



# ES (EXTENDED SCRUB) KIT

## INSTALLATION INSTRUCTIONS:

(Installation Time: 1 hour)

### TOOLS REQUIRED:

11/16" & 1-1/8" Wrench, 13mm Socket Wrench, Std. & Philips Head Screwdriver, Power Drill w/ 11/16" (18mm) Drill Bit.

| 5100 ES™ KIT CONTENTS |                        |      |
|-----------------------|------------------------|------|
| P/N.                  | Description            | Qty. |
| 630136                | Pump, 24V              | 1    |
| 606363                | Hose, 3/8x13" (33 cm)  | 1    |
| 606317                | Hose, 3/8x18" (46 cm)  | 1    |
| 210044                | Valve, Check           | 1    |
| 140316                | Clamp, Insulated       | 1    |
| 140000                | Washer, Flat 1/4"      | 1    |
| 54333                 | Hose Clamp, 5/16x7/8   | 3    |
| 630385                | Fitting, Nipple 3/8    | 1    |
| 601484                | Fitting, Reducer 3/4x1 | 1    |
| 578445                | Filter, Screen         | 1    |
| 603166                | Switch, Float          | 1    |
| 601416                | Panel, Accessory       | 1    |
| 630145                | Timer, Relay 24V       | 1    |
| 57800800              | Screw, M05x31          | 1    |
| 09739                 | Nut, M5x.8             | 1    |
| 630419                | Switch, Rocker         | 1    |
| 130738                | Light, Indicator Green | 1    |
| 582150                | Plug, Accessory Switch | 1    |
| 603304                | Asm., Wire #34, 38     | 1    |
| 603305                | Asm., Wire #40, 42     | 1    |
| 603306                | Asm., Wire #44, 46     | 1    |
| 603307                | Asm., Wire Timer/Relay | 1    |

### Prepare Machine for Installation:

- Drain tanks of all water.
- Remove squeegee assembly.
- Remove batteries.

