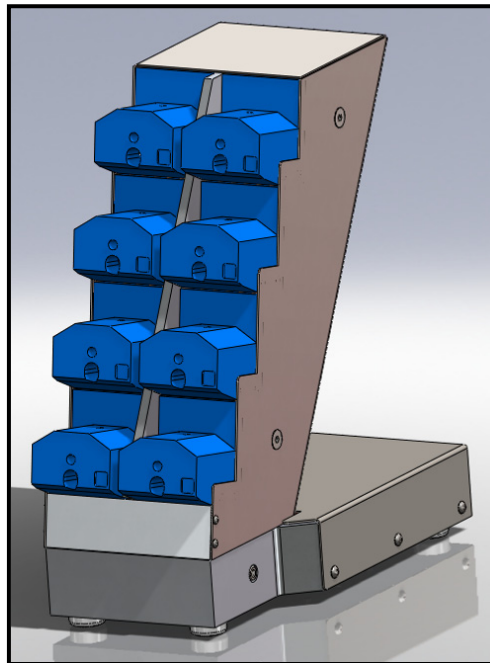
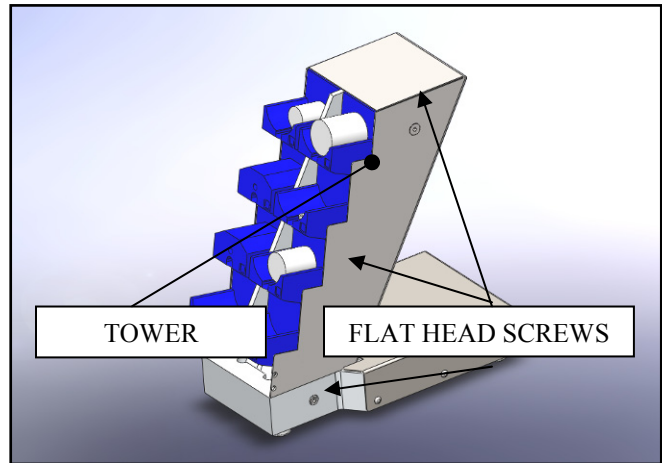
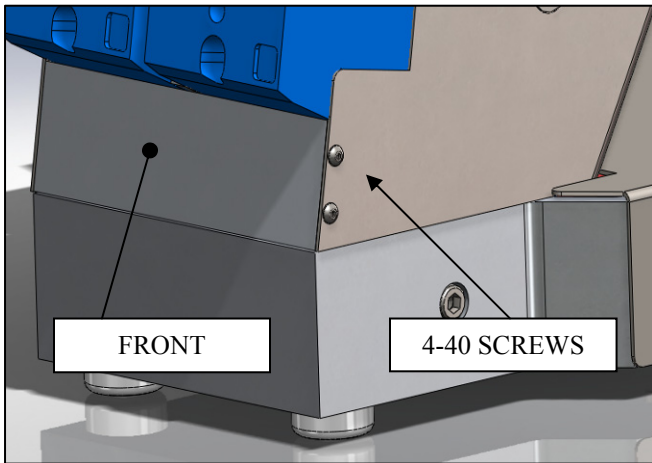




# Socket Tower – 4 and 8 Position Operation Manual



**HOW TO DISASSEMBLE YOUR SOCKET TOWER FOR MILLING:** IF YOUR SOCKET TOWER WAS ORDERED WITH BLANK CRADLES, YOU WILL NEED TO FOLLOW THESE STEPS TO DISASSEMBLE YOUR SOCKET TOWER. THESE INSTRUCTIONS WILL GET YOUR CRADLE READY FOR MILLING.

