

SG2™, SG3™ Spray Guns

For the application of architectural paints and coatings.



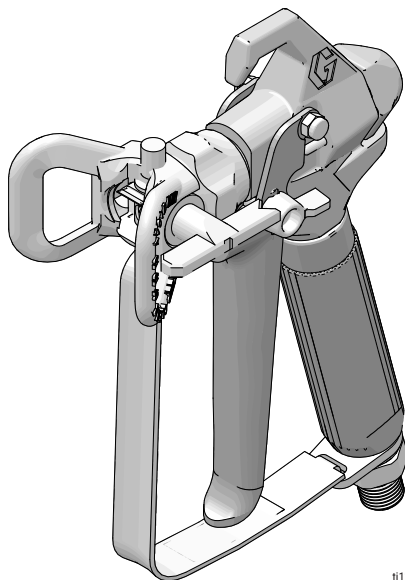
Important Safety Instructions

Read all warnings and instructions in this manual. Refer to your sprayer instruction manual for Pressure Relief, priming and spray instructions. Save these instructions.



Important Medical Information

Read the medical alert card provided with the gun. It contains injection injury treatment information for a doctor. Keep it with you when operating the equipment.



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MODELS

The part numbers reflect distinct features and characteristics of the SG2™, SG3™ Spray Guns.

SG2, SG3 SPRAY GUN MODELS AND APPROVALS

Maximum Working Pressure: 3600 psi (24.8 MPa, 248 bar)

PART NUMBER	MODELS	APPROVALS
243011	SG2	
243012	SG3	
246506	SG3	
257359	SG2	
17J910	SG3	
25R553	SG3	
CAN011	SG2	
CAN012	SG3	

RELATED MANUALS

Additional documents are available to support the operation, repair, and maintenance of the SG2™, SG3™ Spray Guns. Find English manuals and any available translations at www.graco.com.

Table 2-1: Related Manuals for SG2, SG3 Spray Guns Instruction Manual X049555

ENGLISH MANUAL	DESCRIPTION
X017810EN	Magnum® TRUEAIRLESS® Electric Airless Sprayer, Operation
X017686EN	Magnum® TRUEAIRLESS® Electric Airless Sprayer, Operation
X006868EN	Magnum® TRUEAIRLESS® Electric Airless Sprayer, Operation
X046314EN	Magnum® TRUEAIRLESS® Electric Airless Sprayer, Operation
X044107EN	GX™ Electric Airless Sprayers, Operation
X017304EN	GX™ Electric Airless Sprayers, Operation
X052017EN	Electric Airless Sprayers, Operation

TRANSLATED MANUALS

Additional language documents are available to support all regions where the SG2™, SG3™ Spray Guns are sold. Find any available translations at www.graco.com.

Table 2-2: Translations for SG2, SG3 Spray Guns Instruction Manual

LANGUAGE	MANUAL NUMBER
Bulgarian	X049555BG
Chinese	X049555ZH
Croatian	X049555HR
Czech	X049555CS
Danish	X049555DA
Dutch	X049555NL
Estonian	X049555ET
Finnish	X049555FI
French	X049555FR
German	X049555DE
Greek	X049555EL
Hungarian	X049555HU
Italian	X049555IT
Japanese	X049555JA
Korean	X049555KO
Latvian	X049555LV
Lithuanian	X049555LT
Norwegian	X049555NO
Polish	X049555PL
Portuguese	X049555PT
Romanian	X049555RO
Slovak	X049555SK
Slovenian	X049555SL



RELATED MANUALS

LANGUAGE	MANUAL NUMBER
Swedish	X049555SV
Spanish	X049555ES
Turkish	X049555TR

SAFETY SYMBOLS

The following safety symbols appear throughout this manual and on warning labels. Read the table below to understand what each symbol means.

SYMBOL	MEANING
	Equipment Misuse Hazard
	Fire and Explosion Hazard
	Skin Injection Hazard
	Skin Injection Hazard
	Splatter Hazard
	Do Not Place Hands or Other Body Parts Near Fluid Outlet
	Do Not Stop Leaks with Hand, Body, Glove or Rag

SYMBOL	MEANING
	Eliminate Ignition Sources
	Follow Pressure Relief Procedure
	Ground Equipment
	Read Manual
	Ventilate Work Area
	Wear Personal Protective Equipment



Safety Alert Symbol

This symbol indicates: Attention! Become Alert! Look for this symbol throughout the manual to indicate important safety messages.

