Menù 7

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 Password Menu - Maintenance

This page allows the configuration of login as a maintenance of /TLW-TEX2HE & /TLW-TEX3HE interface via WUI.

Please note that the User Name (**user**) can not be changed.



Menu 8

### Password

Shows and set the password for maintenance user (enables read-only parameter).

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

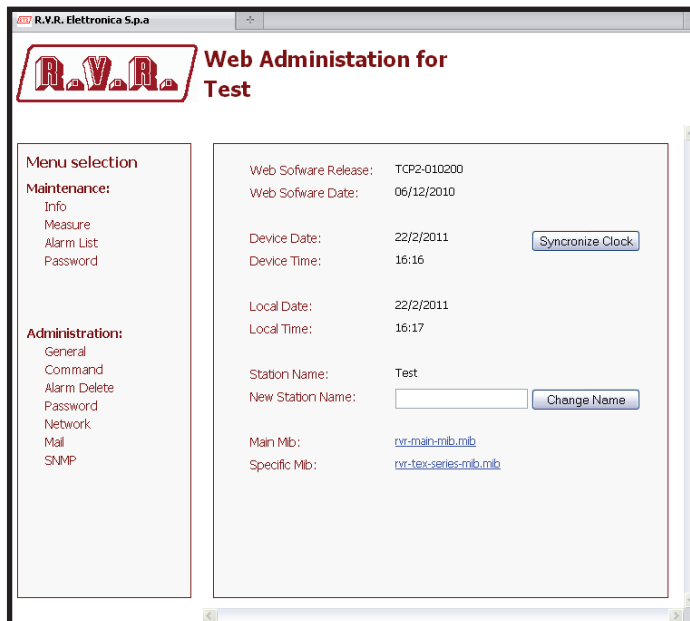
## 1.3.5 General Menu - Administrator



**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 the exciter connected to /TLW-TEX2HE & /TLW-TEX3HE interface, but also allows setting various parameters.

Below will be described only items that allow the modification of the parameter, with respect to the **Information menu** (chap. 1.3.1). Press the buttons to confirm your choice, pushing the logo **RVR**, instead, or wait at the time-out, the parameter will be set to the previous one.



The screenshot shows a web browser window titled 'R.V.R. Elettronica S.p.a.' with the URL 'http://192.168.1.100:8080'. The page content is 'Web Administration for Test'. On the left, there is a 'Menu selection' sidebar with two sections: 'Maintenance' (Info, Measure, Alarm List, Password) and 'Administration' (General, Command, Alarm Delete, Password, Network, Mail, SNMP). The main area displays the following configuration data:

Web Software Release:	TCP2-010200	
Web Software Date:	06/12/2010	
Device Date:	22/2/2011	<input type="button" value="Synchronize Clock"/>
Device Time:	16:16	
Local Date:	22/2/2011	
Local Time:	16:17	
Station Name:	Test	
New Station Name:	<input type="text"/>	<input type="button" value="Change Name"/>
Main Mib:	<a href="#">vr-main-mib.mib</a>	
Specific Mib:	<a href="#">vr-tex-series-mib.mib</a>	

Menu 9

Device Date/Time

Allows you to align the time and date stored in the exciter with that of browser device, by pressing the **Synchronize Clock** button.

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.

Main Mib

By pressing the MIB (Management Information Base) highlighted you can download onto your PC, or browser device, the general database for the management of devices in communications networks.

Specific Mib

By pressing the MIB (Management Information Base) highlighted you can download onto your PC, or browser device, the specific database for the management of devices in communications networks.

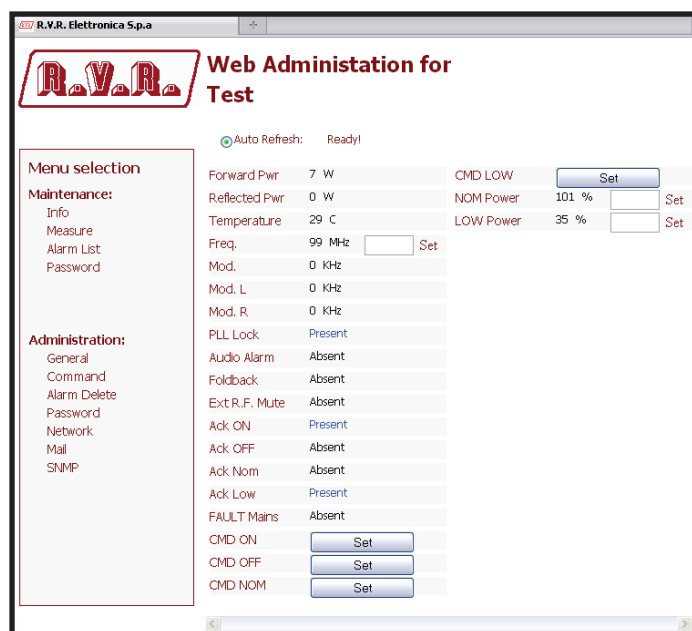
## 1.3.6 Command Menu - Administrator



**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 the exciter connected to /TLW-TEX2HE & /TLW-TEX3HE interface, but also allows setting various parameters.

Below will be described only items that allow the modification of the parameter, with respect to the **Measure menu** (chap. 1.3.2). Press the buttons to confirm your choice, pushing the logo **RVR**, instead, or wait at the time-out, the parameter will be set to the previous one.



Menu 10

Freq.

Remote adjustment of exciter frequency. This value, in MHz, can be modified according to one's own band in 0.1 MHz steps. Press **Set** to confirm the value inserted.

CMD ON

Press **Set** to change the logical state of the data.

CMD OFF

Press **Set** to change the logical state of the data.

CMD Nom

Press **Set** to change the logical state of the data.

CMD Low

Press **Set** to change the logical state of the data.



**NOM Power**

Remote adjustment regarding the nominal power of exciter. This value, in %, can be modified in the range 0 to 100, in steps of 1%. Press **Set** to confirm the value inserted.

**LOW Power**

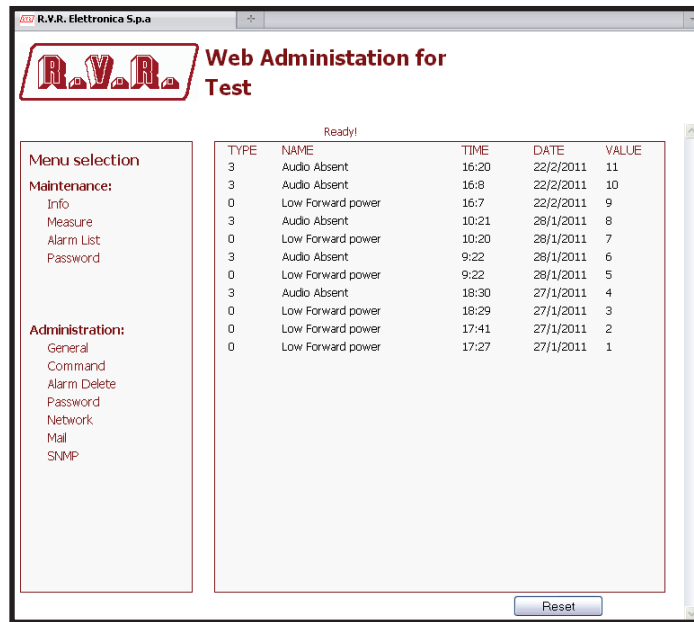
Remote adjustment regarding the reduced power of exciter. This value, in %, can be modified in the range 0 to 100, in steps of 1%. Press **Set** to confirm the value inserted.

### 1.3.7 Alarm Delete Menu - Administrator



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

Within this menu you can view the most recent alarms stored by the system, a new event will cause an automatic cancellation of the oldest. Using the **Reset** item in the bottom right side of menu, you can delete the list of all pending alarms.



Menu 11

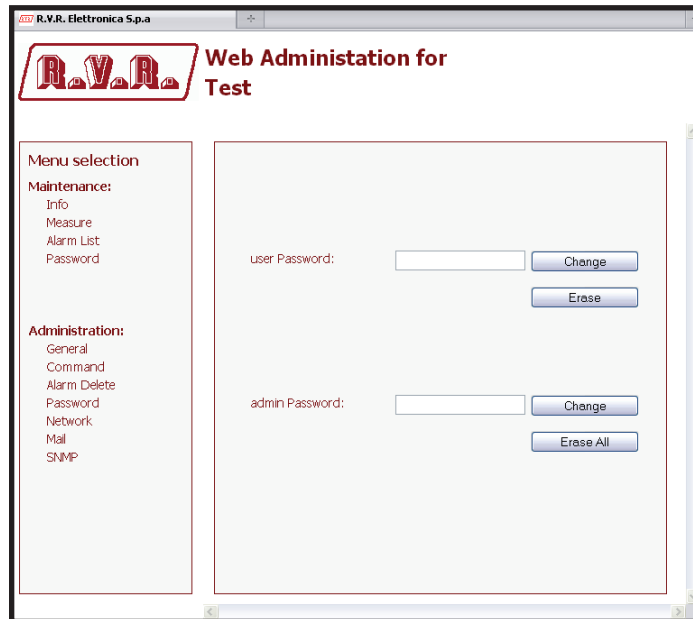
## 1.3.8 Password Menu - Administrator



**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 /TLW-TEX2HE & /TLW-TEX3HE interface via WUI.

Please note that the User Name (**admin** for administrator, or **user** for maintenance) can not be changed.



Menu 12

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.

admin Password

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

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

## 1.3.9 Network Menu - Administrator



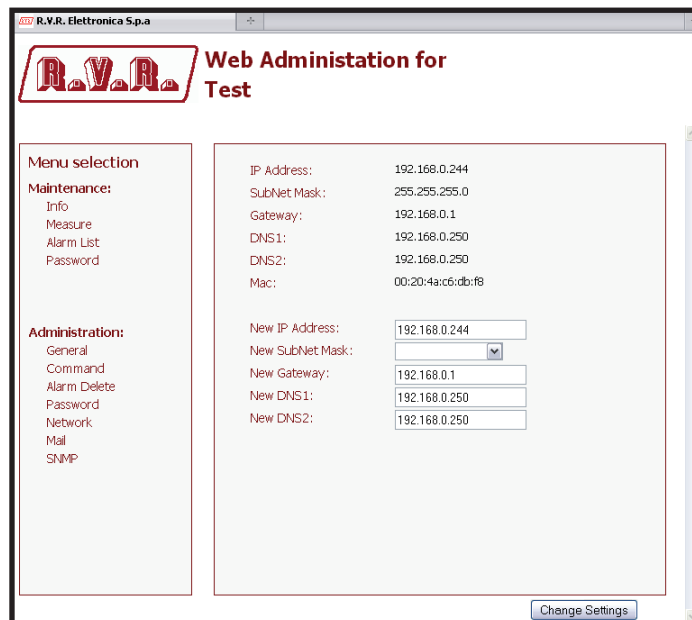
**Note :** Access to this menu and modification of these parameters are only possible after login with administrator rights.

