1.12.2. Access to logbook

This procedure controls the facilities for sending a list of the various operational events to a terminal connected to the CPU. These data can be sent :

- continuously in real time or,
- when requested by the operator.

The operation is controlled from the "LOGBOOK" window and is only possible if maintenance mode has been selected and if the PCL is unlocked, i.e. enabled.

ACTION		RESULT
Having selected the "LOGBOOK" window		♦ The "TRACE ON"/"TRACE OFF" control keys indicates the method of sending data currently selected. ♦ «TRACE ACTIVE» : sends the data in real time. ♦ «TRACE INHIBEE» : sends the data after operator request.
To change the method of sending data:	♦ Press on the "TRACE ON" key or the "TRACE OFF" key.	♦ The "TRACE ON"/"TRACE OFF" control keys indicates the new method of sending the data.
Sends the data after operator request.	♦ Having selected "TRACE OFF": • Press "DISPLAY ALL", • Press on the "PAGE UP" key, • Press on the "PAGE DOWN" key.	♦ Sends data on all operational events. ♦ Sends data on the 20 operational events previous to the last events listed in the logbook. ♦ Sends data on the 20 operational events which follow on from the last events listed in the logbook.

2. Use of commands and description of indicators

2.1. Use and description of control panel screens

2.1.1. Outline

The various windows displayed on the Local Control Panel (PCL) provide the operator with the following:

- Transmitter status data,
- Commands to change the operational state of the system, and commands to select the various windows.

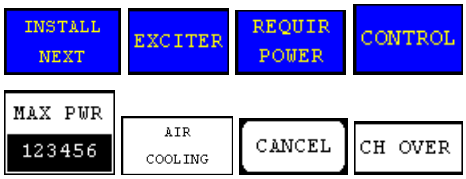
NOTE : The following windows are not available with an ATSC transmitter:

- SFN delay
- Modulation configuration
- Modulator status
- MIP data
- Modulator input setting

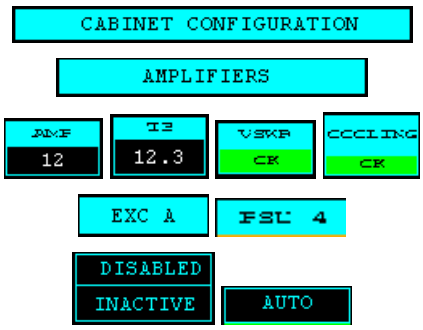
There are used in DVB-T transmitters only.

Ergonomics of screens

- Ergonomics of control keys :
  - Text of **browsing** keys is yellow on blue background
  - Text of **changing and confirming** keys is black on white background

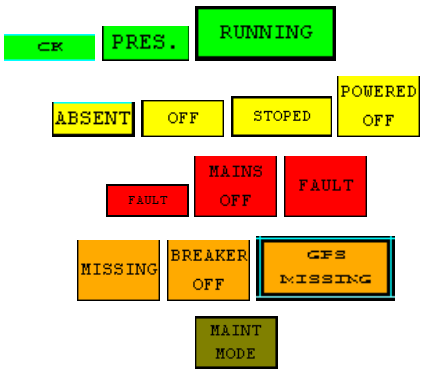


- Ergonomics of message and information :
  - **Unmodifiable message** is black on cyan blue background
  - **Modifiable message** is cyan blue on black background



- **Modifiable information** is black on green, red, orange, yellow background
  - **Normal state** is on green background
  - **Abnormal** state <u>but</u> without default is on yellow background
  - **Default** state **due to sub-assemblies** is on red background
  - **External default** which concern sub-assemblies is on orange background
  - <u>Special case</u>

    Information « MAINT MODE / NORMAL MODE » is flashing on yellow background



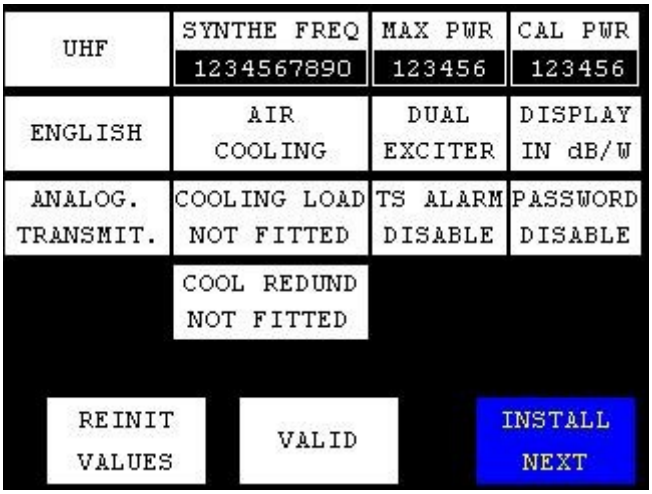
The reference of the touch screen software is 29 709 093.

2.1.2. Installation windows

2.1.2.1. "INSTALLATION PARAMETERS Level 1" window

This window appears when the changeover switch SW1 on the exciter/CPU interconnection card (MODAP version) or on the management system interconnection card (SIRIUS version), is switched so that the dot is visible and that CPU board is reset.

This window is used to change the transmitter configuration parameters stored in the CPU board.



CONTROL KEYS	FUNCTIONS	SELECTIONS AVAILABLE/COMMENTS
UHF	Selects the transmitter frequency range. Displays last selection.	VHF I, VHF III, UHF
SYNTHE FREQ 1234567890	Displays the RF synthesiser frequency value. Displays last selection.	Pressing this key calls up the "NUMERICAL VALUE" window in which this frequency can be changed.
MAX PWR 123456	Selects the maximum transmitter power (Maximum available RF power). Displays last selection.	Pressing this key calls up the "NUMERICAL VALUE" window in which this typical transmitter power can be changed.
CAL PWR 123456	Selects the actual transmitter power (Calibrated RF power) Displays last selection.	Power level for which probes and power output displays (bargraph) of the transmitter are adjusted. This level is a reference for the software. This actual value is associated with the power levels in % “100”, display in window, and with the Auto Gain value “128” (Digital transmitter) of ADAPT exciter. At any time: **CAL Power ≤ MAX Power**
ENGLISH	Selects the language of the Local Control Panel windows. Displays last selection.	FRANCAIS, ENGLISH, ESPAGNOL

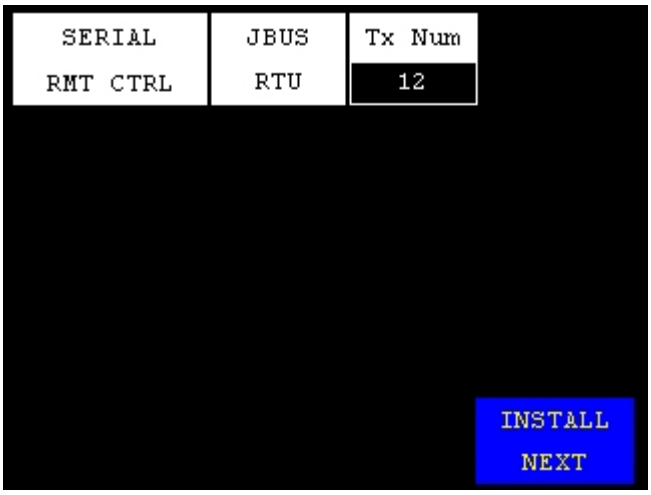
CONTROL KEYS	FUNCTIONS	SELECTIONS AVAILABLE/COMMENTS
AIR COOLING	Selects the cooling type of the cabinet. Displays last selection.	AIR COOLING, LIQUID COOLING
DUAL EXCITER	Selects the exciter configuration. Displays last selection.	SINGLE EXCITER, DUAL EXCITER, PASSIVE RESERVE, N+1
DISPLAY IN dB/W	Selects the type of power unity. Displays last selection.	DISPLAY IN dB/W, DISPLAY IN % If "%" is elected, every RF power display is to be expressed in %, except maximum power which is expressed in Watts. If "dB" is elected, every RF power display is to be expressed in dB, except maximum power which is expressed in Watts.
ANALOG. TRANSMIT.	Selects the modulation type of the transmitter. Displays last selection.	ANALOG. TRANSMIT; DIGITAL TRANSMIT
COOLING LOAD NOT FITTED	Adapts the CPU software to suit the safety interface hardware.	COOLING LOAD NOT FITTED COOLING LOAD FITTED FITTED : The safety of the load network cooling is active. The "COOLING LOAD" key is visible in "INTERLOCK" window.
TS ALARM DISABLE	Adapts the CPU software to suit the low power alarm status.	TS ALARM DISABLE, TS ALARM ENABLE DISABLE : Without input Transport Stream (TS), there is no low power alarm indication. ENABLE: Indication low power alarm is active when the input Transport Stream (TS) is absence
PASSWORD DISABLE	Adapts the CPU software to suit one password use for PCL unlocked.	PASSWORD DISABLE, PASSWORD ENABLE ENABLE : Using of password for PCL unlocked
REINIT VALUES	Sets the CPU board to the default configuration.	Calls up the "WARNING 2" window. This control keys may be used to repeat the installation procedure.
VALID	Validates the configuration displayed on the window.	
INSTALL NEXT	Calls up the "TRANSMITTER INTERFACE PARAMETERS" window.	

2.1.2.2. "TRANSMITTER INTERFACE PARAMETERS" window

This window appears when the changeover switch SW1 on the exciter/CPU interconnection card (MODAP) or on the management system interconnection card (SIRIUS) is switched so that the dot is visible and that CPU board is reset.

It is called up by pressing the "INSTALL NEXT" control keys in the "INSTALLATION PARAMETERS Level 1" window.

This window is used to change the transmitter interface parameters stored in the CPU card.



