## Marking Machines



Cloth Drill Marker Model CD3, CD3H Hawk/Model CDL, CDLH

Hot Notcher Model HVN



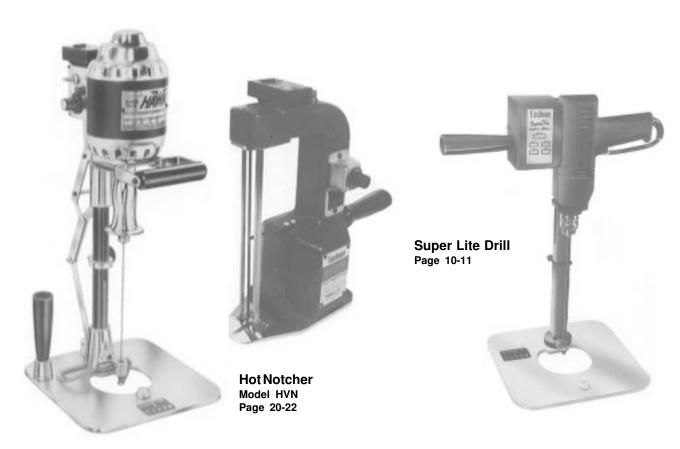
## **INSTRUCTION BOOK AND PARTS LIST**

Eastman<sup>-</sup>

## Marking Machines

**⚠** CAUTION:

Safety glasses should be worn whenever operating this equipment.



Cloth Drill Marker Model CD3, CD3H Hawk/Model CDL, CDLH Page 3-9

#### **Hot Notcher-Model HVN**

Especially useful when marking loose knit materials; the Hot Notcher sears a line that will not unravel or become lost in transit to the sewing room. Featuring a fully adjustable heating element for safe use with virtually any fabric, and a variable depth gauge for heavy or specialized material. The Eastman Hot Notcher marking machine is engineered to meet all domestic and international safety codes and is available for 110v/220v, 50/60 Hz and single or three phase power supplies.

#### Hawk Drill Marker-Model CDL, CDLH

With it's muscle magnifying lever action drill, the Hawk will mark faster and with less operator fatigue, through the hardest materials, than can any other drill marker available. These full-featured models will handle virtually any drill marking you may have. See page 3 for Drill/Awl options.

#### Super Lite Drill Marker

Engineered with superior durability and convenient servicing in mind, the Super Lite Drill Marker is ideal for the international market, where these requirements are paramount.

Available in cold or heated models and for use with 120v or 240v power supplies and fitted with and 8" or 9-1/2" baseplate, the Super Light Drill Marker is able to perform near the capabilities of our heavier duty models with the advantage of lower initial cost. The Super Lite Drill Marker is for use with 8" drill/ awls of 5/64", 3/32", 1/8", 5/32", 3/16", and 1/4" diameters only. See page 3 for drill/awl part numbers.

# Cloth Drill Model CD3, CD3H, CDL, and CDLH Operating Instructions

CAUTION:

Read instructions carefully before starting motor. Be sure that voltage is the same as stamped on nameplate

#### **OPERATION**

Set gauge as indicated on illustration for drilling proper height of material. Position Drill Marker over mark on material with drill directly over mark. To start, throw switch lever to "on" position and let motor gather full speed before starting to drill.

Enter Drill or Awl into the goods slowly. Do not force the drill thru the material with heavy pressure as this will cause the drill to burn or bend and break, or cause motor damage.

#### LUBRICATION

The Upper and Lower Motor Ball Bearings as well as the Spindle Ball Bearing in the handle are grease sealed and require no lubrication.

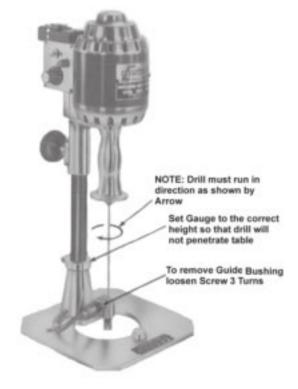
#### **TO CHANGE DRILL**

Lay Drill Marker on it's side, use Chuck Key to loosen drill. Remove the old Drill from the Chuck and pull down and thru Drill Guide Bushing.

Insert new Drill thru lower Drill Guide Bushing and up into Chuck. Tighten using the Chuck Key.

NOTE:

Each diameter Drill or Awl requires a corresponding Guide Bushing. See chart below. List the serial number of your drilling machine on all orders for drills or parts.



#### **EASTMAN DRILL SELECTION TABLES**

Eastman offers a wide selection of Drill Points and Awls for different type materials.

Make sure you get the type Drill you need. Avoid errors by using the Drill Number listed in the tables.

Drill and Awls for 4" Drills, actually measure 5-1/2" long.

Drill and Awls for 6" Drills, actually measure 7-1/2" long.

Drill and Awls for 8" Drills, actually measure 10" long.

Drill and Awls for 11-1/2" Drills, actually measure 13-1/2" long.

DRILL OR AWL SELECTION TABLE										
Drill or Awl Dia	¹ = <b>£</b>	3/64"	5/64"	3/32"	1/8"	5/32"	3/16"	1/4"	5/16"*	3/8"*
Hole Size	Drill Length	•	•	•	•					
	4"	<del></del> -	231C1-1	231C1-2	231C1-3					
Diamond	6"	231C1-6	231C1-7	231C1-8	231C1-9	231C1-10				
Point	8"		231C1-12	231C1-13	231C1-14					
	11-1/2"									
_	4"	231C2-1	231C2-2	231C2-3	231C2-4					
Taper	6"	231C1-7	231C1-8	231C2-10	231C2-12	231C2-13				
Point	8"	231C2-17	231C2-19	231C2-20	231C2-21	231C2-24		231C2-36	231C2-37	231C2-38
	11-1/2"	231C2-42	231C2-43	231C2-27	231C2-26	231C2-28	231C2-29			
	4"		231C3	231C3-1	231C2-2			231C2-5	231C2-10	231C2-7
Open End	6"		231C3-18	231C3-11	231C3-12	231C3-13	231C3-14	231C3-15	231C3-16	
Awl	8"		231C3-20	231C3-22	231C3-21	231C3-24	231C3-23	231C3-32		
	11-1/2" 4"			231C3-25	231C3-27	231C3-28				
01	6"			231C4	231C4-1	231C4-2	231C4-3	231C4-29	231C4-30	231C4-31
Closed End Awl	8"			231C4-5 231C4-15	231C4-6 231C4-10	231C4-7	231C4-8	231C4-9 231C4-20	231C4-22	231C4-23
AWI	8" 11-1/2"			231C4-15 231C4-17	231C4-10 231C4-18	231C4-11	231C4-12		231C4-25	231C4-24
	11-1/2			23104-17	23104-16	231C4-19		231C4-26		
DRILL GUIDE	BUSHINGSELE	CTIONTABLE								
Cold Drill Bus	hing	21C13-40	21C13-36	21C13-34	21C13-35	21C13-37	21C13-38	21C13-42	21C13-41	21C13-44
Hot Drill Bush		21C13-51	21C13-52	21C13-53	21C13-54	21C13-55	21C13-56	21C13-65	21C13-66	21C13-67
*Multiple Size		21C13-59	21C13-59	21C13-59	21C13-63	21C13-63				

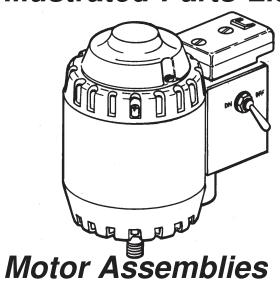
\*OPTIONAL Multiple size bushing, cold drills only. Bushing No. 2 21C13-59 for 3/64, 5/64, 3/32 & 1/8 hole sizes Bushing No. 2 21C13-63 for 5/32 & 3/16 hole sizes. \*For 1/4" dia. and larger, use chuck 229C1-6 & setscrew 309C20-1. For models CD3H and CDLH, 1/4" dia. and larger, use Guide Heat Bracket 728C1-10.