This page not only shows the user the information about /TLW-TEX2HE & /TLW-TEX3HE interface network connection, but also allows setting various parameters.

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



**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.



The screenshot shows a web browser window titled "R.V.R. Elettronica S.p.a" with a sub-header "Web Administration for Test". The interface is divided into two main sections. On the left, there is a "Menu selection" sidebar with two categories: "Maintenance" (Info, Measure, Alarm List, Password) and "Administration" (General, Command, Alarm Delete, Password, Network, Mail, SNMP). The "Network" option is highlighted. The main content area displays current network parameters: 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), and Mac (00:20:4a:c6:db:f8). Below these are input fields for "New" values: New IP Address (192.168.0.244), New SubNet Mask (a dropdown menu), New Gateway (192.168.0.1), New DNS1 (192.168.0.250), and New DNS2 (192.168.0.250). A "Change Settings" button is located at the bottom right of the form.

Menu 13

### 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).

### 1.3.10 Mail Menu (SMTP) - 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 /TLW-TEX2HE & /TLW-TEX3HE interface network connection, but also allows setting various parameters.

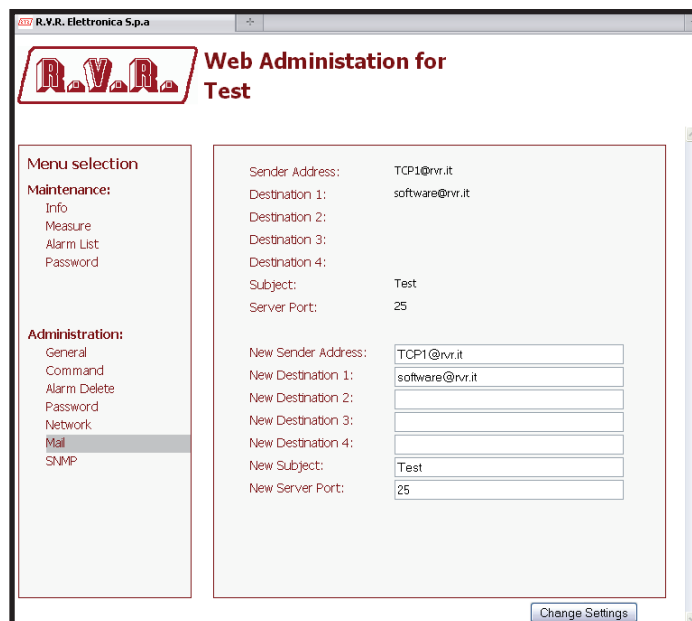
Press the **Change Settings** button to confirm selection; if you let timer to time out or press the **RVR** logo, the parameter setting will remain as previously set.



**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.



Menù 14

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.

## 1.3.11 SNMP Menu - Administrator



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

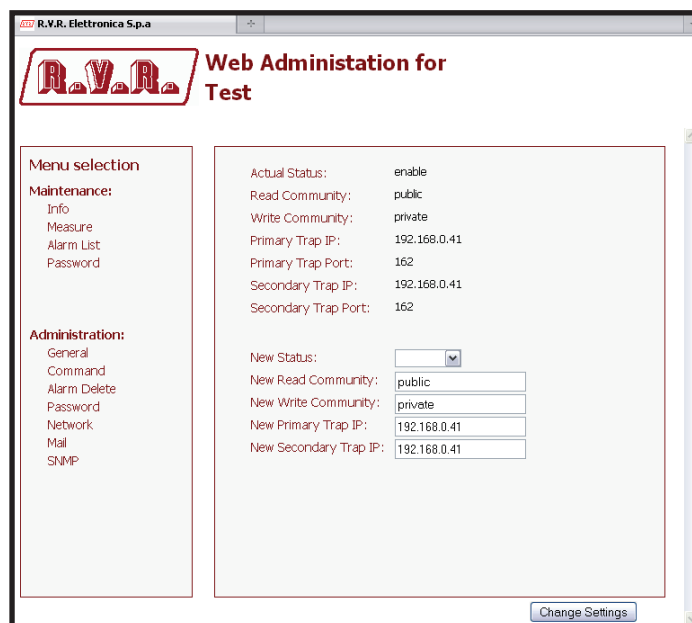
This page not only shows the user the information about /TLW-TEX2HE & /TLW-TEX3HE interface network connection, but also allows setting various parameters.

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

For more information regarding this menu, please read the chapter the **SNMP Telemetry** (Chapter 1.4).



**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.



The screenshot shows a web browser window titled "R.V.R. Elettronica S.p.a" with a sub-header "Web Administration for Test". The interface is divided into two main sections. On the left, there is a "Menu selection" sidebar with two categories: "Maintenance" (Info, Measure, Alarm List, Password) and "Administration" (General, Command, Alarm Delete, Password, Network, Mail, SNMP). The main content area on the right displays the current SNMP configuration. It includes a table of current settings: Actual Status (enable), Read Community (public), Write Community (private), Primary Trap IP (192.168.0.41), Primary Trap Port (162), Secondary Trap IP (192.168.0.41), and Secondary Trap Port (162). Below this, there are input fields for "New Status" (a dropdown menu), "New Read Community", "New Write Community", "New Primary Trap IP", and "New Secondary Trap IP". A "Change Settings" button is located at the bottom right of the form.

Menu 15

Actual Status

Shows the status of SNMP (Simple Network Management Protocol) service.

Read Community

Shows the set string for Read command that allows you to monitor the different variables of the system managed.

Write Community

Shows the set string for Write command that allows you to monitor the different variables of the system managed.



**Primary TRAP IP**

Shows the first identification number of the IP address set to send the TRAP signaling that configures the agent to send a special message to the occurrence of certain events.

**Primary TRAP Port**

Shows the first port number set by the TCP transmission protocol for the TRAP signaling that configures the agent to send a special message to the occurrence of certain events. The port can not be changed.

**Secondary TRAP IP**

Shows the second identification number of the IP address set to send the TRAP signaling that configures the agent to send a special message to the occurrence of certain events.

**Secondary TRAP Port**

Shows the second port number set by the TCP transmission protocol for the TRAP signaling that configures the agent to send a special message to the occurrence of certain events. The port can not be changed. .

**New Status**

Set the status of SNMP (Simple Network Management Protocol) service.

**New Read Community**

Set the string for Read command.

**New Write Community**

Set the string for Write command.

**New Primary TRAP IP**

Set the first identification number of the IP address set to send the TRAP signaling.

**New Secondary TRAP IP**

Set the second identification number of the IP address set to send the TRAP signaling.

## 2. Connection via Modem

The telemetry option supports connectivity to the whole range of units of RVR's **TEX-LCD** and **TEX-LIGHT** family of products. This section describes the features introduced with version **/TLW-TEX2HE & /TLW-TEX3HE** and the necessary steps for their proper configuration.

The telemetry option supports:

- Remote alarm reporting by sending SMS messages through a GSM modem or through a PSTN modem (dial-up) by sending an alarm message string to a connected PC.
- Telemetry, with all equipment parameters sent to the "TELECON" software through an (RS232);
- Remote controlling through an (RS232) connection to the "TELECON" software or through certain predetermined SMS messages if connected to an external GSM modem.
- Telemetry via internet through 10Base-T LAN/Ethernet network.

### 2.1 Remote alarm monitoring

The list of parameters monitored for the alarm management are:

- Exciter output power (forward power good "PgD");
- Reflected power at the exciter (reflected power good "PgR");
- Temperature state (OVER TEMPERATURE);
- Audio Signal Level;
- Mains voltage state (present or missing).

Factory default settings are as follows:

ALLARMI	TEMPI	SOGLIE
Potenza Diretta (Fwd Pwr)	25 Sec.	Power Good (PgD)
Potenza Riflessa (Rfl Pwr)	25 Sec.	Power Good (PgR)
Audio	325 Sec.	20 kHz
Sovratemperatura	25 Sec.	72°C
Alimentazione di rete (Mains)	25 Sec.	

Table 2.1

An inhibit time (start time) after power-on is provided to ensure false alarm prevention. When this inhibit time times out, the thresholds of alarm generation parameters are checked and remote alarms are sent if needed.

Alarm generation technique is outlined in the figure below; remote alarm delay, i.e. the amount of time the system waits before issuing a remote alarm after an alarm condition occurs is indicated in table 2.1. When appropriate, a new line is added to the alarm log stored in **/TLW-TEX2HE & /TLW-TEX3HE**, up to six lines maximum.

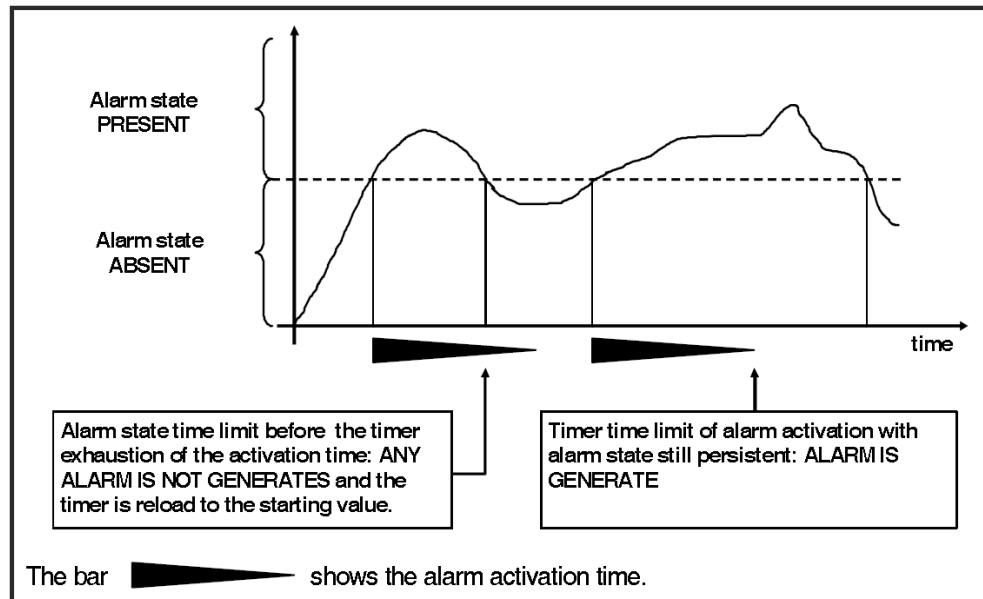


Figure 2.1

The alarm log may be reviewed using the “TELECON” software or through SMS (see relevant section).



