

# Castle Model TSM-21

## Standard

### Screw Pocket Machine

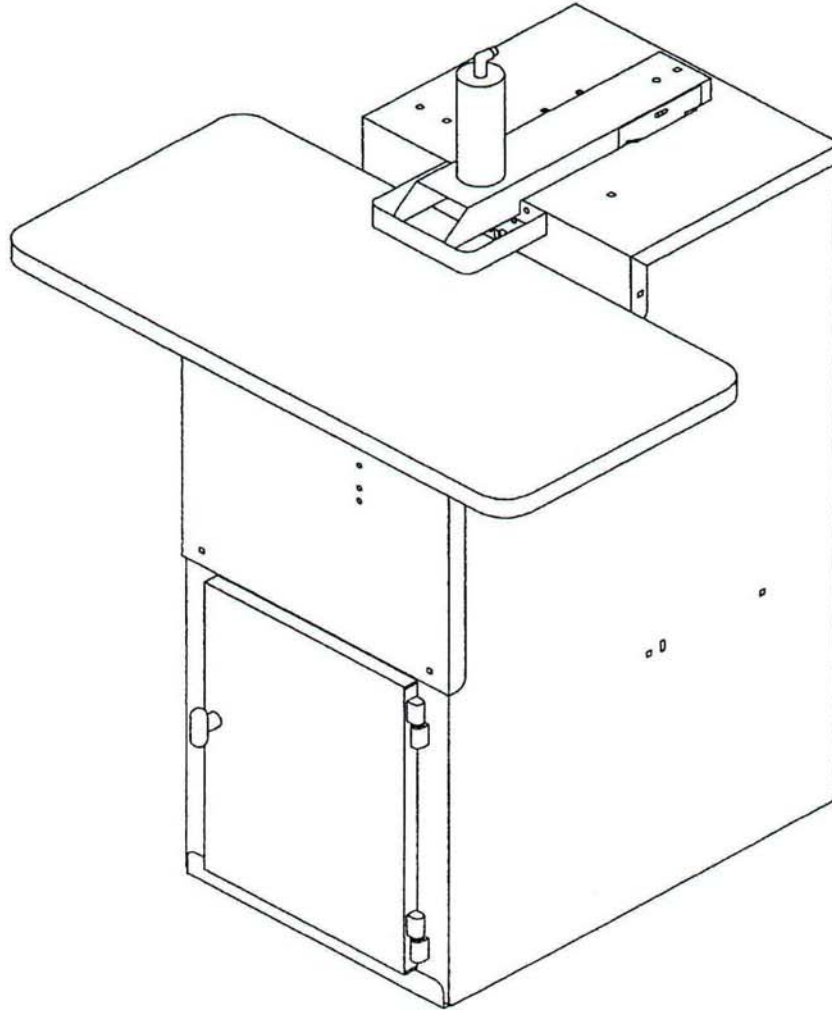
*"For Models with Serial Number 61036 and Below"*