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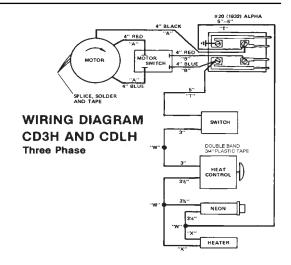
## Cloth Drill Model CD3, CD3H, CDL, and CDLH

### **Illustrated Parts List**

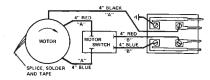


NOTE:

Please specify model and serial number of machine when ordering parts

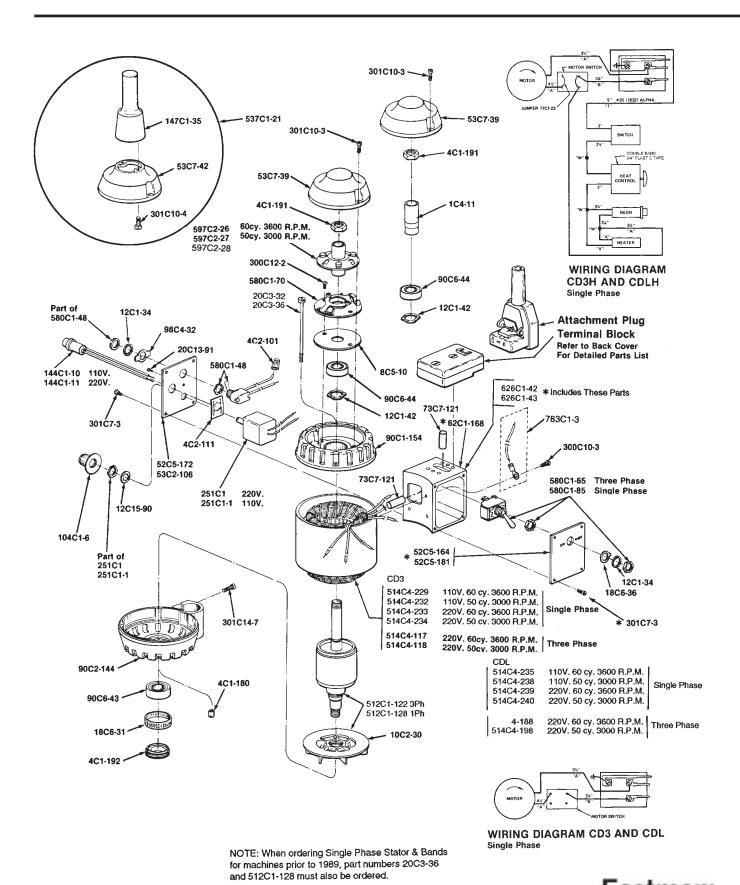


		c?	» رد	97.01	colly
Part Number	රුර	, CO,	3,00	P <sub>a</sub> Cl <sub>j</sub>	Description Spacer Sleave
1C4-11	0	0	1	1	Spacer Sleeve
4C1-180	4	4	4	4	Nut
4C1-191	1	1	1	1	Shaft Lock Nut
4C1-192	1	1	1	1	Lower Bearing Nut
4C2-101	0	1	0	1	Wire Nut
4C2-111	0	1	0	1	Speed Nut
8C5-10	1	1	1	1	Automatic Switch Insulation



#### WIRING DIAGRAM CD3 AND CDL Three Phase

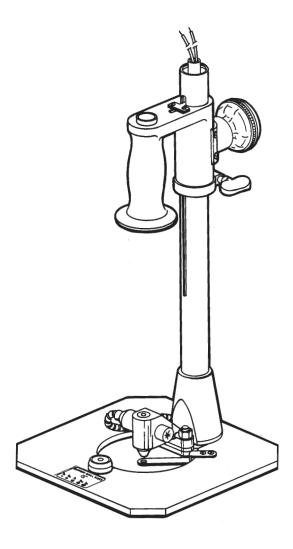
				SHA	or Thurst
D4		CD)	ر رئ ک	77.	COLH
Part Number	<sup>උ</sup> රු	, cla	ુંજુ	, Class	Description  Rotor Fan  Lock Washer  Lock Washer for Control
10C2-30 12C1-34	1	1	1	1	Rotor Fan Lock Washer
12C1-34	1	1	1	1	Loading Spring Washer
12C15-90	•		•	•	Look Washer for Control
18C6-31 18C6-38	1 1	1	1	1	Tolerancing Ring Locating Ring Switch
20C3-32	0	0	4	4	Motor Screw
20C3-36	4	4	0	0	Motor Screw
20C13-91 52C5-164	0	1	0	1	Drive Screw Switch Base
52C5-172	0	1	0	1	Control, Pilot Light, Switch
52C5-181 53C2-106	1	0	1	0	Switch Base Switch Cover
53C7-39	1	1	1	1	Rear Bearing Cover
53C7-42	1	1	1	1	Rear Bearing Cover 11-1/2"
73C7-121 90C1-154	2 1	2 1	2	2	Tubing Insulation Upper Bearing Housing
90C2-144	i	i	i	1	Lower Bearing Housing
90C6-43	1	1	1	1	Lower Ball Bearing
90C6-44 98C4-32	1	1	1	1	Upper Ball Bearing Switch Cap
104C1-6	0	1	0	1	Dial Indicator
144C1-10	0	1	0	1	Pilot Light 110v
144C1-11 147C1-35	0	0	0	1	Pilot Light 220v Extension for Cover 11-1/2"
251C1	0	0	0	1	Heat Control 220v
251C1-1	0	1	0	0	Heat Control 110v Screw 6-32 x 5/16 Round Head
300C10-3 300C12-2	2	3 2	2	2	Screw 8-32 x 3/16 Round Head Screw 8-32 x 3/8 Round head
301C7-3	8	8	8	8	Screw 4-36 x 1/4 Fillister Head
301C10-3 301C10-4	2	2	2	2	Screw 6-32 x 3/8 Fillister Head Screw 6-32 x 1/2 Fillister Head
301C14-7	2	2	2	2	Screw 10-24 x 1 Fillister Head
512C1-122	0	0	1	1	Rotor with Fan
512C1-128 514C4-229	1	1	0	0 0 CF	Rotor with Fan 3/Stator w/Band 110v 60cy 3600rpm
514C4-232	1	1	0	0 CE	3/Stator w/Band 110v 50cy 3000rpm
514C4-233	1	1	0		03/Stator w/Band 220v 60cy 3600rpm
514C4-234 514C4-235	1	1	0	0 CE	03/Stator w/Band 220v 50cy 3000rpm 0L/Stator w/Band 110v 60cy 3600rpm
514C4-238	1	1	0	0 CE	L/Stator w/Band 110v 50cy 3000rpm
514C4-239 514C4-240	1	1	0		OL/Stator w/Band 220v 60cy 3600rpm OL/Stator w/Band 220v 50cy 3000rpm
514C4-117	Ö	Ó	1		3/Stator w/Band 220v 60cy 3600rpm
514C4-118	0	0	1		3/Stator w/Band 220v 50cy 3000rpm
514C4-188 514C4-198	0	0	1	4 0 5	DL/Stator w/Band 220v 60cy 3600rpm DL/Stator w/Band 220v 50cy 3000rpm
537C1-21	1	1	1	1	Rear Brg Cover w/Extension 11-1/2"
580C1-48 580C1-65	0	1	0	1	Toggle Switch Switch for Motor (Three phase)
580C1-65	1	1	0	0	Automatic Cut Out Switch
580C1-85	1	1	0	0	Switch for Motor (Single phase)
597C2-26 597C2-27	1	1	0	0	Automatic Cut Out 60 Cy 3600 rpm Automatic Cut Out 50 Cy 3000 rpm
597C2-27	1	1	0	0	Automatic Cut Out 50 Cy 3000 rpm
626C1-42	1	0	1	0	Switch Bracket w/Switch Base
626C1-43 783C1-3	0	1	0	1	Switch Bracket w/Switch Base Ground Wire Assy.
, 5551 6	•	•			around will Assy.



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## Cloth Drill

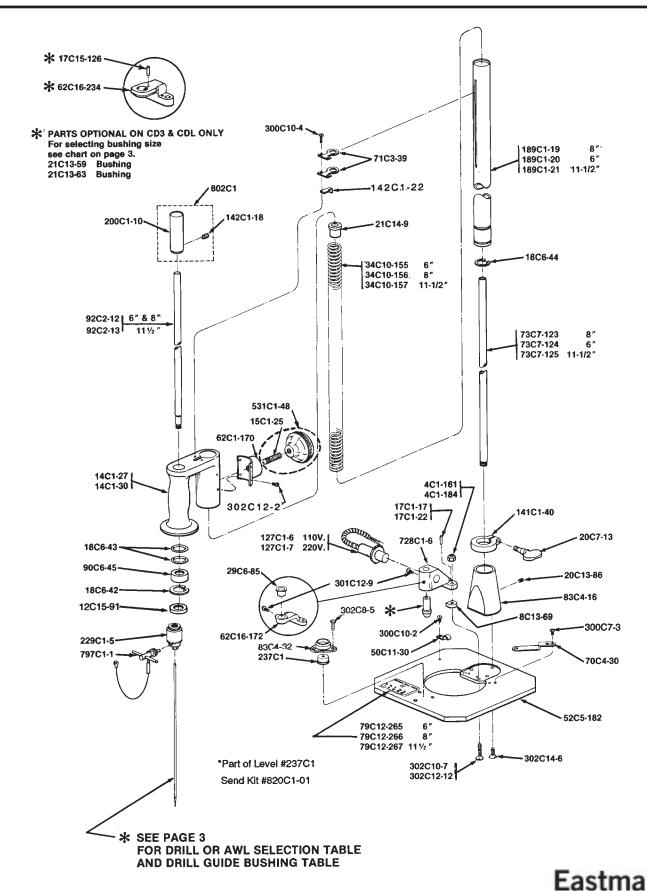
## Model CD3 and CD3H **Illustrated Parts List**



## Standard and Base Plate Assembly

NOTE: Please specify model and serial number of machine when ordering parts.