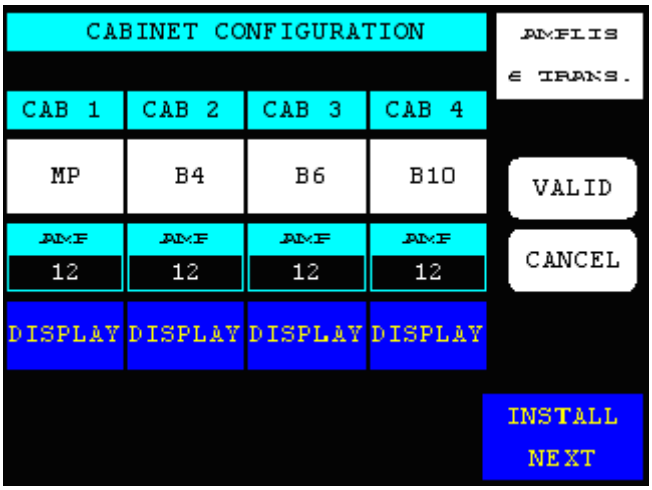
CONTROL KEYS	FUNCTIONS	SELECTIONS AVAILABLE/COMMENTS
Tx Num 12	Selects the transmitter ID number in N+1 or Passive Reserve configurations. Displays last selection.	The transmitter ID number is used for remote control through an RS 232/485 connection. Pressing this key calls up the "NUMERICAL VALUE" window in which this two-digit identification number can be changed.
JBUS RTU	Selects the type of JBUS protocol operation for remote control Displays last selection	JBUS ASCII JBUS RTU
SERIAL RMT CTRL	Selects the type of remote operation. Displays last selection.	SERIAL RMT CTRL, PARALLEL RMT CTRL, USER RMT CTRL
INSTALL NEXT	Calls up the "CABINET CONFIGURATION PARAMETERS" window.	

2.1.2.3. "CABINET CONFIGURATION PARAMETERS" window

This window appears when the changeover switch SW1 on the exciter/CPU interconnection card (MODAP) or on the management system interconnection card (SIRIUS), is switched so that the dot is visible and that CPU board is reset.

It is called up by pressing the "INSTALL NEXT" control keys in the "TRANSMITTER INTERFACE PARAMETERS" window.

This window is used to change the cabinet configuration parameters stored in the CPU board.



CONTROL KEYS	FUNCTIONS	SELECTIONS AVAILABLE/COMMENTS
VALID	Validates the cabinet selection and detects the amplifier location in each of the cabinet selected.	
CANCEL	Cancels the entry and calls back the previous values	
AMPLIS 6 TRANS.	Selects the number of currents measured by amplifier unit **(*).** Displays last selection	AMPLIS 6 TRANS. : 6 currents measured AMPLIS 8 TRANS. : 8 currents measured

CONTROL KEYS	FUNCTIONS	SELECTIONS AVAILABLE/COMMENTS
	Selects the type of the cabinet. Displays last selection	NO, MP, B4, B6, B10, B16AG, B16NG, B20, AFF4, AFF8 ♦ NO: No use **OPTIMUM / ULTIMATE FAMILY** ♦ MP: MPNG Cabinet, ♦ B4: Cabinet consist of 4 RF amplifiers, ♦ B6: Cabinet consist of 6 RF amplifiers, ♦ B16AG: Cabinet consist of 16 RF amplifiers (Old generation cabinet: the main MUX card "MASTER" feed 4 PSUs) ♦ B16NG: Cabinet consist of 16 RF amplifiers (New generation cabinet: The main MUX card "MASTER" feed 5 PSUs) ♦ B20: Cabinet consist of 20 RF amplifiers **AFFINITY FAMILY** ♦ AFF4: Cabinet consist of 4 RF amplifiers ♦ AFF8: Cabinet consist of 8 RF amplifiers
	Calls up the " AMPLIFIER LOCATION " window	This control keys may be used to selected the amplifier location
	Calls up the "ADAPT INSTALLATION PARAMETERS" window.	

(*) Note

- In case of using the **2400W VHF amplifier unit** (61388768 or 61388769) ,the window ''RF amplifier'' include 6 current measurements.
- In case of using the **1600W VHF amplifier unit** ,the window ''RF amplifier'' include 8 current measurements.
- In case of using the **UHF amplifier unit** , the window ''RF amplifier'' include 6 current measurements.

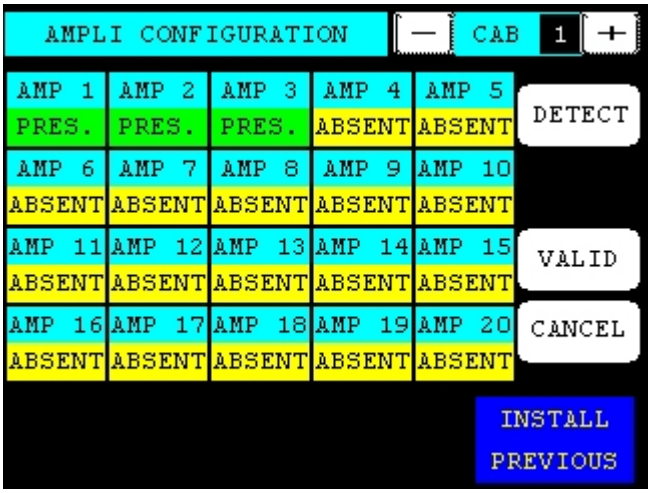
MESSAGE	FUNCTIONS	DISPLAY/COMMENTS
	Gives the window name.	
	Displays the detected amplifier location number including into this cabinet.	

2.1.2.3.1. "LOCATION AMPLIFIER" window

This window appears when the changeover switch SW1 or S9 is switched so that the dot is visible and that CPU board is reset.

It is called up by pressing the "DISPLAY " control keys in the " CABINET CONFIGURATION PARAMETERS" window.

This window displays the location of RF amplifier in selected cabinet. It is used to change the amplifier location stored in the CPU board.



CONTROL KEYS	FUNCTIONS	SELECTIONS AVAILABLE/COMMENTS
— CAB 1	Decrements the cabinet number (*).	The number resulting from the decrementation is displayed in the message window between the "+ CAB" and "- CAB" control keys. Command is disabled while the PCL is locked (disabled).
CAB 1 +	Increments the cabinet number (*).	The number resulting from the incrementation is displayed in the message window between the "+ CAB" and "- CAB" control keys. Command is disabled while the PCL is locked (disabled).
DETECT	Detects the amplifier location in cabinet selected.	
VALID	Validates the entry	
CANCEL	Cancels the entry and calls back the previous windows	
INSTALL PREVIOUS	Calls up the "CABINET CONFIGURATION PARAMETERS" window.	

(*) : Operating only when there is more than one cabinet.

MESSAGE	FUNCTIONS	DISPLAY/COMMENTS
CABINET CONFIGURATION	Gives the window name.	
AMP 1 PRES.	Toggles between present and absent or vision and sound amplifier location Displays the amplifier location status into this cabinet Displays last selection	PRES. / ABSENT for digital transmitter VISION / SOUND. / ABSENT for analogue transmitter
CAB 1	Shows the number of the particular cabinet to which the data displayed in this window refer.	

2.1.2.4. "INSTALLATION ADAPT PARAMETERS" window

This window appears when the changeover switch SW1 on the exciter/CPU interconnection card (MODAP) or on the management system interconnection card (SIRIUS) is switched so that the dot is visible and that CPU board is reset.

It is called up by pressing the "INSTALL NEXT" control keys in the "CONFIGURATION CABINET" window.

This window is used to change the configuration adaptation parameters stored in the CPU card.

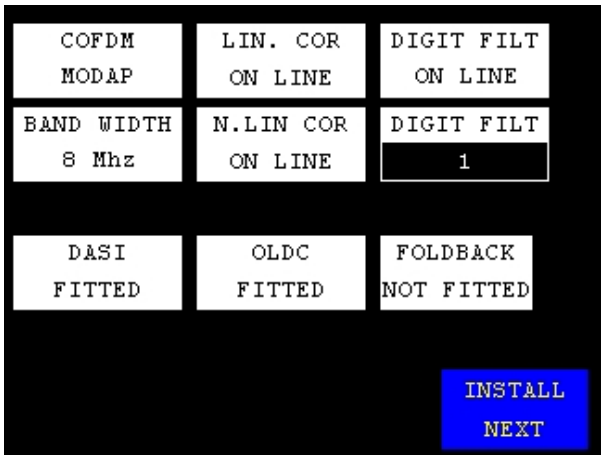
Note :

- MODAP Version only

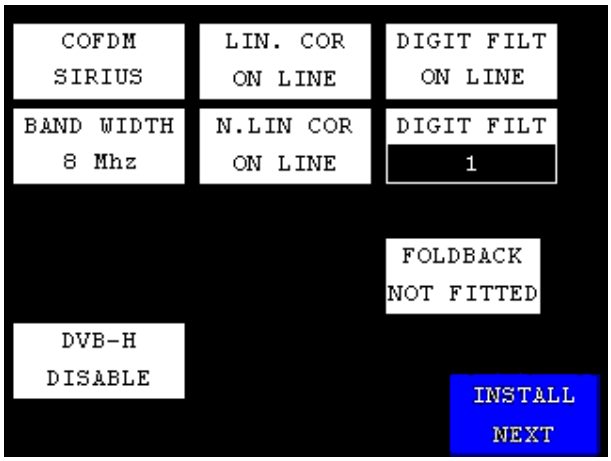
  To set up a new parameter configuration of the modulator, the three corrections (ALE, LUT and OLDC) should be set to the FIXED mode. The control keys can be defined in the "MISCELLANEOUS" windows and "CONTROL MAINT Level 4" windows.

- SIRIUS Version only

  To set up a new parameter configuration of the modulator, the two corrections (ALE, and LUT) should be set to the FIXED mode. The control keys can be defined in the "MISCELLANEOUS" windows and "CONTROL MAINT Level 4" windows.



