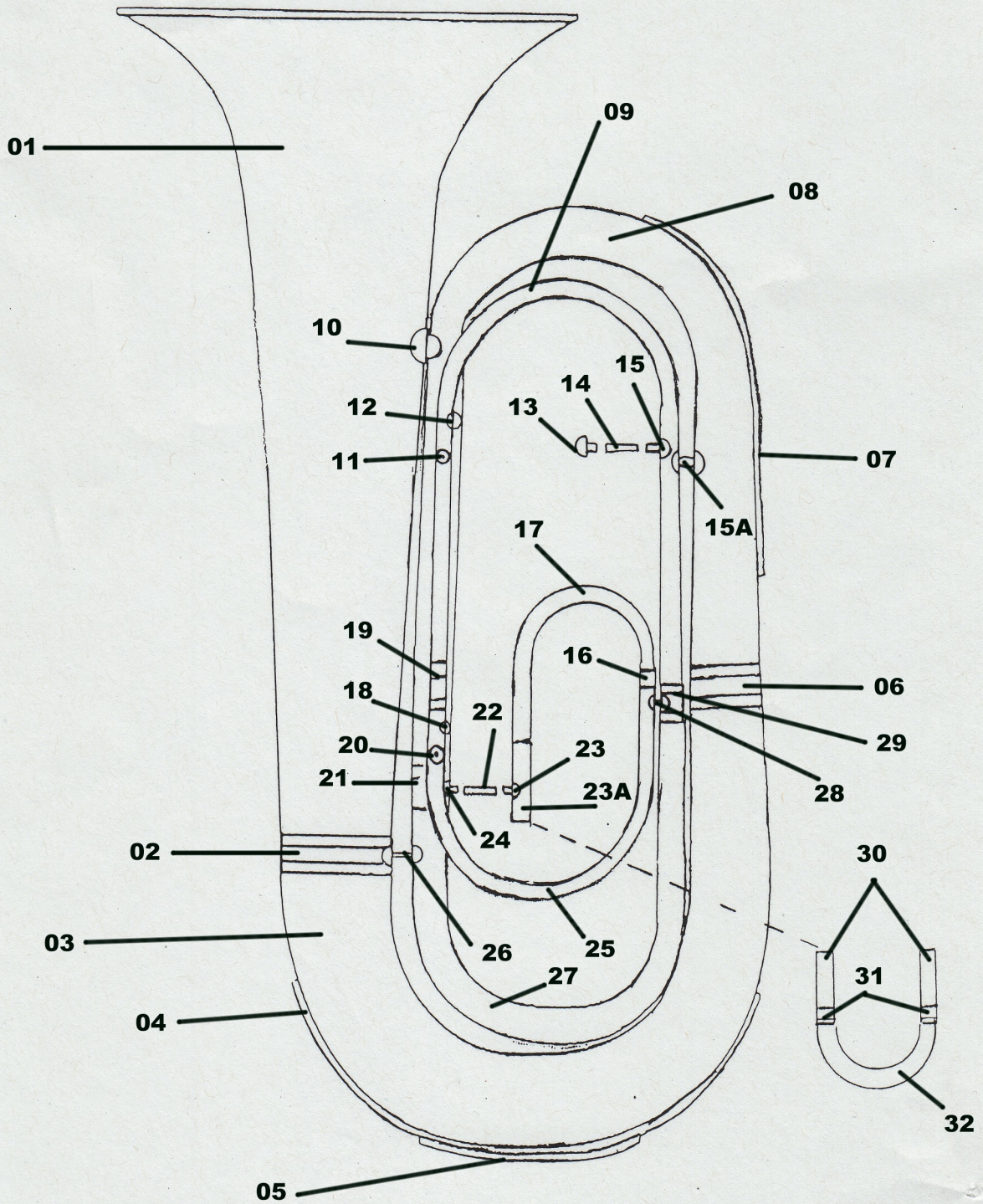
