



ITALPRESSE USA, INC.  
26520 Mallard Way  
Punta Gorda, FL 33950  
Office (941) 639-2100  
Toll Free (888) 743-8505

# **“XL” Series Hot Presses**

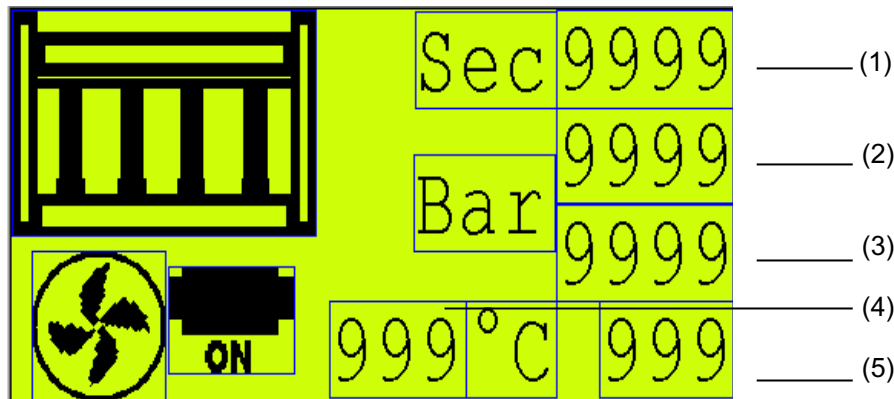
**Operating Instructions for MFD 80 Controller**

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# 1.BASIC MACHINE OPERATION

The LCD controller allows you to set and monitor the pressing time for automatic opening of the press, the hydraulic pressure to control laminating pressure, activate cylinder exclusion valves when pressing smaller panels, and the platen temperature. The operating software has two operating menus and additional sub-menus to adjust press parameters and the automatic startup timer for the boiler. During normal operation, you use only the: **Operating Menu** (Picture 1) and **Data Menu** (Picture 2). Pressing the **ESC Button** will switch screens from one menu to the other.

Picture 1



The **Operating Menu** (Picture 1) displays all the cycle parameters: (1) PRESSING TIMER COUNTDOWN; (2) SET HYDRAULIC PRESSURE; (3) ACTUAL HYDRAULIC PRESSURE; (4) SET PLATEN TEMPERATURE; (5) ACTUAL PLATEN TEMPERATURE. None of these parameters can be modified while viewing this screen.

The fan blade icon indicates that the hot oil circulation pump is on or off and the icon to the right of it indicates that the heating elements are on or off. If the icons are not present on the screen, the fan and or heating elements are not on. If they are blinking, the auto startup timer is activated, but the timed heating period has not started. By **quickly** pressing the **"OK"** button **twice**, the circulation pump is turned on. **Quickly** press the **"OK"** button **twice again**, and the heating elements are turned on. **Quickly** pressing the **"OK"** button **twice again** turns the circulation pump and heating elements off. This operation can be carried out only while viewing this screen.

The icon in the upper left corner is a side view of the press showing the press cylinders and moving platen. The picture will change to indicate that the press is open or closed and cylinders will become outlines when the exclusion valves are activated assuming the press is equipped with this feature.

Picture 3



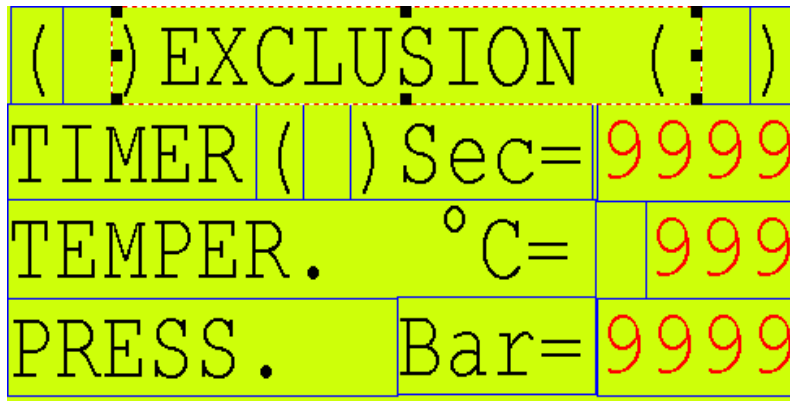
A **"WARNING"** icon may appear next to either the press icon or the heating system icons.

When it appears next to the **press icon**, it indicates that there is a problem with the hydraulic pressure transducer.

