BEOMAT

PARTS LIST

&

EXPLODED VIEWS

Furnished by:

QUALITY REPLACEMENT PARTS

Quality Replacement Parts, Inc.
9099 Bank St, Ste B
Valley View, OH 44125
1-800-742-0425

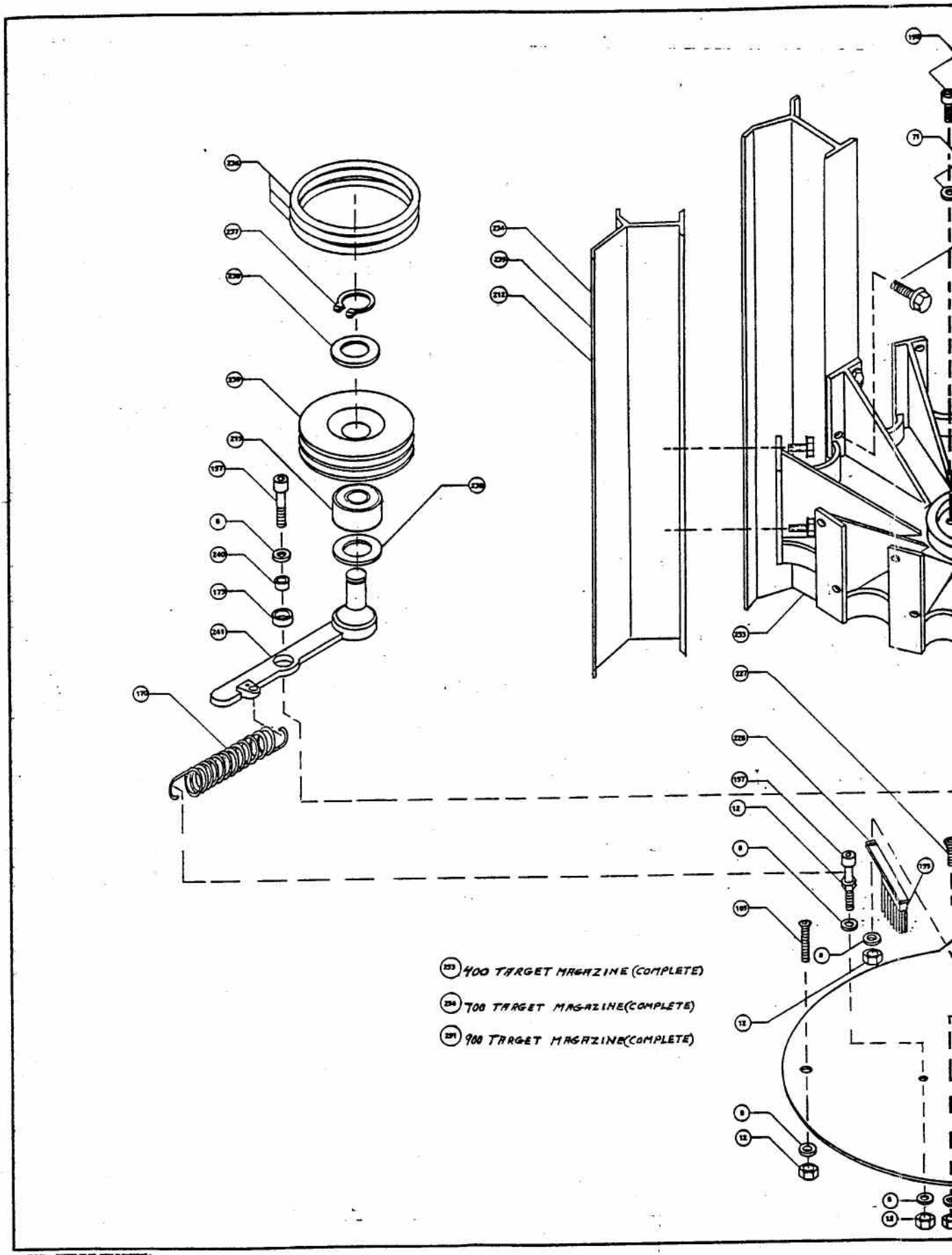
VIEW,	PART#.	DIM.	NAME OF PART.
1	2000-0	M 12 X 3	ALLEN BOLT
2	2001-7	M 12	ROD END 12 HS A
3	2002-4	13 X 24 X 4	WASHER
4	2003-6	15 X 1	LOCK CLIP
5	2004-13	1/2" X 3/16"	CHAIN LOCK
6	2005-13	1/2" X 3/16"S	CHAIN
7	2006-0	M6 X 16	BOLT
8	2007-4	6.4 X 12 X 1.5	WASHER
9	2008-14	1/2" X 3/16"	CHAIN SPROCK.
10	2009-1	M10 X 50	BOLT
11	2010-7	GE 12 C	BEARING
12	2011-3	M6	NUT
13	2012-8		VERTICAL CON. ROD
14	2013-10		TERMINAL STRIP
15	2014-8		COVER FOR DRIVE
16	2015-8		RUBBER SKIRT
17	2016-10	18.6	NUT MACROLON
18	2017-10	18.6-15.2	CABLE BUSHING
19	2018-10	20MM	CABLE BUSHING
20	2019-8		INTERRUPTOR BOX
21	2020-10	15MM	CABLE BUSHING
22	2021-10	22MM	CABLE BUSHING
23	2022-8		CHASSIS/TRAP DRIVE
24	2023-10	BK 4	TERMINAL
25	2024-5	M6 X 10	SET SCREW
26	2025-7	UCF205 J	BEARING ASSY
27	2026-10	18,6MM	CABLE BUSHING
28	2027-10		ELECTR. CONN. SK.
29	2028-10		ELECTR. CONN. TR
30	2029-8		CARRIER CHASSIS
31	2030-15	RATIO 64-1	REDUCTION GEAR
32	2031-15		CLUTCH HOUSING
33	2032-5	M5 X 5	SET SCREW
34	2033-5	M5 X 12	SET SCREW
35	2034-10		CLUTCH
36	2035-10		ROTOR
37	2036-0	M6 X 20	ALLEN BELT
38	2037-10		STATOR
39	2038-17		SPACER(spec. thick.)
40	2039-18	80 X 5	O-RING
41	2040-11	4 X 16	TENSION PIN
42	2041-2	M4 X 15	SCREW
43	2042-10		COVER
44	2043-10		RUBBER SEAL
45	2044-10	0..25kw	EL.MOTOR 1200rpm
46	2045-19	8 X 31	KEY
47	2046-14	1/2" X 3/16	SPRKT SPEC. # TEETH
48	2047-5	8 X 16	SET SCREW
49	2048-10		EL JUNCTION BOX
50	2049-8-9	15MM	SPAC. SPRING TENS.
51	2050-8-9	10MM	SPAC. SPRING TENS.
52	2051-8		CHAIN TENS. BRKT
53	2052-1	M8 X 30	BOLT
54	2053-10		ADAPTER (MACROLON)
55	2054-7		BEARING ASSY
56	2055-1	10 X 25	BOLT HEXHEAD
57	2056-8-9	5MM	SPAC. SPRING TENS.
58	2057-8-9	2MM	SPAC. SPRING TENS.
59	2058-5	10 X 22 X 2	WASHER
60	2059-4	13 X 17 X 0.6	WASHER
61	2060-3	M10	NUT
62	2061-10	18.6	RUBBER BUSHING
63	2062-10	18-6	CHROMED BRASS NUT
64	2063-10		EL JUNCTION BOX
65	2064-10		RUBBER SEAL
66	2065-10		COVER

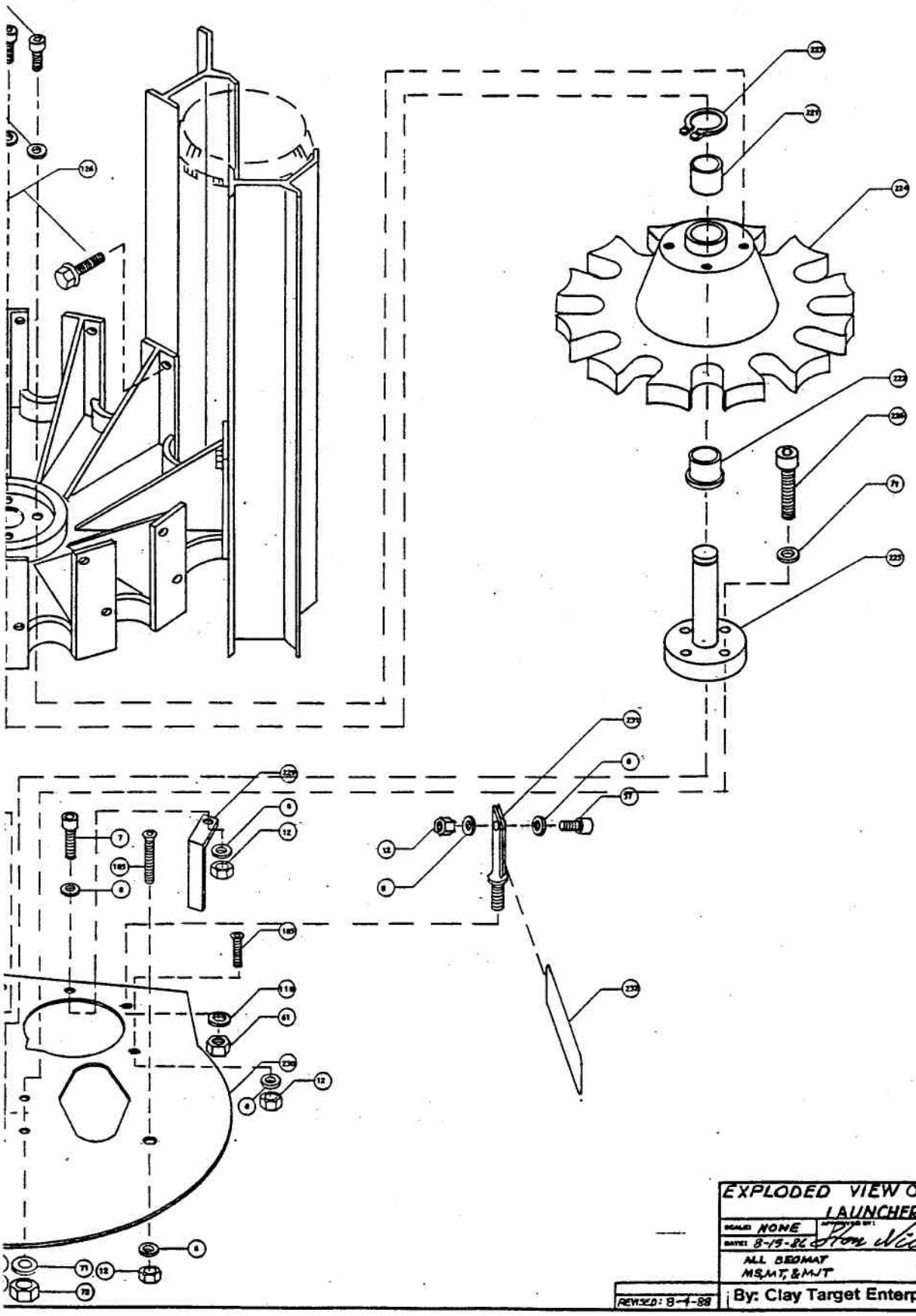
VIEW,	PART#.	DIM.	NAME OF PART.
67	2066-4	5.3 X 10 X 1	WASHER
68	2067-2	M5 X 16	SCREW
69	2068-2	M5 X 9	SCREW
70	2069-1	M8 X 30	BOLT HEX HEAD
71	2070-4	8.4 X 16 X 1.5	WASHER
72	2071-3	M8	NUT
73	2072-9		BASE PLATE SKEET
74	2073-8-9		TURN BUCKLE
75	2074-8		PART OF MAIN CHASSY
76	2075-4	13 X 24 X 1.7	WASHER
77	2076-3	M12 X 6	NUT
78	2077-8		BRACKET/TURN BUCKLE
79	2078-8		TURNTABLE
80	2079-8		CON. ROD, HOR. .DRIV.
81	2080-8		SPRING SUPP. UPPER
82	2081-8		SPRING
83	2082-8		SPRING SUPP LOWER
84	2083-3	M12	NUT - NYLOCK
85	2084-0	M12 X 35	ALLEN BOLT
86	2085-0	M6 X 30	ALLEN BOLT
87	2086-0	M6 X 20	ALLEN BOLT
88	2087-15	RATIO 90:1	REDUCT. GEAR
89	2088-5	VACANT #	
90	2089-3	M12 X 10	NUT
91	2090-8		PULLEY/VERT.MOVE
92	2091-8-9		GREASE FITTING
93	2092-2	M4 X 30	SCREW
94	2093-10		COVER
95	2094-10		RUBBER SEAL
96	2095-10	.12KW	EL MOTOR 1800rpm
97	2096-8		SPAC./VERTICAL DRIVE
98	2097-19	5 X 30	KEY
99	2098-4	13 X 24 X 2	WASHER
100	2099-10		ELECT. JNCT BOX
101	2100-0	VACANT #	
102	2101-0	M12 X 30	ALLEN BOLT
103	2102-7	M30208	BEARING
104	2103-7	30208	BEARING RACE
105	2104-8		HOUSING/TURNTABLE
106	2105-8	VACANT #	
107	2106-21	50 X 80 X 10	SEAL
108	2107-8		SPACER
109	2108-8		SPACER
110	2109-3	KM8	SPANNER NUT
111	2110-8-9		BELT COVER
112	2111-8-9		CHASSIS
113	2112-4	C13	CONE WASHER
114	2113-8		SUPPORT BRACT (TRAP)
115	2114-	VACANT#	
116	2115-	VACANT#	
117	2116-0	M10 X 20	ALLEN BOLT
118	2117-4	10 X 18 X 2	WASHER
119	2118-0		
120	2119-8-9		REDUCT. GEAR BRKT
121	2120	VACANT#	
122	2121-	VACANT#	
123	2122-1	M10 X 50	BOLT
124	2123-21		VENT PLUG/ LATE/PR.
125	2124-1	M8 X 20	CARIAGE BOLT
126	2125-1	M5 X 16	SELF TRAPPING BOLT
127	2126-8-9		PIVOT BRACKET
128	2127-15	RATIO 45:1	REDUCT. GEAR
129	2128-9	SKEET A-54	DRIVE BELT (G-9560)
130	2129-8	TRAP A-56	DRIVE BELT (G-9570)
131	2130-9	D/D-95	BELT PULLEY SKEET
132	2131-8	D/D-118	BELT PULLEY TRAP

VIEW, PART#.		DIM.	NAME OF PART.
133	2132-10		SCREW (PLASTIC)
134	2133-10	0.25 KW	EL. MOTOR 1800RPM
135	2134-10		COVER
136	2135-10		UBBER SEAL
137	2136-10		TRAFO (BOX ONLY)
138	2137-1	VACANT	
139	2138-10	24 VDC	COUNTER
140	2139-10	VACANT	
141	2140-2	M4 X 25	SCREW
142	2141-4	4.3 X 8 X 1	WASHER
143	2142-3	M4	NUT
144	2143-3	VACANT	
145	2144-4	VACANT	
146	2145-8-9		STUD (FOR GUIDE RAIL)
147	2146-8-9		TREAD BUSHING
148	2147-8-9		GUIDE RAIL
149	2148-8-9		LAUNCHING TABLE
150	2149-1	VACANT	
151	2150-8-9		BRACKET
152	2151-8-9	M8	LINK
153	2152-4	9 X 28 X 2	WASHER
154	2153-1	M8 X 20	BOLT HEX HEAD
155	2154-8-9		BRUSH ONLY
156	2155-8		BRACKET
157	2156-0	M6 X 35	ALLEN BOLT
158	2157-10		ELECTRO MAGNET
159	2158-8-9		ELEVATOR
160	2159-2	M3 X 30	SCREW
161	2160-4	3.2 X 6 X 0.5	WASHER
162	2161-8		BRACKET
163	2162-10		MICRO SWITCH
164	2163-4	3.2 X 6 X 0.4	LOCK WASHER
165	2164-3	M3	NUT
166	2165-0		SWITCH HOUSING
167	2166-0	M8 X 20	ALLEN BOLT
168	2167-2	M6 X 25 (30)	BOLT FOR L-ARM
169	2168-0	M10 X 30	ALLEN BOLT
170	2169-8-9		SPRING
171	2170-13		SHOWN F/REF. ONLY
172	2171-13	21/4-13	LOCK CLIP
173	2172-20		BUSHING
174	2173-13		RECEIVER
175	2174-13		CHAIN LOCK
176	2175-17		LOAD EQUALIZER
177	2176-8-9		BRACKET (THREADED)
178	2177-8-9		BRACKET
179	2178-7	6000 2 RS	BEARING
180	2179-1	M10 X 30	BOLT HEXHEAD
181	2180-1	M6 X 30	BOLT HEXHEAD
182	2181-8-9		PARALLEL ARM BRKT
183	2182-8-9		P-ARM (LOWER)
184	2183-8-9		P-ARM (UPPER)
185	2184-0	M6 X 16	BOLT (P-ARM ASSY)
186	2185-8-9		LAUNCHING ARM
187	2186-0	M6 X 22	BOLT (COUTERSUNK)
188	2187-8-9		DRIVEMEMBER
189	2180-0	M8 X 25 (12.9)	ALLEN BOLT 8-GRADE
190	2189-0	M8 X 25	ALLEN BOLT
191	2190-8-9		FLANGE
192	2191-8-9		BELT PULLEY
193	2192-7	6006 2RS	BEARING
194	2193-8-9		L-ARM CARRIER
195	2194-8-9		CAM
196	2195-0	M6 X 45	ALLEN BOLT
197	2196-8-9		BRAKE BAND
198	2197-8-9		BEARING PLATE
199	2198-7	AS-25	SPRAGUE
200	2199-0	M8 X 30	BOLT ALLEN
201	2200-1	10 X 25	BOLT HEX HEAD
202	2201-8-9		EXCENTER
203	2202-11	6 X 40	TENSION PIN
204	2203-19	8 X 63	KEY
205	2204-8-9		MAIN SHAFT
206	2205-8-9		SPRING CONNNECTOR
207	2206-8-9		STUD
208	2207-4		SPRING WASHER
209	2208-4		BRASS WASHER
210	2209-4		SPRING WASHER
211	2210-5	M8 X 25	SET SCREW (PIN TYPE)
212	2211-8-9	820MM	900 MAG. PROFILE
213	2212-8-9		MAGAZINE LOCK
214	2213-3	M16	NUT
215	2214-7	6002 2 RS	BEARING
216	2215-8-9	M16	THREADED ROD
217	2216-8-9		SPRING TENSION ROD
218	2217-4	20 X 52 X 8	WASHER
219	2218-8-9	LT-16	EYELET
220	2219-8-9	(A) (B) (C)	M/ SPRING SP./COLOR
221	2220-20		BUSHING
222	2221-20		BUSHING
223	2222-6	A30	LOCK CLIP
224	2223-8-9		DRIVE WHEEL
225	2224-8-9		MAGAZINE SHAFT
226	2225-0	M8 X 35	ALLEN BOLT
227	2226-0	M6 X 10	BOLT (COUNTER SUNK)
228	2227-8-9		BRUSH W/BRACKET
229	2228-8-9		GUIDE FINGER
230	2229-8-9		MAGAZINE PLATE
231	2230-8-9		LEAF SPRING BRACKET
232	2231-8-9		LEAF SPRING
233	2232-8-9		MAGAZINE STRUCTURE
234	2233-8-9	365MM	400 MAG. PROFILE
235	2234-8-9	600MM	700 MAG. PROFILE
236	2235-18		O-RING
237	2236-6	A-15	LOCK CLIP
238	2237-4	15 X 26 X 2	WASHER
239	2238-17		TARGET RET./WHEEL
240	2239-8-9		SPACER
241	2240-8-9		PIVOT ARM
242	2241-9		SUPP. BRKT (SKEET)
243	2242-8-9	6 X 80	TENSION PIN
244	2243-8		MAIN EL. BOX(TRAP)
245	2244-9		MAIN EL. BOX(SKT)
246	2245-8		CONTROL BOX MJT
247	2246-8		CONTROL BOX MT
248	2247-10	IPM 45060	ST. RELAY 1800rpm
249	2248-10	80 MF	CAPAC. 1200rpm M
250	2249-10	120 MF	CAPAC. 1800rpm M
251	2250-10	24V	RELAY
252	2251-10	12V	RELAY
253	2252-8-9	400	MAGAZINE COMPL.
254	2253-8-9	700	MAGAZINE COMPL.
255	2254-8-9		DRIVE COMPL.
256	2255-8		HORIZ. DRIVE COMPL.
257	2256-10		RELEASE BOX (SKEET)
258	2257-10		RELEASE BOX (TRAP)
259	2258-10		FAN COVER LARGE
260	2259-10		FAN COVER SMALL
261	2260-10		FAN (LARGE)