MODAP Version



SIRIUS Version

CONTROL KEYS	FUNCTIONS	SELECTIONS AVAILABLE/COMMENTS
COFDM MODAP **OR** COFDM SIRIUS	Selects the type of modulator processing the input signal. Displays last selection.	8VSB BOARD / COFDM EXT / IFIQ BOARD / COFDM MODAP / COFDM SIRIUS / FLO SIRIUS
BAND WIDTH 8 Mhz **(2)**	Selects the band width of the canal for DVBT signal Displays last selection.	BAND WIDTH **6MHz** / BAND WIDTH **7MHz** / BAND WIDTH **8MHz** / This control key is available in COFDM MODAP or COFDM SIRIUS (Internal DVB-T Modulator)
LIN. COR ON LINE	Adapts the CPU software to suit the DAP hardware (Adaptive Linear Equalizer). Displays last selection.	♦ MODAP version LIN. COR NOT FITTED/ LIN. COR ON LINE / LIN. COR BYPASSED ♦ SIRIUS version LIN. COR ON LINE / LIN. COR BYPASSED
N.LIN COR ON LINE	Activates or bypasses the DAP non linearity corrector (Look Up Table). Displays last selection.	N. LIN. COR ON LINE / N. LIN. COR BYPASSED
DIGIT FILT ON LINE	Adapts the CPU software to suit the DAP hardware (digital filter). Displays last selection.	♦ MODAP version DIGIT FILT NOT FITTED / DIGIT FILT ON LINE / DIGIT FILT BYPASSED ♦ SIRIUS version DIGIT FILT ON LINE / DIGIT FILT BYPASSED
DIGIT FILT 1	Selects the table for the digital filter. Displays last selection.	Values: 1 to 5 This value is defined in factory: ♦ Value normally used on MODAP Exciter is equal at 5 ♦ Value normally used on SIRIUS Exciter is equal at 1. Pressing this key calls up the "NUMERICAL VALUE" window in which this value can be changed.
DASI FITTED **(1)**	Adapts the CPU software to suit the MODAP hardware (Double ASI input). Displays last selection.	DASI NOT FITTED / DASI FITTED
OLDC FITTED **(1)**	Adapts the CPU software to suit the MODAP hardware (OLDC). Displays last selection.	OLDC FITTED / OLDC NOT FITTED

CONTROL KEYS	FUNCTIONS	SELECTIONS AVAILABLE/COMMENTS
FOLDBACK NOT FITTED	Sets the CPU board to the configuration according to the Americanisation unit hardware type 37418880	FOLDBACK NOT FITTED, FOLDBACK FITTED This option unit must be present so that the power control on antenna VSWR fault will be progressively produce through an algorithm. In the second case that the power control on antenna VSWR fault will be is produce by stairway (-3dB, -6dB and halt 'no power")
DVB-H DISABLE **(2)**	Adapts the CPU software. Visible on COFDM SIRIUS modulator only Displays last selection.	DISABLE: The DVB-H parameters are not accessible via the DVB-T CONTROL screen. ENABLE: The DVB-H parameters are available via the DVB-T CONTROL screen.
INSTALL NEXT	Calls up the "ETHERNET INSTALLATION PARAMETERS" window.	

(1) : Available on MODAP version only

(2) : Unavailable on MediaFLO modulator

2.1.2.5. "ETHERNET INSTALLATION PARAMETERS" window

This window appears when the changeover switch SW1 or S9 is switched so that the dot is visible and that CPU board is reset.

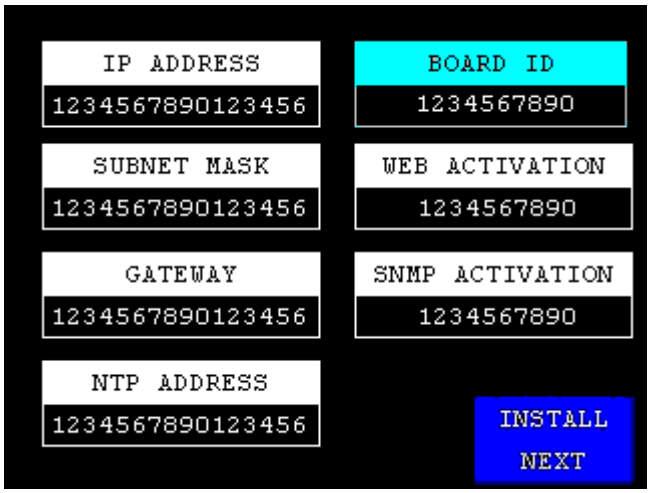
- For Digital Transmitter

  It is called up by pressing the "INSTALL NEXT" control keys in "INSTALLATION ADAPTATION PARAMETERS" window.

- For Analogue Transmitter

  It is called up by pressing the "INSTALL NEXT" control keys in "INSTALLATION EXCITER PARAMETERS" window.

This window is used to change the Ethernet configuration parameters used by the communication network. It is only available with TH860 CPU Board.



MESSAGE & CONTROL KEYS	FUNCTIONS	SELECTIONS AVAILABLE/COMMENTS
BOARD ID 1234567890	Displays the identification number of the CPU board	This reference is single and associated to one CPU board
WEB ACTIVATION 1234567890	Used to insert the WEB activation code. Displays the WEB activation code, without option in operation the control keys displays: “0”	THALES produces activation code of the “Agent WEB” option. This code is single and associated to the identification number of the CPU board Pressing this key calls up the "NUMERICAL VALUE" window in which this code value can be inserted.
SNMP ACTIVATION 1234567890	Used to insert the SNMP activation code. Displays the SNMP activation code, without option in operation the control keys displays: “0”	THALES produces activation code of the “Agent SNMP” option. This code is single and associated to the identification number of the CPU board Pressing this key calls up the "NUMERICAL VALUE" window in which this code value can be inserted.
IP ADDRESS 1234567890123456	Used to Insert the IP address of the transmitter in an Ethernet network. Displays the IP address in operation. When the Ethernet network is not operated the control keys must display: “0.0.0.0”	Your network administrator gives the IP address. **NOTA : IP wrong address disturbs the network.** Calls up the "NUMERICAL VALUE" window

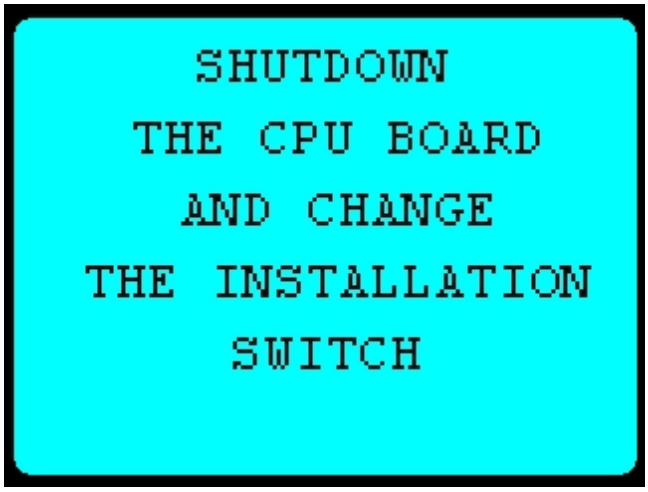
MESSAGE & CONTROL KEYS	FUNCTIONS	SELECTIONS AVAILABLE/COMMENTS
SUBNET MASK 1234567890123456	Used to Insert the sub-net mask number Displays the Sub-net mask number in operation. When the Ethernet network is not operated the control keys must display: “0.0.0.0”	Your network administrator gives the subset mask number. This number, associated with IP address, identifies the network inside your transmitter is. **NOTA : Subset mask wrong number disturbs the network.** Calls up the "NUMERICAL VALUE" window
GATEWAY 1234567890123456	Used to Insert the IP address of gateway Displays the IP address of the gateway in operation. When the Ethernet network is not operated the control keys must display: “0.0.0.0”	Your network administrator gives the gateway IP address. **NOTA : Gateway IP wrong address disturbs the network.** Calls up the "NUMERICAL VALUE" window
NTP ADDRESS 1234567890123456	Used to Insert the IP address of Net work Time Protocol (NTP) SERVER. Displays the IP address in operation. When the Ethernet network is not operated the control keys must display: “0.0.0.0”	Your network administrator gives the IP address of the NTP server. **NOTA : IP wrong address of the NTP server disturbs the network.** Calls up the "NUMERICAL VALUE" window
INSTALL NEXT	Calls up the "INSTALLATION PARAMETERS Level 1" window.	

2.1.3. Warning windows

2.1.3.1. Warning window "WARNING 1"

This window appears when configuration parameters are validated.

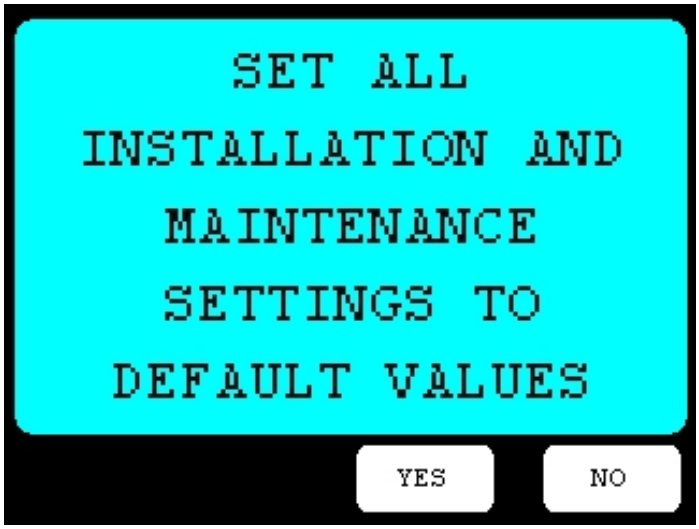
It prompts the operator to switch the CPU board off and then on again, by using the changeover switch SW1 or S9; this operation switches the power supply feeding the CPU board off and on in order to reset the transmitter with its new configuration.



2.1.3.2. Warning window "WARNING 2"

It appears when the changeover switch SW1 or S9 is switched so that the dot is visible and that CPU board is reset.