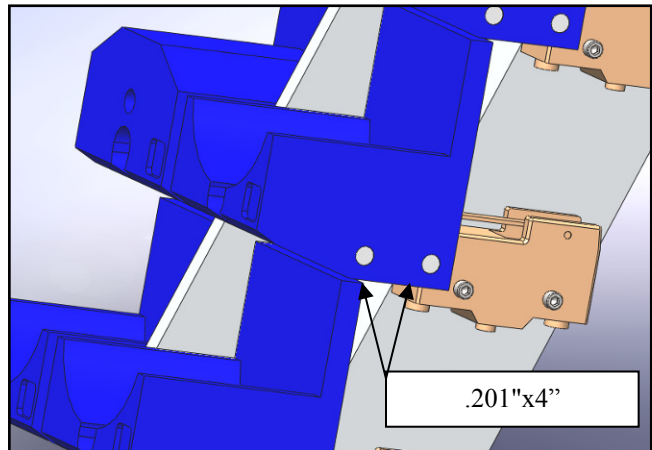
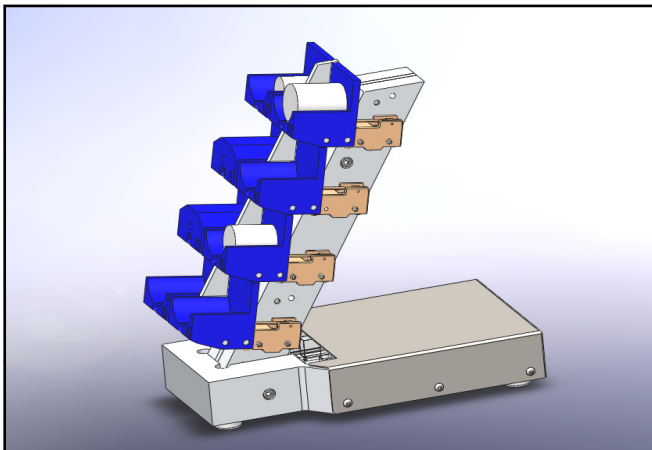


**STEP 1**

- REMOVE THE FOUR 4-40 SCREWS THAT CONNECTS THE FRONT PLATE.

**STEP 2**

- TAKE THE FOUR ¼ - 20 STAINLESS STEEL FLAT HEAD SCREWS OFF - THE TOWER COVER (TWO ON EACH SIDE OF COVER).



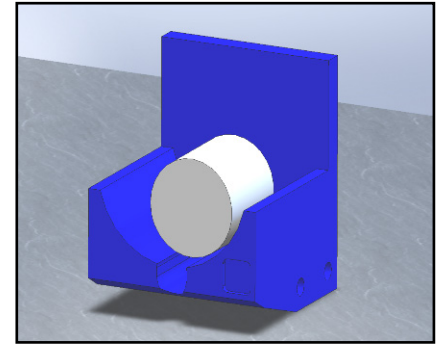
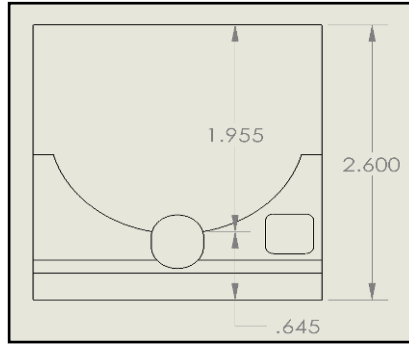
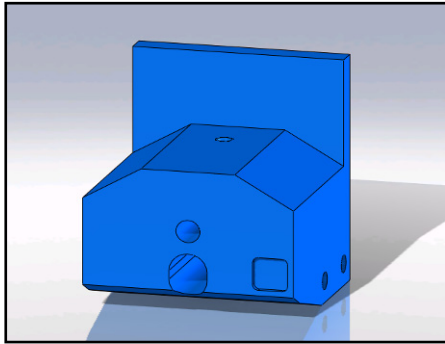
**STEP 3**

- REMOVE THE STAINLESS STEEL TOWER COVER.

**STEP 4**

- TAKE OUT THE EIGHT .201" DIA. DOWELS THAT HOLD THE EIGHT BLUE CRADLES IN PLACE.
- TAKE THE 4" DOWELS OUT COMPLETELY BEFORE REMOVING THE BLUE CRADLES.
- THE CRADLES MUST BE PULLED STRAIGHT OUT TOWARD THE FRONT TO PREVENT THE SWITCH FROM BEING DAMAGED.

