Electronic Water Add Solenoid Kit

Items Included in the Kit

Unpack the kit and review its contents.

Solenoid Valve, Water, 1” FNPT Brass, 12VDC
Kit Quantity: 1
DF Part Number: **WATER-130**

1” FNPT Valve with Bleeder
Kit Quantity: 1
DF Part Number: **WATER-105**

Cable, Wire, 16/2
Kit Quantity: 1
DF Part Number: **CABLE-16-2**

3/4” NPT Wye Strainer
Kit Quantity: 1
DF Part Number: **WATER-107**

(For trucks **without** a strainer pre-installed.)

3/4” MNPT to 1” Hose Bard
Kit Quantity: 1
DF Part Number: **WATER-120**

3/4" SS Hose Clamp
Kit Quantity: 4
DF Part Number: **WATER-102**

Pipe Fitting, 1” (MNPT) x 2.5” (long)
Brass Pipe Nipple - Kit Quantity: 1
DF Part Number: **WATER-104**

Tools for the Job (not included)

- #2 Phillips screwdriver (or screw gun with #2 Phillips end)
- Flat screwdriver (or screw gun with flat end)
- Hose cutter
- Side cutters
- Adjustable wrenches

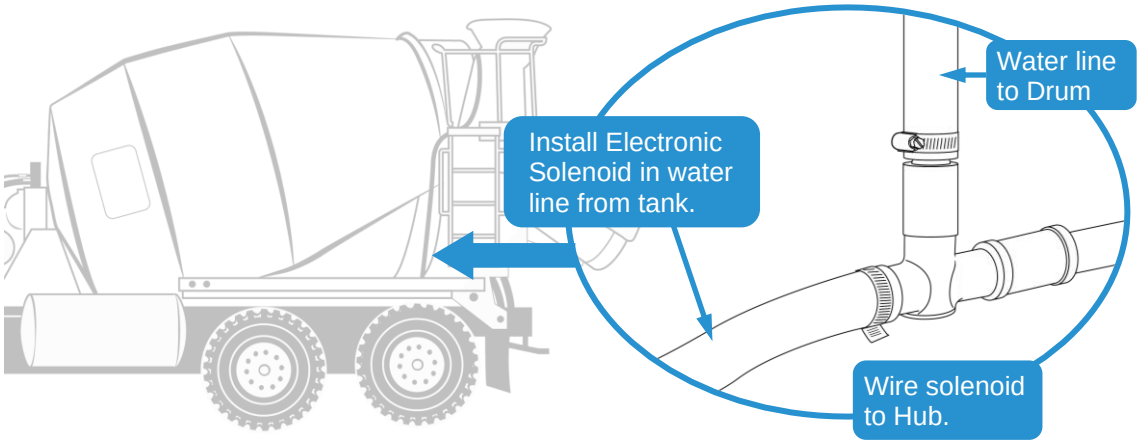
Additional Items Needed (not included)

- Grommets, bushings, hole plugs (to pass wiring through dash/firewall)
- Wire ties
- Colored tape (to mark cables)
- Bracket/threaded clamps (to hold solenoid and hose in place)

Installation – Electronic Water Add Solenoid

The Electronic Water Add Solenoid is installed in the water line coming from the tank. This allows the driver and dispatch to electronically (remotely) add water to the batch of concrete.

During Installation You Will:

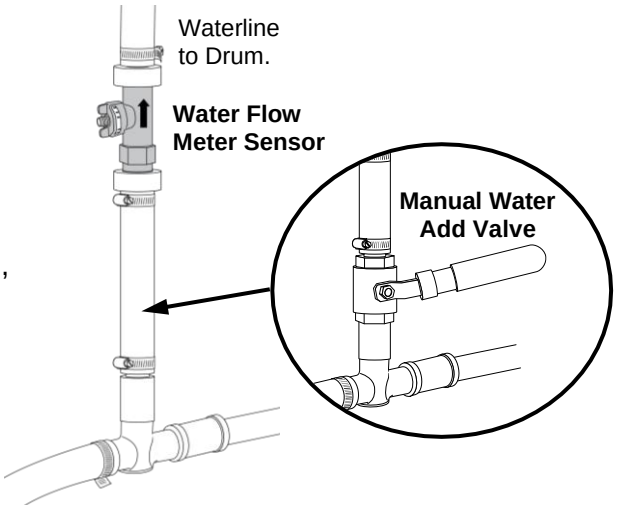


INSTALLATION

Step 1. Drain the water add hose line.