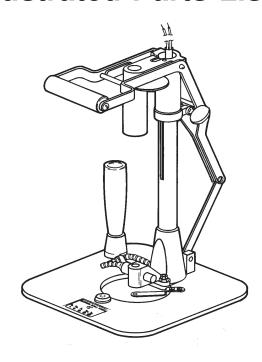
Part	Re	lo. eq'c	
Number	රුදු	ر ر ر	Description
4C1-161	2	U	Flex Nut
4C1-184 8C13-69	0	2	Stop Nut Heat Insulator
12C15-91	1	1	Spacing Washer
14C1-27 14C1-30	1	1 1	Handle Grip Handle Grip
15C1-25	1	1	Machine Handle Stud Dowel Pin
17C1-17 17C1-22	0	2	Dowel Pin
17C15-126 18C6-42	1	1	Dowel Pin Retaining Ring
18C6-43	2	2	Rubber "O" Ring
18C6-44 20C7-13	1	1	Retaining Ring Thumb Screw
20C13-86	2	2	Set Screw
21C14-9 29C6-85	1	1	Bushing For Spring Adaptor For Bushing
34C10-155	1	1	Spring For 6" Post
34C10-156 34C10-157	1	1	Spring For 8" Post Spring For 11-1/2" Post
50C11-30	0	1	Cable Clamp
52C5-155 52C5-182	1	1	Level Base Base Plate
55C4-95	0	1	Spacer For Heating Element
62C1-170 62C16-172	1	1	Handle Bracket Lower Guide Bracket
62C16-234	1	1	Lower Guide Bracket
70C4-30 70C3-39	1 2	2	Locator Guide Spring Retainer
73C7-123 73C7-124	0	1	8" Tube For Lead Wire 6" Tube For Lead Wire
73C7-125	0	1	11-1/2" Tube For Lead Wire
79C12-265 79C12-266	1	1	6" Drill Size Decal 8" Drill Size Decal
79C12-267	1	1	11-1/2" Drill Size Decal
83C4-32 83C4-16	1	1	Level Flange Flange For Post
90C6-45	1	1	Spindle Ball Bearing
92C2-12 92C2-13	1	1	Spindle 6" and 8" Spindle 11-1/2"
127C1-6 127C1-7	0	1	Heat Element 110V.
141C1-40	1	1	Heat Element 220V. Gauge
142C1-18 142c1-22	1	1	Key For Driver Key For Handle
189C1-19	1	1	8" Post
189C1-20 189C1-21	1	1	6" Post 11-1/2" Post
200C1-10	1	1	Driver Only
229C1-5 237C1	1	1	Chuck Bullseye Vial
300C7-3	2	2	Screw, 4-36 x 1/4 Round Head
300C10-2 300C10-4	0 2	1 2	Screw, 6-32 x 1/4 Round Head Screw, 6-32 x 3/8 Round Head
301C12-9	0	1	Screw, 8-32 x 1/4 Fillister Hd. (Stainless Steel)
302C12-2 302C10-7	4 2	0	Screw, 8-32 x 5/16 Flat Head Screw, 6-32 x 5/8 Flat Head
302c12-12 302C14-6	0 3	2	Screw, 8-32 x 1 Flat Head Screw, 10-24 x 5/8 Flat Head
531C1-48	1	1	Machine Handle
728C1-6 797C1-1	0	1	Guide Heat Bracket Key for Chuck and Holder
802C1	1	1	Driver with Key
302C8-5	3	3	Screw, #4-40 x 1/4 Flat Head



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## Cloth Drill Model CD3 and CD3H **Illustrated Parts List**

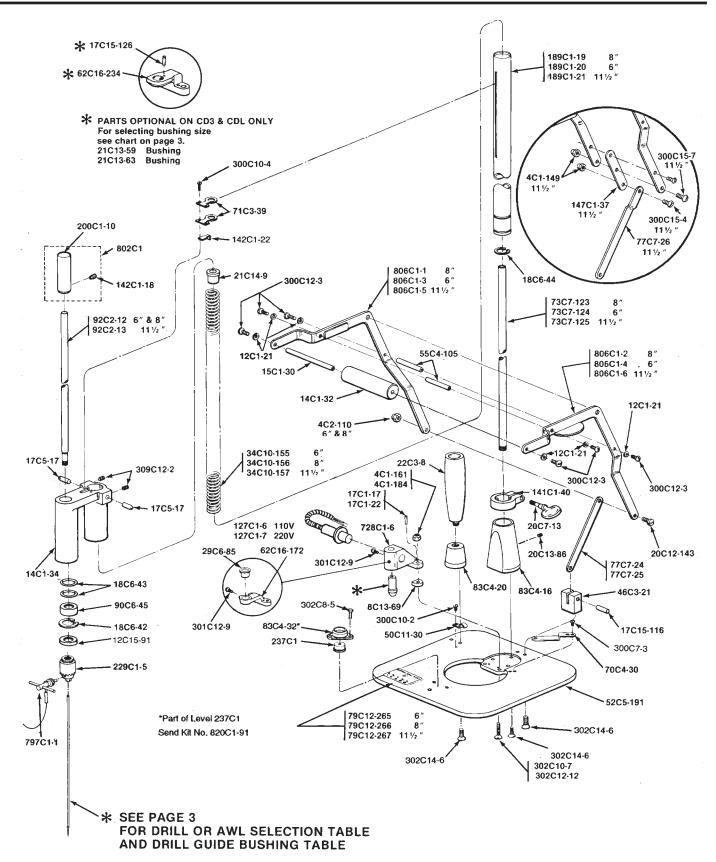


## Standard and Base Plate Assembly

NOTE: Please specify model and serial number of machine when ordering parts

Part Number	No. Req'd		Description
4C1-184	3 2 0	CDLT 3 0 2	Elastic Stop Nut Flex Nut Elastic Stop Nut
4C2-110	0	1	Elasic Stop Nut
8C13-69		1	Heat Insulator
12C1-21		6	Lock Washer
12C15-91	1	1	Spacing Washer
14C1-32	1	1	Operating Handle
14C1-34	1	1	Handle Grip w/Lugs
15C1-30	1	1	Stud For Handle
17C1-17	1	0	Dowel Pin
17C1-22	0	1	Dowel Pin
17C5-17 17C15-116	2	2	Pivot Point Roll Pin