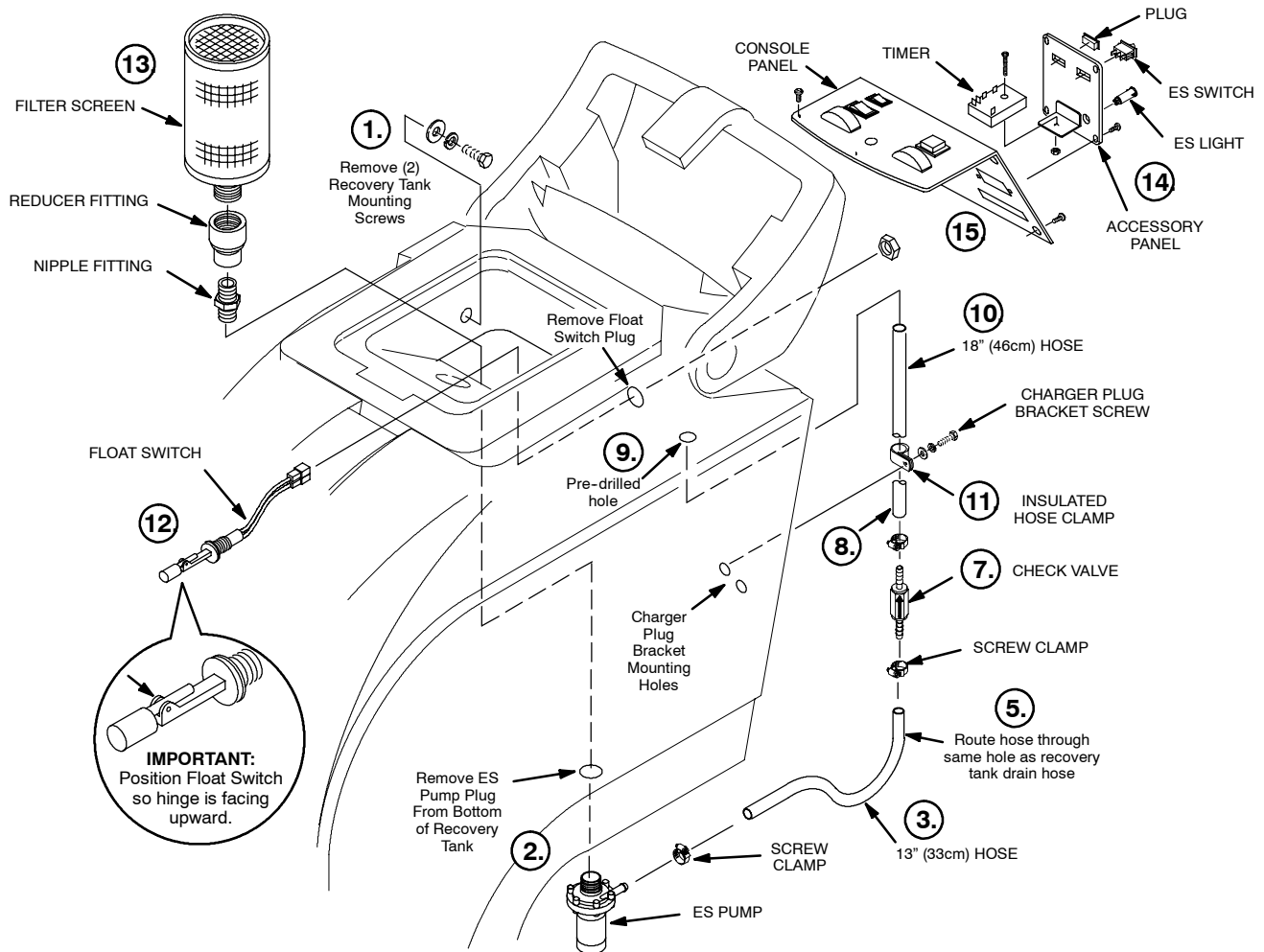
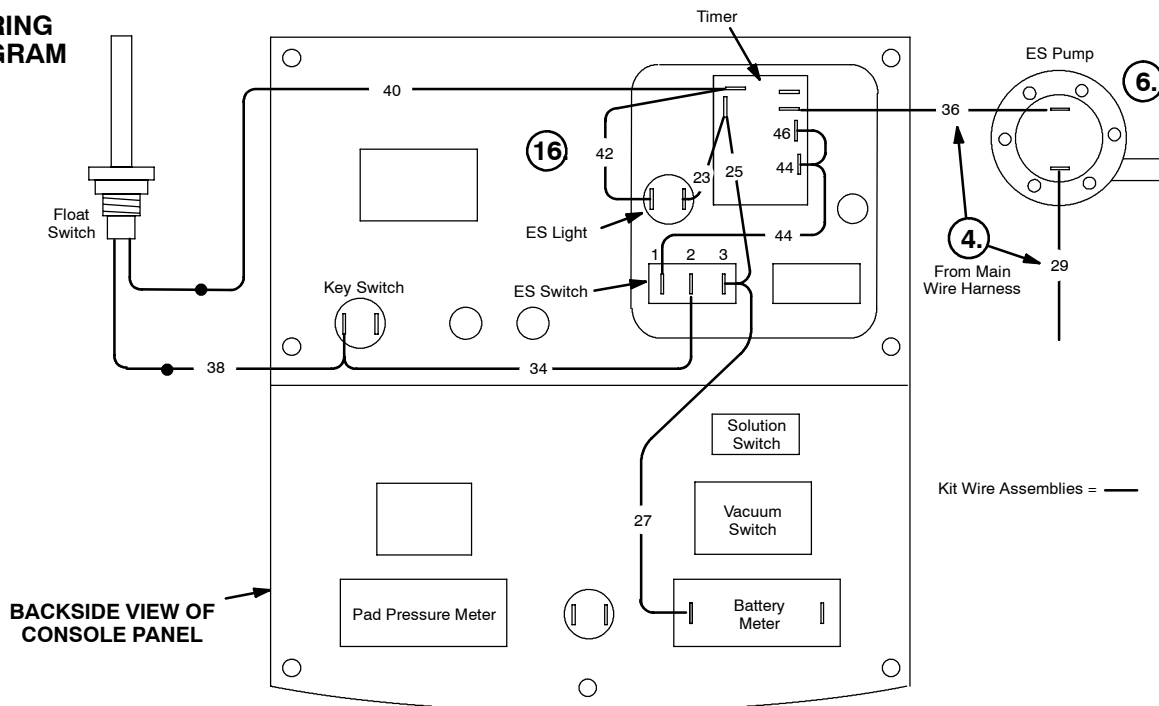
### Begin Installation:

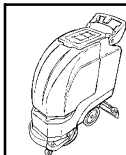
**>NOTE:** Follow each Step in conjunction with diagram.