**WARNING:** The mains alarm is triggered from the battery charger board; as a result, this board is required even when no batteries are installed. In the configuration without batteries, no alarm is generated; instead, an SMS message indicating a normal condition is sent upon next start-up.

When any one of the parameters listed above changes state, a text message with the following information is sent via modem (if fitted):

- Station Name.
- Station ID.
- State of measurements.

ES1.

*Station Name: (string of 16 characters maximum)*

*Station ID: (from 000 to 999)*

*Forward Power OK*

*Reflected Power OK*

*Temperature OK*

*Audio OK*

*Mains OK*

## **2.3 Telemetry**

Equipment telemetry consists in the remote monitoring of all operating parameters and can only be achieved through serial cable or modem connection to the “TELECON” software.

## **2.4 Remote control**

When the exciter is connected to the internal telemetry unit, it can be controlled from a PC with a suitable modem connection.

The “TELECON” software establishes connection with the station through a phone line and enables the following remote operations: alarm reset, transmitter power on/power off, power supply reduction, dummy load testing, etc., data evaluation to locate possible faults, identification of parts required for repair.

An alternative remote controlling option uses SMS messaging through a common GSM phone, in which case the equipment will respond as indicated in table 1.2.

Before querying the system using SMS messages, establish a connection using the “TELECON” software and set the provider service centre number and the telephone numbers authorised to send these commands to the devices.

Only in case of connection with external modem, the commands that can be sent are shown as follows:

Comando	Risposta	Descrizione
<b>INFO</b>	Station Name: "nome della stazione" (stringa di 16caratteri massimo) Station ID: "numero identificativo" (da 000 a 999) FWD Power: (Potenza diretta espressa in W) RFL Power: (Potenza riflessa espressa in W) Temp: (Temperatura espressa in °C) Tx (Stato trasmettitore ON o OFF) Local (Locale o Remoto) Alarm (Presenza o Assenza allarmi)	Informazioni sullo stato del trasmettitore
<b>TXON</b>	Station Name: "nome della stazione" (stringa di 16caratteri massimo) Station ID: "numero identificativo" (da 000 a 999) Tx is ON	Accensione trasmettitore
<b>TXOFF</b>	Station Name: "nome della stazione" (stringa di 16caratteri massimo) Station ID: "numero identificativo" (da 000 a 999) Tx is OFF	Spegnimento trasmettitore
<b>LOWPWR</b>	Station Name: "nome della stazione" (stringa di 16caratteri massimo) Station ID: "numero identificativo" (da 000 a 999) LowPwr OK	Informazioni su bassa potenza
<b>NOMPWR</b>	Station Name: "nome della stazione" (stringa di 16caratteri massimo) Station ID: "numero identificativo" (da 000 a 999) NomPwr	Informazione sulla potenza nominale
<b>ALARM</b>	Station Name: "nome della stazione" (stringa di 16caratteri massimo) Station ID: "numero identificativo" (da 000 a 999) Record: (Invio degli ultimi 4 liste di allarmi memorizzate in memoria)	Lista allarmi in memoria
<b>RESET</b>	Station Name: "nome della stazione" (stringa di 16caratteri massimo) Station ID: "numero identificativo" (da 000 a 999) RESET allarmi memorizzati	Cancellazione allarmi in memoria
<b>RESMOD</b>	Nessuna Risposta	Reset e reinizializzazione del modem
<b>STATUS</b>	Invia i messaggi di allarme se presenti	Reinvia il messaggio di stato degli allarmi
<b>VERSION</b>	Station Name: "nome della stazione" (stringa di 16caratteri massimo) Station ID: "numero identificativo" (da 000 a 999) Versione App, Versione Bios, Codice Tabella	Informazioni su versioni software

Table 2.2



**Note:** I Response time to SMS commands may vary with different GSM network providers; as a general rule, response time should not exceed 7-10 minutes maximum.

### 3. Configurations of Transmitter System

Below are listed the several possible system configurations, the configuration that needs to assume on the dip switch and the screens obtainable via WEB.



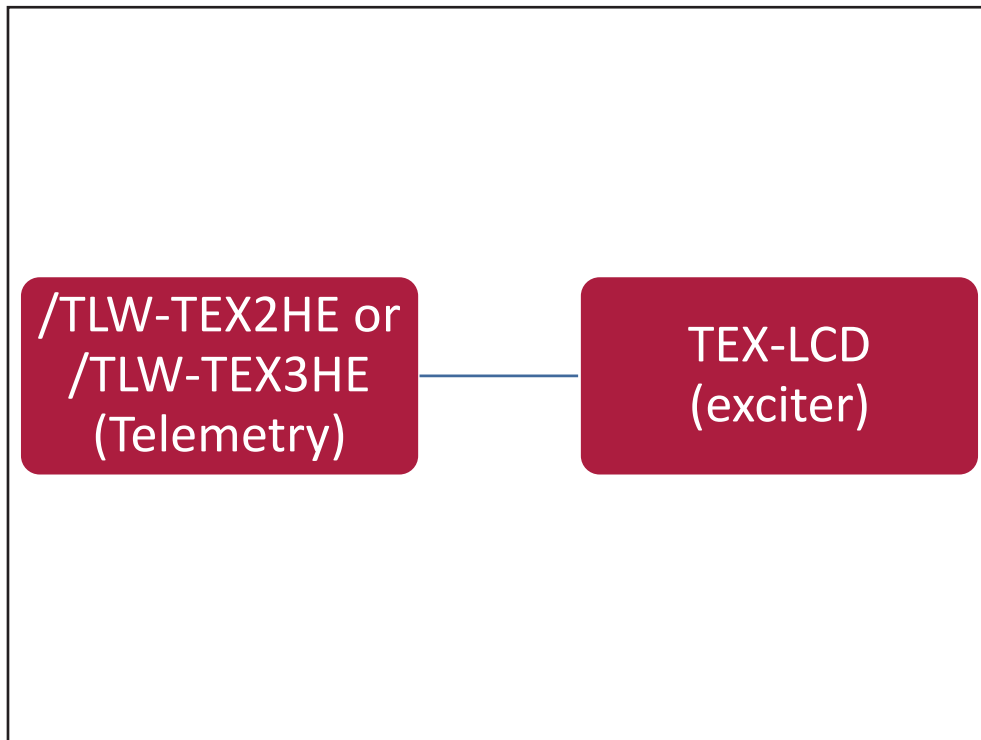
**Note:** for further information on the Dip Switch, please read the section on Dip Switch Configuration present in this manual.

#### 3.1 Configuration of Transmitter

##### 3.1.1 Configuration of System 01

Composition:

- /TLW-TEX2HE & /TLW-TEX3HE (telemetry)
- TEX-LCD (exciter)



Configuration #01: **System**

##### 3.1.1.1 Configuration of Dip Switch for System 01

	1	2	3	4	5	6	7	8
Config TX 1								

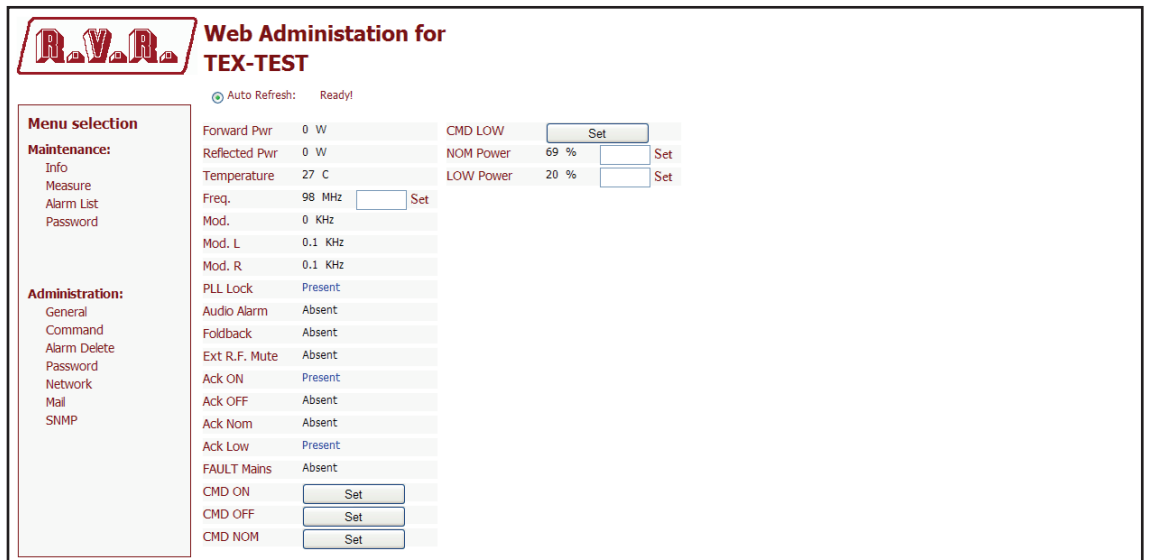
Configuration #01: **Dip Switch**

### 3.1.1.2 I<sup>2</sup>C Address for System 01

adr	TEX	HC o PA	PA	PA	PA	PA	PA
<b>Config 01</b>	1						

*Configuration #01: I<sup>2</sup>C Address*

### 3.1.1.3 Command Menu - Operator & Administrator for System 01



**Web Administration for TEX-TEST**

Auto Refresh: Ready!