This window appears after pressing "REINIT VALUES" in the "INSTALLATION PARAMETERS Level 1" window.



CONTROL KEYS	FUNCTIONS	SELECTIONS AVAILABLE/COMMENTS
YES	Validates the window.	After pressing this control keys, the CPU board is set to the default configuration. The "REINIT VALUES" control keys may be used for a new installation procedure.
NO	Cancels the window.	

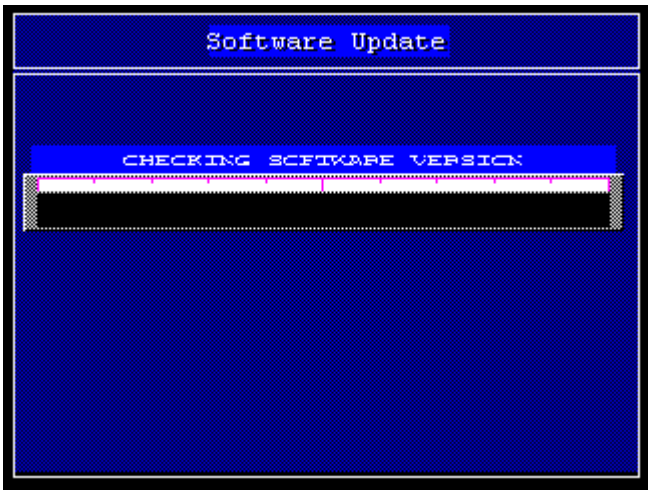
2.1.3.3. Warning window "Software UPDATE"

This window is called up by three following conditions:

- Inserting PCMCIA card in flash card drive. This card contains the new CPU software.
- Transmitter must be in installation mode changeover “SW1” or S9 is on position “visible dot”.

Press the « RESET » button of CPU board or Power off CPU board, opening the appropriate breakers.

This window displays the download progress of the new CPU software. It is only available with TH860 CPU BOARD.

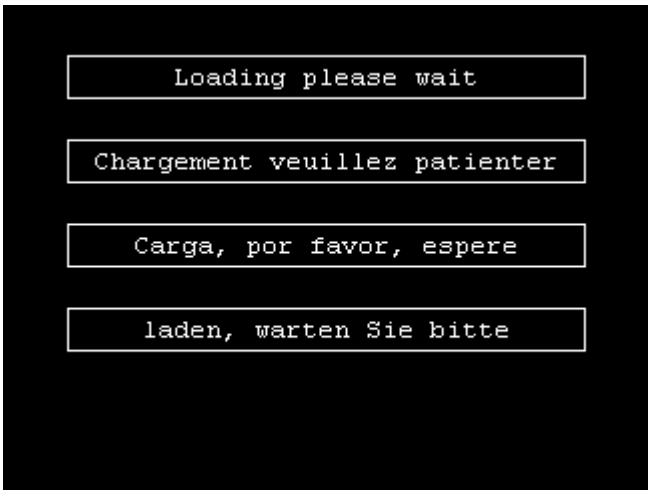


MESSAGE	FUNCTIONS	SELECTIONS AVAILABLE/COMMENTS
Software Update	Give the window name	
CHECKING SOFTWARE VERSION	Display the down load operating mode.	PLEASE WAIT. CHECKING SOFTWARE VERSION ERASING FLASH MEMORY PROGRAMMING FLASH MEMORY DONE, PLEASE WAIT.
	Displays the down load progress.	

2.1.3.4. Warning window "WARNING 3"

This window appears when the CPU board start up, the communication between the CPU and tactile screen is not still ready.

It prompts the operator to wait a moment.



2.1.4. "TRANSMITTER STATUS" window

This window appears when the transmitter is switched on and the changeover switch SW1 or S9, behind the CPU board, is switched so that the dot is not visible.

It can also be called up by pressing the "STATUS" control keys on the other windows.

OPTIMUM FAMILY OR ULTIMATE FAMILY

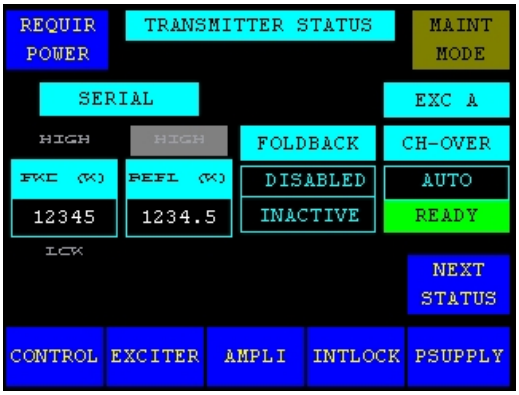


Figure 6 : Dual Drive Transmitter

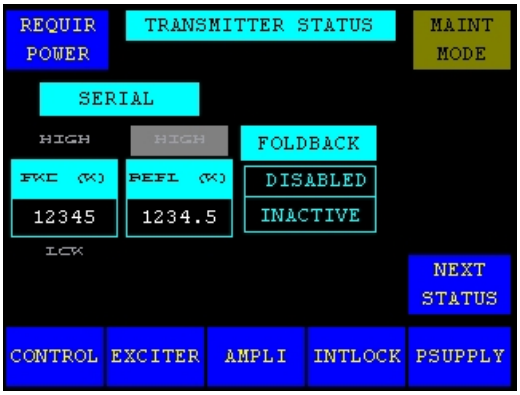


Figure 7 : Single Drive Transmitter

AFFINTY FAMILY

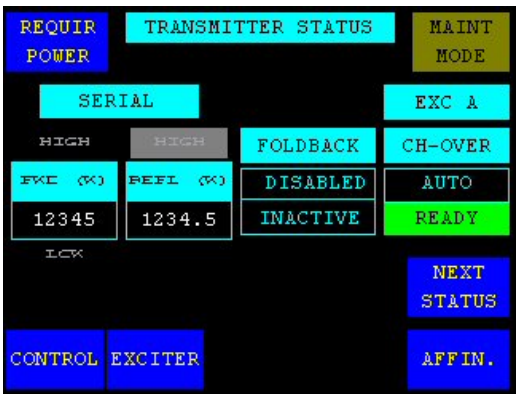


Figure 8 : Dual Drive Transmitter

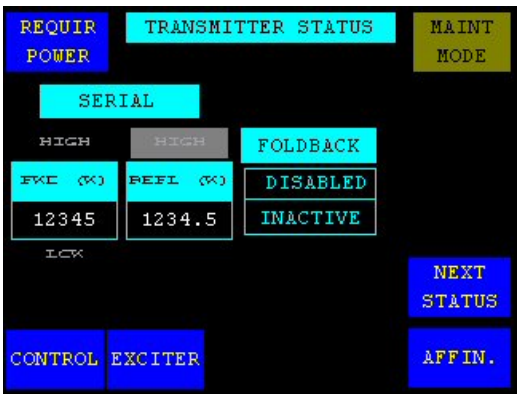


Figure 9 : Single Drive Transmitter

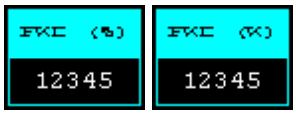
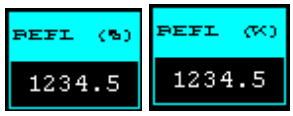
CONTROL KEYS	FUNCTIONS	DISPLAY/COMMENTS
REQUIR POWER	Calls up the "REQUIRED POWER" window (Reduction power). **(3)**	♦ ATSC transmitter OR ANALOG transmitter This control keys is available in Maintenance mode only. Control key invisible in Normal mode only. ♦ DVB-T transmitters This control keys is available in Maintenance mode and MFN mode operation only. Control key invisible in Normal mode or SFN mode operation.
TRANSMITTER STATUS	Calls up the "GO HOME AND VIEW INSTALLATION PARAMETERS" window. Also displays the window title.	
NEXT STATUS	Calls up the "STATUS" window.	
CONTROL	Calls up the "CONTROL Level 1" window.	
EXCITER	Calls up the "EXCITER Level 1" window.	
AMPLI	Calls up the "AMPLIFIERS" window. **(a)**	
INTLOCK	Calls up the "INTLOCK" window. **(a)**	
PSUPPLY	Calls up the "POWER SUPPLY" window. **(a)**	
AFFIN.	Calls up the "AFFINITY" window. **(b)**	

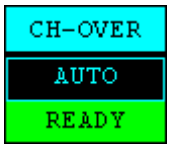
(a): Not Visible for AFFINITY family

(b): Not Visible for OPTIMUM or ULTIMATE families

(3): Unavailable for MedaFLO modulator

MESSAGE	FUNCTIONS	DISPLAY/COMMENTS
TRANSMITTER STATUS	Gives the window name.	
MAINT MODE	Displays the current operating mode of the transmitter *(maintenance mode or normal mode)*.	MAINT MODE / NORMAL MODE Blinking message to indicate that the maintenance mode is operating
SERIAL	Displays the current remote control mode of the transmitter.	SERIAL / PARALLEL SERIAL : Remote control through a RS432/485 serial link. PARALLEL (Remote controls and indicators): Remote control through hard wired connections.