VIEW, PART#.	DIM.	NAME OF PART.
262 2261-10		FAN (SMALL)
263 2262-21		PINION SEAL
264 2263-21		SHAFT SEAL
265 2264-21		TOP COVER SEAL
266 2265-21		SHAFT SEAL,
267 2266-10		CAPASITOR
268 2267-10		RELAY SOCKET
269 2268-10	110V-24V DC	TRANSFORMER
270 2269-10		SWITCH
271 2270-10		IND.R LIGHT ASSY
272 2271-10		IND. LIGHT BULB
273 2272-10		INTERRUPTOR
274 2273-10	10 AMP	OVER LOAD BREAKER
275 2274-10	3 AMP	OVER LOAD BREAKER
276 2275-10		SWITCH SNAP ACT.
277 2276-10		RUBBER CAP
278 2277-10	SKT/TRP	TOP COV.,SPEC.T/S
279 2278-10		BOX (BOTTOM ONLY)
280 2279-10	18/2-SJ(100')	TRAP (CORD ONLY)
281 2280-10	18/3-SJ(100')	SKEET (CORD ONLY)
282 2281-10	18/2-SJ(100')	TRP RELEASE CMPL.
283 2282-10	18/3-SJ(100')	SKT RELEASE CMPL.
284 2283-10	TRAP	TOP COV. (W/SWI).
285 2284-10	SKEET	TOP COV.(W/SWI.)
286 2285-10		MIDGET TWIST LOCK(F)
287 2286-10		MIDGET TWIST LOCK(M)
288 2287-10	IPM-449	ST. RELAY 1200rpm M

VIEW, PART#.	DIM.	NAME OF PART.
289 2288-10		TIMER INT. SKEET 12V
290 2289-10	5 X 20MM	FUSE 500Ma (0.5 AMP)
291 2290-8-9	900 TARGET	MAGAZINE COMPLETE
292 2291-8-9		SAFEGUARD
293 2292-2		SCREW F/COV. PLATE
294 2293-8-9		COV. PLATE F/CLUTCH
295 2294-8		VERT. DRIVE COMPL.
296 2295-2		SCREW/ BUTTON BOX
297 2296-10		24V TIMER
298 2297-10	110V	SKEET TIMER
299 2298-10		110V AC RELAY
300 2299-10		110V AC COUNTER
301 2300-7		COMPL. P-ARM ASSY
302 2301-10		RADIO RELEASE
303 2302-10		EXTRA TRANSMITTER
304 2303-10		CTRL BOX/ (SHELL)
305 2304-10		MAIN EL./BOX (SHELL)
306 2305-10		110V REL. CORD SKT
307 2306-10		INTERRUPTER PEG
308 2307-6		C - CLIP
309 2308-10		HUB
310 2309-6		C - CLIP
311 2310-10		ROCKER
312 2311-10		SWITCH 483(MICRO)
313 2312-10	2 MIN	INTER. 3354 MOTOR
314 2313-10	10' - 1.5 X 5	CORD 5 CONDUCTOR
315 2314-10	10' - 1.5 X 3	CORD 3 CONDUCTOR


253 400 TARGET MAGAZINE (COMPLETE)
254 700 TARGET MAGAZINE(COMPLETE)
291 900 TARGET MAGAZINE(COMPLETE)



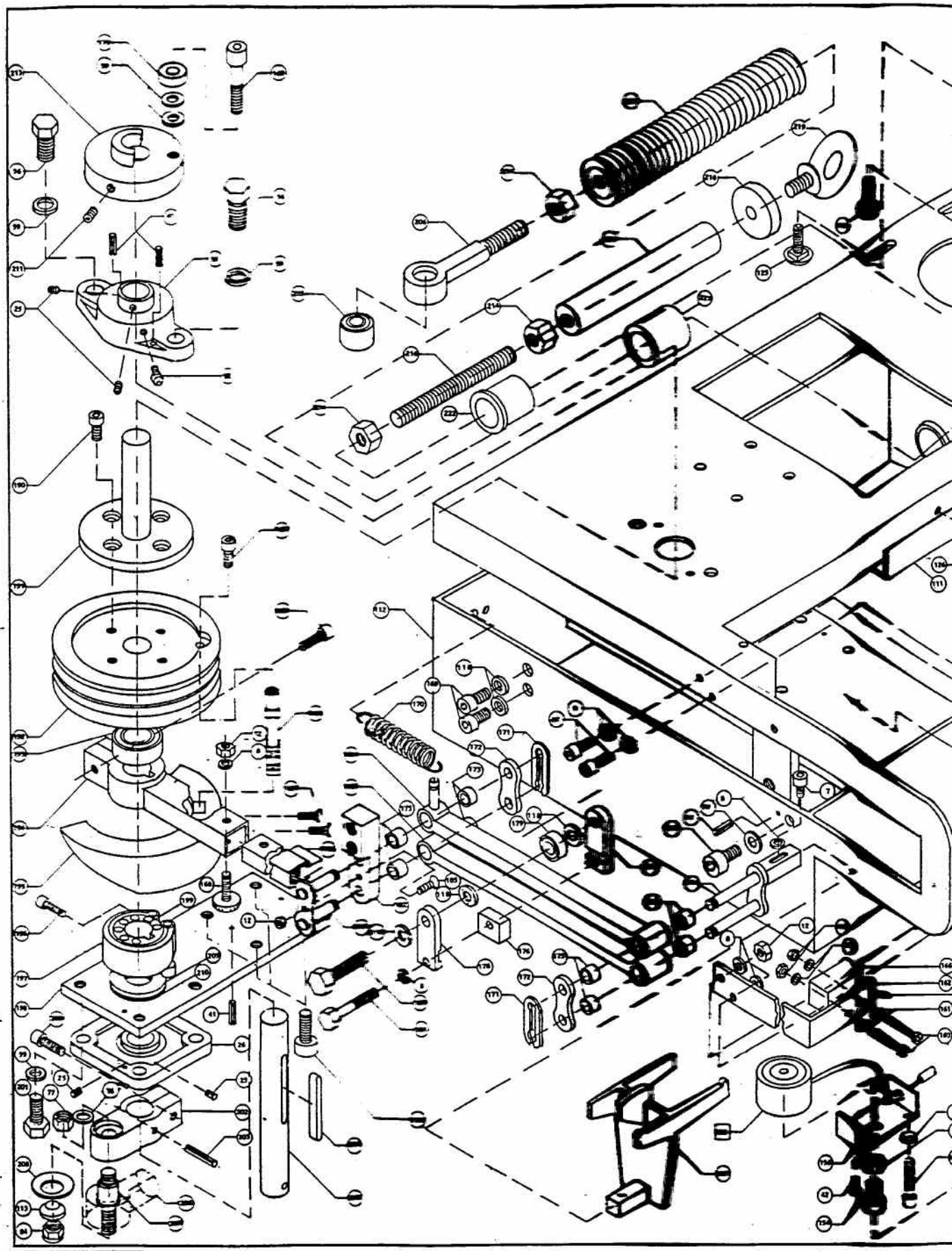
EXPLODED VIEW OF MAGAZINE, LAUNCHER SUBASSEMBLY

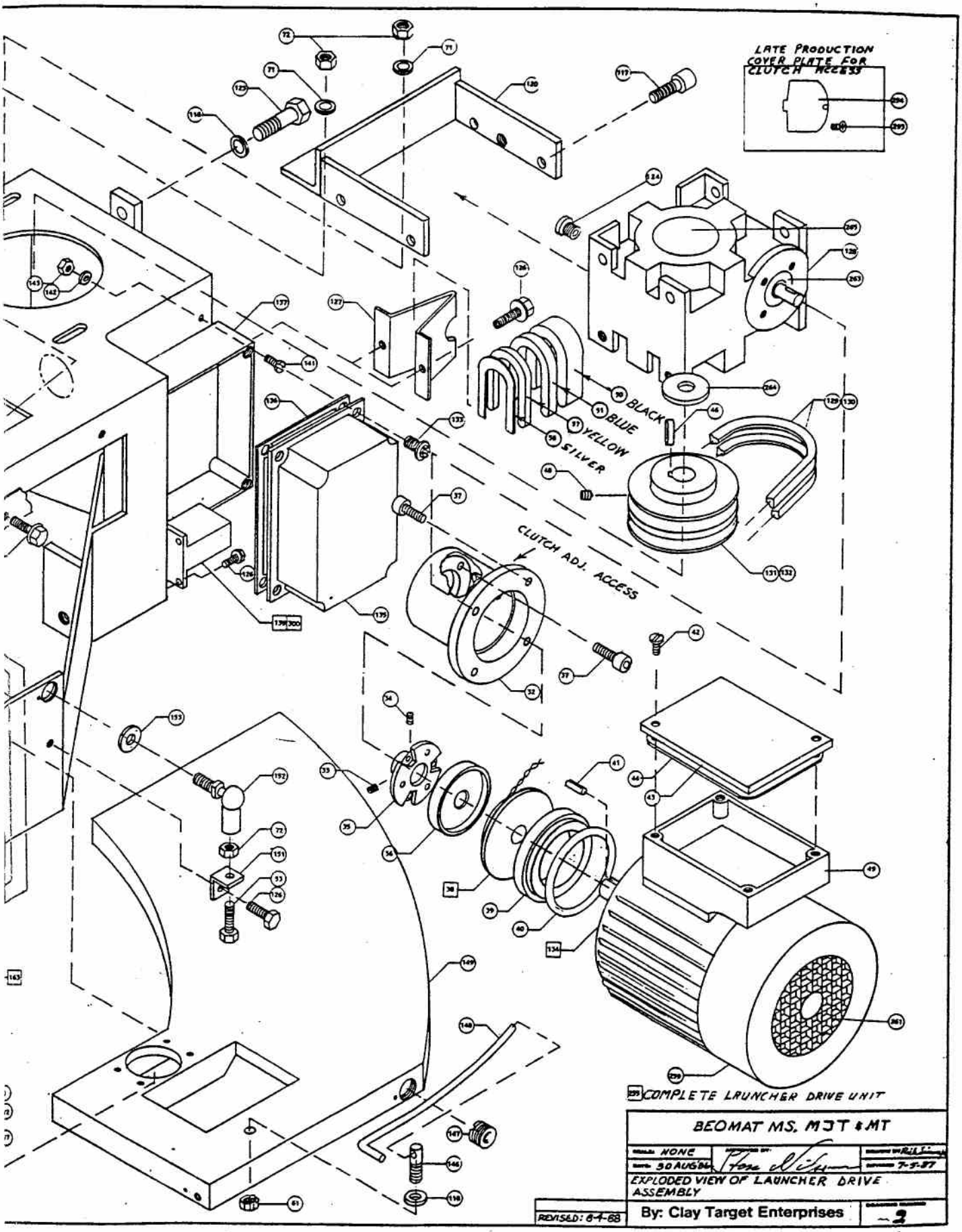
SCALE: NONE | APPROVED BY: Tom Wilson | DRAWN BY: Steve

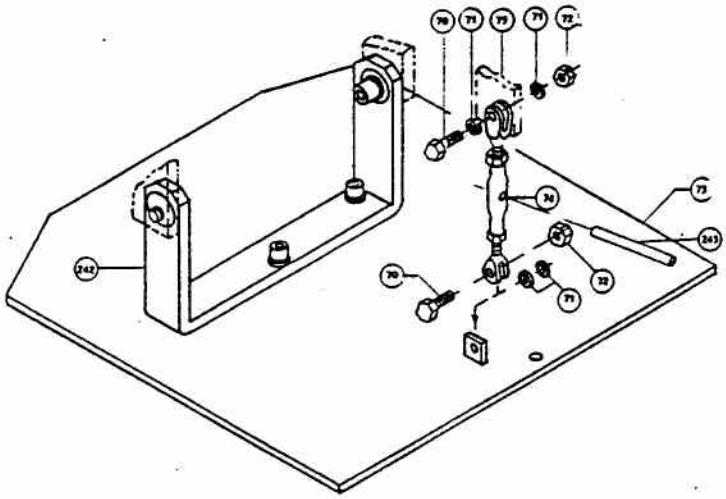
DATE: 8-19-86 | REVISED: 7-5-87

ALL BEOMAT MS,MT,&MJT

REVISED: 8-4-88 | By: Clay Target Enterprises | DRAWING NUMBER: 1

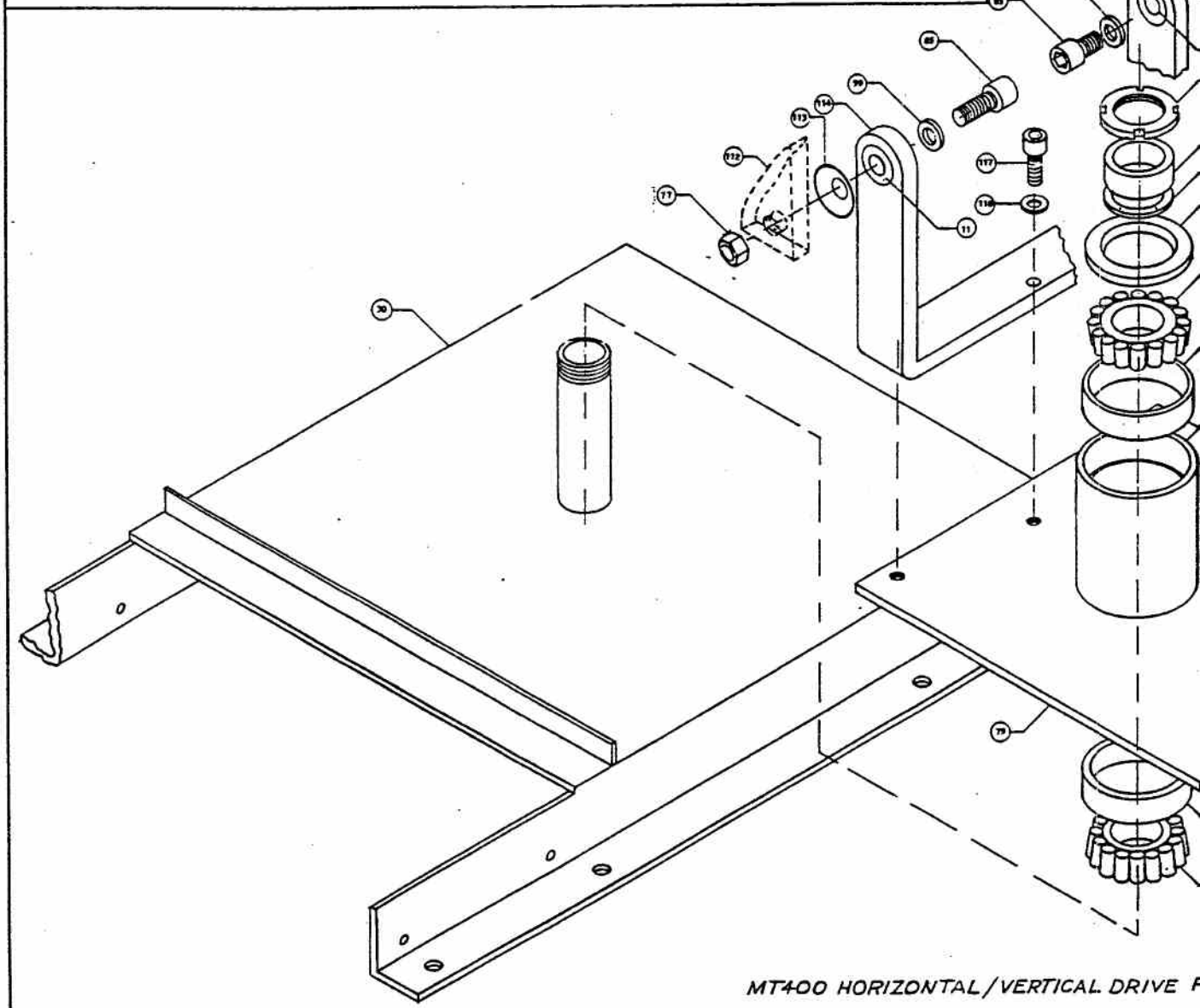



LATE PRODUCTION
COVER PLATE FOR
CLUTCH ACCESS
BLACK
BLUE
YELLOW
SILVER
CLUTCH ADJ. ACCESS
COMPLETE LAUNCHER DRIVE UNIT
BEOMAT MS, MJT & MT
NONE
30 AUG'84
7-5-87
EXPLODED VIEW OF LAUNCHER DRIVE ASSEMBLY
REVISED: 8-4-88
By: Clay Target Enterprises
-2