**Menu selection**

**Maintenance:**  
 Info  
 Measure  
 Alarm List  
 Password

**Administration:**  
 General  
 Command  
 Alarm Delete  
 Password  
 Network  
 Mail  
 SNMP

Forward Pwr 0 W CMD LOW

Reflected Pwr 0 W NOM Power 69 %

Temperature 27 C LOW Power 20 %

Freq. 98 MHz

Mod. 0 KHz

Mod. L 0.1 KHz

Mod. R 0.1 KHz

PLL Lock Present

Audio Alarm Absent

Foldback Absent

Ext R.F. Mute Absent

Ack ON Present

Ack OFF Absent

Ack Nom Absent

Ack Low Present

FAULT Mains Absent

CMD ON

CMD OFF

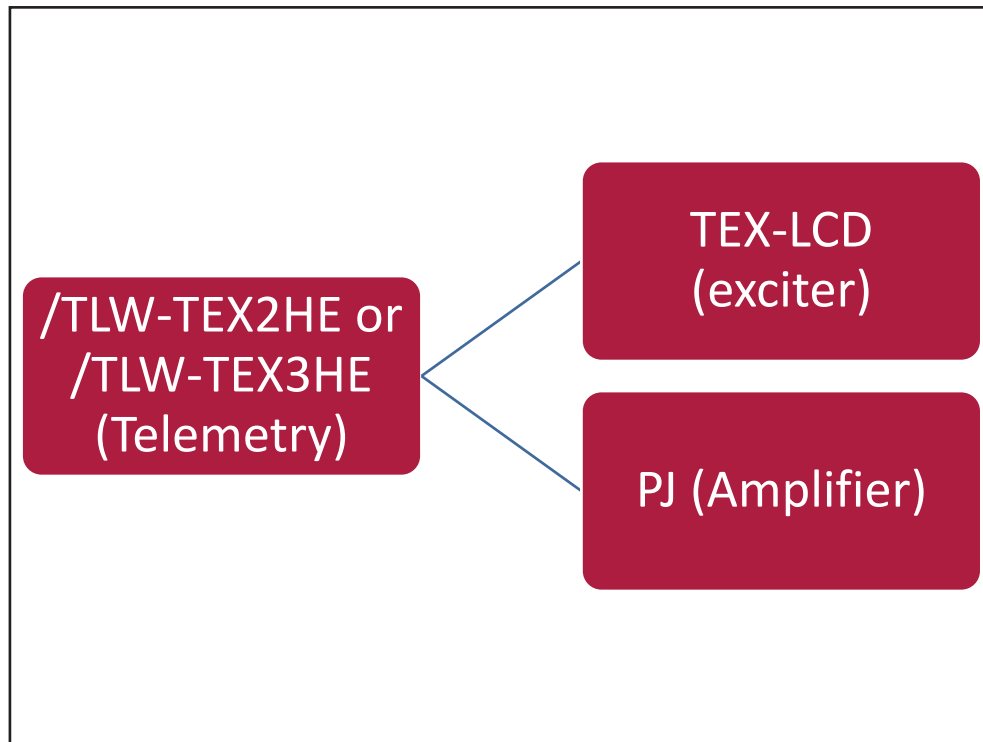
CMD NOM

*Configuration #01: Screen Command*

### 3.1.2 Configuration of System 02

Composition:

- /TLW-TEX2HE & /TLW-TEX3HE (telemetry)
- TEX-LCD (exciter)
- PJ (amplifier)



*Configuration #02: System*

#### 3.1.2.1 Configuration of Dip Switch for System 02

	1	2	3	4	5	6	7	8
Config TX 2								x

*Configuration #02: Dip Switch*


#### 3.1.2.2 I<sup>2</sup>C Address for System 02

adr	TEX	HC o PA	PA	PA	PA	PA	PA
<b>Config 02</b>	1	2					

*Configuration #02: I<sup>2</sup>C Address*



### 3.1.2.3 Command Menu - Operator & Administrator for System 02



**Web Administration for  
TEX-TEST**

Auto Refresh: Ready!

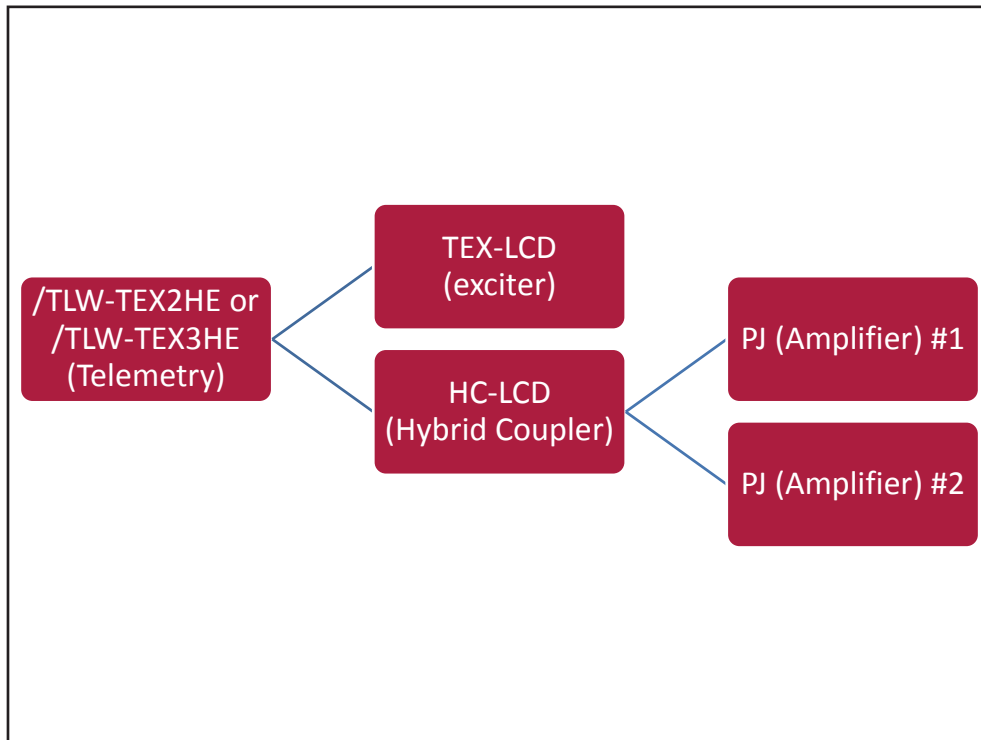
<b>Menu selection</b>	Forward Pwr 0 W	CMD OFF	<input type="button" value="Set"/>
<b>Maintenance:</b>	Reflected Pwr 0 W	CMD NOM	<input type="button" value="Set"/>
Info	Temperature 0 C	CMD LOW	<input type="button" value="Set"/>
Measure	Exc Freq. 98 MHz <input type="text"/> Set	NOM Power 69 % <input type="text"/> Set	
Alarm List	Exc Mod. 0 KHz	LOW Power 20 % <input type="text"/> Set	
Password	Exc Mod. L 0.1 KHz		
	Exc Mod. R 0.1 KHz		
<b>Administration:</b>	Exc Fwd Pwr 0.3 W		
General	Exc Rfl Pwr 0.2 W		
Command	Exc PLL Lock Present		
Alarm Delete	Exc Audio Alarm Absent		
Password	Exc Foldback Absent		
Network	Exc R.F. Mute Absent		
Mail	Ack ON Present		
SNMP	Ack OFF Absent		
	Ack Nom Absent		
	Ack Low Present		
	FAULT Mains Absent		
	CMD ON <input type="button" value="Set"/>		

*Configuration #02: Screen Command*

### 3.1.3 Configuration of System 03

Composition:

- /TLW-TEX2HE & /TLW-TEX3HE (telemetry)
- TEX-LCD (exciter)
- HC-LCD (hybrid coupler)
- 2x PJ (amplifier)



*Configuration #03: System*

#### 3.1.3.1 Configuration of Dip Switch for System 03

	1	2	3	4	5	6	7	8
Config TX 3							x	


*Configuration #03: Dip Switch*

#### 3.1.3.2 I<sup>2</sup>C Address for System 03

adr	TEX	HC o PA	PA	PA	PA	PA	PA
<b>Config 03</b>	1	2	3	4			

*Configuration #03: I<sup>2</sup>C Address*

### 3.1.3.3 Command Menu - Operator & Administrator for System 03



**Web Administration for  
TEX-TEST**

Auto Refresh: Ready!

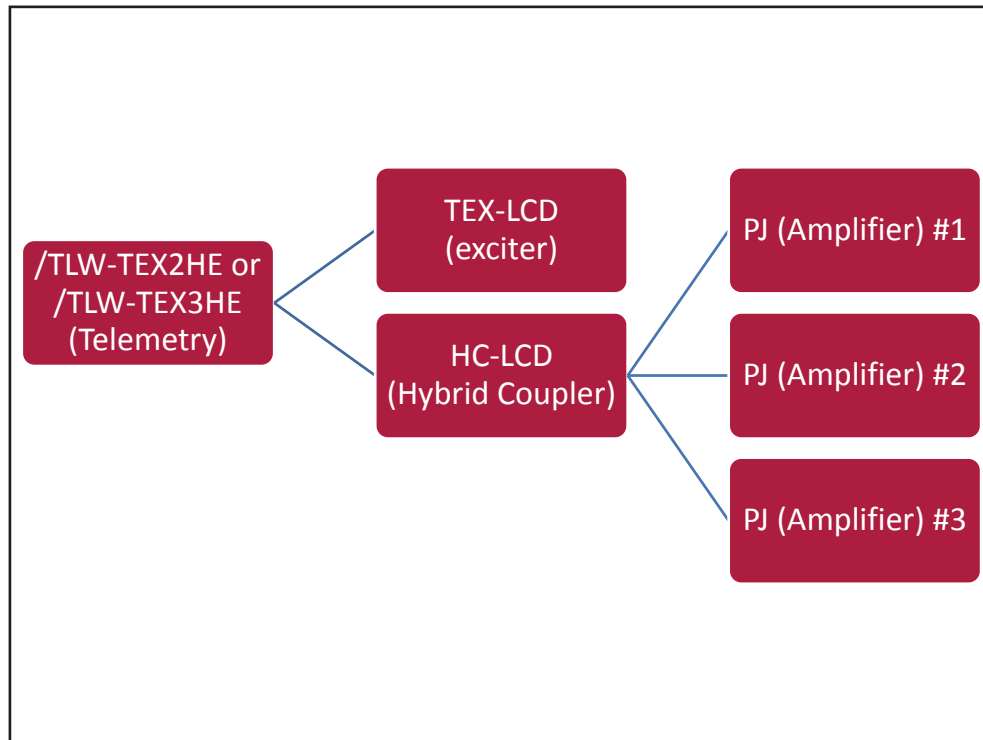
<b>Menu selection</b>	Forward Pwr 0 W	Ack OFF Absent	
<b>Maintenance:</b>	Reflected Pwr 0 W	Ack Nom Absent	
Info	Unbalanced Pwr 0 W	Ack Low Present	
Measure	Temperature 0 C	FAULT Mains Absent	
Alarm List	Exc Freq. 98 MHz <input type="text"/> Set	CMD ON <input type="button" value="Set"/>	
Password	Exc Mod. 0.1 KHz	CMD OFF <input type="button" value="Set"/>	
<b>Administration:</b>	Exc Mod. L 0.1 KHz	CMD NOM <input type="button" value="Set"/>	
General	Exc Mod. R 0 KHz	CMD LOW <input type="button" value="Set"/>	
Command	Exc Fwd Pwr 0.2 W	NOM Power 69 % <input type="text"/> Set	
Alarm Delete	Exc Rfl Pwr 0.2 W	LOW Power 20 % <input type="text"/> Set	
Password	Exc PLL Lock Present		
Network	Exc Audio Alarm Absent		
Mail	Exc Foldback Absent		
SNMP	Exc R.F. Mute Absent		
	PA#1 Fwd Pwr 0 W		
	PA#1 Rfl Pwr 0 W		
	PA#2 Fwd Pwr 0 W		
	PA#2 Rfl Pwr 0 W		
	Ack ON Present		

*Configuration #03: Screen Command*

### 3.1.4 Configuration of System 04

Composition:

- /TLW-TEX2HE & /TLW-TEX3HE (telemetry)
- TEX-LCD (exciter)
- HC-LCD (hybrid coupler)
- 3x PJ (amplifier)



*Configuration #04: System*

#### 3.1.4.1 Configuration of Dip Switch for System 04

	1	2	3	4	5	6	7	8
Config TX 4							x	x


*Configuration #04: Dip Switch*

#### 3.1.4.2 I<sup>2</sup>C Address for System 04

adr	TEX	HC o PA	PA	PA	PA	PA	PA
<b>Config 04</b>	1	2	3	4	5		

*Configuration #04: I<sup>2</sup>C Address*

## 3.1.4.2 Command Menu - Operator & Administrator for System 04



### Web Administration for TEX-TEST

Auto Refresh: Ready!

