

Congratulations

You have just purchased the **SOTAR 20/20**, the *thoroughbred* of airbrushes, the result of several years of intense product development. Before a single pencil line appeared on paper, our engineers and marketing team met with airbrush artists representing a cross-section of the airbrush industry. We wanted to know what features the experts most wanted in an airbrush. We then set out to build that airbrush. You hold the culmination of our dedication to research and development in your hand - the **SOTAR 20/20**.

The **SOTAR 20/20** is the airbrush you've been waiting for. Not only does our airbrush share some of the cutting-edge technology found on today's airbrushes, the **SOTAR 20/20** launches the airbrush into the 21st century. We've packed the **20/20** with many new patented and patent pending features-features demanded by discriminating airbrush artists, like you.

BEFORE USING YOUR AIRBRUSH

Your **SOTAR** airbrush is shipped with the needle **(21)** partially retracted for protection. Loosen the chuck **(16)** and gently push the needle forward until it seats into the paint tip **(5)** then tighten the chuck. Since every **SOTAR** airbrush is pre-tested, a small amount of pigment residue may be present. We suggest running a cleaning solution through your

airbrush before spraying a color. *NOTE:* All parts are to be hand tightened only. The only exception is the air valve assembly which may be lightly tightened with a wrench. **See other side for part reference.*

Warranty

Your **SOTAR** airbrush is warranted against all manufacturing defects of material and workmanship for a period of one year from the date of purchase. Your **SOTAR** carries a lifetime warranty on labor, though parts will be extra after the first year. Negligence, accidents, or units which have been altered will void this warranty.

The **SOTAR** airbrush you have purchased will provide you years of trouble free, enjoyable airbrushing. You have my assurance.



SOTAR Serial #.....

Your **SOTAR** warranty is valid only when purchase is recorded by filling out and mailing warranty registration card.

MAINTENANCE AND TROUBLESHOOTING

Your **SOTAR 20/20** is engineered to provide years of trouble-free airbrushing (regular attention to simple maintenance will ensure this).

CAUTION: The **SOTAR** needle and paint tip are very delicate. A slight bend of the needle tip, or a split paint tip, can adversely affect the spray pattern. Most often, needle tip damage occurs when the needle passes through the trigger mechanism and the Teflon® seal while installing a needle.

If the needle stops abruptly, retract the needle and check the trigger for proper assembly, then re-insert the needle. We suggest you develop the habit of retracting, rotating and reseating the needle before beginning each session. This will ensure even needle and paint tip wear and extend part life.

Before reassembling the **SOTAR** tip and nozzle, it is important both components are clean of material to ensure proper seating.

If you ever experience spray pattern pulsation, the nozzle or hold down ring is either loose, or the tip is not properly seated or cleaned of build-up on its tapered sides. The only other reason you may experience pulsation is if the needle seal wears down or falls out. This seal has a lifetime warranty. If this occurs, send the airbrush to the **SOTAR** factory, for a no-charge replacement.

