

# OPERATING INSTRUCTIONS FOR NEW HERMES ENGRAVING MACHINES

## MODEL I-M, M-II, I-L, I-LK, ITF, ITF-K, ITX, IRX, IRX-K



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## UNPACKING

Machines are carefully inspected before leaving the factory.

Should any damage on shipping case or machine be noticed, please advise us and the shipping agent immediately.

After machine has been removed from container, check contents against packing slip. Make sure that no small parts are accidentally discarded.

## BASIC MACHINE ASSEMBLY

### Consists of

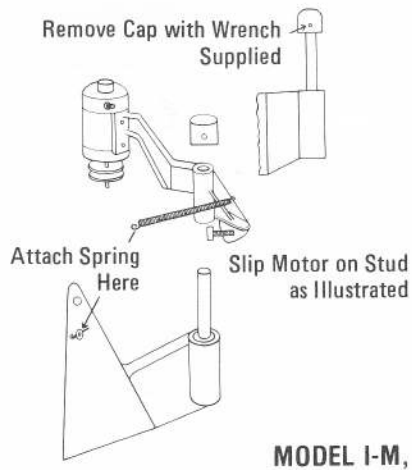
1. Motor and motor bracket
2. Pantograph assembly
3. Centering bracket
4. Engraving spindle
5. Workholding vises
6. Copyholding slides
7. Machine base

## INDEX

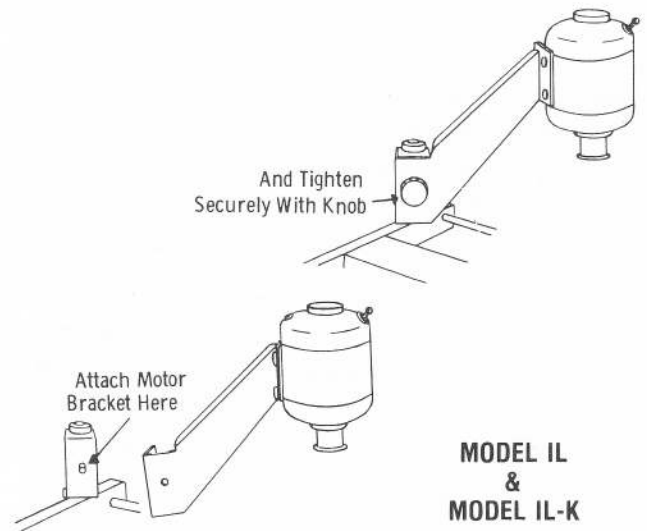
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**FOR IMMEDIATE SERVICE, SUBMIT SERIAL NUMBER OF MACHINE (NOT THE MOTOR NUMBER) ON ALL ORDERS OR INQUIRIES.**

# HOW TO ATTACH MOTOR

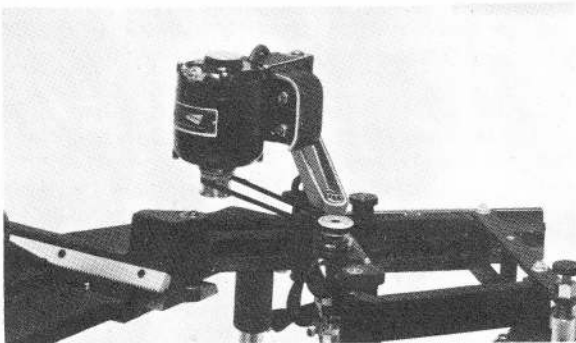


Machines are shipped completely assembled, with the exception of the motor attachment which is packed separately for easy shipment. To attach motor, follow instructions below:

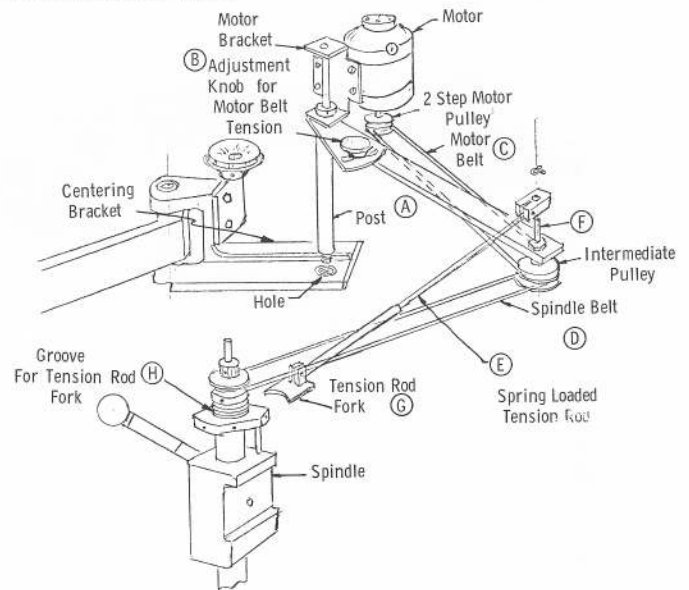


**MODEL ITF  
MODEL ITF-K  
MODEL ITX**

Attach motor to pantograph, as illustrated, and tighten the two Allen screws with wrench supplied.



## MODEL IRX & IRX-K

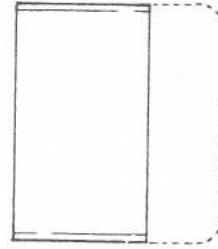


1. Insert motor assembly into centering bracket by threading post (A) into hole provided. Make sure entire motor assembly can rotate freely about post (A).
2. Install motor belt (C) between stepped pulley on motor and top step of intermediate pulley.
3. Adjust tension by moving knob (B) in slot until motor belt is taut.
4. Install spindle belt (D) between spindle and lower step of intermediate pulley.
5. With belt (D) in position install tension rod (E), placing swivel onto intermediate pulley shaft (F). Then, compress fork end (G) of tension rod until it slips into groove (H) on spindle.

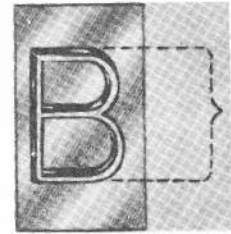


# MASTER COPY TYPE AND HOLDING SLIDES

Master copy type or templates from which letters, numerals, designs, etc., are reproduced, are listed in the New Hermes Master Copy Type Catalog.

