Slump Kit

Items Included in the Kit

Unpack the kit and review its contents.

Label the Sensor Cable(s): Label **both ends** of the cable using colored tape or zip ties to identify its function when routed to the Hub.

Recommendations:
Yellow – Slump Hydraulic Sensor
Red – Drum Sensor (Drum 1)
Green – Drum Sensor (Drum 2)
Blue – Water Add Flow Meter
White – Washout Switch

Pressure Transducer Kit Quantity: 1 DF Part Number: **HYD-100**	
M12 Cordset, 10M Cable Kit Quantity: 1 DF Part Number: **GEN-105**	
Male Terminals DF Part Number: **GEN-110**	
Female Terminals DF Part Number: **GEN-101**	
Hydraulic Adapter #4 (T) Kit Quantity: 1 DF Part Number: **HYD-102**	

Tools for the Job (not included)

- 1 1/16” Wrench (for HYD-102, Adapter T)
- 9/16” Wrench (for HYD-102, Adapter T)
- 7/8” Wrench (for HYD-100, Sensor)
- Cable Stripper (nice to have)
- Wire crimpers
- Wire strippers
- Side cutters

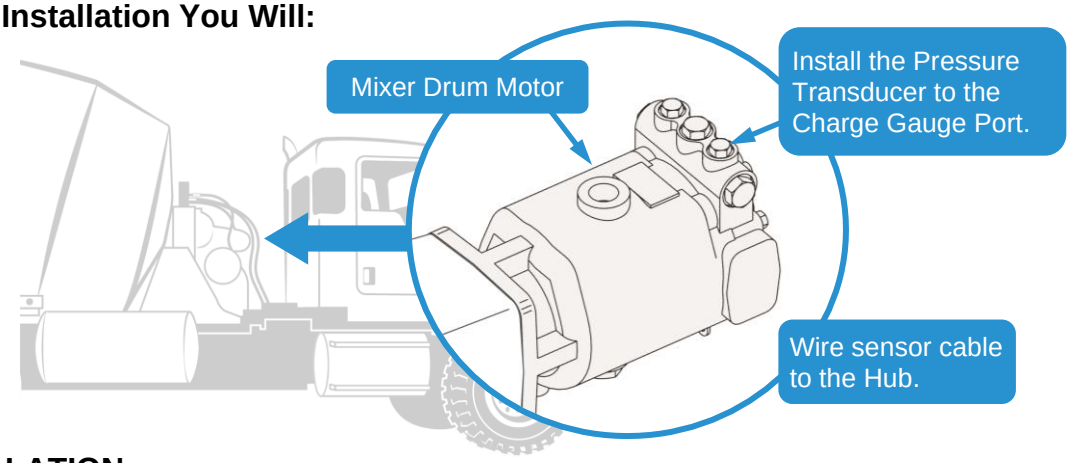
Additional Items Needed (not included)

- Grommets, bushings, hole plugs (to pass wiring through dash/firewall)
- Wire ties
- Colored tape (to mark cables)

Installation – Slump Kit

The Slump Sensor is installed on the drum motor to relay slump information to the driver and dispatch.

During Installation You Will:

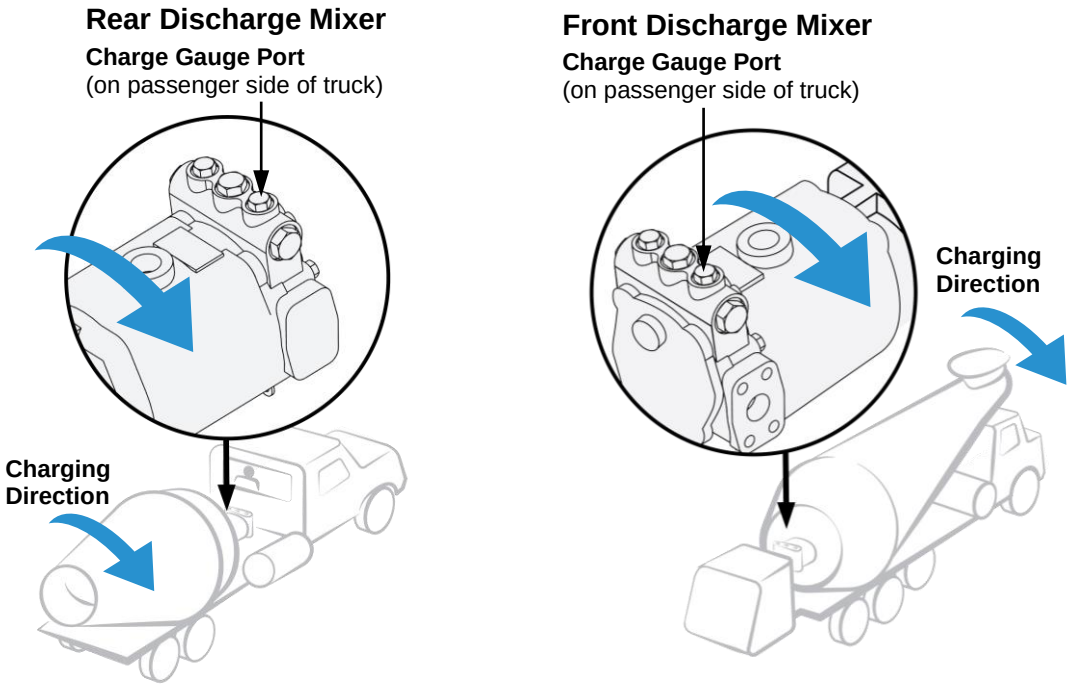


INSTALLATION

Step 1. Before starting—color code each end of the sensor cable to identify its function when routed to the hub (yellow recommended for Slump).

Step 2. Engine must be off, but leave battery connected.

Step 3. Start installation at the mixer drum motor. Locate the Charge Gauge Port—charge port is always on **the passenger side** (curb side) of the truck.



Step 4. Remove the hose from the Charge Gauge Port (if applicable, leave any fitting or elbow in place), see image on next page.

Step 5. Screw Adapter T (HYD-102) onto charge port fitting, (where hose was removed).

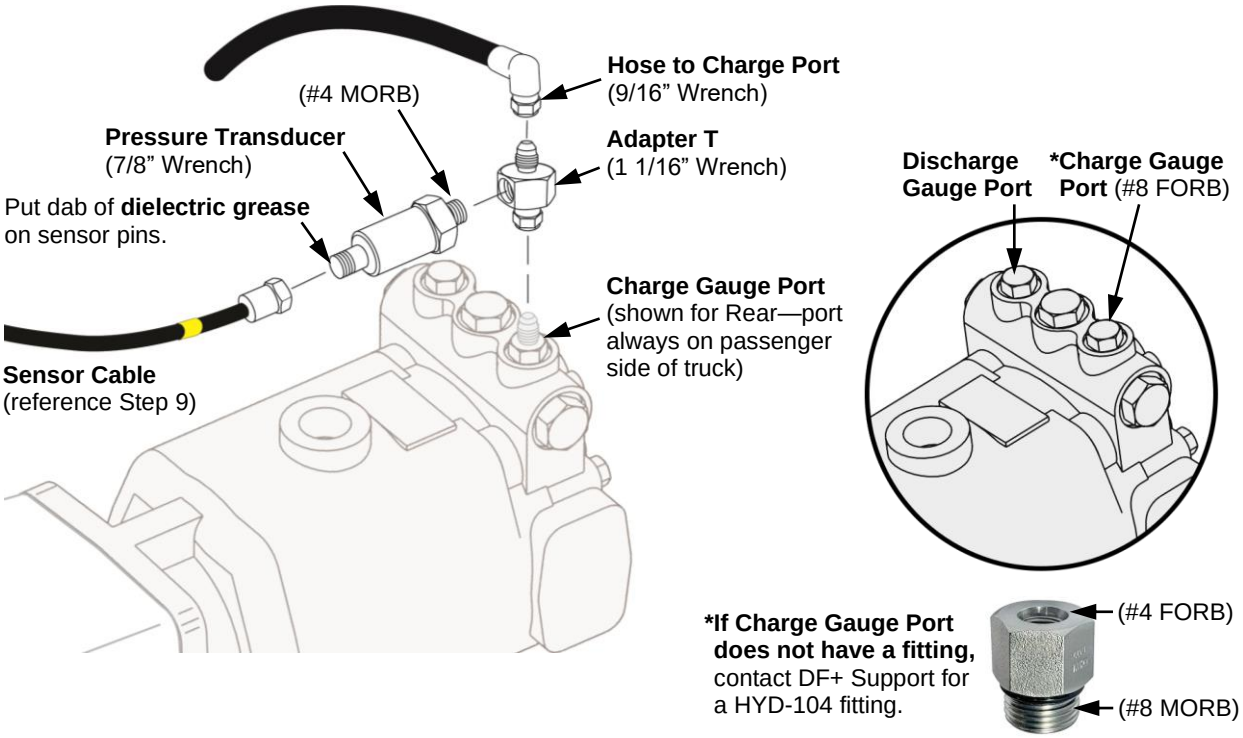
Note: When no hose goes to the Charge Gauge Port (no manual slump gauge installed), you need a HYD-104 fitting to replace the Adapter T; contact DF+ Support for a fitting.

