ACROMARK HOT STAMP PRESS

FACE PANEL CONTROLS AND THEIR FUNCTION
(Manual Presses/ Mitsubishi controls with F920-GOT Displays)

1. MAIN POWER SWITCH - Key pad will illuminate and machine becomes functional when switched “ON.”

(Press the Fl key to “enter” and reach the menu screen)

2. HEAT SWITCH - Can be turned “ON” without “Power” switch being turned on in order to preheat press. When activated, the temperature controller illuminates.

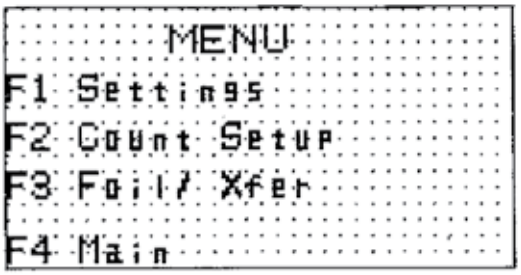
3. KEYPAD DISPLAY - The control will be programmed at the factory for the appropriate number of timers, a count function, and other special features as needed for each specific press. The use of the function (F1, F2, F3, & F4) keys and arrow keys are explained later in these instructions.

4. EMERGENCY STOP - A red mushroom button labeled “Emergency Stop” will halt the cycle of the press immediately upon actuation, causing the head to return to its up/home position. To reset the press, this button must be pulled out.

5. TEMPERATURE CONTROL - The controller will display either the set or actual temperature. In its static mode, the actual temperature will be displayed. The set temperature can be changed by depressing and holding the asterisk button on the bottom left the display will flash “° F” and your set temperature. By depressing the up and down arrow buttons, the number will increase or decrease. When the desired reading is reached, simply release all buttons.

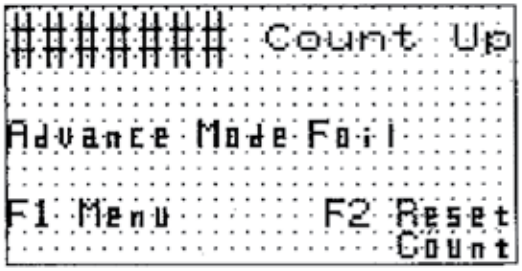
WORKING SCREENS ON THE CONTROLLER KEYPAD

MENU SCREEN



This screen allows access to appropriate screens

MAIN SCREEN



Information displayed on this screen includes:

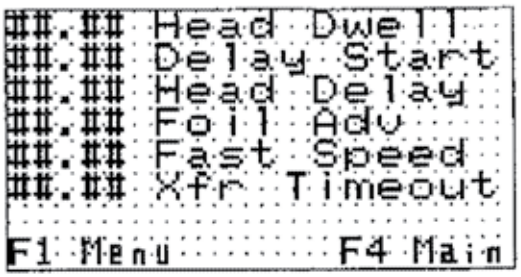
The “count mode” for the press (either counting up as an accumulating counter or counting down as a batch counter)

The current “part count” on the machine

Resetting your displayed count to zero (pressing F2)

TIMER SCREEN

To access the timer screen, press FI on the menu screen'. The display shown below will appear:



TIMER SETTINGS - This controller is equipped with a number of addressable, internal timers. Depending on the options selected for your particular press anywhere from one to six of these timers have been programmed at the factory. These timers are identified as follows:

Head Dwell- Determines the time the die is in contact with the part under set temperature and pressure.

Delay Start - Determines the distance the head comes up before stopping for the start of your strip delay.

Head Delay - Determines the time that the head stays at the delayed height to allow the foil and the part to cool prior to carrier stripping.

Foil Advance — When the transfer mode is turned "OFF" or for presses-with the standard motorized foil advance system, this timer determines the length of the foil pull, more time equaling a longer pull.

Fast Speed - Foil advance time at high speed, programmed to minimize the time required to complete the advance of preprinted heat transfers. The foil advance motor automatically switches to a slower speed when this timer times out, completing the carrier pull when the witness mark is seen by the electric eye.

Transfer Time Out - This timer is set to prevent a continuous pull of transfer carrier in the event that a misalignment occurs and the electric eye does not see the witness mark. If a normal advance is 1.5 seconds, for example, this timer should be set for 3.0 seconds.

The procedure for setting the timers is as follows:

Press “SET”. Scroll the cursor using the directional arrow keys of the display. The left or up pointing arrow moves the cursor up, the right or down pointing arrow Moves it down. When the cursor rests on the timer that you wish to access, enter the new value with the keypad; be sure to use the decimal point to enter the correct number. Press “ENT”. Changes have been made and the new value is displayed.

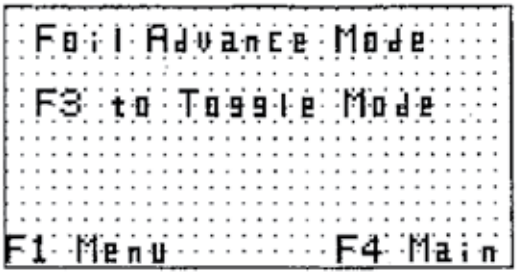
Definition of various timers:

Head Dwell Time - This timer controls the interval from the physical activation of the head down proximity switch mounted behind the depth stop cylinder on top of the press. The resulting dwell time is what is called a “pure dwell” or the time the die is actually contacting the part This feature allows for a much finer degree of control as it is not effected by fluctuations in either air line pressure or ram speed as in other conventional presses. With the 800 Series presses this timer measures the actual time of “high pressure” activation, again giving you a “pure dwell” time measurement.