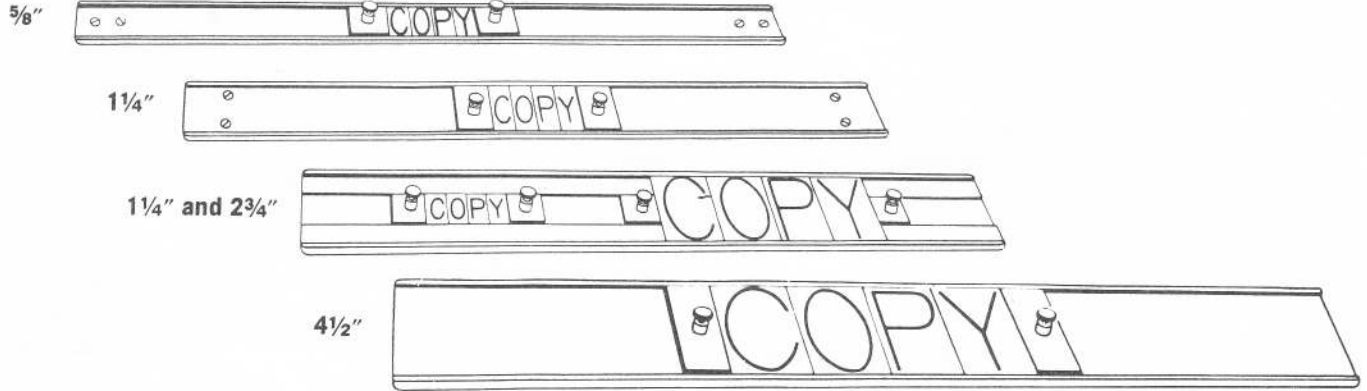


Blank Size



Master Copy Size

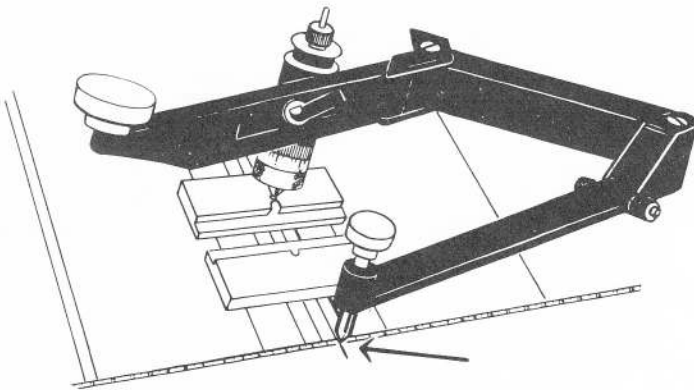
Master copy holding slides are available to fit the following blank sizes:



All copy slides are adjustable for multiline engraving. Loosen screws and adjust spacing.

To assure parallel engraving line up copy slides with vertical scales on both sides on copy table.

Copy slides can be removed when large overhanging master templates are to be clamped directly on copy table.



## PHASE #2 CENTERING OF MASTER COPY TYPE.

Be sure that master copy is centered so that the beginning and end of composition is under the same number.

If composition is too long to fit into copy slide, proceed as follows:

## CENTERING OF ENGRAVING

To facilitate centering, copy holding slides are equipped with a centering scale, calibrated with zero in center and reading left and right.

### PHASE #1.

## CENTERING OF COPY HOLDING SLIDE IN RELATION TO CENTER OF WORKHOLDER.

Place cutter point in center hole of jig as illustrated.

Stylus should now be at the zero point of scale. If not, correct alignment by moving centering scale.

1. Lay out composition on bench
2. Mark center on copy type
3. Mark center on the item to be engraved.
4. Insert left half of master copy type composition, aligning the marked center letter with the center on the item to be engraved.
5. Engrave this half sector and when finished, remove all master copy type with exception of the marked center letter.
6. Insert right half of composition.
7. Adjust the engraved item so that when the stylus is placed on the marked center letter, the cutter touches the corresponding center mark on the piece.
8. Engrave remainder of letters.

## HOW TO ENGRAVE

The engraving operation is very simple.

Use right hand to put tracing stylus into the groove of the master copy type and with the left hand depress the cutter spindle.

### IMPORTANT:

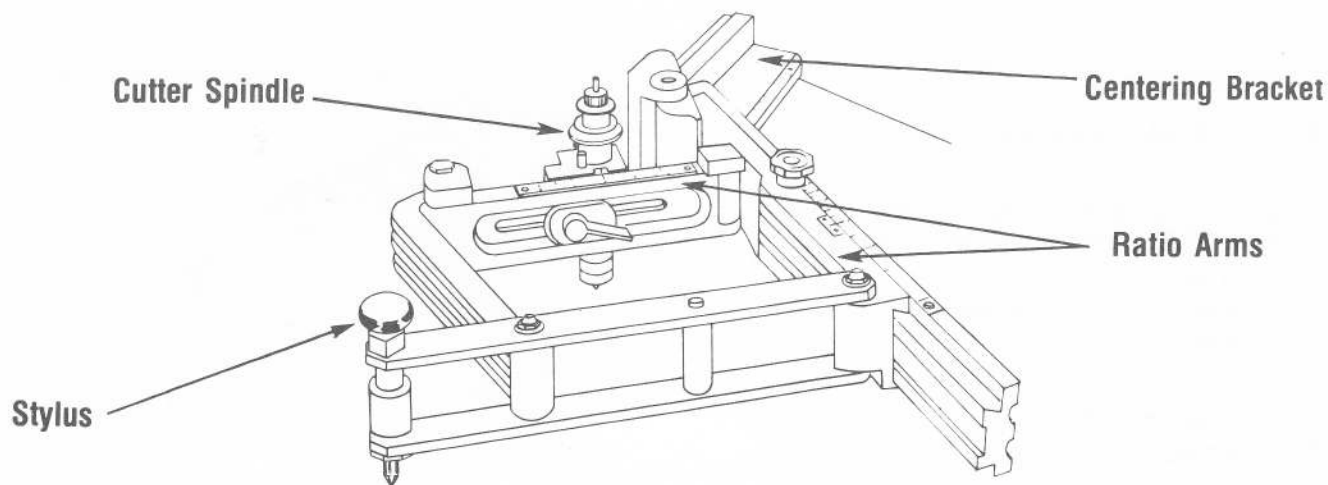
Never press down on the spindle before the stylus has been placed into the groove of master copy type. Spindle must always be released first before stylus is removed from copy type and transferred from one letter to the next.

Before removing the object from the workholder, check whether the engraving is completed and evenly done. If not, retrace.

### ENGRAVING HINT

Highly polished metals such as glossy trophy brass and metal badges should be engraved through the protective masking to avoid scratches.

# PANTOGRAPH (adjustable tracing arm)



The pantograph assembly is the heart of the machine.

It transmits reproductions of any template or master copy type from stylus to engraving spindle by tracer guided method.

It consists of adjustable ratio arms, cutter spindle, stylus assembly and centering bracket.

The centering bracket permits the pantograph to be moved back and forth so that the engraving spindle can be positioned most advantageously above the item to be engraved.

The ratio arms are adjustable to permit any reproduction in various reduction ratios. In other words, many sizes of lettering can be engraved from one single master copy type or template.

## RATIO SETTINGS

Model I-M, MII, I-L, IL-K	from 2½:1	to	7:1
Model ITF, ITFK, ITX	from 2:1	to	7:1
*Model IRX, IRX-K	from 2:1	to	8:1

\*Duplicating Pantograph with 1:1 ratio available on models IRX, IRX-K. See accessory price list page 6.