Part Number	Ne Re	a'd	Description
	CDY	ර	Y
17C15-126	1	- 1	Dowel Pill
18C6-42 18C6-43	1	1	Retaining Ring Rubber "O" Ring
18C6-44	1	1	Retaining Ring
20C7-13	1	1	Thumb Screw
20C12-143	1	1	Pivot Screw 6" & 8" Drills
20C13-86 21C14-9	2	2	Set Screw Bushing For Spring
22C3-8	i	i	Tapered Handle
29C6-85	1	0	Adaptor For Bushing
34C10-155	1	1	Spring 6" Drill
34C10-156	1	1	Spring 8" Drill
34C10-157 46C3-21	1	1	Spring 11-1/2" Drill Block For Link
50C11-30	Ö	i	Cable Clamp
52C5-191	1	1	Base
55C4-95	0	1	Spacer For Heating Element
55C4-105 62C16-172	2	2	Spacer Lever Handle Lower Guide Bracket
62C16-234	1	0	Lower Guide Bracket
70C4-30	1	1	Locator Guide
71C3-39	2	2	Spring Retainer
73C7-123 73C7-124	1	1	8" Tube For Lead Wire 6" Tube For Lead Wire
73C7-124	i	i	11-1/2" Tube For Lead Wire
77C7-24	1	1	8" Link
77C7-25	1	1	6" Link
77C7-26	1	1	11-1/2" Link
79C12-265 79C12-266	1	1	6" Drill Size Decal 8" Drill Size Decal
79C12-267	i	i	11-1/2" Drill Size Decal
83C4-32	1	1	Level Flange
83C4-16	1	1	Flange For Post
83C4-20 90C6-45	1	1	Flange For Handle
92C2-12	i	i	Spring Ball Bearing 6" & 8" Spindle
92C2-13	i	1	11-1/2" Spindle
127C1-6	0	1	110V Heating Element
127C1-7	0	1	220V Heating Element
141C1-40 142C1-18	1	1	Gauge Key For Driver
142C1-22	i	i	Key For Handle
147C1-37	1	1	11-1/2" Extension For Handle Lever
189C1-19	1	1	8" Post
189C1-20 189C1-21	1	1	6" Post 11-1/2" Post
200C1-10	1	i	Driver Only
229C1-5	1	1	Chuck
237C1	1	1	Bullseye Vial
300C7-3 300C10-2	2	2	Screw, 4-36 x 1/4 Round Head Screw, 6-32 x 1/4 Round Head
300C10-2	2	2	Screw, 6-32 x 3/8 Round Head
300C12-3	6	6	Screw, 8-32 x 3/8 Round Head
300C15-4	1	1	Screw 10-32 x 1/2 Round Head 11-1/2" only
300C15-7 302C12-12	2	2	Screw 10-32 x 5/8 Flat Head Screw 8-32 x 1" Flat Head
302C12-12	7	7	Screw 10-24 x 5/8 Flat Head
301C12-9	1	1	Screw 8-32 x 9/16 Fillister Head (Stainless Stl.)
302C10-7	2	2	Screw 6-32 x 5/8 Flat Head
309C12-2	2	2	Screw 8-32 x 5/16 Socket Set Screw
728C1-6 797C1-1	1	1	Guide Heat Bracket  Key for Chuck and Holder
802C1	i	i	Driver with Key
806C1-1	1	1	L.H. Handle Lever Assembly 8" Drill
806C1-2	1	1	R.H. Handle Lever Assembly 8" Drill
806C1-3 806C1-4	1	1	L.H. Handle Lever Assembly 6" Drill R.H. Handle Lever Assembly 6" Drill
806C1-5	1	1	L.H. Handle Lever Assembly 11-1/2" Drill
806C1-6	1	1	R.H. Handle Lever Assembly 11-1/2" Drill
302C8-5	3	3	Screw 4-40 x 1/4 Flat Head

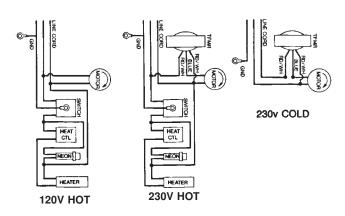


## Eastman<sup>-</sup>

## Super Lite Cloth Drill

Illustrated Parts List



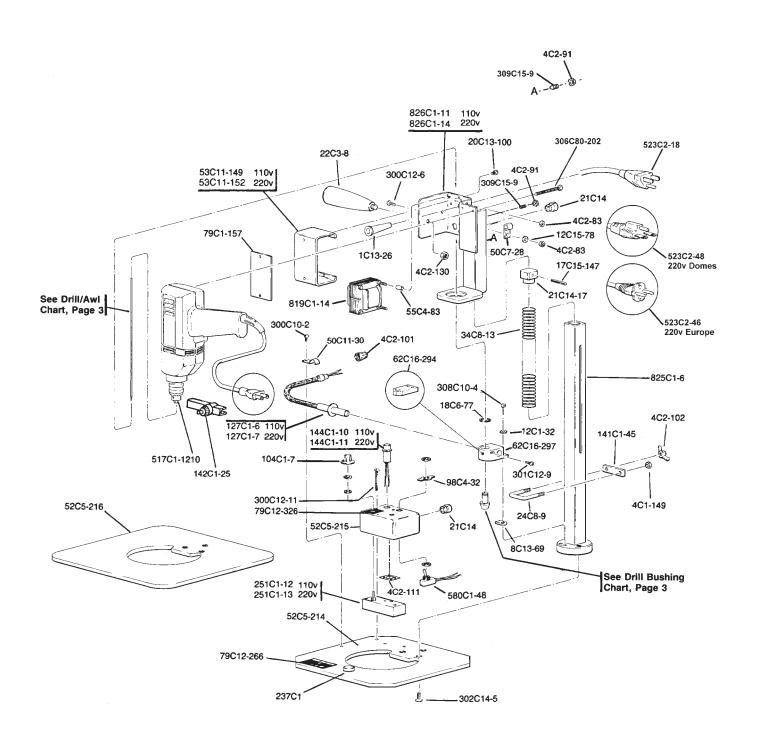


#### WIRING DIAGRAMS

**CAUTION:** 

Read instructions carefully before starting motor. Be sure that voltage is the same as stamped on nameplate.

Part Number	<sup>7</sup> 10;	N Corror	l <b>o</b> . 〉	Req'd	Description
	10	, 10,	ำว	$\hat{o}_{\mu}$	
1C13-26 4C1-149 4C2-83	0 1 0	1 0	1 2	1 2	10-32 Elastic Stop Nut 8-32 Hex Nut
4C2-91 4C2-101 4C2-102	1 0 1	1 6 1	1 5 1	1 6 1	Hex Nut Wire Nut 10-32 Wing Nut
4C2-106 4C2-111 4C2-130	0 0 1	2 1 1	0 0 1	2 1 1	4-40 Hex Nut Nut, Pilot Light 3/8-24 Hex Nut
8C13-69 12C1-32 12C15-78	0 2 0	2 2 1	0 2 1	2 2 1	Heat Insulator Washer, External Lock #6 Washer Flat #8
17C15-147 18C6-77	1	1	1	1 0	Roll Pin Ring, Retaining E-type
20C13-100 21C14 21C14-17	0 0 1	2 3 1	1	2 3 1	Screw, Binding Head Cord Restraint Spring, Bushing
22C3-8 24C8-9 34C8-13	1 1 1	1 1 1	1 1 1	1 1 1	Handle, Tapered Bolt, "U" Spring, Return #8
34C8-14 50C7-28	0	1	1 1 0	1 1	Spring, Return, 220v Clamp Cord 3/16" Dia.
50C11-30 52C5-214 52C5-215	0 1 0	1	1	1	Clamp, Cable Plate Base 8" Base, Control Switch
52C5-216 53C11-149 53C11-152	0	Op 1 0	otio 0 1	nal 0 1	Base Plate 9-1/2" Cover, Wiring 110v Hot Cover, Transformer 220v
55C4-83 62C16-294 62C16-297	0 1 0	0 0 1	2 1 0	2 0 1	Spacer, Transformer Lower Guide Bracket, Cold Lower Guide Bracket, Hot
79C1-157 79C12-266	1	1 1	1	1 1	Plate, Name Decal, Drill Size
79C12-326 98C4-32 104C1-7	0 0 0	1 1 1	0 0	1 1 1	Decal, Dial Indicator Cap, Switch Knob
127C1-6 127C1-7 141C1-45	0 0 1	1 0 1	0 0 1	0 1 1	Heat Element 110v Heat Element 220v Gage, Stop
142C1-25 144C1-10	1	1	1	1 0	Chuck Key Pilot Light, 110v Hot
144C1-11 237C1 251C1-12	0 1 0	0 1 1	0 1 0	1 1 0	Pilot Light, 220v Hot Vial Bullseye Heat, Control, Variable 110v
251C1-13 251C2-1 262C1-9	0 0	0 0 0	0 1 1	1 1 1	Heat, Control, Variable 220v Voltage, Reducer 220v Fuse
300C10-2 300C12-6	0	1 1	0 1	1 1	Screw, 6-32 x 1/4, Round Head Screw, 8-32 x 1/2, Round Head
300C12-11 301C12-9 302C14-5	0 0 3	2 1 3	0 0 3	2 1 3	Screw, 8-32 x 1-3/4, Round Head Screw, 8-32 x 1/4, Fillister Head Screw, 10-24 x 1/2 Flat Head
306C80-202 308C10-4 308C10-5	2 2 2	2 2 2	2 2	2 2 2	Screw, 6 x 2" Type AB Screw, 6-32 x 5/8, Socket Head Cap Screw 6-32 x 1 Socket Head Cap
309C15-9 517C1-1210	1 1 0	1 1	1 1 0	1 1 0	Brass Tipped Setscrew Motor, Unit Drill
523C2-18 523C2-46 523C2-48	0	0	1	1 1	Cord, Hot, 110v Cord, 220v Europe, Hot and Cold Cord, 220V Domestic, Hot and Cold
580C1-48 819C1-14 825C1-6	0 0 1	1 0 1	0 1 1	1 1 1	Switch Voltage Reducer, 220v Post, Assembly
826C1-11 826C1-14	1 0	1 0	0	0	Motor Support Assembly, 110v Motor Support Assembly, 220v



## Eastman' Over a Century of Cutting Expertise

## Super Lite Cloth Drill Operating Instructions

#### **OPERATION**

Set U-Stop Gage to correspond to height of fabric, so that drill will not penetrate table. Be certain Gage is tightened firmly before operating drill.

