Instructions - Parts



REACTOR Heated Hose

309572, Rev. C

FOR PLURAL COMPONENT PROPORTIONERS

Not for use in explosive atmospheres.



Read warnings and instructions.

See page 2 for the Table of Contents and page 3 for a list of part numbers.



PROVEN QUALITY. LEADING TECHNOLOGY.



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Manual Conventions

Warning



A warning alerts you to possible serious injury or death if you do not follow instructions.

Symbols, such as fluid injection (shown), alert you to a specific hazard and direct you to read the indicated hazard warnings on pages 4-5.

Caution



A CAUTION

A caution alerts you to possible equipment damage or destruction if you do not follow instructions.

Note



A note indicates additional helpful information.

Hose Part Nos.

You need at least one 50 ft (15.2 m) main hose, one fluid temperature sensor (FTS), and one whip hose to make a complete heated hose assembly. See the tables below. Be sure the selected hose meets your maximum pressure and hose diameter requirements.

You can connect up to six 50 ft (15.2 m) main hose sections and one 10 ft (3 m) whip hose, for a maximum total length of 310 ft (94.5 m).

Each hose contains an A component hose, a B component hose, and an air hose (1/4 npt x 1/4 npsm, m x f).

Part No. (Series)	Description	Diameter in. (mm)	Length ft (m)	Maximum Fluid Pressure psi (MPa, bar)
2 Component	•	()	·· (···)	por (iiii a, bar)
246045 (B)	Hose with cable and electrical connectors	1/4 (6)	50 (15.2)	2000 (13.8, 138)
246046 (B)	Hose with cable and electrical connectors	3/8 (10)	50 (15.2)	2000 (13.8, 138)
246047 (B)	Hose with cable and electrical connectors	1/2 (13)	50 (15.2)	2000 (13.8, 138)
246048 (B)	Hose with cable and electrical connectors	1/4 (6)	25 (7.6)	2000 (13.8, 138)
246049 (B)	Hose with cable and electrical connectors	3/8 (10)	25 (7.6)	2000 (13.8, 138)
246052 (B)	Hose with cable and electrical connectors	1/4 (6)	50 (15.2)	3500 (24.1, 241)
246053 (B)	Hose with cable and electrical connectors	3/8 (10)	50 (15.2)	3500 (24.1, 241)
246054 (B)	Hose with cable and electrical connectors	1/2 (13)	50 (15.2)	3500 (24.1, 241)
246074 (B)	Hose with electrical connectors, without cable	1/4 (6)	50 (15.2)	2000 (13.8, 138)
246075 (B)	Hose with electrical connectors, without cable	3/8 (10)	50 (15.2)	2000 (13.8, 138)
246076 (B)	Hose with electrical connectors, without cable	1/2 (13)	50 (15.2)	2000 (13.8, 138)
246678 (B)	Hose with cable, electrical connectors, and Scuff Guard	3/8 (10)	50 (15.2)	2000 (13.8, 138)
246679 (B)	Hose with cable, electrical connectors, and Scuff Guard	3/8 (10)	50 (15.2)	3500 (24.1, 241)
2 Component	Whip Hoses			
246050 (B)	Whip hose with electrical connector	1/4 (6)	10 (3)	2000 (13.8, 138)
246051 (B)	Whip hose with electrical connector	3/8 (10)	10 (3)	2000 (13.8, 138)
246055 (B)	Whip hose with electrical connector	1/4 (6)	10 (3)	3500 (24.1, 241)
246056 (B)	Whip hose with electrical connector	3/8 (10)	10 (3)	3500 (24.1, 241)

Fluid Temperature Sensor (FTS)

Part No. (Series)		Maximum Fluid Pressure psi (MPa, bar)
246079 (A)	Fluid Temperature Sensor	3500 (24.1, 241)

MARNING



INJECTION HAZARD

High-pressure fluid from gun, hose leaks, or ruptured components will pierce skin. This may look like just a cut, but it is a serious injury that can result in amputation. **Get immediate medical attention.**

- Do not point the gun at anyone or at any part of the body.
- Do not put your hand or fingers over the gun fluid nozzle.
- Do not stop or deflect leaks with your hand, body, glove, or rag.
- Do not "blow back" fluid; this is not an air spray system.
- Follow Technical Data, page 13, when you stop spraying and before cleaning, checking, or servicing equipment.
- Use lowest possible pressure when flushing, priming, or troubleshooting.
- Engage spray gun piston safety lock when not spraying.
- Tighten all fluid connections before operating the equipment.
- Check hoses, tubes, and couplings daily. Replace worn or damaged parts immediately. High pressure hose cannot be recoupled; replace the entire hose.