MESSAGE	FUNCTIONS	DISPLAY/COMMENTS
	Indicates a higher value than the high alarm threshold value.	Flashes if the transmitted power exceeds the maximum power threshold value. Otherwise not visible. The alarm threshold is set using the «RF THRESHOLD» window.
	Displays the transmitted RF power value	This value is expressed in watts or as a percentage of the calibrated power value according with your installation choice
	Indicates a lower value than the low alarm threshold value.	Flashes if the transmitted power is lower than the minimum power threshold value. Otherwise not visible. The alarm threshold is set using the «RF THRESHOLD» window.
	Indicates a higher value than the threshold value.	Flashes if the reflected power (reverse power) exceeds 3% of calibrated power Otherwise not visible. The threshold value (3%) is unchanging
	Displays the reflected power value	This value is expressed in watts or as a percentage of calibrated power value according with your installation choice
	To indicate the reflected (reserve) power control mode.	FOLDBACK ENABLED: When the reflected power value is higher than the threshold value (3%) the power control is progressively produce through an algorithm. FOLDBACK DISABLED: When the reflected power value is higher than the threshold value (3%) the power control is produce by stairway (-3dB, -6dB and halt 'no power")
	Indicates the exciter selected.**(*)**	EXC A / EXC B

MESSAGE	FUNCTIONS	DISPLAY/COMMENTS
	To indicate the exciter changeover mode (Upper indicator). To indicate the exciter changeover status in automatic mode (Lower indicator).**(*)**	***Upper indicator*** CH-OVER MAN (Manual) : only when operator gives a command. CH-OVER AUTO : automatic changeover when the selected exciter is faulty. ***Lower indicator*** CH OVER DONE / CH OVER NOT DONE / CH OVER IMPOSSIBLE READY : the changeover system is ready for an automatic switch over. DONE : the changeover system is no longer available and it is necessary to change the exciter selected or to carry out a transmitter "RESET" (in this latter case, care must be taken because fault data for all faults which have disappeared will be erased together with their consequences; similarly for all selections carried out on the PCL). IMPOSS : an attempt to carry out an automatic changeover has failed.

(*) : Only in Dual Drive Version

2.1.5. "STATUS" window

This window is called up by pressing the "NEXT STATUS" control keys in the "TRANSMITTER STATUS" window.

It provides access to commands and information which are only available in the "STATUS" window.

OPTIMUM FAMILY OR ULTIMATE FAMILY

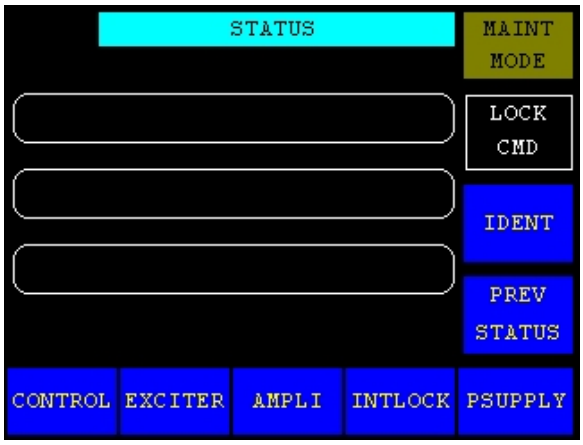


Figure 10 : PCL UNLOCKED (ENABLED)

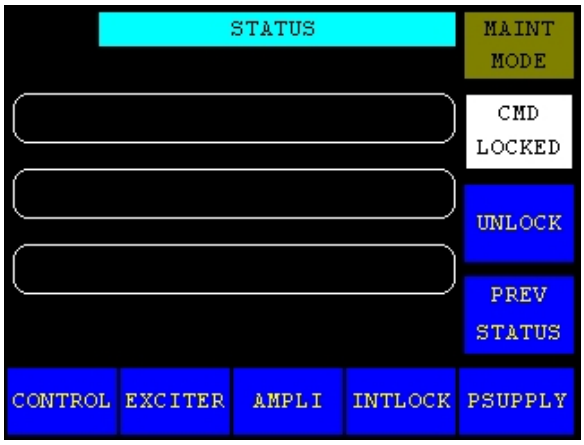


Figure 11 : PCL LOCKED

AFFINTY FAMILY

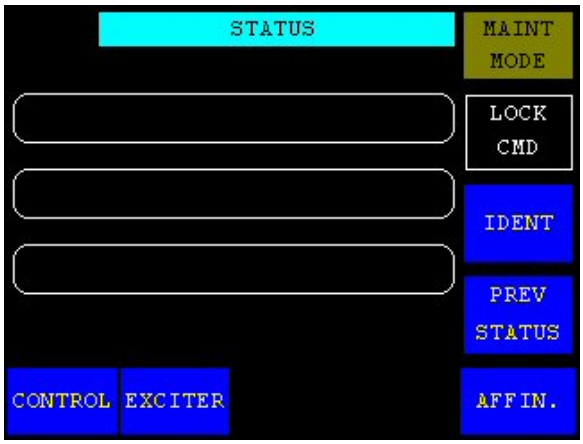


Figure 12 : PCL UNLOCKED (ENABLED)

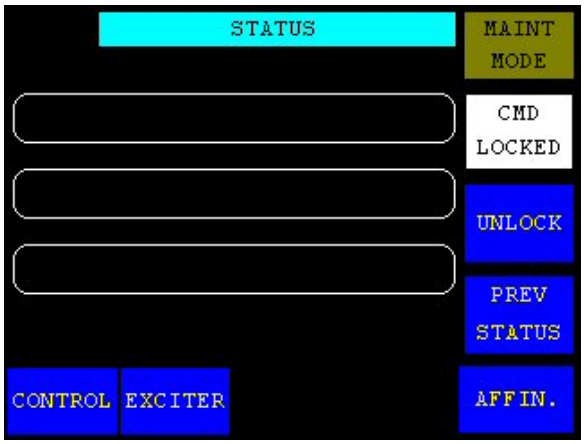


Figure 13 : PCL LOCKED

CONTROL KEYS	FUNCTIONS	DISPLAY/COMMENTS
STATUS	Calls up the "GO HOME AND VIEW INSTALLATION PARAMETERS" window.	
LOCK CMD / CMD LOCKED	Locks (disables) the local control panel (P). Displays whether the CMD is locked or unlocked.	LOCK CMD / CMD LOCKED When the CMD is locked, operator commands from the PCL have no effect on the system.

CONTROL KEYS	FUNCTIONS	DISPLAY/COMMENTS
UNLOCK / IDENT	Calls up the "NUMERICAL VALUE" window or the "IDENTIFICATION" window.	PASS / IDENT IDENT : The "IDENTIFICATION" window displays software references for the screen and CPU card ; this function is available when the touch screen is unlocked. UNLOCK : Operation is realized in accordance with your installation choice *(PASSWORD DISABLE, or ENABLE)* ♦ Pressing this control Key, the PCL is automatically unlocked or, ♦ A password can be entered using the "NUMERICAL VALUE" window while the PCL is unlocked.
CONTROL	Calls up the "CONTOL Level 1" window.	
EXCITER	Calls up the "EXCITER Level 1" window.	
AMPLI	Calls up the "AMPLIFIERS" window. . **(a)**	
INTLOCK	Calls up the "INTLOCK" window. . **(a)**	
PSUPPLY	Calls up the "POWER SUPPLY" window. **(a)**	
AFFIN.	Calls up the "AFFINITY" window. **(b)**	
PREV STATUS	Calls up the "TRANSMITTER STATUS" window.	

(a): Not Visible for AFFINITY family

(b): Not Visible for OPTIMUM or ULTIMATE families

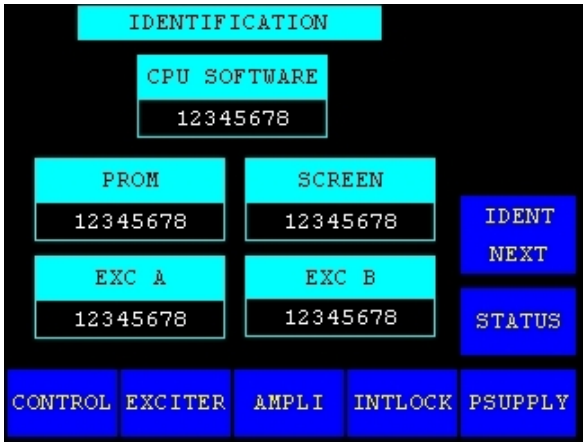
MESSAGE	FUNCTIONS	DISPLAY/COMMENTS
STATUS	Gives the window name.	
	Last indicated faults.	This window displays the last three faults which have been indicated.
MAINT MODE	Displays the current operating mode of the transmitter *(maintenance mode or normal mode)*.	MAINT MODE / NORMAL MODE Blinking message to indicate that the maintenance mode is operating

2.1.6. "IDENTIFICATION" window

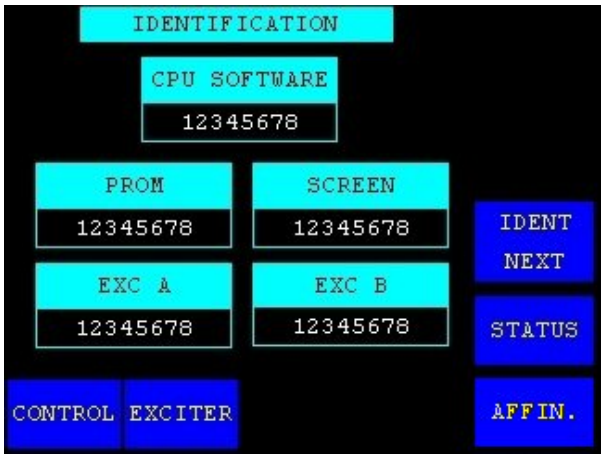
This window is called up by pressing the "IDENT" control keys in the "STATUS" window. This window is only accessible when the touch screen is unlocked with the “LOCK CMD / CMD LOCKED” control keys in the “STATUS” window.

It displays software references for the touch screens, the CPU card and EXCITER units.