#### Items Included with Machine

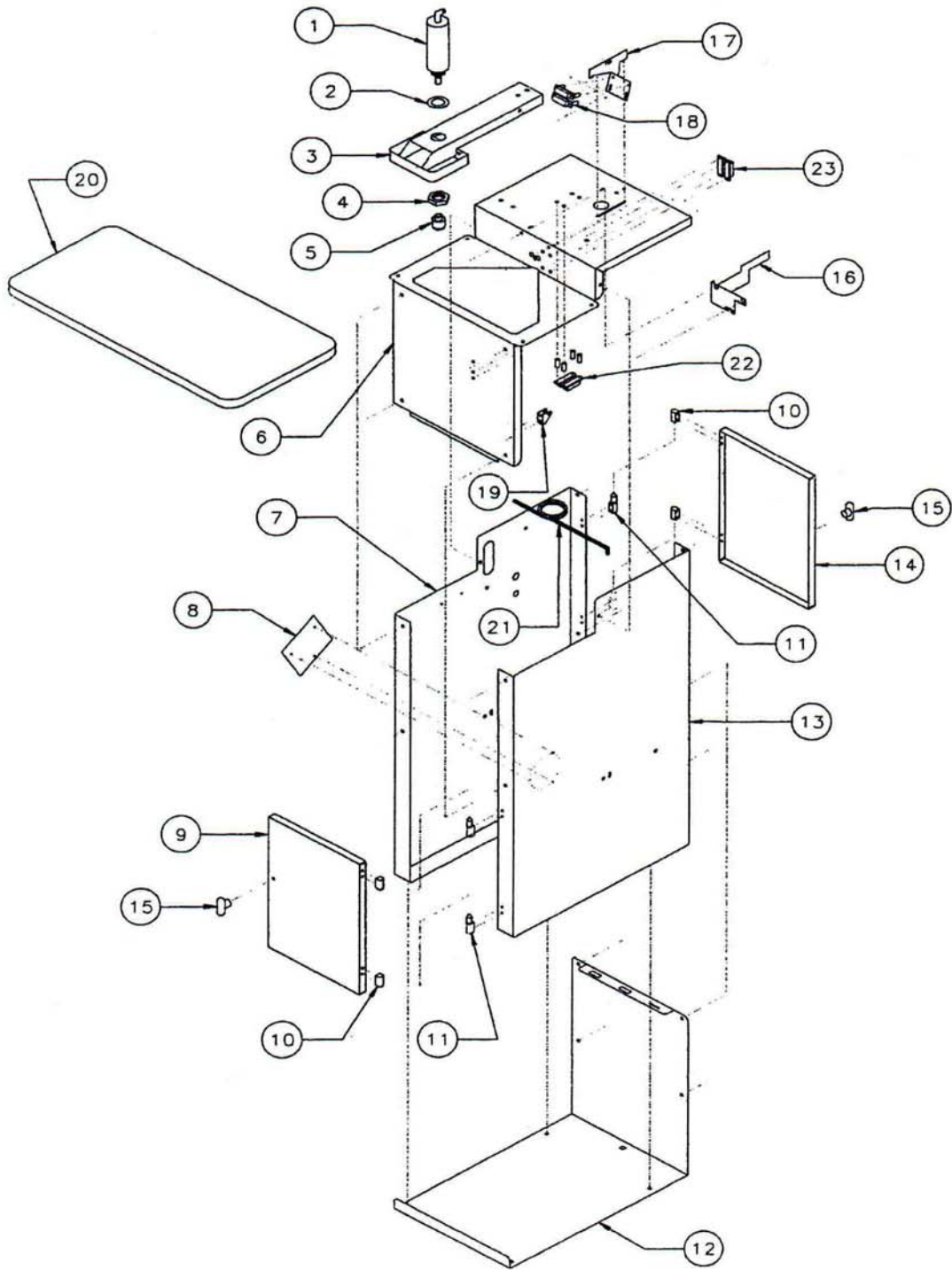
<b>Part No.</b>	<b>Description</b>	<b>Qty</b>
B00964	Castle 9/64 Cobalt Drill Bit w 1/4" Shank	1
B00038	Four Flute Cobalt Rough Mill 3/8" Flute	1
T10692	Wrench, Porter Cable 690	2
T47301	Wrench, Porter Cable 7301	2
B00622	Square Driver Bit, #2 x 6"	1
O00234	Bit Depth Guage	1
S90021	Operator's Manual	1
S21101	Parts List with Parts Drawings	1

NOTES:

