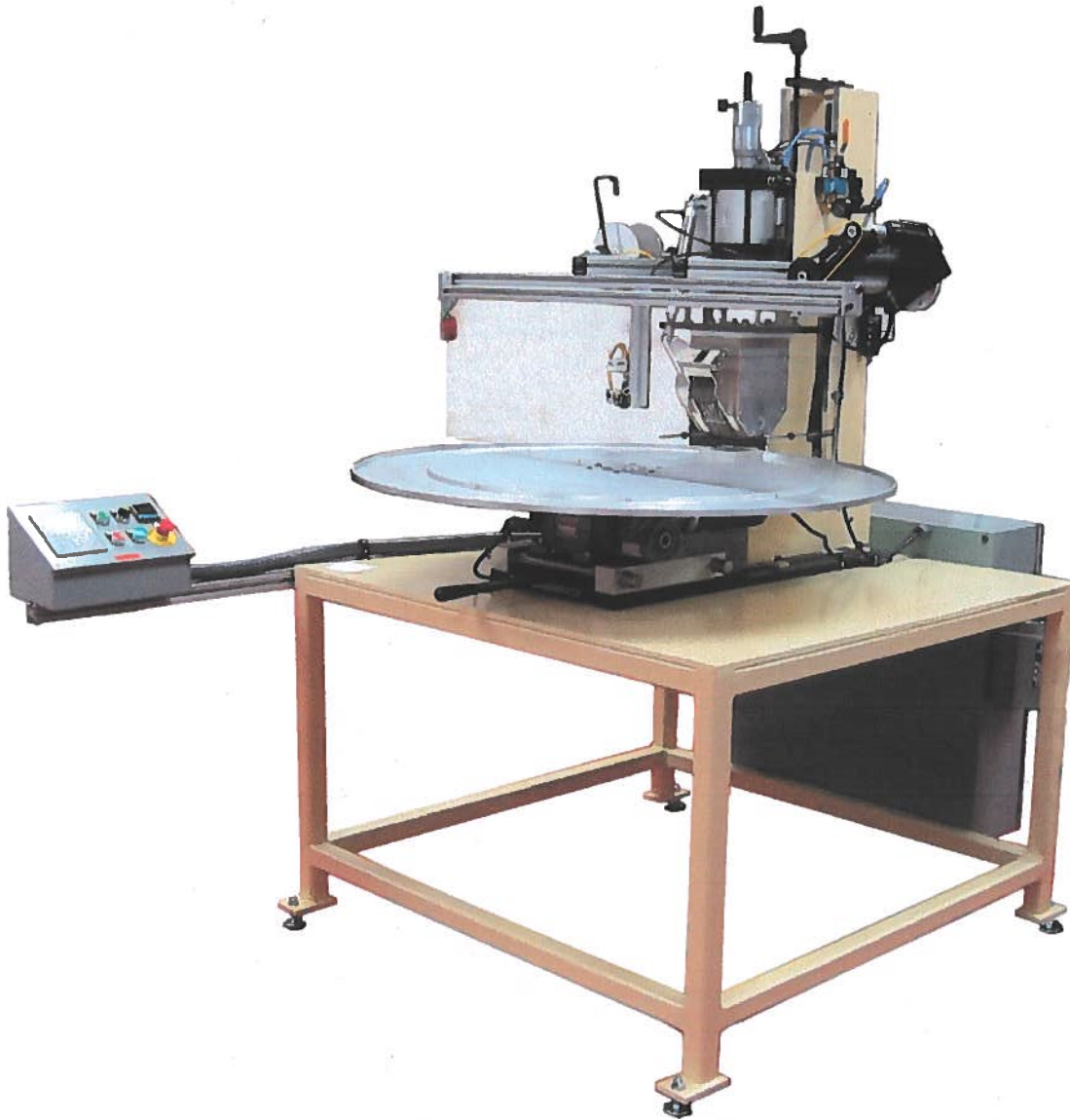


SCREEN TECH INC.

ACROMARK

MANUFACTURER OF DECORATING & AUTOMATION MACHINERY
230 Ella Grasso Ave. Torrington, CT 06790

MODEL 530E-50-601/8





MANUFACTURER OF DECORATION & AUTOMATION MACHINERY
230 Ella Grasso Ave. Torrington, CT 06790

**INSTRUCTION MANUAL
&
PARTS LIST**

BUILT FOR: Farnam/ Tech. Molded Prod.

SERIAL NUMBER: 115088

MODEL NUMBER: 530E-50-601/8

VOLTAGE: 220

PHASE: 1

HERTZ: 50/60

AIR: 20-100 psi

DATE: March 2007

******ACROMARK LIMITED MACHINE WARRANTEE******

ACROMARK Industries warrants that the machine sold shall be free from defects in material and workmanship and that all parts, either purchased or manufactured, are warranted for a period of one year following date of shipment from the ACROMARK plant. This warranty is limited to either the replacement or repair of any defective part, at the sole discretion of ACROMARK Industries, Inc.

Any defective part must be returned to the plant, freight prepaid. The repairs and/or replacement will be completed and the part returned freight prepaid via the least expensive method of transportation best suited for the part. Any express transportation, over and above the most economical method, will be the sole responsibility of the customer. These latter types of shipments will be made on a freight collect basis.

Replacement parts that are supplied prior to the receipt of defective parts will be invoiced to the customer, including freight and handling. Upon receipt and inspection of the defective part, the applicable credit will be issued. To avoid undue downtime in the event of the failure of a critical part, a recommended spare parts list can be supplied upon request.

Under no circumstances does this warranty imply that ACROMARK Industries is obligated to make on-site part replacements or repairs of defective materials or parts. Labor, travel, and other costs for such on-site repairs will be at the expense of the customer, less applicable credit for replacement parts. Any machine components which wear or are damaged by misuse are not covered by any warranty.

This warranty will become null and void if any guard or electrical or mechanical safety interlocks are removed or altered by the customer, regardless of the date of machine manufacture or shipment.

SAFETY

(THIS SECTION IS EXTREMELY IMPORTANT)

SAFE USE AND OPERATION OF THE EQUIPMENT IS THE RESPONSIBILITY OF THE USER

It is the responsibility of the user to establish safe operating conditions for each and every piece of equipment. A regular schedule of safety maintenance should be established at the time each piece of equipment is placed in operation. Each operator should be instructed in the proper and safe operation of the equipment. **Single station machines are designed for operation by a single (one) operator and at no time should an operator attempt to run the press with a set up requiring the assistance of a second person to hold or locate the part being decorated.** All plant personnel in any way connected with the set-up, use, or maintenance of the equipment should be familiar with the controls and operating conditions of the equipment. Maintenance should be performed only by authorized personnel thoroughly familiar with the function of all controls and safety interlocks.

Under no circumstances should safety guarding, electrical or mechanical safety interlocks be removed or so modified as to make them inoperative. Removal of any guards or electrical or mechanical safety interlocks or the overriding of any of these items will automatically make null and void any product warranty on any ACROMARK machinery.

This ACROMARK press is equipped with safety features to cover all normal operations for which the press is intended. Addition of special tooling, feeders, ejectors, etc. may require the installation of additional electrical systems or devices. Instructions with respect to the use, setting, and adjustments of safety features are detailed in the following pages. They should be carefully and thoroughly reviewed before placing the equipment in operation. These sections include, but are not restricted to the following:

- Mounting the press
- Electrical installation
- Air connection
- Safety shutoff valve
- Ram speed control
- Timer - Dwell
- Temperature Control
- Safety hand switches
- Pinch point control
- Set-up procedures
- Adjustable depth stop
- Tape guides
- Single or double acting cylinders

INTRODUCTION

Your ACROMARK Hot Stamping Machine is a rugged unit requiring minimum maintenance. It is designed to give long trouble-free service with reasonable care. Operating Instructions should be followed carefully and personnel should be trained in the operation of the machine per these instructions. The press is equipped with controls to provide the necessary flexibility to insure optimum marking results on the substrates of your choosing. These controls and their adjustments are described in detail in the following sections of this bulletin.

INSTALLATION OF THE PRESS

Location of the machine:

The equipment should be set up and arranged so that an easy, straight forward flow of parts maybe maintained from the feed side of the press. Try to avoid placing the press where irregular drafts of air might effect the constancy of the temperature on your dies, negatively effecting the quality of your marking. Guarding for your machine should be considered so as to prevent workers other than the machine operator from having access to the stamping area of the press. Such "third hand" guarding can be installed at the factory as an option to the standard single station presses. Minimally the press should be positioned in production to discourage workers other than the press operator from gaining access to the stamping area of this machine.

Electrical Installation:

Refer to the cover section of this manual for electrical service requirements. A three wire input lead with U ground plug is supplied for models requiring 110 or 220 Volt service.

Air Connection:

All models have a maximum air input capacity of 150 pounds per square inch (psi). A minimum supply pressure of 60 psi is recommended. The air connection for the press is made at the inlet of the air filter. It is recommended that you use a flexible hose of a minimum size of 1/2" to allow sufficient air flow and prevent starving of the press during peak demand periods.

Do not attempt to by-pass the air filter which has been provided to prevent moisture, emulsion, and foreign matter from entering the air lines and cylinders of the machine. This filter should be emptied as required, by means of the cock at the base of the bowl, as it will not function properly if the bowl is full of water.

Your press is equipped with a lubrication free power cylinder. Do not introduce an oiler into the air connection line as oil can adversely affect the rings in the cylinder. NOTE: An oiler may have been provided for accessories, as required, on your press.

Air consumption for your press will be vary depending upon the specific model and your requirements. Please contact ACROMARK Industries if more specific data relating to your press is required.

MODEL 500 SERIES, CONTROLS AND THEIR FUNCTION

Safety Shut-off Valve:

An air shut-off safety valve is located in the air supply line between the solenoid valve and the pneumatic cylinder. In the open position, the handle points in the direction of the orifice opening. This valve should be used to shut off the air whenever any work is being done under the marking head. It is also a good practice to shut the valve whenever the press is not in operation.