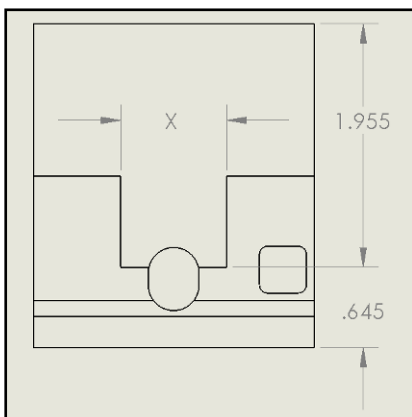
**MILLING CRADLES FOR SOCKETS:** ONCE YOU GET YOUR CRADLE OUT OF THE TOWER YOU CAN START THE MILLING PROCESS. THESE STEPS WILL GIVE YOU RECOMMENDED DIMENSIONS ON HOW TO MILL YOUR CRADLE THE PROPERLY.



STEP 1	STEP 2	STEP 3
<ul style="list-style-type: none"> <li>• THE UPPER HOLE IS FOR BITS ONLY; IT WILL NOT AFFECT THE MILLING OR EFFICIENCY OF THE CRADLE.</li> </ul>	<ul style="list-style-type: none"> <li>• MILL DOWN FAR ENOUGH SO THE TOP 1/3 OF THE HOLE IS OPENED, ABOUT 2" DOWN FROM THE TOP OF THE CRADLE.</li> <li>• NOTE: IF TOO MUCH OF THE BOTTOM HOLE IS MILLED AWAY THE SWITCH MAY NOT OPERATE CORRECTLY.</li> </ul>	<ul style="list-style-type: none"> <li>• WHEN COMPLETED, THE SOCKET SHOULD PUSH DOWN THE SWITCH WHEN PLACED IN THE CRADLE.</li> </ul>

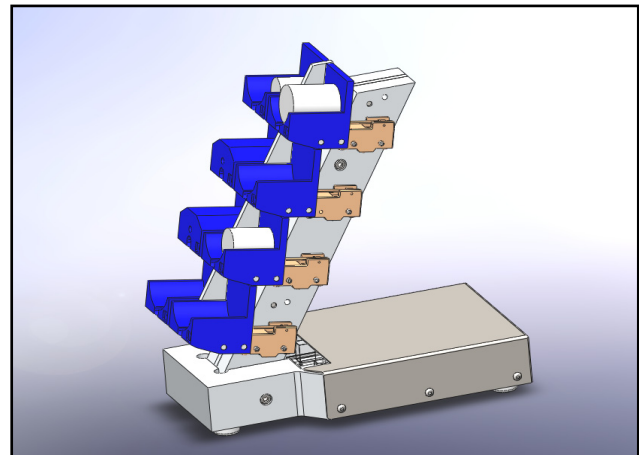
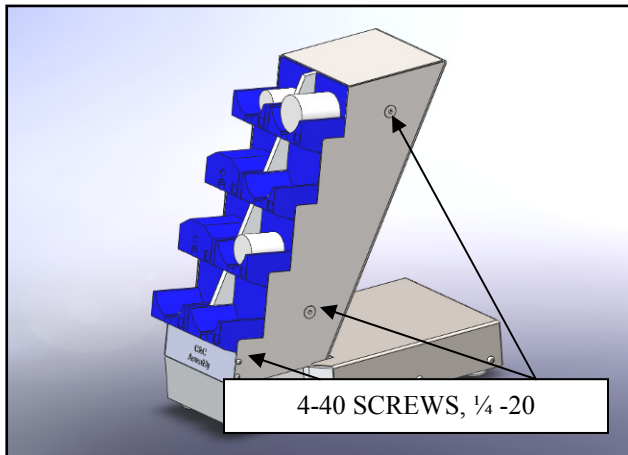
**\*\*NOTE:** IF YOU ARE USING SMALLER SOCKETS (< .75" DIA.) IT IS IMPORTANT TO MILL THE RADIUS ON THE CRADLE AS CLOSE AS POSSIBLE TO THE RADIUS OF THE SOCKET THAT WILL BE PLACED IN THAT CRADLE.