1. Remove recovery tank from main housing.
2. Remove ES pump plug located on bottom side of recovery tank. Thread Pump into hole, point pump outlet toward rear of tank. Use Teflon tape for proper seal.
3. Connect 13" (33cm) hose to ES pump, use screw clamp.
4. Locate wires #29 and #36, they are wire tied to the outside of the main wire harness. The harness is located under the recovery tank location. Cut wire-tie to free up wires.
5. Replace recovery tank. Before securing tank, route hose from ES pump through the same hole as recovery tank drain hose. You may have to rotate drain hose clamp to allow space for ES pump hose.
6. From bottom side of machine, connect wires #29 and #36 from main wire harness to ES pump.
7. Connect Check Valve to 13" hose using screw clamp. Point arrow on check valve away from pump.
8. Connect 18" (46cm) hose to Check Valve using screw clamp.
9. Locate pre-drilled hole above charger connector. If a plug is inserted, remove plug and drill out hole to 11/16".
10. Push hose up through hole and direct it to left side of machine.
11. Remove inside screw from charger plug bracket and secure hose using insulated hose clamp. Replace screw with flat washer supplied with kit.
12. Remove float switch plug from backside of recovery tank. From inside recovery tank, insert float switch through hole and secure with nylon nut. Position hinge on float switch so it faces upward. Route wires up through hole at bottom of console.
13. Thread reducer fitting and 3/4" nipple fitting onto filter screen. Then thread filter screen with fittings into hole at recovery tank bottom. Use Teflon tape for all connections.
14. Mount electrical components to accessory panel as shown. NOTE: Mount ES switch with #3 terminal to the right.
15. Remove blank panel from console panel and replace with accessory panel. Then remove console panel from machine to access internal wiring. Do not disconnect any wiring.
16. Follow Wiring Diagram for ES kit wire connections.
17. Reinstall console panel and batteries.
18. Refer to Operator Manual for ES Operating Instructions.

**ES™ KIT INSTALLATION INSTRUCTIONS**

>**NOTE:** Follow each Step in conjunction with written instructions on opposite page.

**WIRING  
DIAGRAM**



# WAND PUMP KIT

## INSTALLATION INSTRUCTIONS:

(Installation Time: 1/2 hour)

### TOOLS REQUIRED:

3/8", 9/16", 11/16", 7/8", 1", 1 1/16" Wrench & Philips Screwdriver.

| 5100 WAND PUMP KIT CONTENTS |                              |      |
|-----------------------------|------------------------------|------|
| P/N.                        | Description                  | Qty. |
| 630136                      | Pump, 24V                    | 1    |
| 601479                      | Bracket, Pump                | 1    |
| 200031433                   | Screw, m06x12mm              | 2    |
| 140016                      | Washer, Lock                 | 2    |
| 575501000                   | Hose .66 ft. (20cm)          | 1    |
| 606325                      | Hose 2 ft. (61cm)            | 1    |
| 54333                       | Clamp, Screw                 | 4    |
| 630251                      | Fitting, Elbow 90°           | 1    |
| 630252                      | Fitting, Bushing             | 1    |
| 150538                      | Hose Barb 3/8"M              | 2    |
| 150516                      | Hose Barb 1/4"M              | 1    |
| 78122                       | Fitting, Str.                | 1    |
| 608292                      | Coupler, Quick Connect       | 1    |
| 601416                      | Panel, Accessory             | 1    |
| 630419                      | Switch, Rocker               | 1    |
| 069764626                   | Plug, Hole                   | 1    |
| 582150                      | Plug, Accessory Switch       | 1    |
| 603301                      | Asm., Wire #16x7" Green #52  | 1    |
| 603302                      | Asm., Wire #16x11" Black #19 | 1    |
| 603303                      | Asm., Wire #16x7" Black #21  | 1    |

### Prepare Machine for Installation:

- Drain tanks of all water.
- Remove squeegee assembly.
- Remove batteries.
- Carefully lay machine down on RIGHT side.

