Maintenance & Operating Instructions







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PRODUCT DESCRIPTION:

FloTech API Rack Plugs are designed to meet the mechanical and electrical requirements outlined in API RP 1004 standard for Bottom Loading Cargo Tanks. The plugs can be wired into Dixon Bayco, Scully or Civacon API cord junction boxes and feature a reliable polymer and stainless steel construction. The FT600P & FT620P series that have the J560 plug attached, are prewired connectors that offer an easy and trouble free installation.

Installation Steps for Rack Cords that <u>DO NOT</u> Contain the J560 Plug:

Follow these instructions to install a FloTech replacement plug assembly.

Step 1) Remove old plug from junction box and <u>record on a piece of paper the wire number that is connected</u> to the corresponding numbered terminal screw. Wires on the API cord typically have wire numbers 1-10 on the individual conductors. These wire numbers match the API plug pin number.

Step 2) Keep all cable gland parts used to seal the cord in the junction box. These will be reused.

Step 3) Place junction box cable gland components over new FloTech API plug cord in same order as removed. Then install cable into junction box and tighten cable gland.

Step 4) Reconnected numbered wires on the plug cord to the numbered terminal block screws in the same order. **Follow the wire numbers, not the wire colors.**

CAUTION: There is no standard to these connections. If any doubt use an ohm meter and verify API plug contact pin to wire number before removing the old plug and reconnecting the new plug.

Drawing below shows the FloTech API Replacement Plug installed in a rack mounted junction box. Junction box not part of FT600/620 series replacement API plugs.



Installation Steps for Rack Cords that Contain the J560 Plug:

- 1. Connect the J560 plug end to the mating socket at the loading rack.
- 2. Connect the blue plug to the optic connection or the green plug to the thermistor connection on the cargo tank.

Cord Replacement:

The graphic below shows the wire connections if it becomes necessary to replace the cord.



FIGURE 1 FT620P OPTIC



FIGURE 2 FT600P THERMISTOR

To assemble a replacement cord to an existing rack plug, With or Without the J560 plug, follow the procedure below.



Per the picture above, loosen the large nut on the strain relief.



Per the picture above, loosen the screw on the side of the rack plug. This will release the black contact block containing the spring loaded contact pins.



Per the picture above, slide the contact block out of the rack plug body. Slide the orange cord into the plug body as the contact block is slid out.



Per the picture above, loosen (but do not completely remove) the small set screws holding the wires into the spring loaded pins.



You can now remove the contact block from the cord. To remove the cord from the plug body you can loosen the clamp (see picture above) by inserting a screw driver in the crimped ears and twisting, or you can cut the cord off below the clamp so the cord can be removed through the strain relief.

To gain access to the wires in the FT620P J560 plug, Loosen the strain relief clamp screw and the small screw in the side of the J560 housing.

Slide the orange cord into the J560 body as the contact block is slid out.

To gain access to the wires in the FT600P J560 plug, Loosen the strain relief nut and depress the small release button in the side of the J560 housing.

Slide the orange cord into the J560 body as the contact block is slid out.

Reverse the process to attach the new cord to the old rack plug.



Per the picture above, slide the new rack cord through the strain relief spring and nut, then through the metal backup ring and rubber grommet and through the rack plug body.



Step 1.



Per the picture above, slide the large metal pinch-on clamp onto the cord and crimp it onto the orange jacket about 1" beyond the end of the orange jacket measured to the far side of the clamp as shown using Dixon clamp tool 1098. Then slide on the smaller clamp, making sure to align clamp ears with the first, and crimp.

Attach the wire ends to the contact pins by matching the wire numbers to the pin numbers. <u>Use</u> the numbers and not the wire colors from the old cord.

Tighten the set screws onto the wire ends.



Rotate the contact block as needed to take up excess wire and insert the contact block into the rack plug body such that the (2) index marks on the black plastic contact block align with the (2) index marks on the rack plug body (see picture above).

Hold the contact block firmly into the body and tighten the screw into the side of the rack plug body. Do not over tighten this screw.

Tighten the large nut on the strain relief.

For Rack Cords that Contain the J560 Plug:

Connect the wires to the J560 Plug per the chart in FIGURE 1 or FIGURE 2.

If you are using the FT620P J560 plug, insert the contact block and the small screw in the side of the J560. Make sure the large orange wire jacket is under the strain relief clamp and tighten the strain relief clamp screw.

If you are using the FT600P 13 pin J560 plug, slide the small metal pinch-on clamp onto the cord and crimp it onto the orange jacket about 1/2" beyond the end of the orange jacket measured to the far side of the clamp as shown. Crimp the clamp using Dixon clamp tool 1098.

Insert the contact block into the housing until the small release button clicks into place. Tighten the strain relief nut.



Dixon Warranty:

For warranty Information, please refer to the inside back cover of the latest Dixon catalogue.

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