FIRE, EXPLOSION, AND ELECTRIC SHOCK HAZARD

Solvent and fumes in work area can ignite or explode. To help prevent fire, explosion, and electric shock:

- Use equipment only in well ventilated area.
- Eliminate all ignition sources, such as pilot lights, cigarettes and plastic drop cloths (potential static arc).
- Do not plug or unplug power cords or turn lights on or off when flammable fumes are present.
- Keep the work area free of debris, including solvent, rags, and gasoline.
- Ground equipment and conductive objects. See Grounding in your proportioner manual.
- Hold gun firmly to side of grounded pail when triggering into pail.
- Use only grounded hoses.
- If there is static sparking or you feel a shock, **stop operation immediately.** Do not use equipment until you identify and correct the problem.



EQUIPMENT MISUSE HAZARD

Misuse can cause serious injury or death.

- For professional use only.
- Use equipment only for its intended purpose. Call your Graco distributor for information.
- Read manuals, warnings, tags, and labels before operating equipment. Follow instructions.
- Check equipment daily. Repair or replace worn or damaged parts immediately.
- Do not alter or modify equipment. Use only Graco parts and accessories.
- Do not exceed the maximum working pressure or temperature rating of the lowest rated system component. See **Technical Data** in all equipment manuals.
- Use fluids and solvents that are compatible with equipment wetted parts. See **Technical Data** in all equipment manuals. Read fluid and solvent manufacturer's warnings.
- Route hoses and cables away from traffic areas, sharp edges, moving parts, and hot surfaces.
- Do not use hoses to pull equipment.
- Comply with all applicable safety regulations.

MARNING



BURN HAZARD

This equipment is used with heated fluid, which can cause equipment surfaces to become very hot. To avoid severe burns:

- Do not touch hot fluid or equipment.
- Allow equipment to cool completely before touching it.
- Wear gloves if fluid temperature exceeds 110°F (43°C).



TOXIC FLUID OR FUMES HAZARD

Toxic fluids or fumes can cause serious injury or death if splashed in the eyes or on skin, inhaled, or swallowed.

- Read Material Safety Data Sheet (MSDS) to know the specific hazards of the fluids you are using.
- Store hazardous fluid in approved containers, and dispose of it according to applicable guidelines.



PERSONAL PROTECTIVE EQUIPMENT

You must wear proper protective equipment when operating, servicing, or when in the operating area of the equipment to help protect you from serious injury, including eye injury; inhalation of toxic fumes; and hearing loss. This equipment includes but is not limited to:

- Protective eyewear
- Gloves, clothing, and respirator as recommended by the fluid and solvent manufacturer
- Hearing protection.

Installation

Description

The heated hose maintains proper fluid temperature between the heater and gun while spraying.

Fluid hoses are marked with red tape for component A (ISO), blue tape for component B (RES). Fittings have different sized threads to prevent incorrect connection, which can cause fluid crossover and permanently damage the hose.

Hoses are 50 ft (15.2 m) or 25 ft (7.6 m) long. The whip hose is 10 ft (3 m) long. The maximum combined hose length is 310 ft (94.5 m).

Set Transformer Wire Taps

Transformer tap wire connections vary depending on length of heated hose. See proportioner operation manual for further information. Verify that tap wire connections are correct.

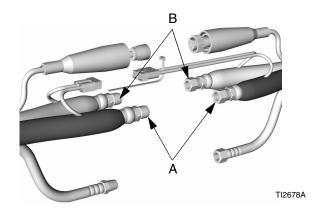
Hose Length* ft (m)	Tap Terminal Label (ft)
60-85 (18.3-25.9)	50
110-135 (33.5-41.2)	100
160-185 (48.8-56.4)	150
210-235 (64.1-71.7)	200
260-285 (79.3-86.9)	250
310 (94.6)	300

^{*} Length includes heated fluid hose and whip hose.