1. SEE CASE DETAIL ON PAGE 2
2. SEE CARRIAGE DEATIL ON PAGE 3
3. SEE CONTROL BOX DETAIL ON PAGE 4



**TSM-21**  
STANDARD POCKET MACHINE **1 OF 4**



**TSM-21**  
**CASE ASSEMBLY DETAIL 2 OF 4**

## DRAWING 2 OF 4 - CASE ASSEMBLY

Item #	Part #	Part Description	Qty
<b>1</b>	<b>Clamp Cylinder</b>		
	P00215	Cylinder, Spring Return, 2" Bore, 1.5" Stroke, SS Rod	1
	P14414	Fitting, 1/4 NPT x 1/4 Push in Elbow	1
<b>2</b>	H10138	Washer, Fiber, 1-3/8 ID	1
<b>3</b>	<b>Clamp Guard</b>		
	M00210	Clamp Guard, Yellow	1
	F14234	Carriage Bolt, 1/4-20 x 1-3/4 ZP	1
	F14478	Scrw, Skt Hd Cap, 1/4-20 x 7/8 Bk Oxide	2
	F14202	Nut, Pem Self Clinching, 1/4-20 #2	2
	F01410	Washer, 1/4 SAE ZP	2
	F01420	Nut, Nylon Lock, 1/4-20 ZP	3
<b>4</b>	F11212	Nut, Hex Jam 1-1/2-12 ZP	1
<b>5</b>	<b>Clamp Foot Assembly</b>		
	C00200	Clamp Foot, Small Zinc Plated	1
	N21351	Clamp Foot, Small Zinc Plated	1
	N70118	Pad, Polyurethane 1-1/8"	1
	F12222	Nut, Hex Jam, 1/2-20 ZP	1
<b>6</b>	<b>Case Top Assembly</b>		
	C00210	Face Plate	1
	U21002	Case Top, Green	1
	F14212	Carriage Screw, 1/4-20 x 1/2 ZP	4
	F14234	Carriage Bolt, 1/4-20 x 1-3/4 ZP	1
	F01420	Nut, Nylon Lock, 1/4-20 ZP	5
	F08012	Screw, PanPhillipsMachine, 8-32x1/2 ZP	1
	F08032	Nut, Nylon Lock, 8-32 ZP	1
	D08320	Cable Tie Holder, Small White, Nylon	1
	S00301	Label, Warning, Keep Hands Clear, Lexan	1
	S11635	Label, Made in USA	1
	S17578	Label, Caution, "Wear Safety Glasses"	1

Item #	Part #	Part Description	Qty
<b>7</b>	<b>Case Left Side Assembly</b>		
	U21003	Case Left Side, Green	1
	F14212	Carriage Screw, 1/4-20 x 1/2 ZP	2
	F01420	Nut, Nylon Lock, 1/4-20 ZP	2
	S21001	Label, TSM-21 Model Number	1
	S00320	Label, Serial Number	1
<b>8</b>	<b>Dust Hole Cover</b>		
	M21009	Dust Hole Cover	1
	F87192	Screw, PanPhillipsMachine, 8-23x3/8 ThrdCutting	3
<b>9</b>	M00400	Door, Front, Black W/ Logo	1
<b>10</b>	<b>Door Hinge Assembly</b>		
	D00720	Hinge, Plastic, Black, Female	2
	F10241	Screw, Pan Phillips, 10-24 x 1/4 ZP	4
<b>11</b>	<b>Case Hinge Assembly</b>		
	D00710	Hinge, Plastic, Black, Male	2
	F10241	Screw, Pan Phillips, 10-24 x 1/4 ZP	4
<b>12</b>	<b>Case Bottom Assembly</b>		
	U21001	Case Bottom, Green	1
	F14212	Carriage Screw, 1/4-20 x 1/2 ZP	4
	F01420	Nut, Nylon Lock, 1/4-20 ZP	4
	F38034	Carriage Screw, 3/8-16 x 3/4 ZP	3
	F38160	Nut, Nylon Lock, 3/8-16 ZP	3
	F12120	Washer, 1/2 SAE ZP	2
<b>13</b>	<b>Case Right Side Assembly</b>		
	U21004	Case Right Side	1
	F14212	Carriage Screw, 1/4-20 x 1/2 ZP	2
	F01420	Nut, Nylon Lock, 1/4-20 ZP	2