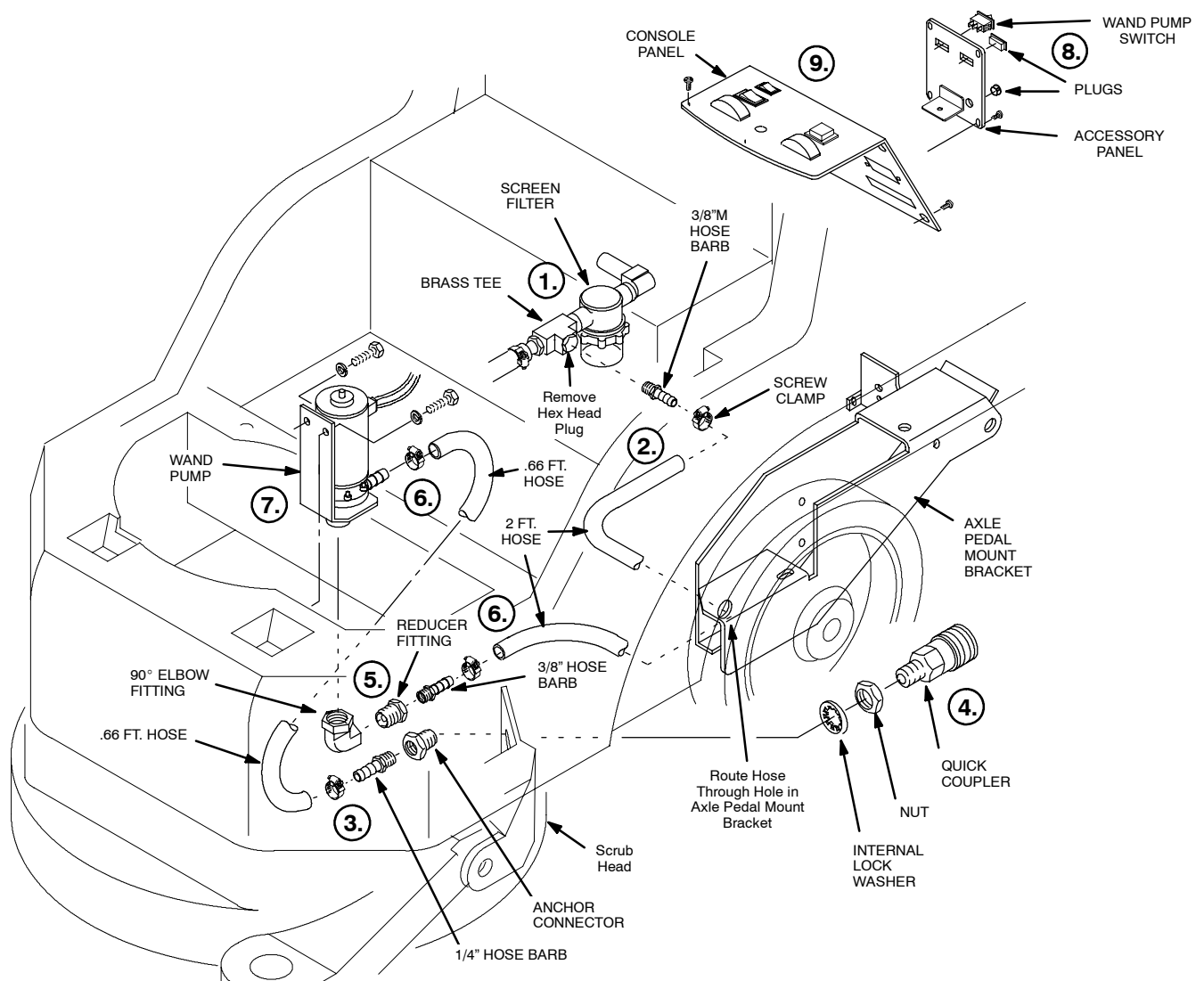
### Begin Installation:

>**NOTE:** Follow each Step in conjunction with diagram.

1. Locate screen filter (clear bowl) under machine. Remove hex head plug from brass tee located next to filter and replace with 3/8"M hose barb. Use Teflon Tape for proper seal.
2. Connect 2 ft. hose to 3/8"M hose barb with screw clamp. Route hose through elongated hole located in axle pedal mount bracket and direct hose towards machine front (See diagram). Stand machine upright after this step.
3. Before mounting quick coupler, connect 1/4" hose barb, anchor connector and .66 ft. hose together as shown. Use screw clamp.
4. Mount quick coupler to scrub head as shown, secure with internal lock washer and brass nut.
5. Thread 90° elbow fitting, reducer fitting and 1/4" hose barb into pump bottom. Use Teflon tap for all connections.
6. Before mounting pump, connect .66 ft. hose to pump outlet hose barb and 2 ft. hose to hose barb at bottom of pump. Use screw clamps.
7. With hoses connected to pump, mount pump to machine as shown, use screws and lock washers supplied in kit. Locate wire #48 (orange) that is wire tied to the outside of the machines wire harness. Clip wire tie and connect wire #48 to pump. Then locate negative standoff on vacuum motor bracket, remove nut and add wire #19 (black) from kit to standoff. Connect opposite end of wire #19 to wand pump. (See Wire Diagram)
8. Mount wand pump switch and plugs into accessory panel as shown. NOTE: Mount switch with #3 terminal to the right.
9. Remove blank panel from console panel and replace with accessory panel. Then remove console panel from machine to access internal wiring. Do not disconnect any wiring.
10. Follow Wiring Diagram for remaining wire connections. Double check all connections.
11. Reinstall console panel and batteries.
12. To operate Optional Wand Pump Kit:
  - a. Attach accessory solution hose to quick coupler.
  - b. Disconnect squeegee hose from inlet tube and replace with accessory vacuum hose.
  - c. Connect hoses to wand.
  - d. Turn on wand pump and vacuum switches. Operate wand as normal.

## WAND PUMP KIT INSTALLATION INSTRUCTIONS

>**NOTE:** Follow each Step in conjunction with written instructions on opposite page.



### WIRING DIAGRAM

