

# TECHNICAL INFORMATION



PRODUCT

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**Models No.** ▶ BVF104, BVF154

**Description** ▶ Cordless Garden Sprayers

## CONCEPT AND MAIN APPLICATIONS

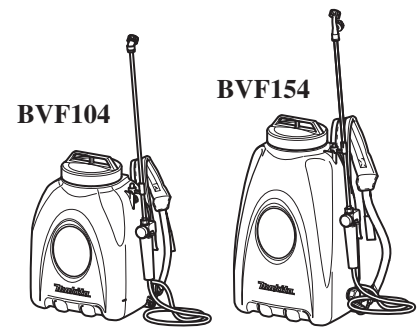
Models BVF104 and BVF154 are Cordless backpack style sprayers powered by 18V Li-ion battery; both 3.0Ah battery BL1830 and 1.3Ah battery BL1815 can be used.

Their main benefits are:

- Environment-friendly with no emission and extremely low noise
- Reduced running cost with rechargeable Li-ion battery

BVF104 features 10 liter tank, and BVF154 features 15 liter tank.

These products are available in the following variations.



Dimensions: mm (")		
	<b>BVF104</b>	<b>BVF154</b>
Length (L)	315 (12-3/8)	345 (13-5/8)
Width (W)	225 (8-7/8)	235 (9-1/4)
Height (H)	415 (16-3/8)	525 (20-3/4)

### BVF104

Model No.	Battery		Battery cover	Charger	Offered to
	type	quantity			
BVF104	BL1830 (Li-ion 3.0Ah)	1	No	DC18RA	Mexico, Panama
BVF104RF					All countries except the two listed above
BVF104Z	No	No	No	No	All countries

### BVF154

Model No.	Battery		Battery cover	Charger	Offered to
	type	quantity			
BVF154	BL1830 (Li-ion 3.0Ah)	1	No	DC18RA	Mexico, Panama
BVF154RF					All countries except the two listed above
BVF154Z	No	No	No	No	All countries

All models also include the accessories listed below in "Standard equipment".

## ► Specification

Specification		Model	<b>BVF104</b>	<b>BVF154</b>
Battery	Cell		Li-ion	
	Voltage: V		18	
	Capacity: Ah		3.0/ 1.3	
	Charging time (approx.): min.		22/ 15 with DC18RA 60/ 30 with DC18SD	
Spray pressure: Mpa			0.3	
Tank capacity: L			10	15
Liquid delivery rate: L/min.	Y-shaped double nozzle		0.8	
	Wide angle herbicide nozzle		1.3	
Continuous run time (approx.): min.	Y-shaped double nozzle		125/ 60	
	Wide angle herbicide nozzle		200/ unknown	
Spray volume on a single full battery charge: L	Y-shaped double nozzle		100/ 48	
	Wide angle herbicide nozzle		260/ unknown	
Net weight*1: kg (lbs)			3.8 (8.2)	4.1 (9.1)

\*1 Weight according to EPTA-Procedure 01/2003, with battery BL1815

## ► Standard equipment

Y-shaped double nozzle ..... 1      Spray pipe holder ..... 1  
Wide angle herbicide nozzle ..... 1      Shoulder harness ..... 1

**Note:** The standard equipment for the tool shown above may vary by country.

## ► Optional accessories

Battery BL1815, Battery BL1830, Fast charger DC18RA, Charger DC18SD, Charger DC24SC