Pressure Regulators:

The air line pressure to the cylinder is controlled by the pressure regulating valve. The pressure admitted to the cylinder is indicated by the gauge. Clockwise rotation of the handle will increase pressure and counter-clockwise rotation will lower it. NOTE: To change to a lower pressure setting, allow the indicator to fall below the desired new setting and increase to the desired pressure.

Ram Speed Control:

These presses are equipped with double acting power cylinders and are fitted with flow control valves for control of the ram speed up and down. These valves take the form of flow adjustment screws found on the exhaust mufflers situated on the solenoid above the air regulator valve. Closing this valve (clockwise rotation) allows the operator to prevent the die from descending too rapidly, potentially damaging the part or the die.

Hand Switches:

All ACROMARK presses manufactured for single station tooling are equipped with anti-tie down, dual actuating safety style hand switches. These machines are intended to be operated by only one operator at a time and are wired such that both hand switches must be depressed simultaneously to operate the press and both must be released to allow the safety circuits of the equipment to reset. Older style presses have mechanical paddle hand switches. The switches in each housing should always be replaced in pairs and purchased from ACROMARK. To remove the switches, disconnect the power source to your press, remove the pivot bolt holding the paddle to the housing and lift out the paddle. Remove the two screws on the side of the housing which will allow you to lift out both switches. Refer to the wiring diagram provided in this manual for reference to switch and wire positions. It is important to replace wires and switches as illustrated on the wiring diagram to ensure that the safety circuit functions properly. When replacing the paddle, be sure to have the pivot bolt free, by leaving approximately 1/16" between the elastic stop nut and the housing. If the paddle does not lift freely after being depressed, check to see that the pivot bolt is loose and that the paddle spring at the front of the housing is in place.

NOTE: Newer presses are equipped with Opto-Touch hand switches which are replaced as a unit and are described in literature included with your manual.

MODEL 500 SERIES, CONTROLS (CONTINUED)

Pinch Point Control:

All standard presses with dual actuating hand switches described above are equipped with our additional safety circuit, referred to as pinch point control. This circuit requires that the operator maintain both hand switches in the depressed position until the head down switch is made and the marking die reaches the part, at which point and the hand switches may be released. If either switch is released prematurely, the marking head will return to the up position. The position of either the adjustable position trip dog or, on the new style machines, the vernier style depth stop control, must be set each time a new set-up is made in the press. The first system consists of two parts, the head down switch and the trip dog. The switch is permanently mounted to the press frame and the trip dog is adjustable. Proper setting of the trip dog is at a point where it will close the micro switch when the die is within 1/4" of contacting the part.

When a press is equipped with an air electric slide table, pinch point protection is still provided and set-up is the same as above. The difference is that the operator must maintain both hand switches while the table moves under the head AND the head descends to contact the part. Presses with index tables do not have pinch point circuits.

Depth Stop: NOTE: Pinch points exist on presses utilizing locking rings for depth stop control. A Depth Stop Guard is supplied with your press to protect this pinch point during operation of the press. Warning labels are supplied on the press to alert the operator to the presence of this hazard.

The double ended power cylinders used on these presses provide for a threaded top end which is provided with a spacer collar, a locking ring, and a removable cylindrical guard. (Newer models will have a micrometer style adjusting depth stop with twin locking collars and no guarding required.) This adjustable stop is used as follows:

Metal dies:

The stop is normally not used to control the depth of the impression when using metal dies unless absolutely necessary (as in the case where the die must be run very hot.) Use of a stop in this manner negates the utility of the press to automatically compensate for variations in product thickness. For the majority of jobs the depth of impression should be controlled by adjustments to the PRESSURE, DWELL TIME, AND (lastly) TEMPERATURE. The stop should ALWAYS be set to prevent the die from striking the nest or fixture in the event that the press is cycled with no work piece in position.

Rubber dies:

When using silicone rubber dies, the stop should generally be set to prevent the rubber from compressing more than 25 to 35 percent of its original thickness when in pressure contact with the part. This can normally be approximated by loosening the depth stop collar approximately 1/4 to 1/2 turn during the set up operation.

MODEL 500 SERIES, FOIL ADVANCE AND HEATED HEAD ASSEMBLIES

Set-up/depth stop adjustments:

Since these presses utilize double acting cylinders, simply turning the incoming air regulator to zero pressure will allow the weight of the head assembly to exhaust the air on the ram end of the cylinder, allowing the head to slowly descend. This action will allow alignment of mounted die to the fixtured work, setting of the depth stop, and checking clearance of movement for foil stripper bars.

Heated Head:

NOTE: These heads can be set to run at temperatures approaching 600 degrees F and can easily burn unprotected skin. Warning labels are attached to the press to warn the operator of these hot surfaces.

The actual head of your press is the heating platen for the dies. This head is provided with brass dovetail rails for holding the steel dovetail die mounting plate. This is secured by means of a 3/4" diameter nut on one side of the head (two nuts on one side for larger length heads.) **NOTE: Do not use the tightening of this nut to raise or "snug" the die mounting plate up to the heated head. The die and the mounting plate should be held up against the heated head while this nut is tightened. The brass rails are screw mounted and replacement rails are available from ACROMARK. An insulating plate is provided above the heated platen to force the heat down to the die and to prevent excessive heat build up on the tape frame.**

Heating Elements:

Heat is provided to the heated head by replaceable cartridge heaters (or flat strip heaters on heads over 24" in length.) Each cartridge heater is held in its mounting hole by a set screw located on the underneath side of the head, toward one end of the head (behind the die mounting plate, which must be removed to access these screws.) When removing a cartridge heater for replacement, loosen the set screw and pull the heater out the end of the head that has the set screw.

Foil Advance, Motorized:

The motor foil advance is actuated by a head-up, momentarily actuated micro switch that is automatically tripped during the press cycle. The motor advance is electrically interlocked with the press cycle, enabling recycle of the machine only after the foil has completely advance.

The length of the foil advance is controlled by a timed pulse produced by the foil advance timer. On systems supplied with a heat transfer feed system, this timer is overridden by the electric eye controls when they are in the "ON" mode. When turned "OFF" the foil advance timer then becomes the dominant timer and the system can be used as a standard motorized foil advance.

MODEL 500 SERIES, FOIL ADVANCE ASSEMBLIES (Continued)

The foil advance motor is protected from overload by a replaceable 2 amp, slow burn fuse. This should be checked first if a malfunction occurs on the advance system.

Tape Guides-Spring Loaded, Fixed Height:

Adjustable tape guides are provided on all tape frames. These should be set to allow the foil to remain slightly away from the heated die (approximately 1/4" is desirable.) Caution should be taken to check that the guides clear the part and fixture when the head is in the down position, a point to be checked during the set-up procedure detailed later in this section. Do not activate the press under stamping pressure until this checking procedure has been completed or there will be risk of damaging the guides or even the foil rails of the advance system.

Tape Guides-Retractable:

When supplied as an option, the retractable tape guides can be set to retract as the heated head and tape frame descend toward the part, allowing a marking on large parts that would otherwise prevent the guides from clearing to the side of the part during a normal marking cycle of the press. To properly set these tape guides, start by loosening the two middle lock collars (of the three lock collars found on each vertical portion of the guides) for one of the two guides and proceed to position the lower stripper bar at a height such that the foil is held approximately 1/4" below the surface of the mounted die. Retighten these center collars, being sure that the horizontal stripper bar is level and square to the direction of the foil flow. NOTE: If this bar is not horizontal, the foil will tend to "walk uphill", that is move toward the front or back of the heated head during normal operating of the press. Should this tendency be noted, the first thing to check is the levelness of both of these stripper bars.

After setting both sets of bars to position the foil at the proper height with the head in the retracted or "up" position, proceed to setting the four lowest collars on the two guides. These collars are used to control the spring tension that holds the foil down on the part during the initial upward travel portion of the head, following the marking of the part. Only a slight amount of pressure is required with approximately a 20% spring compression being set.

The top set of lock collars are used to halt the descent of the foil guides during the marking cycle, controlling their travel to stop them just prior to the time the die contacts the fixtured part. To adjust these collars, loosen all four collars and proceed to bring the head down as detailed in the set-up mode (by reducing your pressure regulator to zero pressure, allowing the head assembly to descend from its own weight.) With the die and stripper bars now in contact with the part, raise each vertical bar approximately 1/8" and tighten the collars with them resting on the horizontal guide bar provided, a bar that is usually positioned as extending from the top bearer block of the power cylinder. With all four tightened, reset pressure to raise the head. With proper adjustments as described above, the foil will be held away from the heated die during the ascent and descent of the power cylinder, with the retracting action occurring as the collars come in contact with the guide bar, just prior to the die contacting the fixtured part.

MODEL 500 SERIES, SET UP PROCEDURES

Set up:

To mount and align a die on the heated head, the power and heat switches should be OFF. These controls are located on the main control panel. The head can be lowered by reducing the air pressure regulator, causing the weight of the heated head assembly to bring the head down. To properly position a new die for mounting, place it exactly in place on the fixtured part, back off the depth stop (the adjustable collar on the top of the power cylinder) and reduce the low pressure to zero. The head will descend and make contact with the die. Mark the proper location on the die mounting plate with a china marker or equivalent item. With the head in the down position, set the depth stop by turning the locking collar clockwise until it makes contact with the stop collar. Increase low pressure setting slowly until the head returns to its up position.

With the head in the "UP" position, close the safety shut off valve to the air line, remove the die mounting plate and screw mount the die to the dovetail. Ample room in the mounting holes should be permitted to allow for correction of slight die misalignment on the setting up of new dies.

With the die mounted to the dovetail plate, reinstall the dovetail in the head of the press, holding the dovetail up in contact with the aluminum heated head while tightening the bolt that secures the plate to the head. Now open the safety valve and lower the air pressure again so that the head descends to contact the part. If the location has been maintained, the die should be in place and the depth stop correctly set. **NOTE:** The tightening of the dovetail clamps can be done at this point to assure that the steel dovetail plate is seated firmly against the heated head, eliminating any air gap between the plate and the head. With the plate securely tightened up to the head, increase air pressure again, returning the head to its "UP" position.

