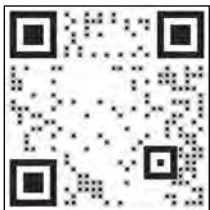




RansFlex Applicators - Air Assist
Model 80885



NOTE: This manual has been changed from revision **AH-21-01-R3** to revision **AH-21-02-R4**. Reasons for this change are noted under “Manual Change Summary” inside the back cover of this manual.

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SAFETY

SAFETY PRECAUTIONS

Before operating, maintaining or servicing any electrostatic coating system, read and understand all of the technical and safety literature for your products. This manual contains information that is important for you to know and understand. This information relates to **USER SAFETY** and **PREVENTING EQUIPMENT PROBLEMS**. To help you recognize this information, we use the following symbols. Please pay particular attention to these sections.

WARNING

A **WARNING!** states information to alert you to a situation that might cause serious injury if instructions are not followed.

CAUTION

A **CAUTION!** states information that tells how to prevent damage to equipment or how to avoid a situation that might cause minor injury.

NOTE

A **NOTE** is information relevant to the procedure in progress.

While this manual lists standard specifications and service procedures, some minor deviations may be found between this literature and your equipment. Differences in local codes and plant requirements, material delivery requirements, etc., make such variations inevitable. Compare this manual with your system installation drawings and associated equipment manuals to reconcile such differences.

Careful study and continued use of this manual will provide a better understanding of the equipment and process, resulting in more efficient operation, longer trouble-free service and faster, easier troubleshooting. If you do not have the manuals and safety literature for your equipment, contact your local Carlisle Fluid Technologies representative or Carlisle Fluid Technologies technical support.


WARNING



- The user **MUST** read and be familiar with the Safety Section in this manual and the safety literature therein identified.
- This equipment is intended to be used by trained personnel **ONLY**.
- This manual **MUST** be read and thoroughly understood by **ALL** personnel who operate, clean or maintain this equipment! Special care should be taken to ensure that the **WARNINGS** and safety requirements for operating and servicing the equipment are followed. The user should be aware of and adhere to **ALL** local building and fire codes and ordinances as well as **NFPA 33 AND EN 16985 SAFETY STANDARDS, LATEST EDITION**, or applicable country safety standards, prior to installing, operating, and/or servicing this equipment.

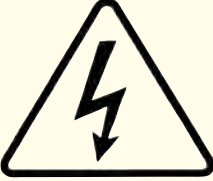
WARNING




- The hazards shown on the following pages may occur during the normal use of this equipment.

Repairs may only be performed by personnel authorized by Carlisle Fluid Technologies.

<p>AREA Tells where hazards may occur.</p>	<p>HAZARD Tells what the hazard is.</p>	<p>SAFEGUARDS Tells how to avoid the hazard.</p>
<p>Spray Area</p> 	<p>Fire Hazard</p> <p>Improper or inadequate operation and maintenance procedures will cause a fire hazard.</p> <p>Protection against inadvertent arcing that is capable of causing fire or explosion is lost if any safety interlocks are disabled during operation. Frequent Power Supply or Controller shutdown indicates a problem in the system requiring correction.</p>	<p>Fire extinguishing equipment must be present in the spray area and tested periodically.</p> <p>Spray areas must be kept clean to prevent the accumulation of combustible residues.</p> <p>Smoking must never be allowed in the spray area.</p> <p>The high voltage supplied to the atomizer must be turned off prior to cleaning, flushing, or maintenance.</p> <p>Spray booth ventilation must be kept at the rates required by NFPA 33, EN 16985, country, and local codes. In addition, ventilation must be maintained during cleaning operations using flammable or combustible solvents.</p> <p>Electrostatic arcing must be prevented. Safe sparking distance must be maintained between the parts being coated and the applicator. A distance of 1 inch for every 10KV of output voltage is required at all times.</p> <p>Test only in areas free of combustible material. Testing may require high voltage to be on, but only as instructed.</p> <p>Non-factory replacement parts or unauthorized equipment modifications may cause fire or injury. If used, the key switch bypass is intended for use only during setup operations. Production should never be done with safety interlocks disabled.</p> <p>The paint process and equipment should be set up and operated in accordance with NFPA 33, NEC, OSHA, local, country, and European Health and Safety Norms.</p>

AREA Tells where hazards may occur.	HAZARD Tells what the hazard is.	SAFEGUARDS Tells how to avoid the hazard.
<p style="text-align: center;">Spray Area</p> 	<p>Explosion Hazard</p> <p>Improper or inadequate operation and maintenance procedures will cause a fire hazard.</p> <p>Protection against inadvertent arcing that is capable of causing fire or explosion is lost if any safety interlocks are disabled during operation.</p> <p>Frequent Power Supply or Controller shutdown indicates a problem in the system requiring correction.</p>	<p>Electrostatic arcing must be prevented. Safe sparking distance must be maintained between the parts being coated and the applicator. A distance of 1 inch for every 10KV of output voltage is required at all times.</p> <p>Unless specifically approved for use in hazardous locations, all electrical equipment must be located outside Class I or II, Division 1 or 2 hazardous areas, in accordance with NFPA 33.</p> <p>Test only in areas free of flammable or combustible materials.</p> <p>The current overload sensitivity (if equipped) MUST be set as described in the corresponding section of the equipment manual. Protection against inadvertent arcing that is capable of causing fire or explosion is lost if the current overload sensitivity is not properly set. Frequent power supply shutdown indicates a problem in the system which requires correction.</p> <p>Always turn the control panel power off prior to flushing, cleaning, or working on spray system equipment.</p> <p>Before turning high voltage on, make sure no objects are within the safe sparking distance.</p> <p>Ensure that the control panel is interlocked with the ventilation system and conveyor in accordance with NFPA-33, EN 16985.</p> <p>Have fire extinguishing equipment readily available and tested periodically.</p>
<p style="text-align: center;">General Use and Maintenance</p> 	<p>Improper operation or maintenance may create a hazard.</p> <p>Personnel must be properly trained in the use of this equipment.</p>	<p>Personnel must be given training in accordance with the requirements of NFPA 33.</p> <p>Instructions and safety precautions must be read and understood prior to using this equipment.</p> <p>Comply with appropriate local, state, and national codes governing ventilation, fire protection, operation maintenance, and housekeeping. Reference OSHA, NFPA 33, EN Norms and your insurance company requirements.</p>

<p>AREA Tells where hazards may occur.</p>	<p>HAZARD Tells what the hazard is.</p>	<p>SAFEGUARDS Tells how to avoid the hazard.</p>
<p>Spray Area / High Voltage Equipment</p> 	<p>Electrical Discharge</p> <p>There is a high voltage device that can induce an electrical charge on ungrounded objects which is capable of igniting coating materials.</p> <p>Inadequate grounding will cause a spark hazard. A spark can ignite many coating materials and cause a fire or explosion.</p>	<p>Parts being sprayed and operators in the spray area must be properly grounded.</p> <p>Parts being sprayed must be supported on conveyors or hangers that are properly grounded. The resistance between the part and earth ground must not exceed 1 Meg Ohm. (Refer to NFPA 33, EN 16985.)</p> <p>Operators must be grounded. Rubber soled insulating shoes should not be worn. Grounding straps on wrists or legs may be used to assure adequate ground contact.</p> <p>Operators must not be wearing or carrying any ungrounded metal objects.</p> <p>When using an electrostatic handgun, operators must assure contact with the handle of the applicator via conductive gloves or gloves with the palm section cut out.</p> <p>NOTE: REFER TO NFPA 33, EN 16985 OR SPECIFIC COUNTRY SAFETY CODES REGARDING PROPER OPERATOR GROUNDING.</p> <p>All electrically conductive objects in the spray area, with the exception of those objects required by the process to be at high voltage, must be grounded. Grounded conductive flooring must be provided in the spray area.</p> <p>Always turn off the power supply prior to flushing, cleaning, or working on spray system equipment.</p> <p>Unless specifically approved for use in hazardous locations, all electrical equipment must be located outside Class I or II, Division 1 or 2 hazardous areas, in accordance with NFPA 33.</p> <p>Avoid installing an applicator into a fluid system where the solvent supply is ungrounded.</p> <p>Do not touch the applicator electrode while it is energized.</p>

AREA Tells where hazards may occur.	HAZARD Tells what the hazard is.	SAFEGUARDS Tells how to avoid the hazard.
<p>Electrical Equipment</p> 	<p>Electrical Discharge</p> <p>High voltage equipment is utilized in the process. Arcing in the vicinity of flammable or combustible materials may occur. Personnel are exposed to high voltage during operation and maintenance.</p> <p>Protection against inadvertent arcing that may cause a fire or explosion is lost if safety circuits are disabled during operation.</p> <p>Frequent power supply shut-down indicates a problem in the system which requires correction.</p> <p>An electrical arc can ignite coating materials and cause a fire or explosion.</p>	<p>Unless specifically approved for use in hazardous locations, the power supply, control cabinet, and all other electrical equipment must be located outside Class I or II, Division 1 and 2 hazardous areas in accordance with NFPA 33 and EN 16985.</p> <p>Turn the power supply OFF before working on the equipment.</p> <p>Test only in areas free of flammable or combustible material.</p> <p>Testing may require high voltage to be on, but only as instructed.</p> <p>Production should never be done with the safety circuits disabled.</p> <p>Before turning the high voltage on, make sure no objects are within the sparking distance.</p>
<p>Toxic Substances</p> 	<p>Chemical Hazard</p> <p>Certain materials may be harmful if inhaled, or if there is contact with the skin.</p>	<p>Follow the requirements of the Safety Data Sheet supplied by coating material manufacturer.</p> <p>Adequate exhaust must be provided to keep the air free of accumulations of toxic materials. Reference EN 12215 or applicable code.</p> <p>Use a mask or respirator whenever there is a chance of inhaling sprayed materials. The mask must be compatible with the material being sprayed and its concentration. Equipment must be as prescribed by an industrial hygienist or safety expert, and be NIOSH approved.</p>
<p>Spray Area</p> 	<p>Explosion Hazard — Incompatible Materials</p> <p>Halogenated hydrocarbon solvents for example: methylene chloride and 1,1,1, - Trichloroethane are not chemically compatible with the aluminum that might be used in many system components. The chemical reaction caused by these solvents reacting with aluminum can become violent and lead to an equipment explosion.</p>	<p>Spray applicators require that aluminum inlet fittings be replaced with stainless steel.</p> <p>Aluminum is widely used in other spray application equipment - such as material pumps, regulators, triggering valves, etc. Halogenated hydrocarbon solvents must never be used with aluminum equipment during spraying, flushing, or cleaning. Read the label or data sheet for the material you intend to spray. If in doubt as to whether or not a coating or cleaning material is compatible, contact your coating supplier. Any other type of solvent may be used with aluminum equipment.</p>

ATEX/FM/UKEX

EUROPEAN ATEX DIRECTIVE 2014/34/EU, ATEX

The following instructions apply to equipment covered by certificate number FM21ATEX0045, FM21UKEX0166:

1. The equipment may be used with flammable gases and vapors with apparatus groups II and with temperature class T6.
2. The equipment is only certified for use in ambient temperatures in the range 5°C to +40°C and should not be used outside this range.
3. Installation shall be carried out by suitably trained personnel in accordance with the applicable code of practice e.g. EN 60079-14.
4. Inspection and maintenance of this equipment shall be carried out by suitably trained personnel in accordance with the applicable code of practice e.g. EN 60079-17.
5. Repair of this equipment shall be carried out by suitable trained personnel in accordance with the applicable code of practice e.g. EN 60079-19.
6. Putting into service, use, assembling, and adjustment of the equipment shall be fitted by suitably trained personnel in accordance with the manufacturer's documentation.

Refer to the "Table of Contents" of this service manual:

- a. Installation
 - b. Operation
 - c. Maintenance
 - d. Parts Identification
7. Components to be incorporated into or used as replacement parts of the equipment shall be fitted by suitably trained personnel in accordance with the manufacturer's documentation.

8. The certification of this equipment relies upon the following materials used in its construction:

Refer to "Specifications" in the "Introduction" section:

- a. All fluid passages contain stainless steel, peek nylon.
- b. High voltage cascade is encapsulated with a solvent resistant epoxy.
- c. Nylons, Acetal Resins
- d. Stainless Steel
- e. PTFE Materials

If the equipment is likely to come into contact with aggressive substances, then it is the responsibility of the user to take suitable precautions that prevent it from being adversely affected, thus ensuring that the type of protection provided by the equipment is not compromised.

Aggressive substances: e.g. acidic liquids or gases that may attack metals, or solvents that may affect polymeric materials.

Suitable precautions: e.g. regular checks as part of routine inspections or establishing from the material's data sheets that it is resistant to specific chemicals.

9. A recapitulation of the certification marking is detailed in the "ATEX" section, on the next page, drawing numbers: 80886.
10. The characteristics of the equipment shall be detailed e.g. electrical, pressure, and voltage parameters.

The manufacturer should note that, on being put into service, the equipment must be accompanied by a translation of the instructions in the language or languages of the country in which the equipment is to be used and by the instructions in the original language.

RansFlex 80885 ATEX Product Marking Definitions

Ex Certificate Number: FM21ATEX0045X

- FM = Notified Body performing EU-type examination
- 21 = Year of certification
- ATEX = Reference to ATEX Directive
- 0045 = Sequential issuance certificate
- X = Special conditions for safe use apply

Special conditions for safe use:

The RansFlex 80885 Applicators are approved when configured to drawing 80886-00 as shown on pages 11, 12 and 13.

Product Marking



- Ex = Specific marking of explosive protection
- II = Equipment Group hazardous area characteristics
- 2 = Equipment Category
- G = Type of explosive atmosphere (gases, vapors, or mists)

EEx 0.24mJ = The RansFlex 80885 Applicator is suitable for use in manual spraying installations complying with EN 50050-01 as they are a Type A class with a discharge energy limit of 0.24mJ.



Label 80777-13



Label 80777-14

FM/ATEX/UKEX Configuration

These applicators are FM or ATEX, UKEX approved when the setup is configured to drawings shown on the next 3 pages.



Location of product serial number.

RANSFLEX RX - SOLVENT BASE

80885 - AABCD

Base Model No.	Optional Designations
(Ordering Information Only)	



CONFIGURATION DWG. 80886



80740-XXXX "R"

TABLE OF "AA" DASHES

"AA" Dash No.	"AA" Description	"R"
00	NO CARBIDE TIP	---
01	CARBIDE TIP ASSEMBLY 0509	80740-0509
02	CARBIDE TIP ASSEMBLY 0511	80740-0511
03	CARBIDE TIP ASSEMBLY 0513	80740-0513
04	CARBIDE TIP ASSEMBLY 0811	80740-0811
05	CARBIDE TIP ASSEMBLY 0813	80740-0813
06	CARBIDE TIP ASSEMBLY 1009	80740-1009
07	CARBIDE TIP ASSEMBLY 1011	80740-1011
08	CARBIDE TIP ASSEMBLY 1013	80740-1013
09	CARBIDE TIP ASSEMBLY 1015	80740-1015
10	CARBIDE TIP ASSEMBLY 1018	80740-1018
11	CARBIDE TIP ASSEMBLY 1021	80740-1021
12	CARBIDE TIP ASSEMBLY 1311	80740-1311
13	CARBIDE TIP ASSEMBLY 1313	80740-1313
14	CARBIDE TIP ASSEMBLY 1315	80740-1315
15	CARBIDE TIP ASSEMBLY 1318	80740-1318
16	CARBIDE TIP ASSEMBLY 1511	80740-1511
17	CARBIDE TIP ASSEMBLY 1513	80740-1513
18	CARBIDE TIP ASSEMBLY 1515	80740-1515
19	CARBIDE TIP ASSEMBLY 1518	80740-1518
20	CARBIDE TIP ASSEMBLY 1521	80740-1521
21	CARBIDE TIP ASSEMBLY 1715	80740-1715



80211-00 "V"

TRIGGER - TABLE OF "B" DASHES

"C" Dash No.	"C" Description	"V"
1	2 FINGER TRIGGER	80211-00
2	4 FINGER TRIGGER	80386-00
3	2 FINGER SMALL PROFILE	80566-00

CONFIGURATION DWG. 80886

FLUID HOSE - TABLE OF "C" DASHES

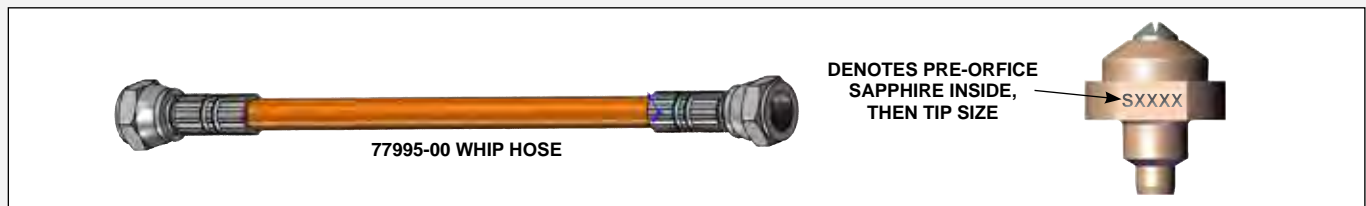
"C" Dash No.	Description	"X"
0	NO FLUID HOSE	---
1	FLUID HOSE, 11m	7994-36
2	FLUID HOSE, 15m	7994-50
3	FLUID HOSE, 23m	7994-75
4	FLUID HOSE, 30m	7994-100



AIR HOSE - TABLE OF "D" DASHES

"D" Dash No.	"F" Description	"Y"	"Z"
0	NO AIR HOSE, STANDARD	---	80868-00
1	STANDARD AIR HOSE, 5m	80558-05	80868-00
2	STANDARD AIR HOSE, 10m	80558-10	80868-00
3	STANDARD AIR HOSE, 15m	80558-15	80868-00
4	STANDARD AIR HOSE, 20m	80558-20	80868-00
5	NO AIR HOSE, QD	---	80869-00
6	QD AIR HOSE, 5m	80558-06	80869-00
7	QD AIR HOSE, 10m	80558-11	80869-00
8	QD AIR HOSE, 15m	80558-16	80869-00
9	QD AIR HOSE, 20m	80558-21	80869-00

APPROVED ACCESSORIES



PRE ORFICE SAPPHIRES - 80907-XXXX

Part No.	Outside Marking	Part No.	Outside Marking
80907-0504	S0509	80907-1311	S1311
80907-0511	S0511	80907-1313	S1313
80907-0513	S0513	80907-1315	S1315
80907-0811	S0811	80907-1318	S1318
80907-0813	S0813	80907-1513	S1513
80907-1009	S1009	80907-1515	S1515
80907-1013	S1013	80907-1518	S1518
80907-1015	S1015	80907-1521	S1521
80907-1018	S1018	80907-1715	S1715
80907-1021	S1021		

INTRODUCTION



GENERAL DESCRIPTION

The **RansFlex** is an air atomizing applicator powered only by a pressurized air source. Pressurized air creates rotation of a turbine generator that powers a cascade. The cascade generates a high voltage DC charge to the electrode creating an electrostatic field between the atomizer and the target.