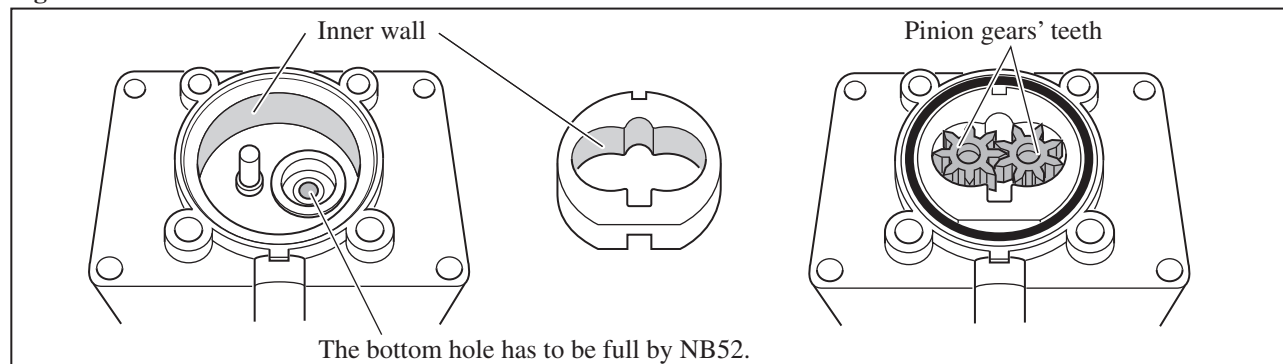
## ► Repair

**CAUTION: Remove the Battery from the machine and shift the liquid in the tank to others for safety before repair/ maintenance in accordance with the instruction manual!**

### [1] LUBRICATIONS

Apply ISOFLEX TOPAS NB52 to the designated portions (by gray color) of Pump assembly to protect parts and product from unusual abrasion.

**Fig. 1**



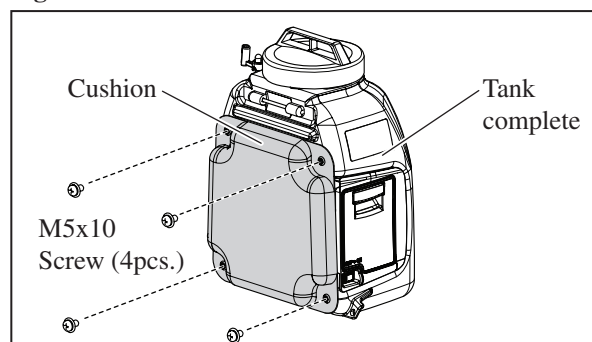
### [2] DISASSEMBLY/ASSEMBLY

#### [2]-1. Pump assembly, DC motor

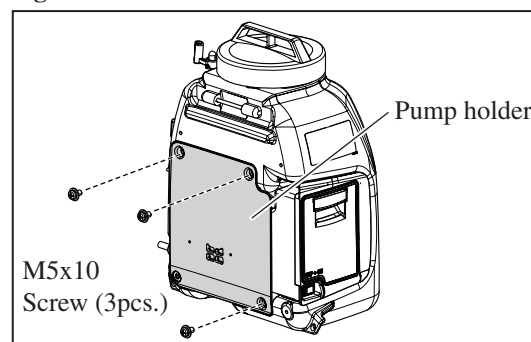
##### DISASSEMBLING

- (1) Remove Cushion from Tank complete by loosening four M5x10 Screws. (**Fig. 2**)
- (2) Remove Pump holder from Tank complete by loosening three M5x10 Screws. (**Fig. 3**)
- (3) Lift Pump holder and remove two receptacles from DC Motor. (**Fig. 4**)
- (4) Expand Hose clamps A and B using Pliers, and then shift the hose clamps A and B along Tube 2 and Tube 1 in the directions designated by white arrows. (**Fig. 5**)