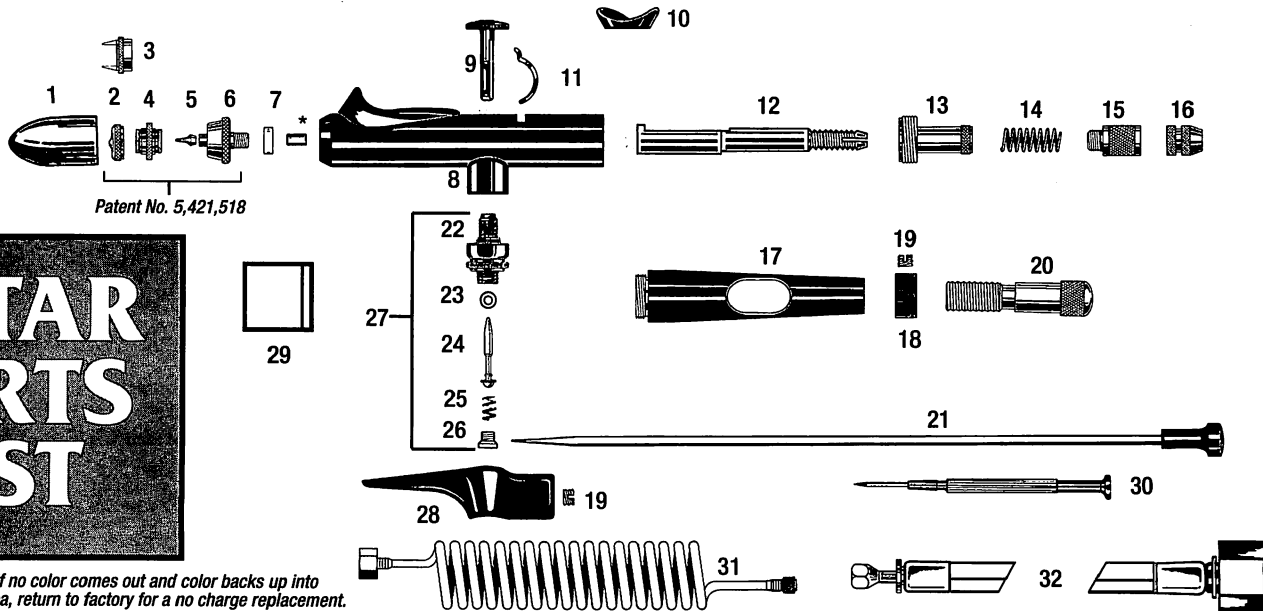
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SOTAR 20/20



INSTRUCTION BOOKLET
U.S. Patent # 5,421,518
5,687,913

U.S. Patent # 5,779,157
MADE IN USA



Patent No. 5,421,518

SOTAR PARTS LIST

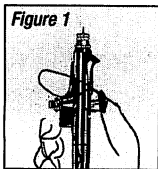
*Teflon® Needle Seal - If no color comes out and color backs up into main body and trigger area, return to factory for a no charge replacement.

NO.	DESCRIPTION	PART NO.	NO.	DESCRIPTION	PART NO.	NO.	DESCRIPTION	PART NO.
1.	Protective Cap.....	20-100	10.	Trigger Pad.....	20-113	22.	Air Valve Casing.....	20-127
2.	Spray Regulator	(No.1) 20-101	11.	Back Lever.....	20-114	23.	Plunger O-Ring.....	20-128
3.	Spray Regulators With Protective Arms.....	<i>Fine</i> (No. 1) 20-102 <i>Medium</i> (No. 2) 20-103 <i>Large</i> (No. 3) 20-104	12.	Needle Collet.....	20-115	24.	Plunger with O-Ring.....	20-129
4.	Hold-Down Ring.....	20-105	13.	Tube Housing.....	20-116	25.	Plunger Spring.....	20-130
5.	Paint Tips.....	<i>Fine</i> (No. 1) 20-106 <i>Medium</i> (No. 2) 20-107 <i>Large</i> (No. 3) 20-108	14.	Trigger Tension Spring.....	20-117	26.	Air Valve Screw.....	20-131
6.	Nozzle Head.....	20-109	15.	Retaining Spring Screw.....	20-118	27.	Complete Air Valve Assembly.....	20-132
7.	Teflon Nozzle Washer.....	20-110	16.	Chuck.....	20-119	28.	Finger/Thumb Rest.....	20-133
8.	Body.....	20-111	17.	Handle.....	20-120	29.	Rubber Finger Rest.....	20-134
9.	Trigger.....	20-112	18.	Collar.....	20-121	30.	Screw Driver.....	20-135
			19.	Collar / finger rest set screws...20-122		31.	Recoil Air Hose.....	20-136
			20.	Paint Adjusting Screw.....	20-123	32.	Clear Vinyl Air Hose.....	20-137
			21.	Needles.....	<i>Fine</i> (No. 1) 20-124 <i>Medium</i> (No. 2) 20-125 <i>Large</i> (No. 3) 20-126			