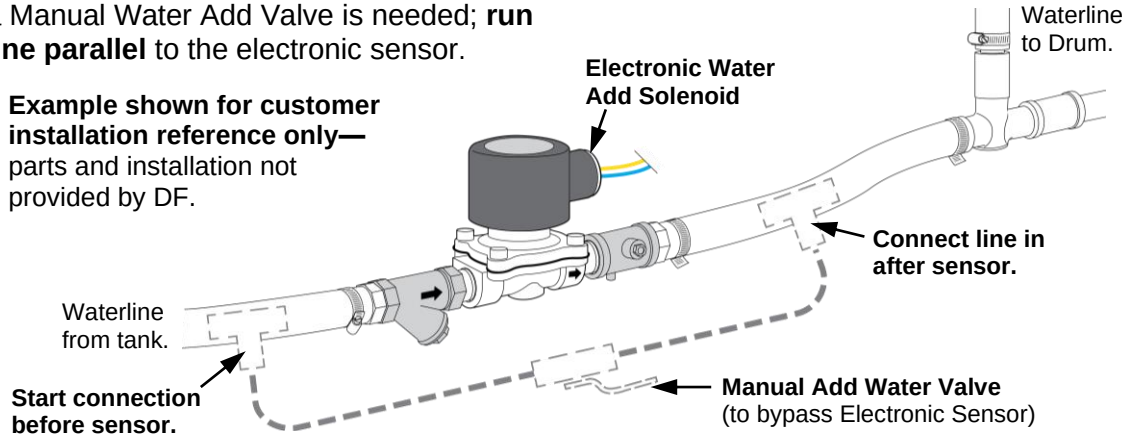
Step 2. An Electronic Water Add Solenoid requires a Flow Meter be pre-installed (see image), reference the appropriate Flow Meter Installation section (IFM or UFM).

Step 3. If an in-line **Manual Water Add Valve** is preinstalled (see image), turn the valve ON, then remove handle to make sure valve stays open. Otherwise, remove the valve from the line.



Step 4. Optional:

If a Manual Water Add Valve is needed; **run a line parallel** to the electronic sensor.