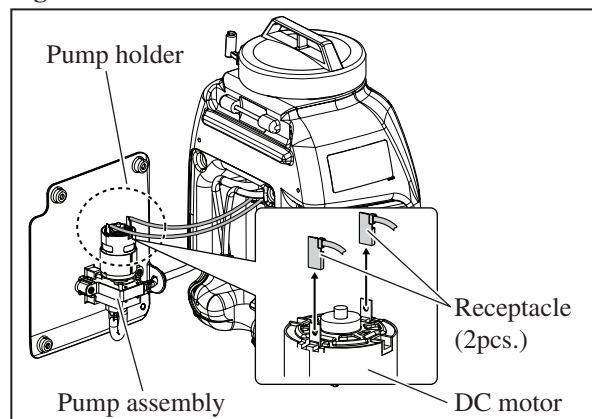
**Fig. 2**



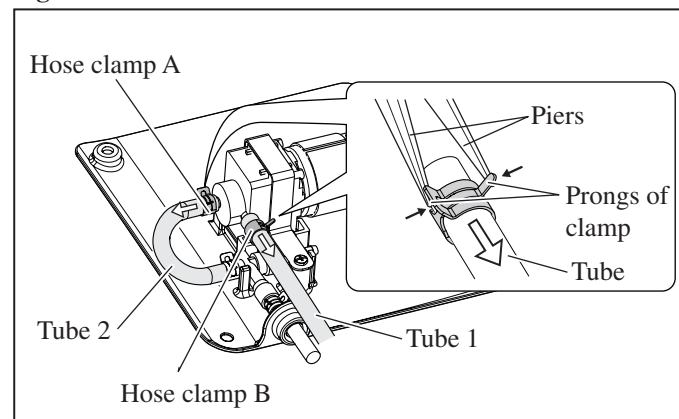
**Fig. 3**



**Fig. 4**



**Fig. 5**



## ► Repair

### [2] DISASSEMBLY/ASSEMBLY

#### [2]-1. Pump assembly, DC motor (cont.)

##### DISASSEMBLING

- (5) Remove Pump plate from Pump holder by loosening two 4x18 Tapping screws. (Fig. 6)
- (6) Pull off Tube 1 and Tube 2 from Pump assembly. (Fig. 7). Pump assembly can be removed as illustrated in Fig. 8.
- (7) Remove four Tapping screws to separate DC motor section. (Fig. 9)
- (8) Remove four Tapping screws and Cover in order to disassemble the remaining part of Pump assembly. (Fig. 10)
- (9) DC motor section can be disassembled by loosening two Tapping screws. (Fig. 11)

Fig. 6

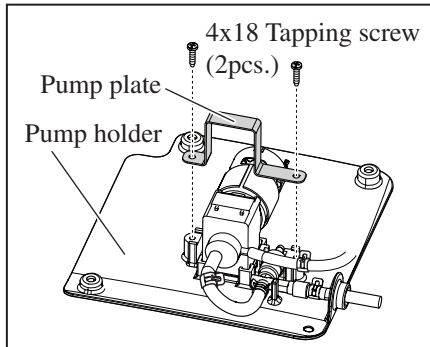


Fig. 7

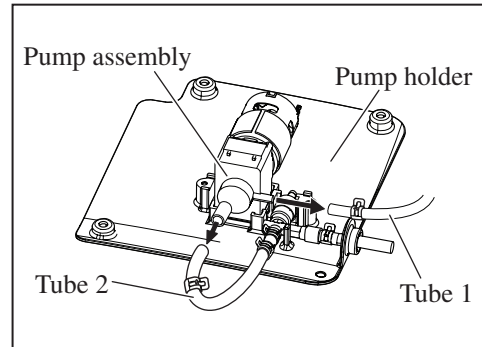


Fig. 8

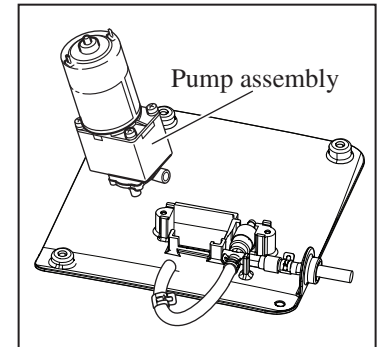


Fig. 9

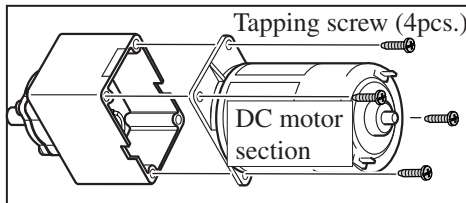


Fig. 10

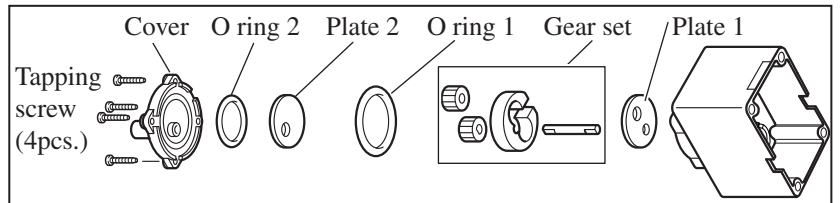
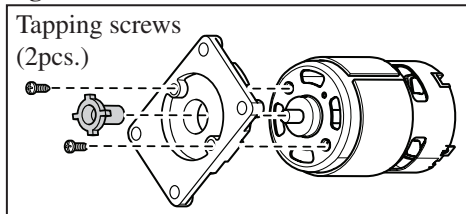


Fig. 11



##### ASSEMBLING

Take the disassembling step in reverse.