## DRAWING 2 OF 4 - CASE ASSEMBLY

Item #	Part #	Part Description	Qty
<b>14</b>		<b>Rear Door Assembly</b>	
	M21012	Rear Door, Black	1
	F02014	Washer, 1/4 ID x 2 OD, ZP	1
	F14212	Carriage Screw, 1/4-20 x 1/2 ZP	1
	F01420	Nut, Nylon Lock, 1/4-20 ZP	1
	S21002	Label, Wiring Diagram	1

<b>15</b>	C00015	<b>Door Handle Assembly</b>	2
	H00141	Bar Knob, Black Plastic, 1/4-20	1
	N00101	Spring Door Clip	1
	F14585	Screw, Hex Head Cap, 1/4-20 x 1/2 ZP	1

<b>16</b>	C21101	<b>Safety Switch Blade Assembly</b>	
	M21016	Safety Switch Blade	1
	F10358	Screw, Button Head Socket, 10-32x7/8 Bk Oxide	2

<b>17</b>		<b>Router Stop Plate Assembly</b>	
	U21007	Router Stop Plate, Black	1
	F14340	Carriage Screw, 1/4-20 x 3/4 ZP	1
	F01420	Nut, Nylon Lock, 1/4-20 ZP	1
	F01410	Washer, 1/4 SAE ZP	1

<b>18</b>		<b>Router Stop Switch Assembly</b>	
	E10850	Actuator, Magnetic Strong and Switch, Magnetic Reed	1
	F08012	Screw, Pan Phillips Machine, 8-32 x 1/2 ZP	4
	F08032	Nut, Nylon Lock, 8-32 ZP	4

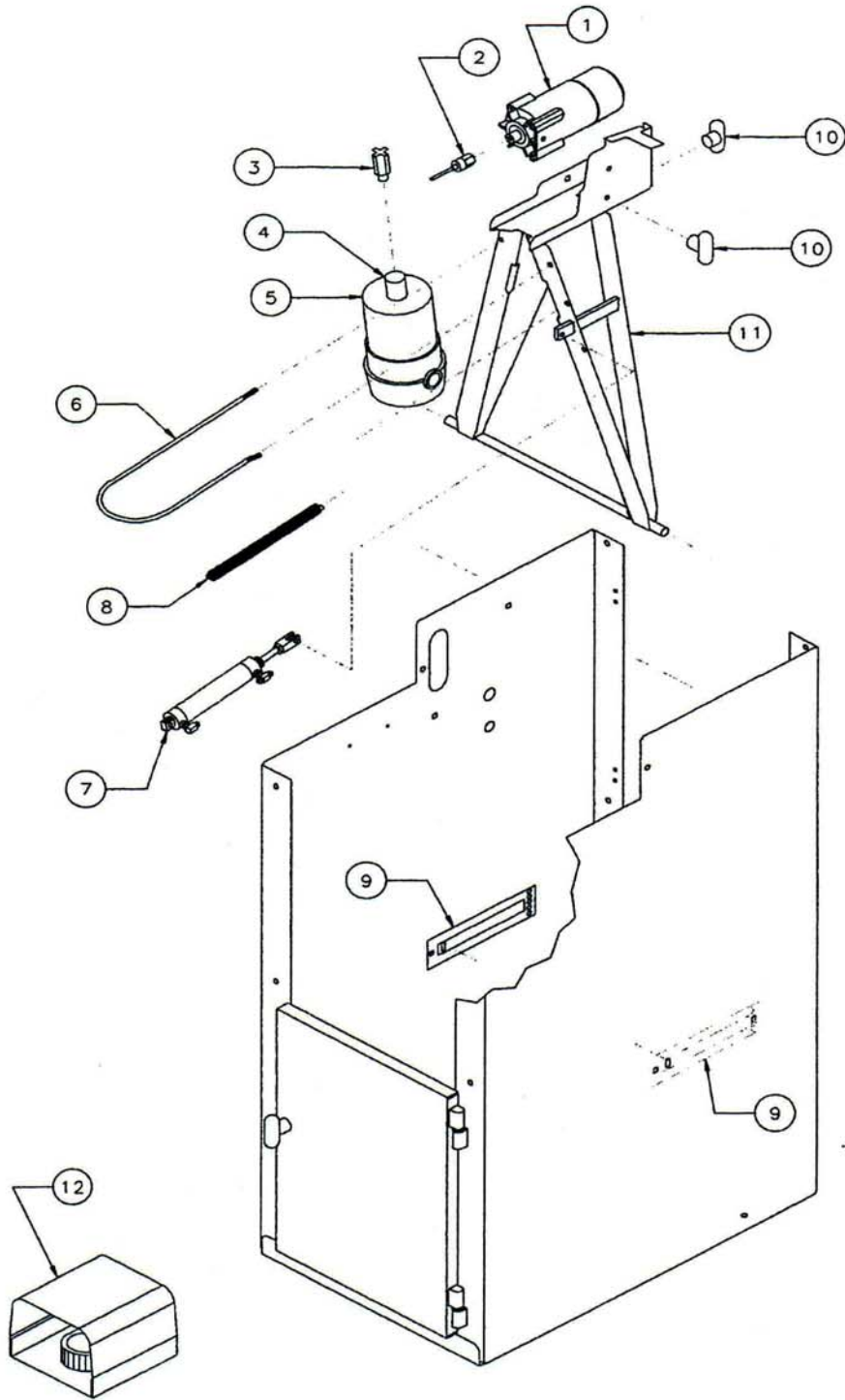
Item #	Part #	Part Description	Qty
<b>19</b>		<b>Clevis Bracket Assembly</b>	
	D07111	Clevis Bracket, 1/4" ZP BP11-C	1
	D14078	Clevis Pin, 1/4 x 7/8 ZP	1
	D14934	Hairpin, 1/4 ZP	1
	F14585	Screw, Hex Head Cap, 1/4-20 x 5/8 ZP	2
	F01420	Nut, Nylon Lock, 1/4-20 ZP	2
	F01410	Washer, 1/4 SAE ZP	2