Step 6. Screw sensor (HYD-100) into side of T—use 7/8" wrench; O-ring tightening torque 25Nm (18.5 ft-lbs.).

Step 7. Reattach hose—screw hose onto remaining end of T.

Step 8. Put a dab of **dielectric grease on sensor pins** to help prevent corrosion, see image below.

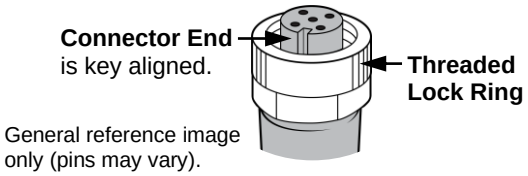
Rear Discharge orientation shown below
for general installation reference only.



Step 9. Connect cable (GEN-105) to sensor end, see image on previous page:

Do not force a connection—end should slide on easily, check key alignment.

Thread lock ring onto sensor until hand tight (ring clicks slightly when locked).



General reference image only (pins may vary).

SLUMP SENSOR 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

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. **BEFORE cutting any cable**:

2.1. Measure enough cable length for Hub to be removed from the dash and set aside to work on it effectively.

2.2. **Move the color coding (tape)** so the cable can still be identified after being cut.

2.3. Cut off any extra cable length.

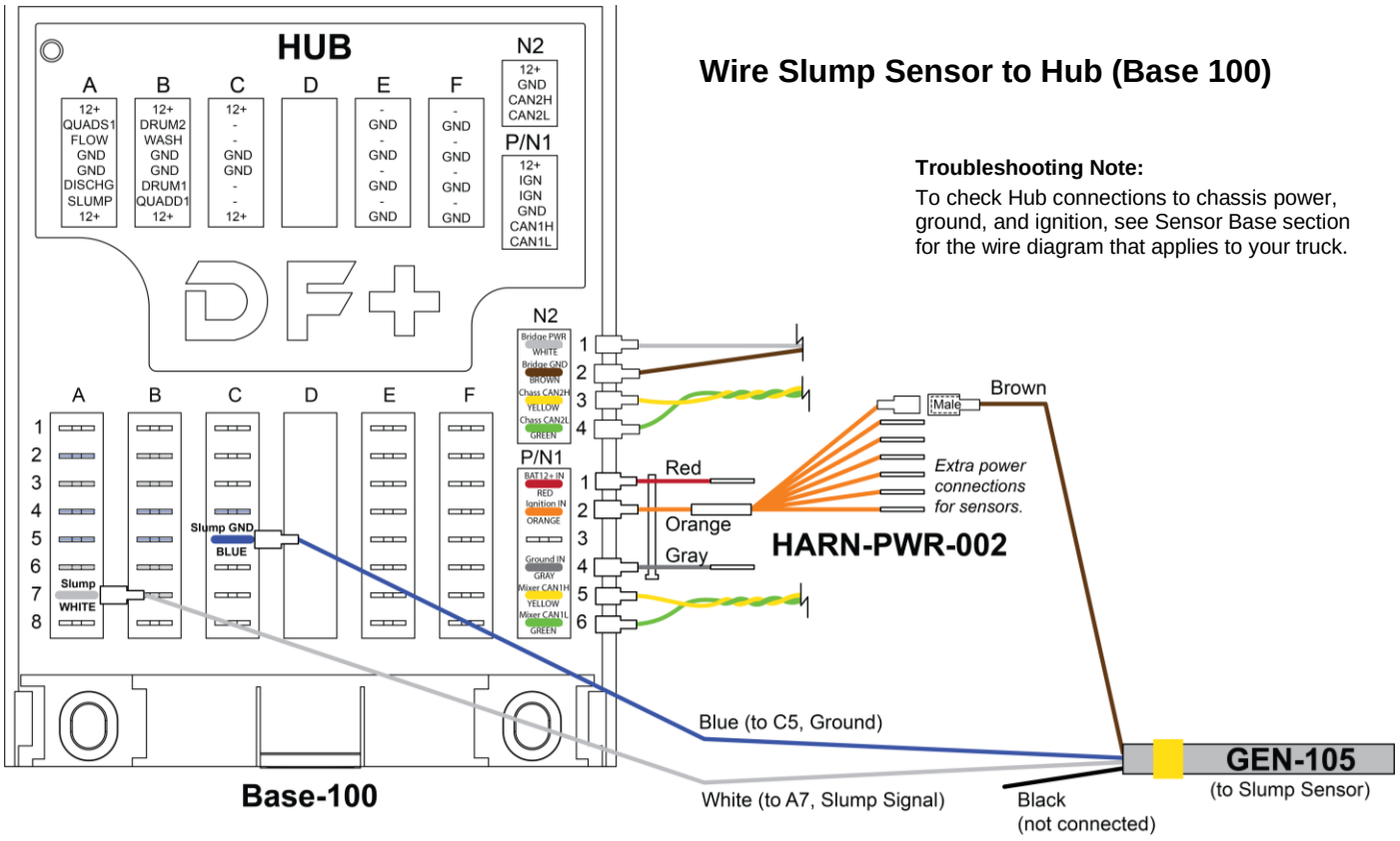
Step 3. Connect Slump Sensor Cable to Hub (use GEN-105 Cable color coded for Slump).