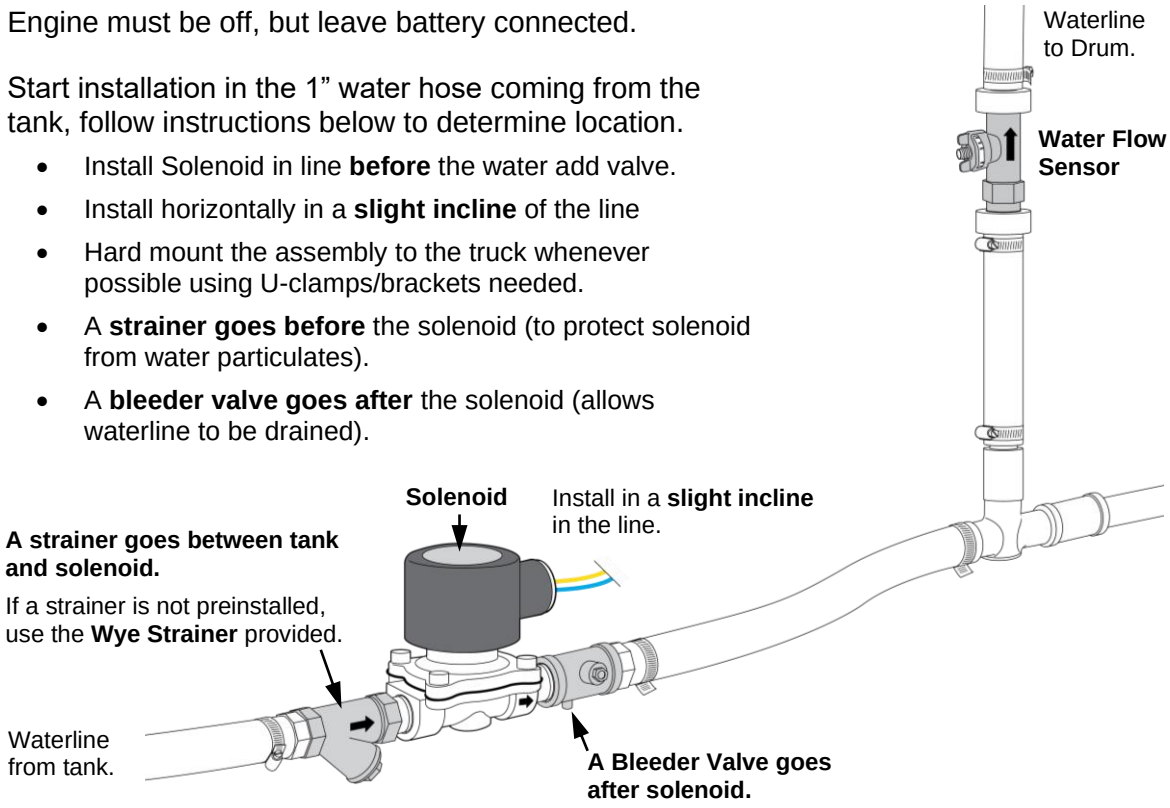


Install Electronic Solenoid:

Step 5. Engine must be off, but leave battery connected.

Step 6. Start installation in the 1” water hose coming from the tank, follow instructions below to determine location.

- Install Solenoid in line **before** the water add valve.
- Install horizontally in a **slight incline** of the line
- Hard mount the assembly to the truck whenever possible using U-clamps/brackets needed.
- A **strainer goes before** the solenoid (to protect solenoid from water particulates).
- A **bleeder valve goes after** the solenoid (allows waterline to be drained).



Step 7. Drain the water line hose.

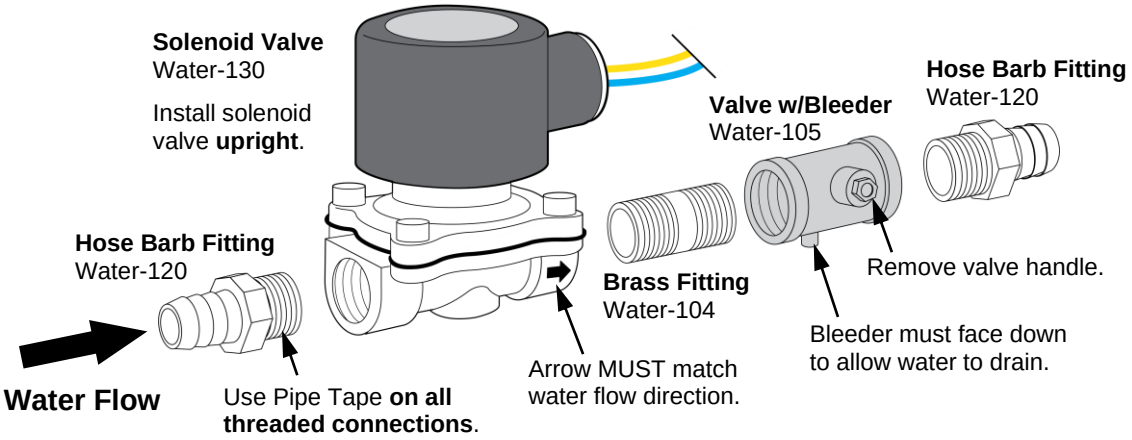
Step 8. **Pre-assemble solenoid, fittings, and valves:**

Water from the tank **must be strained** BEFORE it gets to the solenoid. Use the section below that fits your application—**order of parts is important**.