NOTE: A pinch point exists between the moving (orange) ram plate of the press and the stationary lower bearing plate of the power cylinder. A warning label is affixed to the press to alert the operator to this potential pinch point hazard.

With the die securely in place, turn the HEAT switch "ON" and wait for the die to reach its proper marking temperature. If silicone rubber dies are used, the depth stop should now be set to provide for the desired degree of compression. Approximately a half turn should be sufficient to provide a 30% compression on a 1/8" thick rubber. For metal die work the collar can be backed off a full turn (to allow for product thickness variations which will be automatically compensated for by the press while preventing the die from striking the fixture in the event that the press is cycled without a part in place.) On the locking depth stops the collar should now be locked and the protective sleeve placed over the threaded rod assembly to avoid this pinch point.

Foil can now be strung while waiting for the head to reach marking temperature. String the foil below the head and up/over the knurled roller and then down between it and the rubber roller, loosening the cam locks on the rubber roller by lifting them up. Finally wrap the foil around the scrap foil rewind cylinder and be sure the urethane rewind belt is in position. Close the cam locks and cycle the foil advance using the foil advance jog button provided to be sure the foil is tracking properly.

MODEL 500 SERIES, SET UP PROCEDURES (Continued)

When the die has reached its proper marking temperature, turn "ON" the main POWER, either by turning the POWER button on the control panel. 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 T-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, (NOTE: Setting the foil advance timer to 0.00 will make the foil advance motor appear to be not working). 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, air pressure regulator, or, lastly, temperature controller. If delayed foil strip is found to be required, appropriate times should be entered in the two timers (T-2 and T-3) if the delayed foil strip has been installed as an option on your press. See the instructions on the appropriate controller as detailed elsewhere in this manual.

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.

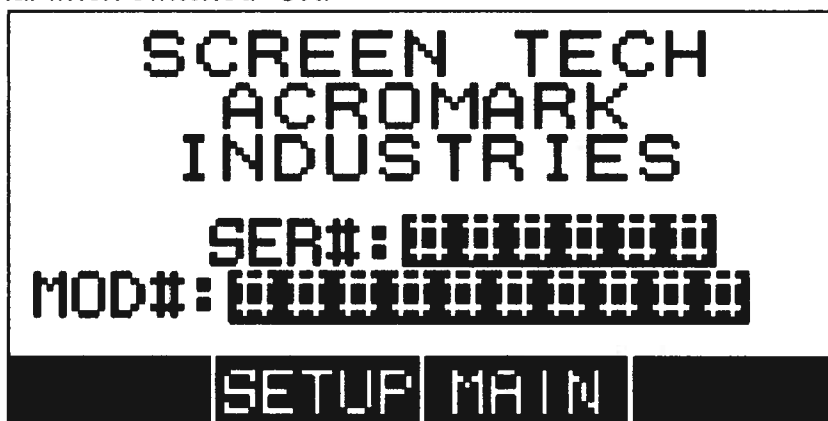
For purposes of adjusting the head, start by loosening and tightening the pairs of nuts located on the top and bottom of the orange ram plate. Raising a portion of the die is accomplished by loosening at least two adjacent lower nuts and tightening the paired upper nuts to pull the heated head up toward the ram plate. Always make adjustments with at least two adjacent bolts. Lowering the die is accomplished by loosening the upper nuts and tightening the lower paired nuts. Once the die is properly aligned, be sure to check for secure tightening of all of the adjusting nuts.

With further questions you may call the factory for assistance at (860) 496-8016.

ACROMARK HOT STAMP PRESS

FACE PANEL CONTROLS AND THEIR FUNCTION (Rotary Table System/ Mitsubishi Controls)

1. MAIN POWER SWITCH - Key pad will illuminate and machine become functional when switched "ON."



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 is 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 and the green RESET button pushed.
5. CYCLE STOP - Red push button which stops the action of the press upon the head returning to its head up position. Restart is possible by simply pressing green start button, "reset" is not required.
6. FOIL Advance Button - Black push button on the side of box to allow for continuous advance of the foil. Use to clear preheated foil from under the head after a work break or upon initial warm up of the press. NOTE: only functions when green reset button is illuminated.
7. RESET - Green illuminated button, located on top of control box, must be lit before press will cycle. All guards must be in proper closed position before it will illuminate.

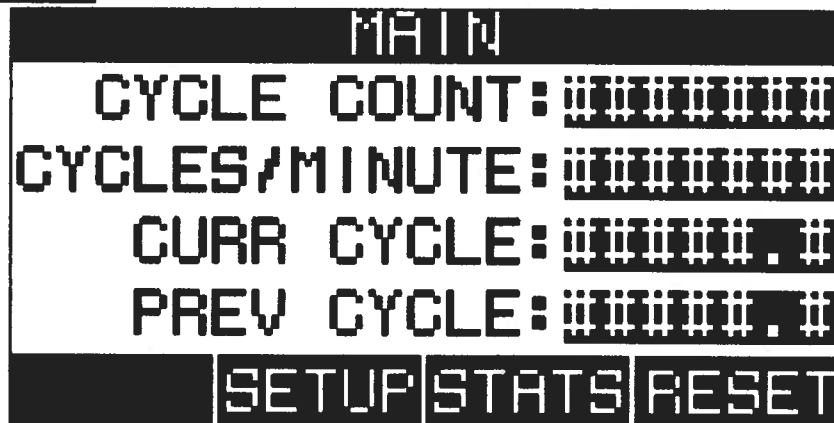
Face Panel Controls (Page 2)

8. **START** – Green push button that will start automatic cycling of the dial plate and hot stamp press. Green reset light must be illuminated before press will start to function.
9. **Number Advance Button** - The black push button on the side of the box allows for manual advancing of the number head.

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 holding in the asterisk button on the bottom left. The display will flash “° F” and the set temperature. By depressing the up and down arrow buttons, this number will increase or decrease. When the desired reading is reached, simply release all buttons.

WORKING SCREENS ON THE CONTROLLER KEYPAD

“MAIN” SCREEN



Information displayed on this screen includes:

The cumulative "cycle count" on the machine. Reset the displayed count to zero by pressing F5.

Cycles per minute actually being run under set parameters, updated with each cycle of the press.

Time of the current cycle while it is in progress, cumulative in tenths of a second.

Time of previous cycle in total seconds, displayed to the tenth of a second.

Access the screen with timer settings for the press, by pressing F3
Access the "stats" screen by pressing F4

Face Panel Controls (Page 3)

TIMER SCREEN

The screen shown below will appear when you access "set-up"



TIMER SETTINGS - This controller is equipped with a number of addressable, internal timers. To set them, press "SET", a cursor will highlight on the first timer. Use the arrow keys to highlight the timer you want to change. Key in the number (don't forget the decimal point) and press enter. That value is stored in memory.

Load Delay - is the increment of time from when the head is "up" until the table begins to index. This timer allows an operator additional time, as needed, to load the parts.

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

Foil Advance -This timer determines the length of the foil pull, more time equaling a longer pull.

More complete 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.

Foil Advance - The foil advance motor is started by actuation of a head-up switch, a momentary actuated micro 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 effect actual distances for each set- up.

Face Panel Controls (Page 4)

NOTE: The foil advance motor is protected from overload by a replaceable 1 amp "slow blow" fuse. This should be checked first if a malfunction occurs on the advance system.

Load Delay - This timer starts at the end of a cycle (head has stamped a part normally and is now in the up position), and is the time before the index table starts to turn again. Additional time allows the operator to load difficult or oriented parts correctly, but will directly effect productivity.

NO PART / NO PRINT SCREEN

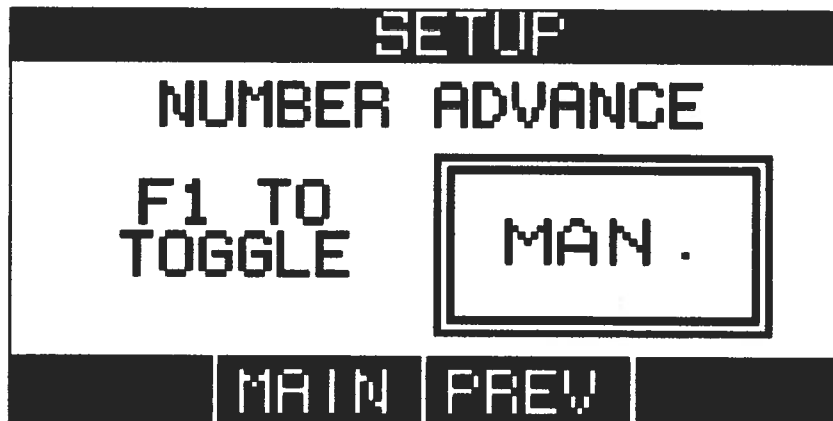
The screen shown below will appear when you press "NEXT" (F5) from the setup screen.



Pressing F1 will toggle from OFF to ON. When set to ON the system will use the part sensor to determine if a part is present. If the part is present the system will print that part (tag). When set to OFF the system will print at every station no matter if a part is there or not.

Number Advance Screen

The screen shown below will appear when you press "NEXT" (F5) from the NO PART / NO PRINT screen.



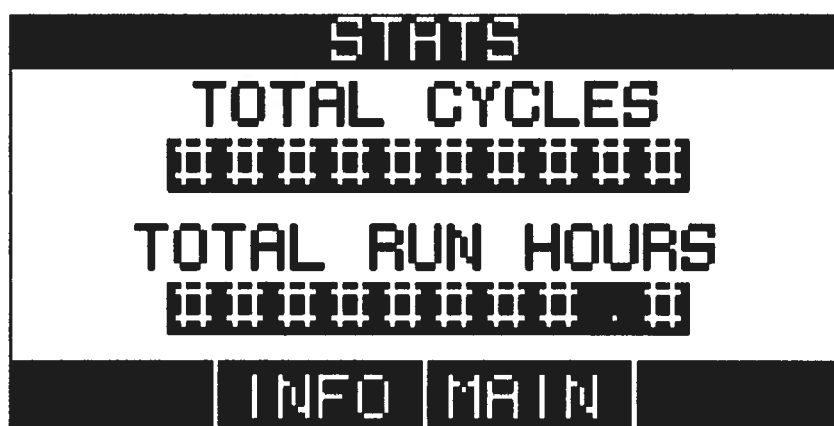
Face Panel Controls (Page 5)

Pressing F1 will toggle from MAN (manual) to AUTO (automatic). When set to AUTO the system will automatically advance the number after each print. When set to MAN the system will not advance the number unless the manual advance button is pressed.