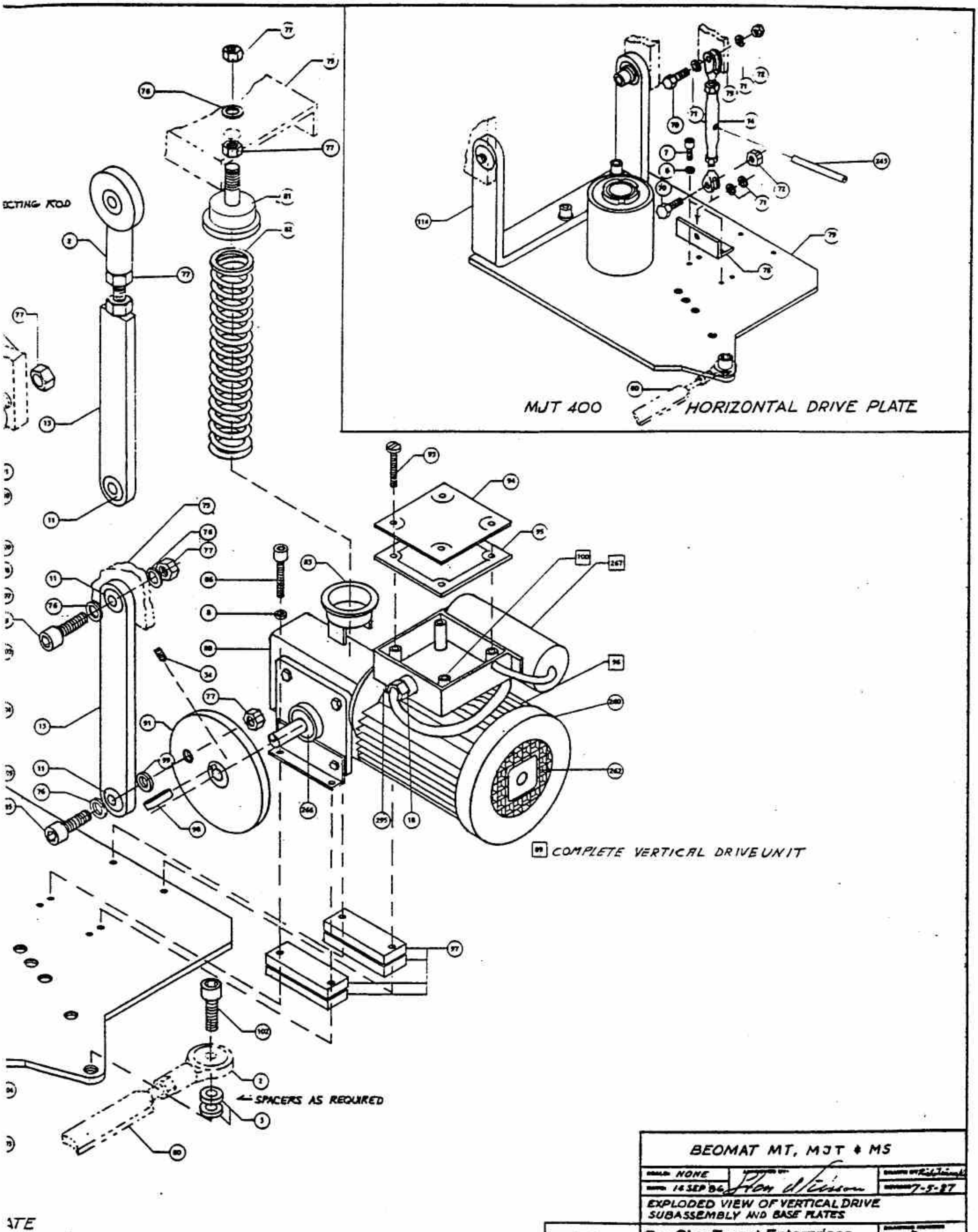


MS 400/700 BASE PLATE

LATE STYLE CE



MT400 HORIZONTAL/VERTICAL DRIVE F



BEOMAT MT, MJT + MS

SCALE: NONE

DATE: 14 SEP 86

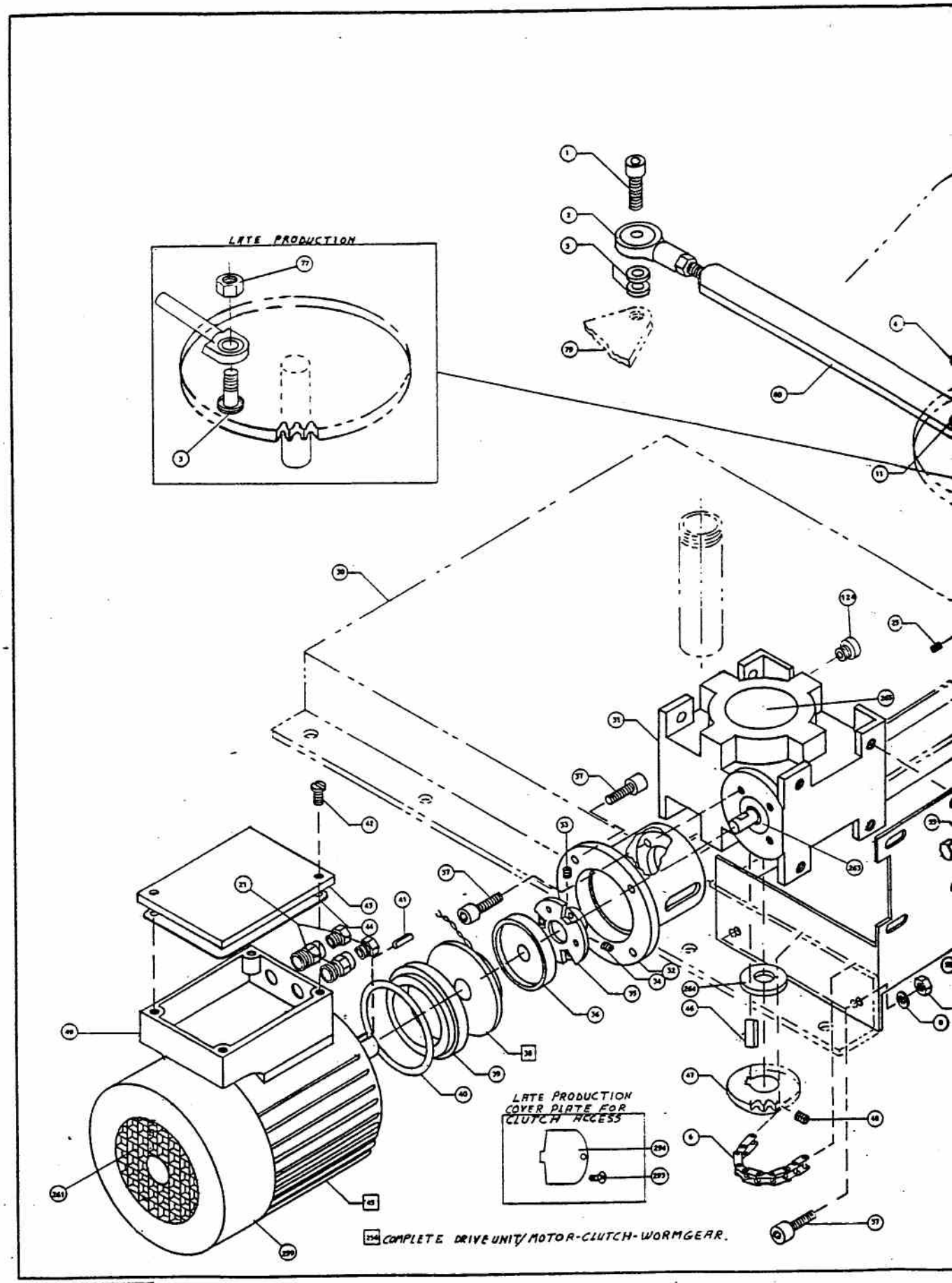
7-5-87

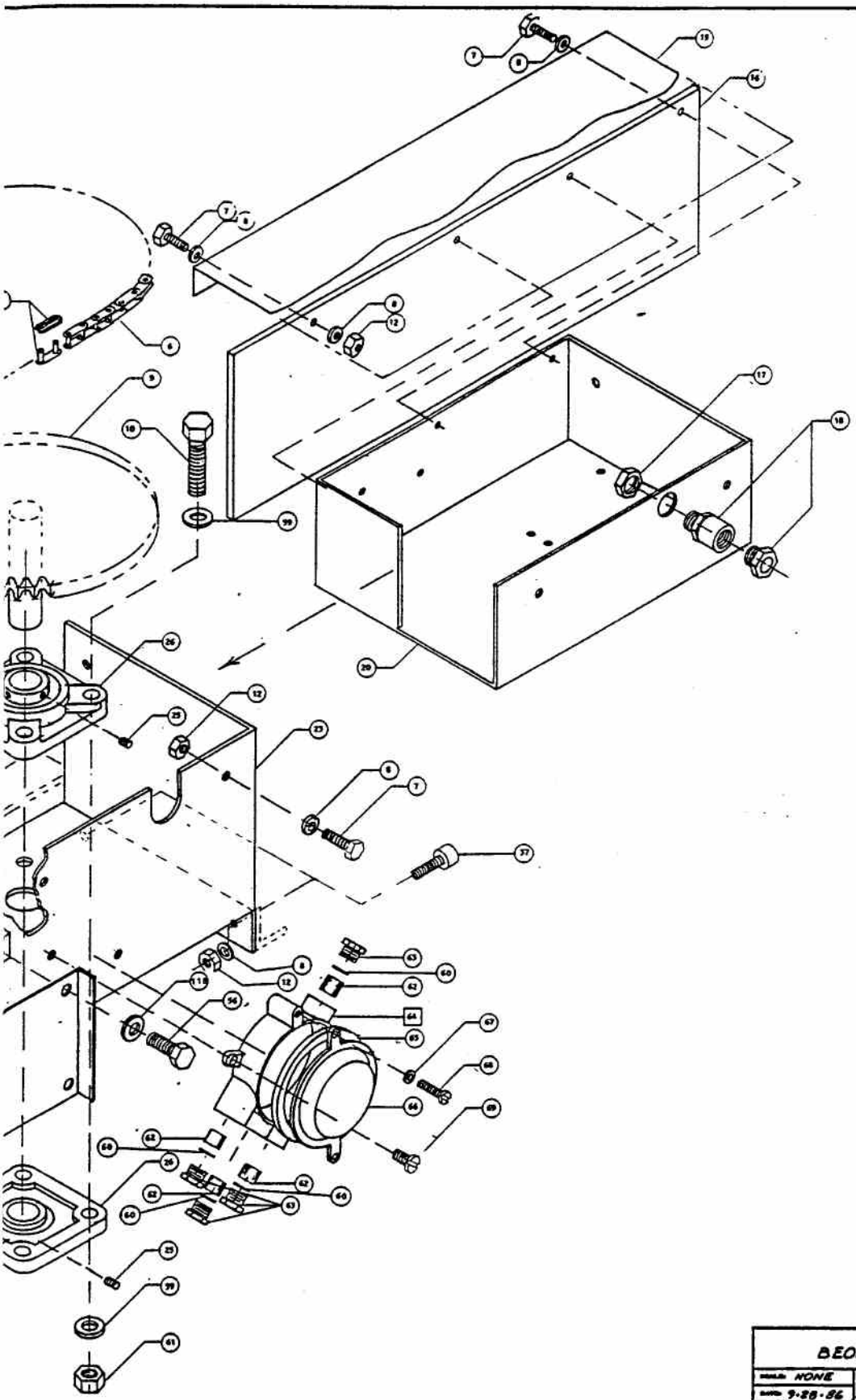
EXPLODED VIEW OF VERTICAL DRIVE SUBASSEMBLY AND BASE PLATES

REVISED: 8-4-88

By: Clay Target Enterprises

3


LATE PRODUCTION
LATE PRODUCTION
COVER PLATE FOR
CLUTCH ACCESS
COMPLETE DRIVE UNIT/MOTOR-CLUTCH-WORMGEAR.