Position Super Lite Drill Marker over mark, using drill point as indicator. To start, press trigger and slowly push drill into fabric. DO NOT force drill or awl thru cloth; damage to drill or motor may result.

Drill motor may be locked in the on position by engaging drill trigger and sliding lock mechanism forward (located behind trigger on drill handle). Drill lock may be disengaged by pressing and releasing drill trigger.

NOTE:

Disconnect machine from power source before sevicing.

#### **MAINTENANCE**

Periodically check to make sure all mounting screws are securely tightened before operating machine.

#### To change the drill

Lay drill marker on it's side. Loosen drill chuck with key provided and slide drill down and out through guide bushing.

To remove cold drill guide bushing; snap out 'E' ring (18C6-77) and slide out bushing.

To remove hot drill guide bushing; loosen set screw (300C12-9) three turns and slide out bushing.

Select desired drill/awl and matching bushing. Replace guide bushing in reverse order as above. Slide new drill/awl up through bushing and securely tighten into chuck using the supplied chuck key.

Chuck key should be stored on power cord by snapping it into position near plug handle.



DO NOT operate drill marker with chuck key loose in drill. Serious physical injury may result.

#### **Hot Drill**

Drill temperature is variable to accommodate all types of material requiring hot drill marking.

To increase temperature: turn heater dial clockwise.



Safety glasses should be worn at all times whenever operating or servicing this equipment, or serious physical injury may result.

## Magnum Punch Perforator Model MP2 Operating Instructions

#### PREPARATION:

Eastman Machine Co. recommends 40-50 lb (.005"-.006" thick) NON-OILED Kraft paper be used for pattern making. Otherwise, operator may need to adjust punch depth for specific material being used.

For best results, table top must be flat and smooth. Cover table with hard rubber pad (191C1-36) to ensure long life of punch. Replace pad frequently to maintain ideal working surface.



Before operating perforator, make certain electrical power source is the same as that indicated on the number plate

Disconnect machine from power source before sevicing.

#### **OPERATION**

Magnum perforator is ready to operate when power attachment plug is connected; there is no "ON-OFF" switch.

NOTE:

Use caution when connecting power supply to Perforator; even slight rotation of rubber wheel may cause perforator to punch.

KEEP HANDS CLEAR OF RUBBER WHEEL AND PUNCHROD AT ALL TIMES.

To move perforator into position, pull switch lever up with finger. This prevents punching when machine is moved.

For single punch, to set starting point, push switch lever down.

To start perforating; release switch lever and move Magnum along line to be marked. Use guide wire or spring guide to follow line. If desired, either guide wire or spring guide may be removed.

After pattern has been completely perforated and checked, place on top of lay and secure to prevent form shifting. Use pattern duster to spread marking powder along perforated line. Use marking powder sparingly; too much powder will distort the line, causing difficulty when following line with cutting machine.

## Magnum Punch Perforator

## Model MP2 Operating Instructions

**SERVICE & ADJUSTMENTS** 

#### **Replacing Punch**

Remove punch by inserting small Drift Punch into punch, and tapping Drift Punch lightly to loosen punch.

Install punch by placing new punch on tip of punch rod. Insert Drift Punch (230C1) over tip and tap drift lightly to seat punch onto rod.

If punch becomes loose on punch rod, remove punch and tap lightly on it's side to reduce diameter of shaft opening causing it to fit more snugly on punch rod.

#### **Adjust Depth of Punch**

Remove top cover by removing fillister head screw (301C10-8). Loosen 1/2" hex nut (4C2-120) on top of solenoid. Turn adjusting screw clockwise to increase depth of punch, counterclockwise to decrease depth of punch. One complete turn of adjusting screw equals approx. 1/32" depth adjustment.

To test adjustment; place 1/2" nut driver over stop nut and strike end of nut driver with palm of hand. Punch should be set only deep enough to penetrate through material being punched, this allows for maximum speed of perforation.

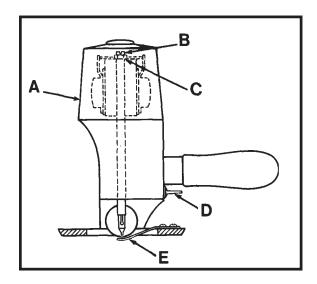
If your pattern paper is very thick, set punch depth deeper. This will provide maximum punching power but speed of punching will be reduced.

When adjustment is satisfactory; hold adjusting screw stationary and tighten 1/2" hex nut firmly.

#### **TROUBLESHOOTING**

- 1. Machine does not punch hard enough/Loss of power:
- a. Screws holding solonoid to housing are loose causing misalignment of punch.
- b. Punch depth set too shallow.
- c. Punch dull; replace or sharpen punch.
- d. Check line voltage: 105v minimum for 110v; 210v minimum for 220v rating.
- Machine rocks on table surface/proper punch depth cannot be obtained/whenever operating on hard surface:
- a. Retract rubber wheel into baseplate, as described.

Remove baseplate by loosening flathead screws (302C15-4) from bottom. Insert two washers (12C11-72) one at each screw, between baseplate and housing. Replace baseplate screws with socket head screws (302C15-8).

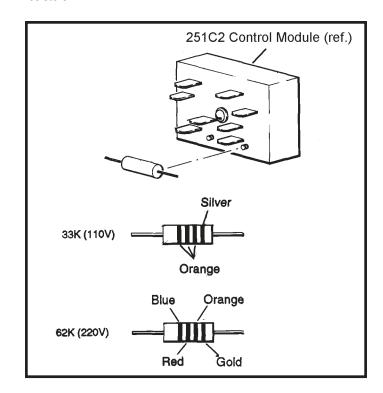


A CAUTION:

DO NOT operate this equipment unless baseplate is flat on table surface. Serious personal injury may result.

#### CHANGING VOLTAGE OF CONTROL MODULE

Use low wattage soldering iron to desolder and remove old resistor and solder new resistor in it's place. Refer to illustration to confirm value of resistors.





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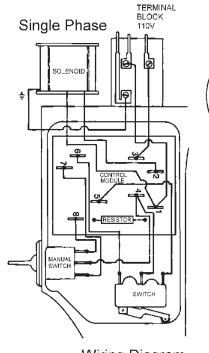
# Magnum Punch Perforator

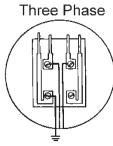
Illustrated Parts List



NOTE:

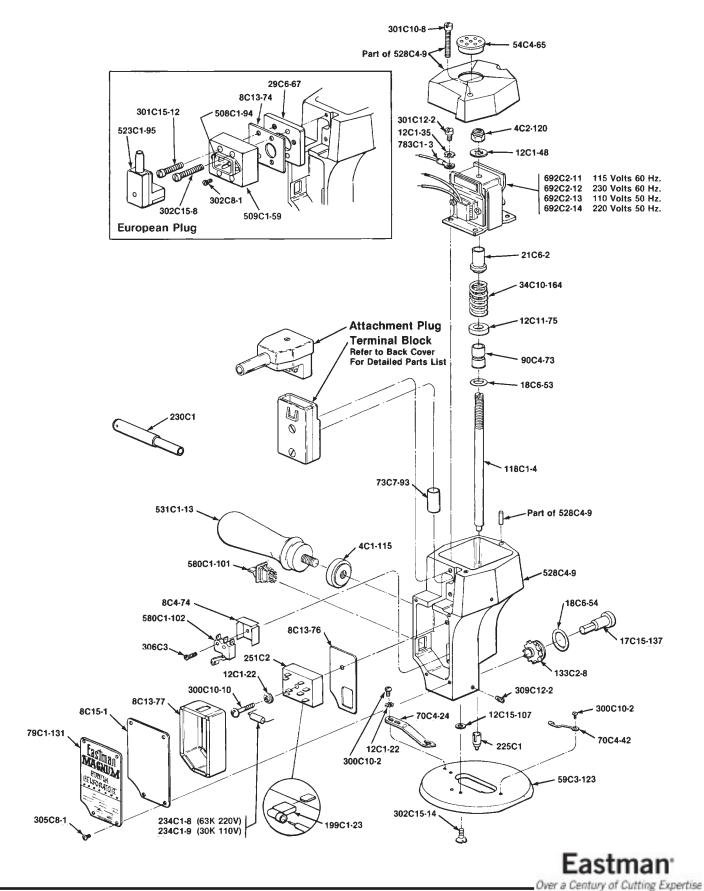
Please specify model and serial number of machine when ordering parts