## HOW TO DETERMINE RATIO SETTING

Divide height of master copy type by the height of finished engraved size desired.

Example:

$$\frac{\text{Height of copy type } 1''}{\text{Height of engraved letter required } 1/4''} = 4:1 \text{ ratio}$$

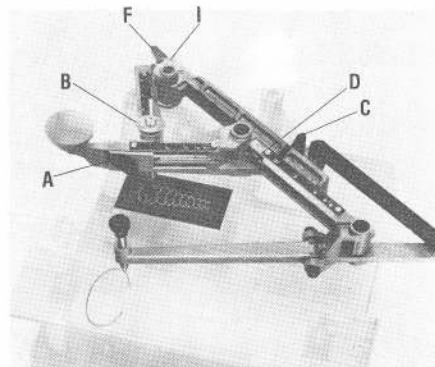
Adjustment of pantograph ratios must be done with utmost accuracy — all settings must be perfectly aligned to achieve accurate engraving.

Make sure that copy will fit into the given engraving area. This can be achieved either by changing ratio setting or using a different style of master copy type. (See page 14)

# HOW TO CHANGE SIZE OF ENGRAVING

## For Models I-M, I-L, ILK and MII

1. Open lever screw (A) and move spindle (B) until ratio indicator mark is aligned with ratio scale.
2. Repeat the same operation on link (D) by opening lever screw (C). Make sure both settings correspond precisely.



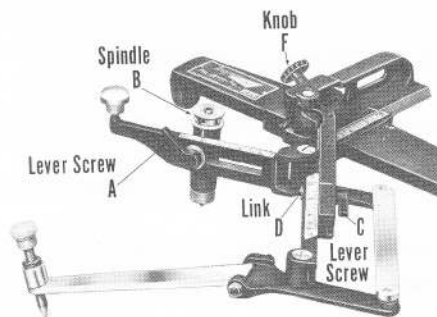
Adjustment of Centering Bracket  
For Best Engraving Position

### Model I-M and MII

Open screw (F) and set indicator line on same ratio number as ratio setting on pantograph.

### Model I-L and ILK

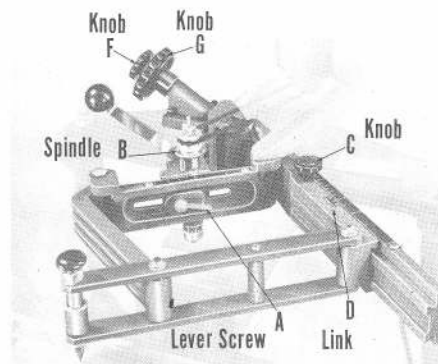
Use Knob F.



Model  
I-L  
ILK

## Model ITF, ITF-K and ITX

1. Open lever screw (A) and move spindle (B) until ratio indicator mark is aligned with ratio scale.
2. Repeat the same operation on link (D) by opening knob (C). Make sure both settings correspond precisely.
3. Adjust centering bracket for best engraving position by opening knob (F) and turning knob (G). After positioning, lock knob (F).



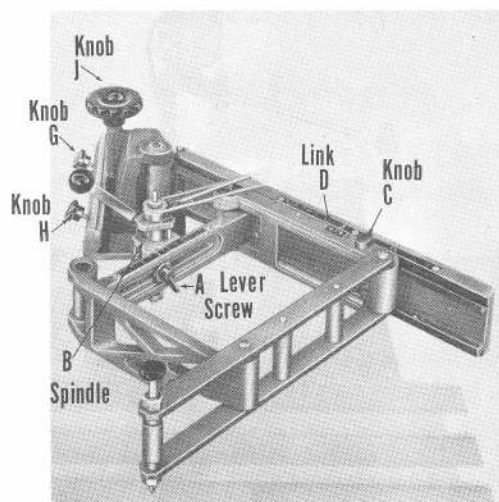
## For Model IRX and IRX-K

1. Open lever screw (A) and move spindle (B) until ratio indicator mark is aligned with ratio scale.
2. Repeat the same operation on link (D), by opening knob (C). Make sure both settings correspond precisely.
3. Adjust centering bracket for best engraving position by opening knobs (G) and (H) and turning knob (J). After positioning lock knobs (G) and (H).

### NOTE:

Motor for Model IRX is equipped with a 2-step pulley for 2 spindle speeds.

Use small pulley (8750 RPM) for engraving of steel and other ferrous metals. Use larger pulley (10,600 RPM) for all other plastics and metals.

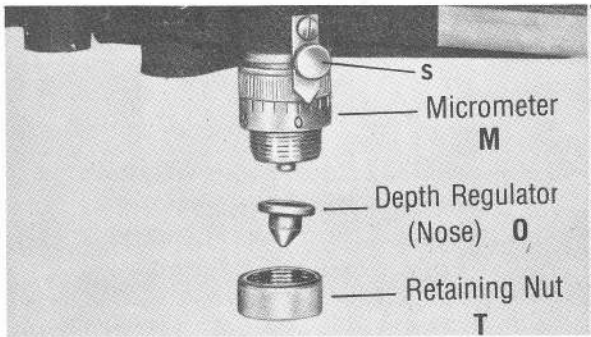


# CUTTER SPINDLE AND DEPTH REGULATOR

Cutter spindles are equipped with shielded ball bearings for smooth operation.

Engraving cutters are inserted from the top for quick interchange without the use of wrenches.

Just screw engraving cutter into spindle counter-clockwise.

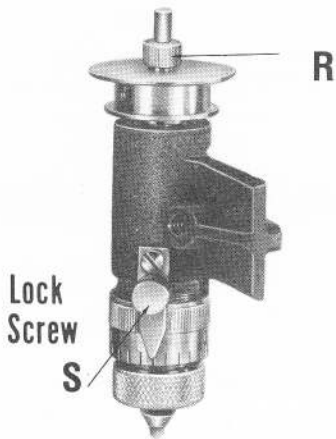


## DEPTH REGULATOR

All models are equipped with a depth regulator unit which guarantees uniform depth of cut on irregular surfaces, especially on plastic materials which vary in thickness.

The regulator consists of an interchangeable depth regulator nose which can be adjusted in relationship to the cutter point with the help of a micrometer sleeve.

When using burnishing cutter, which is recommended for the engraving of polished trophy brass, remove depth regulator and retaining nut and use fingertip control.



## HOW TO SET DEPTH

1. See that nose is properly seated in spindle recess and tightened.
2. Clamp a piece of flat material in workholder.
3. Insert cutter into spindle counter clockwise and loosen screw in cutter head (R) with wrench.
4. Open lock screw (S) and set micrometer sleeve to zero.
5. Bring spindle down so that nose touches surface of the clamped material.
6. Lightly tap cutter down so that it touches surface of material.
7. Now lock screw in cutter head.
8. Nose and cutter point are now at zero setting. Then turn micrometer sleeve to desired depth.
9. Check whether clearance hole in regulator nose is large enough to allow cutter point to rotate freely. Rotate spindle manually before starting motor. If cutter point is rubbing, change to nose with a larger hole. (See Accessory Price List.)