Pressing F3 will return to the Main screen.

Pressing F4 will return to previous screen

Stats Screen



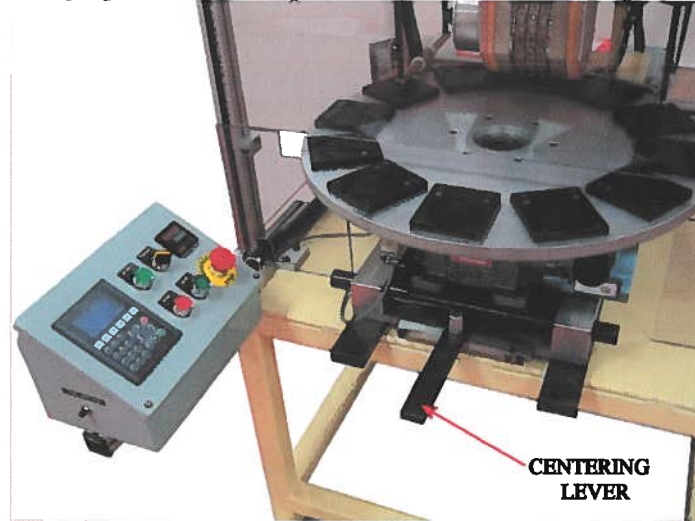
This screen displays the total number of cycles run on this machine in a non-resettable count display.

This screen also shows the total number of hours run on the press.

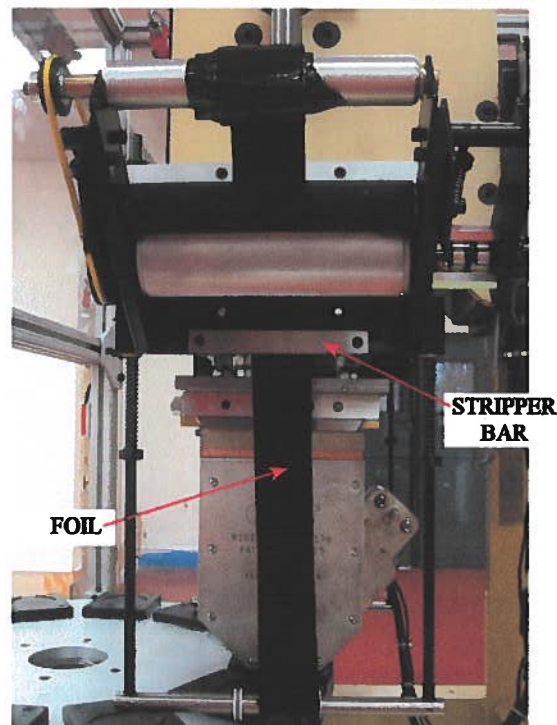
From this screen you can return to the "info" or introductory screen by pressing F3 or return to the "main" screen by pressing F4.

Farnam addendum:

To center the number remove the lock pin and position the lever, right for less digits, centering the digits to be printed, and left for more digits centering the digits. Replace the lock pin before starting operations. See picture below for centering lever location.



For proper operation of the rotary dial hot stamp press, the foil has to be threaded behind the stripper bar as shown in the following picture.



This will ensure that the tag never get jammed in the rewind assembly.

Acromark 530E-50-601/8 Parts List

<u>ITEM #</u>	<u>PART #</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
FRAME AND TABLE TOP			
1	FR-AT17002	FRAME AND TABLE TOP	1
2	PAD20012	LEVELING PADS	4
FRAME 530E PRESS			
1	FR-AT17007	FRAME	1
2	SU5301570	SUPPORT, ELEVATING SHAFT	1
3	HAND20005	HANDLE, 520/530 ELEVATING	1
4	SC4101290	SCREW, LIFT	1
5	BEAR20045	BEARING, 530 LIFT SCREW TRUST	1
6	BL5301590	BLOCK, LIFT	1
7	BL-AT17008	BLOCK, STAMP SUPPORT	1
8	SU1107241	DELRIN STAMP SUPPORT	1
POWER HEAD ASSEMBLY 530			
1	CY5301090	CYLINDER, AIR	1
2	EX5302060	EXTENSION, CYLINDER ROD	1
3	HA5302070	HANDLE, MICRO DEPTH STOP ADJUSTMENT	1
4	TU5302040	TUBE, MICRO DEPTH STOP ADJUSTMENT	1
5	LABE90001	LABEL, DEPTH STOP VERTICAL RULE	1
6	PA5302110	PAD, MOCRO ADJ. DEPTH STOP THUMB-SCREW LOCKING	1
7	SC5302350	SCREW, DEPTH STOP FINGER LOCKING	1
8	MO5301610	MOUNT, CYLINDER	1
9	CL5301580	CLAMP, POWER HEAD	2
10	BL5302020	BLOCK, BEARING	1
11	BEAR20005	BEARING, 1" TEFLON LINEAR DIE	2
12	RO5302050	ROD, POWER HEAD GUIDE	2
13	WASH20004	WASHER, 3/4" ID SPHERICAL	1
14	BA-AT17005	BAR, TIE	1
15	COLL20023	COLLAR, 3/4-16 STEEL THREADED CLAMPTITE	1
16	LABE91003	LABEL, WARNING PINCH POINT 1"X 2 1/4"	1
17	LABE91004	LABEL, HOT 1" X 2 1/4"	1
18	BA5004100	BAR, MOUNT - TAPE RAIL	2
19	BR5302180	BRACKET, PROX SWITCH MOUNTING	1
20	BRAC30003	BRACKET, METAL RIGHT ANGLE PROX SWITCH MOUNTING	2
21	SWIT30005	SWITCH, PROX NPN (STANDARD)	2
22	PL5302330	MOUNT PLATE, PROX. SWITCH	1
ROTRAY TABLE			
1	PL-AG12002	PLATE, DIAL PLATE - 8 STATION	1
2	INDE20001	INDEXER, 8 STOP 601RDM ROTARY (DC MOTOR)	1
3	SENS40001	SENSOR, PART/NO PART	1
4	CABL30110	CABLE, SENSOR PART/NO PART	1
ADJUSTABLE MOUNTING PARTS FOR INDEXER			
1	SU-AG12003	ROD SUPPORT	2
2	PL-AG12004	MAIN PLATE DRIVE SUPPORT	1
3	RO-AG12005	ROD DRIVE SUPPORT	2
4	PL-AG12006	PLATE DRIVE SUPPORT	1
5	BL-AG12007	ADJUSTMENT BLOCK DIAL PLATE (MODIFIED # POSITION)	1

Acromark 530E-50-601/8 Parts List

<u>ITEM #</u>	<u>PART #</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
6	RA-AT17003	RAIL FRAME & DRIVE SUPPORT	2
7	LE-AG12009	LEVER, DIAL PLATE ADJUSTMENT	1
8	KNOB20008	KNOB, ADJUSTMENT	1
		<u>NUMBERING HEAD</u>	
1		NUMBERING HEAD (AS PER QUOTE AA5722)	1
2	CYLI40034	CYLINDER, INDEX HEAD	1
3	CLEV40001	CLEVIS, PISTON ROD	1
4	BRAC40004	BRACKET, CYLINDER PIVOT MOUNTING	1
		<u>HEAD COMPONENTS FOR 4 # HEAD</u>	
1	PL-AG12012	PLATE, JACKING (FRONT TO BACK ADJ. SLOTS)	1
2	PL1112141	PLATE, INSULATION	1
		<u>REWIND ASSEMBLY 8.5"</u>	
1	RO5001040	KNURLED ROLLER	1
2	SH5001310	KNURLED ROLLER SHAFT	1
3	RO5001060	RUBBER ROLLER	1
4	SH5002820	RUBBER ROLLER SHAFT	1
5	SH5001100	REWIND SHAFT	1
6	BUSH20009	BRONZE BUSHING, FLANGE	1
7	BUSH20004	BRONZE BUSHING, SLEEVE	1
8	SU5001080	REWIND SHAFT SUPPORT	1
9	SU5001090	REWIND SHAFT SUPPORT	1
10	PULL20001	REWIND PULLEY, 3" DIA.	1
11	PULL20002	REWIND PULLEY, 1.5" DIA.	1
12	BELT20001	REWIND BELT	2 FT.
13	INSE20001	REWIND BELT INSERT	1
14	AS6803800	TENSION POST ASSEMBLY	2
15	SPRI20008	TENSION POST SPRING	2
16	COLL20014	TENSION ADJUSTMENT COLLAR	2
17	WASH60010	WASHER, SPRING GUIDE	2
18	CA6803210	CAM RETRACTOR	2
19	COLL20037	FOIL GUIDE COLLAR	2
20	RP00910	ROLL PIN	2
21	SPRI20005	FOIL GUIDE SPRING	2
22	COLL20003	FOIL GUIDE ADJUSTMENT COLLAR	2
23	BA5004020	VERTICAL GUIDE MOUNT BAR	1
24	RA5004040	FOIL REWIND RAIL	2
25	SP5002760	SPACER, TENSION POST	1
26	SP5002750	SPACER, MOTOR MOUNT PLATE	2
27	PL5001330	MOTOR MOUNTING PLATE	1
28	COUP20004	COUPLING HALF, MOTOR & ROLLER	2
29	INSE20003	COUPLING INSERT	1
30	MOTO30003	FOIL REWIND MOTOR, PMI 80:1 GEAR	1
31	PLUG30003	MOTOR PLUG, (MALE)	1
32	PLUG30002	MOTOR PLUG, (FEMALE)	1
33	BA5004100	BAR, MOUNT TAPE RAIL	2