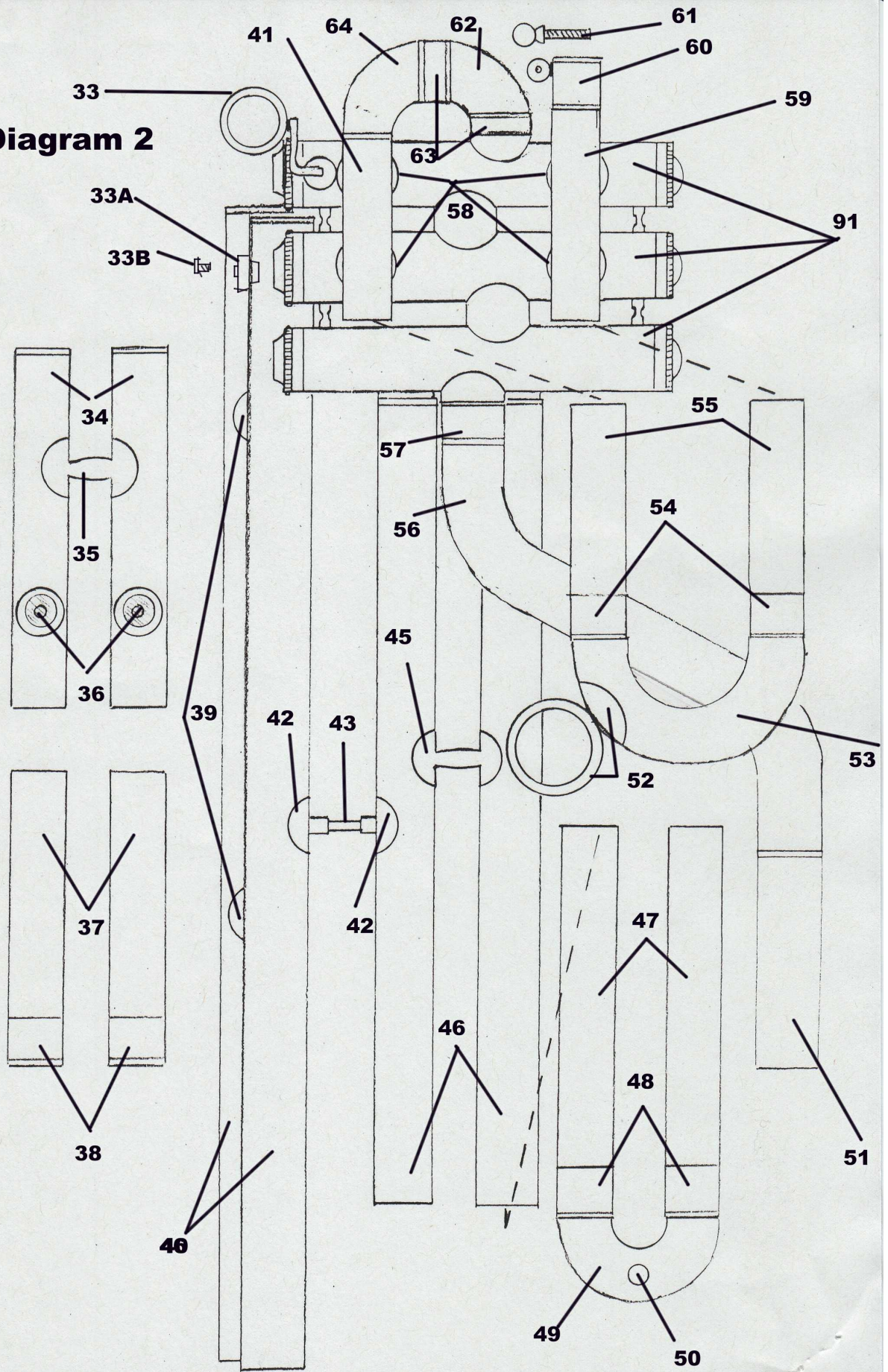