3.1. Black wire not used.

3.2. Strip remaining wires—crimp on terminals:
- blue/white—female terminals (GEN-101)
- brown—male terminal (GEN-110)

3.3. Plug blue and white wires into Hub, see image below.

3.4. Plug brown wire into power harness on Hub (HARN-PWR-002—strip one of the orange, extra power connection wires and crimp on a female terminal for use).

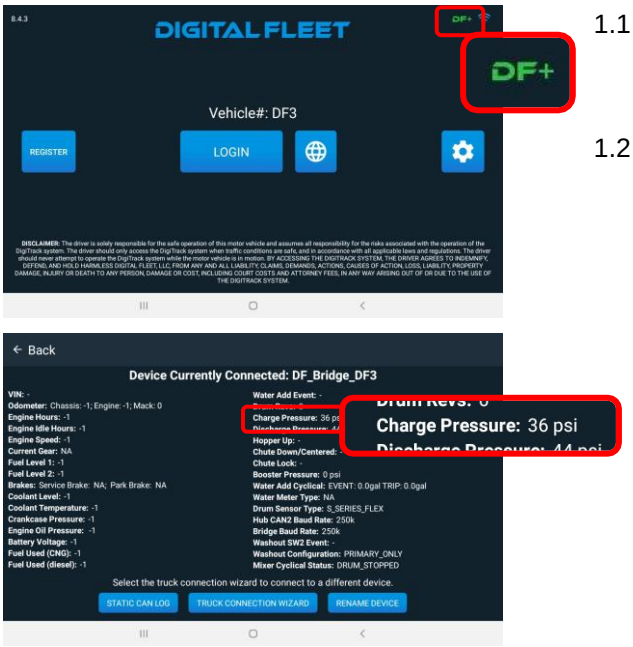


Step 4. Double check that all wiring connections are securely fastened.

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).

INSTALLER VERIFICATION

Step 1. Verify the tablet shows correct charge pressure:



1.1 **Press DF+ icon** to navigate to the DF+ diagnostic screen.

1.2 **On diagnostic screen**—scroll down to Charge Pressure. Observe charge pressure under the following conditions:

A. With the ignition OFF—charge pressure reading should show less than 50psi.

B. Start the truck; when the drum is **not spinning**—charge pressure should show approx. 250psi.

C. Spin the drum at charge while the truck is at idle; then, move it to full displacement (full speed and idle, drum spinning at approx. 7rpm)—charge pressure should show between 200-500psi.

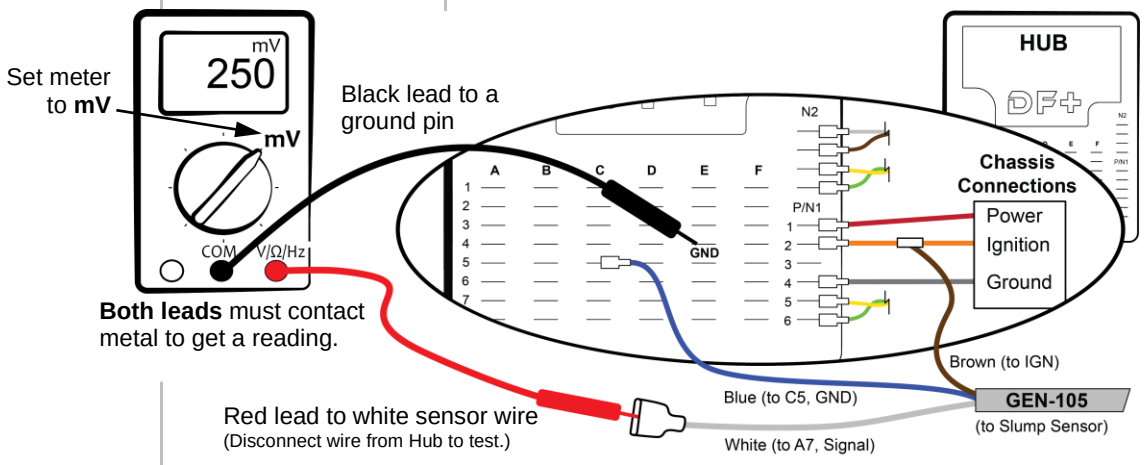
If each reading is in range, charge pressure is verified.