Wiring	Diagran

Part Number	No. Req'd	Description
4C1-115 4C2-120 8C4-74	1 1 1	Locknut, Handle Nut, Elastic, Stop, Hex 5/16 x 24 Switch, Insulation
8C13-76 8C13-77 8C15-1	1 1 1	Housing, Insulation Housing, Insulation Cover, Insulation
12C1-22 12C1-35 12C1-48	3 4 1	Lock Washer, Ext. Tooth #6 Lock Waher, Ext. Tooth #8 Lock Waher, Int. Tooth 5/16
12C11-75 12C15-107 17C15-137	1 2 Opt 1	Spring Washer Spacer Washer Wheel Pin
18C6-53 18C6-54 21C6-2	1 1 1	O'Ring, Style #2-205 Drive Ring 9/16 x 1-1/16 x 1/4 Shoulder Busing
34C10-164 54C4-65 59C3-123 70C4-24	1 1 1	Spring Vent Plug Flat Plate Guide Perforator
70C4-24 70C4-42 73C7-93 79C1-131	1 1	Guide Feitorator Guide Wire Tubing Front Bearing Number, Plate
90C4-73 118C1-4 133C2-8	1 1	Plunger, Bearing Plunger, Bearing Rod, Plunger Wheel with Sprocket
199C1-23 225C1 230C1	8 1 1	Lug Terminal Punch 1/16 Dia. Drift Punch
234C1-8 234C1-9 251C2	1 1	Resistor, (63K 220V) Resistor, (30K 110V) Control Module
300C10-2 301C10-8 300C10-10	3 1 1	Screw, 6-32 x 1/4, Round Head Screw, 6-32 x 1-1/4, Fillister Head Screw, 6-32 x 1, Round Head
301C12-2 302C15-14 305C8-1	4 2 4	Set Screw, 8-32 x 5/16, Fillister Head Screw, 10-32 x 7/16, Flat Head Screw, 4-40 x 1/14, Binding Head
306C3 309C12-2 528C4-9	2 1 1	Screw, 2-56 x 3/8, Pan Head Set Screw, 8-32 x 5/16, Flat Point Standard and Cover
531C1-13 580C1-101 580C1-102 692C2-11	1 1 1	Handle Switch, Paddle 2 Pole Switch Micro Type 1052 Solenoid, 115V 60 Hz
692C2-11 692C2-13 692C2-14	1 1 1	Solenoid, 230V 60Hz Solenoid, 110V 50Hz Solenoid, 220V 50Hz
783C1-3	1	Ground Wire Assy
8C13-74 29C6-67 302C15-8	1 1	Insulation, Terminal Block Adapter Plate Screw, 10-32 x 1-1/8 Fillister Head
301C15-12 302C88-1 508C1-94	2 2 2 1	Screw, 10-32 x 1-1/8 Fillister Head Screw, 4-40 x 3/8 Flat Head Terminal Block, European, (Male Plug)
509C1-59 523C1-95	1	Terminal Block Adapter 90 deg Angle Attachment Plug



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## Threadmarker

#### Model LTM

## **Operating Instructions**

#### **Care And Operation**

The threadmarking machines are intended to be used for marking pockets, etc. on lays of material such as woolens where the electric drilling machines are not practical due to the holes closing immediately after the drill is removed.

#### THREADING THE MACHINE

Thread from spool through thread eye "C" to the thread hole "D" in the rear of the thread cutter; then to the needle eye "H". Thread needle from the spool side of the machine.

#### **OPERATION OF THE MACHINE**

After the material has been cut and marked with chalk, slide the front beveled portion "F" on the threadmarker beneath the lay. Press looper locking latch (located on the opposite side) down to set the looper. The operation of setting the looper must be performed before every needle stroke. Pull handle "B" down until stop "J" makes contact with the threadmaker housing. This action releases the looper contained in the base of the machine. By slowly retracting the needle a loop is formed and caught by the looper. The end of the thread is held firmly by the looper and as the machine is withdrawn from the lay, about 15 to 18 inches of thread should be stripped from the spool and cut off with the thread cutter "E". This operation is continued until all marked positions have been completed. Each layer of cloth is clipped with shears between each layer, the operator leaving about 3/4 to 1 inch of thread in each layer of cloth. If the thread is clipped too short, it may fall out subsequent handling.

#### **TO REMOVE NEEDLE**

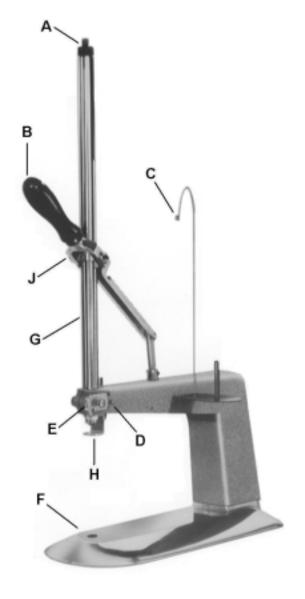
Remove knurled cap "A" from top of machine-turn counterclockwise to remove. Lift needle rod and needle assembly clear from the machine. Loosen bottom setscrew and remove the needle from rod.

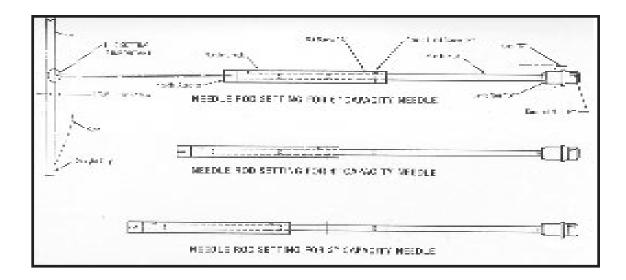
#### **OILING**

Oil rod and tube at "G" twice a week.

#### **THREAD**

It is suggested that a good grade of button hole gimp be used. It can readily be understood that if thread is too weak, forcing the needle through such a great thickness of material will result in thread breakage.





### SETTING ADJUSTABLE NEEDLE ROD

#### TO CHANGE THE SETTING

Loosen Allen Setscrew "A" and remove Round Head Screw "B". Then slide the Needle Chuck to the correct new setting for the Needle you wish to install; replace Round Head Screws "B" and tighten Allen Setscrew "A".

## CHECK LENGTH OF NEEDLE AFTER ASSEMBLY INTHREADMARKER

Due to slight variations in lengths of some Needles, it may be necessary to make a finer adjustment of the length of the Needle Rod. Pull Threadmarker Handle down to its lowest position. Hold Handle in this position and tilt Threadmarker back so that a straight edge can be placed across the bottom of Base where Needle extends thru Base. Needle should come within 1/32" to 1/16" of touching straight edge. If adjustment is necessary, remove Cap "C" and remove Needle Rod Assembly. Loosen Jamb Nut "D", turn Knurled Nut "E" to lengthen or shorten as needed. Re-tighten Jamb Nut "D", reassemble Needle Rod in machine and check again.

#### WHEN CHANGING TO DIFFERENT DIAMETE NEEDLE

It is necessary to change the Needle Adapter and the Needle Bushing (located in Work Clamp Nut) for best results. See chart below for Part Numbers. NOTE: Needles are plain Needles without brass head.



Part Number	Description
685C2-1	Nylon Thread 8 oz. Spool
685C2-2	Mercerized 20 oz. Spool
816C1-1	Thread Spool Holder for 8 oz. Spool

Capacity	Needle	Needle Diameter	Bushing	Adapter	Needle Length	Needle Point
6"	228C1-11	.078	21C13-50	29C6-104	7-7/8	Triangular
2"	228C1-13	.063	21C13-49	29C6-103	3-5/8	Taper
4"	228C1-15	.063	21C13-49	29C6-103	5-13/16	Taper
2"	228C1-16	.052	21C13-48	29C6-102	3-5/8	Taper
6"	228C1-18	.078	21C13-50	29C6-104	7-7/8	Taper