**Note:** 1) Pass the emboss of Pump assembly through the large hole of Plate 1.

2) Align the notch on bottom side of Gear set with Joint of pump assembly to pass the liquid through the notch. Refer to Fig. 12.

3) Fit four protrusions into four grooves to assemble Pump assembly as illustrated in Fig. 13.

Fig. 12

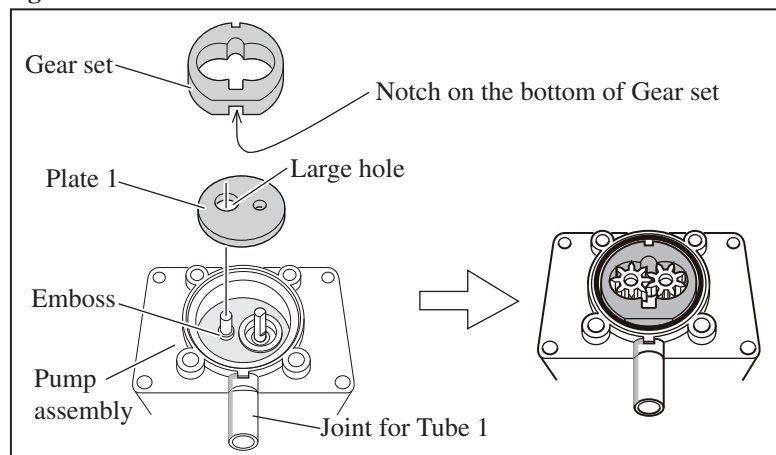
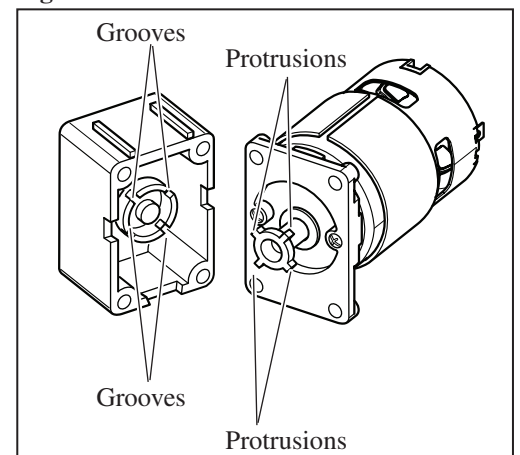