THE UNIQUE FEATURES OF THE SOTAR 20/20 (Numbers indicate part ID-see above)

(2) SPRAY REGULATOR (No. 1) - The SOTAR design makes removal of dried materials from the needle tip and regulator both easy and safe. **(3) SOTAR'S SPRAY REGULATORS, (Nos. 1, 2, & 3)**, have protective arms to safeguard the needle tip. **(4) PAINT TIP HOLD-DOWN RING (patented)** - This SOTAR innovation precisely centers and locks the

paint tip in place while permitting easy assembly and disassembly. **(5) MICRO-PRE-CISE PAINT TIPS** - SOTAR'S paint tips feature both a self-centering and non-seal design. Bee's wax or other sealing materials are no longer required. The tapered sides assure fast assembly and disassembly (see Maintenance and Troubleshooting). *Note:* When disassembling your SOTAR 20/20's head assembly, for any reason, we advise the airbrush be held in an upright position (Fig. 1). This will assure that the paint tip does not fall out or become lost. Unscrew both the spray regulator and paint tip hold-down ring. Remove the paint tip (retract the needle slightly to protect both the needle and paint tip). To replace paint tip, reverse the procedure. **(6) NOZZLE HEAD** - The 20/20's nozzle head also features a recessed, tapered design to allow quick and easy removal and installation of the paint tip. **(8) BODY** - The SOTAR 20/20's body has a cast paint reservoir milled low and wide for a better line of sight, free of obstruction. The elongated body maintains an efficient distance between trigger and paint reservoir. The trigger and back lever assemble easily, thanks to our unique design. The shell of the 20/20 includes a Teflon® needle seal which is impervious to most solvents and paints, and prevents material back-up. **(9) TRIGGER** - One piece for easy assembly and efficient, smooth rolling action. **(10) TRIGGER PAD** - Can be custom seated. To permanently attach the pad, simply position the pad to the trigger as you desire. Then, turn your 20/20 over and apply a few drops of "Super Glue" to bottom of pad. **(13) TUBE HOUSING** - Tighten down to bottom of thread in airbrush body, permitting *chuck only* to turn for quick needle removal.



(14) TRIGGER TENSION SPRING - Adjusts from medium to light. **(15) RETAINING SPRING SCREW** - Allows you to custom adjust trigger tension from medium to light. **(17) HANDLE** - SOTAR'S unique, *open ended* cut-away design lets you remove the needle without taking off the handle. A micrometer calibration mark is indicated on the

handle for use in conjunction with the paint adjusting screw, *see* (20). **(18) COLLAR** Line set ring with micrometer readings. Each increment represents one-one thousandth of an inch (.0254mm). **(20) PAINT ADJUSTING SCREW (Patent pending)** - May be adjusted for minimum or maximum trigger/needle movement and paint flow. To adjust minimum paint flow, move the paint adjusting screw (20) all the way forward, this will prevent any trigger movement. Then, using the screw driver, loosen the collar set screw (19) and reposition zero on the collar to the calibration mark on the handle (17). To adjust for maximum paint flow, unscrew the paint adjusting screw (20) until it just touches the molded knob on the needle (21). Then, using the screw driver, loosen the collar set screw (19) and reposition zero on the collar to the calibration mark on the handle. **(21) NEEDLES** - Fabricated from flexible, spring-tempered stainless steel, SOTAR needles feature an elongated taper-to-tip point for fine line control. Molded knob at needle end makes needle removal without disassembly a breeze. **(28) FINGER/THUMB REST** - Ergonomically correct with a concave shape for greater comfort/less fatigue. The finger rest may be removed if desired. Loosen the set screw at the rear of the finger rest. Unscrew the air valve assembly from underneath the finger rest. Remove the finger rest; replace the air valve assembly. **(29) RUBBER FINGER REST (optional)** - For comfortable, non-slip, fatigue-free airbrushing. To install the rubber finger rest, slide it over the air valve assembly.