One of the many features of the RansFlex applicator system is that the electrical energy, which is available from the resistive charging electrode, is limited to the optimum level of safety and efficiency. The system is incapable of releasing sufficient electrical or thermal energy during normal operating conditions to cause ignition of specific hazardous materials in their most easily ignited concentrations in air.

As the applicator electrode approaches ground, applicator circuitry causes the high voltage to approach zero while the

current approaches its maximum value. This performance is validated by independent test agencies that give FM (US&C), UKEX and ATEX approval.

RANSFLEX NEW FEATURES

- Lightweight and easy to maneuver.
- Ergonomic handle design to reduce operator fatigue.
- Three phases of turbine protection:
 - Divorced turbine air supply cartridge
 - Sealed nozzle/Atomization passages
 - Strategic turbine location
- Simultaneous fan/atom pressure adjustment with compensation valve.

SPECIFICATIONS: 80885 RANSFLEX AIR ASSIST

Environmental/Physical

Applicator Length:	254mm (10-inches)
Weight: (Without Hose)	715 grams (25.2 oz.)
Air Hose 80558-XX Lengths (Std):	5m, 10m, 15m and 20m
Fluid Hose 7994-XX Lengths (Std):	11m, 15m, 23m and 30m

Electrical

Operating Voltage:	85kV DC (-) maximum
Current Output:	95 microamperes maximum
Paint Resistance:*	.1 MΩ to ∞
Part Sprayability:	Determine sprayability of part to be coated using 76652, Test Equipment

(See current "Paint, HV & SCI Test Equipment" service manual TE-98-01)

* Use Model No. 76652, Test Equipment

Mechanical

Fluid Flow Capacity:	1000 ml/minute**
Wetted Parts:	Stainless Steel, polyethylene, nylon, acetal polymer
Operating Pressure (Air Spray)	
Fluid:	(0-207 bar) 0-3000 psi
Air:	(0-6.9 bar) 0-100 psi
Ambient Temp.:	40°C to 5°C (104°F to 40°F)
Consumption (With Voltage):	438 SLPM (15.4 SCFM) @ 2.8 bar (40 psig) @ Handle Inlet
Sound Level:	92dB (A) @ 2.8 bar (40 psig) Inlet, 1m from applicator

** This reflects the maximum fluid volume the applicator can deliver. The maximum spray volume that can be effectively atomized depends on fluid rheology, spray technology, tip size, and finish quality required.

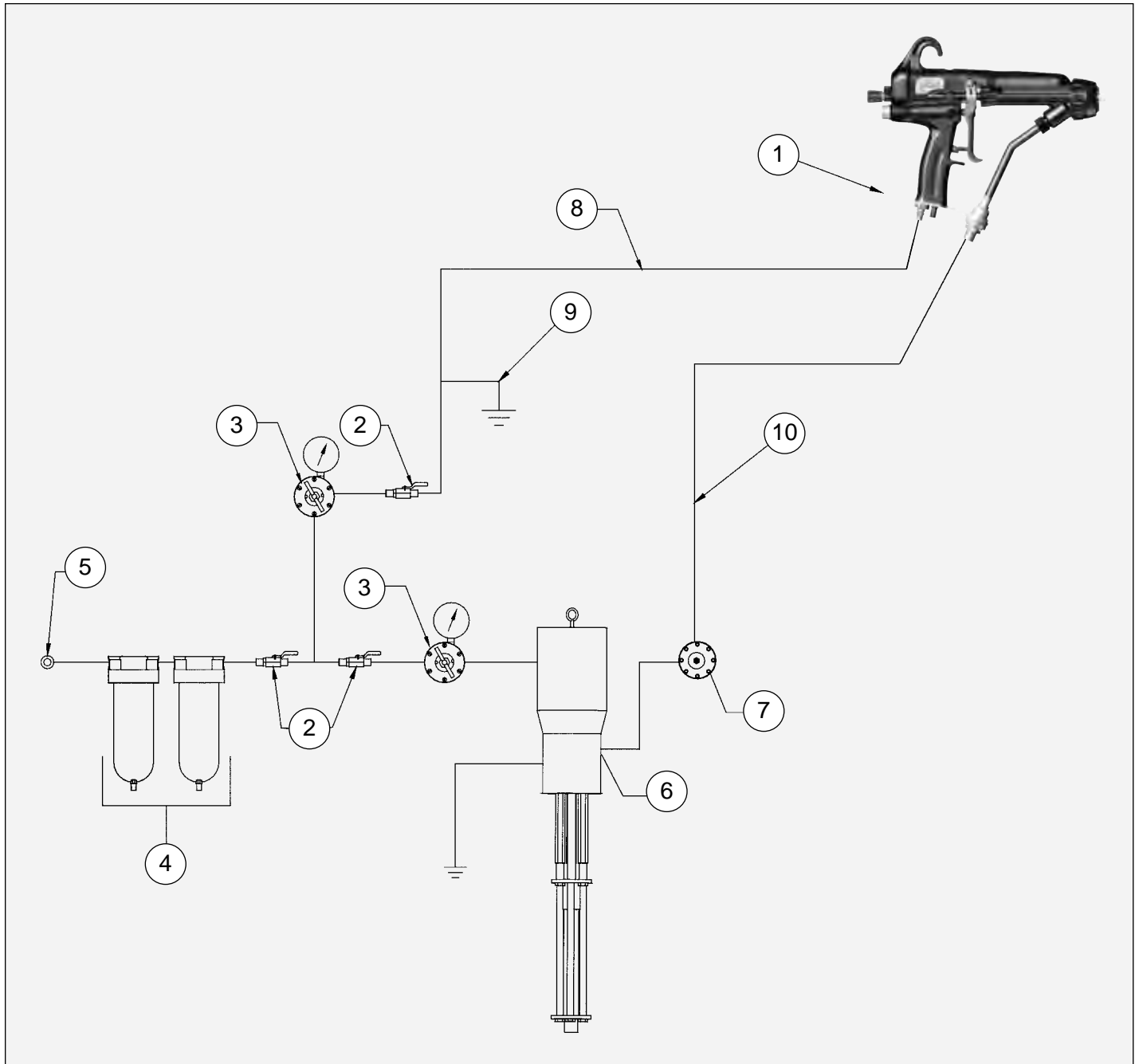


Figure 2: RansFlex Typical Solventborne Installation

RANSFLEX SOLVENTBORNE TYPICAL INSTALLATION

No.	Description	No.	Description
1	RansFlex 80885	6	High Pressure Fluid Supply (Grounded)
2	High Pressure Ball Valve	7	High Pressure Fluid Regulator
3	Air Regulator with Pressure Gauge	8	Air Hose (80558-XX)
4	Air / Water Separator	9	Air Hose Ground Wire
5	Main Air Supply Line	10	High Pressure Fluid Line (7994-XX)

* 207 bar (3000 psig) working pressure.

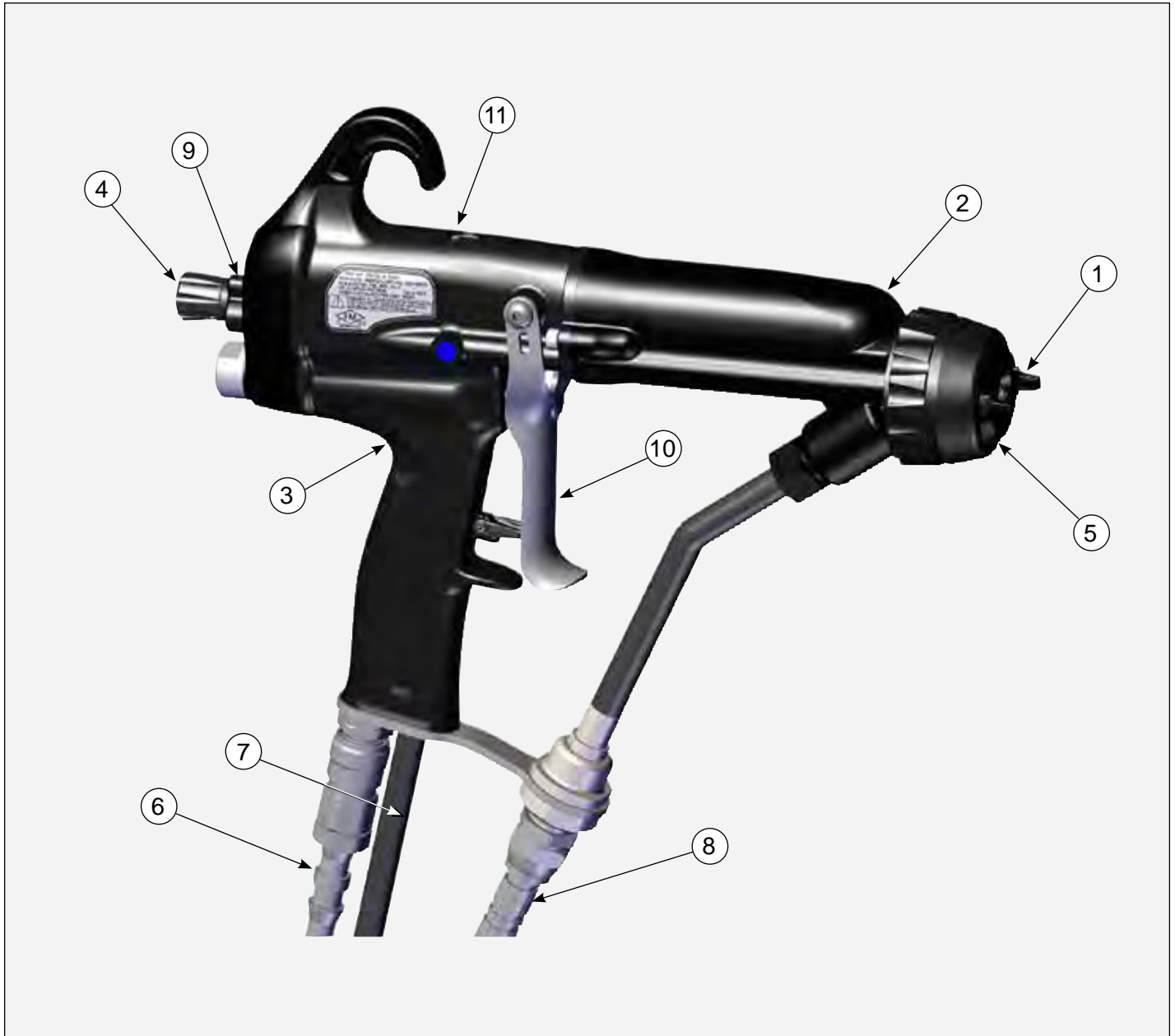


Figure 1: RansFlex Solventborne Electrostatic Spray Applicator 81345 / 81365

RANSFLEX SOLVENTBORNE ELECTROSTATIC SPRAY APPLICATOR 81345 / 81365			
No.	Description	No.	Description
1	Needle/Electrode	7	Exhaust Air Hose
2	Barrel	8	Fluid Hose, High Pressure
3	Handle	9	Voltage On/Off Switch
4	Fan Adjustment	10	Trigger
5	Air Cap / Fluid Nozzle, Fluid Tip	11	Compensation Valve
6	Air Hose		

INSTALLATION

Air Hose

! WARNING

- For proper safe function of the applicator, the 80558-XX Air Hose Assembly must be used (either standard or quick disconnect style).

Fluid Hose Recommendation

Ransburg recommends using a 7994-XX Fluid Hose Assembly. This assembly is made to specifically fit the fluid fitting size engineered into the applicator. This hose is available from your authorized Ransburg distributor. Available hose lengths are listed in "Accessories" in the "Parts Identification" section of this manual.

! CAUTION

- Any user installed fluid hose used must be rated for (3000 psig) 207 bar working pressure minimum.

Filters

1. Install an air filter assembly on the outlet of the main air regulator. The filter should be 5 micron with a maximum working pressure of at least 100 psig (6.9 bar). For Class 3 air quality, which is a 5 micron size and has a dew point of -4°F (-20°C), the relative humidity (RH) of the air should be 5%.
2. Ransburg recommends that a fluid filter be installed at the output of the fluid supply (pressure pot, pump, circulating system, etc.). It is the end user's responsibility to install the proper filter that meets their system's requirements.

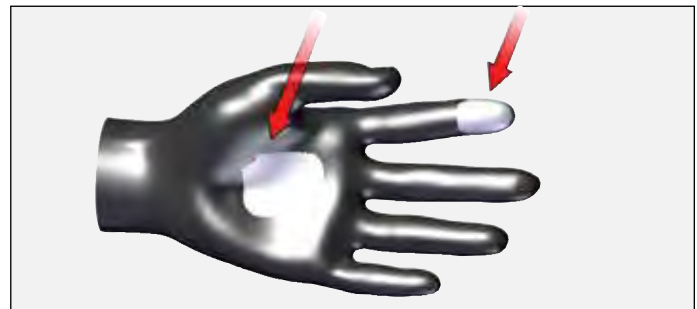
80885 RANSFLEX AIR ASSIST INSTALLATION

! WARNING

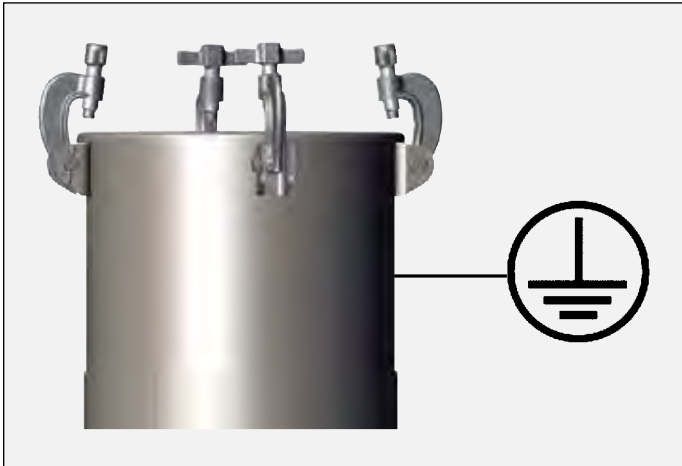
- The user **MUST** read and be familiar with the "Safety" section of this manual.
- This hand held device is intended to be used by trained personnel ONLY.
- This manual **MUST** be read and thoroughly understood by **ALL** personnel who operate, clean, or maintain this equipment! Special care should be taken to ensure that the warnings and requirements for operating and servicing safely are followed. The user should be aware of and adhere to **ALL** local building and fire codes and ordinances as well as NFPA, OSHA, and all related country safety codes prior to installing, operating, and/or servicing this equipment.
- Personnel **MUST** be **GROUNDING** to prevent a shock or spark during electrostatic operation.
- Install and route the hoses so they are **NOT** exposed to temperatures in excess of 120° F (49° C) and so that all hose bends are **NO LESS** than a 6-inch (15cm) radius. Failure to comply with these parameters could cause equipment malfunction that might create **HAZARDOUS CONDITIONS!**

GENERAL INSTALLATION REQUIREMENTS

1. Operator must make skin contact with handle of applicator, if gloves are required use either gloves with palm and finger cut out or conductive gloves. See spare parts kits at back of manual for conductive gloves.



2. All objects inside spray area must be grounded - reference EN 50176 and/or NFPA-33. Resistance to earth ground must be less than 1 Meg Ohm.
3. Flammable liquids must be contained in approved metallic grounded containers.



Interlocks Required

Interlock the solvent supply with the main supply air to the applicator. When solvent is On, main supply air to the applicator is Off. Interlocks are user supplied.

⚠ WARNING

➤ The solvent supply must be interlocked with applicator supply air.

INSTALLATION

1. Ensure there is a true earth ground connection available. Connect the fluid source and air hose ground to this connection.

⚠ WARNING

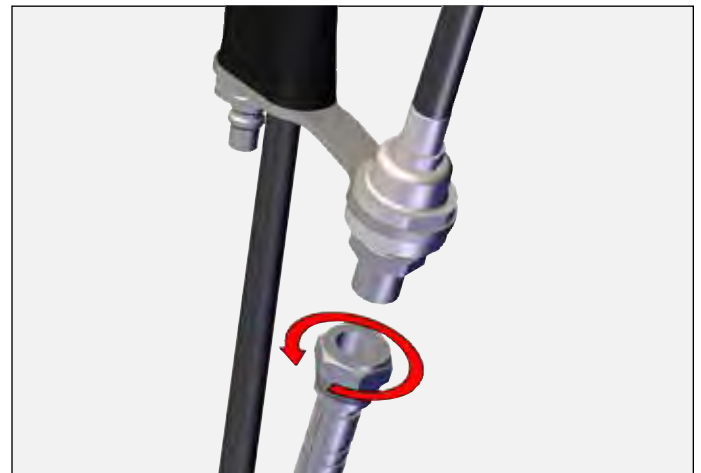
➤ Both the fluid source and the air hose ground must be connected to true earth ground.



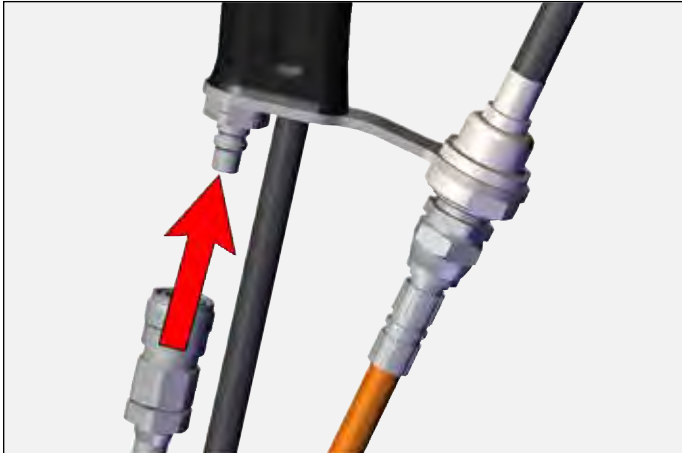
2. Turn off power.