GENERAL WARNINGS

The following warnings apply throughout this manual. Read, understand, and follow the warnings before using this equipment. Failure to follow these warnings can result in serious injury.

WARNING



SKIN INJECTION HAZARD

High-pressure spray is able to inject toxins into the body and cause serious injury that can result in amputation. In the event that injection occurs, **get immediate surgical treatment.**



- Do not aim the gun at, or spray, any person or animal.



- Keep hands and other body parts away from the discharge. For example, do not try to stop leaks with any part of the body.



- Always use the spray tip guard. Do not spray without spray tip guard in place.



- Use Graco spray tips.

- Use caution when cleaning and changing spray tips. In the case where the spray tip clogs while spraying, follow the **Pressure Relief Procedure** for turning off the unit and relieving the pressure before removing the spray tip to clean.

- Equipment maintains pressure after power is turned off. Do not leave the equipment energized or under pressure while unattended. Follow the **Pressure Relief Procedure** when the equipment is unattended or not in use, and before servicing, cleaning, or removing parts.

- Check hoses and parts for signs of damage. Replace any damaged hoses or parts.

- This system is capable of producing 3600 psi (248 bar, 24.8 MPa). Use Graco parts or accessories that are rated a minimum of 3600 psi (248 bar, 24.8 MPa).

- Always engage the trigger lock when not spraying. Verify the trigger lock is functioning properly.

- Verify that all connections are secure before operating the unit.

- Know how to stop the unit and bleed pressure quickly. Be thoroughly familiar with the controls.



WARNING



FIRE AND EXPLOSION HAZARD

Flammable fumes, such as solvent and paint fumes, **in work area** can ignite or explode. Paint or solvent flowing through the equipment can cause static sparking. To help prevent fire and explosion:



- Use equipment only in well-ventilated area.



- Eliminate all ignition sources, such as pilot lights, cigarettes, portable electric lamps, and plastic drop cloths (potential static sparking).



- Ground all equipment in the work area. See **Grounding** instructions.

- Never spray or flush solvent at high pressure.

- Keep work area free of debris, including solvent, rags and gasoline.

- Do not plug or unplug power cords, or turn power or light switches on or off when flammable fumes are present.

- Use only grounded hoses.

- Hold gun firmly to side of grounded pail when triggering into pail. Do not use pail liners unless they are anti-static or conductive.

- **Stop operation immediately** if static sparking occurs or you feel a shock. Do not use equipment until you identify and correct the problem.

- Keep a working fire extinguisher in the work area.


WARNING
**EQUIPMENT MISUSE HAZARD**

Misuse can cause death or serious injury.

- Always wear appropriate gloves, eye protection, and a respirator or mask when painting.
- Do not operate or spray near children. Keep children away from equipment at all times.
- Do not overreach or stand on an unstable support. Keep effective footing and balance at all times.
- Stay alert and watch what you are doing.
- Do not operate the unit when fatigued or under the influence of drugs or alcohol.
- Do not kink or overbend the hose.
- Do not expose the hose to temperatures or to pressures in excess of those specified by Graco.
- Do not use the hose as a strength member to pull or lift the equipment.
- Do not spray with a hose shorter than 25 feet (7.6 m).
- Do not alter or modify equipment. Alterations or modifications may void agency approvals and create safety hazards.
- Make sure all equipment is rated and approved for the environment in which you are using it.

**PRESSURIZED ALUMINUM PARTS HAZARD**

Use of fluids that are incompatible with aluminum in pressurized equipment can cause serious chemical reaction and equipment rupture. Failure to follow this warning can result in death, serious injury, or property damage.

- Do not use 1,1,1-trichloroethane, methylene chloride, other halogenated hydrocarbon solvents or fluids containing such solvents.
- Do not use chlorine bleach.
- Many other fluids may contain chemicals that can react with aluminum. Contact your material supplier for compatibility.

**PERSONAL PROTECTIVE EQUIPMENT**

Wear appropriate protective equipment when in the work area to help prevent serious injury, including eye injury, hearing loss, inhalation of toxic fumes, and burns. Protective equipment includes but is not limited to:

- Protective eyewear and hearing protection.
- Respirators, protective clothing, and gloves as recommended by the fluid and solvent manufacturer.

TECHNICAL SPECIFICATIONS

The table provides important information related to the SG2™, SG3™ Spray Guns, including product attributes, measurements, and performance characteristics that support the use of the equipment.