Fig. 13



## ► Repair

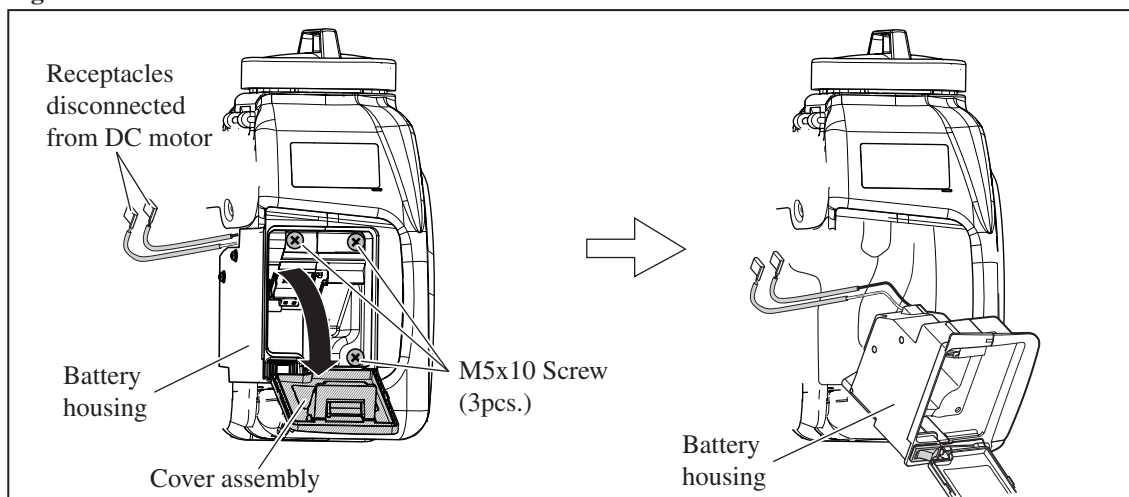
### [3] DISASSEMBLY/ASSEMBLY

#### [3]-2. Switch

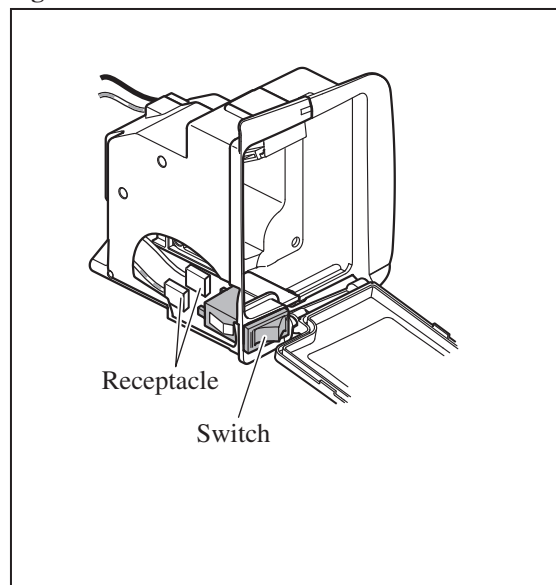
##### DISASSEMBLING

- (1) Remove two receptacles from DC motor as mentioned in the previous pages.
- (2) Remove Cover assembly. Loosen three M5x10 screws and separate Battery housing from Tank complete. (**Fig. 14**)
- (3) Remove two receptacles from Switch terminals. (**Fig. 15**)
- (4) Pressing the leaf spring portions of Switch with screwdriver, push out Switch to Cover assembly side. (**Fig. 16**)

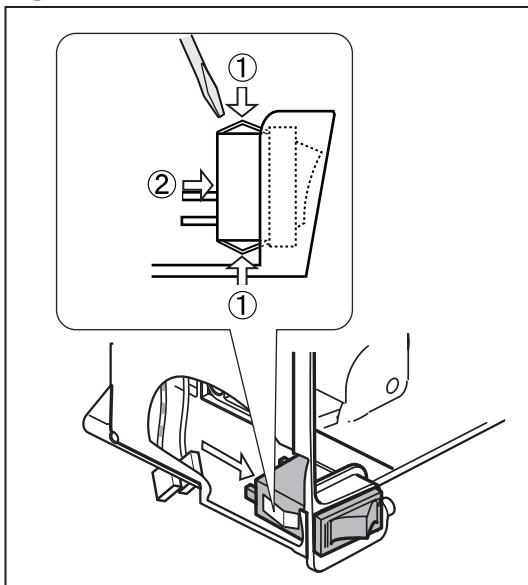
**Fig. 14**



**Fig. 15**



**Fig. 16**



##### ASSEMBLING

Take the disassembling step in reverse.