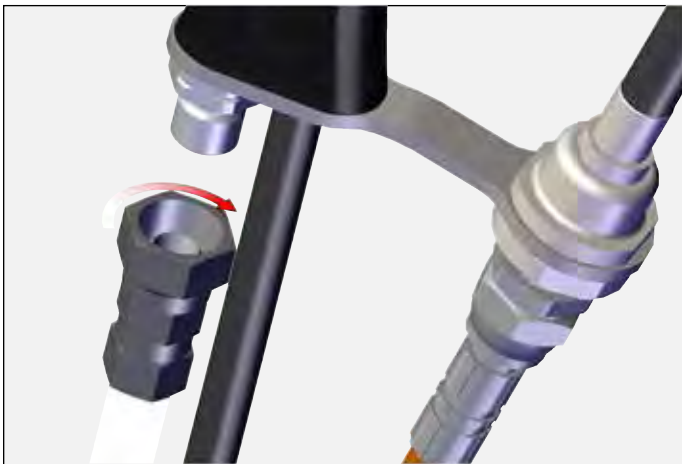
3. Connect fluid hose.



4. Connect air.



OR...



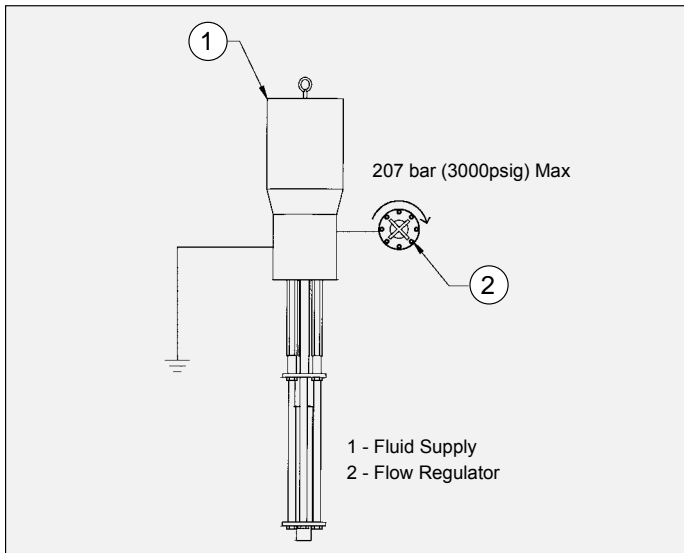
5. Trigger applicator with fluid off. Look for leaks in any connections

6. Slowly activate fluid, check for leaks with solvent flush, if required.

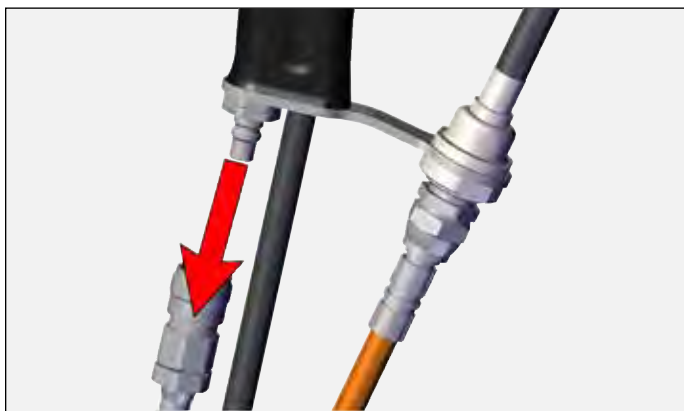
OPERATION

APPLICATOR OPERATION

1. Set fluid pressure using flow regulator.



2. Disconnect the air to the applicator.



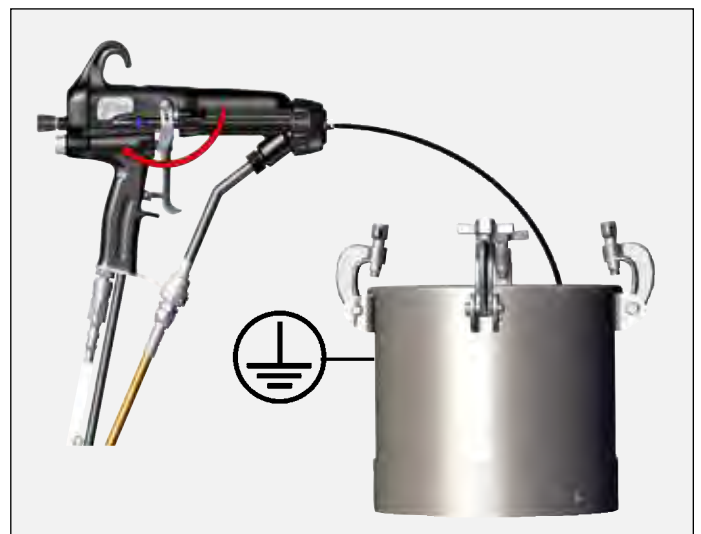
OR...



3. Activate trigger to start material stream into **grounded metal bucket or suitable area.**

⚠ WARNING

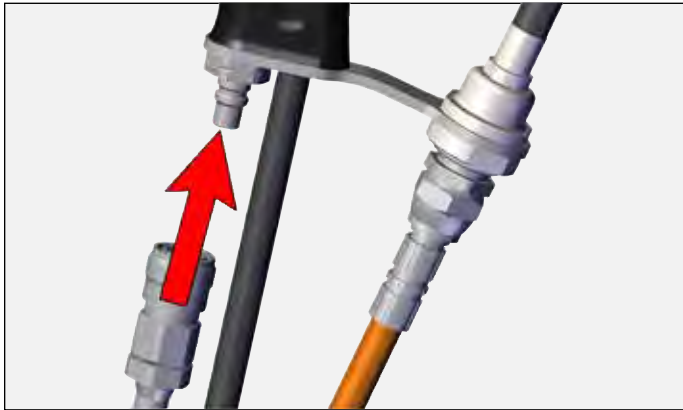
➤ The bucket or area sprayed into must be grounded to true earth ground.



4. Release trigger to stop material flow.



5. Re-connect air supply.



OR...



- 6. Adjust air pressure.
- 7. Position air cap to achieve pattern direction.
- 8. Actuate applicator (with voltage off) to spray test pattern.
- 9. As a guide, the tables below show a pressure at the wall to give 2.7 bar (40 psig) dynamic at the handle of the applicator with different hose lengths.

Hose Part No.	Pressure (Bar/Psig)		
	Length (m/ft)	Static @ Wall	Dynamic @ Wall
80558-2021	20/66	3.8/55	3.7/53
80558-1516	15/50	3.4/50	3.3/48
80558-1011	10/33	3.2/47	3.1/45

10. Turn on voltage and trigger applicator. Green light should be on.

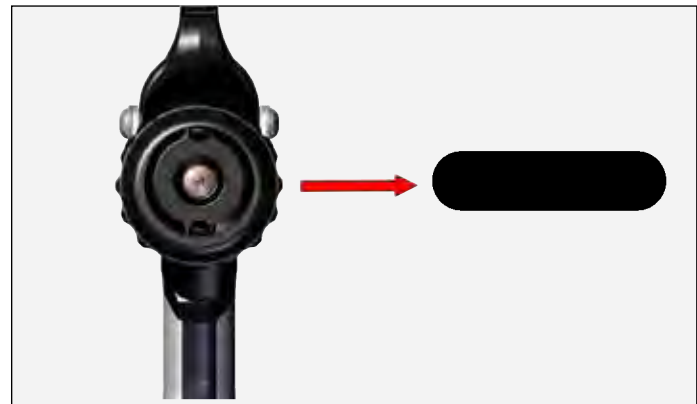


11. Adjust fluid pressure and air pressure as required to achieve finish.

12. Adjust air cap position as required.

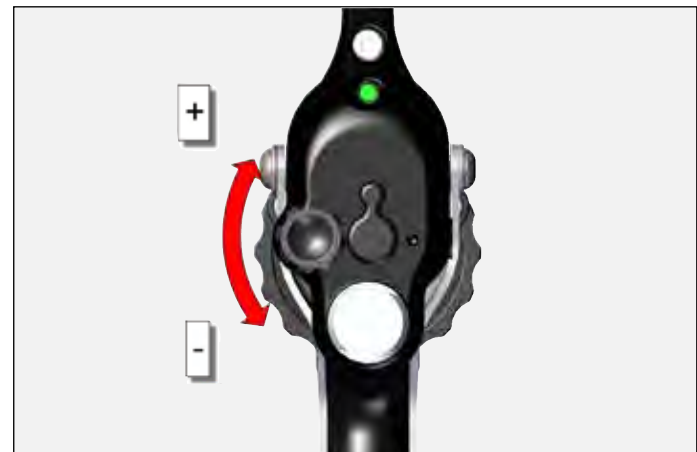


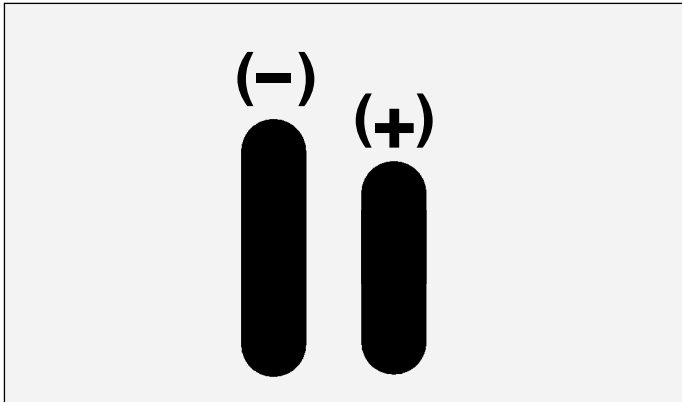
(Horns Aligned Horizontal)



(Horns Aligned Vertical)

13. Adjust fan pattern as required.





14. Adjust fluid flow.

NOTE

➤ It is recommended fluid flow be controlled by fluid supply regulator to the pump.

15. Adjust compensation valve with small flat blade screwdriver.

NOTE

➤ The compensation valve adjustment is used to adjust fan and atomization pressure at the same time when the pressure to run the turbine is higher than the atomization fan pressure desired or smaller patterns are desired.



FLUSHING / COLOR CHANGE PROCEDURE

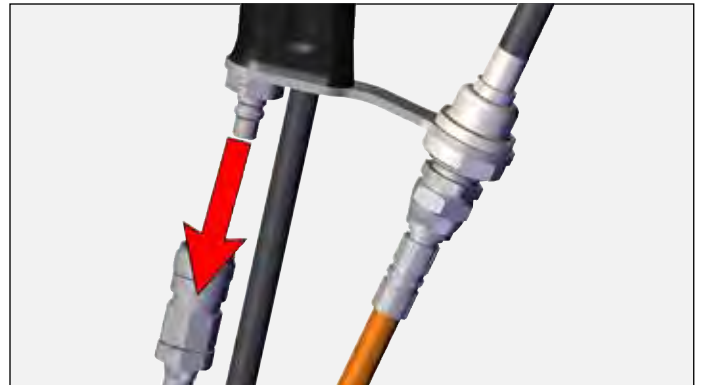
1. Turn off electrostatics.



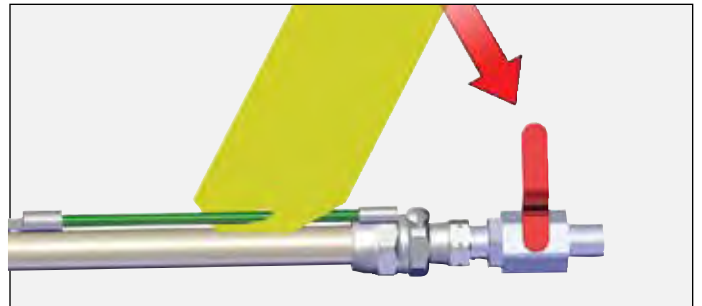
⚠ WARNING

➤ The solvent supply must be interlocked with the applicator supply air.

2. Disconnect air to applicator.



OR...



3. Discharge fluid into appropriate earth grounded metal container



FLUID TIPS

The applicator uses one air cap and carbide tip must be selected according to the application. The following charts show the carbide tip sizes available for RansFlex.

⚠ CAUTION

➤ Nozzles from previous Ransburg designs are not compatible with the RansFlex design. Use of these nozzles could cause equipment malfunction and possible damage.

4. Load next color, solvent flush, and/or remove applicator from installation as required.



80740-XXXX "R"

TABLE OF "AA" DASHES

"AA" Dash No.	"AA" Description	"R"
00	NO CARBIDE TIP	---
01	CARBIDE TIP ASSEMBLY 0509	80740-0509
02	CARBIDE TIP ASSEMBLY 0511	80740-0511
03	CARBIDE TIP ASSEMBLY 0513	80740-0513
04	CARBIDE TIP ASSEMBLY 0811	80740-0811
05	CARBIDE TIP ASSEMBLY 0813	80740-0813
06	CARBIDE TIP ASSEMBLY 1009	80740-1009
07	CARBIDE TIP ASSEMBLY 1011	80740-1011
08	CARBIDE TIP ASSEMBLY 1013	80740-1013
09	CARBIDE TIP ASSEMBLY 1015	80740-1015
10	CARBIDE TIP ASSEMBLY 1018	80740-1018
11	CARBIDE TIP ASSEMBLY 1021	80740-1021
12	CARBIDE TIP ASSEMBLY 1311	80740-1311
13	CARBIDE TIP ASSEMBLY 1313	80740-1313
14	CARBIDE TIP ASSEMBLY 1315	80740-1315
15	CARBIDE TIP ASSEMBLY 1318	80740-1318
16	CARBIDE TIP ASSEMBLY 1511	80740-1511
17	CARBIDE TIP ASSEMBLY 1513	80740-1513
18	CARBIDE TIP ASSEMBLY 1515	80740-1515
19	CARBIDE TIP ASSEMBLY 1518	80740-1518
20	CARBIDE TIP ASSEMBLY 1521	80740-1521
21	CARBIDE TIP ASSEMBLY 1715	80740-1715

TRIGGER LOCK FEATURE

WARNING

- When applicator is not in use actuate trigger lock to prevent accidental triggering.

1. Rotate trigger lock into locked position when not in use.



2. Slide trigger lock into triggering position when spray is required.



MAINTENANCE

SUITABLE SOLVENTS FOR CLEANING RANSFLEX APPLICATORS

When cleaning the applicator, a suitable solvent for cleaning depends on the part(s) of the applicator to be cleaned and the material that needs to be removed. Ransburg recommends that all exterior cleaning be done with non-polar solvents to prevent a conductive residue on critical components. We also understand that some of these solvents do not always meet the cleaning needs of some materials. **If conductive polar solvents are used to clean the applicator components, all residue must be removed using a non-conductive non-polar solvent (i.e. high flash Naphtha).** If there are any questions as to what solvents are best for cleaning, contact your local Ransburg distributor and/or your paint supplier.

The RansFlex applicator, air hoses, and fluid hose should not be submerged or soaked in solvent. However, the outer surfaces of these items can be wiped with a suitable cleaning solvent.

CAUTION

- All electrical components **cannot** be cleaned or soaked in any solvents.

Please reference Solvent Selection Guide TL-00-02 for detailed information on solvent polarity. (Reference www.ransburg.com)

WARNING

- The user **MUST** read and be familiar with the safety instructions in this manual.
- If compressed air is used in cleaning, **REMEMBER** that high pressure air can be dangerous and should **NEVER** be used against the body. It can blind, deafen, and may even penetrate the skin. If used for cleaning equipment, the user should wear safety glasses.
- Be **SURE** the applicator power is **OFF** and the system is grounded before using solvent to clean **ANY** equipment.
- **DO NOT** operate a faulty applicator!
- When using cleaning solvent, standard health and safety precautions should apply.
- Any solvent used to clean the fluid passages must be discharged into a grounded container. Use of ungrounded or plastic containers may cause fire or explosion.

CAUTION

- Cleaning of the exterior surface of the applicator should be done with non-polar solvents. If cleaning requires the use of polar solvents, the applicator should be wiped down with non-polar solvent prior to going back into use. Using polar solvents will leave a semi-conductive film on the surface of the applicator that will effect efficiency of the applicator and cause damage to the components.

⚠ CAUTION

➤ Nozzles from previous Ransburg designs are not compatible with the RansFlex design. Use of these nozzles could cause equipment malfunction and possible damage.

⚠ WARNING

➤ The flash point of the cleaning solvent shall be at least 15° C (27° F) above the ambient temperature. Otherwise, the cleaning process must be carried out in an area with forced air ventilation. It is the end users responsibility to insure this condition is met.

All repairs should be made on a clean, flat surface. If a vise is used to hold parts during service or repair, **DO NOT** clamp onto plastic parts and always pad the vise jaws!

The following parts should be thoroughly packed with dielectric grease (LSCH0009-00) leaving **NO** air space or voids when assembling:

- All O-Rings (PTFE o-rings do not need lubrication)
- Needle Shaft Assembly
- Packing Tube
- Cascade and Barrel

Equipment Required

- Special Multi-Purpose Wrench (80353-00)*
- Hex Driver (79862-02)*
- Dielectric Grease (LSCH0009-00)*
- 10 mm Wrench
- 15 mm Wrench
- 25 mm (1 in.) Spanner (2)
- Needle Shaft Wrenches (2) 74133-00
- Needle Shaft Jam Nut Wrench (1) 80903-00

* Supplied with applicator

ROUTINE SCHEDULE

Follow these maintenance steps to extend the life of the applicator and ensure efficient operation:

Several Times Daily

Inspect the air cap for paint accumulation. Clean as frequently as necessary with a soft bristled brush and a suitable solvent.

⚠ CAUTION

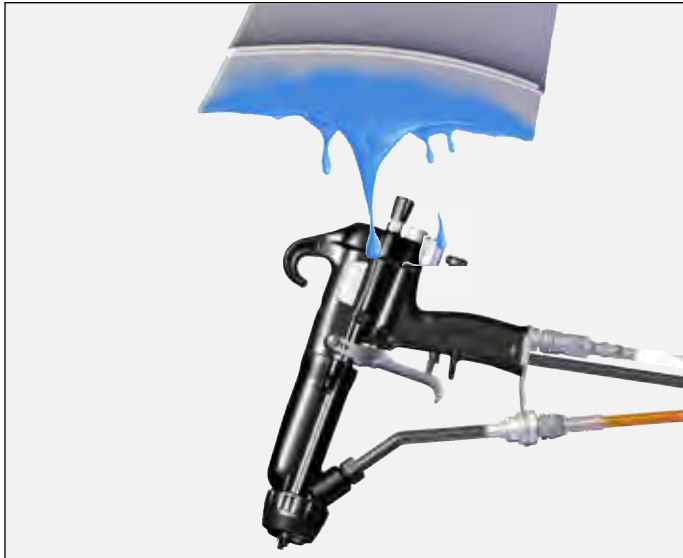
➤ **NEVER** remove the fluid nozzle assembly while paint is in the applicator or paint may enter into the air passages. Clogged or restricted air passages will cause poor atomization and/or electrical shorting. Air passages that are clogged with conductive material can lead to excessive current output levels and consequent low operating voltage or long-term electrical damage.