<b>20</b>	C21006	<b>Work Top Assembly</b>	
	V21001	Top, 1" Particle Board, 15" x 31", Standard Grey	1
	H11402	T-Band, 1-1/4" Black Solid Convex	90"
	F44134	Screw, Flat Head Socket Cap, 1/4-20x1-3/4 Bk Ox	4
	F01420	Nut, Nylon Lock, 1/4-20 ZP	4

<b>21</b>		<b>Bar Spring Assembly</b>	
	N21366	Single Coil Torsion Bar Spring	1
	M21066	Plate, Bar Spring Retainer, Egalv	1
	F14340	Carriage Screw, 1/4-20 x 3/4 ZP	2
	F01420	Nut, Nylon Lock, 1/4-20 ZP	2

<b>22</b>		<b>Safety Switch Assembly</b>	
	E10850	Actuator, Magnetic and Switch, Magnetic Reed	1
	F08112	Screw, Flat Head Phillips Machine, 8-32x1-1/2 ZP	4
	D38507	Spacer, White Nylon, 3/8 OD x 5/32 ID x 7/8 L	4
	F08032	Nut, Nylon Lock, 8-32 ZP	4

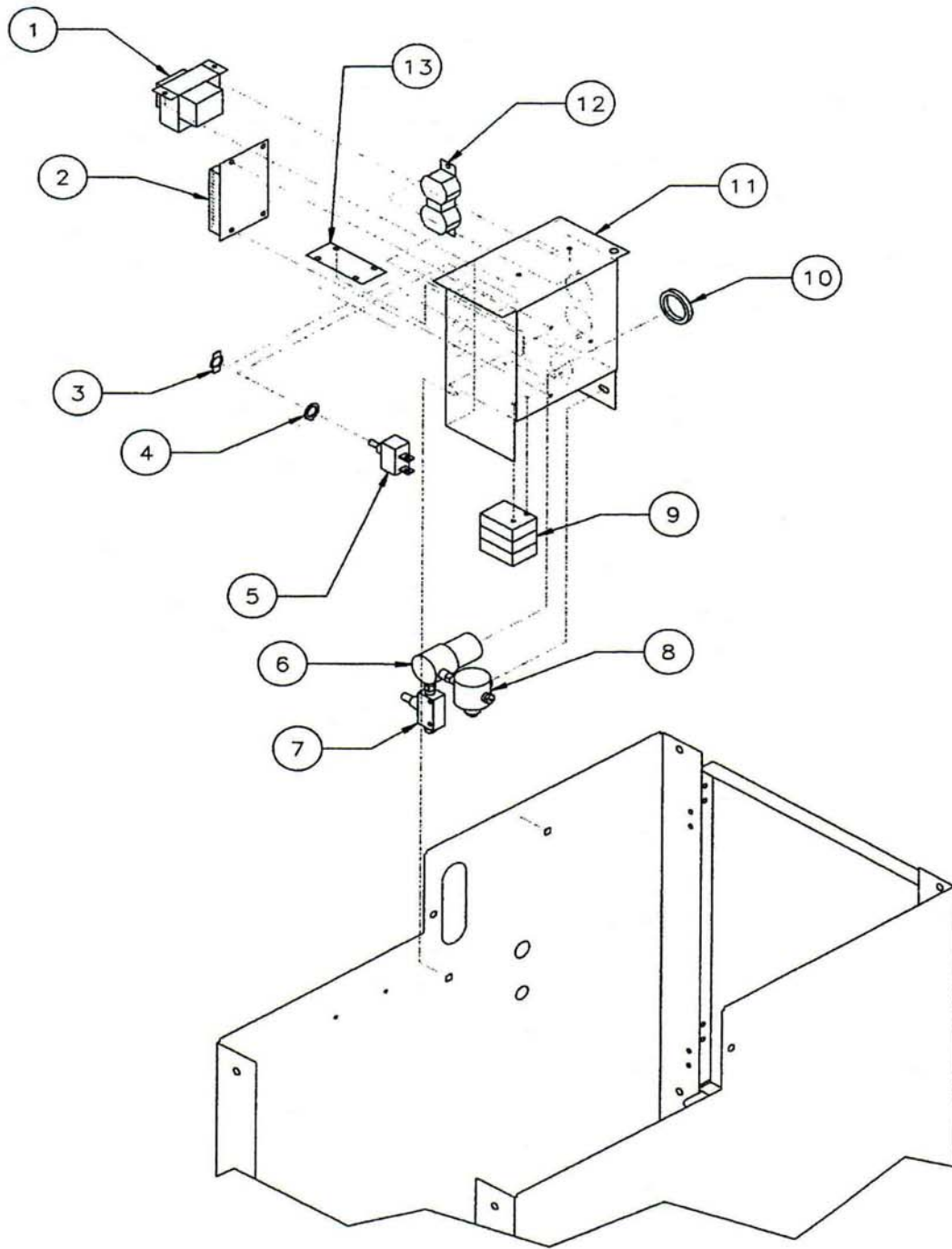
<b>23</b>		<b>Drill Stop Switch Assembly</b>	
	E10850	Actuator, Magnetic and Switch, Magnetic Reed	1
	F08322	Screw, Flat Head Phillips Machine, 8-32x1/2 ZP	4
	F08032	Nut, Nylon Lock, 8-32 ZP	4



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DRILL & ROUTER CARRIAGE DETAIL **3 OF 4**