## ▶ Repair

### [3] DISASSEMBLY/ASSEMBLY

#### [3]-3. Fuse

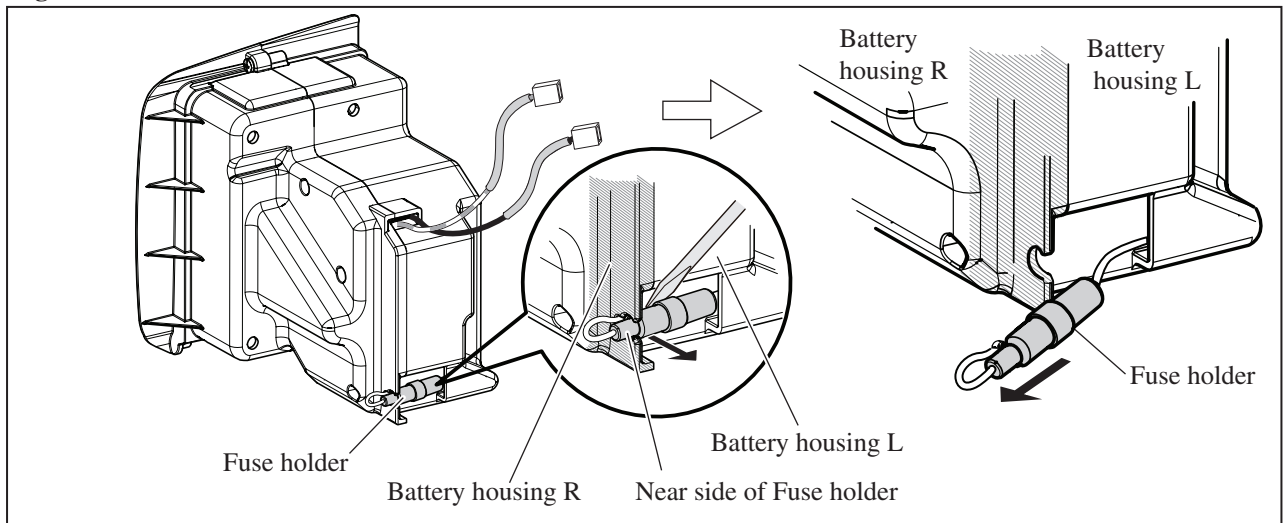
**Note:** The following problems cause Fuse to be blown up. Therefore, solve the problems before replacing Fuse.

- \* Lock of Motor due to the intrusion of alien element
- \* Lock of Motor due to the rust by the liquid materials, leaking from Tank complete

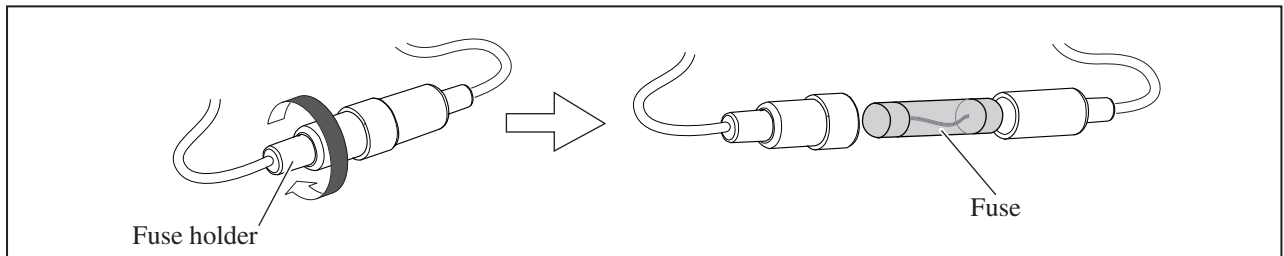
#### DISASSEMBLING

- (1) Remove Battery housing from Tank complete. (**Fig. 14**)
- (2) Remove Fuse holder from Battery housing R by picking the near side Fuse holder with Slotted screwdriver, and then pull off Fuse holder from Battery housing L. (**Fig. 17**)
- (3) Turn Fuse holder in the direction designated by gray arrow. Fuse can be removed. (**Fig. 18**)