The applicator barrel **MUST** be tilted front down to remove the fluid nozzle. Failure to do so may allow paint to enter the air passages, thereby reducing airflow and damaging the applicator barrel/cascade. Applicators may be flushed in lieu of tilting. However, they must be either flushed or tilted down during nozzle removal!

Cleaning Flushing

1. Reference page 29 for flushing procedure. Flushing should be performed at the end of daily use or prior to any maintenance.
2. Applicator exterior cleaning at the end of each shift, wipe the outside of the applicator with a solvent soaked rag pointing the applicator nose down.





Daily (or at start of each shift)

- Verify that ALL solvent safety containers are grounded!
- Check within 6m (20-ft.) of the point of operation (of the applicator) and remove or ground ALL loose or ungrounded objects.
- Inspect work holders for accumulated coating materials (and remove such accumulations). Accumulated material may prevent proper grounding of the target and reduce efficiency.
- * Measure resistance to ground of work holders. This should be 1 Meg Ohm or less.

- Check that atomizer assembly is clean and undamaged.

NOTE

➤ Standard electrode is "snap back" spray wire electrode.

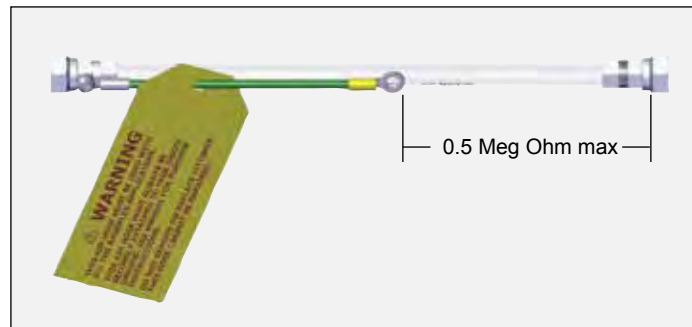
- Straighten the applicator electrode if necessary.
- Clean the fluid filter, if used.

Monthly

- Check air hose resistance. If resistance is greater than 0.5 Meg Ohm, the hose should be replaced.

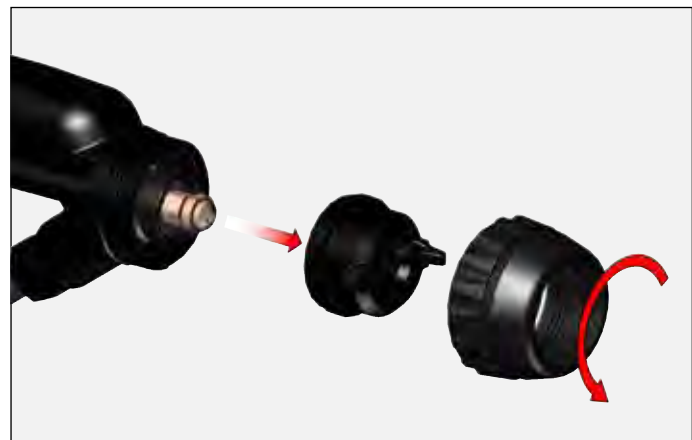
WARNING

➤ It is the end users responsibility to ensure the 0.5 Meg Ohm to ground condition is met.



Air Cap Removal

1. Remove retaining ring and air cap.



2. Clean and replace as necessary.
3. Install tip holder in air cap. Align (2) surfaces.



4. Install air cap on applicator, tighten ring.

Fluid Tip Removal & Nozzle

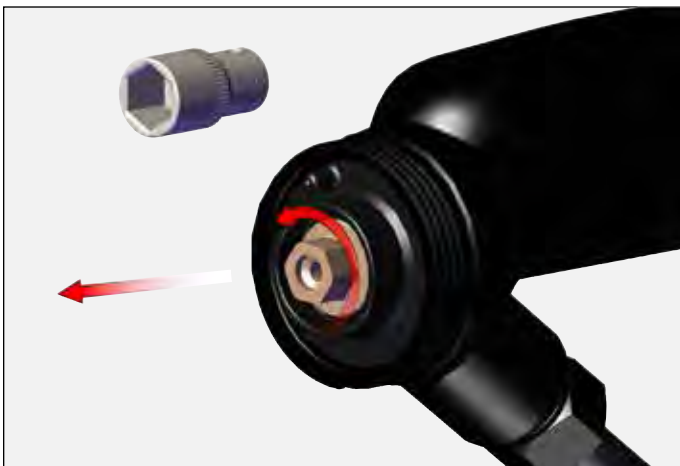
⚠ WARNING

➤ Prior to removing the fluid nozzle, all pressure from the system must be relieved.

⚠ CAUTION

➤ When removing or installing the nozzle, the trigger must be pulled fully back to prevent possible issues of the needle not properly sealing.

1. Insert 10mm 6 point socket (recommended) onto nozzle flats.



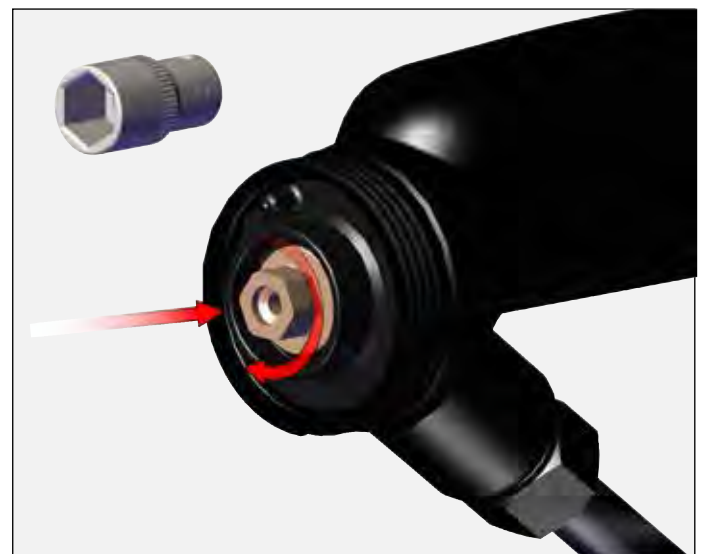
2. Remove seal and replace with new seal.

⚠ CAUTION

➤ This seal must be replaced each time the fluid nozzle is removed.

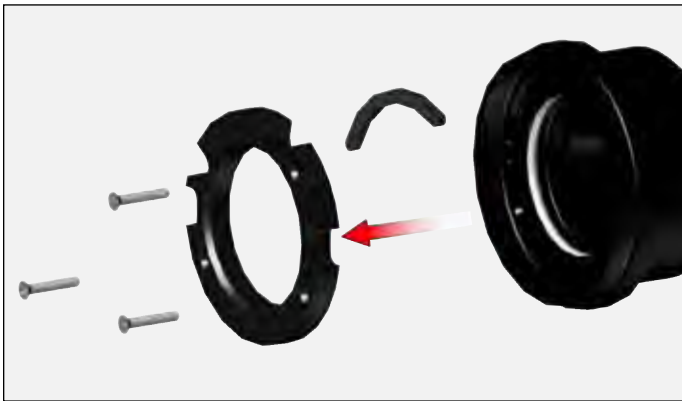


3. Re-install nozzle till it seats, then 1/8 additional turn.

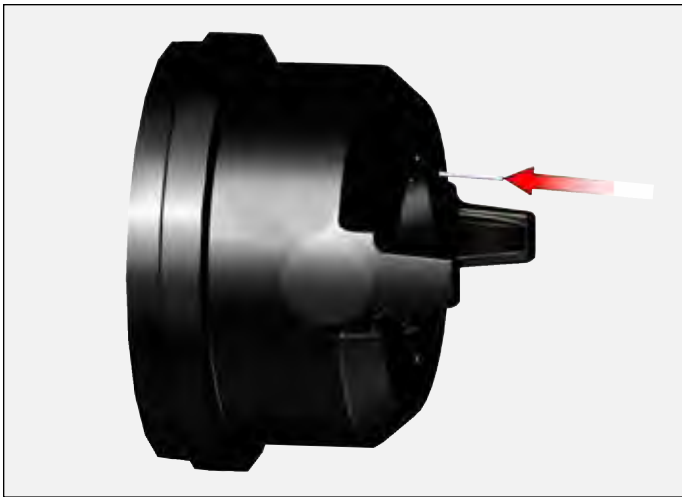


Electrode Replacement

1. Remove screws, pull parts out.



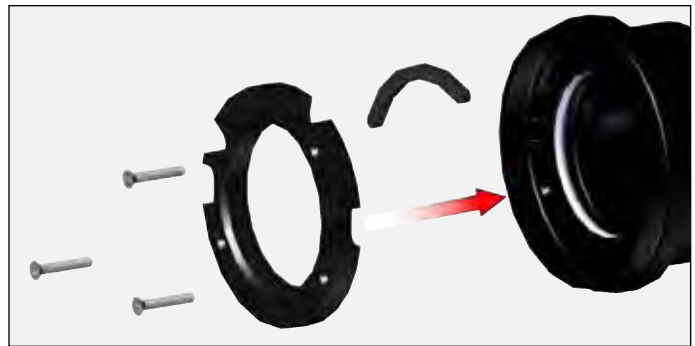
2. Push electrode wire from front out.



3. Replace wire.

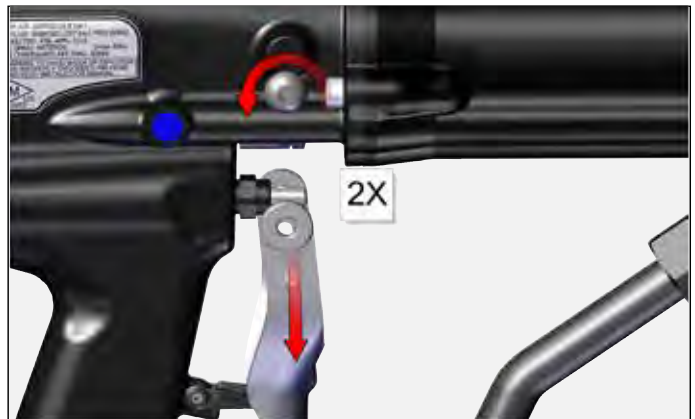


4. Install parts, tighten screws.

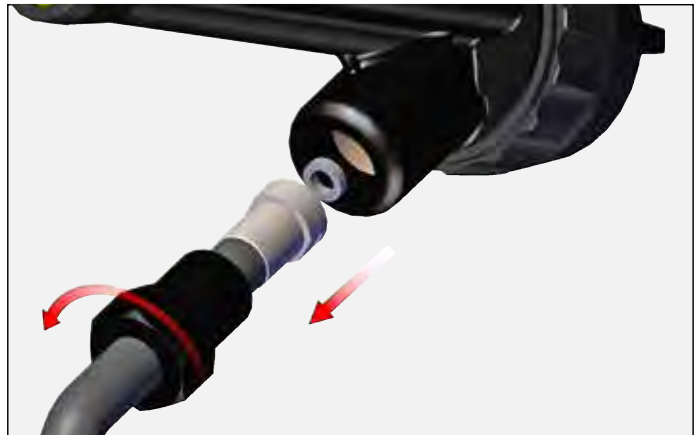


Barrel Removal

1. Remove trigger.



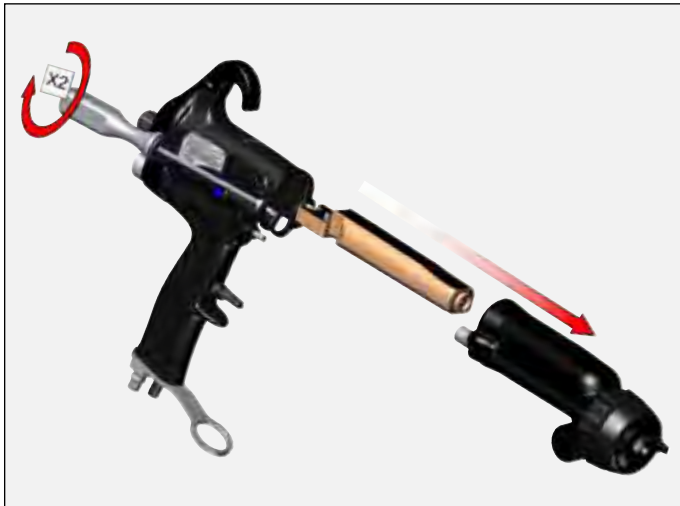
2. Remove fluid tube.



⚠ CAUTION

➤ This seal must be replaced each time the fluid tube is removed.

3. Remove screws, pull barrel straight forward without bending.



Remove/Replace Cascade

1. Pull cascade straight out.

⚠ CAUTION

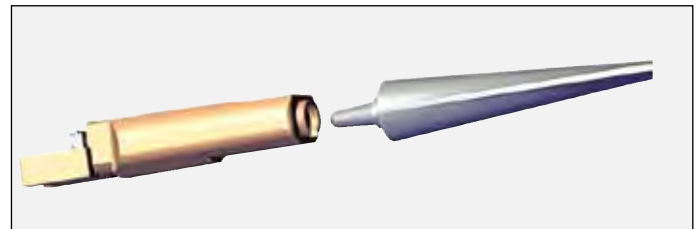
➤ Do not pull with excessive force or twist wires. This could damage cascade connector or wire harness.



2. Carefully disconnect harness by pulling connector on both sides by hand and rocking it side to side to remove.



3. Replace cascade as necessary.
4. Apply a generous amount of LSCH 0009 grease to end of cascade.



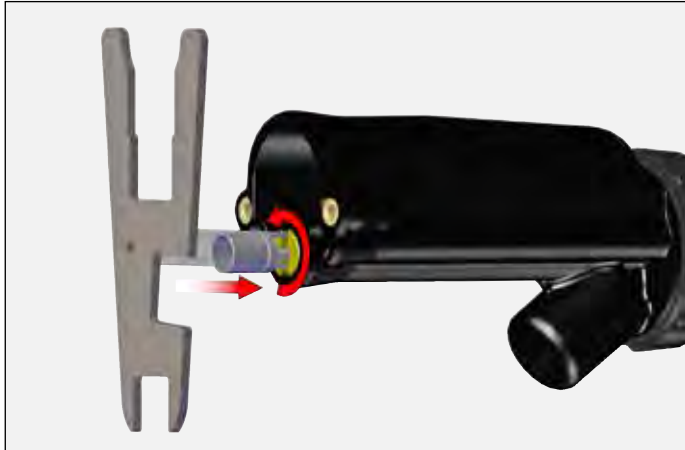
5. Re-connect harness by pushing down to snap.



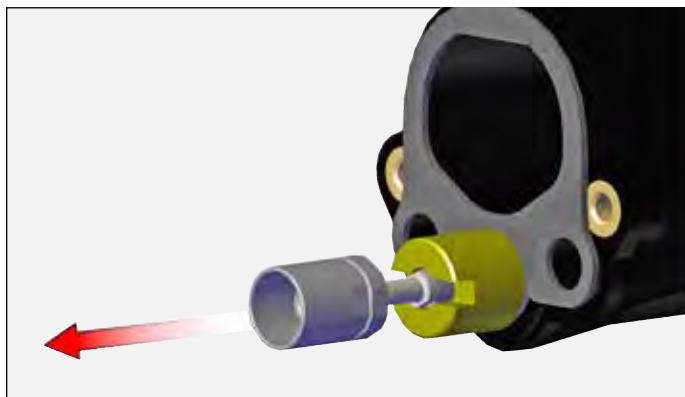
6. Re-install cascade into handle. Ensure wire harness is not pinched during assembly.

Packing Removal/Replace

1. Remove barrel from handle.
2. Use 80353 wrench to remove nut.



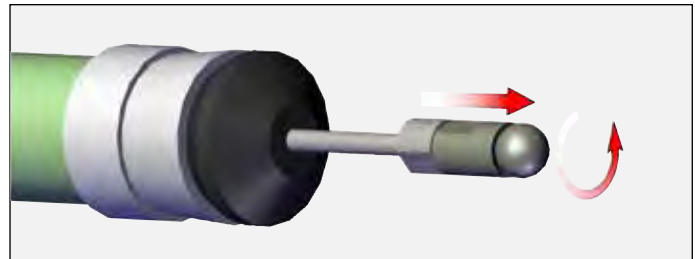
3. Pull straight out of barrel.



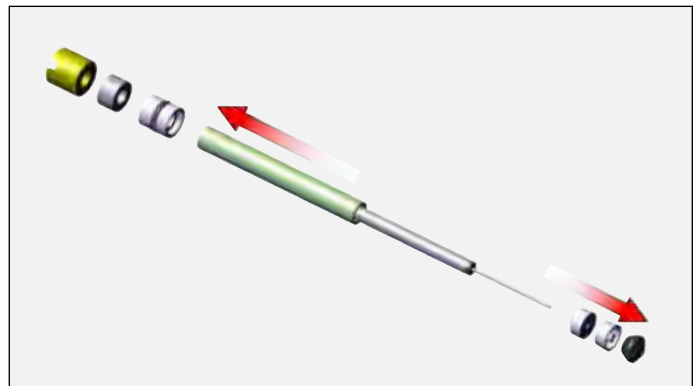
4. Remove jam nuts using 10 mm wrench (80903).



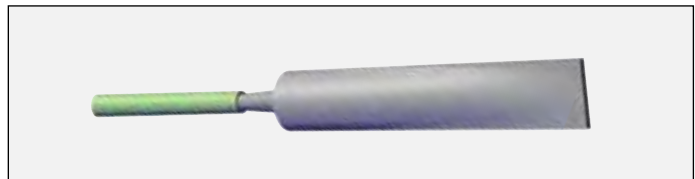
5. Remove ball and jam nut using 74133-00 wrench.