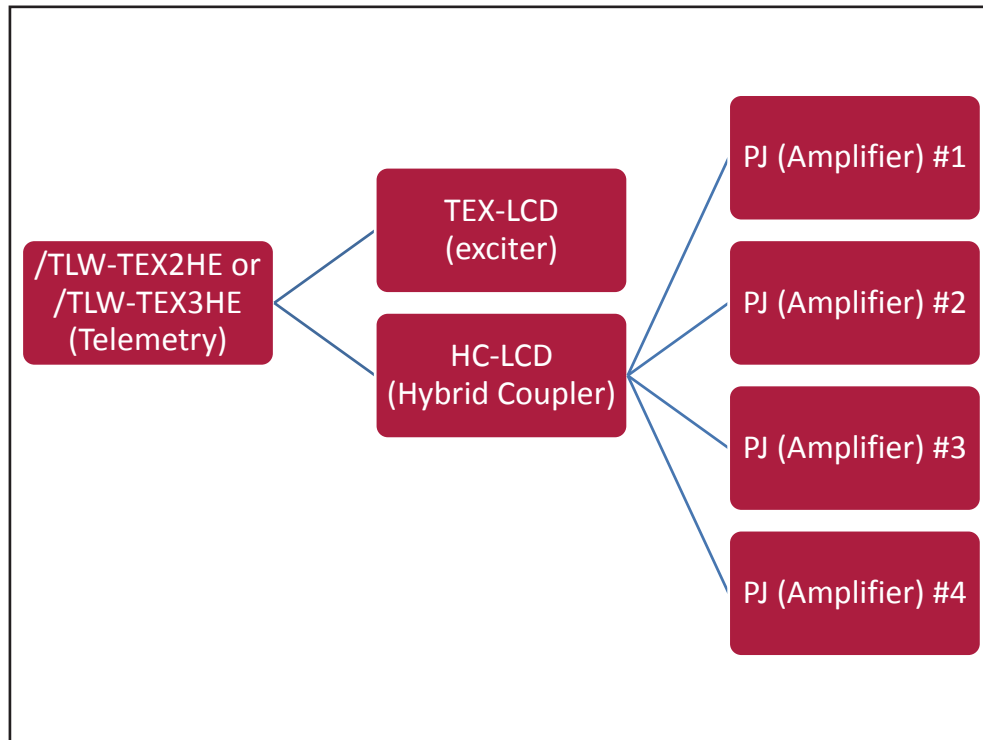
<b>Menu selection</b>  <b>Maintenance:</b> <a href="#">Info</a> <a href="#">Measure</a> <a href="#">Alarm List</a> <a href="#">Password</a>  <b>Administration:</b> <a href="#">General</a> <a href="#">Command</a> <a href="#">Alarm Delete</a> <a href="#">Password</a> <a href="#">Network</a> <a href="#">Mail</a> <a href="#">SNMP</a>	<table border="0" style="width: 100%; border-collapse: collapse;"> <tr> <td>Forward Pwr</td><td>0 W</td><td>PA#3 Rfl Pwr</td><td>0 W</td></tr> <tr> <td>Reflected Pwr</td><td>0 W</td><td>Ack ON</td><td>Present</td></tr> <tr> <td>Unbalanced Pwr</td><td>0 W</td><td>Ack OFF</td><td>Absent</td></tr> <tr> <td>Temperature</td><td>0 C</td><td>Ack Nom</td><td>Absent</td></tr> <tr> <td>Exc Freq.</td><td>98 MHz <input type="text"/> Set</td><td>Ack Low</td><td>Present</td></tr> <tr> <td>Exc Mod.</td><td>0.3 KHz</td><td>FAULT Mains</td><td>Absent</td></tr> <tr> <td>Exc Mod. L</td><td>0.1 KHz</td><td>CMD ON</td><td><input type="button" value="Set"/></td></tr> <tr> <td>Exc Mod. R</td><td>0.3 KHz</td><td>CMD OFF</td><td><input type="button" value="Set"/></td></tr> <tr> <td>Exc Fwd Pwr</td><td>0.2 W</td><td>CMD NOM</td><td><input type="button" value="Set"/></td></tr> <tr> <td>Exc Rfl Pwr</td><td>0.2 W</td><td>CMD LOW</td><td><input type="button" value="Set"/></td></tr> <tr> <td>Exc PLL Lock</td><td>Present</td><td>NOM Power</td><td>69 % <input type="text"/> Set</td></tr> <tr> <td>Exc Audio Alarm</td><td>Absent</td><td>LOW Power</td><td>20 % <input type="text"/> Set</td></tr> <tr> <td>Exc Foldback</td><td>Absent</td><td></td><td></td></tr> <tr> <td>Exc R.F. Mute</td><td>Absent</td><td></td><td></td></tr> <tr> <td>PA#1 Fwd Pwr</td><td>0 W</td><td></td><td></td></tr> <tr> <td>PA#1 Rfl Pwr</td><td>0 W</td><td></td><td></td></tr> <tr> <td>PA#2 Fwd Pwr</td><td>0 W</td><td></td><td></td></tr> <tr> <td>PA#2 Rfl Pwr</td><td>0 W</td><td></td><td></td></tr> <tr> <td>PA#3 Fwd Pwr</td><td>0 W</td><td></td><td></td></tr> </table>	Forward Pwr	0 W	PA#3 Rfl Pwr	0 W	Reflected Pwr	0 W	Ack ON	Present	Unbalanced Pwr	0 W	Ack OFF	Absent	Temperature	0 C	Ack Nom	Absent	Exc Freq.	98 MHz <input type="text"/> Set	Ack Low	Present	Exc Mod.	0.3 KHz	FAULT Mains	Absent	Exc Mod. L	0.1 KHz	CMD ON	<input type="button" value="Set"/>	Exc Mod. R	0.3 KHz	CMD OFF	<input type="button" value="Set"/>	Exc Fwd Pwr	0.2 W	CMD NOM	<input type="button" value="Set"/>	Exc Rfl Pwr	0.2 W	CMD LOW	<input type="button" value="Set"/>	Exc PLL Lock	Present	NOM Power	69 % <input type="text"/> Set	Exc Audio Alarm	Absent	LOW Power	20 % <input type="text"/> Set	Exc Foldback	Absent			Exc R.F. Mute	Absent			PA#1 Fwd Pwr	0 W			PA#1 Rfl Pwr	0 W			PA#2 Fwd Pwr	0 W			PA#2 Rfl Pwr	0 W			PA#3 Fwd Pwr	0 W		
Forward Pwr	0 W	PA#3 Rfl Pwr	0 W																																																																										
Reflected Pwr	0 W	Ack ON	Present																																																																										
Unbalanced Pwr	0 W	Ack OFF	Absent																																																																										
Temperature	0 C	Ack Nom	Absent																																																																										
Exc Freq.	98 MHz <input type="text"/> Set	Ack Low	Present																																																																										
Exc Mod.	0.3 KHz	FAULT Mains	Absent																																																																										
Exc Mod. L	0.1 KHz	CMD ON	<input type="button" value="Set"/>																																																																										
Exc Mod. R	0.3 KHz	CMD OFF	<input type="button" value="Set"/>																																																																										
Exc Fwd Pwr	0.2 W	CMD NOM	<input type="button" value="Set"/>																																																																										
Exc Rfl Pwr	0.2 W	CMD LOW	<input type="button" value="Set"/>																																																																										
Exc PLL Lock	Present	NOM Power	69 % <input type="text"/> Set																																																																										
Exc Audio Alarm	Absent	LOW Power	20 % <input type="text"/> Set																																																																										
Exc Foldback	Absent																																																																												
Exc R.F. Mute	Absent																																																																												
PA#1 Fwd Pwr	0 W																																																																												
PA#1 Rfl Pwr	0 W																																																																												
PA#2 Fwd Pwr	0 W																																																																												
PA#2 Rfl Pwr	0 W																																																																												
PA#3 Fwd Pwr	0 W																																																																												

Configuration #04: Screen Command

### 3.1.5 Configuration of System 05

Composition:

- /TLW-TEX2HE & /TLW-TEX3HE (telemetry)
- TEX-LCD (exciter)
- HC-LCD (hybrid coupler)
- 4x PJ (amplifier)



Configuration #05: **System**

#### 3.1.5.1 Configuration of Dip Switch for System 05

	1	2	3	4	5	6	7	8
Config TX 5						x		


Configuration #05: **Dip Switch**

#### 3.1.5.2 I<sup>2</sup>C Address for System 05

adr	TEX	HC o PA	PA	PA	PA	PA	PA
<b>Config 05</b>	1	2	3	4	5	6	

Configuration #05: **I<sup>2</sup>C Address**

### 3.1.5.3 Command Menu - Operator & Administrator for System 05



**Web Administration for  
TEX-TEST**

Auto Refresh: Ready!