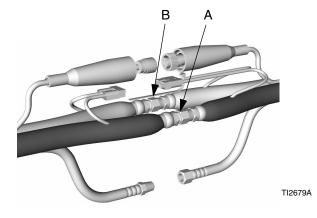
Connect Heated Hoses



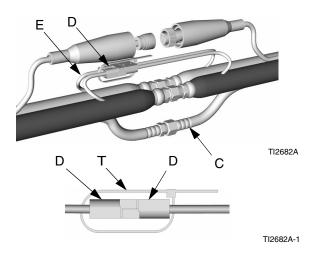
1 Lay heated hoses end to end, matching the color coding. Red for component A (ISO), blue for component B (RES).



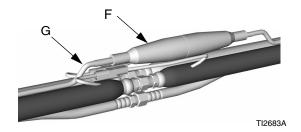
2. Connect fluid hoses (A, B).



- Do not connect the main air supply to the air hose at this time.
- **3.** Connect air hoses (C) and electrical connectors (D). Secure electrical connections with plastic ties (T). Leave slack (E) as stress relief, to prevent connector failure.



4. Connect cables (F). Slide insulator sleeves over connection. Leave slack (G) in cables as stress relief, to prevent cable failure.



- **5.** Repeat for additional hoses.
- **6.** See Connect FTS and Whip Hose, page 8.

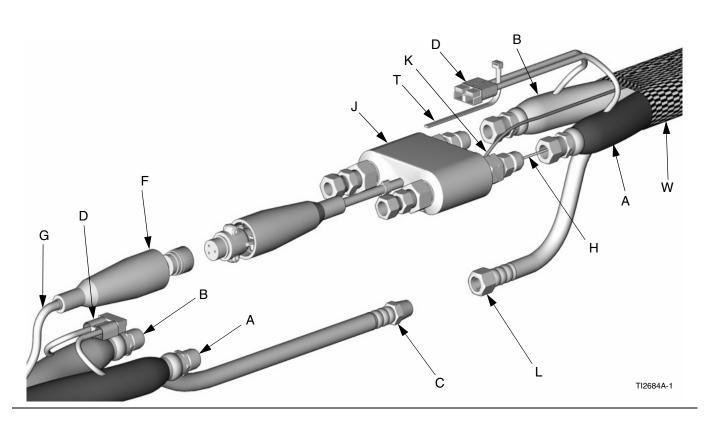
Connect FTS and Whip Hose

⚠ CAUTION

To prevent damage to probe, do not kink or excessively bend whip hose. Do not coil hose tighter than the minimum bend radius of 3 ft (0.9 m). Do not subject hose to excessive weight, impact, or other abuse.

- 1. Carefully extend FTS probe (H). Do not bend or kink probe. Insert in component A (ISO) side of whip hose.
- Connect FTS (J) to whip hose (W).
- Connect whip hose ground wire (K) to ground screw on underside of FTS.
- Connect fluid hoses to FTS (J).

- To use 1/2 in. (13 mm) ID fluid hoses, remove the adapters from the proportioner fluid manifold and install them in the FTS swivel inlets.
- 5. Connect electrical connectors (D). Secure connections with plastic ties (T).
- 6. Connect air hose (C) to whip air hose (L).
- 7. Connect hose assembly cable (F) to FTS. Slide insulator sleeves over connection. Leave slack (G) in cables as stress relief, to prevent cable failure.
- 8. See Check Hoses for Leaks, page 9.



Check Hoses for Leaks

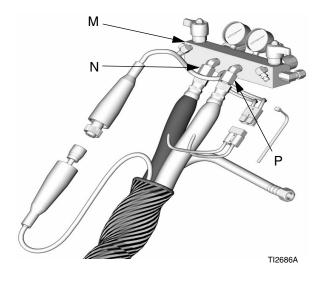
1. Connect fluid hoses to proportioner fluid manifold (M). Red for component A (ISO), blue for component B (RES).



The manifold hose adapters (N, P) allow use of 1/4 in. and 3/8 in. ID fluid hoses. To check adapter tightness, torque as follows:

- A side (N) to 43-47 ft-lb (58-63 N•m).
- B side (P) to 55-60 ft-lb (74-81 N•m).