## ALTERNATE DEPTH REGULATOR STOP FOR MODELS ITF, ITF-K, ITX, IRX AND IRX-K

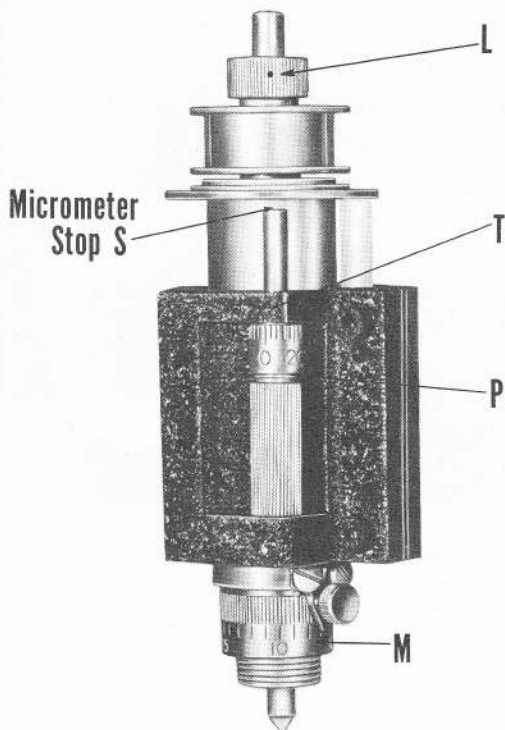
An alternate depth regulator stop without regulator nose is occasionally used on surfaces with a very delicate finish.

When engraving without nose - *only the spindle micrometer stop (S)* is used for adjusting depth of cut. Not micrometer sleeve (M).

1. Remove nose by unscrewing retaining nut.
  2. Clamp a piece of flat material in workholder.
  3. Insert cutter into spindle and loosen screw in cutter head (L) with cutter wrench.
  4. Open set screw lock (T) as shown.
  5. Set spindle micrometer (P) to zero. Bring cutter spindle down to micrometer stop (S) and lock screw (L) in cutter head.
- You now have a zero setting.

To increase depth of cut turn micrometer spindle (P) counter-clockwise to desired depth.

To assure even depth of cut over the whole area, it is necessary to shim the work to be engraved because no commercial material is perfectly flat.





# SELECTION OF CUTTERS

It is of the utmost importance to use the proper cutter and lubrication to achieve best results when engraving various materials.

Shape of cutters to be used depends on type size, depth and width required. In certain instances, no motor power is used. For example, when engraving hardened tool steel. This is done with a non-rotating diamond cutter.

Chart below gives data for cutting most common materials.

Material To Be Engraved	Cutter	Cutting Lubrication
<b>Plastics</b>		
Gravoply	Carbide	None
Gravoflex	Carbide	None
Phenolics	Carbide	None
Metallex	Carbide or High Speed Steel	None
Acetate	Carbide	Water
Polystyrene	Carbide	Water
Acrylics	High Speed Steel	None
2-Plex	High Speed Steel	None
<b>Metals</b>		
Anodized Aluminum	Carbide	Kerosene
Brass	Carbide or High Speed Steel	Engravolube
CRS Steel	Carbide or High Speed Steel	Engravolube
Stainless Steel	Carbide or High Speed Steel	Engravolube
Hardened Steel	Diamond	None
Precious Metals	Diamond	None

**NOTE: In most cases where we recommend high speed steel cutters, for longer life, carbide cutters can also be used.**

On models I-M, M-II, I-L & IL-K machines. When cutting acrylics and 2-Plex, use a high speed steel cutter with a 90° included angle. Part #40-328-00.

For models IT-F, ITF-K, IT-X & IRX machines, when cutting acrylics and 2-Plex. For lettering under 1/2" use a high speed steel cutter with a 90° included angle. For lettering over 1/2" use a 110° cutter. See Accessory Price List.

## HOW TO SELECT WIDTH OF CUTTER

The width of cut is determined by the height of character. For example, a 1/4" high letter requires an approximate .030 width of cut—1/2" high letter requires approximate .060 width of cut. Below is a guide for the most suitable widths of cuts to be used for characters of various heights:

Height of Character	1/8"	1/4"	5/16"	1/2"	3/4"	1"	1 1/4"	2"
Width of Cutter	.020	.030	.040	.060	.090	.125	.171	.250

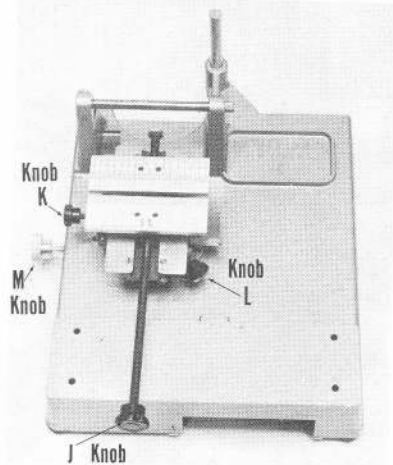
These sizes are approximate and may vary with the style of type used.

Maximum width of cut obtainable with Models I-L, IL-K, I-M, MII	.125
" " " " " " ITF, ITF-K, ITX	.171
" " " " " " IRX, IRX-K	.250



# WORKHOLDING VISES

All New Hermes machines are equipped with self-centering Workholding Fixtures and Interchangeable Holding Jigs for quick setup.



III. 1

**Model I-M and MII** — self centering vise. Clamping capacity up to 4-7/8" in width.

Work can be clamped either between the jaws or between interchangeable jigs.

The carriage of the vise travels in two directions.

The whole unit can be swiveled around and locked in any desired position.

Knob (J) for clamping all objects

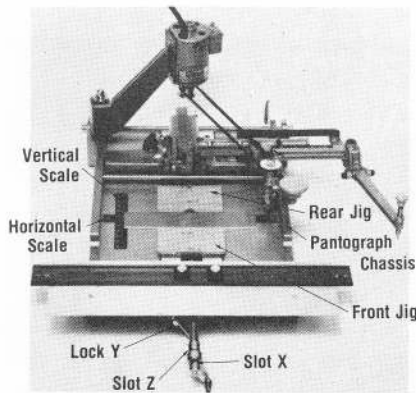
Knob (K) for moving workholder back and forth

Knob (L) to move workholder left and right

Knob (M) to swivel workholder around.

**ALL KNOBS MUST BE TIGHTENED BEFORE ENGRAVING.**

**IMPORTANT:** Clamp all items in such a way that the cutter spindle touches the engraving surface at an angle of 90°. If clamped too low or too high, engraving will not be straight.



III. 2

**Model IL and ILK** — self-centering plateholder attached to base of machine.

Clamping capacity 7" in width.