OPTIMUM FAMILY OR ULTIMATE FAMILY



AFFINTY FAMILY



CONTROL KEYS	FUNCTIONS	DISPLAY/COMMENTS
IDENT NEXT	Calls up the "MODULATOR IDENTIFICATION" window.	
STATUS	Calls up the "STATUS" window.	
CONTROL	Calls up the "CONTROL Level 1" window.	
EXCITER	Calls up the "EXCITER Level 1" window.	
AMPLI	Calls up the "AMPLIFIERS" window. . **(a)**	
INTLOCK	Calls up the «INTERLOCK» window . **(a)**	
PSUPPLY	Calls up the "POWER SUPPLY" window. . **(a)**	
AFFIN.	Calls up the "AFFINITY" window. **(b)**	

(a): Not Visible for AFFINITY family

(b): Not Visible for OPTIMUM or ULTIMATE families

INDICATOR LAMPS AND MESSAGE DISPLAYS	FUNCTIONS	DISPLAY/COMMENTS
IDENTIFICATION	Gives the window name.	
CPU SOFTWARE 12345678	Displays the reference of the CPU board software.	
PROM 12345678	Displays the reference of the CPU board. PROM software	
SCREEN 12345678	Displays the reference of the touch screen and its software.	
EXC A 12345678	Displays the reference of the Main software for exciter A.	♦ Digital Transmitter, MODAP Version only: With oldest DAP software this message displays could be absent
EXC B 12345678	Displays the reference of the Main software for exciter B. (*)	♦ Analogue Transmitter With the analogue driver, this message displays is not used

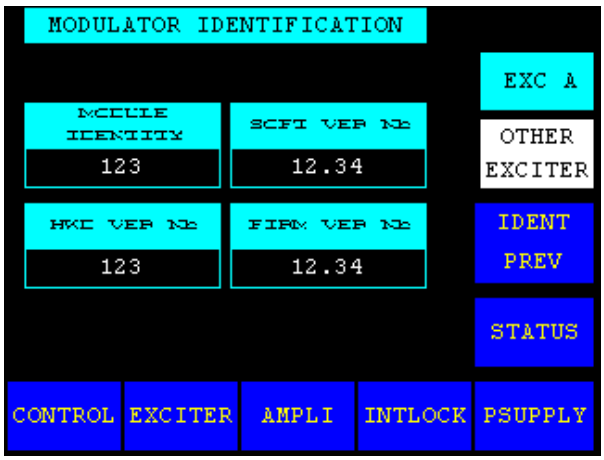
(*) : Only in Double Drive Version

2.1.7. "MODULATOR IDENTIFICATION, Type I" window

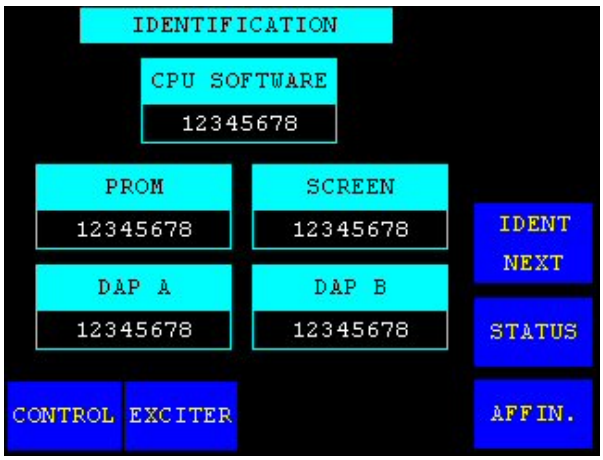
This window is called up by pressing the "IDENT NEXT" control keys in the "IDENTIFICATION" window. It is only accessible when the touch screen is unlocked with the “LOCK CMD / CMD LOCKED” control keys in the “STATUS” window.

This window displays software references for the MODULATOR unit. It is only available with TANGBERG MODULATOR unit (MODAP version only).

OPTIMUM FAMILY OR ULTIMATE FAMILY



AFFINTY FAMILY



CONTROL KEYS	FUNCTIONS	DISPLAY/COMMENTS
IDENT PREV	Calls up the "IDENTIFICATION" window.	
STATUS	Calls up the "STATUS" window.	
CONTROL	Calls up the "CONTROL Level 1" window.	
EXCITER	Calls up the "EXCITER Level 1" window.	
AMPLI	Calls up the "AMPLIFIERS" window. **(a)**	
INTLOCK	Calls up the «INTERLOCK» window **(a)**	
PSUPPLY	Calls up the "POWER SUPPLY" window. **(a)**	
AFFIN.	Calls up the "AFFINITY" window. **(b)**	

(a): Not Visible for AFFINITY family

(b): Not Visible for OPTIMUM or ULTIMATE families

INDICATOR LAMPS AND MESSAGE DISPLAYS	FUNCTIONS	DISPLAY/COMMENTS
OTHER EXCITER	Calls up data from the other exciter. **(*)**	
MODULATOR IDENTIFICATION	Gives the window name.	
MODULE IDENTITY 123	Displays the ID number of the module.	
SOFT VER Nb 12.34	Displays the reference of the Internal COFDM MODULATOR software.	
HWC VER Nb 123	Displays the reference of the internal COFDM MODULATOR hardware.	
FIRM VER Nb 12.34	Displays the reference of the internal COFDM MODULATOR firmware.	
EXC A	Indicates which exciter data are displayed. **(*)**	EXC A / EXC B

(*) : Only in Double Drive Version

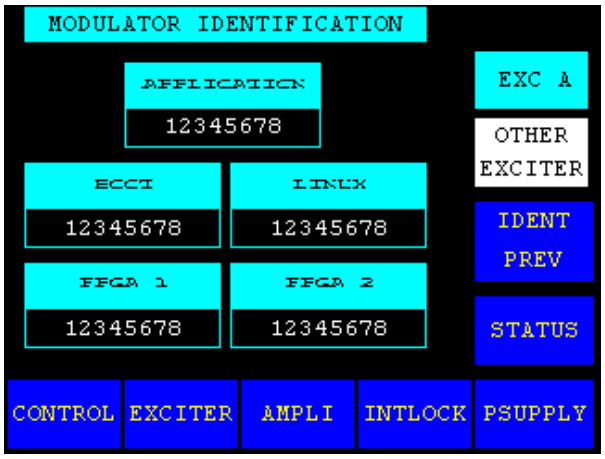
2.1.8. "MODULATOR IDENTIFICATION, type II" window

This window is called up by pressing the "IDENT NEXT" control keys in the "IDENTIFICATION" window. It is only accessible when the touch screen is unlocked with the “LOCK CMD / CMD LOCKED” control keys in the “STATUS” window.

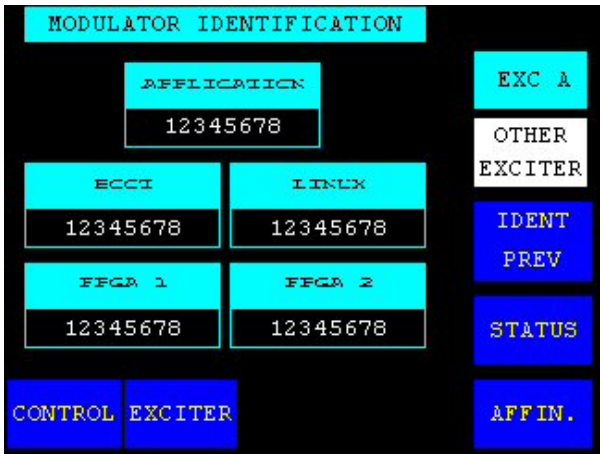
This window displays software references for the type II MODULATOR unit or for the SIRIUS MODULATOR unit.

It is only available with type II MODULATOR unit “ACBB” (MODAP version) or with SIRIUS MODULATOR unit.

OPTIMUM FAMILY OR ULTIMATE FAMILY



AFFINTY FAMILY



CONTROL KEYS	FUNCTIONS	DISPLAY/COMMENTS
IDENT PREV	Calls up the "IDENTIFICATION" window.	
STATUS	Calls up the "STATUS" window.	
CONTROL	Calls up the "CONTROL Level 1" window.	
EXCITER	Calls up the "EXCITER Level 1" window.	
AMPLI	Calls up the "AMPLIFIERS" window. **(a)**	
INTLOCK	Calls up the «INTERLOCK» window . **(a)**	
PSUPPLY	Calls up the "POWER SUPPLY" window. **(a)**	
AFFIN.	Calls up the "AFFINITY" window. **(b)**	

(a): Not Visible for AFFINITY family

(b): Not Visible for OPTIMUM or ULTIMATE families

INDICATOR LAMPS AND MESSAGE DISPLAYS	FUNCTIONS	DISPLAY/COMMENTS
OTHER EXCITER	Calls up data from the other exciter. **(*)**	
MODULATOR IDENTIFICATION	Gives the window name.	
APPLICATION 12345678	Displays the reference of the internal COFDM ACBB MODULATOR software.	
ECCI 12345678	Displays the reference of the Boot software.	
LINUX 12345678	Displays the reference of the LINUX software.	
FPGA 1 12345678	Displays the reference of the FPGA 1software.	
FPGA 2 12345678	Displays the reference of the FPGA 2 software.	
EXC A	Indicates which exciter data are displayed. **(*)**	EXC A / EXC B

(*) : Only in Double Drive Version

2.1.9. "CONTROL Level 1" window

From other windows it can be called up by pressing the "CONTROL" key.

This window contains the commands available in maintenance mode and normal mode.