To use 1/2 in. (13 mm) ID fluid hoses, remove the adapters from the proportioner fluid manifold and install them in the FTS swivel inlets.

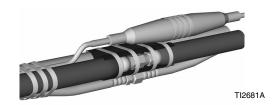


2. Close fluid valves on gun fluid manifold. Remove manifold from gun, see gun manual. Connect fluid whip hoses to manifold.

- **3.** Check that all equipment is properly grounded. See proportioner manual.
- 4. Pressure check hose. See proportioner manual for priming instructions. Check for leaks. If there are leaks, relieve pressure as instructed in proportioner manual. Tighten connections, then pressurize again to ensure leaks have stopped. Relieve pressure.

Protective Covering

- See Parts, page 11. Install 8 in. (204 mm) insulator boot (10) over each 50 ft (15.2 m) hose connection. Install 4 in. (102 mm) insulator boots (11) over FTS connections.
- **2.** Wrap **all** fluid hose connections with electrical tape.



- **3.** Fold wire back on hose to ensure adequate strain relief. Wrap **all** electrical connections and cable connections with electrical tape to protect them from pulling apart and abrasion.
- 4. Install protective cover (see **Accessories**, page 13).

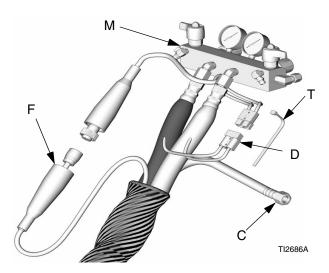
Operation



Read warnings, pages 4 and 5.

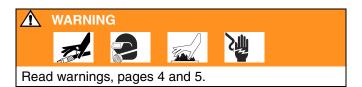
Do not operate a coiled hose. A coiled hose creates uneven heat buildup which can result in hose rupture and cause serious injury, including fluid injection.

- 1. Connect air hose (C) to main air supply.
- 2. Connect electrical connector (D) to connector from fluid manifold (M) and secure with plastic ties (T). Connect hose cable (F) to cable from proportioner fluid manifold (M). Wrap connections with electrical tape.



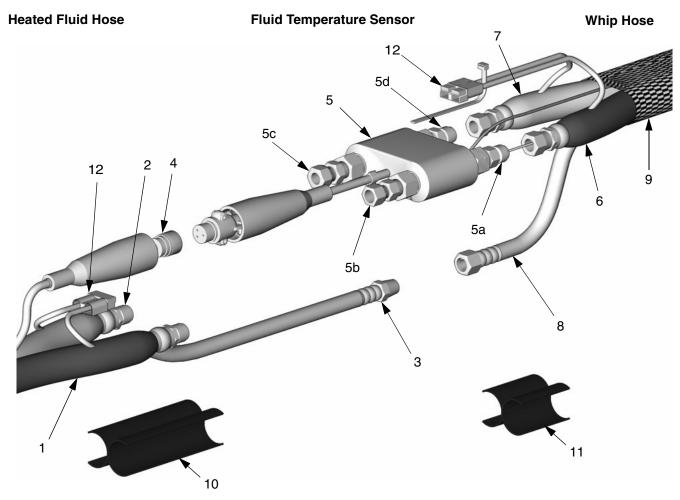
- **3.** Connect manifold to gun. See gun manual.
- **4.** Connect whip air hose to gun air inlet. See gun manual.
- **5.** Follow setup, startup, and operation procedures in proportioner manual.

Maintenance



- Before disconnecting or repairing hoses, relieve all fluid pressure and shut off electrical power to proportioner. See proportioner operation manual.
- **2.** Be sure fluid is cool before disconnecting hoses.