Table 5-1: Technical Specifications for SG2, SG3 Spray Guns

	US	METRIC
Maximum working pressure	3600 psi	24.8 MPa, 248 bar
Fluid orifice size	0.125 in.	3.18 mm
Weight (with tip and guard)	22 oz	630 g
Inlet		
Maximum material temperature	120°F	49°C
Wetted parts	Stainless steel, polyurethane, nylon, aluminum, tungsten carbide, brass	
*Noise Level		
Sound power	87 dBa	
Sound pressure	78 dBa	
* Measured at 3.1 ft (1 m) while spraying water-based paint, specifically gravity 1.36, through a 515 tip at 3000 psi (20.7 MPa, 207 bar) per ISO 3744.		

PRESSURE RELIEF PROCEDURE

Relieve pressure on the SG2™, SG3™ Spray Guns when operation is stopped, and before cleaning, checking, or servicing the equipment.



Follow the Pressure Relief Procedure whenever you see this symbol.

WARNING				
<p>This equipment stays pressurized until pressure is manually relieved. To help prevent serious injury from pressurized fluid, such as skin injection, and splashing fluid and moving parts, follow the Pressure Relief Procedure when you stop spraying and before cleaning, checking, or servicing equipment.</p>				

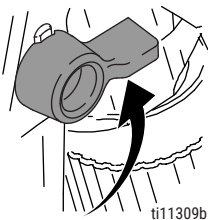
1. Turn OFF power and turn sprayer pressure control to lowest pressure setting.
2. Hold gun against side of flushing pail. Trigger gun into pail to relieve pressure.

If you suspect spray tip or hose is clogged or that pressure has not been fully relieved after following the steps above, **VERY SLOWLY** loosen tip guard retaining nut or hose end coupling to relieve pressure gradually, then loosen completely. Clear hose or tip obstruction.

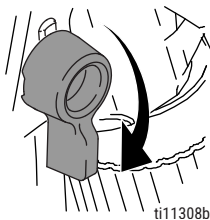
GUN TRIGGER LOCK

Always engage the trigger lock on the SG2, SG3 Spray Guns when spraying is stopped to prevent the gun from being triggered accidentally by hand or if dropped or bumped.

Trigger Lock
(no spray)



Trigger Unlocked
(spray)



SETUP

When using the equipment for the first time or after long-term storage, follow the steps to prepare the SG2™, SG3™ Spray Guns for operation.

Make sure sprayer is turned off and unplugged from power source. Refer to your sprayer instruction manual for priming and spray instructions. See **Related Manuals**.

CONNECT GUN TO SPRAYER

1. Attach supply hose to sprayer fluid outlet.
2. Attach other end of supply hose to gun swivel (5). Use two wrenches (one on the swivel (5) and one on the hose), to tighten all connections securely.
3. Refer to sprayer instruction manual for priming instructions.

INSTALLING TIP AND GUARD ON GUN

 WARNING				
				
To avoid serious injury from skin injection, do not put your hand in front of the spray tip when installing or removing the spray tip and tip guard.				

1. If equipment has recently been operated, perform **Pressure Relief Procedure**. Set trigger lock.
2. Using a pencil or similar object, insert seal (24) into back of guard (25).
3. Insert tip (26) in guard (25). Tighten retaining nut.

OPERATION

The instructions provide guidance on how to use the SG2™, SG3™ Spray Guns.

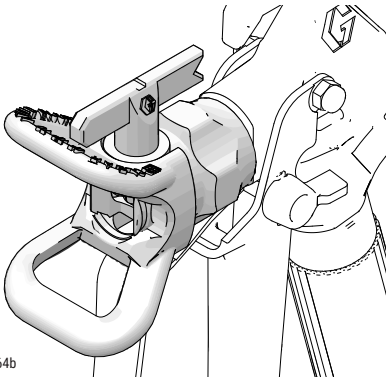
SPRAY

1. Unlock trigger lock.
2. Be sure the arrow-shaped tip (26) faces forward (spray).
3. Hold gun perpendicular and approximately 12 in. (30 cm) from surface. Move gun first, then pull gun trigger (3) to spray a test pattern.
4. Slowly increase pump pressure until coverage is uniform and even (see sprayer instruction manual for additional information).