For trucks WITH a pre-installed strainer: (see next page for trucks without a strainer)

Important:

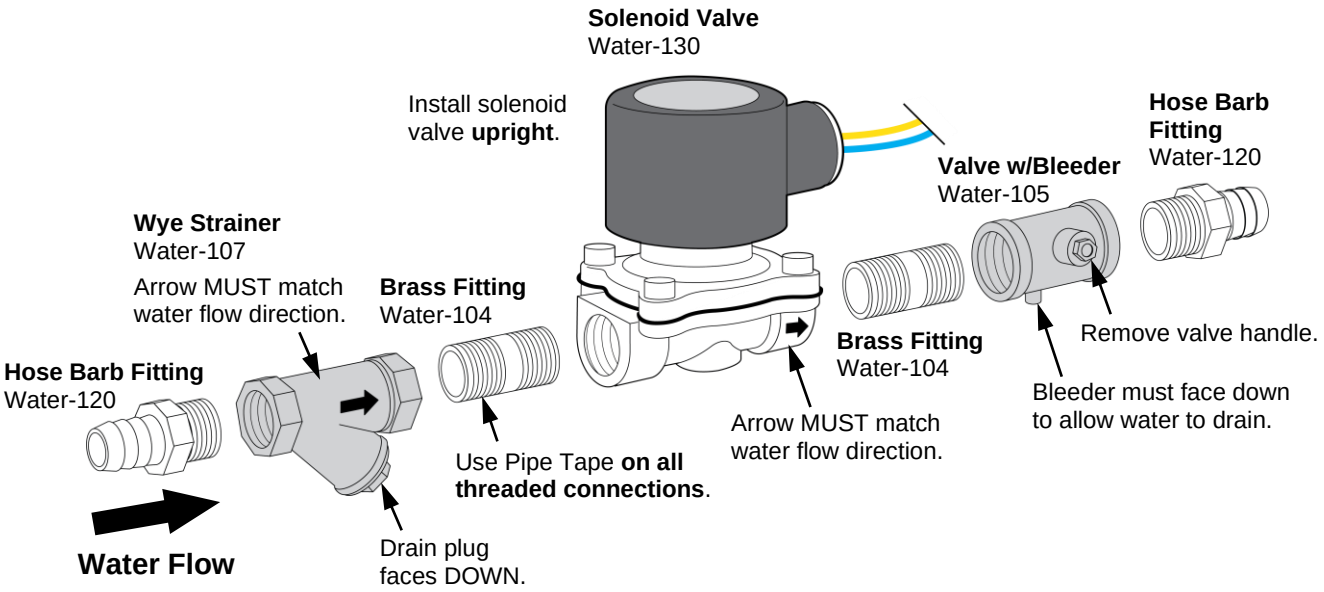
- Direction of water flow is important—check arrows on parts before installing.
- Add pipe compound or pipe tape to all threaded connections to avoid leaks.



For trucks WITHOUT a strainer: Use the Wye Strainer provided in the kit.

Important:

- Direction of water flow is important—check arrows on parts before installing.
- Add pipe compound or pipe tape to all threaded connections to avoid leaks.



Step 9. Use tape to mark the cutout section of the hose.

STOP DO NOT cut the hose until you carefully measure the cutout section needed and mark any hidden fitting ends.