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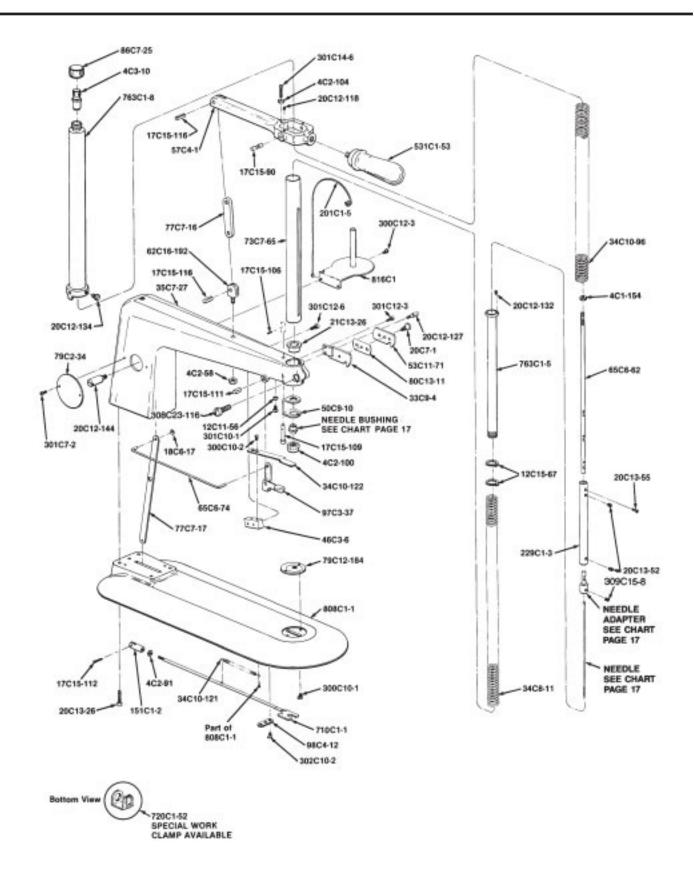
# Threadmaker Model LTM Illustrated Parts List



NOTE:

Please specify model and serial number of machine when ordering parts.

Part Number	No. Req'd	Description
4C1-154 4C2-58 4C2-91	1 1 1	Needle Rod Jam Nut Nut, Hex 1/4 x 20 Nut, Hex 10-32
4C2-100 4C2-104	1	Work Clamp Nut Nut, Hex 10-24
4C3-10	1	Needle Rod Adjustment Nut
12C11-56 12C15-67 17C15-90	1 2 2	Washer Spacer Work Clamp Locating Washer Handle Lever Bearing Pin
17C15-106 17C15-109 17C15-111	1 1 1	Roll Pin Release Pin Looper Locking Latch Pin
17C15-112 17C15-116 18C6-17	1 2 2	Cotter Pin Pivot Pin Snap Ring
20C7-1 20C12-118	1 2	Cover Screw Setscrew 10-32 x 1/4
20C12-127 20C12-132	1	Cutter Holder Thread Guide Screw Work Clamp Locating Screw
20C12-134 20C12-144	1	Handle Lever Tube Lock Screw Looper Link Screw
20C13-26 20C13-52	4 2	Screw, Socket Hd. Cap 5/16-18 x 1 Setcrew 10-32 x 1/8
20C13-55	1	Screw 3-48 x 1/2 Round Head
21C13-26 33C9-4	1	Guide Bushing Cutter Holder
34C8-11 34C10-96	1	Work Clamp Spring Needle Lever Spring
34C10-121 34C10-122	1	Looper Spring Looper Latch Spring
35C7-27	1	Thread Marker Arm
46C3-6 50C9-10	1	Spring Block Work Clamp
53C11-71 57C4-1	1 1	Cutter Holder Cover Handle Lever
62C16-192 65C6-62	1	Hinge Bracket Needle Rod
65C6-74	1	Latch Rod
73C7-65 77C7-16	1	Slotted Steel Tube Arm and Handle Lever Link
77C7-17 79C2-34	1 1	Looper Link Number Plate
79C12-184 80C13-11 86C7-25	1 1 1	Needle Plate Thread Cutter Knife Cap
97C3-37	1	Looper Locking Latch
98C4-12 151C1-2	1 1	Looper Assembly Clip Link and Looper Coupler
201C1-5 229C1-3	1 1	Thread Eye Needle Chuck
300C10-1	2	Screw 6-32 x 3/16 Round Head
300C10-2 300C12-3 301C7-2	2 2 2	Screw 6-32 x 1/4 Round Head Screw 8-32 x 3/8 Round Head Screw, 4-36 x 3/16 Fillister Head
301C10-1 301C12-3 301C12-6	1 1 2	Screw 6-32 x 1/4 Fillister Head Screw 8-32 x 3/8 Fillister Head Screw 8-32 x 3/4 Fillister head
301C14-6	1	Screw 10-24 x 7/8 Fillister Head
302C10-2 308C23-116	2 1	Screw 6-32 x 1/4 Flat Head Clamp Screw, Arm
309C15-8 531C1-53	1 1	Setscrew, 10-32 x 1/8 Operating Handle
710C1-1	1	Looper Assembly
720C1-52 763C1-5	1	Work Clamp Work Clamp Tube and Head
763C1-8 808C1-1	1 1	Handle lever Tube Assembly Thread Marker Base
816C1	1	Spool Holding Assembly



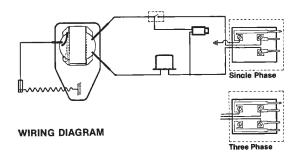
### Eastman<sup>-</sup>

# Hot Notcher Model HVN Illustrated Parts List

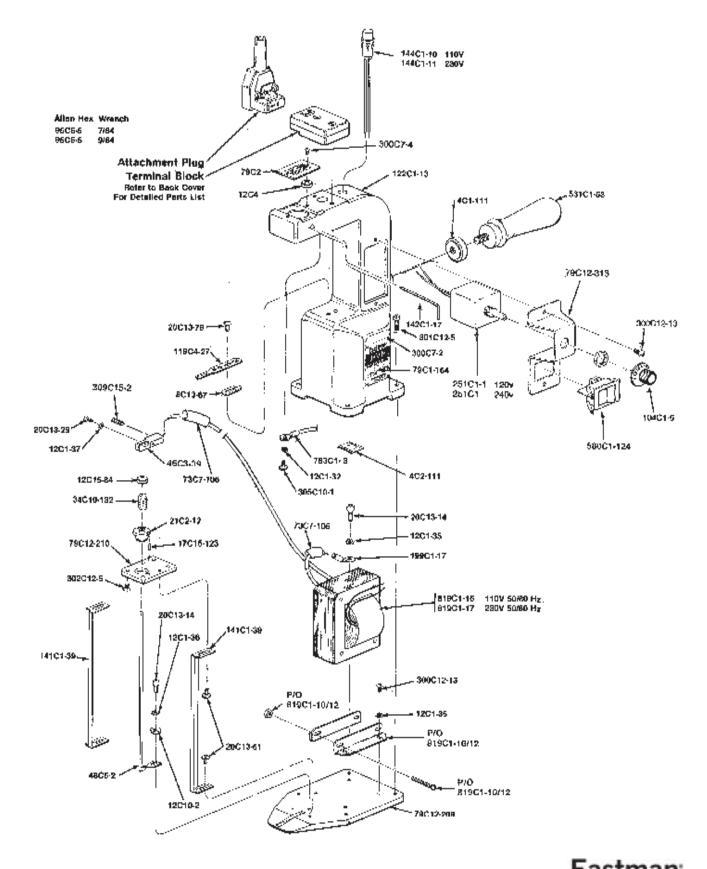


NOTE:

Please specify model and serial number of machine when ordering parts.