Delay Start - The foil strip delay circuit on the ACROMARK presses allows the heated die to be lifted up from the marked part to allow the mark to cool prior to stripping the carrier and foil from the part. This reduces flaking that occurs on some metallic foils and allows for successful marking on polyolefins. This timer actuates a solenoid valve that blocks the return flow from the main power cylinder, stopping the upward movement of the heated head. The longer the time entered, the higher the head will lift before being stopped. The time should be set to raise the head approximately one inch. The actual time required will be a function of several combined factors: the size (and thereby the weight) of the heated head and the actual pressure on the air regulator setting on the press. The bigger and heavier the head, the more time will be required. The higher your pressure setting, the less time will be required. A suggested starting point for this timer is a setting of 0.30 seconds. Test cycle the machine and adjust this timer for greater or lesser height by increasing or decreasing the setting.

Head Delay - Once you have established a correct height above the part (the die approximately one inch up but the foil/carrier still attached to the mark) set this timer according to test marks you will make with the die at marking temperature. Variables here will include the temperature of your die, temperature of the marked part, dwell time on the part, and release and adhesion properties of the specific foil being used. Start with a setting of 1.00 and adjust accordingly.

By choosing F3 from the MENU, you will access a screen that allows you to• choose between Foil Mode and Transfer Mode. This sample screen shows the press to be in Foil Mode and in order to switch to Transfer Mode, instructs you to push F3. The display will reflect the mode chosen.



Foil Advance - When the press is in Foil Mode, the foil advance motor is started by actuation of a head-up switch, a maintained proximity switch set to automatically trip at completion of the marking cycle. The length of the foil advance is controlled by a timed pulse produced by this foil advance timer. The longer the time setting, the longer the advance of the foil. Factors such as foil roll diameter and feed spring tension will affect actual distances for each set- up.

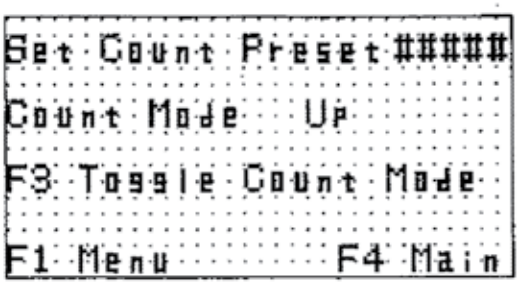
NOTE: The foil advance motor is protected from overload by a replaceable 'I amp "slow blow" fuse. This should be checked first if a malfunction occurs on the advance system.

CUMULATIVE COUNT VERSUS BATCH COUNT FUNCTIONS

Most companies simply allow the counter on this controller to perform a cumulative count, adding one number with each cycle of the head while in a production run. In the event that you need to run specific batch counts, you can set the press to count down from a predetermined number, decreasing the count with each cycle of the press **AND STOPPING THE FUNCTIONING OF THE PRESS WHEN THIS COUNT REACHES ZERO.**

This point is emphasized to alert you to a potential trouble point when using the batch or down count mode. When the count reaches zero, the press will not function upon actuation of the hand switches. An error message will appear for 3 seconds alerting you to reset the counter. The count must be reset before the press will cycle, reset in the same way as the count up counter as explained on the detail for the main display screen.

To set the batch counter, press “F2” from the MENU and the screen illustrated below will appear. By pressing F3, “Count Down” will appear under “PRESET COUNT” and you will be able to enter a number for the batch using the same procedure as the timer settings explainer earlier.



Return to the main screen by pressing F4, press F2 to RESET THE COUNT, ‘and start your run.

Any other questions should be directed to the factory in New Jersey.

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For initial set up use a dwell time (T-1 timer) of 1.00 seconds, delay strip timers each at 0.00 (T-2, and 1-3), assuming your press has this option activated or installed, and the motor foil advance timer (T-5) at an appropriate time for the length of your mark. By depressing the two palm buttons and holding them down until the high pressure is activated, a test mark can be made. NOTE: release of the buttons prior to high-pressure initiation will cause the head to automatically retract. This is the anti-pinch point safety circuitry for this press.

By evaluating the mark made by this test cycling, adjustments can now be made to either the dwell timer, high pressure regulator, or, lastly, temperature controller. NOTE: The high-pressure setting will provide the high tonnage squeeze for the marking as indicated on the gauge on the main power cylinder of the press. There should be no reason to make changes to the low pressure setting, unless the combined weight of the die and the heated head is such that more air pressure is needed to raise the head fully after the marking cycle. If delayed foil strip is found to be required, appropriate times should be entered in the two timers (T-2 and T-3.) See the instructions on the appropriate controller as detailed elsewhere in this manual.

Raising Table:

On standard "C" frame presses a raising table is installed which allows for adjusting the height between the die plate on the heated head and the fixtured part to be marked. It is only necessary with this press to bring the part to within the stroke of the power cylinder (4" to 8" depending on the style press) when the heated head is in its uppermost rest position. Any other variations in part location or part thickness are automatically compensated for by the air/oil power system. Adjustments need to be made to the central threaded support shaft and the four outboard supports. The center shaft is captivated with a bored tube. On the front of this tube is a locking screw which should always be loosened before attempting to raise or lower the table. Likewise, this screw should be retightened after the height is set to assure a stable fixture -base-and prevent the table from moving after completion of the set up.

Leveling of the heated head:

The head is mounted to an orange ram plate on offset bolts which allow for the adjustment of alignment of a mounted to the fixtured part during the set up operation. On machines supplied without specific tooling packages installed at the factory, these bolts are set at the factory such that the bottom of the die mounting plate is parallel to the work platen., If all of the procedures outlined above are followed and the die is mounted properly over a securely fixtured part, there may still exist the need to level the surface of the die to match the alignment of the part. With this leveling system it is possible to make simple adjustments using the offset bolts that will preclude the need to shim the support fixture or use excessive amounts of make-ready under the part to bring it to a proper alignment with the die.