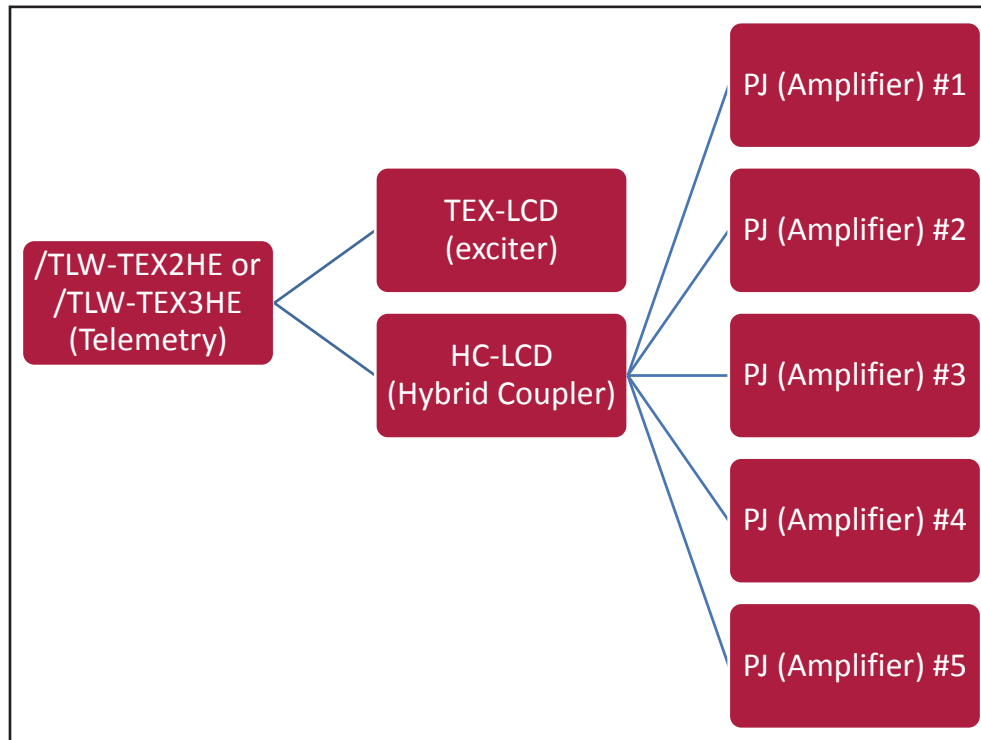
<p><b>Menu selection</b></p> <p><b>Maintenance:</b></p> <ul style="list-style-type: none"> <li>Info</li> <li>Measure</li> <li>Alarm List</li> <li>Password</li> </ul> <p><b>Administration:</b></p> <ul style="list-style-type: none"> <li>General</li> <li>Command</li> <li>Alarm Delete</li> <li>Password</li> <li>Network</li> <li>Mail</li> <li>SNMP</li> </ul>	<table border="0" style="width: 100%; border-collapse: collapse;"> <tr> <td>Forward Pwr</td><td>0 W</td><td>PA#3 Rfl Pwr</td><td>0 W</td></tr> <tr> <td>Reflected Pwr</td><td>0 W</td><td>PA#4 Fwd Pwr</td><td>0 W</td></tr> <tr> <td>Unbalanced Pwr</td><td>0 W</td><td>PA#4 Rfl Pwr</td><td>0 W</td></tr> <tr> <td>Temperature</td><td>0 C</td><td>Ack ON</td><td>Present</td></tr> <tr> <td>Exc Freq.</td><td>98 MHz <input type="text"/> Set</td><td>Ack OFF</td><td>Absent</td></tr> <tr> <td>Exc Mod.</td><td>0.1 KHz</td><td>Ack Nom</td><td>Absent</td></tr> <tr> <td>Exc Mod. L</td><td>0.3 KHz</td><td>Ack Low</td><td>Present</td></tr> <tr> <td>Exc Mod. R</td><td>0 KHz</td><td>FAULT Mains</td><td>Absent</td></tr> <tr> <td>Exc Fwd Pwr</td><td>0.3 W</td><td>CMD ON</td><td><input type="button" value="Set"/></td></tr> <tr> <td>Exc Rfl Pwr</td><td>0.2 W</td><td>CMD OFF</td><td><input type="button" value="Set"/></td></tr> <tr> <td>Exc PLL Lock</td><td>Present</td><td>CMD NOM</td><td><input type="button" value="Set"/></td></tr> <tr> <td>Exc Audio Alarm</td><td>Absent</td><td>CMD LOW</td><td><input type="button" value="Set"/></td></tr> <tr> <td>Exc Foldback</td><td>Absent</td><td>NOM Power</td><td>69 % <input type="text"/> Set</td></tr> <tr> <td>Exc R.F. Mute</td><td>Absent</td><td>LOW Power</td><td>20 % <input type="text"/> Set</td></tr> <tr> <td>PA#1 Fwd Pwr</td><td>0 W</td><td></td><td></td></tr> <tr> <td>PA#1 Rfl Pwr</td><td>0 W</td><td></td><td></td></tr> <tr> <td>PA#2 Fwd Pwr</td><td>0 W</td><td></td><td></td></tr> <tr> <td>PA#2 Rfl Pwr</td><td>0 W</td><td></td><td></td></tr> <tr> <td>PA#3 Fwd Pwr</td><td>0 W</td><td></td><td></td></tr> </table>	Forward Pwr	0 W	PA#3 Rfl Pwr	0 W	Reflected Pwr	0 W	PA#4 Fwd Pwr	0 W	Unbalanced Pwr	0 W	PA#4 Rfl Pwr	0 W	Temperature	0 C	Ack ON	Present	Exc Freq.	98 MHz <input type="text"/> Set	Ack OFF	Absent	Exc Mod.	0.1 KHz	Ack Nom	Absent	Exc Mod. L	0.3 KHz	Ack Low	Present	Exc Mod. R	0 KHz	FAULT Mains	Absent	Exc Fwd Pwr	0.3 W	CMD ON	<input type="button" value="Set"/>	Exc Rfl Pwr	0.2 W	CMD OFF	<input type="button" value="Set"/>	Exc PLL Lock	Present	CMD NOM	<input type="button" value="Set"/>	Exc Audio Alarm	Absent	CMD LOW	<input type="button" value="Set"/>	Exc Foldback	Absent	NOM Power	69 % <input type="text"/> Set	Exc R.F. Mute	Absent	LOW Power	20 % <input type="text"/> Set	PA#1 Fwd Pwr	0 W			PA#1 Rfl Pwr	0 W			PA#2 Fwd Pwr	0 W			PA#2 Rfl Pwr	0 W			PA#3 Fwd Pwr	0 W		
Forward Pwr	0 W	PA#3 Rfl Pwr	0 W																																																																										
Reflected Pwr	0 W	PA#4 Fwd Pwr	0 W																																																																										
Unbalanced Pwr	0 W	PA#4 Rfl Pwr	0 W																																																																										
Temperature	0 C	Ack ON	Present																																																																										
Exc Freq.	98 MHz <input type="text"/> Set	Ack OFF	Absent																																																																										
Exc Mod.	0.1 KHz	Ack Nom	Absent																																																																										
Exc Mod. L	0.3 KHz	Ack Low	Present																																																																										
Exc Mod. R	0 KHz	FAULT Mains	Absent																																																																										
Exc Fwd Pwr	0.3 W	CMD ON	<input type="button" value="Set"/>																																																																										
Exc Rfl Pwr	0.2 W	CMD OFF	<input type="button" value="Set"/>																																																																										
Exc PLL Lock	Present	CMD NOM	<input type="button" value="Set"/>																																																																										
Exc Audio Alarm	Absent	CMD LOW	<input type="button" value="Set"/>																																																																										
Exc Foldback	Absent	NOM Power	69 % <input type="text"/> Set																																																																										
Exc R.F. Mute	Absent	LOW Power	20 % <input type="text"/> Set																																																																										
PA#1 Fwd Pwr	0 W																																																																												
PA#1 Rfl Pwr	0 W																																																																												
PA#2 Fwd Pwr	0 W																																																																												
PA#2 Rfl Pwr	0 W																																																																												
PA#3 Fwd Pwr	0 W																																																																												

*Configuration #05: Screen Command*

### 3.1.6 Configuration of System 06

Composition:

- /TLW-TEX2HE & /TLW-TEX3HE (telemetry)
- TEX-LCD (exciter)
- HC-LCD (hybrid coupler)
- 5x PJ (amplifier)



Configuration #06: **System**

#### 3.1.6.1 Configuration of Dip Switch for System 06

	1	2	3	4	5	6	7	8
Config TX 6						x		x

Configuration #06: **Dip Switch**


#### 3.1.6.2 I<sup>2</sup>C Address for System 06

adr	TEX	HC o PA	PA	PA	PA	PA	PA
<b>Config 06</b>	1	2	3	4	5	6	7

Configuration #06: **I<sup>2</sup>C Address**



### 3.1.6.3 Command Menu - Operator & Administrator for System 06



**Web Administration for  
TEX-TEST**

Auto Refresh: Ready!

<b>Menu selection</b>	Forward Pwr 0 W	PA#3 Rfl Pwr 0 W
<b>Maintenance:</b>	Reflected Pwr 0 W	PA#4 Fwd Pwr 0 W
Info	Unbalanced Pwr 0 W	PA#4 Rfl Pwr 0 W
Measure	Temperature 0 C	PA#5 Fwd Pwr 0 W
Alarm List	Exc Freq. 98 MHz <input type="text"/> Set	PA#5 Rfl Pwr 0 W
Password	Exc Mod. 0.1 KHz	Ack ON Present
<b>Administration:</b>	Exc Mod. L 0.3 KHz	Ack OFF Absent
General	Exc Mod. R 0.1 KHz	Ack Nom Absent
Command	Exc Fwd Pwr 0.1 W	Ack Low Present
Alarm Delete	Exc Rfl Pwr 0.2 W	FAULT Mains Absent
Password	Exc PLL Lock Absent	CMD ON <input type="button" value="Set"/>
Network	Exc Audio Alarm Absent	CMD OFF <input type="button" value="Set"/>
Mail	Exc Foldback Absent	CMD NOM <input type="button" value="Set"/>
SNMP	Exc R.F. Mute Absent	CMD LOW <input type="button" value="Set"/>
	PA#1 Fwd Pwr 0 W	NOM Power 69 % <input type="text"/> Set
	PA#1 Rfl Pwr 0 W	LOW Power 20 % <input type="text"/> Set
	PA#2 Fwd Pwr 0 W	
	PA#2 Rfl Pwr 0 W	
	PA#3 Fwd Pwr 0 W	

*Configuration #06: Screen Command*

## 4. SNMP Telemetry

SNMP (Simple Network Management Protocol) is a worldwide protocol that allows the management and supervision of the equipment connected to the network.