BEOMAT MT, MJT 400

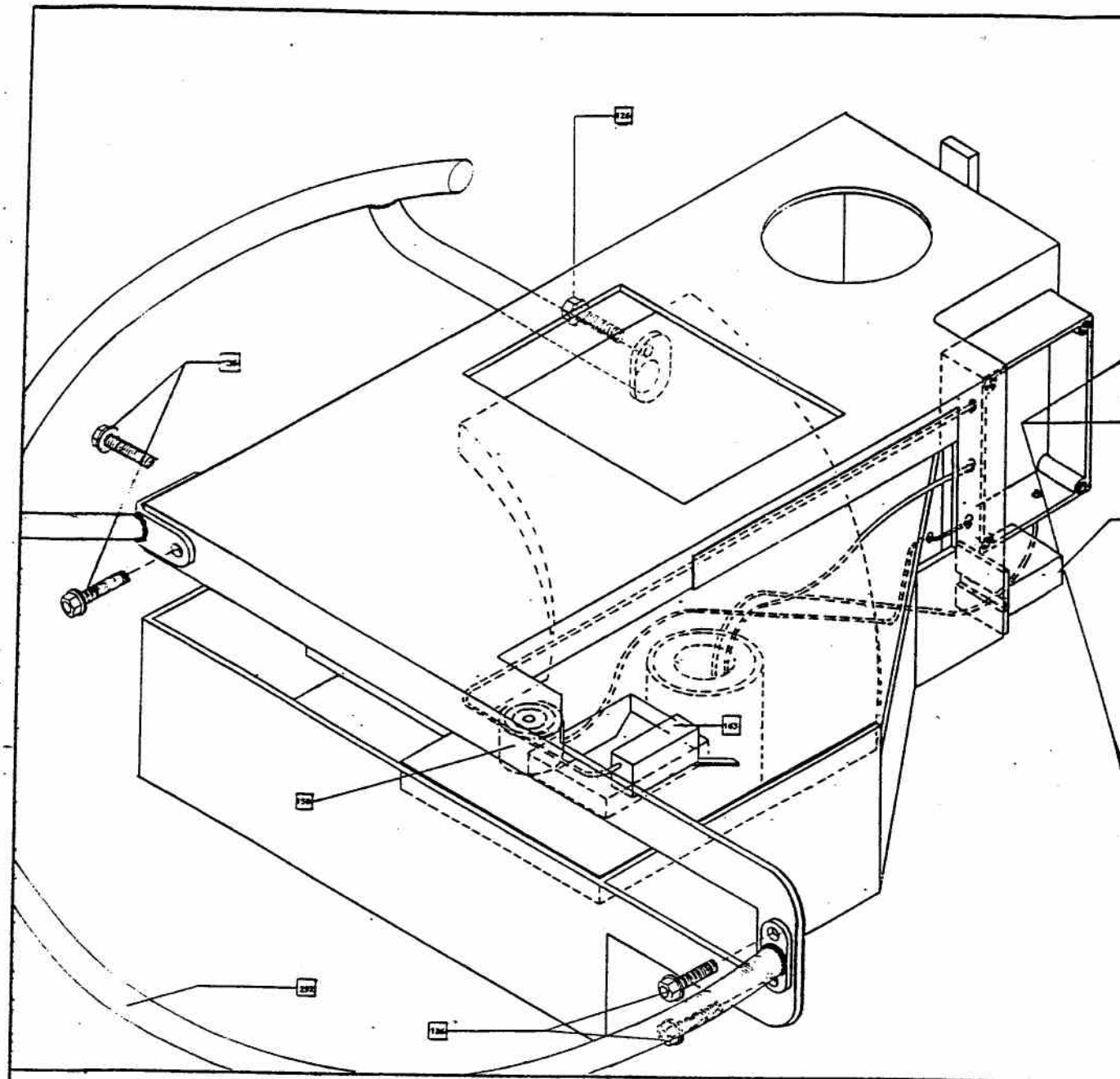
NONE | 9-28-86 | 7-5-87

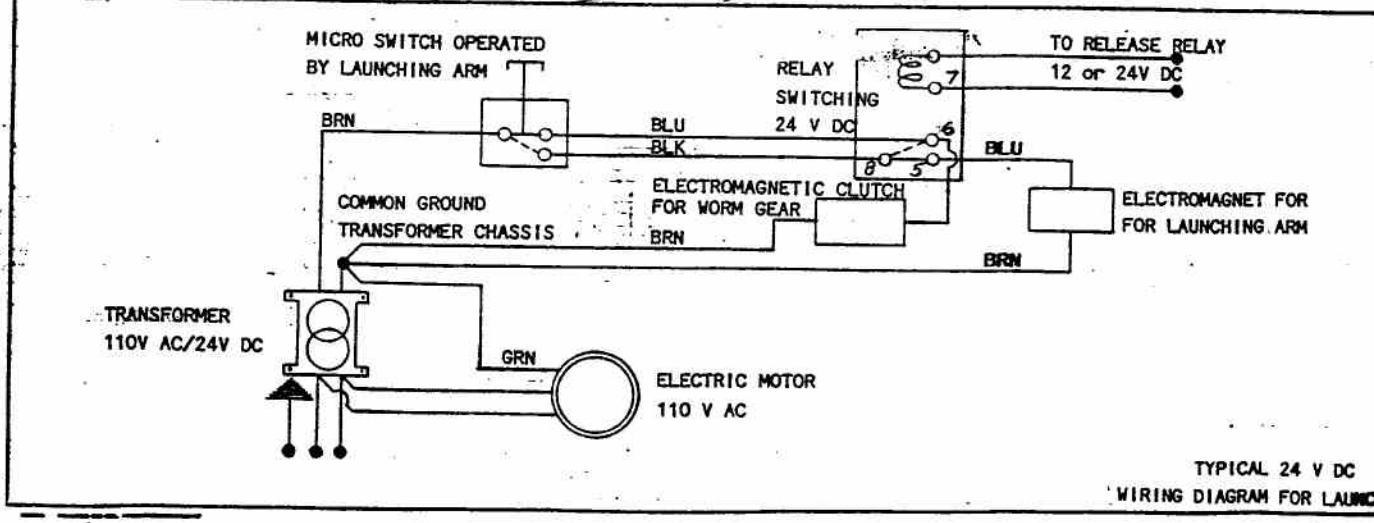
EXPLODED VIEW OF HORIZONTAL DRIVE SUBASSEMBLY

REVISED: 8-4-88

By: Clay Target Enterprises

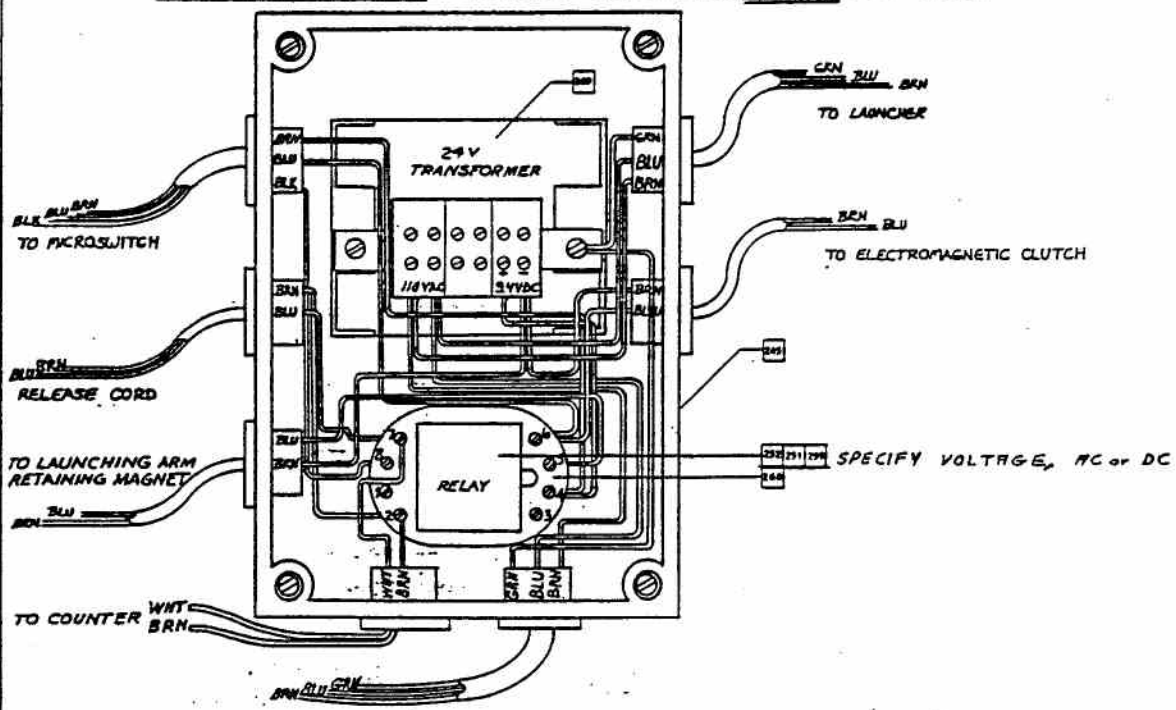
4



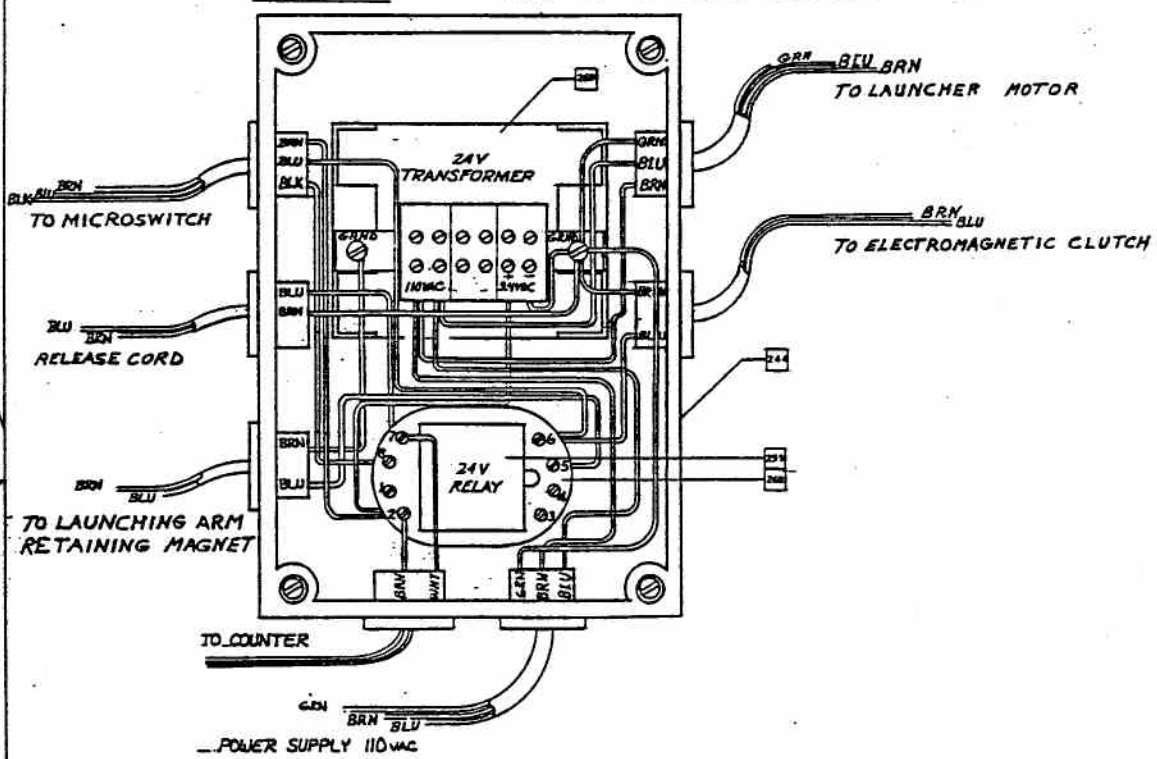


TYPICAL 24 V DC
WIRING DIAGRAM FOR LAUN

110 VAC, 12 or 24 V.D.C. SKEET LAUNCHER RELEASE CORD CIRCUIT



24 V.D.C. TRAP LAUNCHER RELEASE CORD CIRCUIT



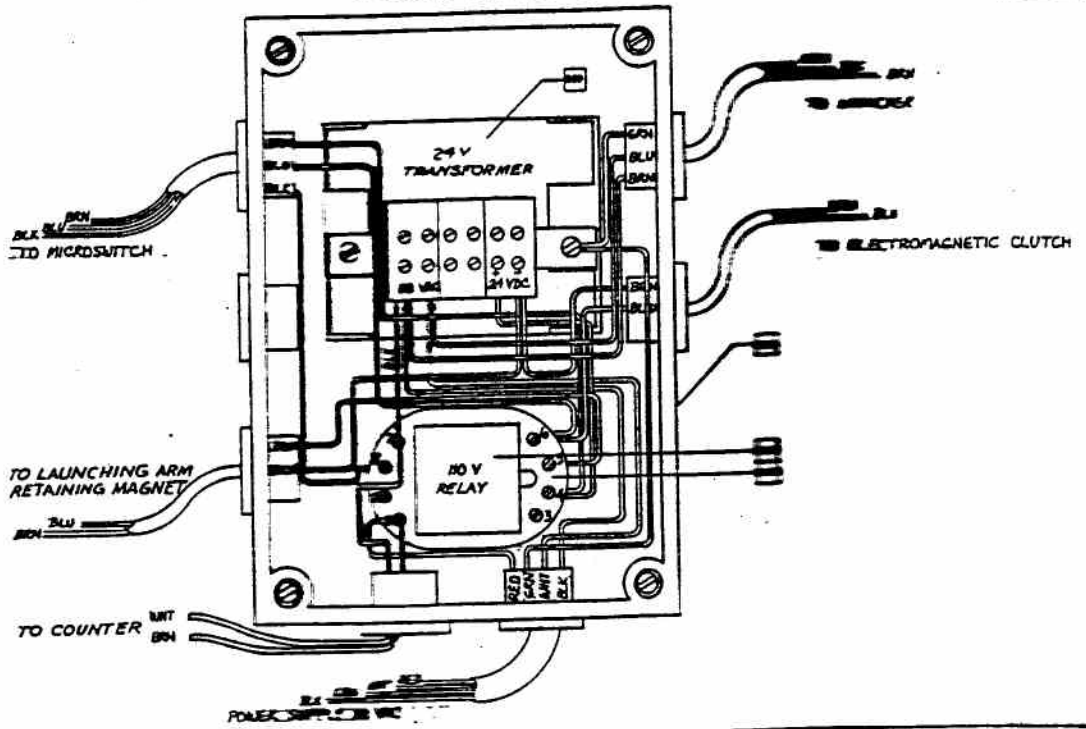
BEOMAT MODELS 700 MS, MT AND MODELS 400 MT, MS, MJT

NONE | 16 NOV '86 | 17-2867-5A

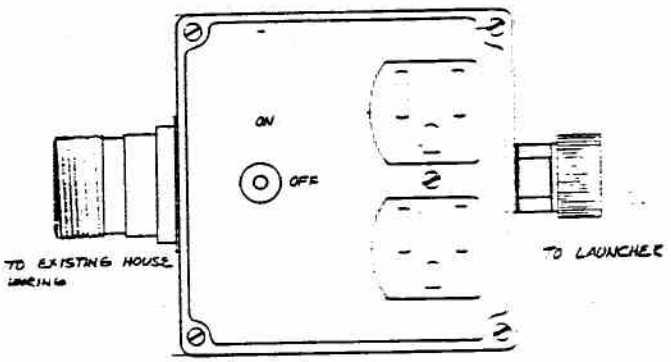
PICTORIAL VIEW, WIRE HARNESS ROUTING, ELECTRICAL BOXES

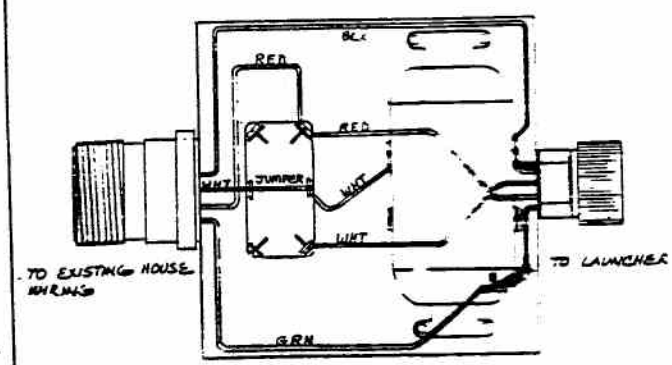
REVISED: 8-4-89 | By: Clay Target Enterprises | 5A

SINGLE SKEET LAUNCHER

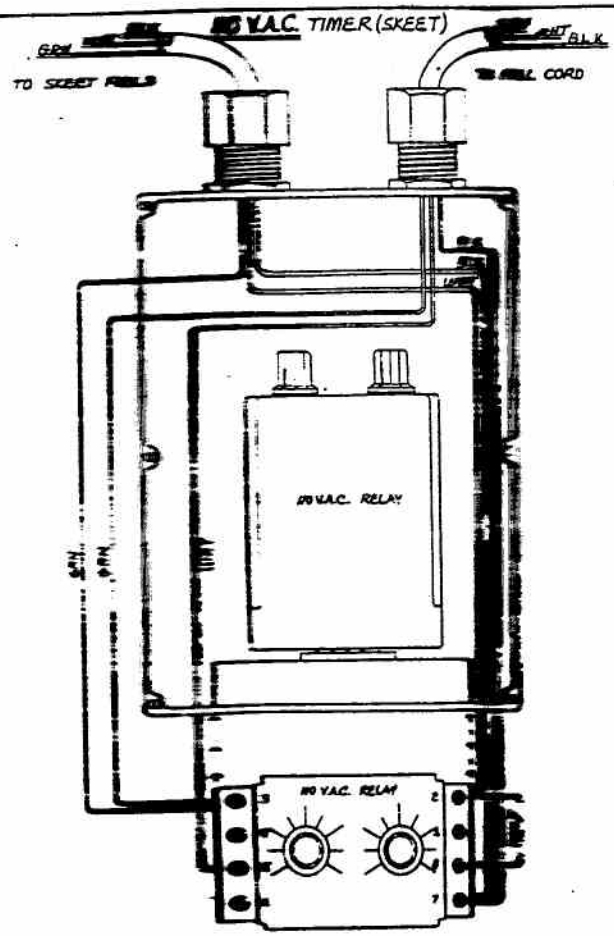


110 V.A.C. - ON - OFF - RELEASE SKEET

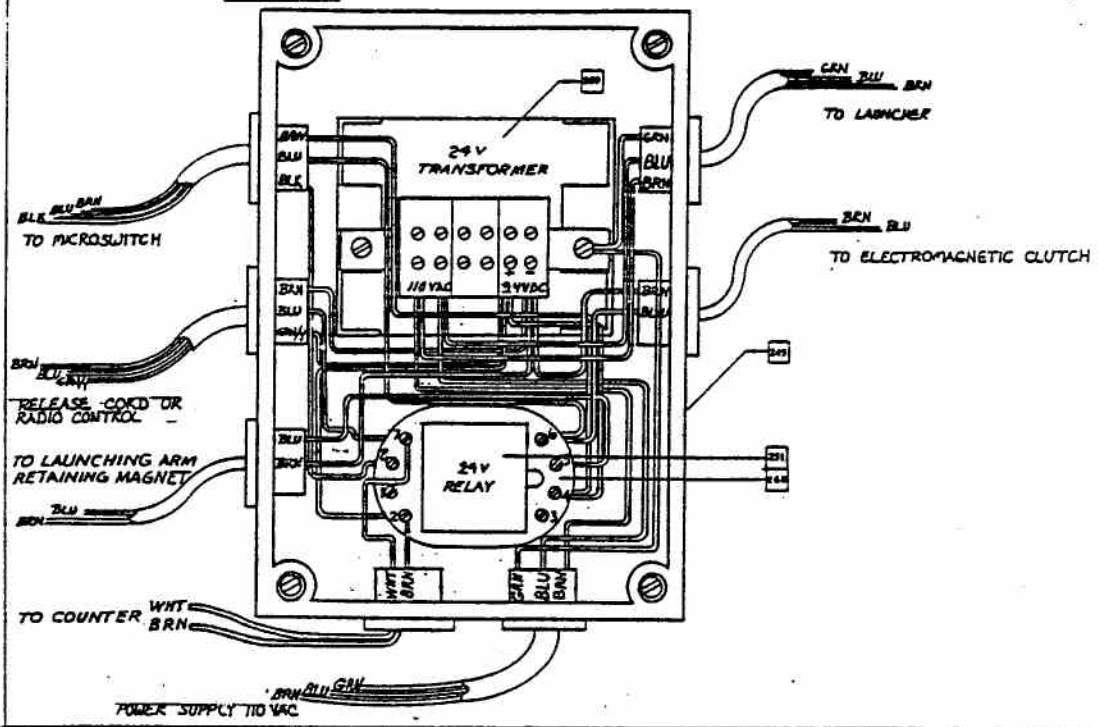




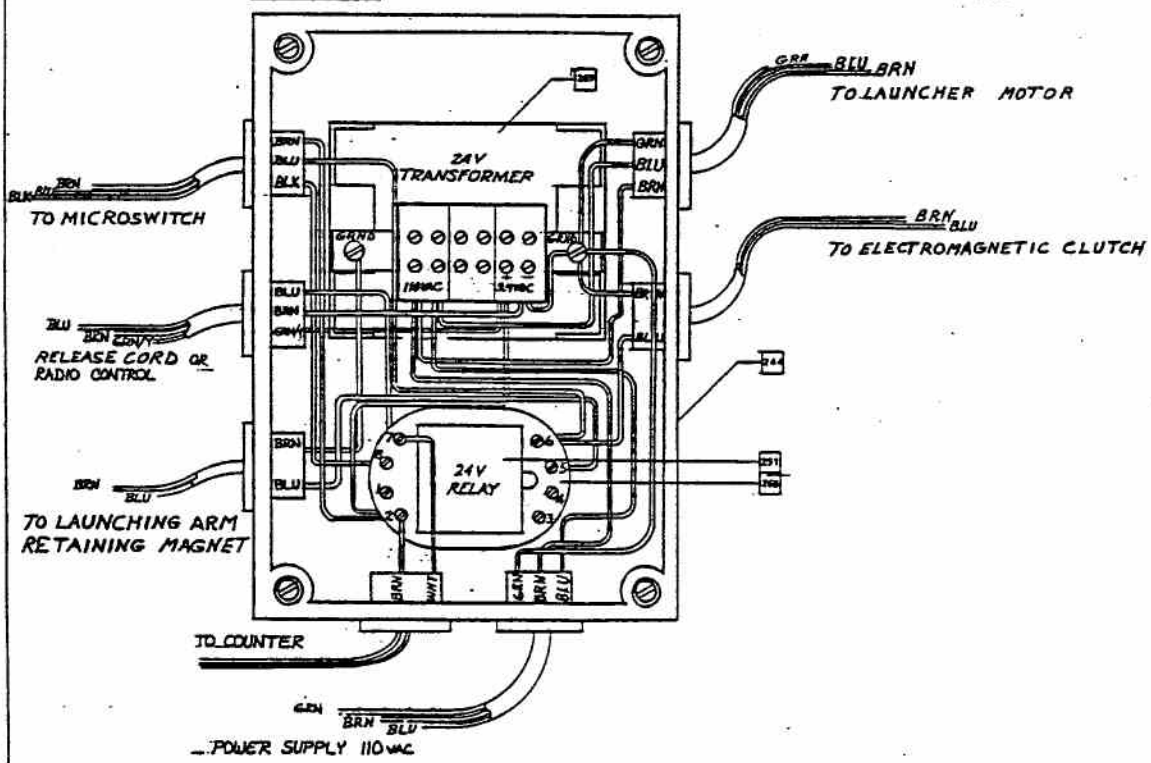
110 V.A.C. TIMER (SKEET)