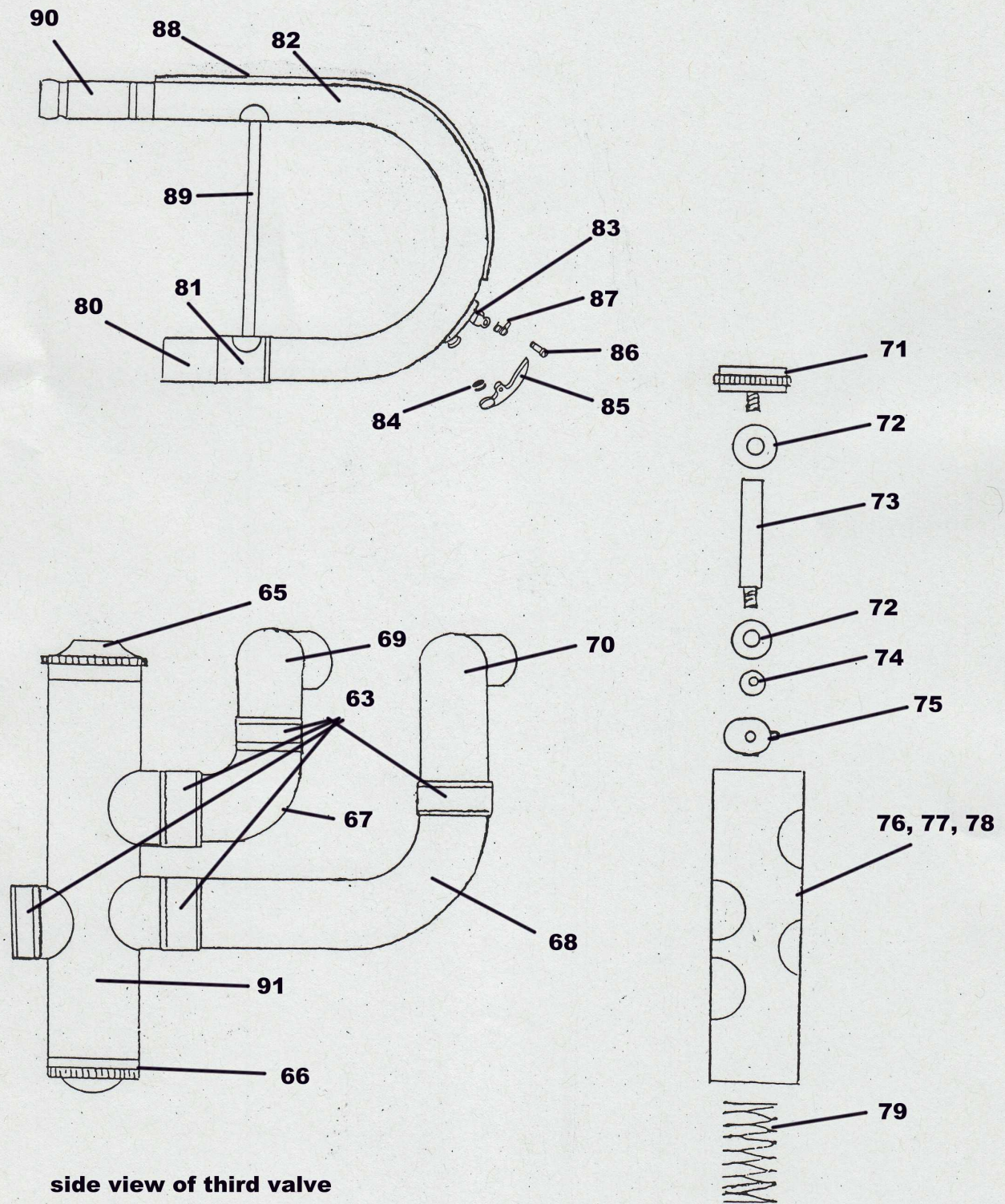
TE-8231
Diagram 1



TE-8231 Diagram 2



TE-8231 Diagram 3



side view of third valve casing, from bell end

TE-8231 Tuba Parts

Dia.	Part #	Description		
1	8231-01	Bell		
1	8231-02	Ferrule, Bell to Bottom Bow		
1	8231-03	Bottom Bow		
1	8231-04	Guard, Bottom Bow		
1	8231-05	Keel		
1	8231-06	Ferrule, Bottom Bow to First Branch		
1	8231-07	Guard, First Branch		
1	8231-08	First Branch		
1	8231-09	Third Branch		
1	8231-10	Brace, one piece, Bell to 1st Branch		
1	8231-11	Brace, one piece, 3rd Branch to 3rd Slide		
1	8231-12	Brace, one piece, 1st to 3rd Branch		
1	8231-13	Brace Socket, Mouthpipe T. Sl. To 3rd Branch		
1	8231-14	Brace Rod, T. Sl. To 3rd Branch		
1	8231-15	Brace Socket, Tuning Sl. To 3rd Branch		
1	8231-16	Ferrule, 4th to 5th Branch		
1	8231-17	Fifth Branch		
1	8231-18	Brace, one piece, 1st to 4th Branch		
1	8231-19	Ferrule, 3rd to 4th Branch		
1	8231-20	Brace, one piece, 4th Branch to 3rd Slide		
1	8231-21	Ferrule, 1st to 2nd Branch		
1	8231-22	Brace Rod, Main T. Sl to #21 Ferrule		
1	8231-23	Brace Socket, Main T. Sl.		
1	8231-23A	Outer Tube, Main T. Sl. To 5th Branch		
1	8231-24	Brace Socket, to #21 Ferrule		
1	8231-25	Fourth Branch		
1	8231-26	Brace, one piece, 2nd Branch to Bell Ferrule		
1	8231-27	Second Branch		
1	8231-28	Brace, one piece, 4th Branch to #29 Ferrule		
1	8231-29	Ferrule, 2nd Branch to 3rd Branch		
1	8231-30	*Inner Slide Tube, Main T. Sl.		
1	8231-31	*Ferrule, Main T. Sl.		
1	8231-32	Crook, Main T. SL.		
2	8231-33	Finger Ring		
2	8231-33A	Lyre Holder		
2	8231-33B	Lyre Holder Screw		
2	8231-34	*Outer Slide Tube, 2nd Slide		
2	8231-35	Brace, one piece, 2nd Slide		
2	8231-36	*Brace, one piece, 2nd tubes to 1st tubes		
2	8231-37	*Inner Slide Tube, 2nd Slide		
2	8231-38	*Ferrule, 2nd slide		
2	8231-39	*Brace, one piece, between 3rd slide tubes		
2	8231-40	*Outer Tube, 3rd slide		
2	8231-41	Outer Upper Tube, Mouthpipe T. Sl.		
2	8231-42	*Brace Socket, 3rd Slide to 1st Slide		
2	8231-43	Brace Rod, 3rd to 1st Slide		
2	8231-45	Brace, one piece, between 1st Slide Tubes		
2	8231-46	*Outer Slide Tube, 1st Slide		