Measurements and commands are described by a MIB (Management Information Base), which is a list of OID (Object Identifier). Each OID is a variable that can be written (SET) or read (GET) through a NMS (Network Management System) compatible with SNMP.

The MIB is a text file written in ASN.1 and it is imported from the NMS in order to know what OID can be expected by the AGENT and how to interpret the information received.



**Note:** The user can not freely distribute the MIB, unless written authorization issued by the manufacturer. The MIB is property of the manufacturer.



**Note:** The MIB files are downloaded in the web section or requested separately to the manufacturer.

The SNMP version used in this application is the v2, then is also compatible with v1 NMS systems, except in the TRAP receiving section.

Here is the list of MIB necessary for equipments of TEX-LCD RVR's equipments:

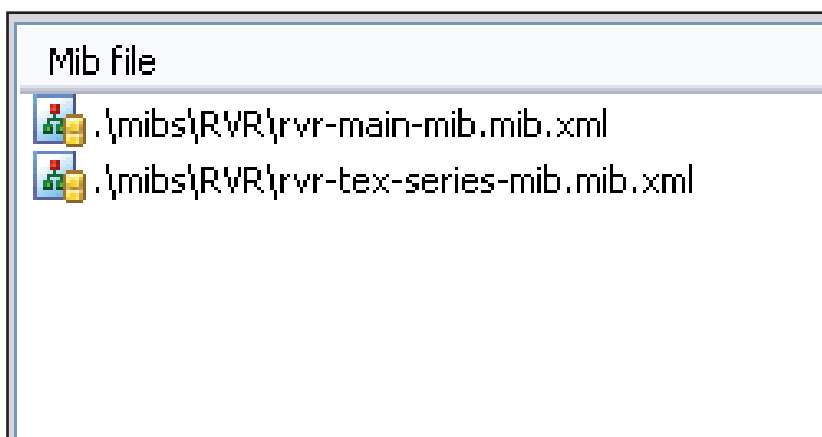


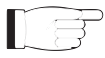
Figure 1



**Note:** Use a MIB BROWSER (not included) to use the MIB of RVR equipments.

### 4.1 Reading of the Measures (Read)

Each transmitter has a range of measures that can be read. Please refer to MIB for a detailed description of each measurement.



**Note:** In the following examples is used a proprietary MIB browser, but any MIB Browser can be used.

Nell'esempio seguente, la misura di Forward Power viene indicata come READONLY:

<b>Node name</b>	trasmmitter-fwd-power-output
<b>Oid</b>	1.3.6.1.4.1.13963.4.100.10.1.1.1.1 (from RVR-TEX-SERIES-MIB)
<b>Access</b>	ReadOnly
<b>Status</b>	Mandatory
<b>Syntax</b>	Integer32 [INT]
<b>Description</b>	total fwd power output W

Figure 2

Into the MIB are specified the range and description of each variable, in this case the forward power and possible alarms, which are reported into the description box of browser. If the READ ONLY and MANDATORY conditions are present, they mean that the value is been obtained.

## 4.2 Settings of the Measures (Write)

Similarly to readings and settings of the measurements, the commands have a set of OID that are only in writing mode.

Typically the value of command are read as “1”; the user must send a “2” as value to send a command. No other values are accepted as a command.

Usually the commands are one-shot toggle. In other words, if the transmitter is turn “ON” (value “2” on set-transmitter-on), the next command is a turn “OFF” (value “2” on set-transmitter-off).

In the following example, the command of Set-Transmitter-On is indicated as READWRITE:

tx-settings	1.3.6.1.4.1.13963.4.100.10.1.10.1
<input checked="" type="checkbox"/> set-transmitter-on	1.3.6.1.4.1.13963.4.100.10.1.10.1.1
<input checked="" type="checkbox"/> set-transmitter-off	1.3.6.1.4.1.13963.4.100.10.1.10.1.3
<input checked="" type="checkbox"/> set-transmitter-nominal-pwr	1.3.6.1.4.1.13963.4.100.10.1.10.1.4
<input checked="" type="checkbox"/> set-transmitter-lower-pwr	1.3.6.1.4.1.13963.4.100.10.1.10.1.5
<input checked="" type="checkbox"/> cmd-transmitter-percent-pwr-nom	1.3.6.1.4.1.13963.4.100.10.1.10.1...
<input checked="" type="checkbox"/> cmd-transmitter-percent-pwr-low	1.3.6.1.4.1.13963.4.100.10.1.10.1...
pa-settings	1.3.6.1.4.1.13963.4.100.10.1.10.2
exc-settings	1.3.6.1.4.1.13963.4.100.10.1.10.3
exc1-settings	1.3.6.1.4.1.13963.4.100.10.1.10.3.1
<input checked="" type="checkbox"/> cmd-exciter-1-freq-set	1.3.6.1.4.1.13963.4.100.10.1.10.3...
traps-tex-series	1.3.6.1.4.1.13963.4.100.10.1.210
alarm-settings	1.3.6.1.4.1.13963.4.100.10.101
pwr-alm-settings	1.3.6.1.4.1.13963.4.100.10.101.1
tx-pwr-alm-settings	1.3.6.1.4.1.13963.4.100.10.101.1.1
tx-alm-fwdpower	1.3.6.1.4.1.13963.4.100.10.101.1...

<b>Node name</b>	set-transmitter-on
<b>OID</b>	1.3.6.1.4.1.13963.4.100.10.1.10.1.1 (from RVR-TEX-SERIES-MIB)
<b>Access</b>	ReadWrite
<b>Status</b>	Mandatory
<b>Syntax</b>	Enumeration [INT]
<b>Description</b>	set exciter on.

Figure 3

Into the MIB are specified the range and description of each variable, in this case is shown the description of command brought in information box of your browser.

### 4.3 Settings of the TRAP

For each TRAP can be set:

- Enable/disable the send of TRAP.
- The maximum value (MAX) is the fixed point beyond which is sent a TRAP.
- The minimum value (MIN) is the fixed point below which is sent a TRAP.
- The hysteresis value is a nominal value that the system adds (or subtracts) to real value in order to exit from alarm condition.  
In other words, it is helpful to avoid situations of continuous alarm, if readout is very close to the set point alarm.

alarm-settings	1.3.6.1.4.1.13963.4.100.10.101
pwr-alm-settings	1.3.6.1.4.1.13963.4.100.10.101.1
tx-pwr-alm-settings	1.3.6.1.4.1.13963.4.100.10.101.1.1
tx-alm-fwdpower	1.3.6.1.4.1.13963.4.100.10.101.1.1.1
trap-class-set-fwd-pwr	1.3.6.1.4.1.13963.4.100.10.101.1.1.1.1
min-thr-set-fwd-pwr	1.3.6.1.4.1.13963.4.100.10.101.1.1.1.2
max-thr-set-fwd-pwr	1.3.6.1.4.1.13963.4.100.10.101.1.1.1.3
hysteresys-set-fwd-pwr	1.3.6.1.4.1.13963.4.100.10.101.1.1.1.4
tx-alm-rflpower	1.3.6.1.4.1.13963.4.100.10.101.1.1.2
trap-class-set-rfl-pwr	1.3.6.1.4.1.13963.4.100.10.101.1.1.2.1
min-thr-set-rfl-pwr	1.3.6.1.4.1.13963.4.100.10.101.1.1.2.2
max-thr-set-rfl-pwr	1.3.6.1.4.1.13963.4.100.10.101.1.1.2.3
hysteresys-set-rfl-pwr	1.3.6.1.4.1.13963.4.100.10.101.1.1.2.4
tx-alm-unbpower	1.3.6.1.4.1.13963.4.100.10.101.1.1.3
trap-class-set-unb-pwr	1.3.6.1.4.1.13963.4.100.10.101.1.1.3.1
min-thr-set-unb-pwr	1.3.6.1.4.1.13963.4.100.10.101.1.1.3.2
max-thr-set-unb-pwr	1.3.6.1.4.1.13963.4.100.10.101.1.1.3.3
hysteresys-set-unb-pwr	1.3.6.1.4.1.13963.4.100.10.101.1.1.3.4
pa-pwr-alm-settings	1.3.6.1.4.1.13963.4.100.10.101.1.2
pa1-alm-fwdpower	1.3.6.1.4.1.13963.4.100.10.101.1.1.1
trap-class-set-pa1-pwrout	1.3.6.1.4.1.13963.4.100.10.101.1.1.1.1
min-thr-set-pa1-pwrout	1.3.6.1.4.1.13963.4.100.10.101.1.1.1.2
max-thr-set-pa1-pwrout	1.3.6.1.4.1.13963.4.100.10.101.1.1.1.3
hysteresys-set-pa1-pwrout	1.3.6.1.4.1.13963.4.100.10.101.1.1.1.4
pa2-alm-fwdpower	1.3.6.1.4.1.13963.4.100.10.101.1.1.2
trap-class-set-pa2-pwrout	1.3.6.1.4.1.13963.4.100.10.101.1.1.2.1
min-thr-set-pa2-pwrout	1.3.6.1.4.1.13963.4.100.10.101.1.1.2.2
max-thr-set-pa2-pwrout	1.3.6.1.4.1.13963.4.100.10.101.1.1.2.3
hysteresys-set-pa2-pwrout	1.3.6.1.4.1.13963.4.100.10.101.1.1.2.4
pa3-alm-fwdpower	1.3.6.1.4.1.13963.4.100.10.101.1.1.3
trap-class-set-pa3-pwrout	1.3.6.1.4.1.13963.4.100.10.101.1.1.3.1
min-thr-set-pa3-pwrout	1.3.6.1.4.1.13963.4.100.10.101.1.1.3.2
max-thr-set-pa3-pwrout	1.3.6.1.4.1.13963.4.100.10.101.1.1.3.3
hysteresys-set-pa3-pwrout	1.3.6.1.4.1.13963.4.100.10.101.1.1.3.4
pa4-alm-fwdpower	1.3.6.1.4.1.13963.4.100.10.101.1.1.4
trap-class-set-pa4-pwrout	1.3.6.1.4.1.13963.4.100.10.101.1.1.4.1
min-thr-set-pa4-pwrout	1.3.6.1.4.1.13963.4.100.10.101.1.1.4.2
max-thr-set-pa4-pwrout	1.3.6.1.4.1.13963.4.100.10.101.1.1.4.3
hysteresys-set-pa4-pwrout	1.3.6.1.4.1.13963.4.100.10.101.1.1.4.4
trap-class-set-fwd-pwr	
1.3.6.1.4.1.13963.4.100.10.101.1.1.1.1 (from RVR-TEX-SERIES-MIB)	
ReadWrite	
Mandatory	
Integer32 [INT]	
the trap class is an index associated to an IP address to which traps are directed. Traps are usually sent to an NMS (network management system), each trap can be sent to 1 NMS, this OID gives you the choice to which NMS it must be sent. if a 0 is inserted the trap will be disabled.	