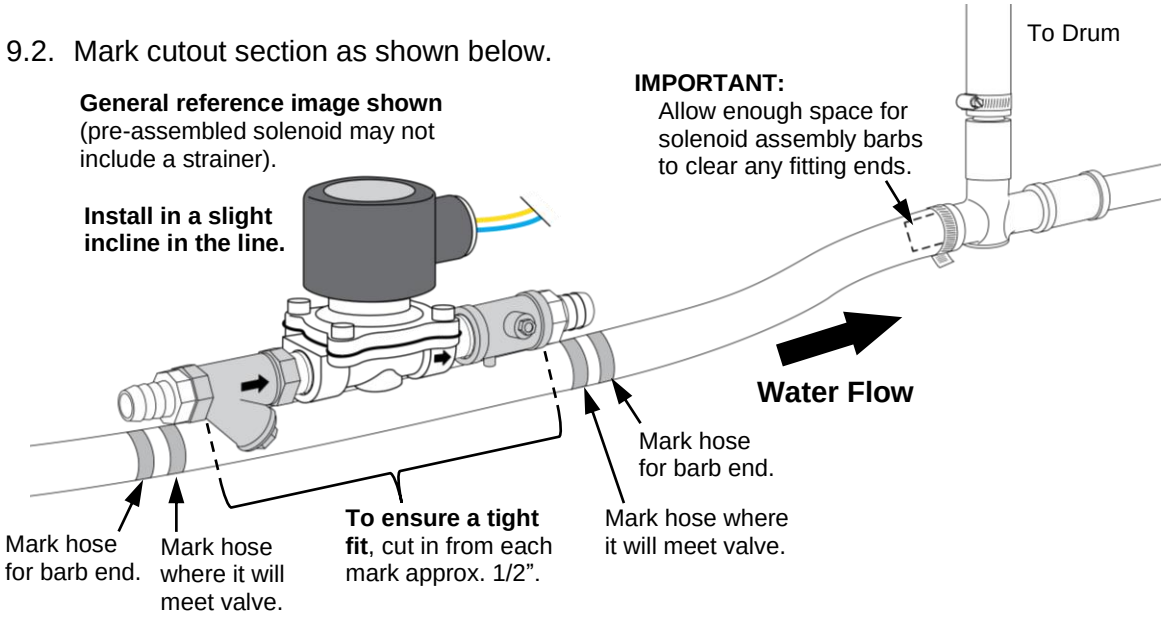
9.1. Hold solenoid assembly in place, then mark hose where solenoid assembly is to be installed, see image below.

A. Install **horizontally in a slight incline** in the line (for drainage purposes).

B. Make sure the hose barbs will clear any fittings.

C. Make sure bleeder valve and strainer are accessible for use.

9.2. Mark cutout section as shown below.



Step 10. Using a hose cutter—cut out the section indicated.

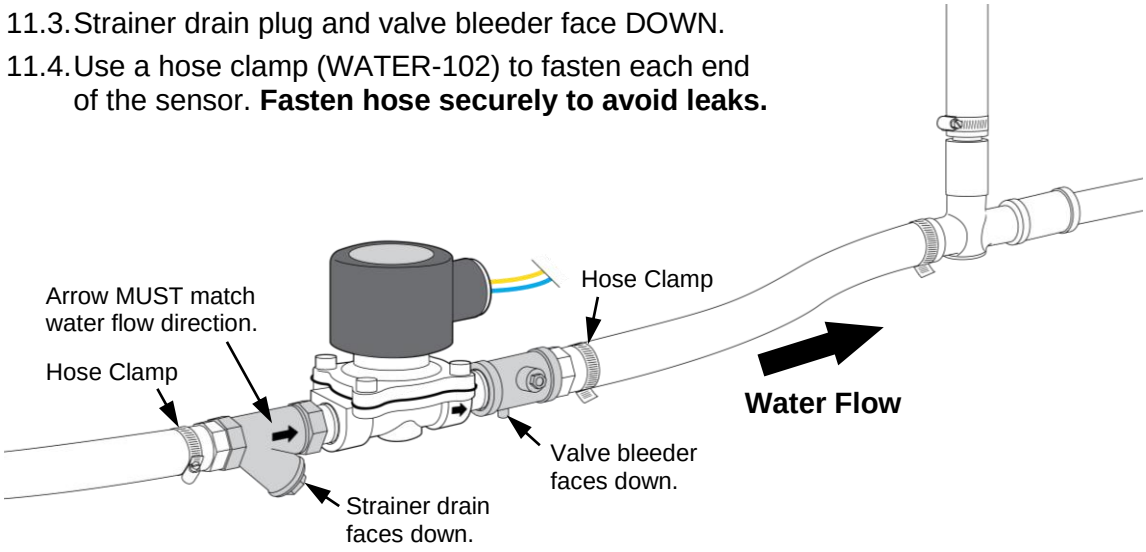
Step 11. Install the solenoid assembly in the cutout section (the assembly should fit tight).