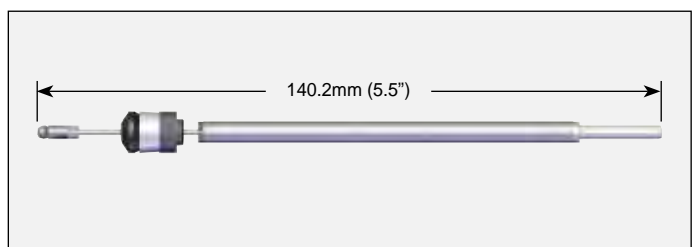
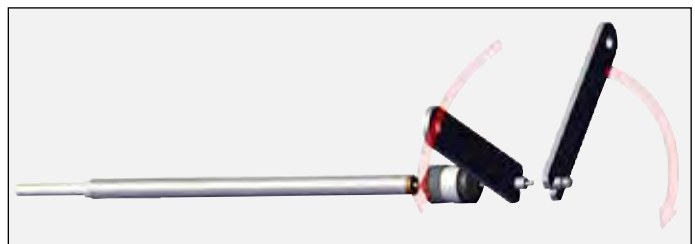
6. Remove all parts, clean with non-polar solvent. Inspect for any discolored areas. Replace parts as required.



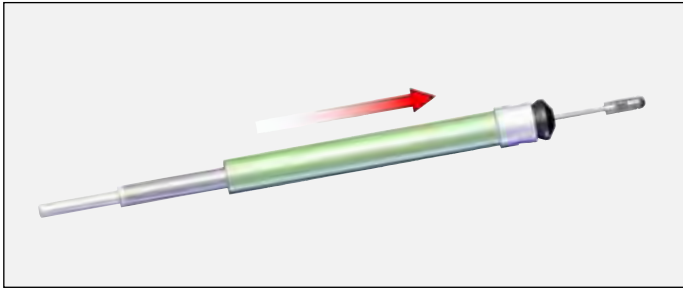
7. Prior to installation, apply dielectric grease inside packing tube, completely full.



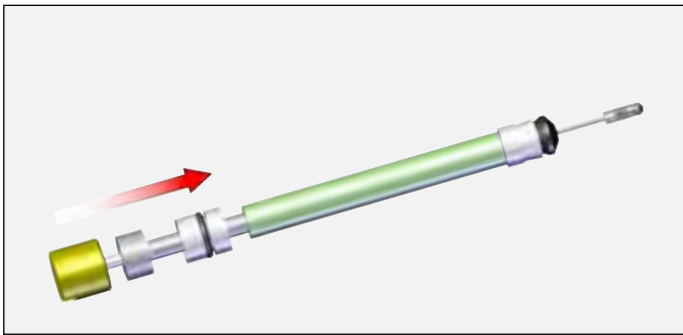
8. Insert seal parts on shaft and tighten ball against jam nut.



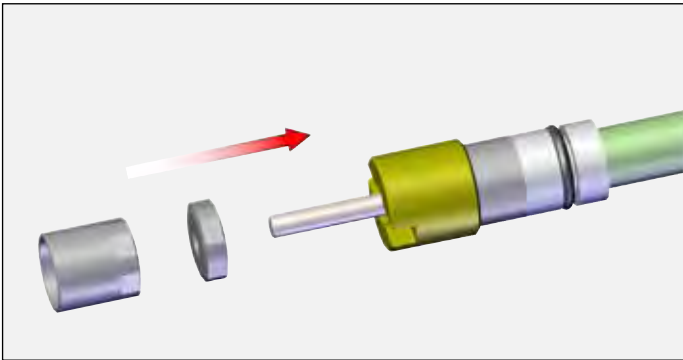
9. Insert packing tube onto shaft. Wipe excess grease over front parts and outside of packing tube.



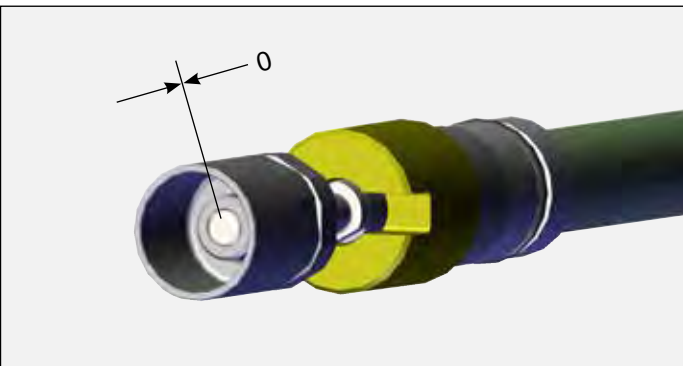
10. Install rear parts.



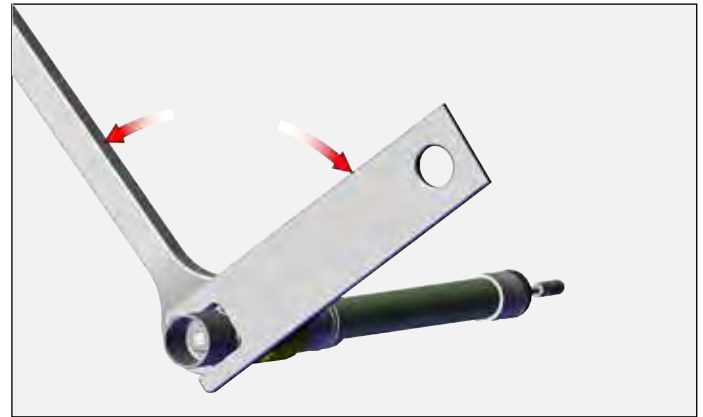
11. Install rear nut. Install jam nuts finger tight.



12. Set air before fluid adjustment, flush with end.

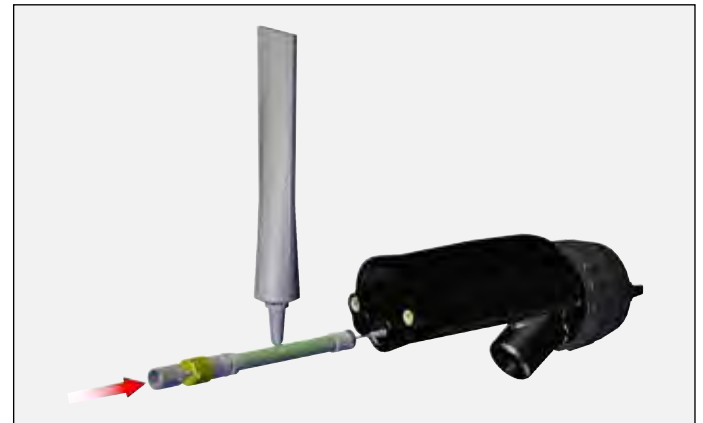


13. Tighten jam nuts.

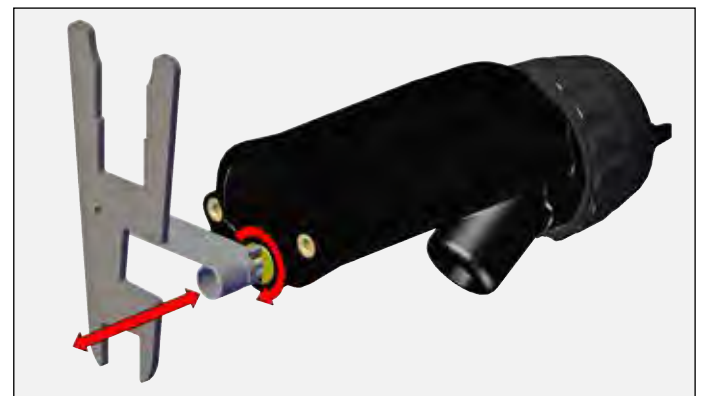


Re-Install Needle Shaft Into Barrel

1. Install needle shaft into barrel with die-electric grease.



2. Tighten packing using wrench. Pull back and forth on the needle shaft till a slight amount of drag is felt. Then tighten an additional 1/8 to 1/4 turn.



Re-Install Barrel

1. Install barrel over cascade.

NOTE

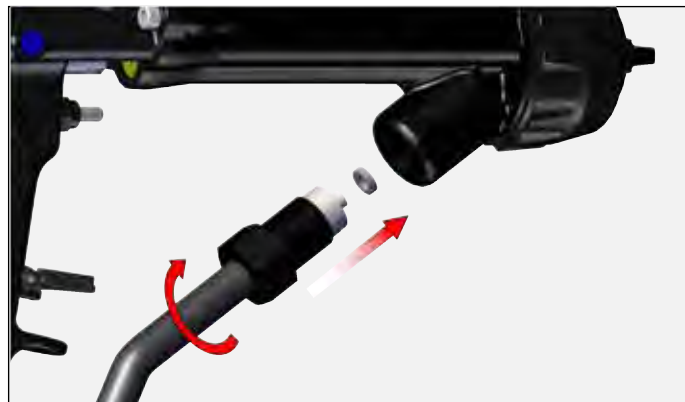
➤ The Gasket between the handle and barrel is reusable. It should only be replaced if torn or damaged.



2. Tighten barrel screws.



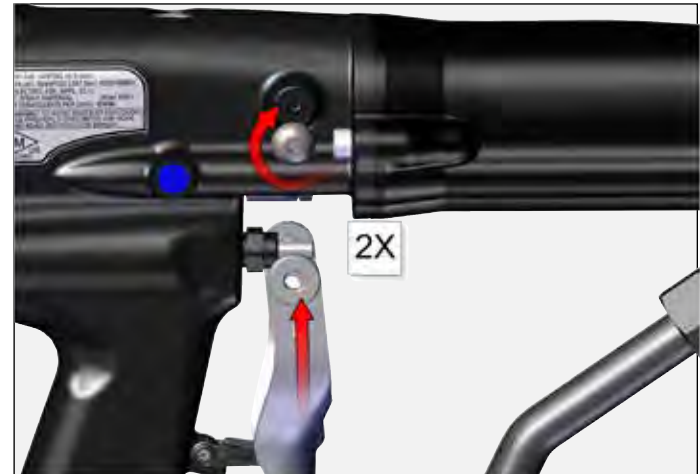
3. Re-install fluid tube.



⚠ CAUTION

➤ This seal must be replaced each time the fluid nozzle is removed.

4. Re-install trigger.

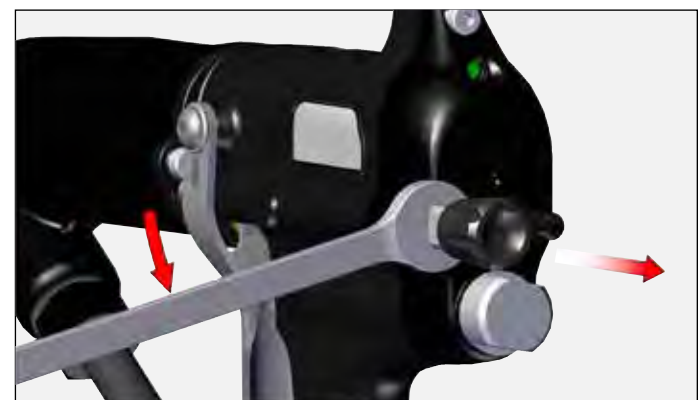


Rear Cover/Motor Module Repair

1. Loosen cover screw with 3 mm driver.



2. Remove fan air cartridge with 10 mm wrench.



3. Remove rear cover and cartridge with 15 mm wrench.



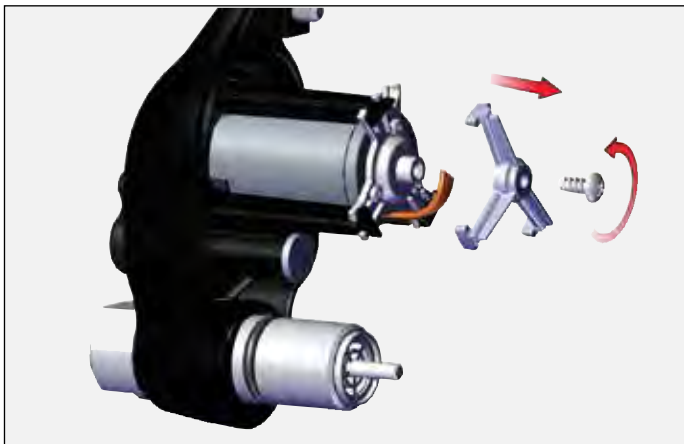
4. Disconnect motor connector from handle wire harness connector.

Motor Removal

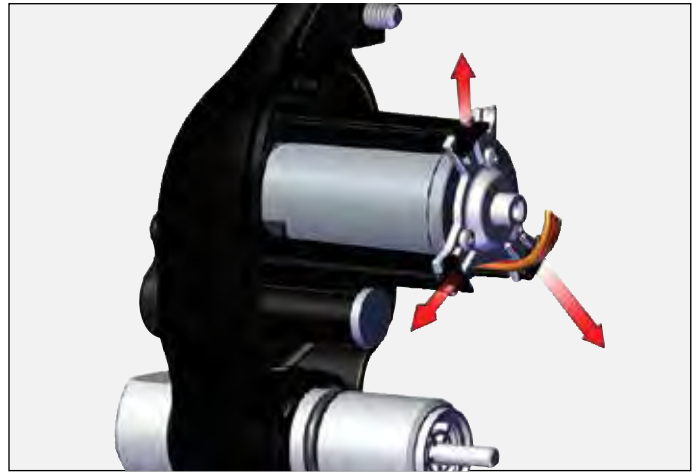
1. Remove light pipe.



2. Remove screw and retainer.



3. Remove motor assembly by pulling out on 3 arms, pull motor out.



4. Remove porting block.



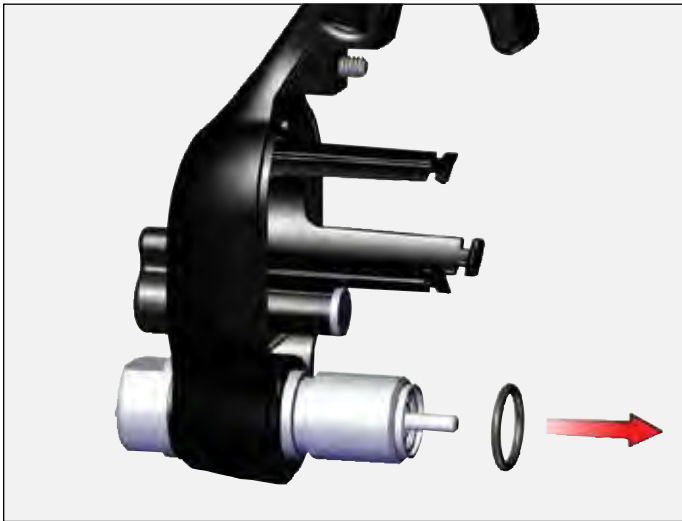
NOTE

➤ Block must be pulled out with fingers rocking the part side to side while pulling.

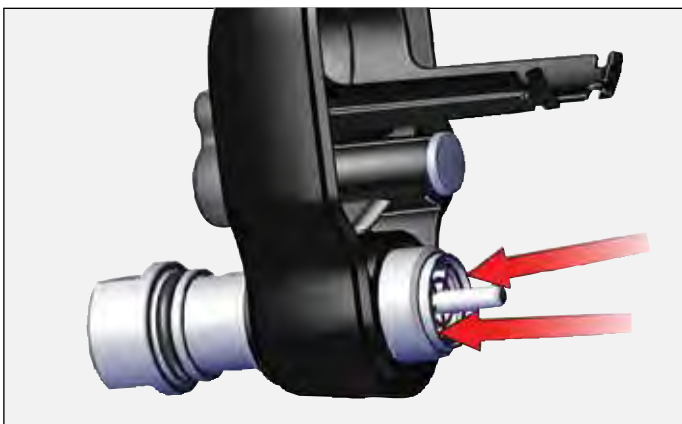
NOTE

➤ Only remove fluid valve cartridge if parts are being changed.

5. Remove fluid valve cartridge O-ring.

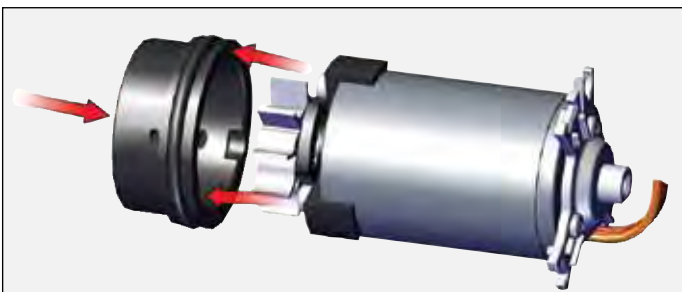


6. Push on edges to remove fluid valve cartridge.



Re-assembly

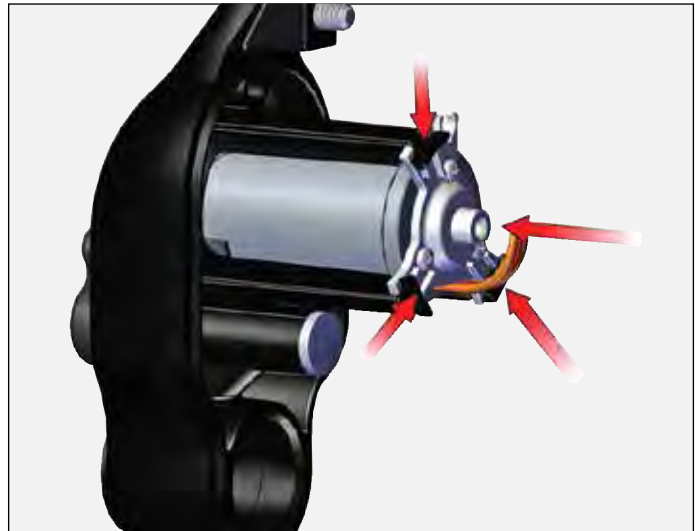
1. Install porting block on motor. Align screw heads into porting recess.