Figure 4

### 4.4 Sending of the TRAP

The system properly configured is capable to sending TRAP up to two different addresses. Different addresses can be set using the OID presents in the main MIB.

The generation and sending happens if the parameter exceeds the maximum and minimum set up and as you can see the hysteresis is a protected area in which the alarm is not sent.

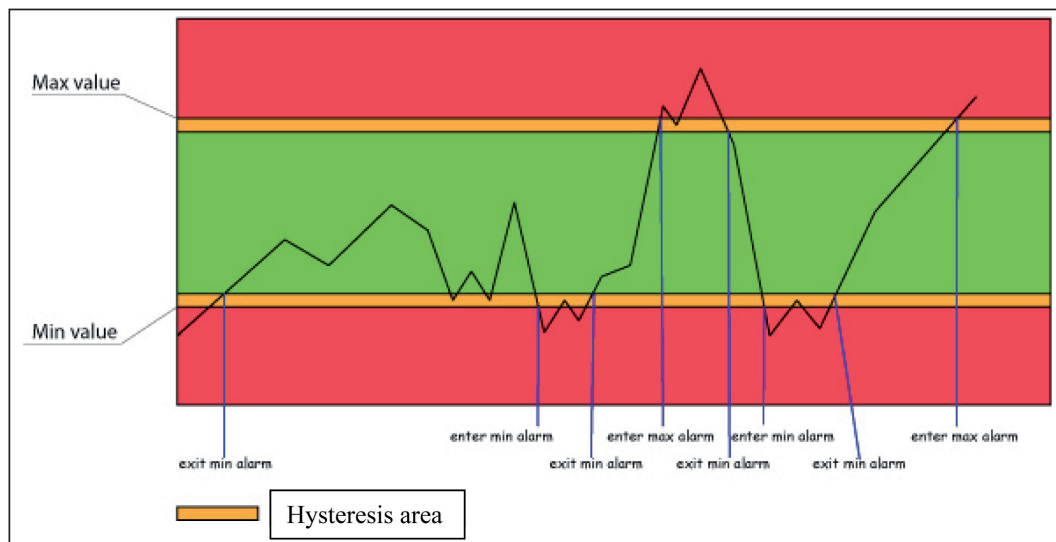


Figure 5



**Note:** the hysteresis value shall be properly adjusted to not overlap to the distance between the minimum (MIN) and the maximum value (MAX).

Inside the generated TRAP are indicated:

- Progressive number of the TRAP.
- Date of generation.
- Time of generation.
- The OID and its instantaneous value.

The TRAP that you can set are the ones shown in the picture below:

• trap-tex-series-forward-power	1.3.6.1.4.1.13963.4.100.10.1.210...
• trap-tex-series-reflected-power	1.3.6.1.4.1.13963.4.100.10.1.210...
• trap-tex-series-unbalanced-power	1.3.6.1.4.1.13963.4.100.10.1.210...
• trap-tex-series-pa1-forward-power	1.3.6.1.4.1.13963.4.100.10.1.210...
• trap-tex-series-pa2-forward-power	1.3.6.1.4.1.13963.4.100.10.1.210...
• trap-tex-series-pa3-forward-power	1.3.6.1.4.1.13963.4.100.10.1.210...
• trap-tex-series-pa4-forward-power	1.3.6.1.4.1.13963.4.100.10.1.210...
• trap-tex-series-pa5-forward-power	1.3.6.1.4.1.13963.4.100.10.1.210...
• trap-tex-series-exciter-1-fwd-power	1.3.6.1.4.1.13963.4.100.10.1.210...
• trap-tex-series-exciter-1-modulation	1.3.6.1.4.1.13963.4.100.10.1.210...

Figure 6

## 5. Connecting to Internet network

In order to connect the system to the public network , 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 **/TLW-TEX2HE & /TLW-TEX3HE** directly to the public network but manage only the ports used by **/TLW-TEX2HE & /TLW-TEX3HE** for the functions of the WEB interface, SNMP, and SMTP .

The system uses incoming port 80, can not be changed, such as web interface visible from any Web Browser and port 161 can not be changed, such as SNMP port.

For sending the email **/TLW-TEX2HE & /TLW-TEX3HE** uses port 25, modifiable, and port 162 can not be changed, for the sending of SNMP Trap.

To ensure that the **/TLW-TEX2HE & /TLW-TEX3HE** 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 **/TLW-TEX2HE & /TLW-TEX3HE** for WEB and port 161 of the public interface to the IP of **/TLW-TEX2HE & /TLW-TEX3HE** for SNMP data.

To ensure that the unit can send the Trap and the Email needs to be able to use the network at its output ports 162 for Trap and the port 25 for email.

To send the e-mail system **/TLW-TEX2HE & /TLW-TEX3HE** 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 **/TLW-TEX2HE & /TLW-TEX3HE** must have a LAN IP different from each other.

- **/TLW-TEX2HE & /TLW-TEX3HE#1** IP 192.168.0.244 Port forwarding port 80 > port 80 of 192.168.0.244
- **/TLW-TEX2HE & /TLW-TEX3HE#1** IP 192.168.0.244 Port forwarding port 161 > port 161 of 192.168.0.244
- **/TLW-TEX2HE & /TLW-TEX3HE#2** IP 192.168.0.245 Port forwarding port 81 > port 80 of 192.168.0.245
- **/TLW-TEX2HE & /TLW-TEX3HE#2** IP 192.168.0.245 Port forwarding port 163 > port 161 of 192.168.0.245

With this configuration, the apparatus **/TLW-TEX2HE & /TLW-TEX3HE # 1** will be visible from WEB as `http://public.ip` and apparatus TLK # 2 will be visible from as `http://public.ip:81` WEB, SNMP and how you must use port 161 to see the **/TLW-TEX2HE & /TLW-TEX3HE # 1** and port 163 to see the **/TLW-TEX2HE & /TLW-TEX3HE # 2**.

To send the Trap or Email being output there is no problem, as long as there are no restrictions on using ports 25 and 162 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 **/TLW-TEX2HE & /TLW-TEX3HE** always writing the same name.

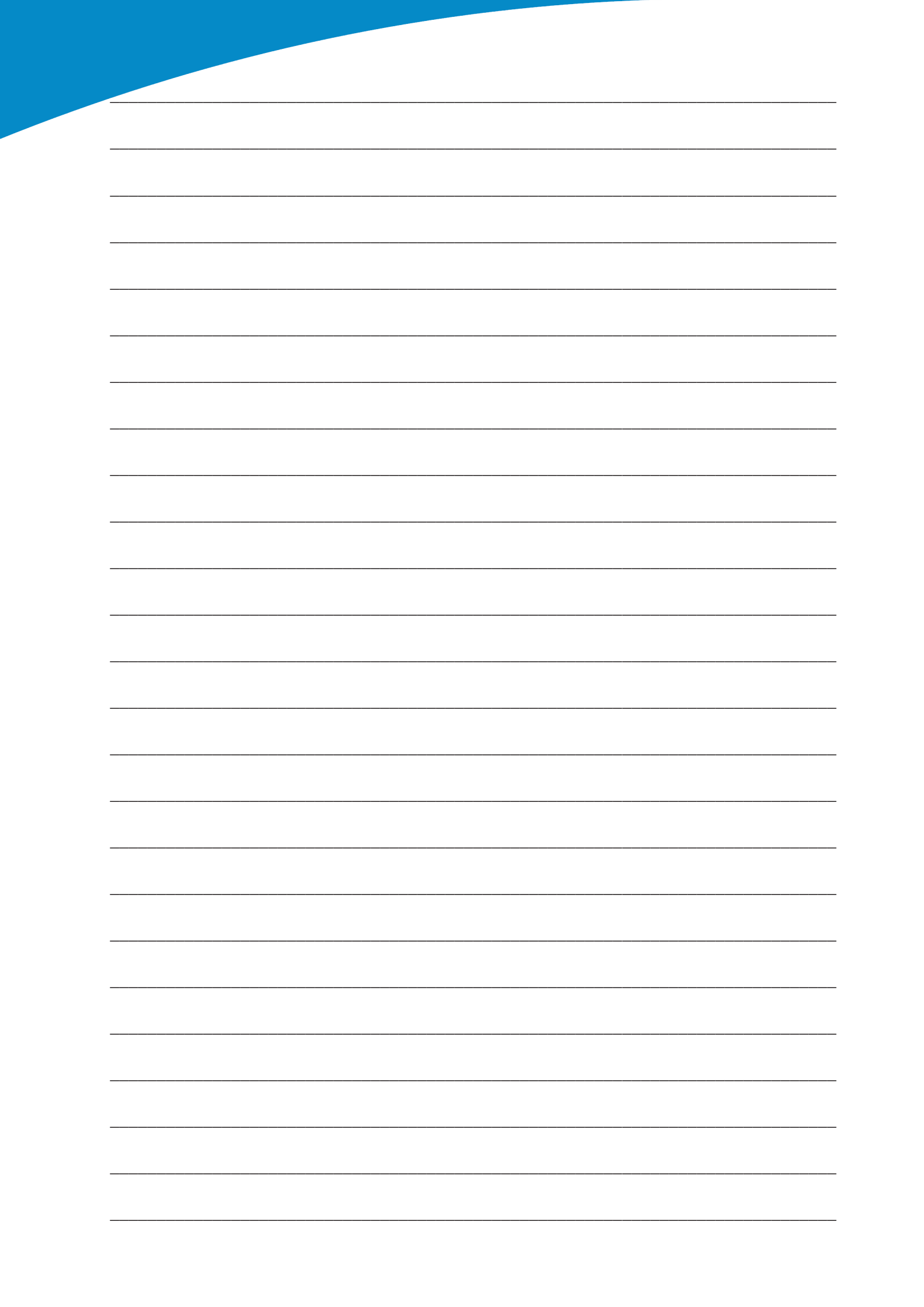
This service is provided by many providers, some free and some paid, and usually some routers include this function that can handle some of the service providers, and in case you need to use this service will need to be programmed into your router by following the instructions in that, given the various methods used to manage this function, we can not include this function in the system **/TLW-TEX2HE & /TLW-TEX3HE**.

In case your network **/TLW-TEX2HE & /TLW-TEX3HE** 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.











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