**Fig. 17**



**Fig. 18**



**Note:** Fuse of model BVF154 can be replaced without removing Battery housing from Tank complete.

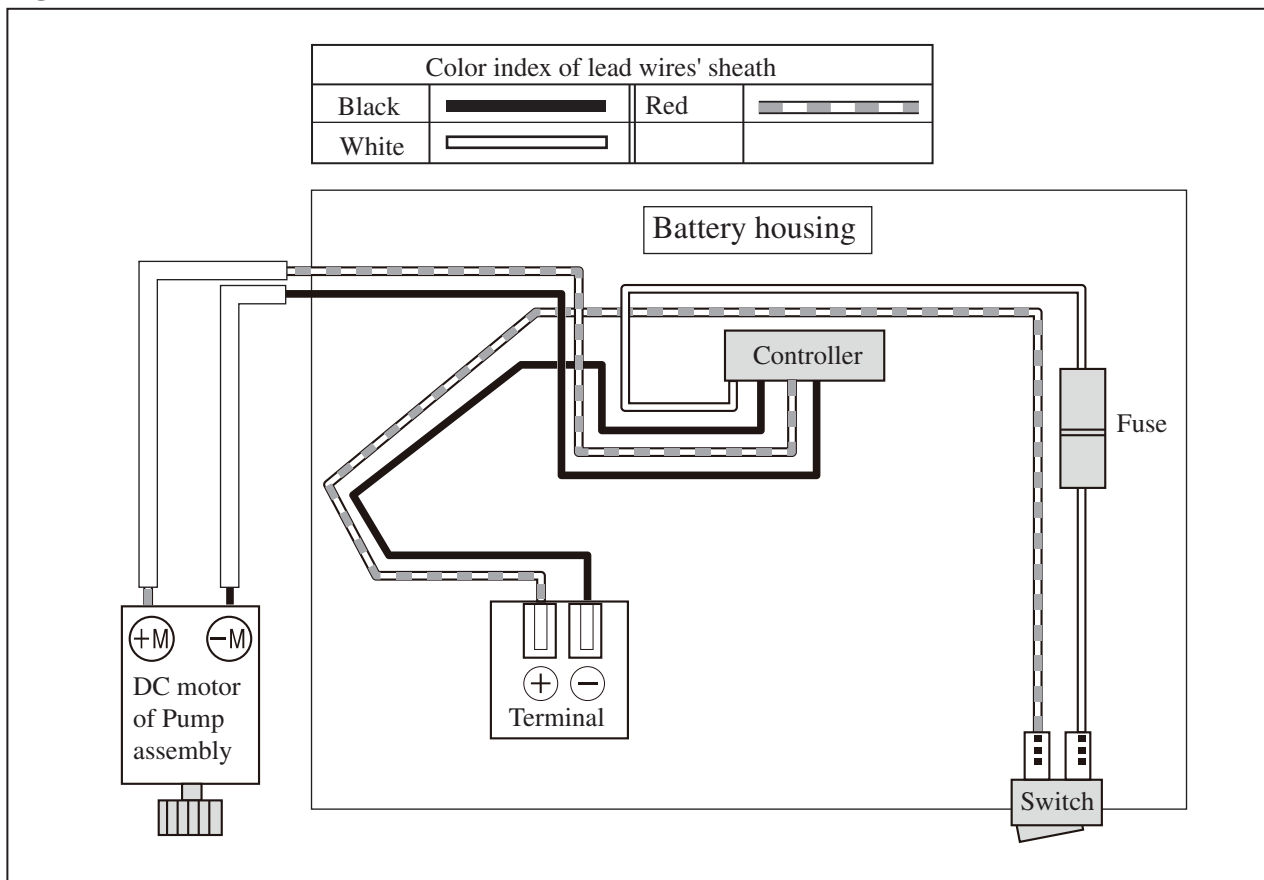
Remove Pump holder from Tank complete as illustrated in **Figs. 2 and 3**, and then do the above step illustrated in **Figs. 17 and 18**.

#### ASSEMBLING

Take the disassembling step in reverse.

► **Circuit diagram**

Fig. D-1



► **Wiring diagram**

**Wiring to DC motor**

Receptacles have to be connected to DC Motor as illustrated in Fig. D-2R.