Acromark 530E-50-601/8 Parts List

ITEM #	PART #	DESCRIPTION	QTY.
PAYOFF ASSEMBLY 8.5"			
1	SH5002620	PAYOFF SHAFT	1
2	COLL20010	PAYOFF SHAFT COLLARS	2
3	DI5001770	FOIL GUIDE DISC, 6" DIA.	2
4	SPRI20004	PAYOFF SHAFT SPRING	1
5	WR5001830	PAYOFF SHAFT COLLAR WRENCH	1
6	COLL20037	FOIL GUIDE COLLAR	2
7	RP00910	ROLL PIN	2
8	SPRI20005	FOIL GUIDE SPRING	2
9	COLL20003	FOIL GUIDE ADJUSTMENT COLLAR	2
10	BA5004020	VERTICAL GUIDE MOUNT BAR	1
11	BR5004060	PAYOFF RAIL MOUNT BRACKET	1
12	RA5004030	PAYOFF RAIL	1
TAPE GUIDES 8 1/2"			
1	BA5004080	BAR, LOWER HORIZONTAIL	2
2	BA5004190	BAR, VERTICAL TAPE GUIDE (18")	4
3	RP00910	PIN, 3/32" DIA. X 5/8" LG STEEL SPRING ROLL	4
4	SPRI20005	SPRING, TAPE GUIDE	8
5	COLL20003	COLLAR, 3/8" STEEL CLAMPTITE	8
6	COLL20037	COLLAR,, 5/8 PLASTIC 2PC SPRING CLAMP	8
PNEUMATIC COMPONENTS FOR 530 PRESS			
1	FILT40001	FILTER, 1/4" NPT AIR	1
2	REGU40002	REGULATOR, 1/4" NPT AIR	1
3	GAUG40001	GAUGE, AIR REGULATOR	1
4	VALV40011	VALVE, AIR (K81)	1
5	FITT53300	FITTING, VALVE AIR PILOT	1
6	MUFF40004	MUFFLER, 1/4 NPT SPEED CONTROL	2
7	VALV40004	VALVE, AIR (45A)	1
8	MUFF40001	MUFFLER, 1/8" BRONZE	1
9	FITT51010	FITTING, PLUG-IN Y 5/32" TUBE	1
10	VALV4014	VALVE, 1/4" BALL	1
ELECTRICAL ENCLOSUE COMPONENTS			
1	CONT30104	CONTROL, TEMPERATURE (CAL 9300)	1
2	ENCL40005	ENCLOSURE, ELECTRICAL	1
3	PANE40002	PANEL, ELECTRICAL ENCLOSURE	1
4	RELA40006	RELAY, 30AMP POWER	1
5	CONS40001	CONSOLE	1
6	POWE40003	POWER SUPPLY, 24VDC	1
7	RELA40001	RELAY, CONTACTOR	1
8	RELA30074	RELAY, MINI CONTACTOR	1
9	CPUX30015	PLC, MITSUBISHI FX1S30MR	1
10	INTE30023	OPERATOR INTERFACE TERMINAL (F920GOT)	1
11	CABL30009	CABLE, INTERFACE	1
12	POTE30002	POTENTIOMETER, 10K OHM CARBON	2
13	TRAN30012	TRANSFOMER, (FOIL MOTOR)	1
14	CONT30202	CONTROLLER, FOIL MOTOR	1

Acromark 530E-50-601/8 Parts List

<u>ITEM #</u>	<u>PART #</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
15	RELA30003	RELAY, SOLID STATE	1
16	FUSE35015	FUSE, 15 AMP .56" DIA. X 2" LG	2
17	PLUG40008	PLUG, 3 WIRE 15A 125/250v FEMALE MIDGET	1
18	PLUG40009	PLUG, 3 WIRE 15A 125/250V MALE MIDGET	1
19	PLUG30004	PLUG, MALE (20A, 250V, 3 WIRE)	1
20	CONT30208	CONTROLLER, INDEXER (DC MOTOR)	1
21	DUCT30006	WIRE DUCT + COVER (1/1/2 x 3)	4ft
22	DUCT30007	WIRE DUCT + COVER, SLOTTED (1 X 3)	8ft
23	RAIL30001	RAIL, DIN 35MM	4ft
24	BLOC30001	TERMINAL BLOCK, 5MM SINGLE BLOCK	34
25	BLOC30002	TERMINAL BLOCK, END PLATE, SINGLE BLOCK	4
26	BLOC30003	TERMINAL BLOCK, SENSOR BLOCK	8
27	BLOC30004	TERMINAL BLOCK, END PLATE, SENSOR BLOCK	1
28	BLOC30005	TERMINAL BLOCK, 5MM GROUND BLOCK	2
29	BLOC30006	TERMINAL BLOCK MARKERS	55
30	JUMP30010	JUMPER, 5MM	27
31	BLOC30007	SMALL END STOP	13
32	HOLD30014	FUSE BLOCK, HINGED 1-1/4X1/4	2
33	BLOC30008	TERMINAL BLOCK, 8MM SINGLE BLOCK	11
34	BLOC30009	TERMINAL BLOCK, END PLATE, SINGLE BLOCK	4
35	JUMP30011	JUMPER, 8MM	5
36	BLOC30010	TERMINAL BLOCK, 8MM GROUND BLOCK	2
37	BUTT30002	FLUSH PUSHBUTTON, BLUE	1
38	BUTT30004	FLUSH PUSHBUTTON, GREEN	1
39	BUTT30006	FLUSH PUSHBUTTON, RED	1
40	BUTT30010	PUSHBUTTON, EXTENDED, RED (STOP)	1
41	BUTT30001	BUTTON, EXTENDED RED MAINTAINED MUSHROOM (ESTOP)	1
42	SWIT30013	PUSHBUTTON, LED GREEN (RESET)	1
43	SWIT30007	SWITCH, MAINTAINED SELECTOR (HEAT)	1
44	INSE30002	YELLOW KNOB INSERT	1
45	RELA40002	RELAY, 8 PIN ACTAL CUBE	1
46	BASE40005	BASE, 8 PIN OCTAL CUBE RELAY	1
		MISC.	
1	NA6301610	NAMEPLATE, MODEL NO/SERIAL NO	1
2	NA6301620	NANEPLATE, SHUTOFF VALVE WARNING	1
3	NAME90001	NAMEPLATE, ACROMARK LOGO	1
4	LABE91006	LABEL, EMERGENCY STOP 1/2" X 2 1/4"	1
5	LABE91002	LABEL, CAUTION DO NOT OPERATE WITHOUT	2
6	SWIT90003	MAGNETTIC SAFETY SWITCH (SWING DOOR)	1
7	LABE91005	LABEL, WARNING 220V	1

OTB Series *Momentary Action* OPTO-TOUCH

Hookup Information and Model Listing

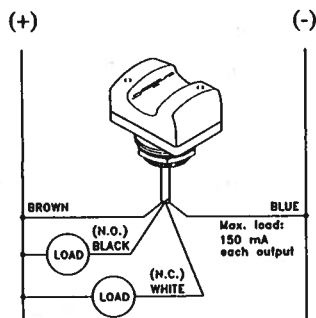
10-30V DC models (see page 5 for ordering information)

Add "L" to specify Lexan® upper housing (others are polysulfone);
"QD" in model suffix indicates Quick Disconnect base.

OTBVN6(L) and OTBVN6(L)QD

*complementary
sinking outputs*

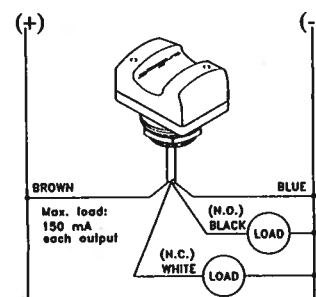
Model
OTBVN6(L)QD
requires
MBCC-412
cable
(p/n 25226,
purchase
separately).



OTBVP6(L) and OTBVP6(L)QD

*complementary
sourcing outputs*

Model
OTBVP6(L)QD
requires
MBCC-412
cable
(p/n 25226,
purchase
separately).



Hookup Information and Model Listing

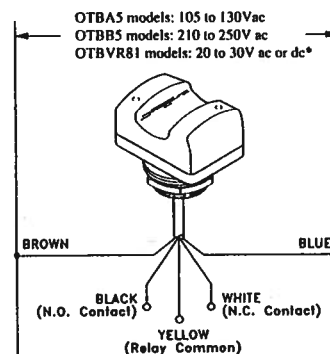
AC and AC/DC models (see page 5 for ordering information)

Add "L" to specify Lexan® upper housing (others are polysulfone);
"QD" in model suffix indicates Quick Disconnect base.

Models

- OTBA5(L)** 120V ac, SPDT electromechanical relay output, 6-foot attached cable
- OTBA5(L)QD** 120V ac, SPDT electromechanical relay output, QD base (use MBCC-512 cable)
- OTBB5(L)** 220/240V ac, SPDT electromechanical relay output, 6-foot attached cable
- OTBB5(L)QD** 220/240V ac, SPDT electromechanical relay output, QD base (use MBCC-512 cable)
- OTBVR81(L)** 20-30V ac or dc*, SPDT electromechanical relay output, 6-foot attached cable
- OTBVR81(L)QD** 20-30V ac or dc*, SPDT electromechanical relay output, QD base (use MBCC-512 cable)

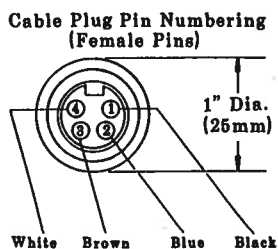
QD models
require model
MBCC-512
cable
(p/n 25496,
purchase
separately).