TE-8231 Tuba Parts

2	8231-47	*Inner Slide Tube, 1st and 3rd Slides	
2	8231-48	*Ferrule, 1st and 3rd Slides	
2	8231-49	*Slide Crook, 1st, 2nd and 3rd Slides	
2	8231-50	*Pull Knob, 1st, 2nd, 3rd Slides	
2	8231-51	Outer Tube, Main Tuning Slide to #56	
2	8231-52	Thumb Ring	
2	8231-53	Crook, Mouthpipe T. Sl.	
2	8231-54	*Ferrule, Moutpipe T. Sl.	
2	8231-55	*Inner Tube, Mouthpipe T. Sl.	
2	8231-56	"S" Branch. (TE-8231 only)	
2	8231-57	Ferrule, "S" Branch to 1st Valve	
2	8231-58	Brace, one piece, M.pipe Sl. to Casings	
2	8231-59	Outer Lower Tube, Mouthpipe T.Sl.	
2	8231-60	Tightening Ring, Mouthpipe Receiver	
2	8231-61	Tightening Screw, Mouthpipe Receiver	
2	8231-62	Tubing Elbow, 3rd casing to #64	
2	8231-63	*Ferrule, Valve Casing to Slide Tubing	
2	8231-64	Tubing Elbow, #62 to #41	
3	8231-65	*Top Valve Cap, 1,2,3	
3	8231-66	*Bottom Valve Cap, 1,2,3	
3	8231-67	Tubing Elbow, 3rd Casing to #69	
3	8231-68	Tubing Elbow, 3rd Casing to # 70	
3	8231-69	Tubing Elbow, #67 to 3rd Slide Outer	
3	8231-70	Tubing Elbow, #68 to 3rd Slide Outer	
3	8231-71	*Finger Button, 1,2,3	
3	8231-72	*Felt, button and stem, 1,2,3	
3	8231-73	*Valve Stem, 1,2,3	
3	8231-74	*Guide Washer, 1,2,3	
3	8231-75	*Valve Guide, 1,2,3	
3	8231-76	Piston #1	
3	8231-77	Piston #2	
3	8231-78	Piston #3	
3	8231-79	*Valve Spring	
3	8231-80	Male Receiver Slide, Mouthpipe	
3	8231-81	Ferrule, Mouthpipe crook to Slide	
3	8231-82	Crook, Mouthpipe	
3	8231-83	Water Key Saddle	
3	8231-84	Water Key Pad	
3	8231-85	Water Key	
3	8231-86	Water Key Screw	
3	8231-87	Water Key Spring	
3	8231-88	Guard, Mouthpipe Crook	
3	8231-89	Brace, Mouhtpipe	
3	8231-90	Moutpiece Receiver	
3	8231-91	Valve Cluster, casings only	
*	The parts indicated with asterisks have two or more uses on the instrument. (ie. 1st inner slide tubes are identical) These parts are		

TE-8231 Tuba Parts

	not supplied in pairs or sets. Order each individually	
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