Parts



TI2684A

Ref.				Ref.	Deat No	Description	~ !-
No.	Part No.	Description	Qty	No.		Description	Qty
1	chart 1,	HOSE, component A (ISO)	1	6	chart 6, page 12	HOSE, whip, component A (ISO)	1
2		HOSE, component B (RES)	1	7		HOSE, whip, component B (RES)	1
_	page 12	11005 : 50 % (45.0)		8		HOSE, whip, air; 10 ft (3 m)	1
3	15B295	HOSE, air; 50 ft (15.2 m)	1	9	246077	SCUFF GUARD; 10 ft (3 m);	1
4 5	15B296 246079	CABLE, FTS; 50 ft (15.2 m) FLUID TEMPERATURE SENSOR;	 			included on whip hoses only	
5	246079	includes items 5a-5d	ı	10	246083	BOOT, insulator; rubber; 8 in. (204	1
<u>5</u> a	117455	. NIPPLE	1			mm); used between main hose sections	
5b	117595	. SWIVEL	1	11	246084	BOOT, insulator; rubber; 4 in. (102	2
5c	117506	. SWIVEL	 			mm); used at FTS connections	
5d	116704	. NIPPLE	ı	12	117789	CONNECTOR, electrical; on main hose sections	2
					117789	CONNECTOR, electrical; on whip hose	1

Chart for Ref. No. 1, Component A (ISO) Hose

Hose Part No.	Diameter in. (mm)	Length ft (m)	Maximum Fluid Pressure psi (MPa, bar)
246059	1/4 (6)	50 (15.2)	2000 (13.8, 138)
246061	3/8 (10)	50 (15.2)	2000 (13.8, 138)
246063	1/2 (13)	50 (15.2)	2000 (13.8, 138)
246065	1/4 (6)	25 (7.6)	2000 (13.8, 138)
246094	3/8 (10)	25 (7.6)	2000 (13.8, 138)
246067	1/4 (6)	50 (15.2)	3500 (24.1, 241)
246069	3/8 (10)	50 (15.2)	3500 (24.1, 241)
246071	1/2 (13)	50 (15.2)	3500 (24.1, 241)

Chart for Ref. No. 2, Component B (RES) Hose

Hose Part No.	Diameter in. (mm)	Length ft (m)	Maximum Fluid Pressure psi (MPa, bar)
246060	1/4 (6)	50 (15.2)	2000 (13.8, 138)
246062	3/8 (10)	50 (15.2)	2000 (13.8, 138)
246064	1/2 (13)	50 (15.2)	2000 (13.8, 138)
246066	1/4 (6)	25 (7.6)	2000 (13.8, 138)
246095	3/8 (10)	25 (7.6)	2000 (13.8, 138)
246068	1/4 (6)	50 (15.2)	3500 (24.1, 241)
246070	3/8 (10)	50 (15.2)	3500 (24.1, 241)
246072	1/2 (13)	50 (15.2)	3500 (24.1, 241)

Instructions for Replacing Individual A or B Hose

Before disconnecting hoses, relieve all fluid pressure and shut off electrical power to proportioner. See proportioner operation manual.

Disconnect electrical wire from connectors (12). Disconnect fluid hose and remove from bundle.

Install new hose in bundle, wrapping around other fluid hose and air hose. Connect fluid hoses, see page 7.

Connect electrical wire from new hose into connectors (12). Ensure that component A (ISO) wire is on + side of connector, component B (RES) wire is on - side.

Wrap all connections with electrical tape, see page 9.

Chart for Ref. No. 6, Component A (ISO) Whip Hose (see rebuild instructions below)

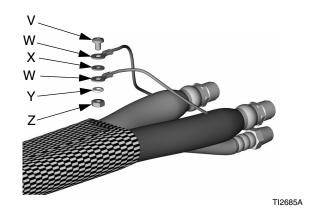
Hose Part No.	Diameter in. (mm)	Length ft (m)	Maximum Fluid Pressure psi (MPa, bar)
15B276	1/4 (6)	10 (3)	2000 (13.8, 138)
15B278	3/8 (10)	10 (3)	2000 (13.8, 138)
15B390	1/4 (6)	10 (3)	3500 (24.1, 241)
15B391	3/8 (10)	10 (3)	3500 (24.1, 241)

Chart for Ref. No. 7, Component B (RES) Whip Hose (see rebuild instructions below)

Hose Part No.	Diameter in. (mm)	Length ft (m)	Maximum Fluid Pressure psi (MPa, bar)
15B277	1/4 (6)	10 (3)	2000 (13.8, 138)
15B279	3/8 (10)	10 (3)	2000 (13.8, 138)
15B392	1/4 (6)	10 (3)	3500 (24.1, 241)
15B393	3/8 (10)	10 (3)	3500 (24.1, 241)

Instructions for Rebuilding Whip Hose Bundle

The component A (ISO) and component B (RES) whip hose ring terminals (W) must be connected with the socket-head screw (V), Dragon Tooth $^{\text{TM}}$ washer (X), lockwasher (Y), and nut (Z), exactly as shown below. Apply electrical tape over the connection, and tape the connection into the bundle.