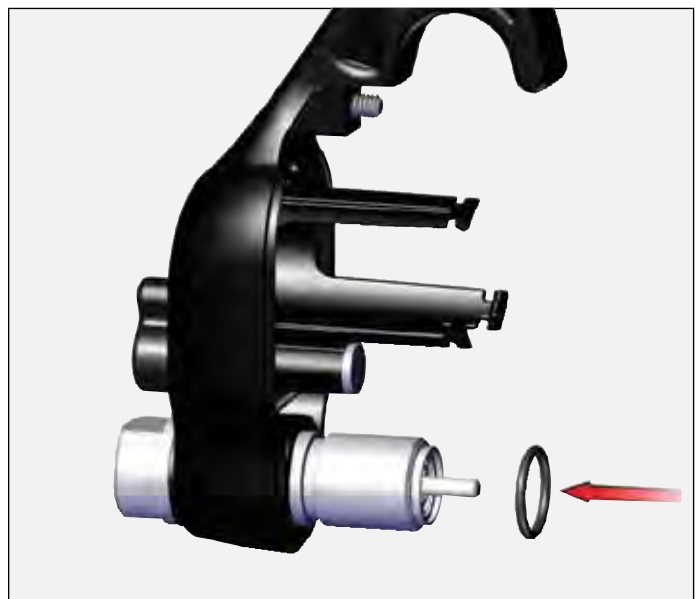
2. Align motor slots with 3 tab arms.

NOTE

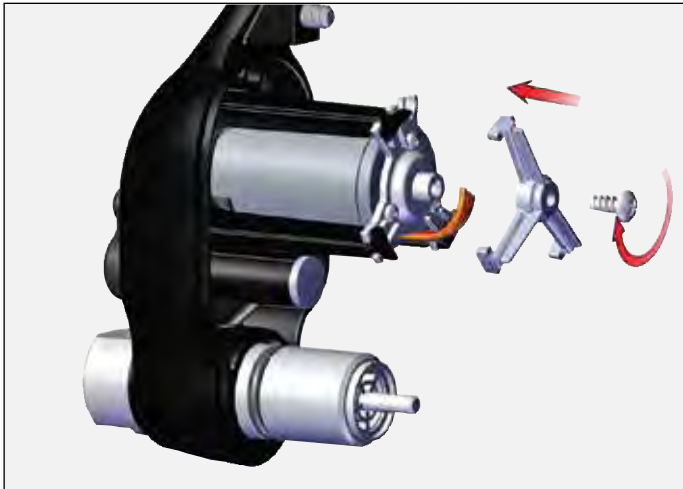
➤ There is only one way to install the motor.



3. Install cartridge then o-ring (if removed).



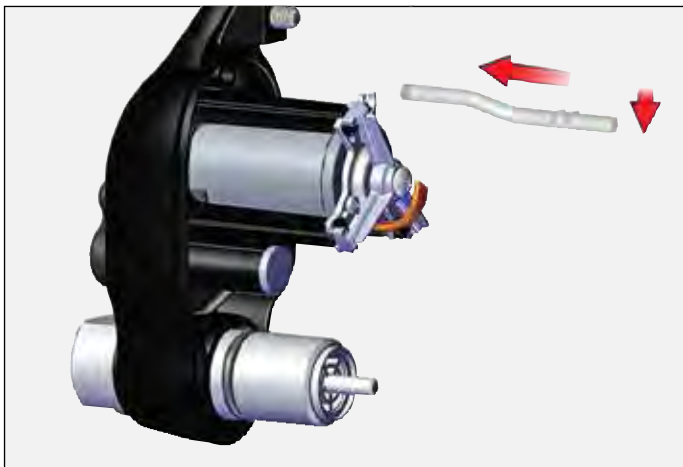
4. Install screw and retainer.



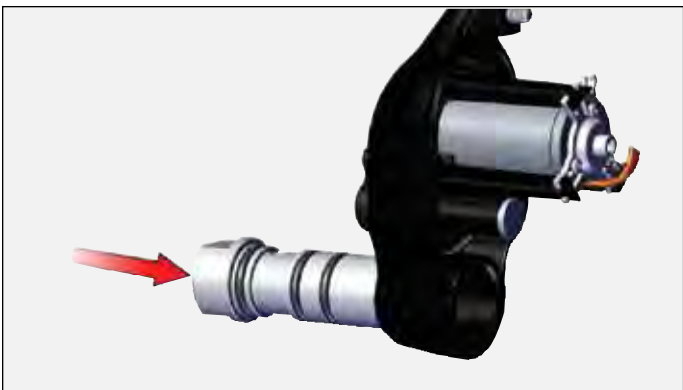
NOTE

➤ Only one way to position

5. Install light pipe.



6. Install fluid valve cartridge.



7. Install gasket and re-connect motor connector to handle harness connector.

NOTE

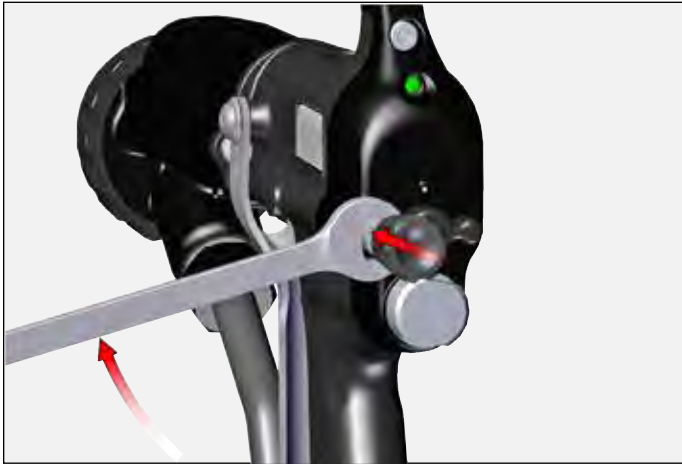
➤ The gasket between the handle and rear cover is reusable. It should only be replaced if torn or damaged.



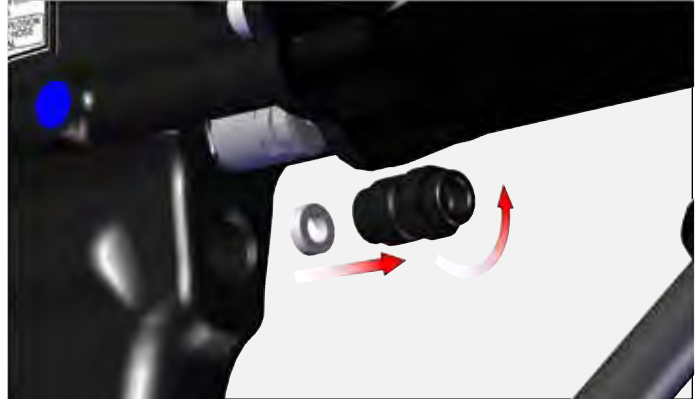
8. Push rear cover assembly into handle and tighten cartridge.



9. Install fan air valve cartridge.



4. Remove air valve packing nut and packing.



10. Tighten cover screw.



5. Insert air valve and spring.



6. Tighten packing nut till light drag is felt on the shaft while moving it back and forth.

7. Install rear cover assembly.

8. Install trigger.

Air Valve Remove/Replace

1. Remove trigger.
2. Remove rear cover assembly.
3. Remove air valve and spring.

Fluid Bracket Removal

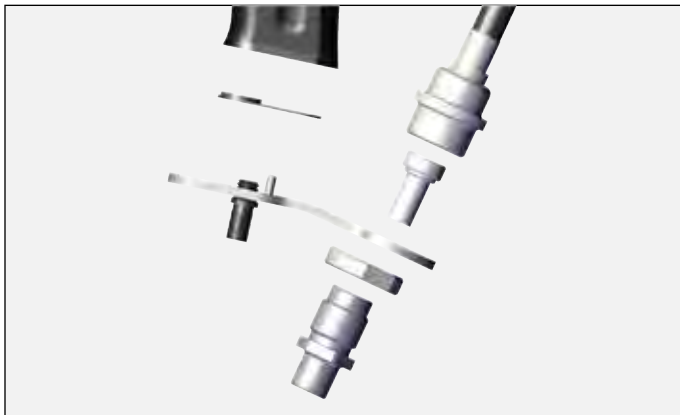
1. Loosen fluid nut.



2. Remove air fitting.



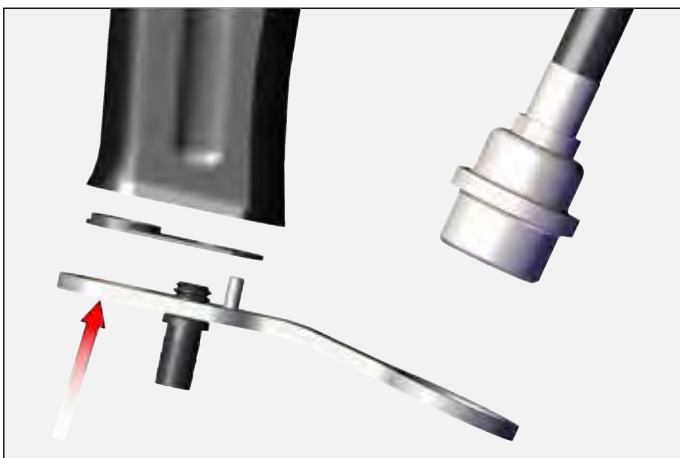
3. Remove bracket and gasket.



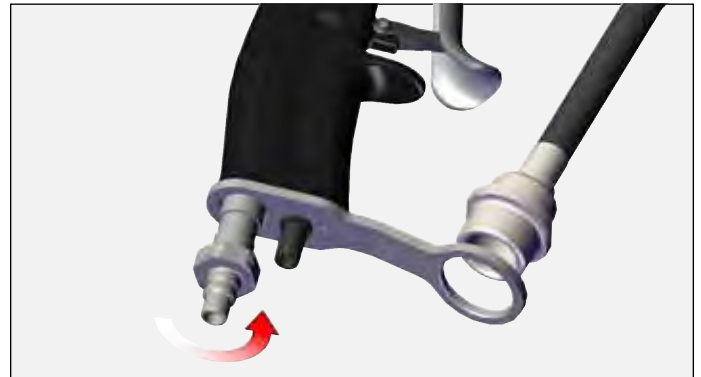
4. Install gasket and bracket.

NOTE

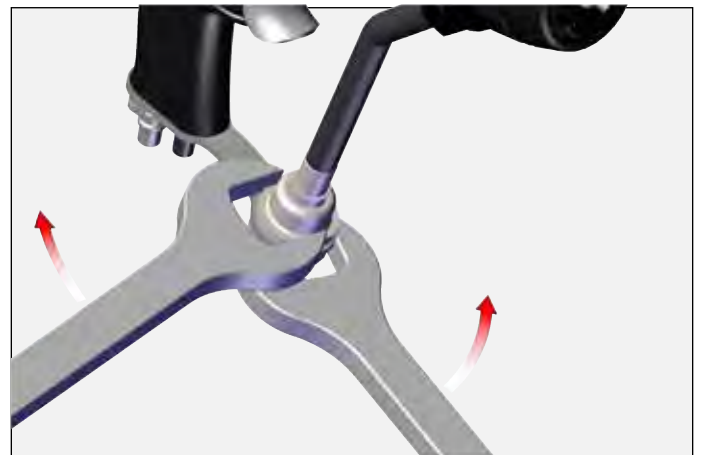
► The gasket between the handle and bracket is re-useable. It should only be replaced if torn or damaged.



5. Install air fitting. Torque to 20-25 Nm (177 lbs-in to 200 lbs-in)

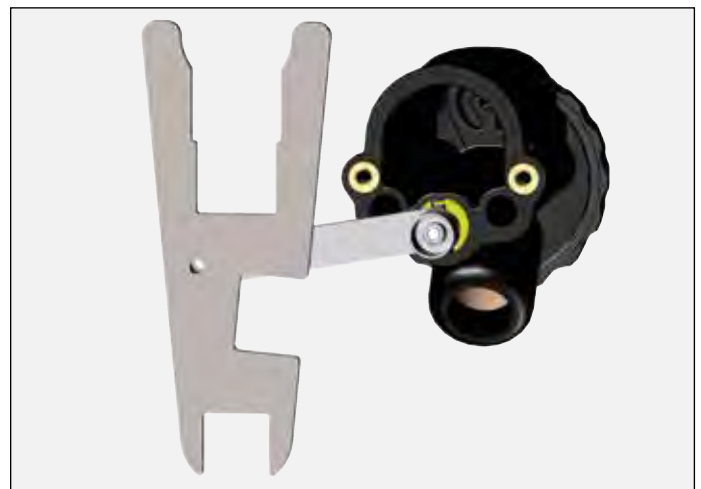


6. Tighten fluid nut.



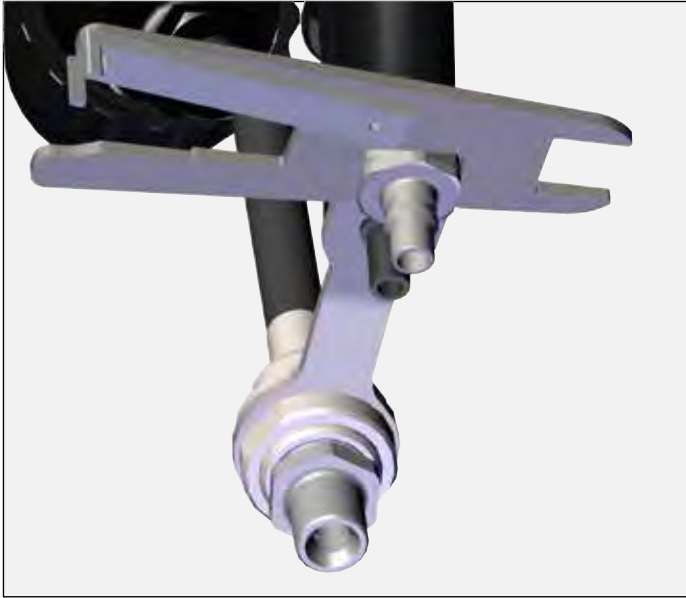
Gun Wrench Functions 80353-00

1. Adjust packings.



Torque to 20-25 Nm (177 lbs-in to 200 lbs-in)

2. Remove air fitting.



3. Remove rear cartridge.





TROUBLESHOOTING GUIDE

General Problem	Possible Cause	Solution
ELECTRICAL		
No kV, No Green Light	On/Off lever in wrong position	Ensure the On/Off lever is in the On position.
	Low pressure	Ensure 2.8 bar (40 psig) at the applicator handle with applicator triggered.
	No ground connection	Ensure the air hose is properly grounded to true earth ground.
	Cascade not functioning	Ensure cascade is functioning properly, swap parts as required. Inspect as required.
	Failed motor function	Ensure motor is properly functioning.
	Too conductive paint	Ensure paint resistance > .1 Meg Ohm
	Electrode not properly installed	Reassemble per manual instructions.
Low kV	Fluid remnants in the air passage	a. Clean air passage with non-polar solvent. b. Ensure fluid nozzle is properly tightened.
	Wrong solvent used for final cleaning process.	Use non-polar solvent for the final cleaning process.
	Add sufficient air pressure at handle	Ensure 2.8 bar (40 psig) at the handle with applicator triggered.
INADEQUATE DELIVERY		
No Fluid Flow	No pressure	Ensure pressure at the fluid line at the applicator.
	Fluid tube may be plugged	Replace or clean.
	Fluid nozzle/tip may be plugged, paint filter plugged.	Replace or clean.
	Material too viscous	Thin the material to a viscosity that is sprayable. Verify correct tip size installed.
Spray Performance	Poor atomization	Ensure atomization air passages are clear of all foreign particles.
	Fluid in air passages	Ensure fluid nozzle is properly tightened.
	Spits	Ensure air before fluid is properly adjusted.

PARTS IDENTIFICATION

RANSFLEX RX - SOLVENT BASE

80885 - AABCD

Base Model No.	Optional Designations
80885	AABCD

(Ordering Information Only)



CONFIGURATION DWG. 80886

⚠ CAUTION

► This assembly is not serviceable. Replace as required. To clean, it may be soaked in solvent or ultra sonically cleaned. Prolonged soaking may cause damage to resin parts.

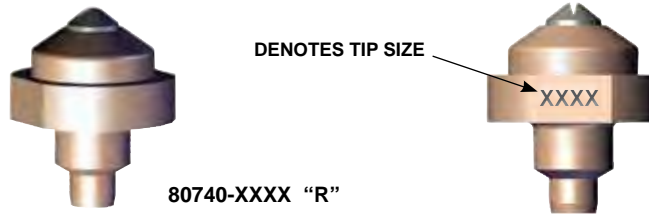


TABLE OF "AA" DASHES

"AA" Dash No.	"AA" Description	"R"
00	NO CARBIDE TIP	---
01	CARBIDE TIP ASSEMBLY 0509	80740-0509
02	CARBIDE TIP ASSEMBLY 0511	80740-0511
03	CARBIDE TIP ASSEMBLY 0513	80740-0513
04	CARBIDE TIP ASSEMBLY 0811	80740-0811
05	CARBIDE TIP ASSEMBLY 0813	80740-0813
06	CARBIDE TIP ASSEMBLY 1009	80740-1009
07	CARBIDE TIP ASSEMBLY 1011	80740-1011
08	CARBIDE TIP ASSEMBLY 1013	80740-1013
09	CARBIDE TIP ASSEMBLY 1015	80740-1015
10	CARBIDE TIP ASSEMBLY 1018	80740-1018
11	CARBIDE TIP ASSEMBLY 1021	80740-1021
12	CARBIDE TIP ASSEMBLY 1311	80740-1311
13	CARBIDE TIP ASSEMBLY 1313	80740-1313
14	CARBIDE TIP ASSEMBLY 1315	80740-1315
15	CARBIDE TIP ASSEMBLY 1318	80740-1318
16	CARBIDE TIP ASSEMBLY 1511	80740-1511
17	CARBIDE TIP ASSEMBLY 1513	80740-1513
18	CARBIDE TIP ASSEMBLY 1515	80740-1515
19	CARBIDE TIP ASSEMBLY 1518	80740-1518
20	CARBIDE TIP ASSEMBLY 1521	80740-1521
21	CARBIDE TIP ASSEMBLY 1715	80740-1715



TRIGGER - TABLE OF "B" DASHES

"C" Dash No.	"C" Description	"V"
1	2 FINGER TRIGGER	80211-00
2	4 FINGER TRIGGER	80386-00
3	2 FINGER SMALL PROFILE	80566-00

CONFIGURATION DWG. 80886

FLUID HOSE - TABLE OF "C" DASHES

"C" Dash No.	Description	"X"
0	NO FLUID HOSE	---
1	FLUID HOSE, 11m	7994-36
2	FLUID HOSE, 15m	7994-50
3	FLUID HOSE, 20m	7994-75
4	FLUID HOSE, 30m	7994-100