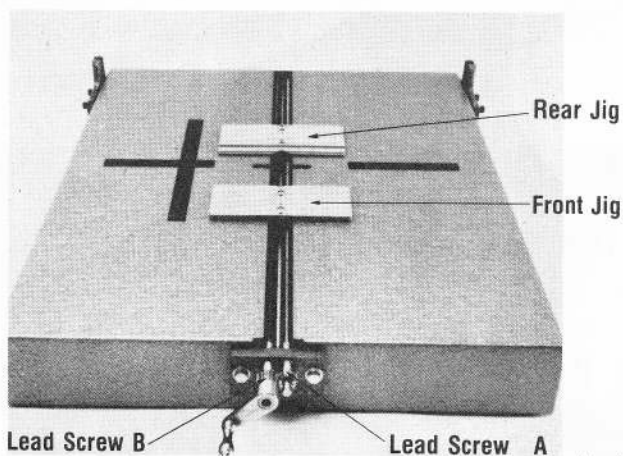
To open and close jigs pull crank handle until it engages slot (X) as shown in photo.

To position work, open lock (Y) on base and push crank handle until it engages slot (Z) on transport shaft as shown.

Move plateholder to desired position and tighten lock (Y).

For wider panels either remove one or both holding jigs and slide panel under pantograph chassis — or lift pantograph chassis off machine base and place directly on panels to be engraved.

Panels can be securely held with the help of double faced adhesive tape.



III. 3

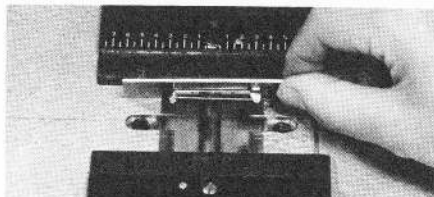
**Models ITF, ITF-K, IRX and IRX-K**—self centering plateholder attached to base.

Clamping Capacity 19" in width.

To move front jig only, place crank handle on right workholder lead screw (A). To move rear jig, place handle on left workholder lead screw (B) so that only pin is engaged (not gears).

When the correct position for clamping has been achieved, push crank handle all the way forward in lead screw (B) to engage gears. You now have a self-centering action which moves both jigs simultaneously.

For the engraving of panels larger than the base, lift engraving chassis from machine base and place directly on panels of any dimension.



III. 4

To engrave identification badges with pins attached, clamp the badge so that the pin locates in the slot opening of the machine base.

For badges with clips attached and slip-on badges special jigs are available. See Accessory Price List.

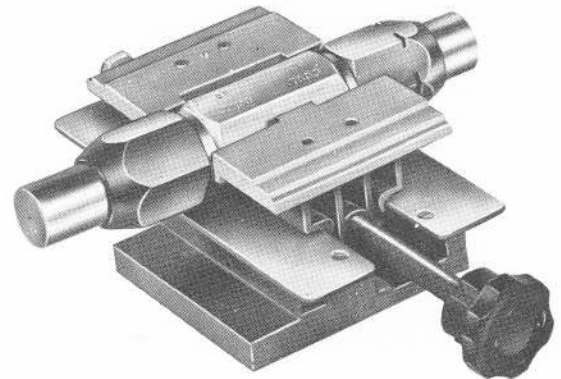
# WORKHOLDING VISES

All New Hermes machines are equipped with self-centering Workholding Fixtures and Interchangeable Holding Jigs for quick setup.

## INDEPENDENT VISE FOR MODELS IL-K, ITF-K AND IRX-K

In addition to the plateholder attached to machine base an independent self-centering workholding vise is standard equipment with Models IL-K, ITF-K and IRX-K.

Vise is clamped between the jigs on machine base.

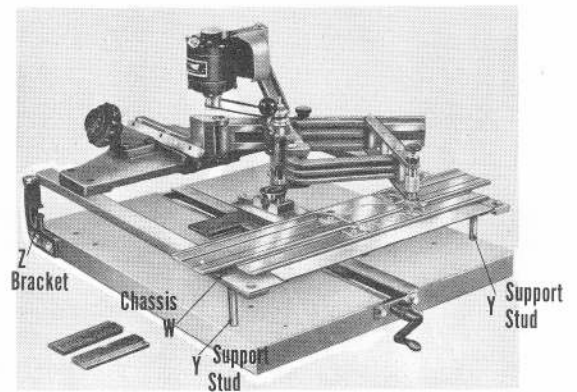


Attached to machine base are two 2 step brackets (Z) allowing the pantograph chassis to be used in two elevations

- the lower step in conjunction with the plateholder
- the upper step with the independent vise.

In the latter position 2 support studs (Y) are attached to the front part of the chassis (W).

For positioning workholder vise see illustrations.



## Model ITX

### Universal self-centering workholding vise

Model ITX is equipped with a heavy duty Universal self-centering vise. Clamping capacity 7" in width. A vise with clamping capacity of 19½" is also available. See Accessory Price List.

The vise can be moved back and forth, sideways or swiveled around and raised and lowered.

Handle (A) for clamping all objects

Knob (B) for moving vise left and right

Knob (C) for moving vise back and forth

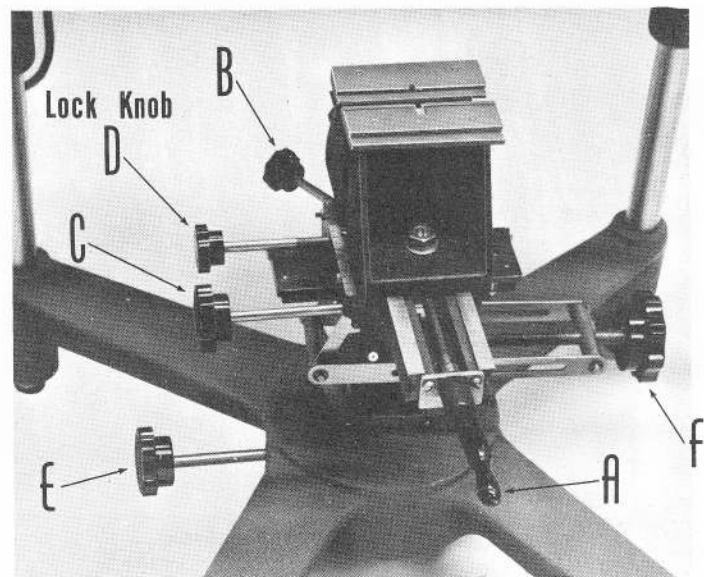
**IMPORTANT:** To operate knob (C) open lock knob (D) and tighten after set up.

Knob (F) to swivel vise.

Knob (E) to raise or lower vise.

When raising or lowering vise with scissor jack be sure knob (F) is open. When desired engraving position is reached close knob (E) again.