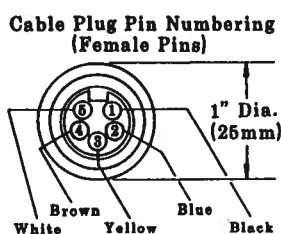
*20-30V dc power may be applied without regard to polarity

Quick Disconnect (QD) Option (order model MBCC-412 or MBCC-512 mini-type cable)

Cable connector end view, MBCC-412
cable (p/n 25226), for dc-only models

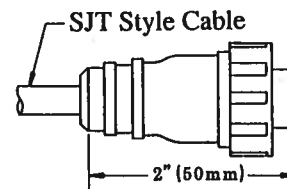


Cable connector end view, MBCC-512
cable (p/n 25496), for ac and ac/dc models



SJT-type cable, 12 foot lengths

Cable connector, side view
(MBCC-412 and MBCC-512 cable)



The model **SMB30S swivel-mount bracket (p/n 33204)** is a versatile means for mounting a Banner OPTO-TOUCH Optical Touch Button. The SMB30S lets you *ergonomically position* the OPTO-TOUCH on most machinery for maximum operator comfort and convenience.

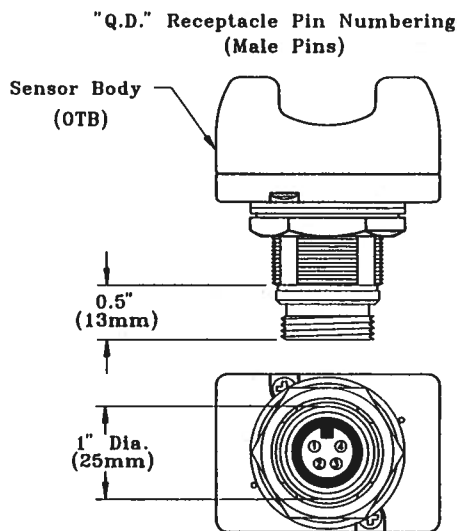
The SMB30S mounts by its base. Its swivel ball locks snugly in place when its two clamping bolts are tightened. Bracket material is black VALOX®. Hardware is stainless steel, and mounting bolts are included.

The photo shows a model SMB30S bracket with an OPTO-TOUCH attached.

OTB Series Momentary Action OPTO-TOUCH

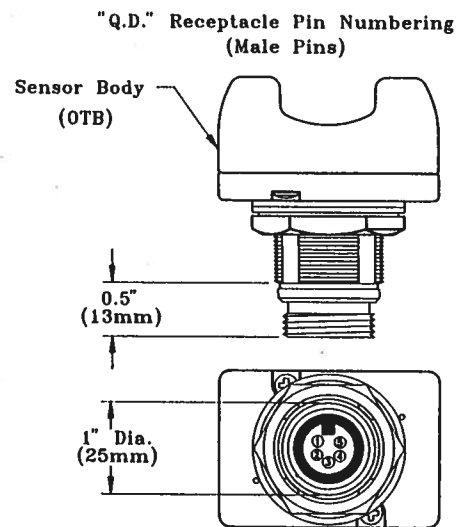
OPTO-TOUCH base

4-pin QD base (dc models)

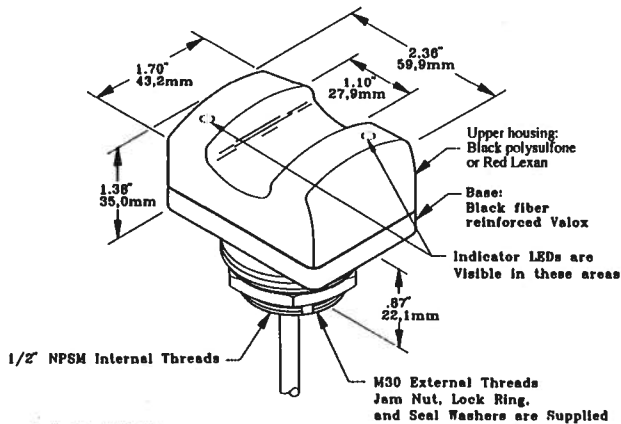


OPTO-TOUCH base

5-pin QD base (ac and ac/dc models)



Dimensions (see also QD base, shown above)



Indicator LED States:
LED 1 turns ON when the unit is powered up
LED 2 follows the action of the output

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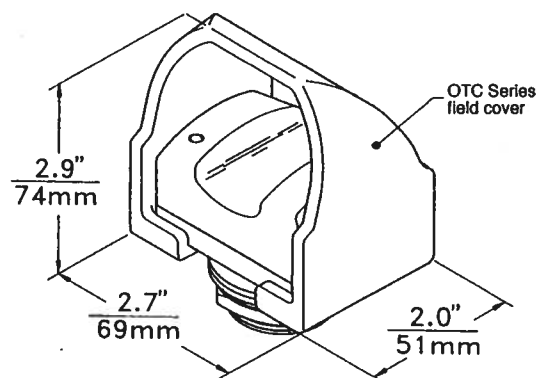
OPTO-TOUCH Field Covers

OPTO-TOUCH Field Covers (see drawing, below) are designed to prevent inadvertent activation of OPTO-TOUCHs due to objects (loose clothing, debris, etc.) which might accidentally block their sensing beam.

Field covers are constructed of rugged polycarbonate-PET polyester blend, which is capable of absorbing high impacts (even at low temperatures). This material is highly resistant to abrasion and to damage by most chemicals.

Every OPTO-TOUCH is supplied with a black field cover, as standard. Field covers are available separately in four colors, which can be used to differentiate touch button functions when several touch buttons are in use:

Black model OTC-1-BK, p/n 30221
Red model OTC-1-RD, p/n 30977
Yellow model OTC-1-YW, p/n 30978
Green model OTC-1-GN, p/n 30979



Safety Instruction

A field cover has been supplied with this OPTO-TOUCH. It should be installed, as shown in the drawing at the right, to minimize the possibility of unintended switch operation. If this cover is missing or has become lost or damaged, contact Banner immediately at (612) 544-3164 for a no-charge replacement.

Important Application Information

Use of OPTO-TOUCH Optical Touch Buttons for Two-hand Machine Trip Controls Requirements for Anti-tiedown Circuitry

Two-hand trip control has been a popular means for actuation of single-stroke presses and other single-cycle machinery for many years. Optical touch buttons (OTBs) provide an ergonomic (stress-free) alternative to conventional mechanical push buttons used as actuators in two-hand trip controls.

OSHA Requirement for Anti-tiedown Control

Use of OTBs for two-hand trip machine actuation must include "anti-tiedown" control to prevent any means of defeating one or both actuators to create a one-hand trip. Federal law mandates the use of anti-tiedown control when two-hand trip actuators are used for cycle initiation of a single stroke part revolution clutched mechanical power press. OSHA Code of Federal Regulation, 7-1-92 Edition, CFR Title 29, Part 1910.217

(b) (6) (i) states:

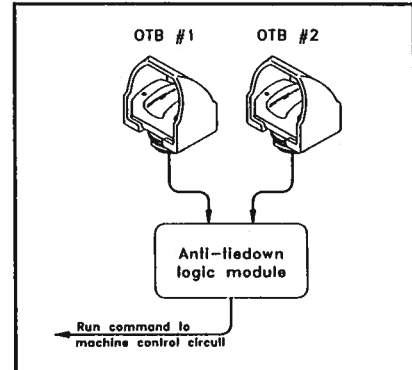
"A two-hand trip shall have the individual operator's hand controls protected against unintentional operation and have the individual operator's hand controls arranged by design and construction and/or separation to require the use of both hands to trip the press and use a control arrangement requiring concurrent operation of the individual operator's hand controls."

Concurrent or "synchronous" actuation of two-hand trips is the most popular approach to anti-tiedown control. European Standard prEN 574, titled "Safety of Machinery - Two-handed Control Device", defines synchronous actuation as follows:

"6.7 Synchronous actuations

In synchronous actuation an output signal shall be generated only when both control actuating devices are actuated - in a time which is less than or equal to 0.5 seconds...

... If the control actuating devices are not actuated synchronously the output signal shall be prevented and it shall be necessary to release both control actuating devices and to reinitiate both input signals."



WARNING !



In the United States, the functions that a two-hand control device is intended to perform are regulated by the Occupational Safety and Health Administration (OSHA). Whether or not any particular two-hand control system installation meets all applicable OSHA requirements depends upon the details of how the two-hand control device is applied, installed, operated, and maintained.

When properly installed, a two-hand control device using OPTO-TOUCH OTB Series Optical Touch Buttons can provide protection only for the hands of the machine operator, and is not a point of operation personnel guarding device, as defined by OSHA regulations. It is necessary to install point of operation guarding devices, such as safety light curtains and/or hard guards, to protect personnel from dangerous machine motion.

WARNING!