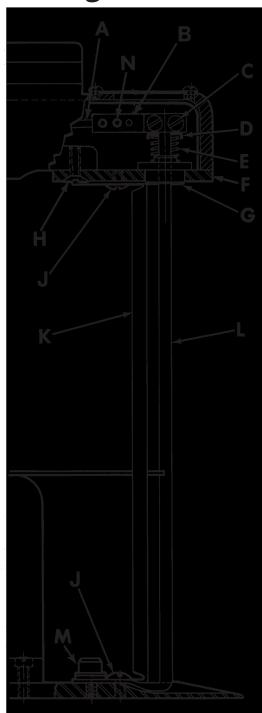


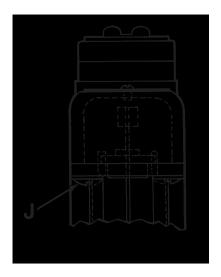
Part Number	No. Req'd	Description
4C1-111	1	Locknut, Handle
4C2-111 8C13-67	1	Nut, Speed
12C1-32	1	Marking Wire Insulation Washer, Lock
12C1-35	4	Washer, Shake Proof
12C1-36	1	Washer, Lock
12C1-37 12C4	2	Washer, Lock Insulation Washer
12C10-2	1	Washer
12C15-84	1	Washer, Guide Spring
17C15-123 20C13-14	1 2	Pin, Roll Screw, Cap
20C13-29	2	Screw , Cap
20C13-51	4	Screw, Truss Head Stnls
20C13-79 21C2-12	2	Screw, Nylon Round Head Wire Insulation Bushing
34C10-132	1	Wire Institution Bushing Wire Straightener Spring
46C3-39	1	Block, Contact
48C5-2	1	Marking Wire
73C7-104 73C7-106	1 2	Vinylglass Tubing Shrink Tubing
79C1-154	1	Number Plate
79C2	1	Name Plate
79C12-209 79C12-210	1	Base Plate Plate, Gauge Support
79C12-313	1	Plate, Voltage Control
95C5-5	1	Wrench, Allen Hex 7/64
95C5-6 104C1-5	1	Wench, Allen Hex 9/64 Dial Indicator
119C4-27	1	Support, Wire
122C1-13	1	Housing
141C1-39	2 1	Gauge Bar
142C1-17 144C1-10	1	Hey, Contact Block Lamp, Pilot Lite 120v
144C1-11	1	Lamp, Pilot Lite 240v
199C1-17	1	Lug Cool
251C1 251C1-1	1	Control Heat 230v Control Heat 110v
300C7-2	4	Screw, 4-36 x 3/16 Round Hd.
300C7-4	2	Screw, 4-36 x 5/16 Round Hd.
300C12-13 301C12-5	5 4	Screw, 8-32 x 5/16 Round Hd. Screw, 8-32 x 5/8 Fillister Hd.
302C12-5	4	Screw, 8-32 x 1/2 Flat Hd.
305C10-1	1	Screw, 6-32 x 1/4 Binding Hd.
309C15-2	2	Setscrew, 10-32 x 1/4
531C1-53 580C1-124	1	Operating Handle, Long Switch
783C1-3	1	Ground Wire Assembly
819C1-10	1	Transformer, 110v 50/60 Hz
819C1-12	1	Transformer, 230v 50/60 Hz



## Hot Notcher

## Model HVN Operating Instructions





**WARNING:** 

Before Performing any of the following procedures, make sure that the attachment plug has been disconnected from the power source.

#### FOR CHANGING MARKING WIRE

- 1. Remove four (4) Screws "J" and two (2) Gauges "K".
- 2. Remove Screw, Lockwasher and Washer "M".
- 3. Remove four (4) Screws "H".
- 4. Carefully remove Support Plate "F" and Marker Assembly from Housing.

NOTE: Transformer Wire "A" still engaged in Block "B" with adequate length for removal.

- Remove two (2) Setscrews "N" from Block "B", so as to disconnect Transformer Wire "A".
- Lossen two (2) Screws "C" and remove Marker Wire "L" from Block "B", Washer "D", Spring "E" and Bushing "G".
- 7. Exchange Wire and reverse procedure for completion of assembly.

#### TO ADJUST DEPTH OF MARK

- 1. Loosen four (4) Screws "J".
- 2. Adjust two (2) Gauges "K" to correct depth.
- 3. Check the squareness of Gauges and retighten four (4) Screws "J".

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Limited Warranty. Eastman warrants to the buyer that the equipment shall be free from defects in materials or workmanship for a period of 180 days commencing on the date of invoice. Any goods or parts claimed by the buyer to be defective must be returned to Eastman, freight charges prepaid, within the 180 day warranty period. If Eastman determines that the goods or parts are defective in materials or workmanship, Eastman's sole obligation under this warranty shall be, at Eastman's sole option, to repair or replace the defective goods or parts or to provide the buyer a credit equal to the portion of the purchase price allocable to the defective goods or parts. This warranty shall not apply if defects are caused by product misuse or neglect, if the machine has been altered or modified by the buyer, or if other than genuine Eastman belts, emery wheels, knives or parts are used in the machine. THIS WARRANTY IS THE ONLY WARRANTY APPLICABLE TO THIS PURCHASE. SELLER DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR APARTICULAR PURPOSE.

Limitation of Liability. Eastman's liability to the buyer, and the buyer's remedies from Eastman, whether in contract, negligence, tort, under any warranty or otherwise, shall be limited to the remedies provided in the foregoing Limited Warranty. In no event shall Eastman have any responsibility or liability to the buyer for (a) any special, indirect, incidental, or consequential damages, including, but not limited to, loss of use, revenue, or profit, even if Eastman has been advised of the possibility of such damages, or (b) any claim against the buyer by any third party. The price stated for the product sold is a consideration for limiting Eastman's liability.



#### **Thread Marker-Model LTM**

The model LTM Thread Marker is ideal for marking applications where a cloth drill is inappropriate. With a marking capacity of 2 inches to 6 inches in tapered or triangular needles, the Thread Marker is the economical alternative to drill marking for low production items. See page 17 for optional equipment information.



Magnum Punch Perforator Model MP2 Page 12-15

#### Cloth Drill Marker- Model CD3, CD3H

Quality engineered for economical operation with all but the heaviest materials. The CD3 and CD3H hot drill are available with all of the features of our top of the line equipment; 4 to 11-1/2 inch telescopic drive shaft, cold or solid state heated drills/awls with hole sizes of 3/64 to 3/8 inch, make this model appropriate for almost all drill marker applications.

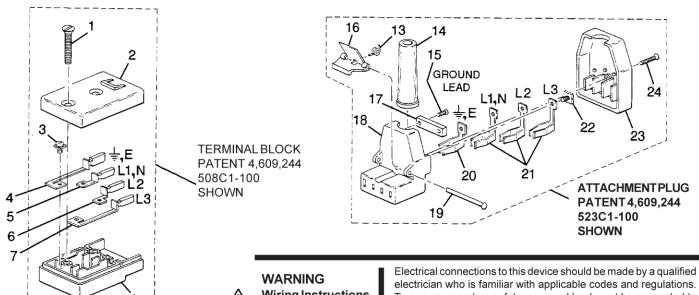
#### Magnum Punch-Model MP2

Capable of creating a pattern through as many as five thicknesses of paper, the Magnum Punch delivers four clean holes per inch and rugged dependability unmatched by it's competitors. The Magnum is available with 1/16 inch (1.58 mm) standard and 3/32 inch (2.38 mm), 1/8 inch (3.18 mm) special ordered punches for any requirement. Optional equipment available includes a special hard rubber mat to prolong the life of your punches and your table.

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### **EASTMAN**<sup>®</sup>



Wiring Instructions Eastman Attachment Plugs

To ensure operators safety, a ground lead must be connected to terminal "E" on the attachment plug. Disconnect this equipment from electrical power before proceeding with any disassembly for adjustment, inspection or repair.

	9		EASTMAN 10A 380V 3~  H, V, C, E	EASTMAN 10A 220V 3~  " N 1	EASTMAN 10A 220V ~  H, V, C]	EASTMAN 15A 120V ~  H, N, C,	EASTMAN 25A 42V~  U. Z
ITEM	PART NO.	DESCRIPTION					
1	302C15-8	Screw, 10-32 x 1 1/8 Flat Hd.	2	2	2	2	2
2		Terminal Block Top	51C1-63	51C1-64	51C1-65	51C1-66	51C1-67
3		U-Lock Screw	4	4	3	3	3
4 5	667C1-22	Terminal Contact w/Pin E	1	1	1	1	1
5 6	667C1-23 667C1-24	Terminal Contact w/pin L1, N Terminal Contact w/Pin L2	1 1	1	' '		
7	667C1-24	Terminal Contact W/Pin L2 Terminal Contact w/Pin L3		1		-	1
8	51C1-61	Terminal Block Bottom		1		1	1
9	667C1-26	Terminal Contact w/Pin L1, N		L.		1	
10	667C1-20	Terminal Contact W/Pin L2			1	3L	
11	667C1-28	Terminal Contact w/Pin L3	1				
12	47C3-21	Terminal Sleeve (current)	1 1		1	1	1
13	34C10-170		1	1	1	1	1
14	1C13-27	Cord Sleeve	1	1	1	1	1
15	300C8-2	Screw, 4-40 x 1/2 Round Hd.	2	2			2
16	98C4-37	Thumb Clip	1	1	1	1	1
17	50C7-27	Cord Clamp	1	1	1	1	1
18		Attachment Plug Body	82C1-45	82C1-46	82C1-47	82C1-48	82C1-49
19	91C4-22	Rivet	1	1	1	1	1
20	47C3-19	Terminal Sleeve	1	1	1	1	1
21	47C3-20	Terminal Sleeve (current)	2	3	1	1	1
22		U-Lock Screw	4	4	3	3	3
23		Attachment Plug Cover	53C3-19	53C3-20	53C3-21	53C3-22	53C3-23
24	302C8-8	Screw, 4-40 x 7/8 Flat Hd.	1	1	1	1	1
25		-Terminal Block Complete	508C1-99	508C1-100	508C1-101	508C1-102	508C1-103
26		Attachment Plug Complete	523C1-99	523C1-100	523C1-101	523C1-102	523C1-103

Over a Century of Cutting Expertise

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