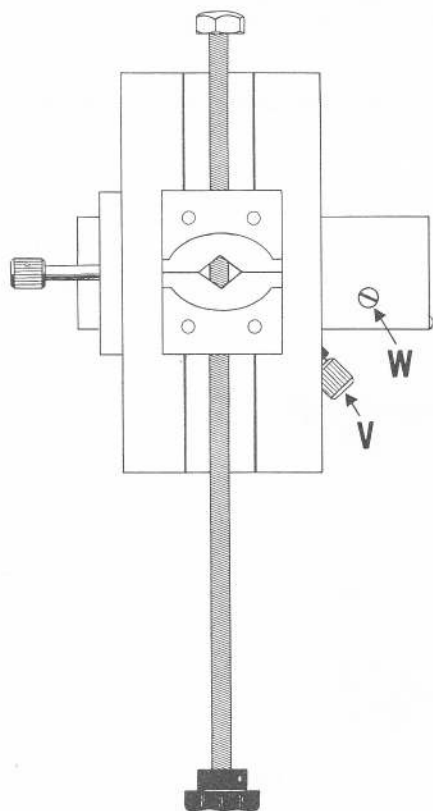
Observe zero setting on all scales for centering purposes.



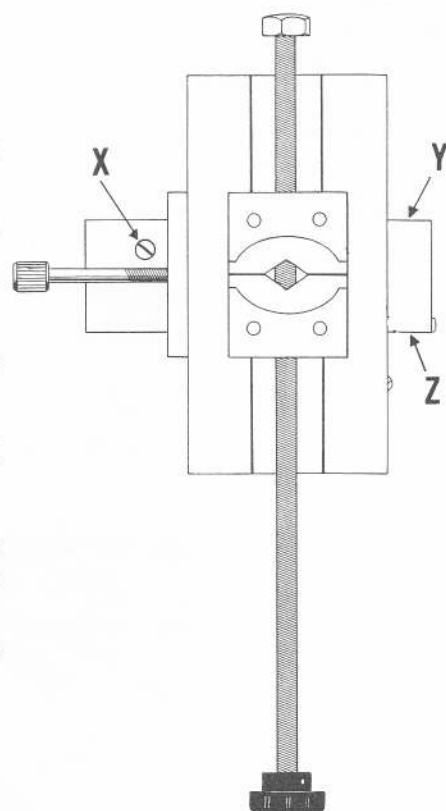
# INSTRUCTIONS FOR RE-ALIGNING WORKHOLDING VISES

The vise is carefully fitted and aligned to the machine in our factory. If however, realignment becomes necessary, proceed as follows:

## MODEL IM, MII

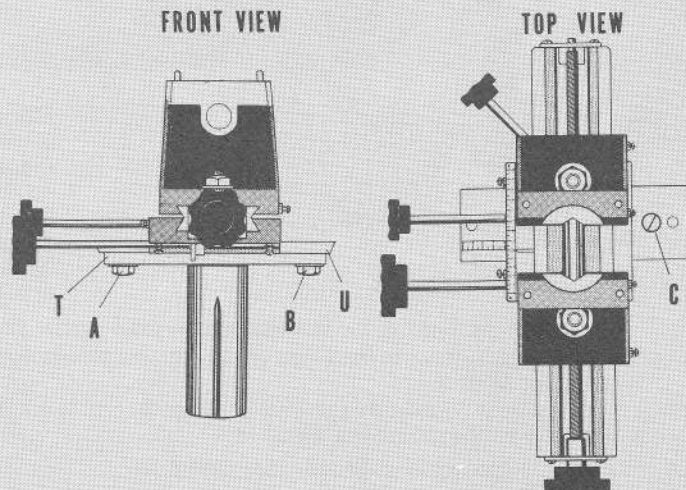


1. CLAMP A STRAIGHT PIECE OF BRASS IN VISE. ENGRAVE A STRAIGHT LINE HORIZONTALLY. IF LINE IS NOT STRAIGHT, PROCEED AS FOLLOWS:
2. OPEN KNOB "V" AND PUSH WORKHOLDER TO THE LEFT
3. LOOSEN SCREW "W"
4. PUSH WORKHOLDER TO THE RIGHT AND LOOSEN SCREW "X"
5. IF RIGHT HAND OF LINE RUNS DOWN, TAP CROSS PIECE AT "Y" LIGHTLY WITH A SOFT HAMMER
6. IF RIGHT END OF LINE RUNS UP, TAP CROSS PIECE AT "Z" LIGHTLY WITH SOFT HAMMER
7. AFTER ALIGNMENT HAS BEEN OBTAINED, TIGHTEN SCREWS "X" AND "W" SECURELY



## MODEL ITX

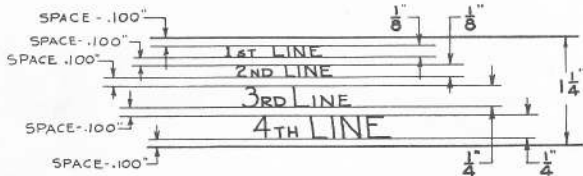
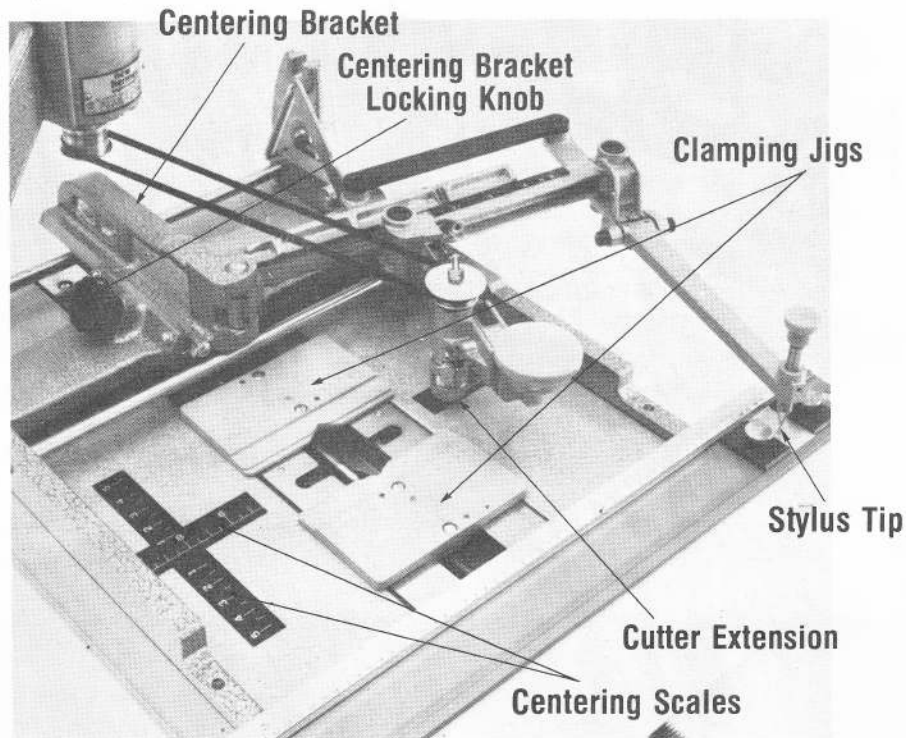
1. Loosen Nuts (A) and (B) under the vise as illustrated. Use a 7/16 wrench.
2. Use screw driver to turn adjusting screw (C) to swing vise to the left or right until correct alignment has been obtained. Then tighten nuts (A) and (B).