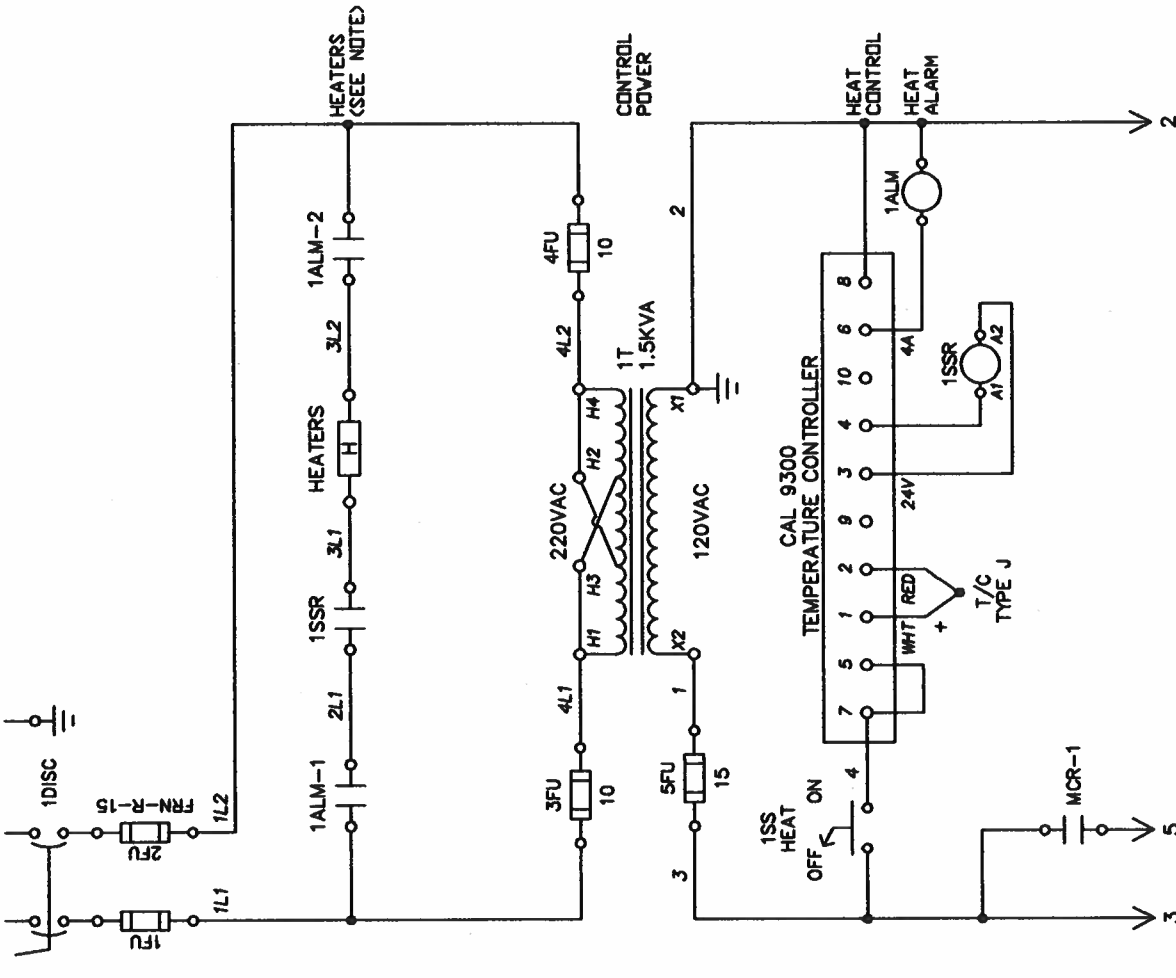


Never use an OPTO-TOUCH Optical Touch Button as an actuator in an emergency stop (E-Stop) circuit. E-Stop actuators must be purely mechanical devices that require no power to operate. OPTO-TOUCH Optical Touch Buttons require power to operate and must not be used as E-Stop actuators under any circumstances.

NOTE: In addition to the standards and regulations mentioned above, there are numerous regulations and machine safety standards that apply to specific industries. For assistance in obtaining copies of any of these standards, contact Banner at the address or numbers listed at the bottom of page 6.

C-WD-2114-A01

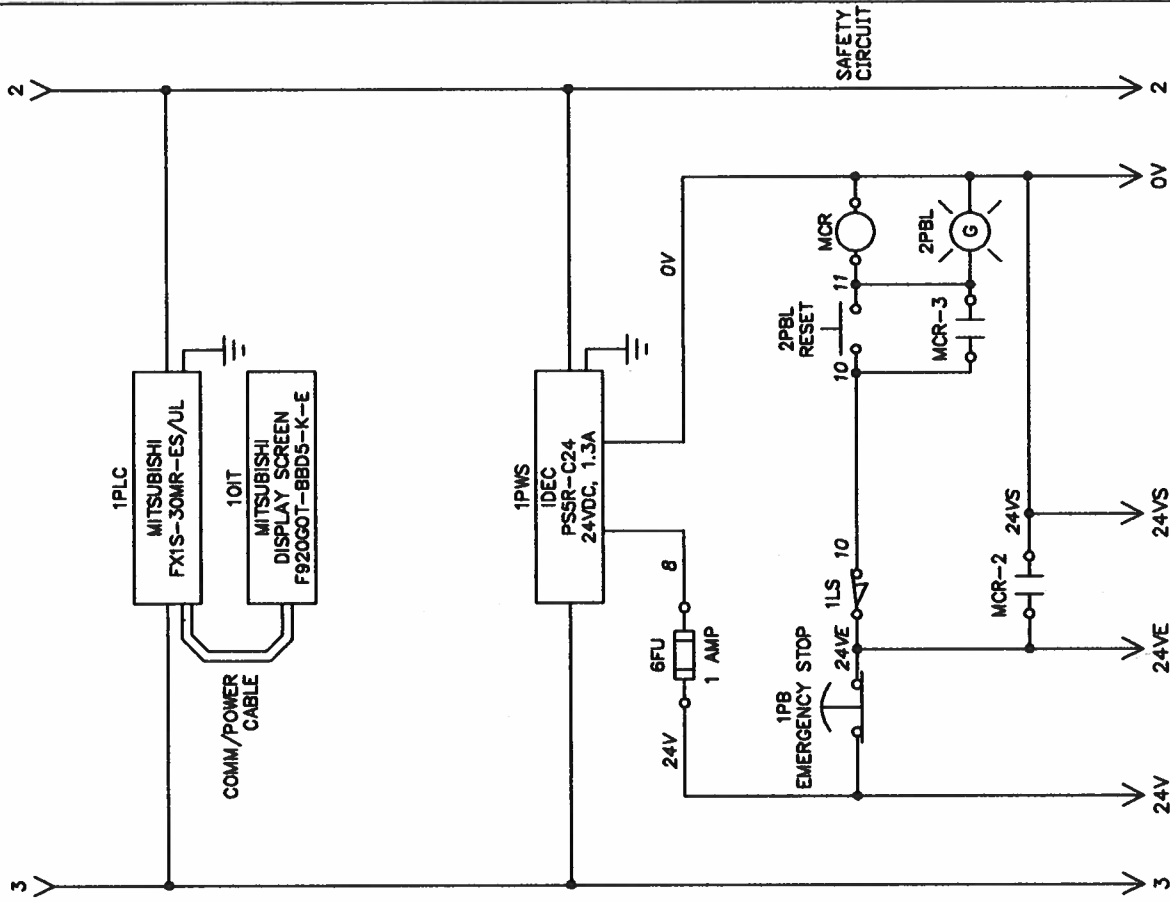
220VAC, 15A, 1 PHASE, 60HZ
L1 L2 GND



ADDITIONAL NOTES

- HEATERS ARE CONTAINED IN THE NUMBER PRINT HEAD. THEY ARE FUSED FOR 15A.

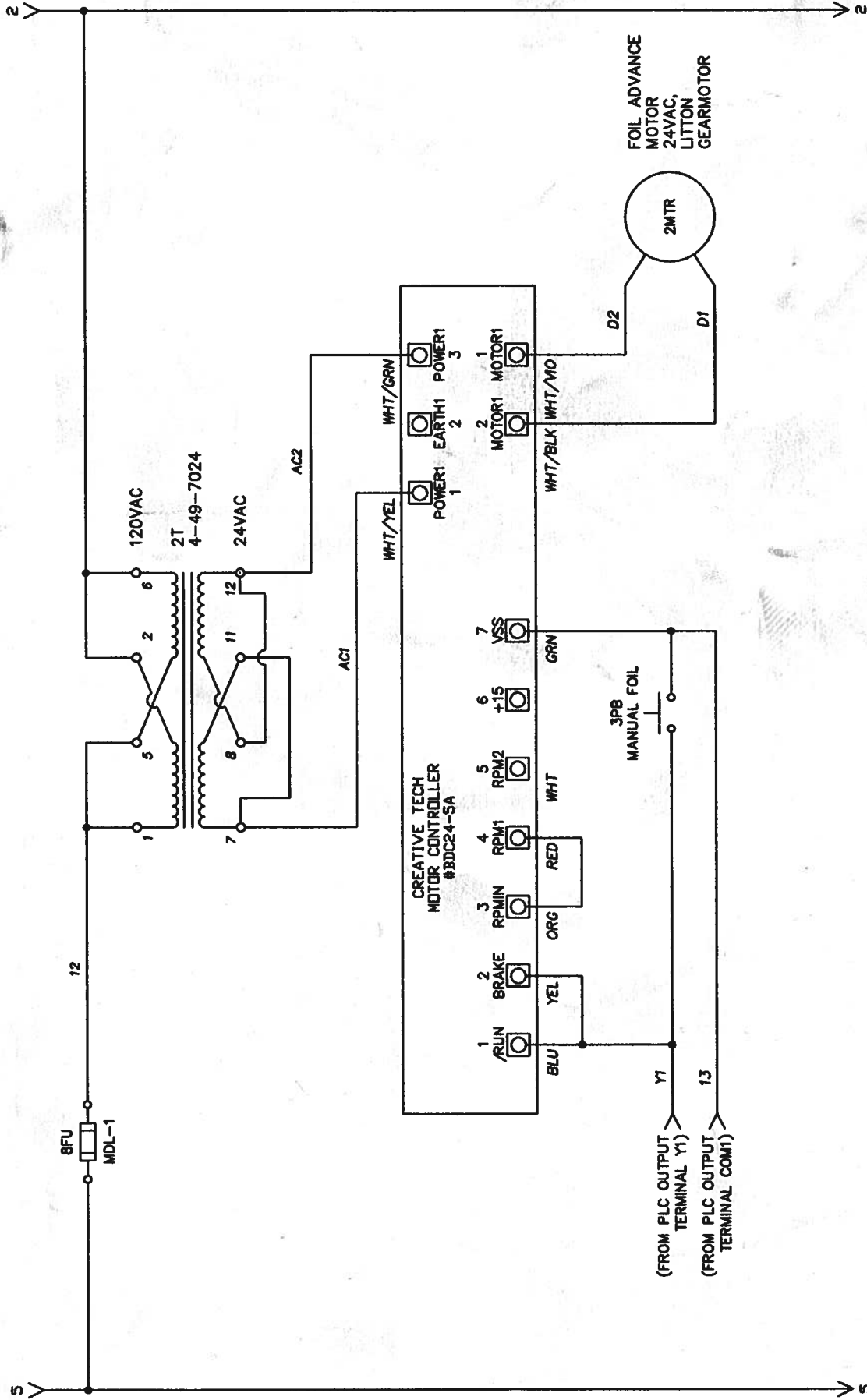
ISO SYMBOLS



SYMBOL	REVISION	REV. BY	APPD.	DATE

ABBOTT INDUSTRIES
Hartford, CT 06105

DRAWN BY: FWD	CHECKED BY:	PROJECT # 115088	WIRING DIAGRAM
NO. REQ'D.	NO. REQ'D.	SCALE	POWER DISTRIBUTION
FINISH	DATE 03/23/07/REV.	DWG.# C-WD-2114-A01	PG. 01 OF 05