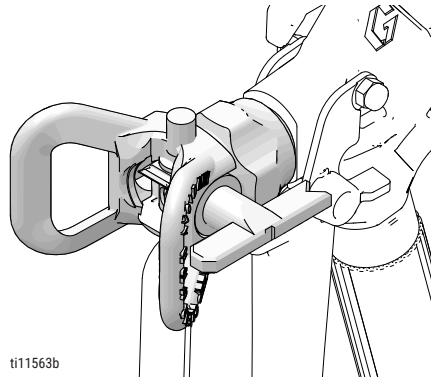
ALIGN SPRAY

⚠ WARNING				
				
To avoid serious injury from skin injection, do not put your hand in front of the spray tip or tip guard.				

1. Loosen guard retaining nut.
2. Align guard (25) horizontally to spray a horizontal pattern.



3. Align guard (25) vertically to spray a vertical pattern.



CLEAR CLOGS

⚠ WARNING				
				

1. Perform **Pressure Relief Procedure**. Set trigger lock.
2. Rotate tip (26) 180 degrees. Unlock trigger lock. Trigger gun into pail or onto ground to remove clog.
3. Set trigger lock. Rotate tip (26) 180 degrees back to spray position.

CLEANUP

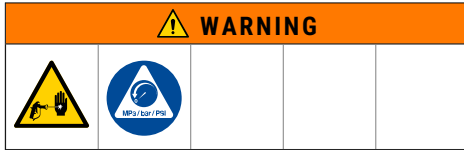
Flush gun after each work shift and store in a dry location. Do not leave the gun or any parts in water or cleaning solvents.

MAINTENANCE

Follow the service schedule to keep the SG2™, SG3™ Spray Guns in good condition for optimal use.

Before performing any maintenance on gun, read all warnings in this manual and perform **Pressure Relief Procedure**.

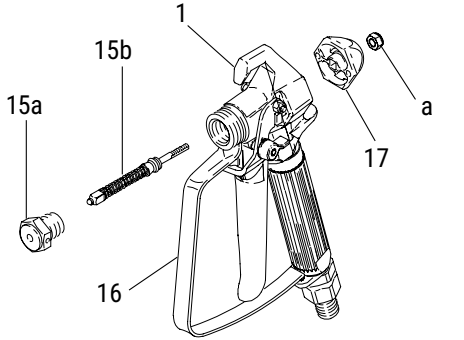
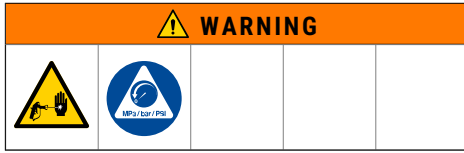
CLEAN AND REPLACE FILTER



1. Perform **Pressure Relief Procedure**. Set trigger lock.
2. Disconnect fluid hose from gun at swivel (5).
3. Disconnect trigger guard (4) from guard retainer (22).
4. Unscrew handle (23) from gun (1).
5. Remove filter (6) through top of handle (23).
6. Clean filter (6). Use a soft brush to loosen and remove excess debris.
7. Insert clean filter (6) into handle (23).
8. Reattach handle (23) to gun (1). Tighten securely.
9. Reconnect trigger guard (4) to guard retainer (22).

REPAIR

When replacing parts, follow the instructions to restore the components of the SG2™, SG3™ Spray Guns.



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1. Perform **Pressure Relief Procedure**.
2. Remove tip (26) and guard (25) from gun (1).
3. Disconnect fluid hose from gun at swivel (5).
4. Squeeze trigger while unscrewing diffuser.
5. Remove locknut and end cap.
6. Tap out needle.
7. Use a soft brush to clean out internal passages of gun.
8. Grease o-rings of new needle using a non-silicon grease.
9. Guide new needle (15b) through front of gun.
10. Install end cap and locknut, loosely.
11. For needle housing (15a), apply medium strength (blue) thread sealant to threads.
12. Squeeze trigger while installing needle housing. Torque to 26–32 ft-lb (35–43 N·m).
13. Hold gun while nozzle is facing up.
14. Set trigger lock.
15. Turn locknut (a) clockwise until you see and feel trigger (3) raise slightly

16. Turn locknut (a) 3/4 turn counterclockwise.

NOTE:

When needle is properly adjusted, trigger will move freely.

17. Connect fluid hose. Install tip (26) and guard (25).
18. Prime sprayer. See sprayer instruction manual. See **Related Manuals**.
19. Trigger gun into bucket until fluid flows from gun.
20. Release trigger (3). Fluid flow should stop immediately.
21. Set trigger lock.
22. Aim gun into bucket. Trigger gun. No fluid should flow.
23. If the gun fails tests in steps 19 through 22, perform **Pressure Relief Procedure** and disconnect hose. Readjust needle. Repeat tests.