When it appears next to **heating system icons** it indicates one of the follow problems:

- **A fault in the digital temperature sensing system**
- **One or all of the high temperature alarm thermo-regulators installed in each heating module have been activated indicating a lack of thermal fluid flow or a fault with the heating element electrical controls**
- **The safety pressure switch installed on the hot oil circulating pump is not sensing pressure. For presses heated with hot water, check that the pressure gauge for the heating system is indicating a pressure of more than 1.5 bars.**

**Picture 2**

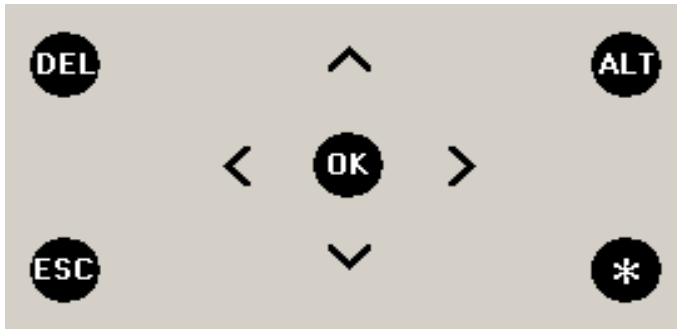


At the **Data Menu** (Picture 2) you can set values for the following parameters. The **PRESS MUST BE FULLY OPEN TO CHANGE ANY OF THESE VALUES.**

- exclusion of press cylinders
- pressing timer activation
- pressing time in seconds
- platen temperature in °C
- hydraulic pressure in bar

**To change the settings and values, use the pushbuttons located under the LCD screen (Picture 4).**

**Picture 4**



Press the **“OK” button once** and a cursor will appear in the box for setting the cycle time. Use the arrow keys to scroll up or down to the temperature and pressure fields. When the cursor is in the field you want to change, press the **“OK” button once again**. The cursor will begin to blink. Use the **“RIGHT”** and **“LEFT”** arrow keys to choose the character you want to modify. Use the **“UP”** and **“DOWN”** arrow keys to change the values. Once you have completed the changes, press the **“OK” key followed by the “ESC” key** to save the changes. Press the **“ESC” key again** to return to the Operating Screen (Picture 1).

**ATTENTION:** Depending on the specifications of the press, the maximum pressure you can set is 300, 320, or 350 bar and the maximum platen temperature is either 90° C or 120° C. In case you attempt to enter a value higher than allowed for your press, the value will default to the maximum allowable value when you try to save the change and exit to the OPERATING MENU (Picture 1).

**EXCLUSION OF CYLINDERS:** This is an optional feature that your press may or may not be equipped with. If so equipped, the first exclusion is the far left hand pair of cylinders and the second exclusion is both the far left hand and far right hand pair of cylinders.

- press **“ALT”** key two times to activate the **exclusion of the left hand pair of cylinders** (a **“X”** will appear to the left of the word **“EXCLUSION”**)
- press the **“ALT”** key two times again to activate the **exclusion of the right hand pair of cylinders** (a **“X”** will appear to the right of the word **“EXCLUSION”** (both the left hand and right hand pair of cylinders will now be excluded)
- press **“ALT”** key two more times to **turn off** the **cylinder exclusion function** (the **“X’s”** next to the word **“EXCLUSION”** will disappear meaning that all cylinders are active).

**PRESSING TIMER:**

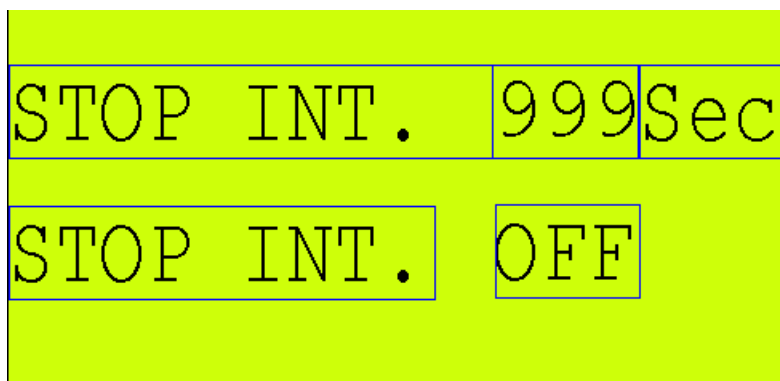
- Press the **“ASTERISK”** key **once** to activate the **pressing timer**. A **“X”** will appear next to the word **“TIMER”** indicating the timer is activated and the press will automatically open at the end of the set time cycle. Pressing the **“ASTERISK”** button **once again** deactivates the **pressing timer** and the **“X”** disappears next to the word **“TIMER”**. When the pressing timer is not activated, you will need to press the green button with the **“DOWN ARROW”** on the control panel to open the press manually.