## DRAWING 3 OF 4 - CARRIAGE ASSEMBLY

Item #	Part #	Part Description	Qty	Item #	Part #	Part Description	Qty
1	E27301	Drill Motor, P-C #7301 Laminate Trimmer	1	<b>8      Extension Spring Assembly</b>			
2	B00964	Castle Drill Bit, 9/64 Cobalt w/ 1/4" Shank	1		H25061	Spring, Extension, .562 OD x 8.25 L x .062 Dia. ZP	1
3	B00038	Rough Mill, 3/8 Dia.Four Flute Cobalt-RM-38	1		D14100	Clevis Pin, 1/4 x 1	1
4	D50038	Collet Assembly, 3/8 PC #6902	1	<b>9      Bearing Jack Assembly</b>			
5	E26902	Router Motor, P-C #6902 1-1/2 HP	1		M21044	Bearing Jack, ZP	2
<b>6      Motor Mount U-Bolt Assembly</b>					F14340	Carriage Screw, 1/4-20 x 3/4 ZP	4
	N21142	Motor Mount U-Bolt, 1/4-20 ZP	1		F01420	Nut, Nylon Lock, 1/4-20 ZP	4
	F01420	Nut, Nylon Lock, 1/4-20 ZP	1	<b>10      H00141 Bar Knob, Black Plastic, 1/4-20</b>			
	F01410	Washer, 1/4 SAE ZP	1	<b>11      C21022      Motor Carriage Assembly</b>			
<b>7      C21004      Drive Cylinder Assembly</b>					U21022	Motor Carriage Weldment	1
	P21306	Cylinder, 1.06 Bore x 3" Stroke, SS Rod	1		N03442	Bushing, 3/4" Hex Carriage Pivot, Brass	2
	D07130	Rod Clevis, 1/4"	1		F14458	Screw, Cup Point Socket Set, 1/4-20 x 1-1/4	3
	D14034	Clevis Pin, 1/4 x 3/4 ZP	1		F01420	Nut, Nylon Lock, 1/4-20 ZP	2
	D14934	Hairpin, 1/4 ZP	1	<b>12      Foot Switch Assembly</b>			
	F51620	Nut, Jam, 5/16-24 ZP	1		E00491	Foot Pedal, Linemaster 491-SC36 w/Cord	1
	P10320	Valve, SQE 10-32 Brass	2		E07041	Microswitch for foot pedal	1
	P10328	Bushing, 10-32 x 1/8 NPT Brass	2		M00235	Guard, Castle Universal Footswitch	1
	P10316	Fitting, 10-32 M x 3/32 Barb, White Nylon	1		F40388	Screw, Oval Head Self-Tapping, #4 x 3/8 SS	2
	P10326	Fitting, 10-32 M x 3/32 Barb, Black Nylon	1				
	P10321	Fitting, 10-32 M x 1/16 Barb, White Nylon	1				
	P10322	Fitting, 10-32 M x 1/16 Barb, Black Nylon	1				



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**CONTROL BOX DETAIL 4 OF 4**

## DRAWING 4 OF 4 - CONTROL PANEL ASSEMBLY

Item #	Part #	Part Description	Qty
<b>1</b>	<b>Transformer Assembly</b>		
	E11424	Transformer, 120V Primary, 24V Secondary	1
	D81614	Spade Lug, 16-14 AWG #8	2
	F63238	Screw, Pan Phillips Machine, 6-32 x 3/8 ZP	2
	F63260	Nut, Lock Washer, 6-32 Kep ZP	2

Item #	Part #	Part Description	Qty
<b>2</b>	<b>Control Board Assembly</b>		
	E21024	EL-21 Solid State Control Board	1
	E21016	Terminal Strip, 16 Pin	1
	E22708	Wire, 22AWG, 2 Strand, Grey Jacketed	22"
	E22708	Wire, 22AWG, 2 Strand, Grey Jacketed	32"
	E22708	Wire, 22AWG, 2 Strand, Grey Jacketed	54"