24 V.D.C. SINGLE SKEET LAUNCHER Internally Powered Release Circuit (pre-wired for radio control)



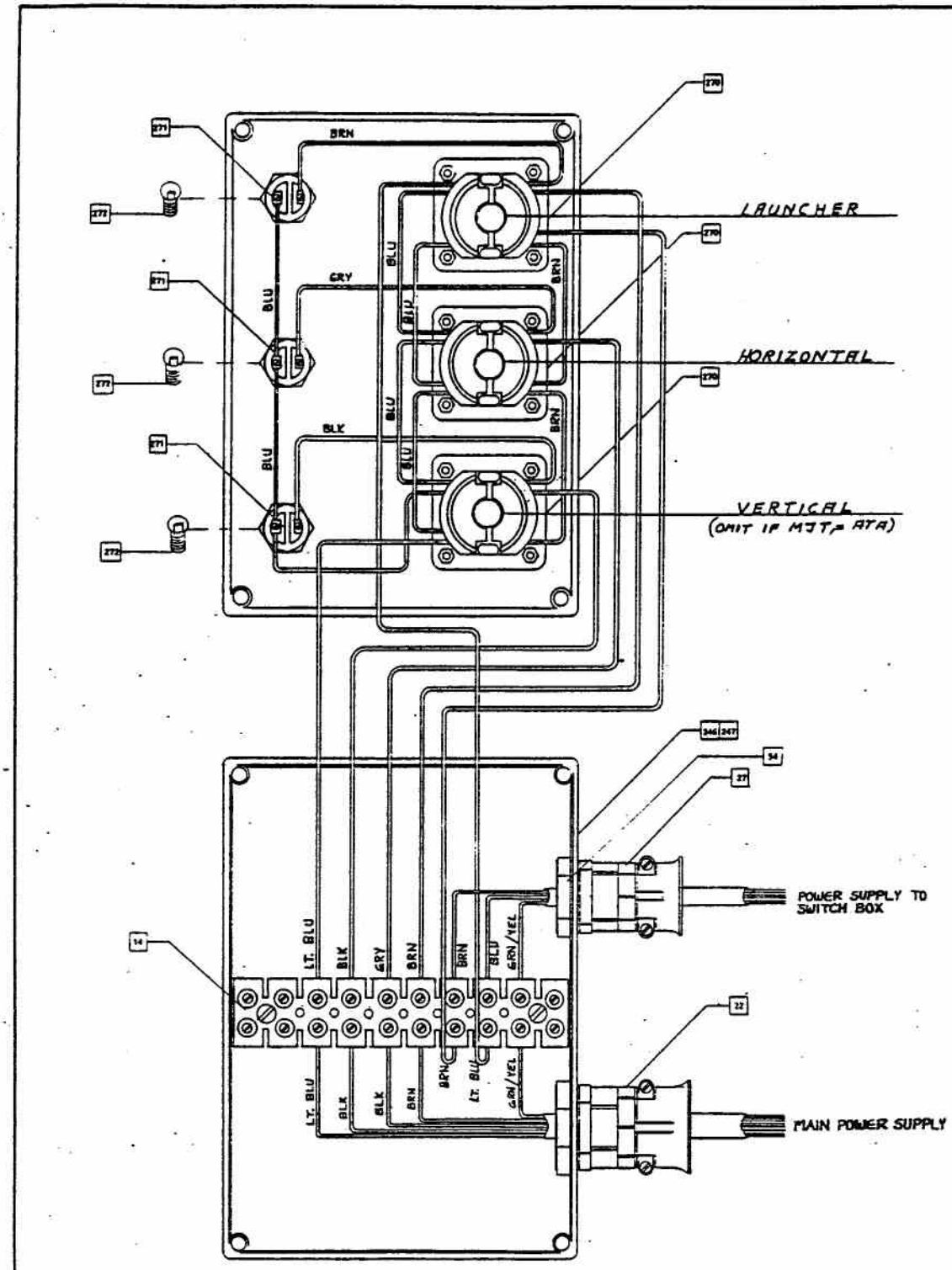
24 V.D.C. TRAP LAUNCHER Pre-wired For Radio Control

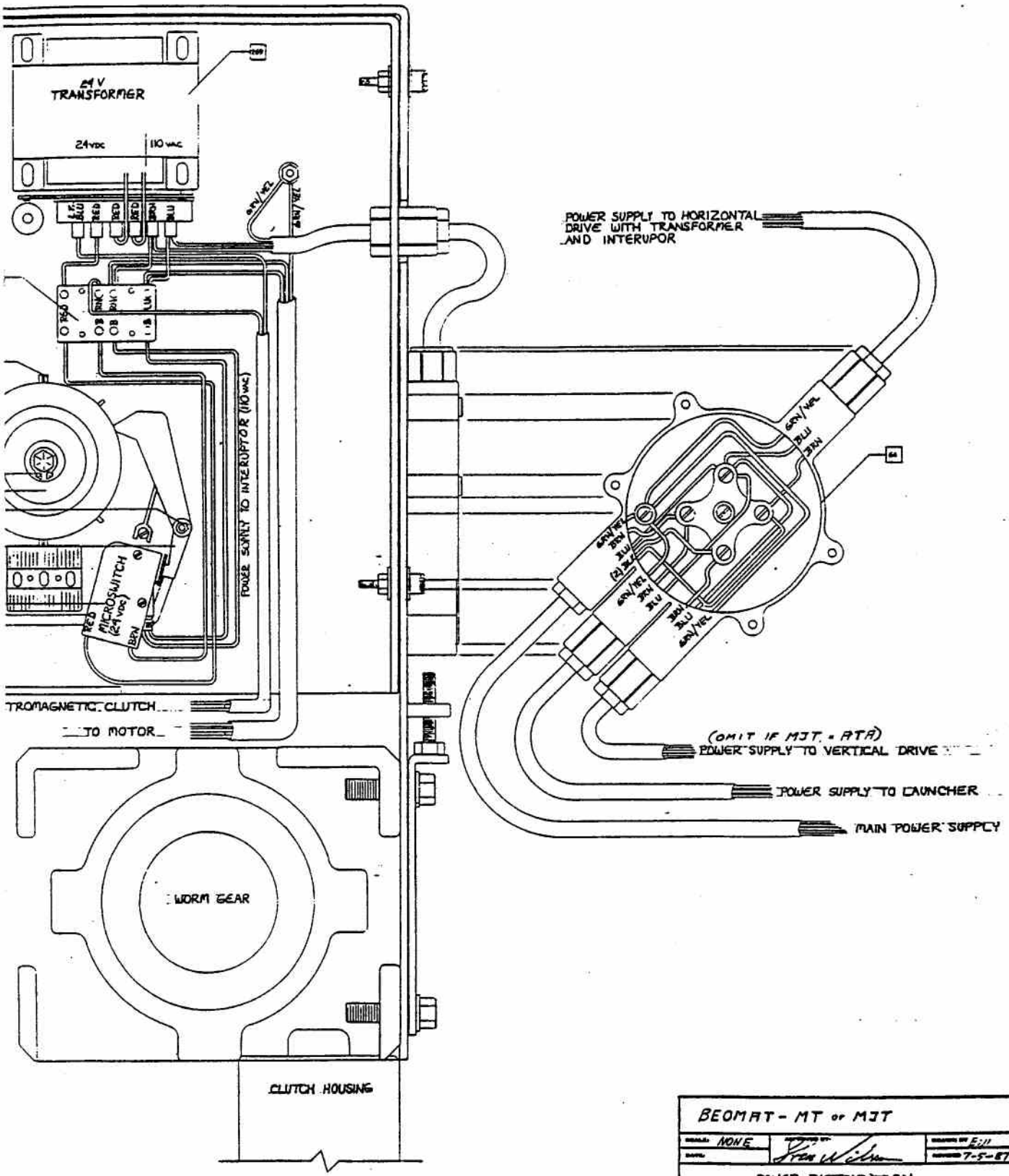


BEOMAT MODELS 700 MS, MT AND MODELS 400 MT, MS, MJT

NONE | 16 NOV '86 | PICTORIAL VIEW, WIRE HARNESS ROUTING, ELECTRICAL BOXES

REVISED: 8-4-88 | By: Clay Target Enterprises | 5B


LAUNCHER
HORIZONTAL
VERTICAL
(OMIT IF MJT= ATA)
POWER SUPPLY TO SWITCH BOX
MAIN POWER SUPPLY
BRN
BLU
GRY
BLK
LT. BLU
GRN/YEL



BEOMAT - MT or MJT

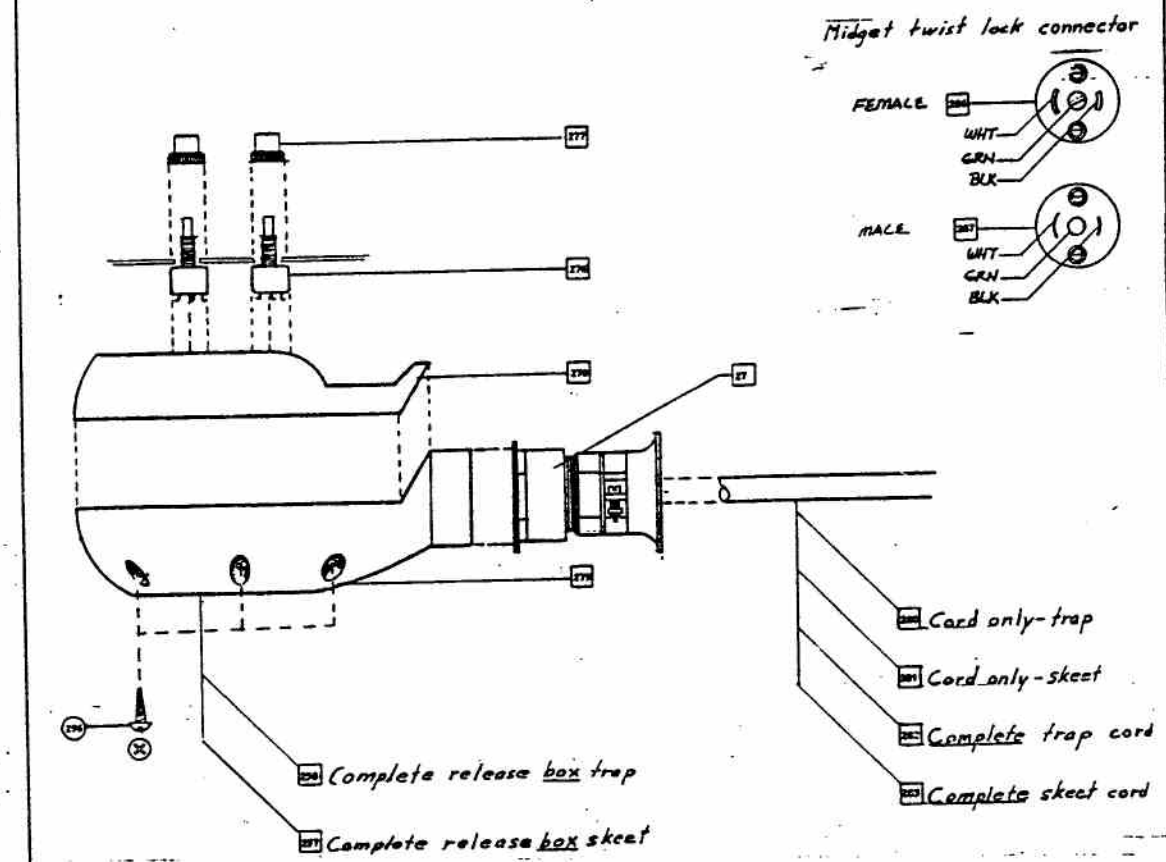
NONE

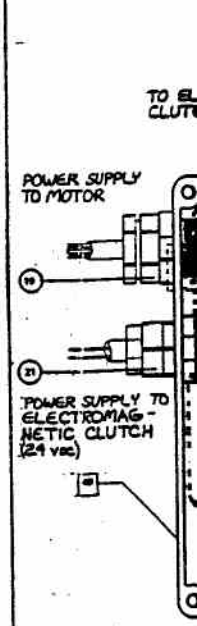
POWER DISTRIBUTION

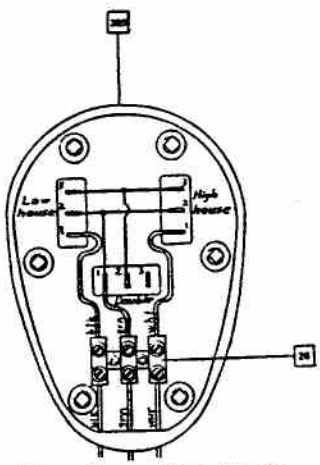
REVISED: 8-4-88

By: Clay Target Enterprises

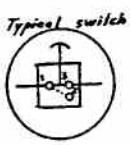
6

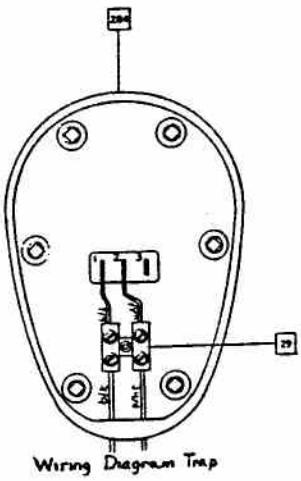




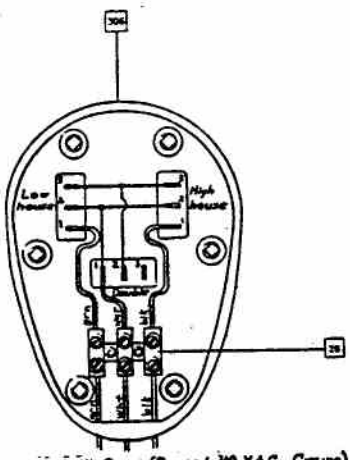


Wiring Diagram Skeet 24 V. DC.

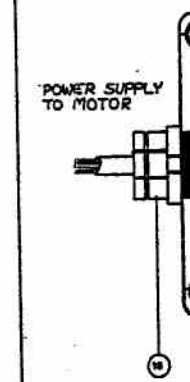




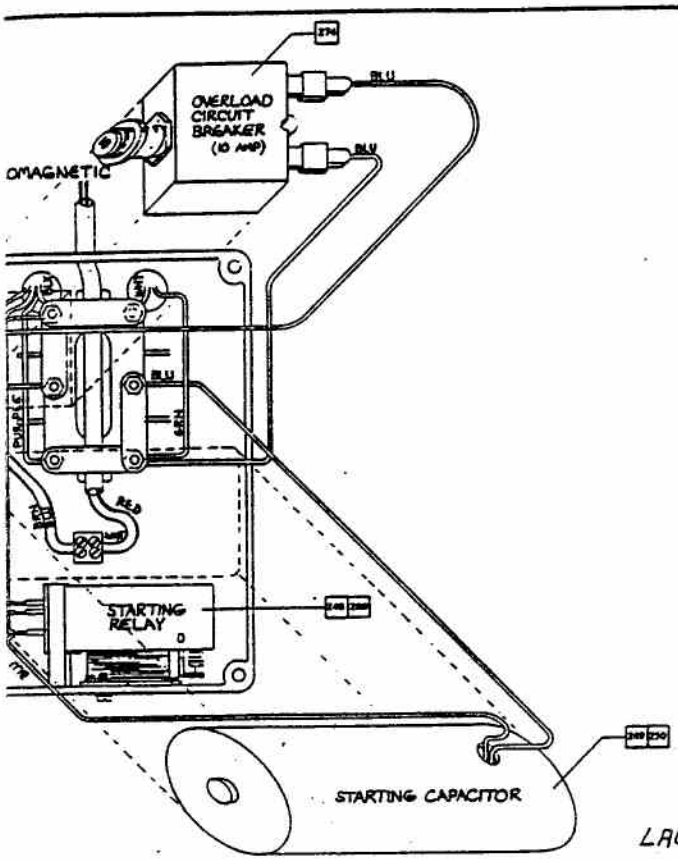
Wiring Diagram Trap



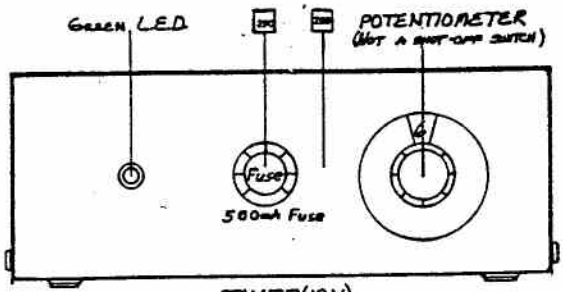
Wiring Diagram Skeet (Revised 110 V.A.C. Circuit)



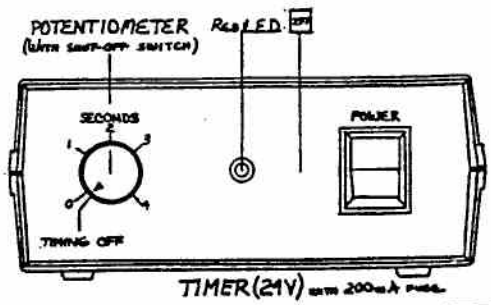
RELEASE CORDS



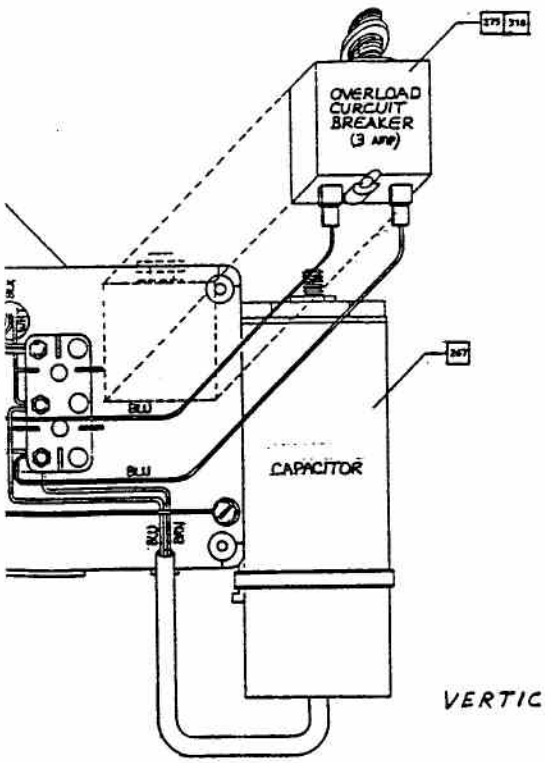
LAUNCHER & HORIZONTAL DRIVE MOTORS



TIMER(12V)



TIMER(24V) WITH 200mA FUSE



VERTICAL DRIVE MOTOR

SCALE: None		DRAWN BY: Clay
DATE:		7-5-82
ELECTRICAL BOXES		
REVISED: 8-4-88	By: Clay Target Enterprises	7

INSTALLATION AND OPERATING

GUIDE

FOR BEOMAT MT400, MJT400, 700.