AIR HOSE - TABLE OF "D" DASHES

"D" Dash No.	"F" Description	"Y"	"Z"
0	NO AIR HOSE, STANDARD	---	80868-00
1	STANDARD AIR HOSE, 5m	80558-05	80868-00
2	STANDARD AIR HOSE, 10m	80558-10	80868-00
3	STANDARD AIR HOSE, 15m	80558-15	80868-00
4	STANDARD AIR HOSE, 20m	80558-20	80868-00
5	NO AIR HOSE, QD	---	80869-00
6	QD AIR HOSE, 5m	80558-06	80869-00
7	QD AIR HOSE, 10m	80558-11	80869-00
8	QD AIR HOSE, 15m	80558-16	80869-00
9	QD AIR HOSE, 20m	80558-21	80869-00

APPROVED ACCESSORIES



PRE ORFICE SAPPHIRES - 80907-XXXX

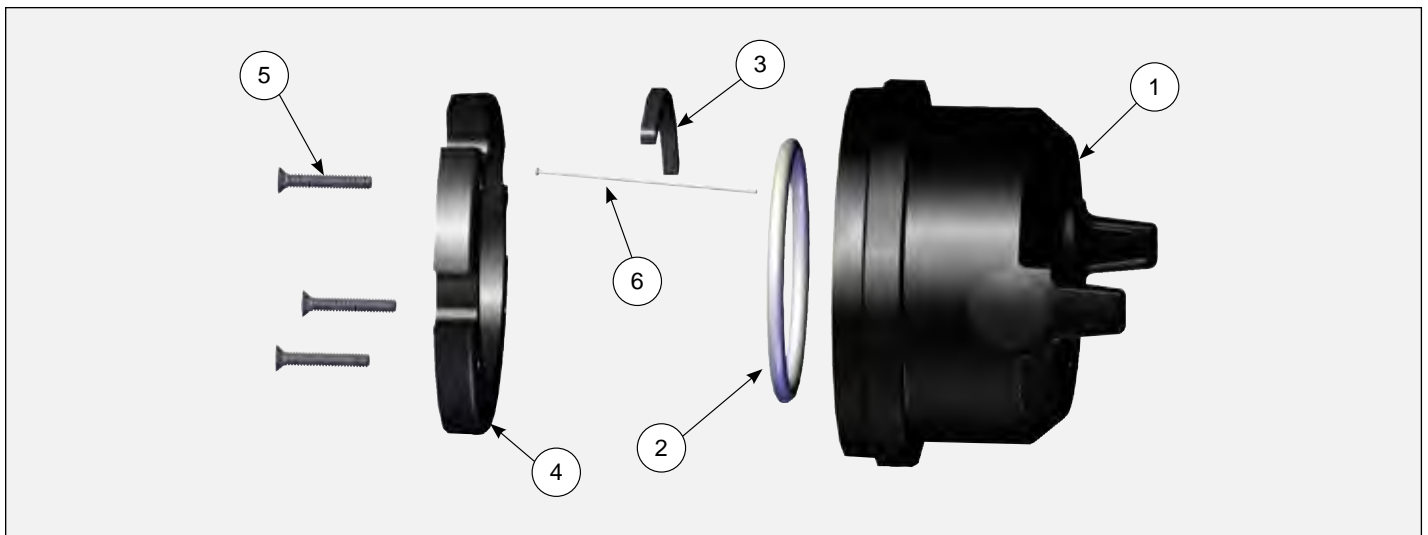
Part No.	Outside Marking	Part No.	Outside Marking
80907-0504	S0509	80907-1311	S1311
80907-0511	S0511	80907-1313	S1313
80907-0513	S0513	80907-1315	S1315
80907-0811	S0811	80907-1318	S1318
80907-0813	S0813	80907-1513	S1513
80907-1009	S1009	80907-1515	S1515
80907-1013	S1013	80907-1518	S1518
80907-1015	S1015	80907-1521	S1521
80907-1018	S1018	80907-1715	S1715
80907-1021	S1021		

CONFIGURATION DWG. 80886



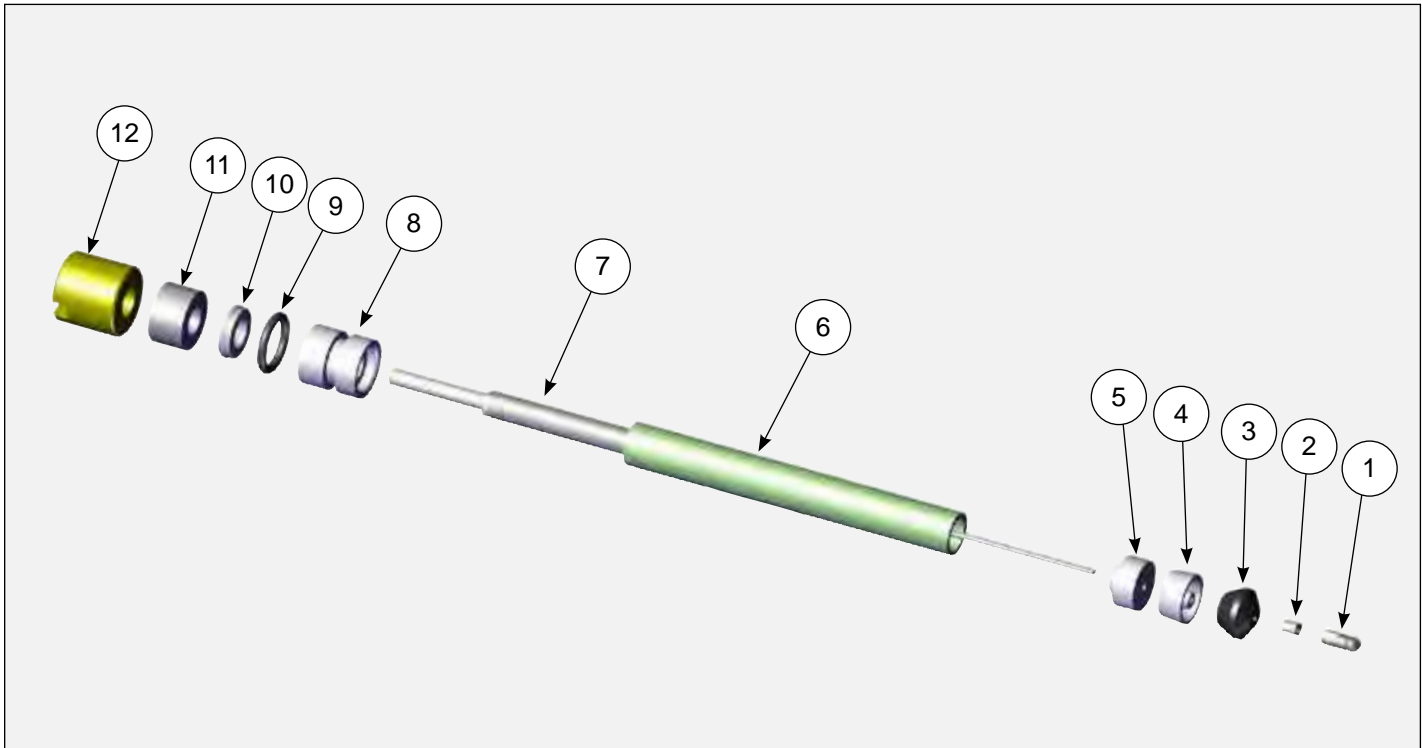
RETAINING RING

Item No.	Part No.	Description	Qty.
1	80863-00	NUT, RETAINING & O-RING ASSEMBLY (CONTAINS ALL PARTS)	1
2	LSOR0005-17-K3	O-RING, ENCAPSULATED (INCLUDED AS PART OF 80904-00 GASKET KIT)	1



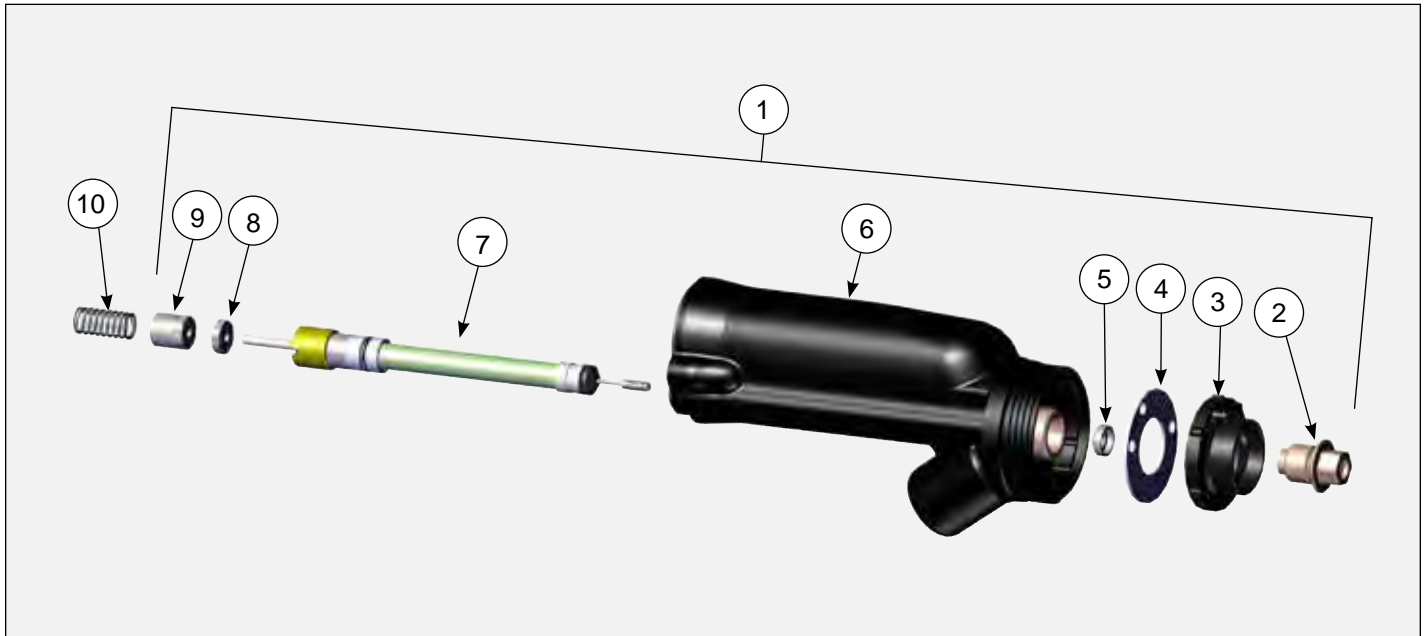
80735-00 AIR CAP ASSEMBLY

Item No.	Part No.	Description	Qty.
1	80860-00	ASS'Y., AIR CAP AA RANSFLEX	1
2	80856-00-K3	O-RING, PTFE	1
3	80859-00-K3	INSERT, CONDUCTIVE	1
4	80857-00	RING, POSITION AA RANSFLEX	1
5	80849-00-K3	0-80 X 3/8" MACHINE SCREW	3
6	80738-00	RANSFLEX AA ELECTRODE	1



NEEDLE SHAFT ASSEMBLY 80744-00

Item No.	Part No.	Description	Qty.
	1	73350-00 ASS'Y., VALVE, BALL	1
	2	73351-00 NUT, JAM	1
	3	79618-00 SPREADER, SEAL, MACHINED	1
	4	73345-00-K3 SEAL, FRONT U-CUP	1
	5	73346-00 PUSHER, SEAL	1
	6	80758-00 TUBE, PACKING	1
	7	80741-00 ASS'Y., NEEDLE SHAFT RANSFLEX AA	1
	8	73347-00 CONTAINER, REAR SEAL	1
	9	72209-05-K3 O-RING, SOLVENT RESISTANT	1
	10	74330-00-K3 SEAL, LIP, SPRING ENERGIZED	1
	11	73348-00 RETAINER, REAR SEAL	1
	12	73354-00 NUT, PACKING	1



AA BARREL 80731-00

Item No.	Part No.	Description	Qty.
1	80731-00	ASSEMBLY, AA BARREL W/ NEEDLE SHAFT	
2	80761-00	ASSEMBLY, AA FLUID NOZZLE	1
3	80897-00	ASSEMBLY, BAFFLE	1
4	80749-00	BAFFLE GASKET	1
5	80762-00-K3	SEAL, NOZZLE (REPLACE EACH TIME REMOVED)	1
6	80760-00	ASSEMBLY, AA BARREL	1
7	80744-00	ASSEMBLY, AA NEEDLE SHAFT	1
8	80763-00	NUT, FRONT JAM	1
9	80764-00	NUT, REAR JAM	1
10	80876-00-K3	SPRING, FLUID RETURN	



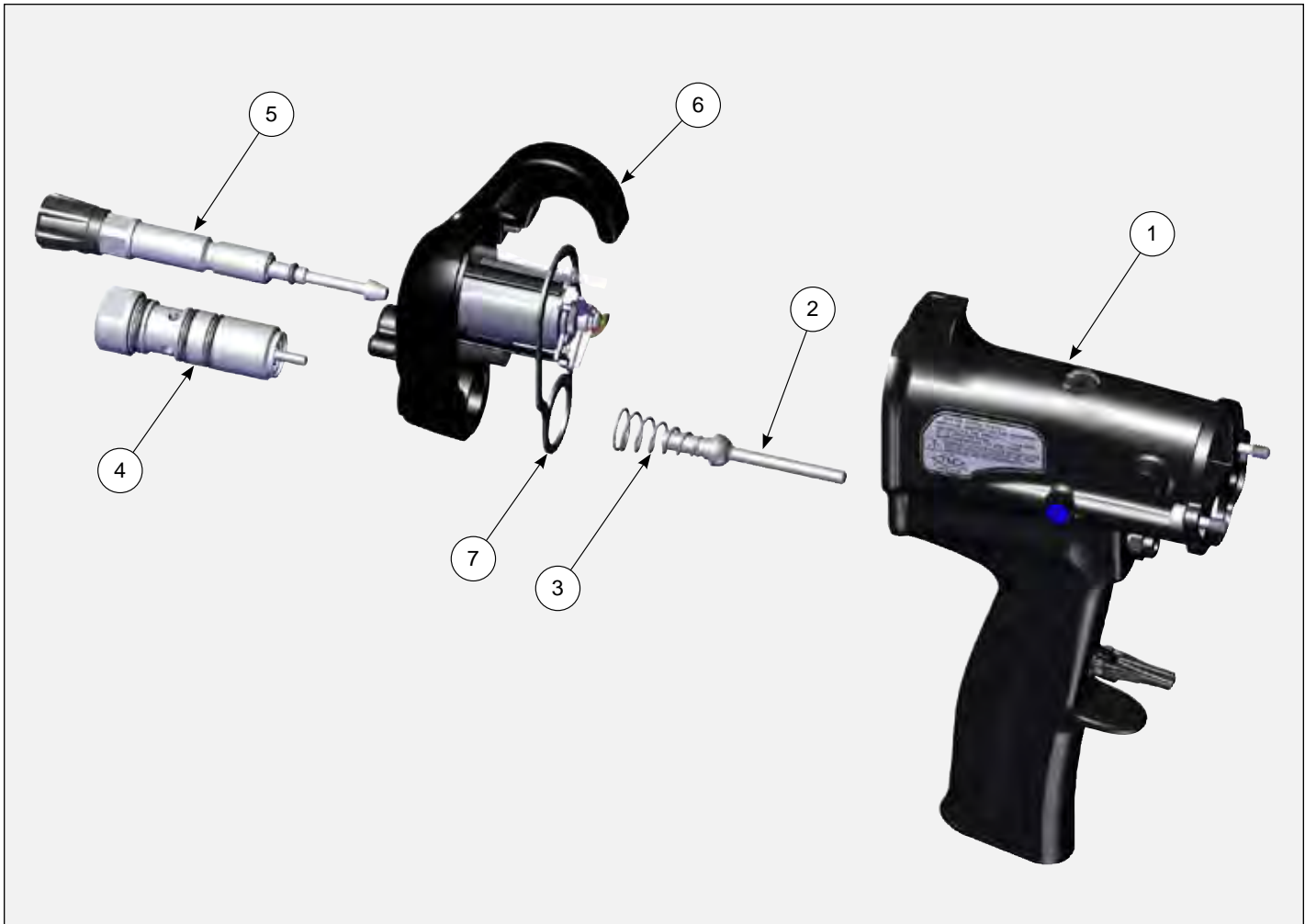
CASCADE 80250-85

Item No.	Part No.	Description	Qty.
1	80250-85	ASSEMBLY, CASCADE	1

HANDLE COMPONENTS FOR AA MODELS



HANDLE COMPONENTS			
Item No.	Part No.	Description	Qty.
1	80730-00	INCLUDES HANDLE WITH COMPENSATION VALVE (80870-00) AND REAR COVER WITH MOTOR (80378-00) ASSEMBLY (NON-ADJUSTABLE FLUID CONTROL)	1
2	80268-00	SCREW, TRIGGER	2
3	80745-00	GASKET, BARREL (INCLUDED AS PART OF 80904-00 GASKET KIT)	1
4	80211-00	ASS'Y, TRIGGER (2 FINGER)	1
	80386-00	ASS'Y, TRIGGER (4 FINGER)	1
	80566-00	2 FINGER SMALL PROFILE	1
5	72375-02-K3	SEAL, PTFE (INCLUDED AS PART OF 80904-00)	1
6	80855-00	FLUID TUBE ASS'Y	1
7	7720-02-K5	FILTER, PAINT (60 MESH) STD.	1
	7720-01-K5	FILTER, PAINT 100 MESH (ACCESSORY)	1
8	80899-00	FLUID INLET NUT	1
9	80874-00	BRACKET, FLUID	1
10	80684-00	GASKET, EXHAUST, COMBINED (INCLUDED AS PART OF 81391-00 GASKET KIT)	1
11	80868-00	FITTING AIR INLET	1
	80869-00	FITTING AIR INLET QD	1
12	80221-00	FITTING, EXHAUST	1
13	80901-00	FLUID INLET FITTING	1
14	79861-00	TUBING, EXHAUST	1