<b>3</b>	H30843	Plate, Power Switch On/Off	1
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<b>4</b>	F75702	Nut, Power Switch Mounting	1
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<b>5</b>	E75762	Switch, Power, 30 A, 125 VAC	1
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Item #	Part #	Part Description	Qty
<b>6</b>	<b>Regulator Assembly</b>		
	P14113	Regulator, Parker, 1/4 NPT, 0-125 PSI	1
	P14918	Nipple, Hex Reducing, 1/4 NPT x 1/8 NPT Brass	1
	P25421	Nipple, 1/8 NPT Hex Close	1
	P18230	Fitting, 1/8M x 1/8 Barb, White Nylon Elbow	1
	P01418	Tubing, 1/4 OD x 1/8 ID, Black Polyurethane	2"
	P33218	Fitting, 3/32 x 1/8 x 3/32 White Barb Tee	1
	P53118	Tubing, 5/32 OD x 3/32 ID Nat. Polyethelene	2"
	P53118	Tubing, 5/32 OD x 3/32 ID Nat. Polyethelene	6"

Item #	Part #	Part Description	Qty
<b>7</b>	<b>Router Speed Control Assembly</b>		
	P00117	Valve, Flow Control, SMC NAS-2000-N01	1
	P18132	Fitting, 1/8M x 10-32, White Nylon Bushing	1
	P10318	Fitting, 10-32 x 3/32 Barb White Nylon Elbow	1
	P53202	Tubing, 5/32 OD x 3/32 ID Black Polyethelene	6"

Item #	Part #	Part Description	Qty
<b>8</b>	<b>Pilot Valve Assembly</b>		
	P32012	Valve, 3-Way Pilot, Clippard #2012	1
	P18011	Fitting 1801-1 White Nylon Reducer 1/8-27 x 10/32	1
	P10318	Fitting, 10-32 x 3/32 Barb White Nylon Elbow	1
	P53218	Tubing, 5/32 OD x 3/32 ID Black Polyethelene	4.5"
	P18532	Fitting, 1/8M x 5/32 Barb, Black Nylon	1
	P18230	Fitting, 1/8M x 1/8 Barb, White Nylon Elbow	1
	P18231	Fitting 1/8M X 1/8 White Nylon Barb Straight	1
	P01418	Tubing, 1/4 OD x 1/8 ID, Black Polyurethane	35"

Item #	Part #	Part Description	Qty
<b>9</b>	<b>Control Valve Assembly</b>		
	P21324	Valve, Isonic 3-Way 24 VDC	3
	P53218	Tubing, 5/32 OD x 3/32 ID Black Polyethelene	48"
	P53118	Tubing, 5/32 OD x 3/32 ID Natural Polyethelene	44"
	S12043	Spiral Wrap, 1/2" Black Polyethelene	32"
	F63212	Screw, Flat Hd Phillips, Machine, 6-32x2-1/2 ZP	2
	F63260	Nut, Lock Washer, 6-32 Kep ZP	2

<b>10</b>	D78652	Panel Nut, Regulator Mounting	1
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Item #	Part #	Part Description	Qty
<b>11</b>	<b>Control Panel Enclosure Assembly</b>		
	M21014	Control Panel Enclosure, 14 GA Egalv	1
	F14212	Carriage Screw, 1/4-20 x 1/2 ZP	2
	F01420	Nut, Nylon Lock, 1/4-20 ZP	2
	E21143	Power Cord, 14-3 SJT w/ 3 Prong Plug	1
	D61614	Spade Lug, Vinyl, 16-14 AWG # 8	3

Item #	Part #	Part Description	Qty
<b>12</b>	<b>Motor Power Outlet Assembly</b>		
	E05320	Outlet, Duplex	1
	E14318	Wire, 14AWG Stranded, Green	10"
	E18372	Wire, 20AWG Stranded, Red	10"
	F63238	Screw, Pan Phillips Machine, 6-32 x 3/8 ZP	2
	F63260	Nut, Lock, 6-32 Kep ZP	2

Item #	Part #	Part Description	Qty
<b>13</b>	<b>Slot Cover Assembly</b>		
	M00130	Back Plate Slot Cover	1
	S11436	Tape, PVC Foam S/A 1-1/4"	6"
	F63210	Screw, Pan Phillips Machine, 6-32 x 1/2 ZP	4
	F63260	Nut, Lock, 6-32 Kep ZP	4