WARNING

ANY CLAY TARGET LAUNCHER REGARDLESS OF MANUFACTURE, BY THE NATURE OF ITS PURPOSE, CREATES A CERTAIN HAZARD WHERE THE OWNER/USER MUST PROVIDE FOR THE SAFE OPERATION OF SUCH UNIT AT HIS/HER/THEIR OWN EXPENSE AND RESPONSIBILITY.

DO NOT INSTALL THE LAUNCHER SO; THAT THE LAUNCHING ARM AREA IN THE FRONT, OR THE TARGET EXIT AREA AT THE RIGHT FRONT CORNER OF THE MACHINE IS UNPROTECTED. FURTHER, DO NOT ALLOW ENTRANCE TO THE HOUSE ON THE LEFT SIDE OF THE MACHINE, (THE MACHINE'S OWN LEFT SIDE).

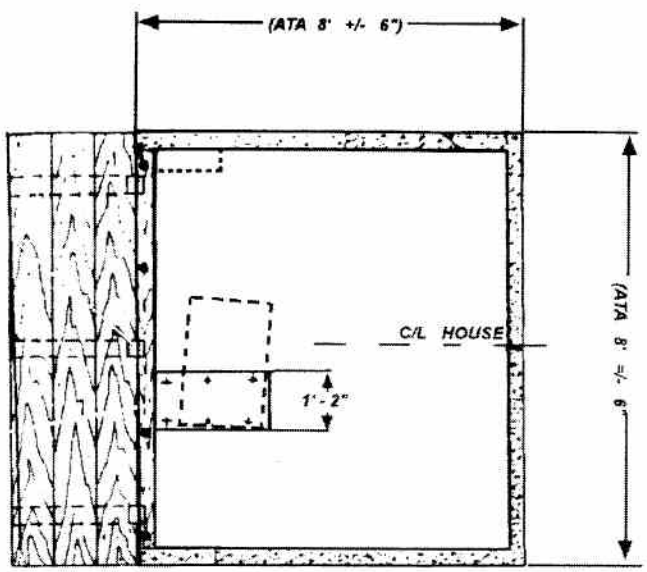
IT IS REQUIRED THAT THE ELECTRICAL CONTROL BOX IS MOUNTED IN SUCH A LOCATION, USUALLY AT THE UPPER RIGHT FRONT CORNER OF THE TRAP HOUSE THAT THE LAUNCHER MAY BE RELEASED BY IT'S WIRE REMOTE SWITCH BEFORE ANYONE ENTERS THE HOUSE.

KEEP THE MACHINE AREA CLEAN AT ALL TIMES, REMOVE ALL EMPTY TARGET BOXES - IT GREATLY REDUCES SAFETY HAZARDS.

SHUT OFF POWER AND RELEASE THE LAUNCHER BEFORE PERFORMING ANY WORK WHATSOEVER IN THE HOUSE - WHEN LOADING TARGETS, OR MAKING ANY CHANGES ON THE LAUNCHER ITSELF.

MJT 400 AND MT 400
Installation / Trap House

To ease the installation, remove the 4 bolts in the magazine center, (do not remove the circlip) and lift the magazine straight off the launcher, re-assemble in reverse order. Before installing the Beomat launcher, please remove the existing Winchester plank, it will not be needed with this machine. Based on the existing trap house, built as per the old Winchester specifications, the MT, or MJT400 will install onto the pier as per the dotted line. Please note that the base of the machine will be offset about 3 - 5° to the right. While the weight distribution of the machine is such that the launcher may be bolted onto the pier as is, additional support under the right side of the base is recommended. The red line on the machine base should correspond with the centerline of the house. It is recommended that the entrance to the trap house be on machines own right side, since the launching arm swings out on the machines own left side. It is also recommended that the control box, as seen on the opposite page, be fastened onto the trap house wall in the upper right side corner of the house as indicated by the dotted line. This provides easy and safe access to the safe release toggle switch, before entering the trap house. Stay clear of the house opening when releasing the machine.

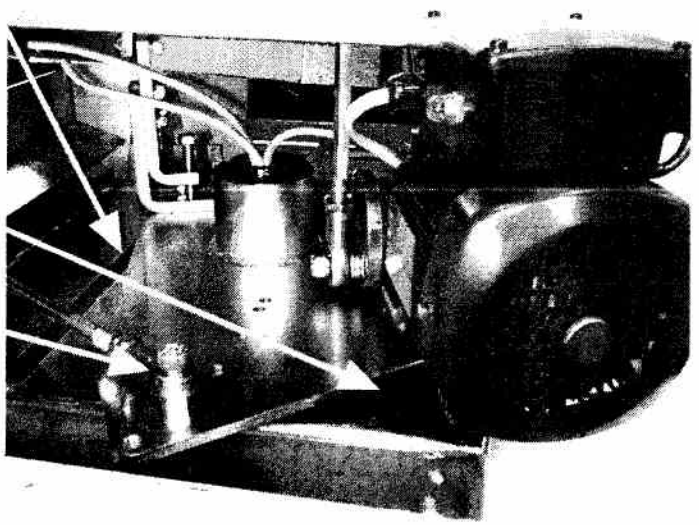


Machine Installation

Shown here is the picture of the machine base with its red line across, this line should reasonably well correspond with the centerline of the house. The diagonal line in front of the turntable is your guide to set the machine to throw a target straight ahead. When the leading edge of the turn table is parallel with this line, the machine will throw a target approximately center field. The connecting rod shown will change the angle of spread, or width of the field. There are six hole positions on the turntable, the first hole at the tip of the table would be No. 1 The angle of Spread as follows;

#1, = approx. 32°	#2 = approx. 38°
#3, = approx. 45°	#4 = approx. 60°
#5, = approx. 75°	#6 = approx. 90°.

The rod may also be used as a windage adjustment in that the rod is threaded, and thus the rod end may be adjusted to compensate for cross winds on the field.



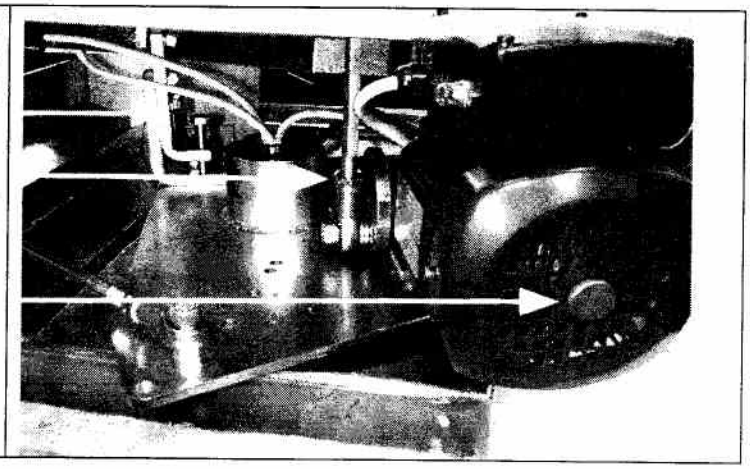
Installation setup / target trajectory adjustments.

With the machine temporarily fastened on the pier, **the launching arm guard** and the launching arm installed. You having read all pages in this small booklet, and familiarized yourself with the operation of this new launcher. Please load a small number of targets in each magazine position and proceed as follows. To find the exact dispersion of targets on the field, stop the horizontal oscillation by turning off the switch in the machines left most position. Test fire a couple of targets and note the target path in reference to the left field marker, repeat the same procedures to the right side of the field, adjust by turning the entire launcher on the pier as needed. Repeat this procedures until the targets are thrown an equal distance from the field markers. Then secure the launcher to the pier. PLEASE CONDUCT ALL OPERATIONS SAFELY.

The adjustment for a level target flight is located on the inside of the bracket shown, loosen the two fasteners and adjust the vertical bolt until level flight is obtained, tighten the fasteners.

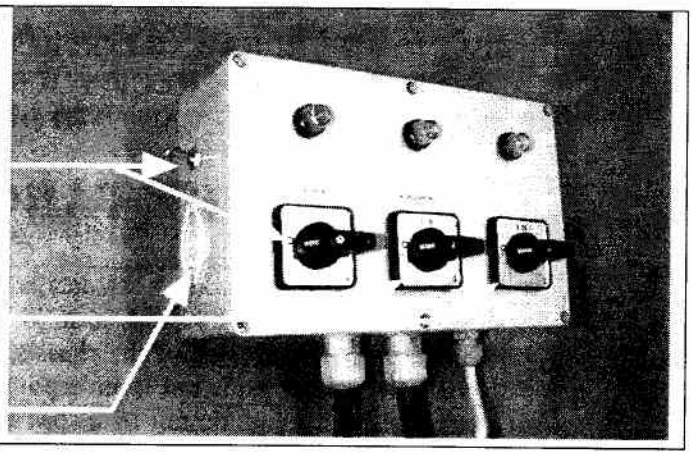
The length of the vertical connecting rod may be adjusted to change the entire "vertical window" up or down as required at your location.

A fine-tuning of the target height in stationary mode can be done by turning the knurled knob at the end of the vertical motor. --- For the MJT400, a turnbuckle will provide the vertical setting.

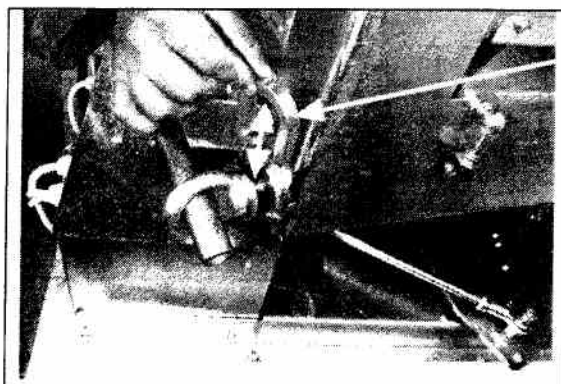


Electrical Controls/connections.

The Beomat MT or MJT400 are equipped with a wire remote control box allowing for safe operation from the outside of the trap house.
The toggle switch at the end of box must be on for normal operation together with the launcher switch on the box. It then serves as a safe release switch in its momentary on position before the launcher switch is turned off.
The center switch operates the horizontal oscillations, and the right side switch (for MT-models) provides the vertical oscillation.
A midget twist lock receptacle at the end of the box is for the pull cord.



Installation setup / spring tension adjustment.



A spacer system is utilized for the changing of the spring tension, (changing of target throwing distance). Two different systems for setting the target flight distance may be used. ONE, the main spring is installed without pre-load, and the spacers may be used to obtain the desired distance with the spring as is. TWO, that the lock nut at the end of the spring be loosened and by turning the eyelet on the outside of the machine clockwise, thus pre-loading the spring. When the desired throwing distance is obtained, tighten the lock nut and use the spacer system for quick changes of more demanding games. The thick spacer will increase the target flight distance by about 10 yards and the other spacers in descending order down to 1 yard.

ADJUSTMENT GUIDE

YOUR BEOMAT LAUNCHER HAS UNDERGONE COMPLETE PRE-DELIVERY SERVICE, AND SHOULD NOT REQUIRE ANY OTHER ADJUSTMENTS THAN THE SETUP PROCEDURES AS DESCRIBED ON THE PREVIOUS PAGES. IF THE LAUNCHER IS NOT PERFORMING PROPERLY AFTER INSTALLATION, (THE MACHINE MAY HAVE BEEN EXPOSED TO FREIGHT DAMAGE). IF SO, PLEASE CALL BEOMAT OF AMERICA IMMEDIATELY, AT ANY TIME, (408) 379-4829. IF AFTER BUSINESS HOURS PLEASE REMAIN ON THE LINE, THE CALL WILL TRANSFER TO A SELECTED TECHNICAL SUPPORT PHONE AFTER SEVEN RING SIGNALS.

IF YOUR LAUNCHER IS NOT PERFORMING CORRECTLY, BEFORE ANY ADJUSTMENTS ARE DONE, PLEASE CHECK THE FOLLOWING:

A. Confirm that the launching arm is **STRAIGHT**, remove the arm and visually inspect the same (after some time of use, a slight "banana shape" in the working direction is normal and acceptable). However, if the arm is bent either up or down, it will severely effect the target flight, or cause target breakage. In such a case, replace the arm before checking further. If you think the arm needs adjustment please see next page.

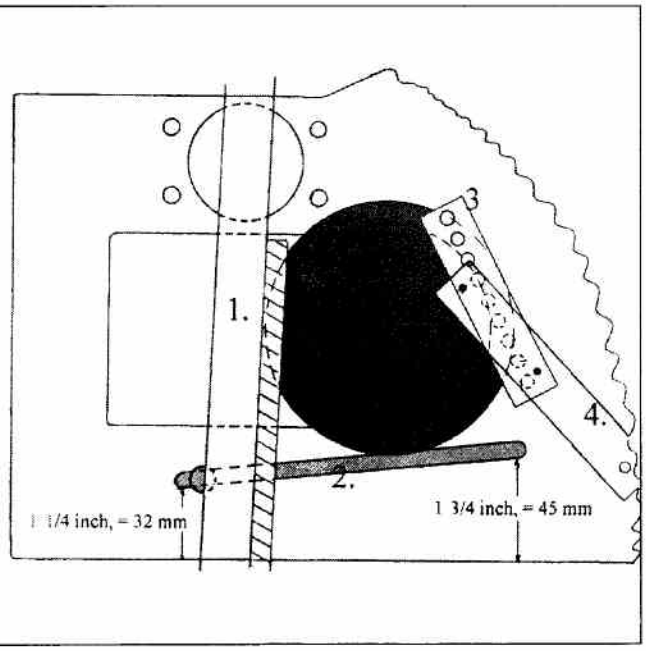
B. Verify that the elevator is adjusted correctly, i.e. a clearance between the highest point of the elevator and the bottom rim of the target - (in its ready to fire position), of at least 1/4" or more.

C. Confirm that the target retainer brush is "holding" the target close to the launching arm (a distance between the target and the launching arm of about a 1/4" is acceptable).

THE FOLLOWING PICTURES AND INSTRUCTIONS WILL HELP YOU MAINTAIN YOUR BEOMAT LAUNCHER. PLEASE CHECK YOUR LAUNCHER PERIODICALLY. PLEASE KEEP THE LAUNCHER CLEAN, AND DO NOT LOAD BROKEN TARGETS.

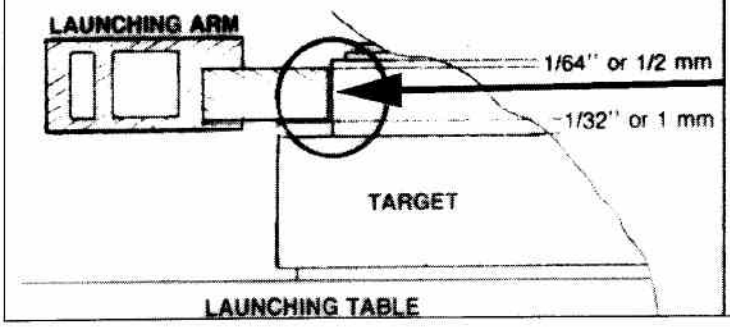
THE TARGET NEST

The birds view of the target nest shows you all the details for an excellent target performance. The launching arm (# 1), should be roughly parallel with the left side of the chassis, or as shown in this drawing. The target guide rail is an important part of the target performance. This guide rail (# 2) has had various lengths through the years, and is now at the exact length of six inches. Please note the exact position of the guide rail. (Should you have machines of an earlier model, it will be a great advantage to arrange the target nest to these exact specifications together with a new brush. If the guide rail is longer than 6 inches, it is important that it be shortened to that length before adjusting it to the position shown here).
We have recently improved the nest brush itself (# 3) in order to have the optimum performance, and the brush is now mounted directly onto the magazine table. (The brush in this picture is equipped with a bracket (# 4), and as such applies to earlier style machines). The brush position is essentially the same regardless of mounting, should the brush require replacement, detailed instructions are furnished with the brush.



CORRECT LAUNCHING ARM ADJUSTMENT PROCEDURE.

VISUAL CHECK ILLUSTRATION

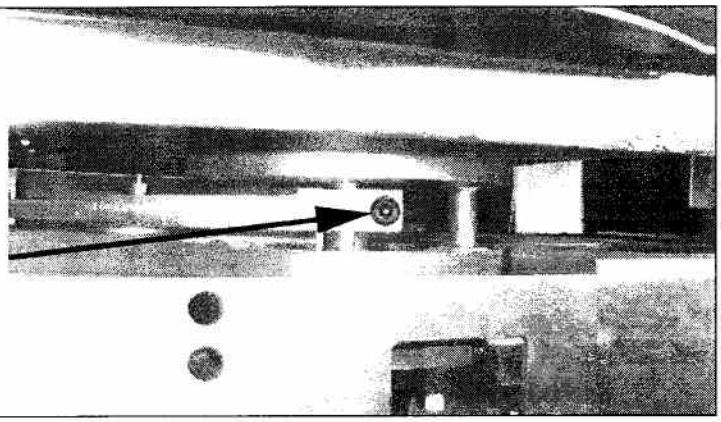


Check the launching arm adjustment with the launcher in the cocked position, viewing the arm and the target from the rear of the machine (refer to illustration at left).

Then shut off power and release the launcher by its toggle switch at the square receptacle box on the cord. (Or, if not existing, it is perfectly safe to release the arm using your index finger behind the tip of the arm, pushing it to start after the power has been shut off)

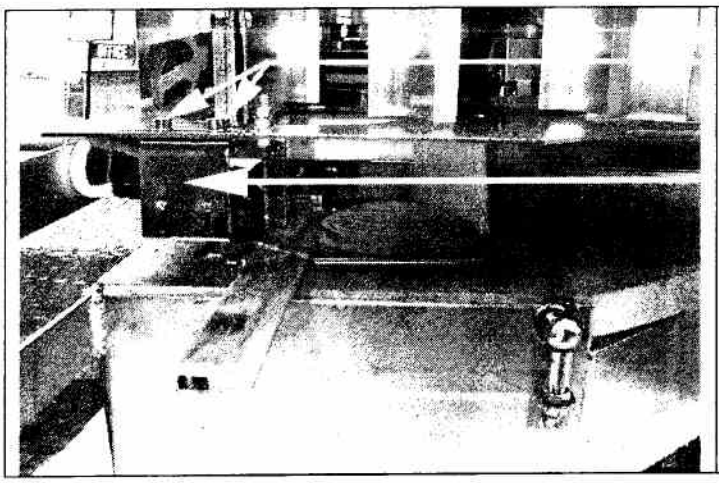
ADJUSTMENT ILLUSTRATION

Procedures, (this view from the launchers own left side). Please note the position of the launching arm carrier. Refer to illustration above, before any adjustments are made. Proceed with the adjustment, use a 6 mm Allen tool to loosen bolt (indicated by arrow in illustration at right), about 1/2 to 1 turn, while supporting the launching arm with your left hand. Then lightly pry the launching arm carrier up or down on the main shaft with a medium size screwdriver, "walking" it to the desired position on the shaft. Repeat the above steps until the correct adjustment is obtained. Tighten the retainer bolt to **17-20 Lb. Ft.** (or 25-30 NM or 2.2-2.6 Kpm).