# ENGRAVING SEQUENCE for nameplates or any other item

1. Insert master copy type into copy holding slide.
2. Center copy type in slide by means of centering scale. (See page 4.)
3. Determine ratio. (See page 5.)
4. Set ratio on pantograph. (page 6.)
5. Clamp nameplate between jigs on workholder. Make sure nameplate is properly centered from left to right and from top to bottom.
- 5a. Models IL, ITF, and IRX are equipped with scales on the machine base to facilitate centering of nameplate, (See illustration below.)  
If nameplate is longer than jigs, use the graduations on the horizontal scale to center nameplate from left to right.  
To center the nameplate from top to bottom, insert the character "E" into the end of the copy slide and place the stylus in the crossline of the letter. Then move the centering bracket forward or back until the center of the cutter spindle is directly over the line on the horizontal scale. Lock the centering bracket in this position.
6. Make sure that legend fits on plate used. This can be determined by:
  - a) swinging stylus from first letter to the last letter of composition — observing the same movement of the cutter spindle, indicating the exact engraving area which will be covered.
  - OR,
  - b) measuring legend and dividing by ratio setting.
 If legend is too long, a smaller ratio or a more condensed master letter must be used.
7. If multi-line engraving is required, lay out the line positions on plate. For example:



Engraving requirement 4 lines on 1 1/4" width plate. First 2 lines to be engraved with 1/4" characters, the last 2 lines with 1/8" characters.

Proceed as follows:

Add all the engraved lines,  $\frac{1}{4} + \frac{1}{4} + \frac{1}{8} + \frac{1}{8} = \frac{3}{4}$ .

Subtract 3/4" from width of plate,  $1\frac{1}{4} - \frac{3}{4} = \frac{1}{2}$ ".

The balance 1/2" is now allocated to the spaces between lines and border.

Since there are five spaces for four lines, divide 5 into 1/2", which is .100", or a little more than 3/32".

To double check add all the dimensions, i.e., the character dimensions and space dimensions, which should now equal 1 1/4" total.

It is possible that two or three lines can be engraved simultaneously by moving the slides apart to the same relative position as on the laid out plate, for example:

If the distance between lines on plate is 1/4" and the ratio is 4:1, then the distance between the bottom of the letter on the first line to the top of the letter on the second line should be 1".

8. Choose proper cutter as shown. (See page 8.)
9. Set depth as shown on page 7.
10. Proceed with the engraving operation. (See page 4.)



# RATIO CHART

To facilitate the selection of type size, the chart below indicates the finished engraved size in relation to copy type and ratio used.

TYPE SIZE	WITH RATIO SETTING									
	2	2-1/2	3	3-1/2	4	4-1/2	5	6	7	8
FINISHED ENGRAVED SIZE OBTAINED										
5/16"	5/32"	1/8"	7/64"	3/32"	5/64"	.070"	1/16"	.052"	3/64"	.039"
1/2"	1/4"	3/16"	11/64"	5/32"	1/8"	7/64"	3/32"	5/64"	.071"	1/16"
5/8"	5/16"	1/4"	7/32"	3/16"	5/32"	9/64"	1/8"	7/64"	3/32"	5/64"
1"	1/2"	13/32"	11/32"	9/32"	1/4"	7/32"	13/64"	11/64"	9/64"	1/8"
1-1/2"	3/4"	19/32"	1/2"	7/16"	3/8"	21/64"	19/64"	1/4"	7/32"	3/16"
2"	1"	13/16"	21/32"	9/16"	1/2"	7/16"	13/32"	21/64"	9/32"	1/4"
2-1/2"	1-1/4"	1"	13/16"	23/32"	5/8"	9/16"	1/2"	27/64"	23/64"	5/16"
4"	2"	1-19/32"	1-11/32"	1-5/32"	1"	57/64"	51/64"	43/64"	37/64"	1/2"
6"	3"	2-13/32"	2"	1-23/32"	1-1/2"	1-21/64"	1-13/64"	1"	55/64"	3/4"

To calculate size of finished engraving, divide master copy size by pantograph ratio. **EXAMPLE**  $\frac{\text{Master Copy Size } 5/8''}{\text{Pantograph Ratio } 5} = 1/8''$

Actual overall size will be 1/8" plus cutter width

## WORKING RANGE

The engraving area that can be covered in one set-up depends on the ratio used.

Table below shows working range with ONE set-up. Larger area can be covered by moving the work

(See page 4.)

Ratio	2-1/2:1	3:1	4:1	5:1	6:1	7:1
Rectangle	9" x 2"	6" x 2-3/8"	3-1/2" x 2-1/4"	3" x 1-3/8"	2-3/4" x 7/8"	1-3/8" x 1/2"
Square	3-3/8"	3"	2-1/2"	1-5/8"	1-1/4"	5/8"

**MODEL**  
**IM, MII**  
**IL**  
**ILK**

Ratio	2:1	2-1/2:1	3:1	4:1	5:1	6:1	7:1
Rectangle	12" x 3-1/2" or 9" x 4-3/8"	9" x 3-1/4" or 7" x 3-3/4"	8" x 2-1/2" or 6" x 3-1/4"	6" x 1-1/4" or 5" x 1-3/4"	4" x 1-1/8"	3" x 1"	2-1/4" x 3/4"
Square	5"	4-3/8"	3-3/4"	2-1/2"	1-7/8"	1-3/8"	1-1/16"

**MODEL**  
**ITF**  
**ITF-K**  
**ITX**

Ratio	Rectangle	Square
2:1	18-1/8" x 6"	7"
2-1/2:1	14" x 4-1/2"	5-1/8"
3:1	12" x 2-3/4"	5"
4:1	8" x 3"	4"

Ratio	Rectangle	Square
5:1	4" x 2-3/4"	3-1/8"
6:1	3-1/2" x 2"	2-1/4"
7:1	3-1/2" x 1"	1-3/8"
8:1	3" x 5/8"	1-1/8"

**MODEL IRX AND IRX-K**

# HOW MANY LETTERS PER LENGTH OF PLATE?

TO ESTIMATE LENGTH OF NAMEPLATE FOR 3 MOST POPULAR TYPE FACES, 3 CHARTS ARE SHOWN.

THEY INDICATE THE APPROXIMATE LENGTH OF NAMEPLATE REQUIRED FOR VARIOUS SIZES OF LETTERING.