### PARTIAL OPENING OF THE PRESS:

- If you don't want the press to open completely after each press cycle, you can active a function that limits the amount of opening. You must begin at the **OPERATING MENU** (Picture 1). Pressing the "**DEL**" key once activates the function. A small dash "-" will appear just to the right of the press icon. This indicates that the function is active. To set the amount of opening, press the "**ESC**" key to go to the **DATA MENU** (Picture 2). Pressing the "**DOWN ARROW**" key **once** from this menu will take you to the menu shown in Picture 5 where you can enter a time in seconds. This is the amount of time that the press is opening. It takes the press about 14 to 15 seconds to open fully to 400 mm of opening. Entering a time less than this will limit the amount of opening, such as 7 seconds to stop at about half opening. Once at this menu, press the "**OK**" **button twice** for the cursor to appear that allows you to change the opening time. Use the "**UP**" and "**DOWN**" arrows to change the value. Press the "**OK**" and "**ESC**" keys to save the value. Press the "**ESC**" key again to return to the **OPERATING MENU**.

**NOTE:** When using the **PARTIAL OPENING** function, the lower press platen does not trip the roller arm limit switch located at the right rear vertical frame of the press when it opens. This switch must be tripped in order to make any changes to the cycle parameters. After the press stops in the intermediate position, press the **GREEN DOWN ARROW** button on the control panel to open the press fully. Then you can make changes to the press cycle parameters.

**PICTURE 5**



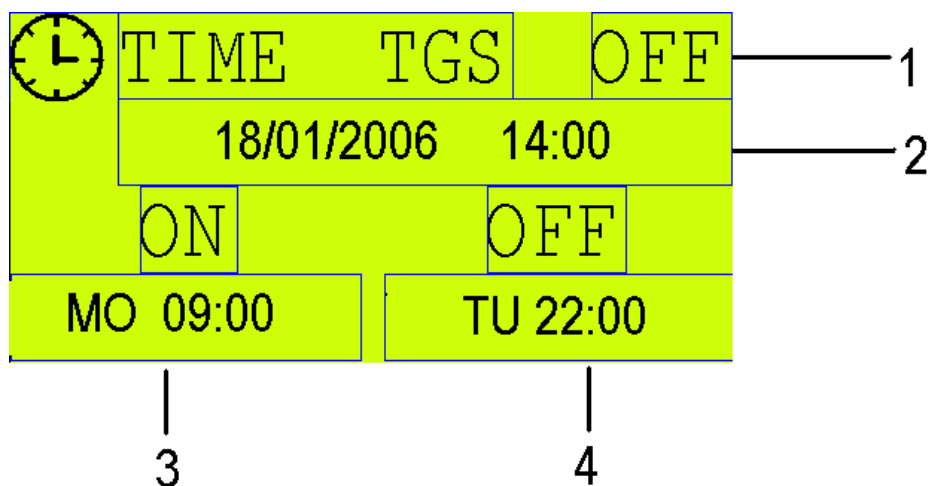
## 2. Boiler Auto Start-up Timer

For the Boiler Auto Start-up Timer to function correctly, it is important that the both the date and time are accurately set. IF THE MACHINE HAS NOT BEEN USED IN MORE THAN 72 HOURS (3 DAYS), THE TIME AND DATE SETTING WILL BE LOST AND MUST BE RESET.

From the **Data Menu** (Picture 2) press the “**Right**” arrow key to access the screen in **Picture 6**.

Box 2 shows the current Date in the **European Format (Day/Month/Year)** and Time in the 24-hour format meaning for instance that 4:00 PM is entered as 16:00. To set the **Date and Time**, press the “**OK**” key and a cursor will begin to blink at the **Date Field**. Use the “**LEFT**” and “**RIGHT**” arrow keys to move to the character you want to change. Use the “**UP**” and “**DOWN**” arrow keys to change the value. Press the “**OK**” key to move to the **Time Field** and repeat the procedure. Press the “**OK**” key and the “**ESC**” key to **save the settings**. Press the “**ESC**” key again to return to the **Operating Menu (Picture 1)** or the “**LEFT**” arrow key to return to the **Data Menu (Picture 2)**.