If a reading is incorrect, reference the Slump Sensor Troubleshooting section).

SLUMP SENSOR TROUBLESHOOTING

Issue	Possible Cause	Potential Solution
While truck is running, charge pressure shows: • **less than 50psi, or** • **more than 5000psi** (typically 12000psi)	Open circuit *(sensor to Hub)*	**Check cable connection at sensor end**—key on cable connector aligns it to the sensor pins; lock ring threads onto sensor until hand tight (see Slump Kit Installation, Step 9). **Check wire connections on Hub:** Make sure sensor cable runs into the truck cab and all connections match the appropriate wire diagram (reference Slump Sensor Wiring section of Slump Kit Installation Instructions).
	• ~12000–13000psi (look for short to power)	**Check ignition** connections (a short circuit to power will typically show about 12000–13000psi): • Make sure brown wire is connected to orange wire of HARN-PWR-002 (ignition). • Make sure orange wire of HARN-PWR-002 is plugged into N1-2 (ignition) on Hub. **Check Slump signal** connection at Hub: • Make sure white wire is connected to A7 (Slump Signal on Hub)—this reading error is often caused by having the wrong sensor plugged into the A7 connection (i.e., Drum Sensor).

Issue	Possible Cause	Potential Solution
	• ~10000psi (look for open circuit to ground)	**Check ground** connections (an open circuit to ground will typically show about 10000psi): • Make sure blue wire is connected to ground on Hub. • Make sure gray wire of HARN-PWR-002 is plugged into N1-4 (ground) on Hub.
	Open circuit *(Hub to truck)*	Make sure Hub is connected to chassis power, ground, and ignition (as applicable, reference Sensor Base section for the wire diagram that applies to your truck). Verify truck has proper fuses installed; make sure fuses are not blown.
	Damaged wiring	**Inspect cable length for damage.** Check sensor pins for damage—remove cable end from sensor to inspect pins. Whenever cable is disconnected, clean end and put a dab of dielectric grease on sensor pins before reconnecting. Visually check the cable length for damage—make sure it has not been pinched, nicked, or damaged in any way. **Check for any type of damage, for example:** **Frayed** harness or wire  **Pinched** wire or harness  **Cut** or exposed wire  **Burned or hot wire** (discolored or distorted covering)  For any damage to the wiring or plug ends, replace the cable (reference the sensor's, Installation section).
	Sensor not installed	Check to make sure the sensor is connected properly to the **charge gauge port**, and to the fittings (reference Slump Installation Instructions section).
	Damaged sensor	• Visually inspect the sensor. If it looks physically damaged, replace the sensor (reference Slump Kit Installation, Step 6). • If other troubleshooting causes shown above check ok, use a multimeter to check the sensor for failure as shown below.

Issue	Possible Cause	Potential Solution
	Voltage Test (mV) - Signal Wire to Hub	
	Signal wire (white)	**Test voltage** (mV) of signal wire for sensor failure. Use a multimeter to test the sensor (0-5000mV represents 0-5000psi). 1. **Make sure** Hub is connected to truck's ground and power supply. *Reference Sensor Base Kit section for the wire diagram that applies to your truck.* 2. **Start the truck** (test with engine ON). 3. **Setup multimeter** as shown below.
		
		4. When the drum is paused, a good reading is between 100-500mV. If reading is below 50mV or above 5000mV, it is either a wiring issue (usually the cause) or a bad sensor. **Recheck the wiring before replacing sensor:** • If reading is ~10000mV: Recheck ground circuit (make sure blue wire is intact and properly connected to C5 ground on the Hub, see image above). • If reading is ~12000–13000mV: Visually check the cable length for damage—make sure it has not been pinched, nicked, or damaged in any way. • If all wiring checks ok, then replace the sensor (reference Slump Kit Installation, Step 6). 5. **After testing**—reconnect all wiring securely.
Other issues listed above check ok, but sensor still not working.		Replace the sensor (reference Slump Kit Installation, Step 6).

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