CONDENSED  
BLOCK

BENJAMIN FRANKLIN

LENGTH OF PLATE

Letter Height	2"	3"	4"	5"	6"	8"	10"	12"	14"
1/4"	8	12	17	22	26	36	45	55	64
3/8"	4	8	11	14	18	24	30	37	44
1/2"	3	5	8	10	12	17	22	27	32
3/4"	2	3	5	6	8	11	15	18	21
7/8"	1	2	3	5	6	9	11	14	17
1"	1	2	3	4	5	8	10	13	16

AMOUNT OF LETTERS

LENGTH OF PLATE

Letter Height	2"	3"	4"	5"	6"	8"	10"	12"	14"
1/4"	6	10	14	18	23	31	39	50	55
3/8"	4	6	9	12	15	20	26	32	37
1/2"	2	4	6	8	10	14	19	25	27
3/4"	1	2	3	5	6	9	12	15	18
7/8"	1	2	3	4	5	7	10	12	14
1"	1	2	3	3	4	6	7	10	12

AMOUNT OF LETTERS

REGULAR  
BLOCK

GEORGE WASHINGTON

LENGTH OF PLATE

Letter Height	2"	3"	4"	5"	6"	8"	10"	12"	14"
1/4"	13	20	28	35	42	58	72	87	100
3/8"	8	12	17	22	27	37	48	56	66
1/2"	5	9	12	16	19	26	34	41	48
3/4"	3	5	8	10	13	18	23	28	33
7/8"	2	4	6	8	10	14	18	22	26
1"	2	4	6	6	7	10	13	16	19

AMOUNT OF LETTERS

EXTRA  
CONDENSED

ROBERT E. LEE

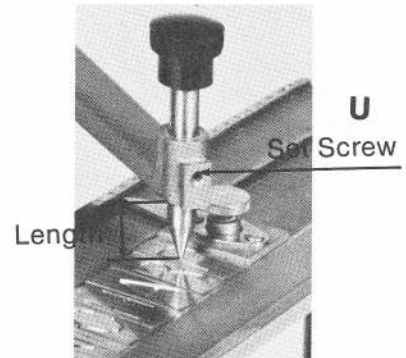
# HOW TO REMOVE STYLUS

The tracing stylus is carbide tipped for extra long life. However, after considerable use, it will wear, and this in turn will wear master copy type more rapidly.

Inspect the tracing stylus frequently. If it shows signs of wear or breaks it is imperative that it is removed and returned to our service department for resharpener.

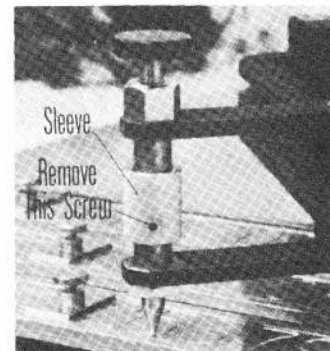
## MODEL I-M, MII, I-L AND ILK

Loosen set screw (U). Before removing stylus, measure protruding length of stylus so that on reinserting, the length will be the same. Otherwise engraving line will not be straight.



## MODEL ITF, ITF-K, ITX, IRX, IRX-K

Rotate sleeve until the head of the screw is visible. Remove this screw; stylus can then be removed. To replace, reverse the procedure, making sure that the screw is set in deep enough to allow sleeve to move up and down freely.



# HOW TO MAKE TEMPLATES

## MASTER TEMPLATES

NEW HERMES Engravograph is a versatile machine tool.

It is not only designed for reproduction of lettering but also for other operations such as slotting — profiling — drilling — contour milling and stenciling.

For these operations a master template has to be made. It should be laid out as large as possible, depending on the coverage at a given ratio, which varies with each machine model.

Pantographic reproduction assures greater accuracy, eliminating multiple machining operations and costly jigs and fixtures.

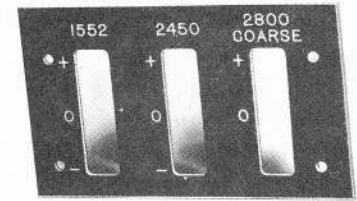
## TRADEMARKS and LOGOS

Many engraving jobs require custom made lettering such as trademarks and logos.

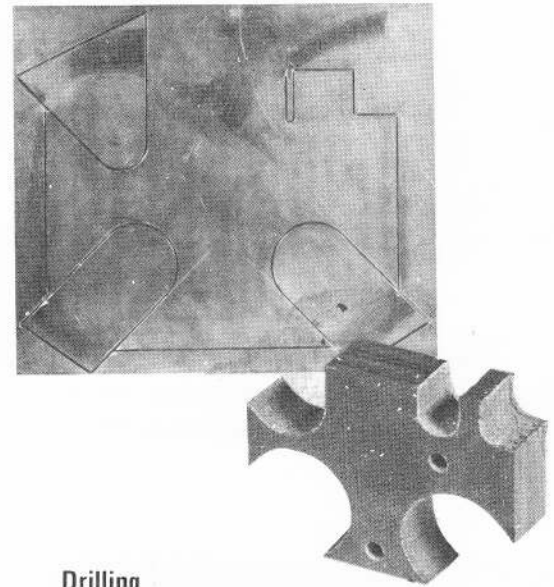
For making a special master template proceed as follows:

1. Determine finished engraved size required — for example, height of letter to be  $\frac{1}{2}$ ".
2. Blow up original drawing or print a minimum of four times the size of finished engraving or, in this case, 2".
3. Put the now enlarged blowup over a sheet of linoleum with carbon paper underneath.
4. Now trace outlines on blowup so that the design is transferred onto the surface of the linoleum.
5. Cut design into the linoleum by using a Speed Ball Linoleum Cutting Knife with the #1 blade.
6. Attach linoleum plate to copy table of machine, and transfer design onto engravers brass using a master cutter. (Consult catalogs for brass and cutters.)
7. If only a short run is required, the linoleum itself can be used as the master template.

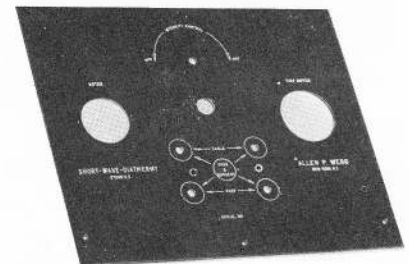
## Slotting



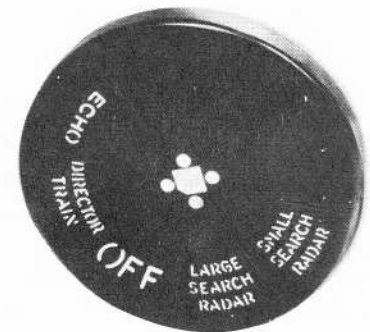
## Profiling



## Drilling



## Stenciling



Special templates for any trademark or design — for profiling and slotting can be supplied. Please send photostat or drawing with specifications for quotation. To: Hermes Engravers, Inc.

20 Cooper Square  
New York, N.Y. 10003



INDIVIDUAL SAFETY  
RECOGNITION AWARD