11.1. Arrow indicators MUST go in direction of water flow.

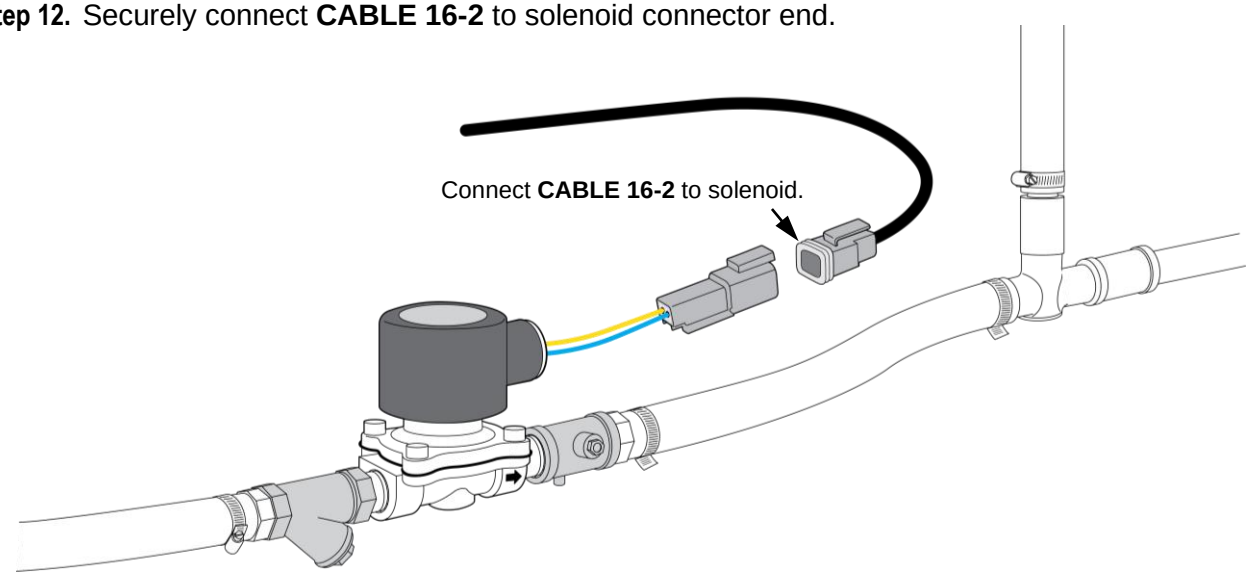
11.2. Face the solenoid UP.

11.3. Strainer drain plug and valve bleeder face DOWN.

11.4. Use a hose clamp (WATER-102) to fasten each end of the sensor. **Fasten hose securely to avoid leaks.**



Step 12. Securely connect **CABLE 16-2** to solenoid connector end.



Step 13. Run cable so it **does not interfere** with any valve handle turning or get bumped during normal operation.

Step 14. Wire cable to Hub, see next page.

ELECTRONIC WATER ADD SOLENOID WIRING

To connect sensor wiring, you need to access the Hub, generally located in dash (Rear Discharge Mixers) or on back cab wall (Front Discharge Mixers).

HUB (BASE-100)

Route Sensor Cable and Connect it to the Hub

STOP If you have additional sensors to install, route all the cables together, then zip tie them to the frame as a group whenever possible.