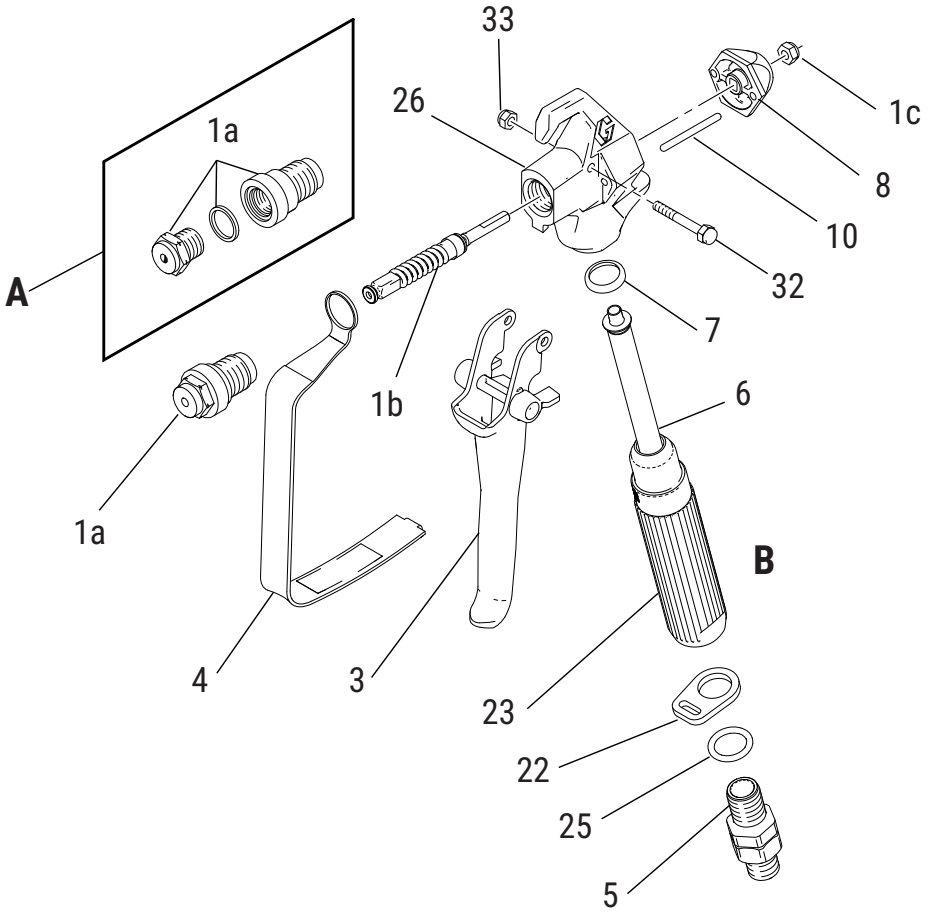
SG2™, SG3™ SPRAY GUN PARTS

REF.	PART	DESCRIPTION	QTY.
1	288817	KIT, repair, gun, includes 1a, 1b, 1c	1
1a		SEAT, valve	1
1b		NEEDLE, gun	1
1c	131477	NUT, lock	
3	243639	TRIGGER, repair kit, includes 10, 32, 33	
4	2013970	GUARD, trigger	1
6✓	288749	FILTER, gun	1
	CAN085	FILTER, gun	1
7✓	179733	SEAL, sleeve	1
8	195395	CAP, end	1
10	115484	PIN, actuator	2
23	2013867	HANDLE, gun (SG2)	1
26	17R014	HOUSING, fluid	1
32	177538	STUD, trigger	1
33	131476	NUT, lock, hex	1
▲	179960	LABEL, safety, warning, med. alert	1

▲ Replacement safety labels, tags, and cards are available at no cost.

✓ Keep these spare parts on hand to reduce down time.