Dragon Tooth $^{\text{TM}}$ is a registered trademark of Thomas & Betts Corporation.

Accessories

Scuff Guard

Use to keep hose clean and protect it from damage.

246077 10 ft (3 m) braided polyethylene mesh.

For whip hose. Fold back over itself for

easy installation.

246078 50 ft (15.2 m) braided polyethylene mesh.

Order one for each length of hose. Fold back over itself for easy installation.

246456 50 ft (15.2 m) polyethylene bag.

Order one for each length of hose. Inflate

with air for easy installation.

Technical Data

Category	Data
Maximum	Part Nos. 246045 - 246051,
Working	246074 - 246076, 246678:
Pressure	2000 psi (13.8 MPa, 138 bar)
	Part Nos. 246052 - 246058, 246679:
	3500 psi (24.1 MPa, 241 bar)
Hose Voltage	15 V per 50 ft (15.2 m) of hose
Wetted Parts	Nylon, Zinc-Plated Carbon Steel, 303 Stainless Steel

Warranty

Graco warrants all equipment referenced in this document which is manufactured by Graco and bearing its name to be free from defects in material and workmanship on the date of sale by an authorized Graco distributor to the original purchaser for use. With the exception of any special, extended, or limited warranty published by Graco, Graco will, for a period of twelve months from the date of sale, repair or replace any part of the equipment determined by Graco to be defective. This warranty applies only when the equipment is installed, operated and maintained in accordance with Graco's written recommendations.

This warranty does not cover, and Graco shall not be liable for general wear and tear, or any malfunction, damage or wear caused by faulty installation, misapplication, abrasion, corrosion, inadequate or improper maintenance, negligence, accident, tampering, or substitution of non-Graco component parts. Nor shall Graco be liable for malfunction, damage or wear caused by the incompatibility of Graco equipment with structures, accessories, equipment or materials not supplied by Graco, or the improper design, manufacture, installation, operation or maintenance of structures, accessories, equipment or materials not supplied by Graco.

This warranty is conditioned upon the prepaid return of the equipment claimed to be defective to an authorized Graco distributor for verification of the claimed defect. If the claimed defect is verified, Graco will repair or replace free of charge any defective parts. The equipment will be returned to the original purchaser transportation prepaid. If inspection of the equipment does not disclose any defect in material or workmanship, repairs will be made at a reasonable charge, which charges may include the costs of parts, labor, and transportation.

THIS WARRANTY IS EXCLUSIVE, AND IS IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

Graco's sole obligation and buyer's sole remedy for any breach of warranty shall be as set forth above. The buyer agrees that no other remedy (including, but not limited to, incidental or consequential damages for lost profits, lost sales, injury to person or property, or any other incidental or consequential loss) shall be available. Any action for breach of warranty must be brought within two (2) years of the date of sale.

GRACO MAKES NO WARRANTY, AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, IN CONNECTION WITH ACCESSORIES, EQUIPMENT, MATERIALS OR COMPONENTS SOLD BUT NOT MANUFACTURED BY GRACO. These items sold, but not manufactured by Graco (such as electric motors, switches, hose, etc.), are subject to the warranty, if any, of their manufacturer. Graco will provide purchaser with reasonable assistance in making any claim for breach of these warranties.

In no event will Graco be liable for indirect, incidental, special or consequential damages resulting from Graco supplying equipment hereunder, or the furnishing, performance, or use of any products or other goods sold hereto, whether due to a breach of contract, breach of warranty, the negligence of Graco, or otherwise.

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Graco Phone Numbers

TO PLACE AN ORDER, contact your Graco distributor, or call this number to identify the distributor closest to you:

1-800-367-4023 Toll Free 612-623-6921 612-378-3505 Fax

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