Fig. D-2R

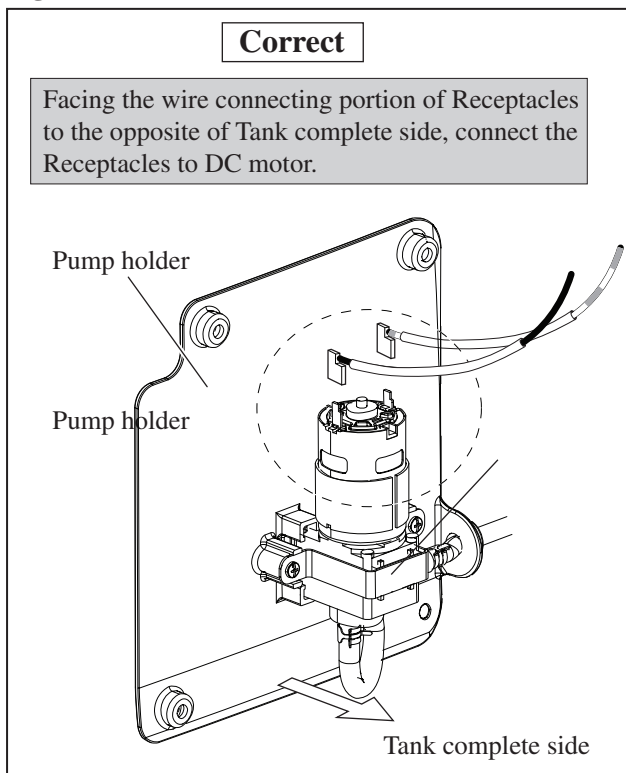
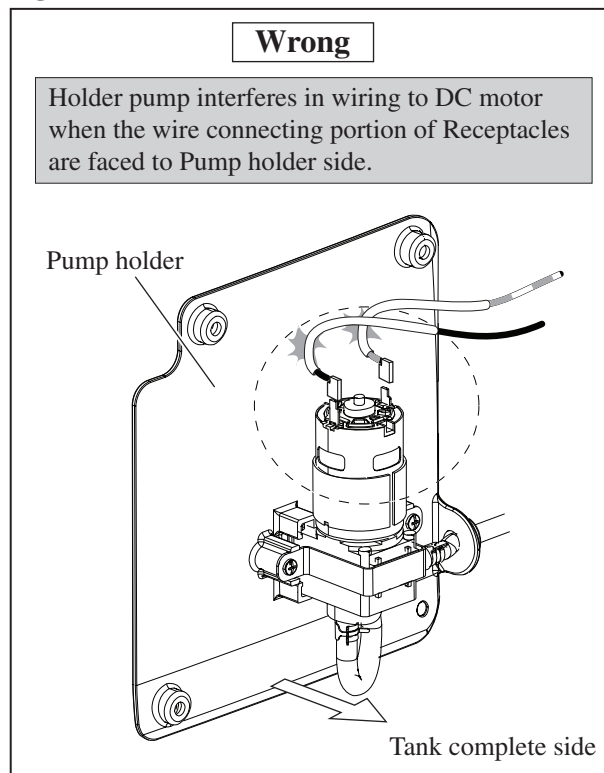


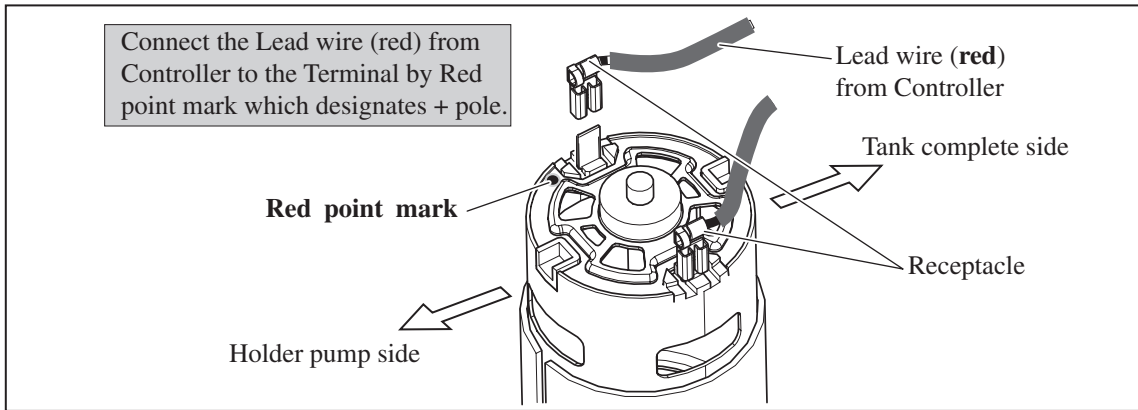
Fig. D-2F



## ▶ Wiring diagram

### Wiring to DC motor

Fig. D-3



### Wiring in Battery housing

Fig. D-4