ADDITIONAL NOTES:

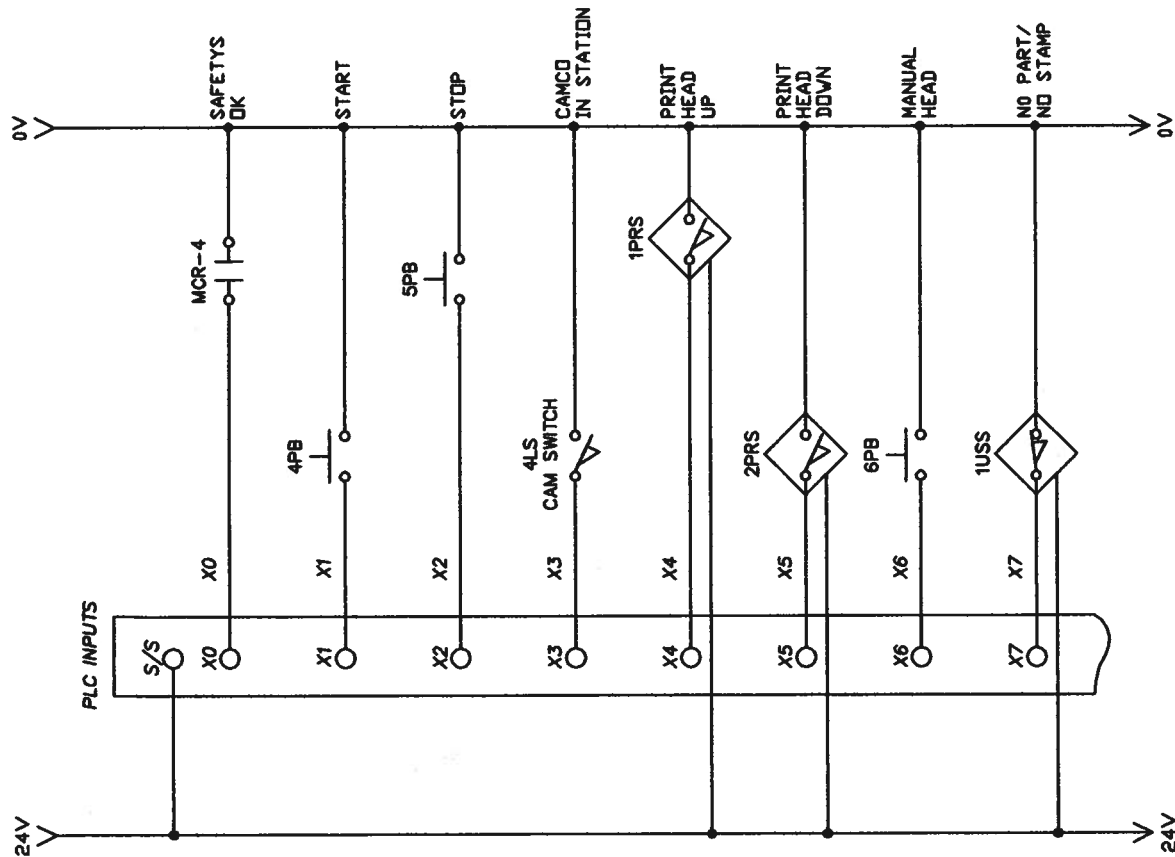
- PLC WIRING INTERFACE IS A DRY CONTACT.
- WHT/YEL WIRE COLOR FOR TERMINAL 'POWER1 3' MAY ALSO BE GRN/YEL.
- TERMINAL '7 VSS' ON THE CREATIVE TECH CONTROLLER IS ACTUALLY A DC COMMON.

MATERIAL	DRAWN BY: FWD	INDUSTRIES
SIZE	CHECKED BY:	INDUSTRIES
NO. REQ'D.	PROJECT # 115088	INDUSTRIES
FINISH	SUB ASSTY#	INDUSTRIES
	TELEPHONE: 603-231-1111	INDUSTRIES
	FAX: 603-231-1111	INDUSTRIES
	EMAIL: 603-231-1111	INDUSTRIES
	DATE 03/23/07/REV.	INDUSTRIES
	DWG.# C-WD-2114-A03	INDUSTRIES

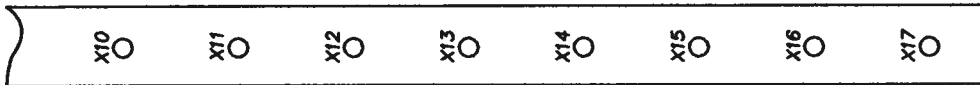
C-WD-2114-A04

ISO SYMBOLS

SYN.	REVISION	REV. BY	APPD.	DATE



PLC INPUTS

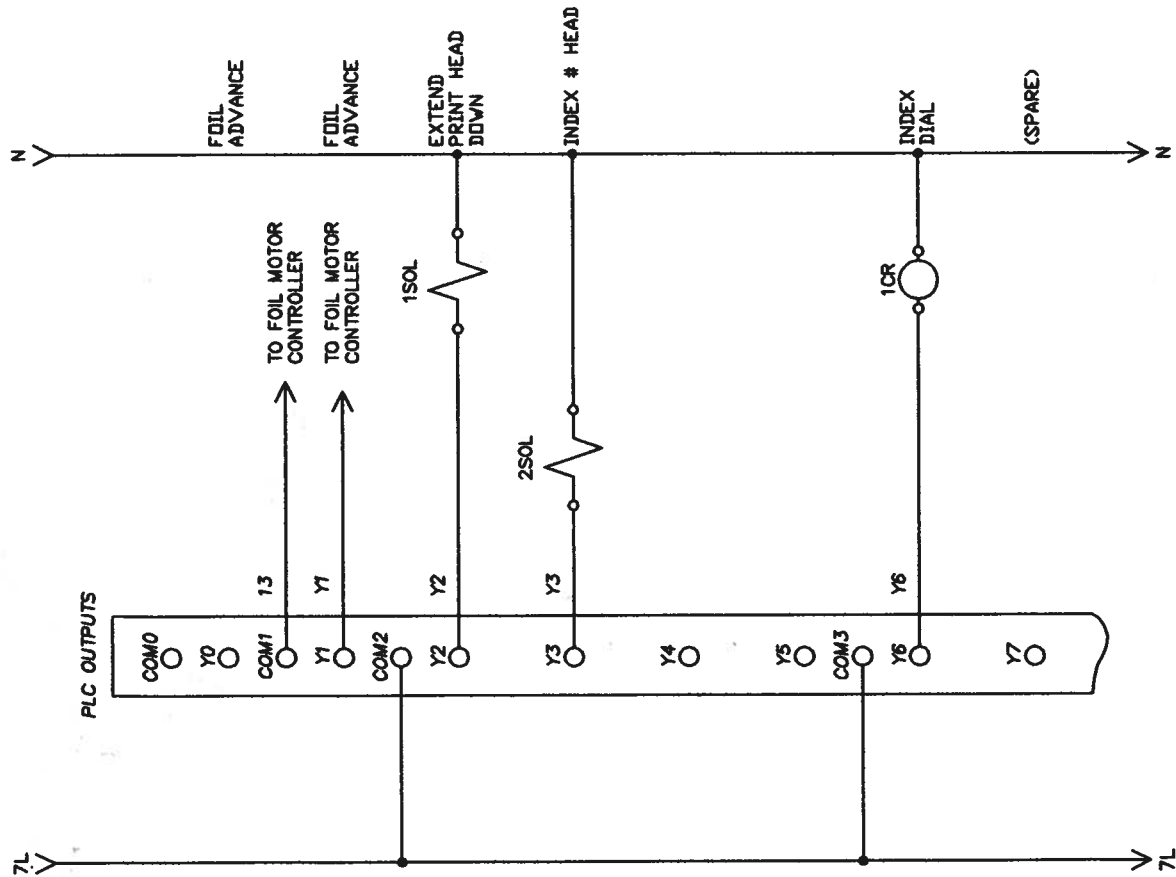


ADDITIONAL NOTES:
- (NONE)

DRAWN BY:		AVERMARK INDUSTRIES Torrington, CT 06790	
CHECKED BY:		WIRING DIAGRAM	
PROJECT # 115088		PLC INPUTS (X0 TO X17)	
SUB ASSY#		AUTOCAD#	
TOLERANCES UNLESS OTHERWISE NOTED: X01 DECIMALS & ASB X02 MILLIMETERS & ASB X03 ANGLES & 30"		SCALE	
NO. REQ'D. . .		DATE 03/23/07/REV.	
FINISH		DWG.# C-WD-2114-A04	

ISO SYMBOLS

SYN	REVISION	REV. BY	APPD.	DATE



ADDITIONAL NOTES:

MATERIAL	DRAWN BY: A	ABBOTT INDUSTRIES Torrington, CT 06790
SIZE	CHECKED BY: 115088	WIRING DIAGRAM
NO. REQ'D.	SUB ASSY	PLC OUTPUTS (Y0 TO Y15)
FINISH	TOLERANCES UNLESS OTHERWISE NOTED NOT DECIMALS & .005 NOT ANGLES & .25°	SCALE AUTOCAD#
		DATE 03/23/07/REV. DWG.# C-WD-2114-A05