OPTIMUM FAMILY OR ULTIMATE FAMILY – ANALOG TRANSMITTER

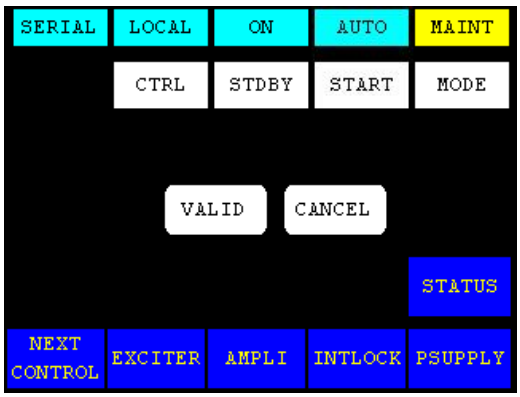


Figure 14: Dual Drive Transmitter

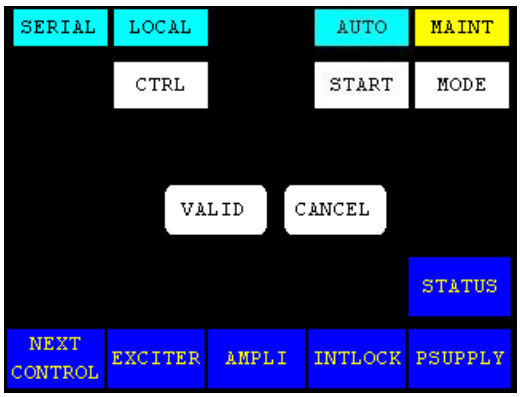


Figure 15: Single Drive Transmitter

OPTIMUM FAMILY OR ULTIMATE FAMILY – DIGITAL TRANSMITTER

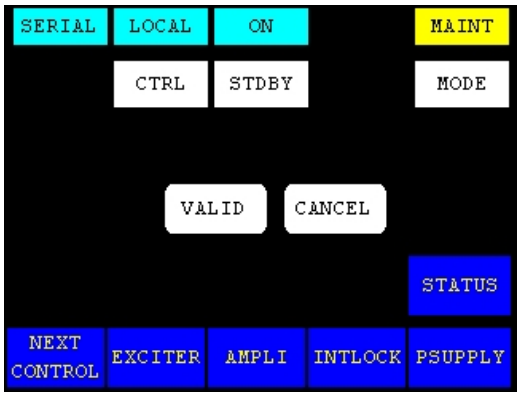


Figure 16: Dual Drive Transmitter

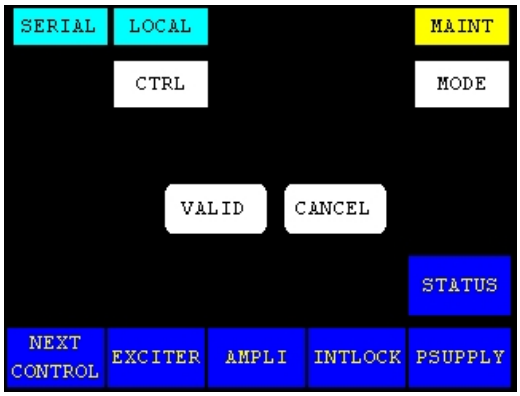


Figure 17: Single Drive Transmitter

AFFINTY FAMILY – DIGITAL TRANSMITTER

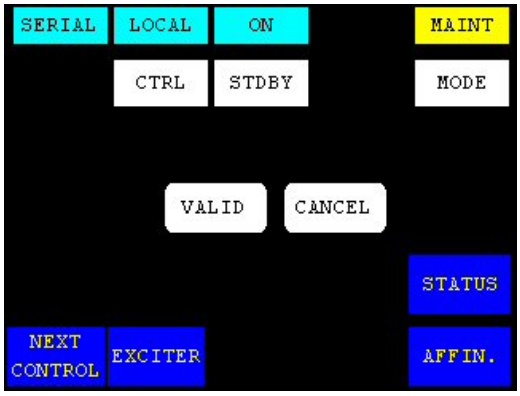


Figure 18: Dual Drive Transmitter

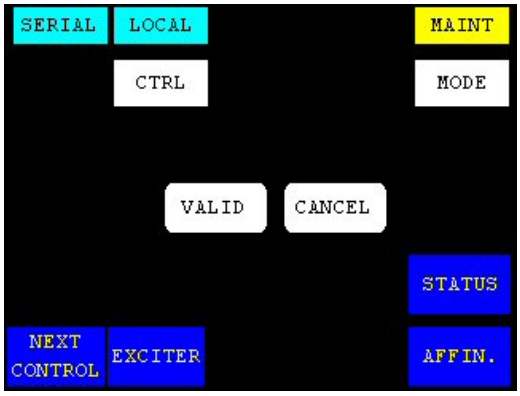


Figure 19: Single Drive Transmitter

CONTROL KEYS	FUNCTIONS	DISPLAY/COMMENTS
CTRL	Selects local or remote user interface.	The command is not available if the PCL is locked. Selecting remote user interface locks the following control keyss: CTRL, STDBY, MODE, EXCITER
STDBY Only in Double Drive Version	Initiates shutdown or start-up of the reserve exciter.	Command is disabled while the PCL is locked (disabled).
START Only in Analogue Transmitter	Selects the transmitter on-air/off-air switching mode (manual or automatic)	Command is disabled while the PCL is locked (disabled)
MODE	Selects the transmitter-operating mode (maintenance or normal).	Command is disabled while the PCL is locked (disabled).
VALID	Validates a selection.	
CANCEL	Cancels a selection.	
STATUS	Calls up the "TRANSMITTER STATUS" window.	
NEXT CONTROL	Calls up windows as follows: "CONTROL MAINT Level 2", if the system is in maintenance mode, "CONTROL OPER Level 2", if the system is in normal mode.	
EXCITER	Calls up the "EXCITER Level 1" window.	
AMPLI	Calls up the "AMPLIFIERS" window. **(a)**	
INTLOCK	Calls up the "INTLOCK" window. **(a)**	
PSUPPLY	Calls up the "POWER SUPPLY" window. **(a)**	
AFFIN.	Calls up the "AFFINITY" window. **(b)**	

(a): Not Visible for AFFINITY family

(b): Not Visible for OPTIMUM or ULTIMATE families

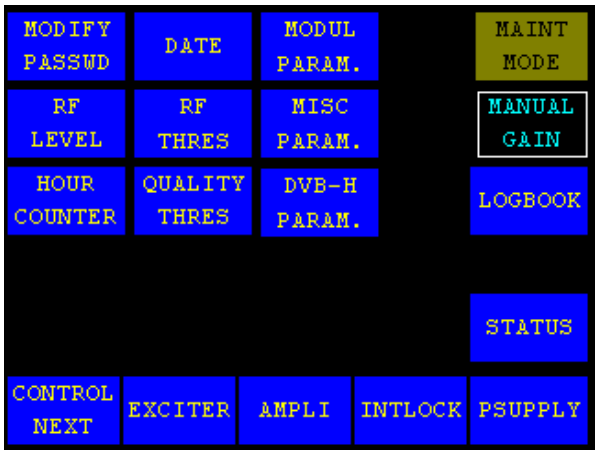
MESSAGE	FUNCTIONS	DISPLAY/COMMENTS
SERIAL	Displays the current remote control mode of the transmitter.	SERIAL / PARALL SERIAL : Remote control through a RS432/485 serial link. PARALL (Remote controls and indicators): Remote control through hard wired connections.
LOCAL	Displays the selected user interface.	REMOTE / LOCAL REMOTE : Indicates a remote user interface. LOCAL : Indicates Local Control Panel. Only commands from the selected user interface will be operative. Flashes until the "CTRL" command is either validated or cleared.
ON Only in Double Drive Version	Displays the status (on or off) of the reserve exciter.	OFF / ON Flashes until the "STDBY" command is either validated or cleared.
AUTO Only in Analogue Transmitter	Displays the on-air/off-air switching mode selected	MANUAL, AUTO Flashes until the «START» command is either validated or cleared
NORMAL / MAINT	Displays the current operating mode of the transmitter (maintenance mode or normal mode).	NORMAL / MAINT Flashes until the "MODE" command is either validated or cleared.

2.1.10. "CONTROL MAINT Level 2" window for Maintenance mode

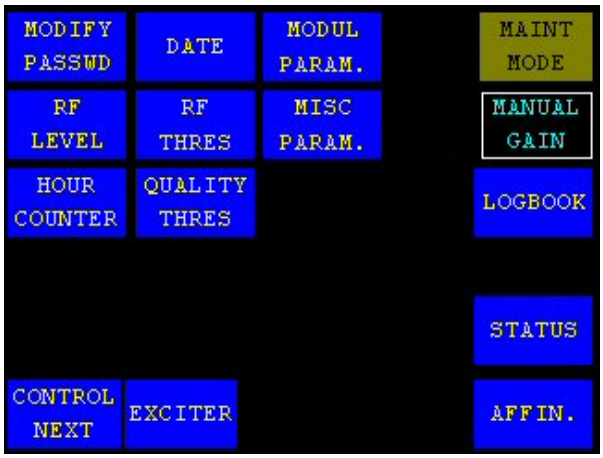
This window is called up by pressing the "NEXT CONTROL" control keys in the "CONTROL Level 1" window while the transmitter is in maintenance mode.

It provides access to commands and information which are only available in maintenance mode.

OPTIMUM FAMILY OR ULTIMATE FAMILY



AFFINTY FAMILY



CONTROL KEYS	FUNCTIONS	DISPLAY/COMMENTS
MODIFY PASSWD	Calls up the "MODIFY PASSWORD" window (for changing the password).	This control key is available according to your installation choice (PASSWORD DISABLE, ENABLE) Control key visible in selection « PASSWORD ENABLE » only.
RF LEVEL	Calls up the "RF LEVEL" window.	
HOUR COUNTER	Calls up the "HOUR COUNTER" window.	
DATE	Calls up the "DATE & TIME" window.	
RF THRES	Calls up the "RF THRESHOLD" window.	
QUALITY THRES	Calls up the "QUALITY THRESHOLD SETTINGS" window.	
MODUL PARAM.	Calls up the "MODULATOR PARAMETERS" window.	
MISC PARAM.	Calls up the "MISCELLANEOUS" window.	
DVB-H PARAM.	Calls up the "DVB-H MODULATOR PARAMETERS" window.. **(1)**	The control key is according to your installation mode

CONTROL KEYS	FUNCTIONS	DISPLAY/COMMENTS
LOGBOOK	Calls up the "LOGBOOK" window.	
STATUS	Calls up the "TRANSMITTER STATUS" window.	
NEXT CONTROL	Calls up the "CONTROL MAINT Level 3" window.	
EXCITER	Calls up the "EXCITER Level 1" window.	
AMPLI	Calls up the "AMPLIFIERS" window. **(a)**	
INTLOCK	Calls up the «INTERLOCK» window **(a)**	
PSUPPLY	Calls up the "POWER SUPPLY" window. **(a)**	
AFFIN.	Calls up the "AFFINITY" window. **(b)**	