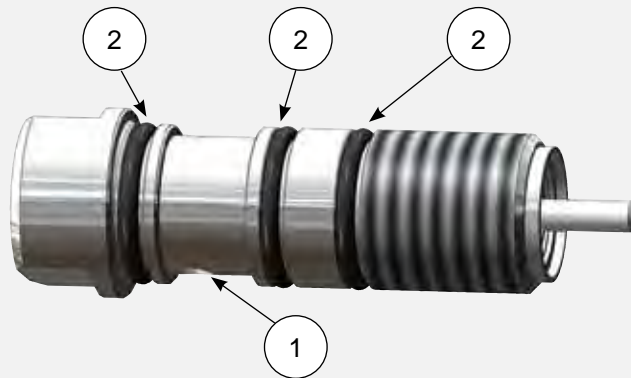


HANDLE WITH REAR COVER WITH MOTOR 80730-00

Item No.	Part No.	Description	Qty.
1	80733-00	ASSEMBLY, HANDLE	1
2	80244-00	ASSEMBLY, VALVE, AIR	1
3	80533-00-K3	SPRING, AIR VALVE	1
4	80262-01	ASSEMBLY, VALVE, NON-ADJUSTABLE FLUID CONTROL	1
5	80273-00	ASSEMBLY, VALVE FAN AIR	1
6	80378-00	REAR COVER AND MOTOR ASSEMBLY	1
7	80732-00	GASKET, REAR (INCLUDED AS PART OF 80904-00 GASKET KIT)	1

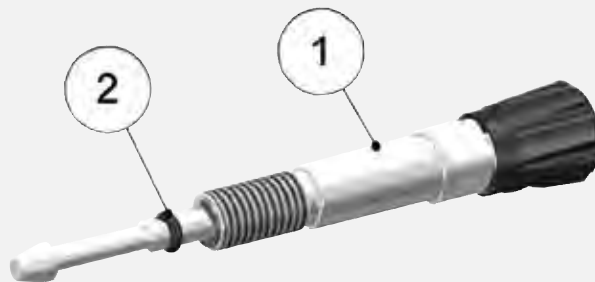


HANDLE ASSEMBLY 80733-00			
Item No.	Part No.	Description	Qty.
1	80204-02	ASSEMBLY, HANDLE INCLUDES ALL PARTS BELOW, MOTOR CONTROL BOARD AND HARNESSSES	1
2	80274-00	SCREW, BARREL-HANDLE	2
3	80229-00-K3	NUT, RETAINING, AIR VALVE	1
4	10051-05	CUP SEAL, SPRING LOADED (INCLUDED AS PART OF 80904-00 GASKET KIT)	1
5	80748-00	TRIGGER LOCK	1
6	80747-00	TRIGGER LOCK PIN	1



REAR CARTRIDGE ASSEMBLY 80262-01 (NON-ADJUSTABLE FLUID CONTROL)

Item No.	Part No.	Description	Qty.
1	80262-01	ASSEMBLY, FLUID CARTRIDGE (NON-ADJUSTABLE)	1
2	79001-08-K3	O-RING, SOLVENT PROOF (INCLUDED AS PART OF 80904-00 GASKET KIT)	3



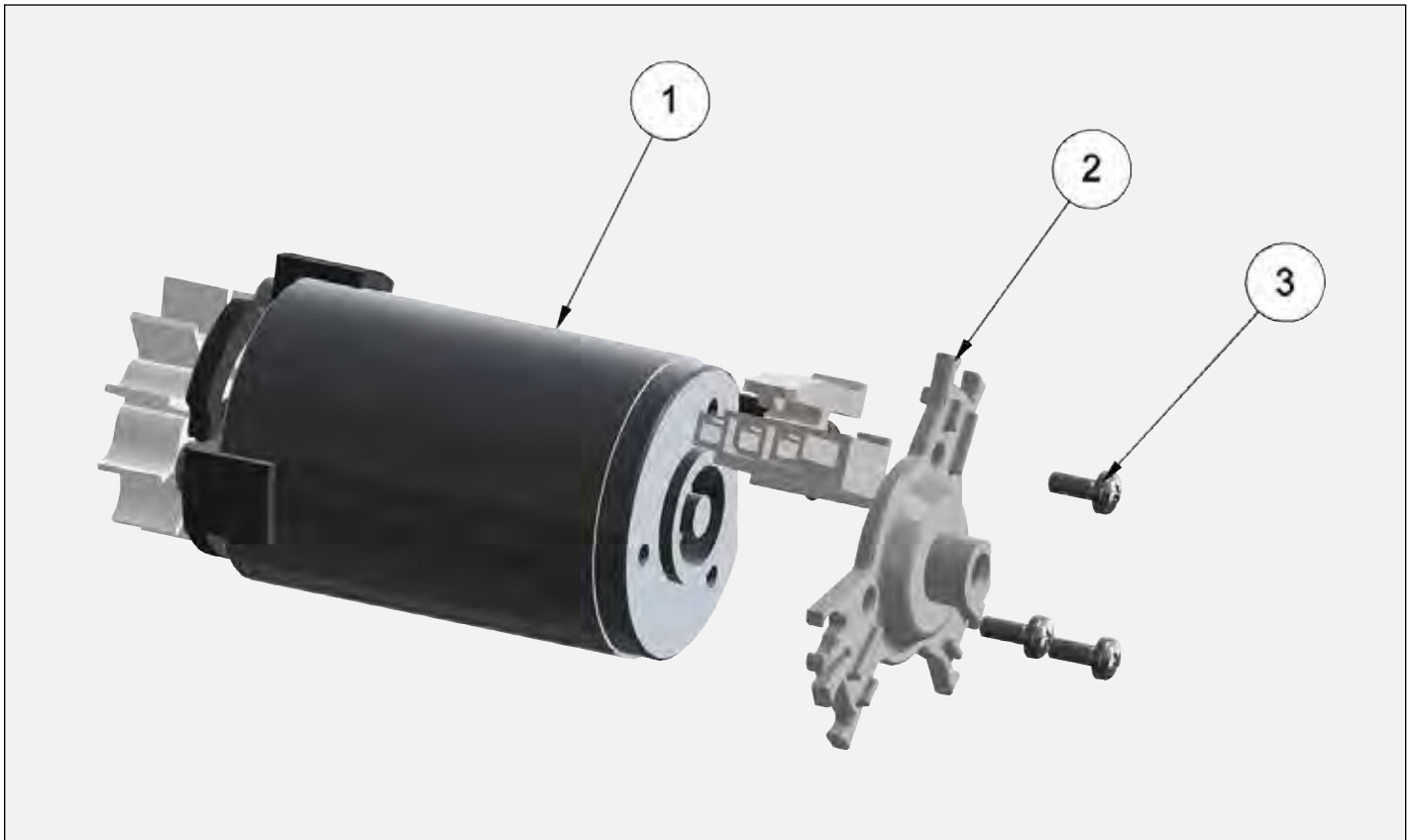
80273-00 FAN AIR CARTRIDGE

Item No.	Part No.	Description	Qty.
1	80273-00	ASS'Y., FAN VALVE (INCLUDES ALL PARTS BELOW)	1
2	79001-16-K3	O-RING, SOLVENT PROOF (INCLUDED AS PART OF 80904-00 GASKET KIT)	1



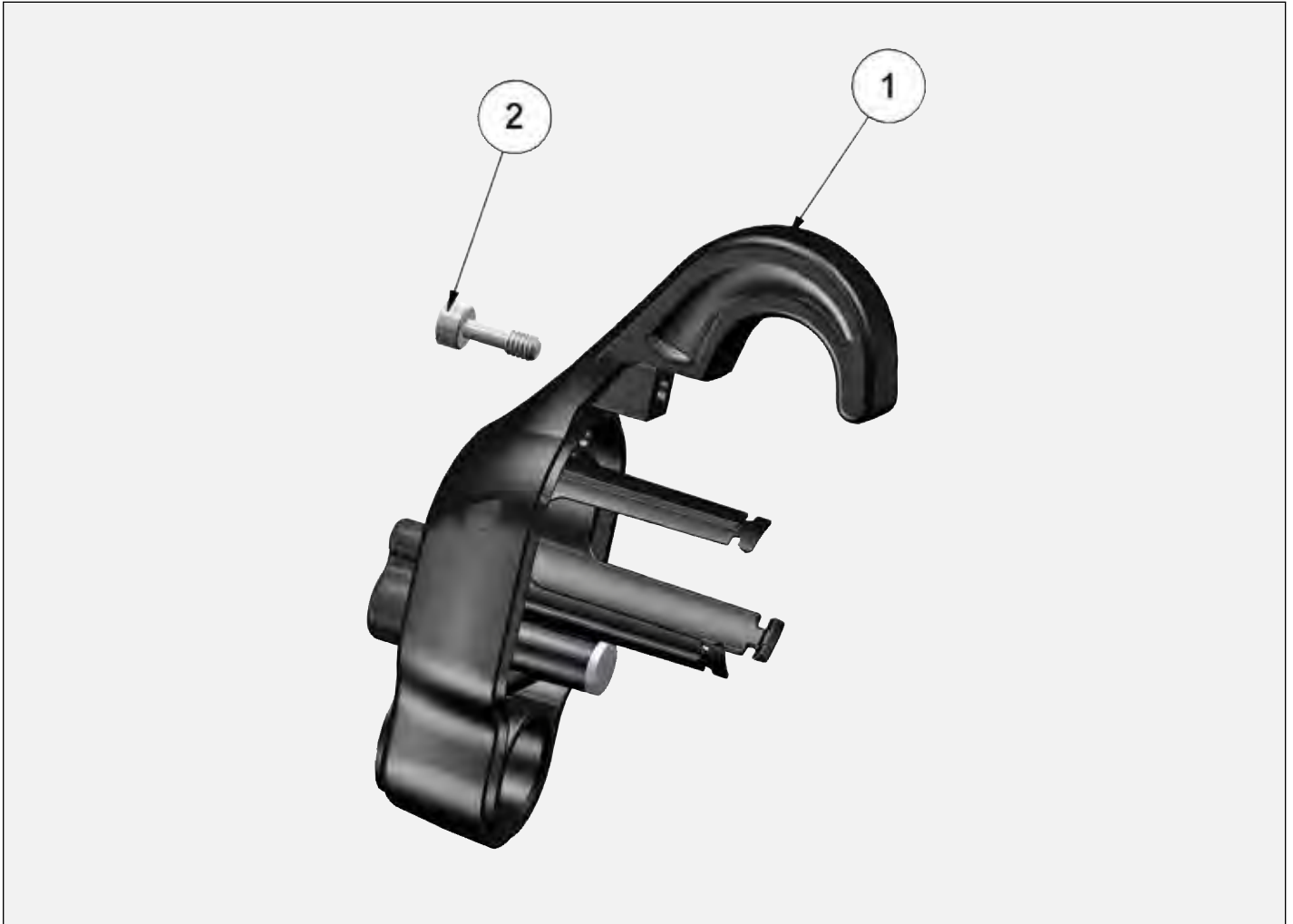
80378-00 REAR COVER WITH MOTOR ASSEMBLY

Item No.	Part No.	Description	Qty.
1	80378-00	COVER, REAR ASSEMBLY (INCLUDES ALL PARTS BELOW)	1
2	80213-00-K5	PIPE, LIGHT	1
3	80255-00	ASSEMBLY, MOTOR	1
4	79775-00	BLOCK, PORTING	1
5	7554-61-K3	O-RING, SOLVENT RESISTANT (INCLUDED AS PART OF 80904-00 GASKET KIT)	1
6	80275-00	SCREW	1
7	80219-00	BRACKET, LOCKING	1



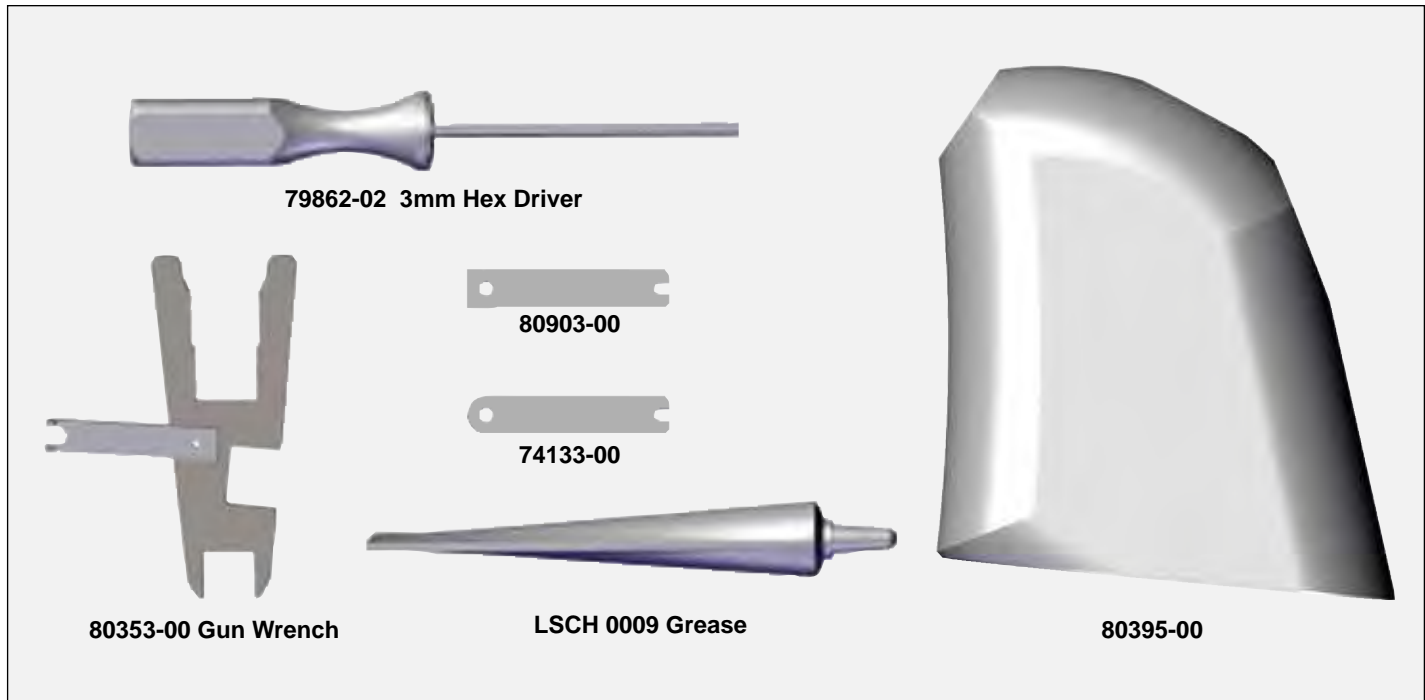
80255-00 MOTOR ASSEMBLY

Item No.	Part No.	Description	Qty.
1	80255-00	ASSEMBLY, MOTOR (INCLUDES ALL PARTS BELOW)	1
2	80217-00	COVER SUPPORT, MOTOR	1
3	79796-00-K3	SCREW, MOTOR	3



80254-00 REAR COVER ASSEMBLY			
Item No.	Part No.	Description	Qty.
1	80254-00	COVER, REAR (CONTAINS PARTS BELOW)	1
2	80274-00	M4 X .7 SHCS	1

ACCESSORIES INCLUDED



ACCESSORIES AVAILABLE SEPARATELY

Part No.	Description
27141-081	WRAP, SPIRAL
59972-00	PACK OF 4 LSCH0009 GREASE
76102-00	APPLICATOR MOUNTING BRACKET
76652-01	HV PROBE
76652-02	SPAYABILITY AND SCI PAINT TEST METER
76652-03	PAINT RESISTIVITY, SPRAYABILITY

SPARE PARTS KITS

Part No.	Description
80696-00	GASKET KIT CONTAINS: 80732-00 REAR COVER, 80745-00 HANDLE/BARREL, AND 80684-00 HANDLE BOTTOM
80904-00	GASKET/O-RING KIT
80395-K10	GUN COVER - KIT OF 10
80395-K100	GUN COVER - KIT OF 100
76633-K5	CONDUCTIVE GLOVES - KIT OF 5
76633-K10	CONDUCTIVE GLOVES - KIT OF 10
80507-00	COILED FLUID TUBE KIT

RANSFLEX GASKET/O-RING KIT

Part No.	Description
80732-00	GASKET, REAR
80745-00	GASKET, BARREL
80684-00	GASKET, EXHAUST
79001-16-K3	O-RING, SOLVENT PROOF
79001-08-K3	O-RING, SOLVENT PROOF
7554-61-K3	O-RING, SOLVENT RESISTANT
LS0R0005-17-K3	O-RING, ENCAPSULATED
10051-05	CUP SEAL
IL-559	LITERATURE

RANSFLEX RECOMMENDED SPARE PARTS
(Quantities Per Applicator)

Part #	Description	Qty
80250-85	CASCADE ASSEMBLY (AA MODELS)	1
80745-00	GASKET, BARREL	1
80377-00	NUT, RETAINING, AIR NOZZLE	1
80268-00	SCREW, TRIGGER RETENTION	2
80255-00	ASSEMBLY, MOTOR	1
80876-00-K3	SPRING, FLUID RETURN	1
80732-00	GASKET, REAR	1
10051-05	SEAL, AIR VALVE	1
80684-00	GASKET, EXHAUST, COMBINED	1
LSCH0009-00	DIELECTRIC GREASE	2
80259-00	SPRING, AIR VALVE	1
80744-00	ASSEMBLY, RANSFLEX AA NEEDLE SHAFT	1
80731-00	ASSEMBLY, BARREL W/NEEDLE SHAFT	1
7720-02-K5	FILTER, PAINT	1
80855-00	ASSEMBLY, FLUID TUBE	1
72375-02-K10	SEAL, PTFE	1
80760-00	ASSEMBLY, BARREL AA	1
80762-00-K3	SEAL, NOZZLE	1
80749-00	GASKET, BAFFLE	1
80735-00	AIR CAP	1

MANUAL CHANGE SUMMARY

AH-21-01-R4 - Replaces AH-21-01-R3 with the following changes:

No.	Change Description	Page(s)
1.	Replace label	10

WARRANTY POLICY

This product is covered by Carlisle Fluid Technologies' materials and workmanship limited warranty. The use of any parts or accessories, from a source other than Carlisle Fluid Technologies, will void all warranties. Failure to reasonably follow any maintenance guidance provided, may invalidate any warranty.

For specific warranty information please contact Carlisle Fluid Technologies.

For technical assistance or to locate an authorized distributor, contact one of our international sales and customer support locations.

Region	Industrial / Automotive	Automotive Refinishing
Americas	Tel: 1-800-992-4657 Fax: 1-888-246-5732	Tel: 1-800-445-3988 Fax: 1-800-445-6643
Europe, Africa Middle East, India	Tel: +44 (0)1202 571 111 Fax: +44 (0)1202 573 488	
China	Tel: +8621-3373 0108 Fax: +8621-3373 0308	
Japan	Tel: +81 45 785 6421 Fax: +81 45 785 6517	
Australia	Tel: +61 (0) 2 8525 7555 Fax: +61 (0) 2 8525 7575	

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