**ALTERNATIVE MILLING METHOD**



- FOR THIS METHOD YOU WILL SIMPLY MILL DOWN FROM THE TOP OF THE CRADLE 2".
- MAKE SURE NOT TO MILL INTO THE BACK OF THE CRADLE.
- X EQUALS THE DIAMETER OF THE SOCKET USED IN THE CRADLE.

**ADJUSTING SWITCHES FOR BITS:** SOME CRADLES CAN HOLD SOCKETS AND BITS. IF YOU WISH TO USE A CRADLE FOR BITS, YOU WILL FIRST NEED TO ADJUST THE POSITION OF THE SWITCH BY FOLLOWING THESE STEPS.

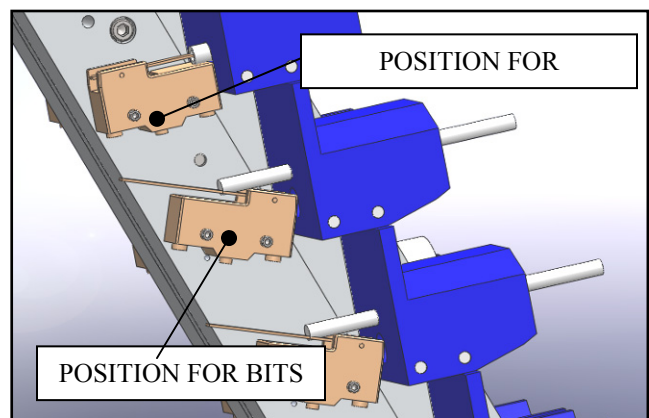
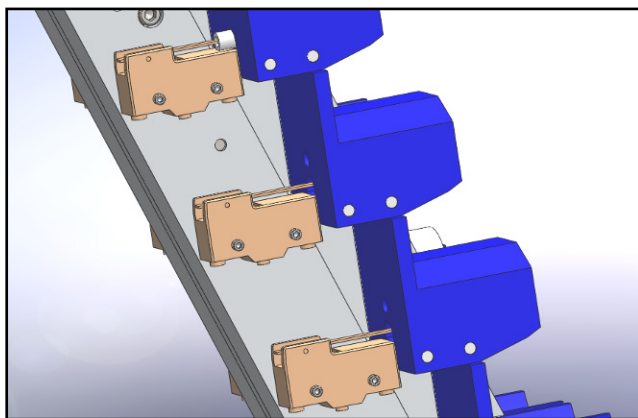


**STEP 1**

- REMOVE THE FOUR 4-40 SCREWS THAT CONNECT THE FRONT PLATE.
- TAKE THE FOUR 1/4 - 20 STAINLESS STEEL FLAT HEAD SCREWS OFF THE TOWER COVER.

**STEP 2**

- REMOVE THE STAINLESS STEEL TOWER COVER.
- REMOVE WHITE TUBING FROM THE LEVER ARMS ON SWITCHES THAT WILL BE USED FOR BITS.



**STEP 3**

- NEXT, THE SWITCH WILL NEED TO BE ROTATED.

**STEP 4**

- REMOVE THE TWO SCREWS FROM THE SWITCH.
- ROTATE THE SWITCH 180 DEGREES.
- WHEN PUTTING THE SCREWS BACK IN, MAKE SURE YOU PUT THE SCREWS IN THE **UPPER SET OF HOLES**.
- THE SWITCH WILL BE AT A DIFFERENT ANGLE THAN THE OTHER SWITCHES FACING THE OPPOSITE DIRECTION.

## Wiring connections

CABLE # 999-15-1805 SHIPS WITH EVERY SOCKET TOWER. THIS CABLE WILL HOOK UP TO ANY ACRADYNE® IEC DC NUTRUNNER CONTROLLER. IF YOUR CONTROLLER REQUIRES A SPECIAL CONNECTOR, CHECK WITH THE MANUFACTURER FOR THE CONNECTOR MANUFACTURER AND PART NUMBER.