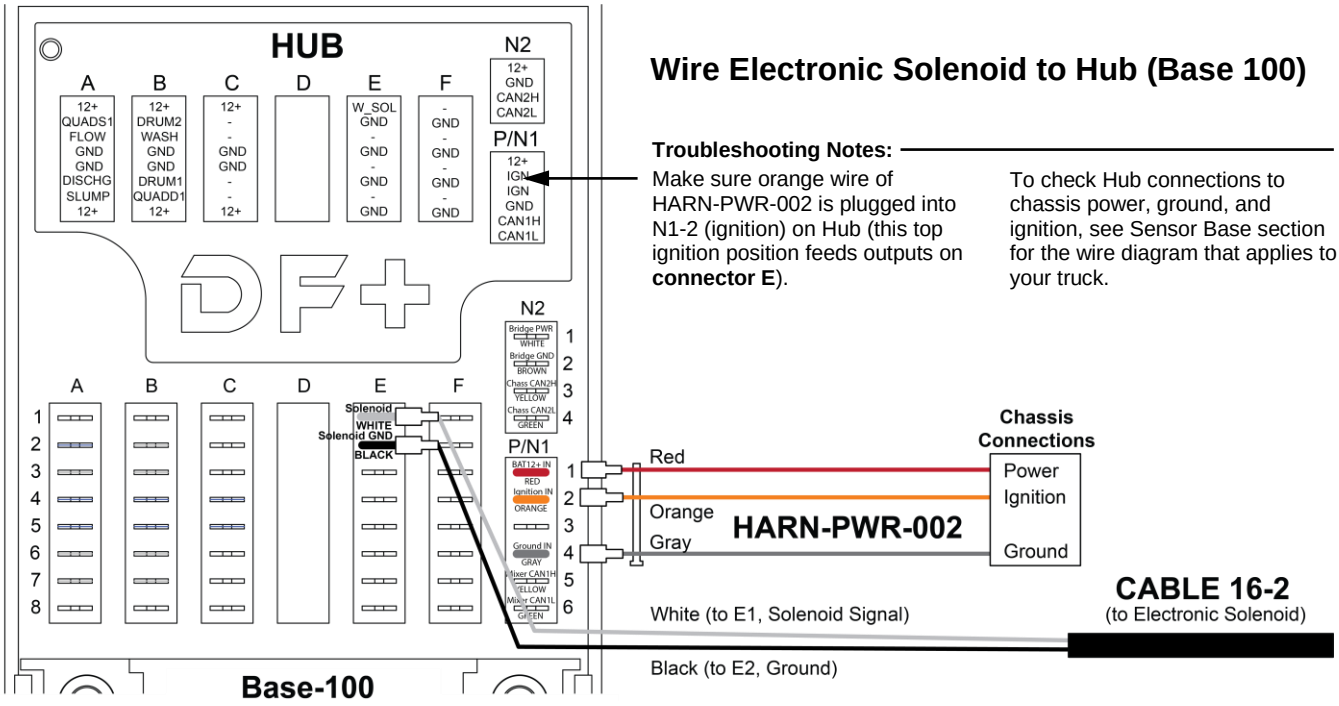
Step 1. Route sensor cable(s) to the Hub—fasten cables approx. every foot.

Important: Route cables safely—avoid moving parts, pinch points, and sharp edges. Use a grommet or bushing on pass-thru holes as needed.

Rear Discharge Mixers: Run cable(s) through the frame rails, under the cab, through a hole in the firewall, and into the dash to connect to the Hub.

Front Discharge Mixers: Run cable(s) through the frame rails, up the back cab wall, and pass it thru a hole into the cab to connect to the Hub.

Step 2. Connect Solenoid Cable 16-2 to Hub (white to E1; black to E2), as shown below.



Step 3. Double check that all wiring connections are securely fastened.

STOP If applicable, complete any additional sensor wiring to the Hub before testing each sensor (refer to the wiring instructions in each sensor's section).

ELECTRONIC SOLENOID VERIFICATION: Verify system using the verification tool on the tablet.

For installation or troubleshooting questions, please call DF+ Support at 630.518.4606.