MICRO SWITCH ADJUSTMENT

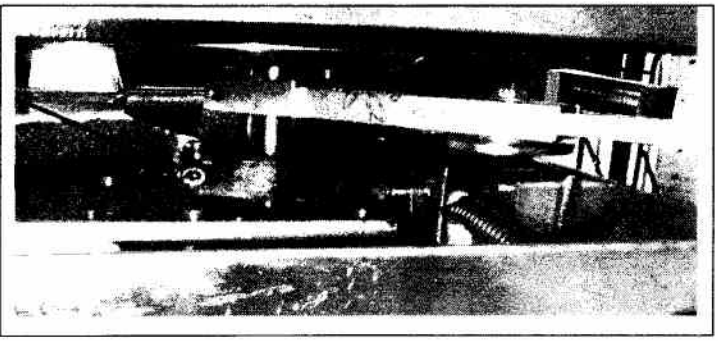
MAY BE ONE OF THE MOST COMMON CORRECTIONS ON THE MACHINE. FOR INSTANCE, IF THE MACHINE SHOULD START RELEASING TARGETS ON ITS OWN, AN ADJUSTMENT OF THE SWITCH TO THE LEFT, OR DOWNWARDS MAY BE A CORRECT SOLUTION.



The micro switch is controlling the re-cocking function of the launcher, and is activated by the launching arm. To adjust the height of the switch, simply loosen the two slot mounted screws (shown) and slide the entire switch body up or down. Another adjustment, (not visible in this picture) is that the entire bracket may be moved in the slotted mounting holes at top of bracket, allowing the switch assembly to be moved left or right. NOTE, the ideal position as shown, with the launching arm parallel with the left side of the chassis and the leading edge of the arm flush with the tip of the switch lever.

Adjustment of the back lash brake.

In order to eliminate vibrations, a brake band with a one-way clutch is installed on the launching arm shaft. Tightening of the adjusting bolt, turning clockwise, will increase the brake efficiency. Please adjust so that the launching arm stops without vibrations "on the corner of the chassis." If a moderate tightening of this bolt does not have the desired effect, the sprague within the band may be faulty or worn.

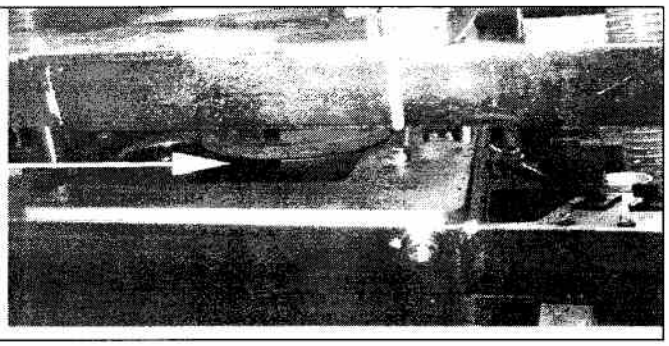


Elevator clearance.

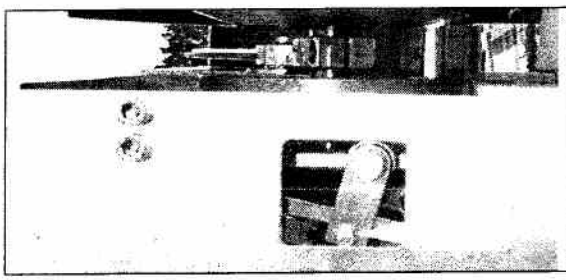
The only reason for the elevator to require an adjustment would be if there is a lot of broken targets loaded in the machine. The result is that the elevator must cut through the target pieces, which in turn may cause a slight bend in the parallel arm assembly, thus, necessitating adjustment. The machine itself will not break any targets unless it is severely out of adjustment. (under severe conditions it may be necessary to either straighten or replace the parallel arm assembly).

The elevator should be checked with the power shut off and the machine released manually, i.e. not by the electrical switch, since the elevator will be moving upwards immediately when released by the electrical switch.

The distance from the highest point of the elevator to the bottom rim of the target should be a minimum of a ¼ inch, as per illustration on the right.



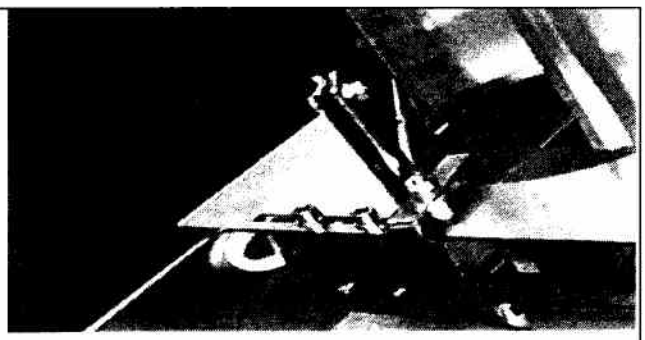
Elevator height adjustment.



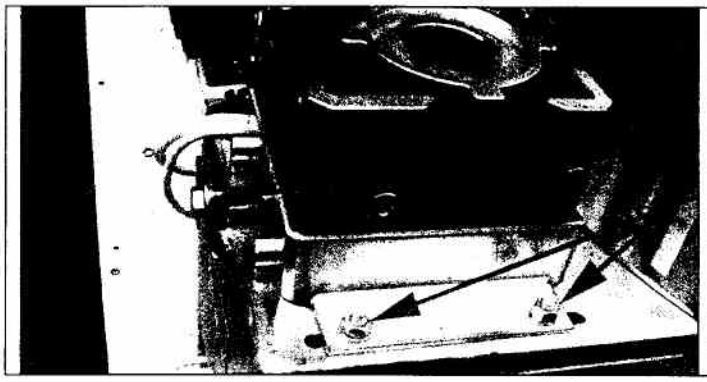
Adjustment of the elevator, is done by loosening the small bolt, as shown, at the bearing riser on the parallel arm assembly. Then by sliding the bearing riser for or aft you will be changing the height of the elevator. (Again, the machine must be released manually in order to have the elevator position correct).
And of course, as always, --- the power must be shut off and the launcher released before any adjustments are made.

Target separating knife

A target separating knife is installed on your Beomat machine. The knife is installed in a reversed position for the reason that it must be adjusted individually for every manufacture of targets. When activated, loosen the nut at the top, reverse the knife and use the installed washers to adjust the height. It may be necessary to bend the knife slightly up or down in order to very precisely adjust the knife. The knife will perform excellently with wet targets, but bear in mind, if not adjusted properly if will cause more harm than good.



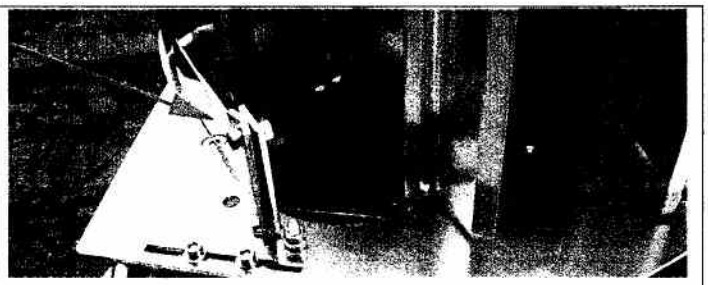
Drive belt adjustment



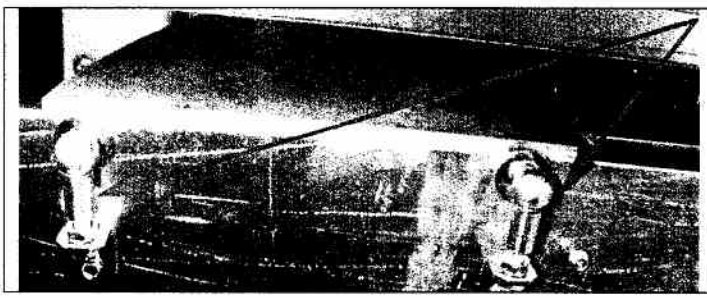
A pair of regular V-belts, are utilized between the reduction gear and the launcher main shaft. After some time, a year or two, it may be necessary to tighten the belts slightly. This is done by loosening the two fasteners as shown, about one turn or at the most a turn and a half, then by tightening the belt tension bolt, shown, about one full turn. (It should be understood that too great a belt tension will put unnecessary pressure on the drive mechanism).
Then re-tighten the two fasteners at the gear bracket.

Leaf spring

A leaf spring is installed to provide an "ease down" of the target stack. Adjustment is normally not required, however, if the spring should need replacement, or come out of position, it should be adjusted so; that when the magazine is filled with targets and after delivering one target to the elevator, the full stack of targets will ease down as the magazine starts indexing again.



Launching table fasteners



Never adjust the launching table fasteners. They have been adjusted once and for all. **ANY TAMPERING WITH, OR ADJUSTMENT OF THE SAME, WILL INVALIDATE YOUR WARRANTY.**

INDEX

INSTALLATION AND OPERATING

GUIDE

FOR BEOMAT MS 400, MS 700, MS 900.

WARNING

ANY CLAY TARGET LAUNCHER REGARDLESS OF MANUFACTURE, BY THE NATURE OF ITS PURPOSE, CREATES A CERTAIN HAZARD WHERE THE OWNER/USER MUST PROVIDE FOR THE SAFE OPERATION OF SUCH UNIT AT HIS/HER/THEIR OWN EXPENSE AND RESPONSIBILITY.

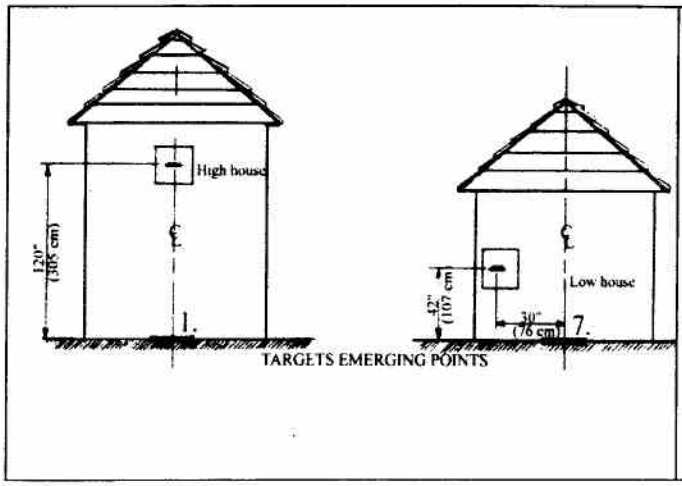
DO NOT INSTALL THE LAUNCHER SO; THAT THE LAUNCHING ARM AREA IN THE FRONT, OR THE TARGET EXIT AREA AT THE RIGHT FRONT CORNER OF THE MACHINE IS UNPROTECTED. FURTHER, DO NOT ALLOW ENTRANCE TO THE HOUSE ON THE LEFT SIDE OF THE MACHINE, (THE MACHINE'S OWN LEFT SIDE).

IT IS REQUIRED THAT THE ELECTRICAL HANDY BOX IS MOUNTED IN SUCH A LOCATION THAT THE LAUNCHER MAY BE RELEASED BY IT'S WIRE REMOTE SWITCH BEFORE ANYONE ENTERS THE HOUSE.

KEEP THE MACHINE AREA CLEAN AT ALL TIMES, REMOVE ALL EMPTY TARGET BOXES - IT GREATLY REDUCES SAFETY HAZARDS.

SHUT OFF POWER AND RELEASE THE LAUNCHER BEFORE PERFORMING ANY WORK WHATSOEVER IN THE HOUSE - WHEN LOADING TARGETS, OR MAKING ANY CHANGES ON THE LAUNCHER ITSELF.

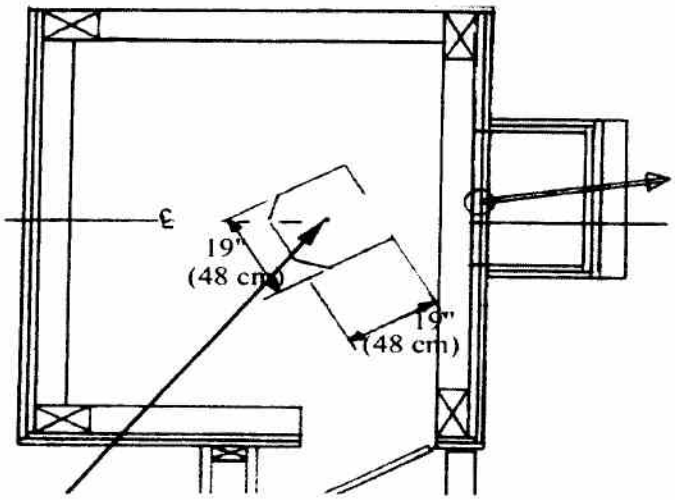
Installation of your Beomat Skeet machines.

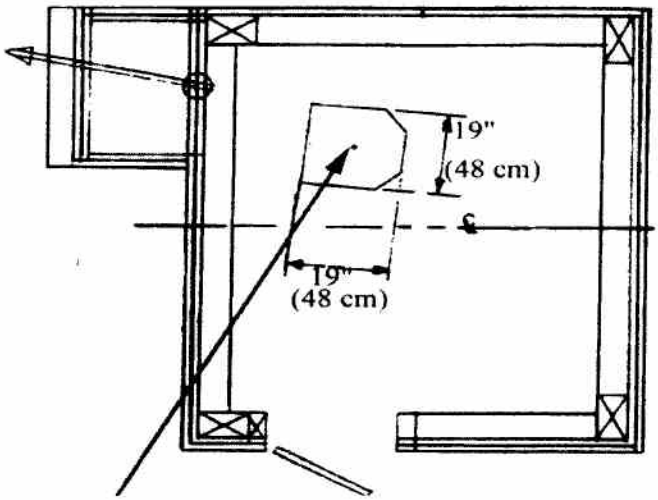


High house; determine the exact position of the targets emerging point in relation to shooting station # 1. The base chord of the field should correspond with the centerline of shooting station 1. The target should be emerging on the centerline of station 1.

Low house: Again, determine the exact position of the target at its emerging point in relation to shooting station # 7. The base chord of the field should correspond with the centerline of station 7. Set reference marks for the targets emerging point at the bottom and on one side of each "window", or use electrical/masking tape to set a "cross hair" across the window, this gives a very exact point to measure from. Measurements are the same for American as well as International skeet.

Before attempting to install the machines into respective house, the magazines must be removed by removing the 4 bolts in the center of the magazine, then lift the magazine straight off the launcher. (Do not remove the lock ring at the shaft), assemble in reverse order.





High House. By using the now established target emerging point, and the center hole (pivot hole) in the base plate of the machine, the following measurements will apply. The center hole (pivot) in the base plate of the machine is to be located 16" (41 cm) below the targets emerging point. The distance from the front wall to the pivot point in the base should be about 24" (61 cm). And, 5" (13 cm) offset to the (outside of the field), or left of the imaginary target trajectory line as seen from behind the machine. If the old Winchester pier is used, it will be necessary to increase the height of this pier about 4". This may be done, by using 2 pieces of 4" x 14" x 30" planks positioned across the old pier.
It is important that the base plates are in level.
Base plate dimension is 19" x 19" for both machines.

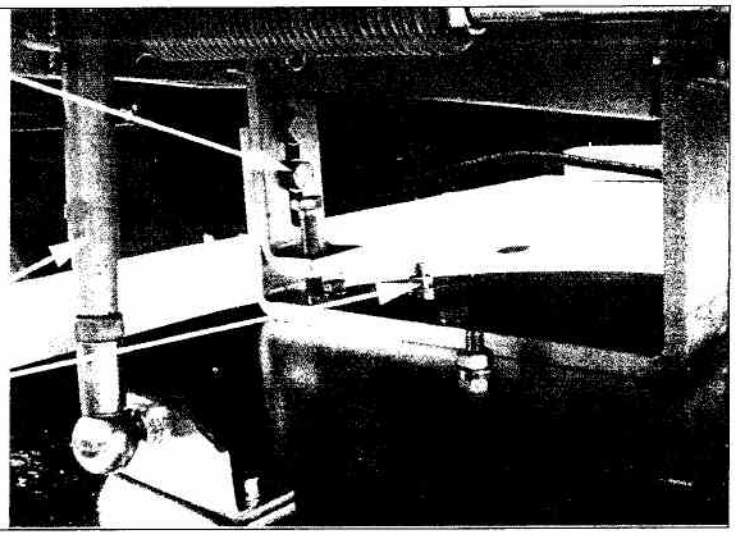
Low House. The base plate pivot hole must be located 21" (53 cm) below the targets emerging point. The pivot hole 24" (61 cm) setback from the front wall, and 5" (13 cm) offset to the (inside of the field), or left of the imaginary trajectory line as seen from behind the machine.

High house & Low house. Before bolting the machine to the pier, install the launching arm guard, the magazine and the launching arm. Connect the wiring as per wiring instructions on the next page. Load a small amount of targets and test fire the machine to determine that the emerging point is correct, make minor adjustments by moving the machine side to side, forward or aft, until a satisfactory result has been achieved. The turnbuckle at the base is to change the elevation of the target. Make sure that these procedures are conducted safely, with the launcher released when adjustments are made.

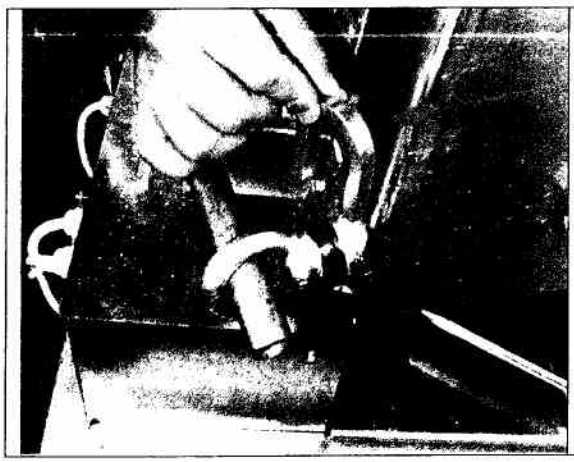
Electrical compatibility/connections.