(a): Not Visible for AFFINITY family

(b): Not Visible for OPTIMUM or ULTIMATE families

(1): Visible for DVB-H transmitter only

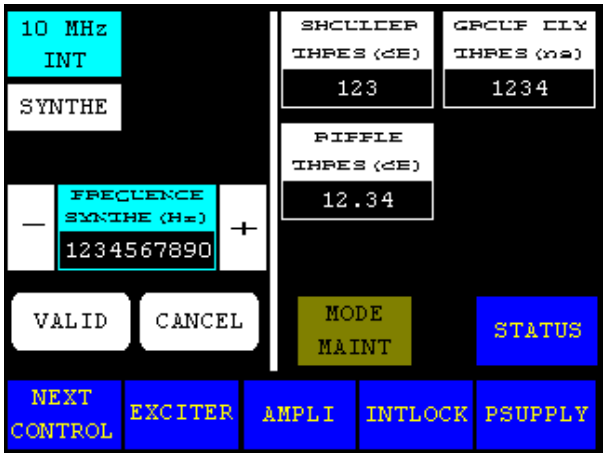
MESSAGE	FUNCTIONS	DISPLAY/COMMENTS
MAINT MODE / NORMAL MODE	Displays the current operating mode of the transmitter *(maintenance mode or normal mode)*.	The "MAINT MODE" message window must be displayed. Blinking message to indicate that the maintenance mode is operating
MANUAL GAIN / AUTO GAIN	Displays, which gain control mode (manual or automatic), is currently picked up by the transmitter.	MANUAL GAIN / AUTO GAIN

2.1.11. "CONTROL MAINT Level 3" window for Maintenance mode

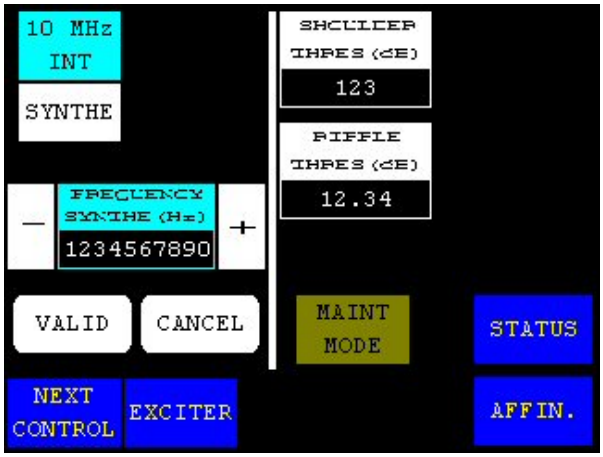
This window is called up by pressing the "NEXT CONTROL" control keys in the "CONTROL MAINT Level 2" window while the transmitter is in maintenance mode.

It provides access to commands and information which are only available in maintenance mode.

OPTIMUM FAMILY OR ULTIMATE FAMILY



AFFINTY FAMILY



CONTROL KEYS	FUNCTIONS	DISPLAY/COMMENTS
SYNTHE	Selects the RF synthesiser alarm mode. Toggles between 10 MHz INT and 10MHz EXT	Flashes until the "SYNTHE" command is either validated or cleared. Commands are disabled while the PCL is locked (disabled).
— / +	Increments or decrements RF synthesiser frequency value.	Control keys are only invisible in SFN mode operation.
VALID	Validates a selection.	
CANCEL	Cancels a selection.	
SHOULDER THRES (dB) 123	Calls up the "NUMERICAL VALUE" window in which the shoulder threshold beyond which the exciter performs a correction can be changed. Displays last selection.	
RIPPLE THRES (dB) 12.34	Calls up the “NUMERICAL VALUE” window in which the ripple threshold beyond which the exciter performs a correction can be changed. Displays last selection.	
GROUP DLY THRES (ns) 1234	Calls up the “NUMERICAL VALUE” window in which the group delay threshold beyond which the exciter performs a correction can be changed. **(3)** Displays last selection.	

CONTROL KEYS	FUNCTIONS	DISPLAY/COMMENTS
STATUS	Calls up the "TRANSMITTER STATUS" window.	
NEXT CONTROL	Calls up the "CONTROL Level 4" window.	
EXCITER	Calls up the "EXCITER Level 1" window.	
AMPLI	Calls up the "AMPLIFIERS" window. **(a)**	
INTLOCK	Calls up the «INTERLOCK» window **(a)**	
PSUPPLY	Calls up the "POWER SUPPLY" window. **(a)**	
AFFIN.	Calls up the "AFFINITY" window. **(b)**	

(a): Not Visible for AFFINITY family

(b): Not Visible for OPTIMUM or ULTIMATE families

(3): MediaFLO modulator only

MESSAGE	FUNCTIONS	DISPLAY/COMMENTS
MAINT MODE / NORMAL MODE	Displays the current operating mode of the transmitter *(maintenance mode or normal mode)*.	The "MORMAL MODE" message window must be displayed. Blinking message to indicate that the maintenance mode is operating
10 MHz INT	Displays the RF synthesiser alarm mode.	10 MHz INT, 10 MHz EXT
FREQUENCY SYNTHE (Hz) 1234567890	Displays the RF synthesiser frequency value.	

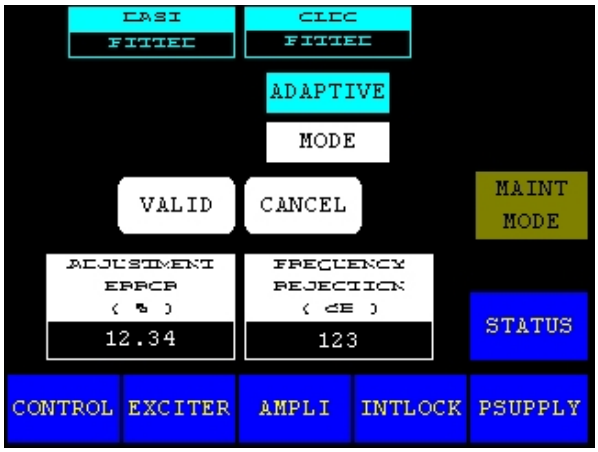
2.1.12. "CONTROL MAINT Level 4" window for Maintenance mode (MODAP version ONLY)

This window is called up by pressing the "CONTROL NEXT" control keys in the "CONTROL MAINT Level 3" window while the transmitter is in maintenance mode.

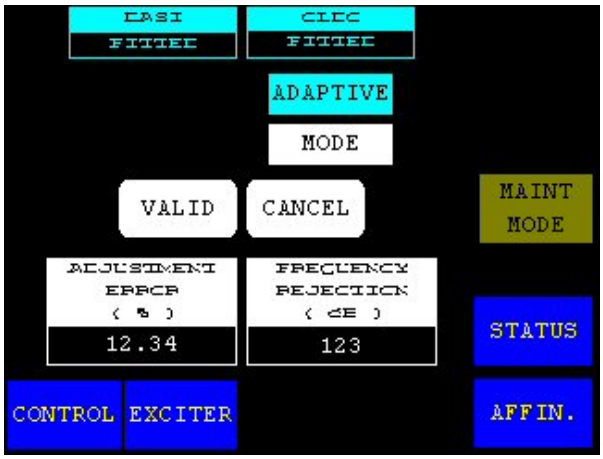
It provides access to commands and information which are only available in maintenance mode.

NOTE: This windows is available in COFDM MODAP version only.

OPTIMUM FAMILY OR ULTIMATE FAMILY



AFFINTY FAMILY



CONTROL KEYS	FUNCTIONS	DISPLAY/COMMENTS
MODE	Selects the type of correction performed by the OLDC card (Fixed or Adaptive).	Command is disabled while the PCL is locked (disabled). In fixed position, the OLDC correction parameters are not continuously adjusted.
CANCEL	Cancels a selection.	
VALID	Validates a selection.	
ADJUSTMENT ERROR (%) 12.34	Calls up the "NUMERICAL VALUE" window in which the I/Q amplitude error threshold beyond which the OLDC card performs a correction can be changed. Displays last selection.	Command is disabled while the PCL is locked (disabled).
FREQUENCY REJECTION (dB) 123	Calls up the "NUMERICAL VALUE" window in which the central frequency rejection threshold beyond which the OLDC card performs a correction can be changed. Displays last selection.	Command is disabled while the PCL is locked (disabled).
STATUS	Calls up the "TRANSMITTER STATUS" window.	
CONTROL	Calls up the "CONTROL Level 1" window.	

CONTROL KEYS	FUNCTIONS	DISPLAY/COMMENTS
EXCITER	Calls up the "EXCITER Level 1" window.	
AMPLI	Calls up the "AMPLIFIERS" window. **(a)**	
INTLOCK	Calls up the «INTERLOCK» window **(a)**	
PSUPPLY	Calls up the "POWER SUPPLY" window. **(a)**	
AFFIN.	Calls up the "AFFINITY" window. **(b)**	

(a): Not Visible for AFFINITY family

(b): Not Visible for OPTIMUM or ULTIMATE families

MESSAGE	FUNCTIONS	DISPLAY/COMMENTS
DASI FITTED	Displays whether a Double ASI input is present or absent in the MODAP unit.	DASI NOT FITTED / DASI FITTED
OLDC FITTED	Displays whether an OLDC unit is present or absent.	OLDC FITTED / OLDC NOT FITTED
ADAPTIVE	Displays the type of correction (fixed or adaptive) performed by the OLDC unit. Displays last selection.	ADAPTIVE / FIXED In fixed position, the OLDC correction parameters are not continuously adjusted.
MAINT MODE / NORMAL MODE	Displays the current operating mode of the transmitter *(maintenance mode or normal mode)*.	The "MAINT MODE" message window must be displayed. Blinking message to indicate that the maintenance mode is operating