SG3 SPRAY GUN PARTS



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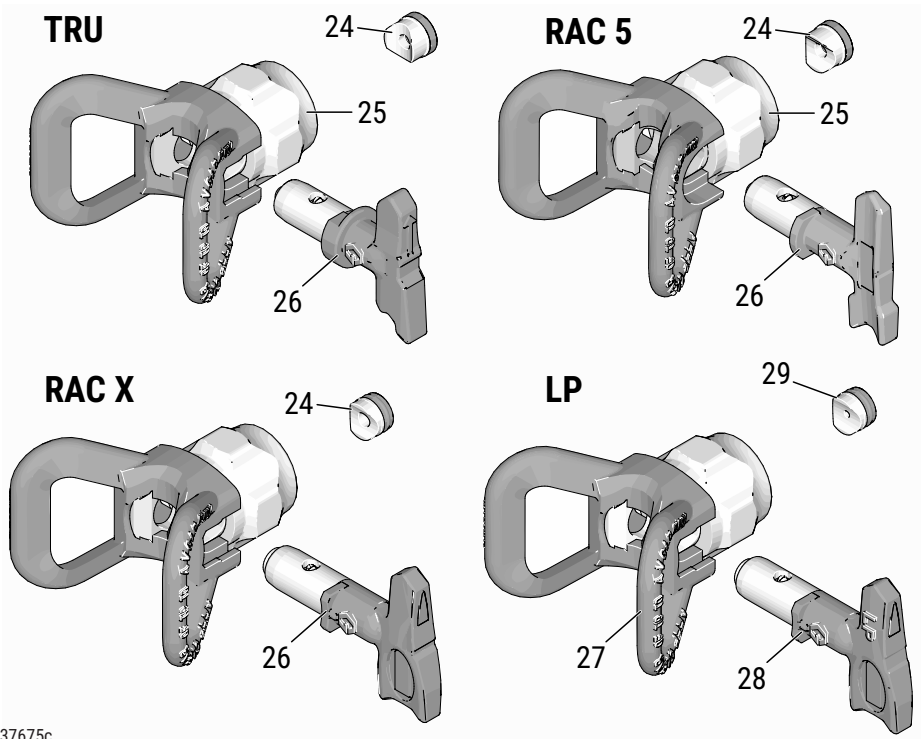
*Kit 288817 repairs both series A and B guns.
 1a replaces these three components of series A.
 Figure 11-2: SG3 Spray Gun Parts Diagram

SG2™, SG3™ SPRAY GUN PARTS

REF.	PART	DESCRIPTION	QTY.
1	288817	KIT, repair, gun, includes 1a, 1b, 1c	1
1a		SEAT, valve	1
1b		NEEDLE, gun	1
1c	131477	NUT, lock	
3	243639	TRIGGER, repair kit, includes 10, 32, 33	
4	195495	GUARD, trigger	1
5	238817	KIT, swivel	1
6✓	288749	FILTER, gun	1
	CAN085	FILTER, gun	1
7✓	179733	SEAL, sleeve	1
8	195395	CAP, end	1
10	115484	PIN, actuator	2
22	113409	RETAINER, guard	1
23		HANDLE, gun	1
	195788	HANDLE, gun (SG3, SG3-E)	1
	195920	HANDLE, gun (SG3-A)	1
24	115485	O-RING	1
26	17R014	HOUSING, fluid	1
32	177538	STUD, trigger	1
33	131476	NUT, lock, hex	1
▲	179960	LABEL, safety, warning, med. alert	1

▲ *Replacement safety labels, tags, and cards are available at no cost.*

✓ *Keep these spare parts on hand to reduce down time.*



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Figure 11-3: Spray Tip Parts Diagram

SG2™, SG3™ SPRAY GUN PARTS

REF.	PART	DESCRIPTION	QTY.
24	243004	Single seal TRU	1
	CAN004	Single seal TRU	1
	243281	OneSeal™, RAC 5 (5-pack)	1
	246453	OneSeal™, RAC X (5-pack)	1
	17P501	KIT, gasket, FFLP, LP (5-pack)	1
25	237859	GUARD, TRU	1
	CAN001	GUARD, TRU	1
	243161	GUARD, RAC 5	1
	246215	GUARD, RAC X and LP	2
26	TRU515	TIP, spray 515, TRU	1
	CAN515	TIP, spray 515, TRU	1
	286515	TIP, spray 515, RAC 5	1
	LTX515	TIP, spray 515, RAC X	1
	TRU517	TIP, spray 515, TRU	1
	CAN517	TIP, spray 515, TRU	1
	262515	TIP, spray 515, RAC 5	1
	LP519	TIP, spray 515, LP	1

CALIFORNIA PROPOSITION 65

CALIFORNIA RESIDENTS



WARNING Cancer and reproductive harm – www.P65warnings.ca.gov.

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