**Picture 6**



- **BOX 1** indicates the present status of the boiler timer (**OFF** or **ON**). Press the “**ASTERISK**” key to change the status of the timer: **OFF** = timer off - heating system must be manually turned on from the Operating Menu (Picture 1); **ON** = timer active - heating system controlled by the setting in the timer.
- If the timer is activated, the heating system will be turned on at the day and time indicated in **Box 3** and turned **OFF** at the day and time indicated in **Box 4**.

**Picture 7** shows the timer set to operate the boiler in the following time sequence:

DAY	STATUS OF HEATING SYSTEM
MONDAY	9:00 – Boiler ON
TUESDAY	22:00 – Boiler OFF

You can activate the timer from the **OPERATING MENU (Picture 1)** by pressing the “**ASTERISK**” key once and deactivate it by pressing the “**ASTERISK**” key again. The letter “**T**” will appear to the left of the **circulating pump icon** indicating that the timer is **activated**. You must also activate the **circulation pump** and **heating elements** by pressing the “**OK**” button **twice quickly and again twice quickly**. The pump icon will appear and the **heating icon will be blinking** indicating that the boiler is in stand-by mode waiting for the programmed start time. You must also leave the Key Switch turned on overnight for the boiler to start automatically.

**BE SURE TO CHECK THAT THE DATE AND TIME ARE CORRECTLY SET BEFORE ACTIVATING THE TIMER.**

### 3. Control Parameters Menu

The various control parameters are divided into three passwords protected pages. The pages are accessed in sequence, meaning that if you want to access the page protected by Password 3, you must first enter the pages protected by Passwords 1 and 2. From the **Data Menu** screen (Picture 2) press the “**RIGHT**” arrow key until a page appears that prompts you for a password. You are then prompted to enter **Password 1**. Pressing the “**RIGHT**” arrow key again until prompted to enter **Password 2** and then repeat this again for **Password 3**. Once all the pages are open, you can scroll through the three menus with the “**LEFT**” and “**RIGHT**” arrow keys. Access to these pages will stay active until the machine is turned off. Pressing the “**ESC**” key will return you to the **Data Menu**. *The press must be fully open to access these pages.*

Use the “**UP ARROW**” key to enter the password values digit by digit. Use the “**RIGHT ARROW**” key to move to the next digit. When moving to the next digit, the value you set for the preceding digit disappears and becomes an **ASTERISK (\*)**. Press the “**OK**” key when you have entered all five digits of the password.

**PASSWORD 1= 11111**

**PASSWORD 2= 35000**

**PASSWORD 3= 21117**

The press parameters menu is accessed with **Password 1**

Exclusions delay time	7	Sec
Depressurizing time	0	Sec
Min. hydraulic pressure	15	Bar
Pre-stop pressure	0	Bar
Max platen temperature	120 (C) or 248 (F)	°C or (°F)
Delta platen temperature	2 (C) or 4 (F)	°C or (°F)
Max hydraulic pressure	350	Bar
Delta hydraulic pressure	5	Bar

Calibration of the Pressure and Temperature Transducers is accessed with **Password 2**.

PRESSURE	ADC
0	2
150	400
355	962

TEMPERATURE	ADC
0 (C) or 32 (F)	67
218 (C) or 425 (F)	1023

The menu for selecting the pressure / temperature scales, the display language, and delta alarm temperature is accessed with **Password 3** (Picture 7)

### Picture 7

SCALA PRES.=	Bar
SCALA TEMP.=	°C
SOGLIA TEMP=	999
LINGUA =	ITA

Press the “**ALT**” key to change the pressure scale from “**BAR**” to “**PSI**”. Please note that making this change only changes the designation next to the readout value. You must change the appropriate values in the Press Parameter Menu and the Hydraulic Pressure Transducer Calibration Menu. The factory recommends to leave the pressure readout in BAR. Contact the Italtipresse office for advice on making this change.

Press the “**ASTERISK**” key to change the temperature scale from **Centigrade** to **Fahrenheit**. Please note that making this change only changes the designation next to the readout value. You must change the noted values in the Press Parameter Menu and the Temperature Transducer Calibration Menu in order for the readout to be correct.

Press the “**DEL**” key to change the **Display Language**.

Press the “**OK**” key to change the **Delta Alarm Temperature**. The cursor will begin to blink. Use the “**Right and Left Arrow**” keys to select the character to change. Use the “**Up and Down Arrow**” keys to change the value. Press the “**OK**” and “**ESC**” key again to save the value.

Press the “**ESC**” key again to return to the **OPERATING MENU**.