### POWERING UP YOUR SOCKET TOWER:

THE SOCKET TOWER REQUIRES 24 VDC @ ½ AMP TO OPERATE. IF YOUR NUTRUNNER CONTROLLER IS CAPABLE OF OUTPUTTING 24 VDC @ 1 AMP, YOU CAN CONNECT THE POWER LEADS DIRECTLY TO THE CONTROLLER. IF YOUR CONTROLLER CAN NOT PROVIDE THE NEEDED POWER, YOU WILL HAVE TO USE THE POWER SUPPLY INCLUDED IN THE SYSTEM.

<u>WIRE COLOR</u>	<u>HOOK TO</u>
BROWN	+24 VDC
BLUE	0 VDC

### ATTACHING THE SIGNAL WIRES:

THE SOCKET TOWER OUTPUTS A BINARY CODED DECIMAL (BCD) SIGNAL TO YOUR CONTROLLER. DEPENDING ON YOUR CONTROLLER, YOU MAY NEED TO PROGRAM THE CONTROLLER INPUTS TO INTERPRET THESE SIGNALS CORRECTLY. THE OUTPUTS ON THE SOCKET TOWER ARE DRY CONTACT OUTPUTS CAPABLE OF SWITCHING 24 VDC OR 110 VAC. SEE THE CHART ON THE FOLLOWING PAGE FOR THE SIGNAL OUTPUT PATTERN

<u>WIRE COLOR</u>	<u>CONNECT TO</u>
PINK	BCD 0 (LEAST SIGNIFICANT BIT)
GREY	BCD 1 (MIDDLE SIGNIFICANT BIT)
YELLOW	BCD 2 (MOST SIGNIFICANT BIT) – NOT USED ON 4 POSITION SOCKET TRAYS
GREEN	INHIBIT
WHITE	OUTPUT COMMON

### CONNECTION TO AN URYU UEC-4800 CONTROLLER:

TO CONNECT TO AN URYU UEC-4800 CONTROLLER, THE SUPPLIED 25 PIN CONNECTOR SHOULD BE CUT FROM THE CABLE AND DISCARDED. THE INDIVIDUAL WIRES SHOULD BE PREPARED FOR CONNECTION TO THE TERMINAL BLOCK LOCATED ON THE BACK OF THE UEC 4800 CONTROLLER. CONNECTIONS SHOULD BE MADE AS FOLLOWS:

<u>WIRE COLOR</u>	<u>UEC 4800 TERMINAL BLOCK CONNECTION</u>
PINK	WORK A
GREY	WORK B
YELLOW	WORK C
GREEN	INPUT COM
WHITE	VALVE COM

### Socket Tray Position vs. BCD output

REMOVED	BCD OUTPUT STATUS			
	BCD #1	BCD #2	BCD #3	INHIBIT
1	OFF	OFF	OFF	OFF
2	ON	OFF	OFF	OFF
3	OFF	ON	OFF	OFF
4	ON	ON	OFF	OFF
5	OFF	OFF	ON	OFF
6	ON	OFF	ON	OFF
7	OFF	ON	ON	OFF
8	ON	ON	ON	OFF
>2	OFF	OFF	OFF	ON
ALL IN	OFF	OFF	OFF	ON

**Any cradle that is not being used must be held down by the set screw located in the top of the cradle. If the set screw is not depressing the switch, the system will perform as if in "inhibit" mode.**

### Parts List - Basic

PART #	DESCRIPTION
999-15-1737	Socket Tower, 8 Position
999-15-1768	Socket Tower, 4 Position
999-15-1588	Tube, switch
999-15-1741	Support Rod
999-15-1743	Cradle, blank w/bit hole
999-15-1802	8 Position circuit board
999-15-1803	4 Position circuit board
999-15-1804	Switch, socket detection
999-15-1805	Cable, AIMCO iEC
999-15-1806	Cable, Extension, 2M
999-15-1807	Cable, Extension, 5M
999-15-1832	Cable, Generic Socket Tray





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