Standard, non-oscillating single target launchers, MS400, 700, 900, are equipped with a 120 volt AC release system for compatibility with your existing Winchester/Ohlin installation. The electrical connections are identical to your Winchester/Ohlin machines/field wiring. The machines are equipped with a switch box, with an ON-OFF-Momentary function. The momentary function provides a safe release for the machines. The electrical connections in your skeet house should be color for color; black = HOT (or face), white = NEUTRAL (or 0), green = GROUND (or earth), red = RELEASE. (Please note, the wiring is European color, but with colored sleeves corresponding to US standard).	NO PICTURE AVAILABLE

Installation setup / target trajectory adjustments.

There are three adjustments for the target trajectory. One, for the leveling of the target; the right side support leg is adjustable, please note the two lock bolts and a height adjustment bolt which may be adjusted to accommodate any specific target for a perfectly flat trajectory. The vertical adjustment (setting the target height), is simply done by the turnbuckle. The next adjustment is providing a horizontal movement. Once the target path has been established, a minor side to side adjustment may be done by loosening the bolt at the base plate slot, then turning the machine to either side for wind adjustment.	

Installation setup / spring tension adjustment.

	A spacer system is utilized for the changing of spring tension, (changing of target throwing distance). The spring is installed without pre-load, and two different systems for setting the target flight distance may be used. ONE, that the spacers may be used to obtain the distance desired with the spring as is. TWO, that the lock nut at the end of the spring be loosened and by turning the eyelet on the outside clockwise thus increasing the spring tension. When the desired distance is obtained, tighten the lock nut, and use the spacer system for quick changes of more demanding games. The thick spacer will increase the target flight distance by about 10 yards and the other spacers in descending order down to 1 yard.

ADJUSTMENT GUIDE

YOUR BEOMAT LAUNCHER HAS UNDERGONE COMPLETE PRE-DELIVERY SERVICE AND SHOULD NOT REQUIRE ANY ADJUSTMENTS WHATSOEVER AT THE TIME OF INSTALLATION. IF THE LAUNCHER IS NOT PERFORMING PROPERLY AFTER INSTALLATION, (THE MACHINE MAY HAVE BEEN EXPOSED TO FREIGHT DAMAGE). IF SO, PLEASE CALL BEOMAT OF AMERICA IMMEDIATELY, AND AT ANY TIME, (408) 379-4829. IF AFTER BUSINESS HOURS PLEASE REMAIN ON THE LINE, THE CALL WILL TRANSFER TO A SELECTED TECHNICAL SUPPORT PHONE AFTER SEVEN RING SIGNALS.

IF YOUR LAUNCHER IS NOT PERFORMING CORRECTLY, BEFORE ANY ADJUSTMENTS ARE DONE, PLEASE CHECK THE FOLLOWING:

A. Confirm that the launching arm is **STRAIGHT**, remove the arm and visually inspect the same (after some time of use, a slight "banana shape" in the working direction is normal and acceptable). However, if the arm is bent either up or down, it will severely effect the target flight, or cause target breakage. In such a case, replace the arm before checking further. If you think the arm needs adjustment please see next page.

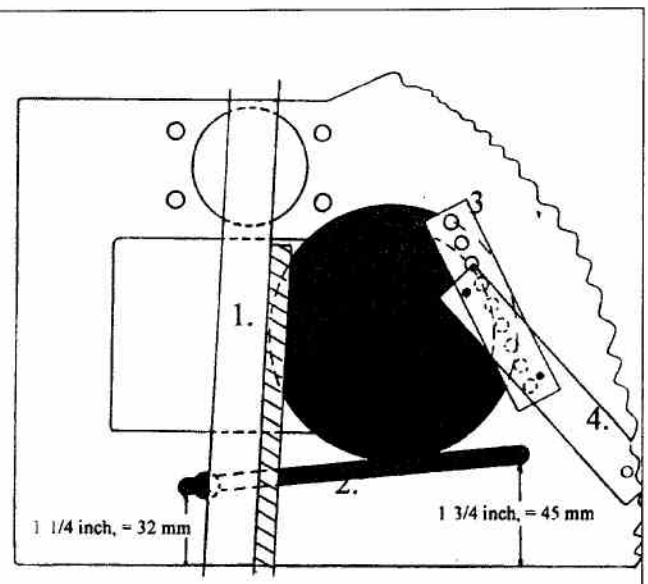
B. Verify that the elevator is adjusted correctly, i.e. a clearance between the highest point of the elevator and the bottom rim of the target - (in its ready to fire position), of at least 1/4" or more.

C. Confirm that the target retainer brush is "holding" the target close to the launching arm (a distance between the target and the launching arm of about a 1/4" is acceptable).

THE FOLLOWING PICTURES AND INSTRUCTIONS WILL HELP YOU MAINTAIN YOUR BEOMAT LAUNCHER. PLEASE CHECK YOUR LAUNCHER PERIODICALLY. PLEASE KEEP THE LAUNCHER CLEAN, AND DO NOT LOAD BROKEN TARGETS.

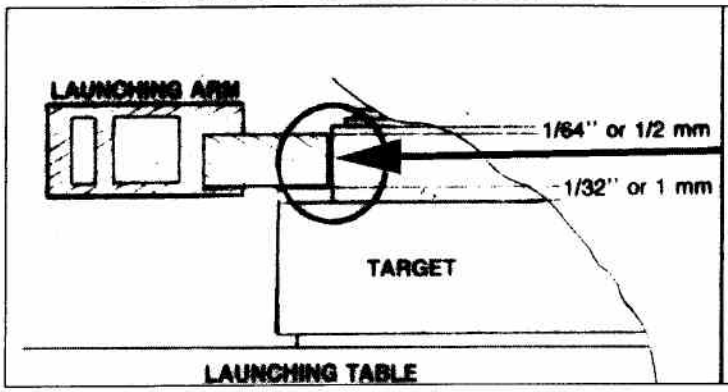
THE TARGET NEST

The birds eye view of the target nest shows you all the details for an excellent target performance. The launching arm (# 1), should be roughly parallel with the left side of the chassis, or as shown in this drawing. The target guide rail is an important part of the target performance. This guide rail (# 2) has had various lengths through the years, and is now at the exact length of six inches. Please note the exact position of the guide rail. (Should you have machines of an earlier model, it will be a great advantage to arrange the target nest to these exact specifications together with a new brush. If the guide rail is longer than 6 inches, it is important that it be shortened to that length before adjusting it to the position shown here).
We have recently improved the nest brush itself (# 3) in order to have the optimum performance, and the brush is mounted directly onto the magazine table. (The brush in this picture is equipped with a bracket (# 4), and as such applies to earlier style machines). The brush position is essentially the same regardless of mounting, should the brush require replacement, detailed instructions are furnished with the brush.



CORRECT LAUNCHING ARM ADJUSTMENT PROCEDURE.

VISUAL CHECK ILLUSTRATION

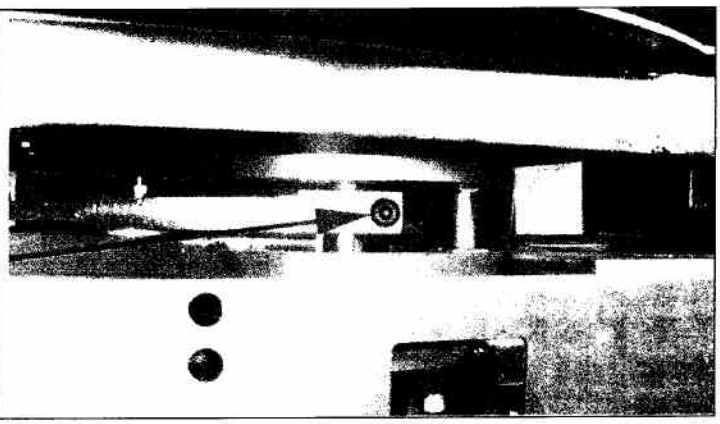


Check the launching arm adjustment with the launcher in the cocked position, viewing the arm and the target from the rear of the machine (refer to illustration at left).

Then shut off power and release the launcher by its toggle switch at the square receptacle box on the cord. (Or, if not existing, it is perfectly safe to release the arm using your index finger behind the tip of the arm, pushing it to start after the power has been shut off)

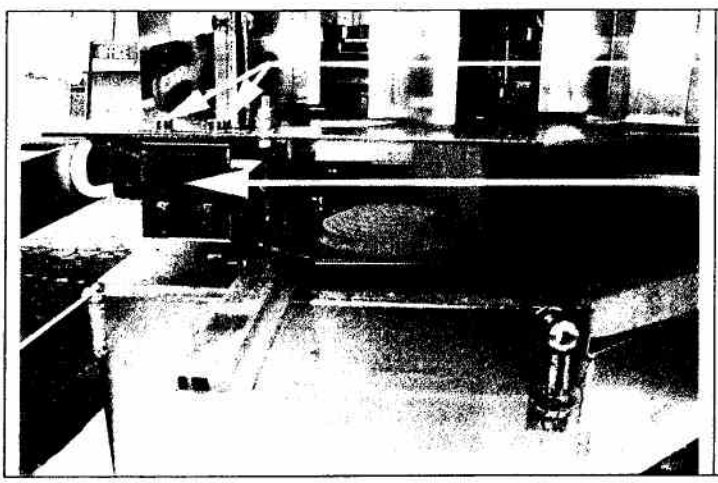
ADJUSTMENT ILLUSTRATION

Procedures, (this view from the launchers own left side). Please note the position of the launching arm carrier. Refer to illustration above, before any adjustments are made. Proceed with the adjustment, use a 6 mm Allen tool to loosen bolt (indicated by arrow in illustration at right), about 1/2 to 1 turn, while supporting the launching arm with your left hand. Then lightly pry the launching arm carrier up or down on the main shaft with a medium size screwdriver, "walking" it to the desired position on the shaft. Repeat the above steps until the correct adjustment is obtained. Tighten the retainer bolt to **17-20 Lb. Ft.** (or 25-30 NM or 2.2-2.6 Kpm).



MICRO SWITCH ADJUSTMENT

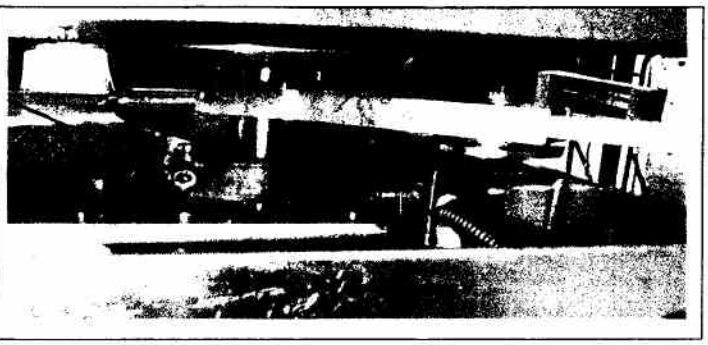
MAY BE ONE OF THE MOST COMMON CORRECTIONS ON THE MACHINE. FOR INSTANCE, IF THE MACHINE SHOULD START RELEASING TARGETS ON ITS OWN, AN ADJUSTMENT OF THE SWITCH TO THE LEFT, OR DOWNWARDS MAY BE A CORRECT SOLUTION.



The micro switch is controlling the re-cocking function of the launcher, and is activated by the launching arm. To adjust the height of the switch, simply loosen the two slot mounted screws (shown) and slide the entire switch body up or down. Another adjustment, (not visible in this picture) is that the entire bracket may be moved in the slotted mounting holes at top of bracket, allowing the switch assembly to be moved left or right. NOTE, the ideal position as shown, with the launching arm parallel with the left side of the chassis and the leading edge of the arm flush with the tip of the switch lever.

Adjustment of the back lash brake.

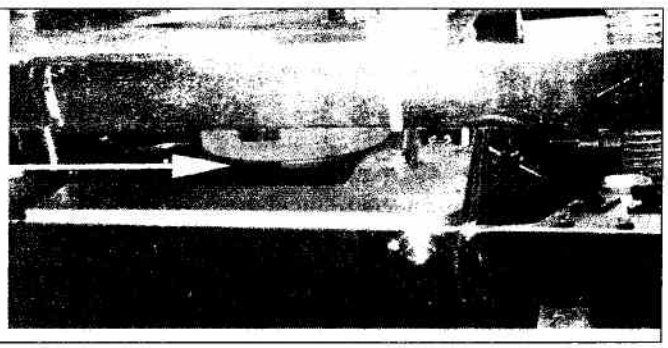
In order to eliminate vibrations, a brake band with a one-way clutch is installed on the launching arm shaft. Tightening of the adjusting bolt, turning clockwise, will increase the brake efficiency. Please adjust so that the launching arm stops without vibrations "on the corner of the chassis." If a moderate tightening of this bolt does not have the desired effect, the sprague within the band may be faulty or worn.



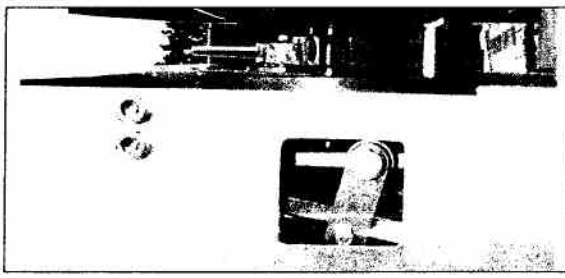
Elevator clearance.

The only reason for the elevator to require an adjustment would be if there is a lot of broken targets loaded in the machine. The result is that the elevator must cut through the target pieces, which in turn may cause a slight bend in the parallel arm assembly, thus, necessitating adjustment. The machine itself will not break any targets unless it is severely out of adjustment. (under severe conditions it may be necessary to either straighten or replace the parallel arm assembly).

The elevator should be checked with the power shut off and the machine released manually, i.e. not by the electrical switch, since the elevator will be moving upwards immediately when released by the electrical switch.
The distance from the highest point of the elevator to the bottom rim of the target should be a minimum of a ¼ inch, maximum about a ½ inch, as per illustration on the right.



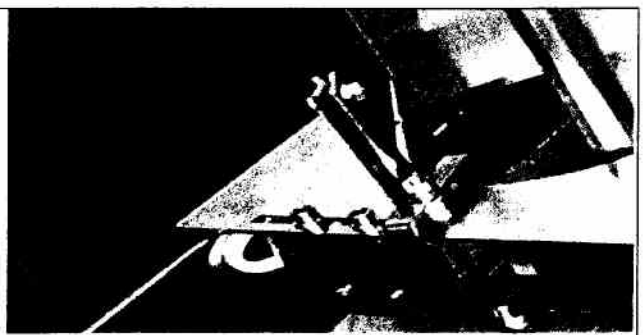
Elevator height adjustment.



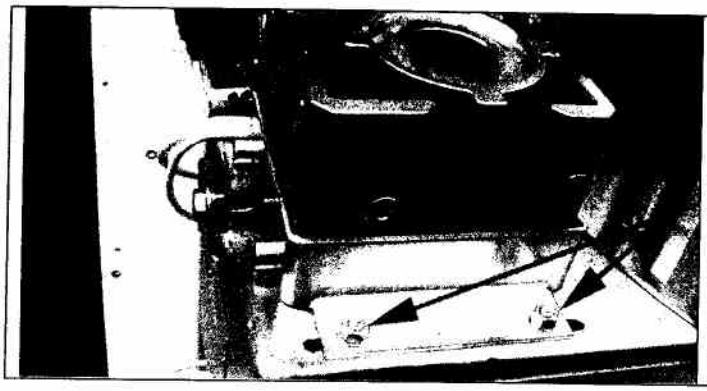
Adjustment of the elevator, is done by loosening the small bolt, as shown, at the bearing riser on the parallel arm assembly. Then by sliding the bearing riser for or aft you will be changing the height of the elevator. (Again, the machine must be released manually in order to have the elevator position correct).
And of course, as always, --- the power must be shut off and the launcher released before any adjustments are made.

Target separating knife

A target separating knife is installed on your Beomat machine. The knife is installed in a reversed position for the reason that it must be adjusted individually for every manufacture of targets. When activated, loosen the nut at the top, reverse the knife and use the installed washers to adjust the height. It may be necessary to bend the knife slightly up or down in order to very precisely adjust the knife. The knife will perform excellently with wet targets, but bear in mind, if not adjusted properly if will cause more harm than good.



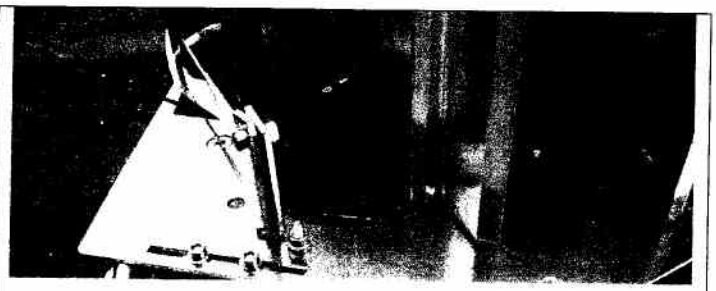
Drive belt adjustment



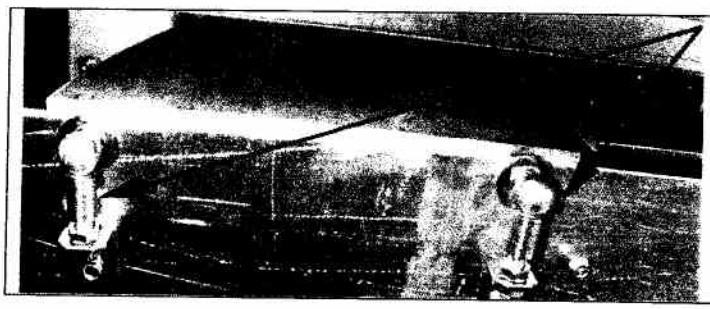
A pair of regular V-belts, are utilized between the reduction gear and the launcher main shaft. After some time, a year or two, it may be necessary to tighten the belts slightly. This is done by loosening the two fasteners as shown about one turn or at the most a turn and a half, then by tightening the belt tension bolt, shown, about one full turn. (It should be understood that too great a belt tension will put unnecessary pressure on the drive mechanism).
Then re-tighten the two fasteners at the gear bracket.

Leaf spring

A leaf spring is installed to provide an "ease down" of the target stack. Adjustment is normally not required, however, if the spring should need replacement, or come out of position, it should be adjusted so; that when the magazine is filled with targets and after delivering one target to the elevator, the full stack of targets will ease down as the magazine starts indexing again.



Launching table fasteners



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