### CALIBRATION INSTRUCTIONS for FNP and FXP FASMATE Page 1 of 5



#### **Connector Maintenance:**

- A daily, weekly and periodic inspection of the connector by competent person is recommended. User must establish a regular interval for maintenance as determined by the user media and operational environment.
- Inspection should include visual checks of the sealing area, handle wear, missing
  or loose components, leak tightness, ease of operation, sufficient lubrication,
  wear, dirt accumulation and damage.
- Establish a regular interval for lubrication. The media and environment will be determining factors in establishing this interval to prevent dryness and/or corrosion.
- Difficulty of operation after continual use indicates a need for lubrication or other maintenance.
- Use only original *FasTest* spare parts that are designed for the application and are subject to strict quality control. See Warranty.

#### Safety Warnings - Guidelines:

- If instructions are not completely understood by operator or components are missing, contact *FasTest* before attempting use of the connector.
- Application Safety: All *FasTest* products have been designed with safety in mind, however, it is the responsibility of the products users to design each process in such a way to avoid mishaps that can cause physical hazard or property loss.
   Secondary restraints such as safety chains, shields, cages or fixtures are all good choices depending on the application. *FasTest* can recommend or assist you in clarifying potential hazards of your application.
- FasTest FN/FX Connectors are not internally valved, and will not prevent loss of media when disconnected. Do not attempt to disconnect unless safe conditions are met. If connector is valved it will have a 'V' in the part number.
- FasTest FN/FX Connectors must only be used with test pieces of a specific size
  as indicated by the part number. Improper use could cause separation of the
  connector from the test piece resulting in physical harm or damage.

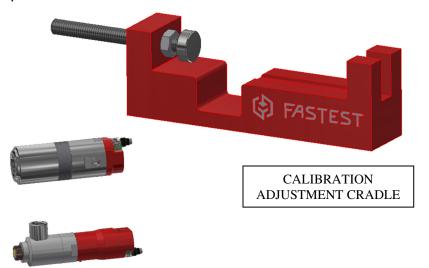
#### FasTest, Inc. Product Warranty

FasTest, Inc. warrants its products against defects of workmanship and/or material for 1 year from the date of the sale by FasTest, Inc. This warranty is void if the product is misused, tampered with or used in a manner that is not in accordance with FasTest, Inc. recommendations and/or instructions. FasTest, Inc. is not liable for consequential or other damages including, but not limited to, loss, damage, personal injury, or any other expense directly or indirectly arising from the use of or inability to use its products either separately or in combination with other products. ALL OTHER WARRANTIES EXPRESSED OR IMPLIED, WHETHER ORAL OR WRITTEN, INCLUDING BUT NOT LIMITED TO WARRANTIES OR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED.

Remedy under this warranty is limited to replacement of the product or an account credit in the amount of the original selling price, at the option on FasTest, Inc. All allegedly defective products must be returned prepaid transportation to FasTest, Inc. along with information describing the products performance, unless disposition in the field is authorized in writing by FasTest, Inc.

# FASMATE Pneumatic Series FNP & FXP Connectors with SSR ICON™

Description: Calibration Instructions for Pneumatically Operated FNP and FXP Connectors with SSR ICON™.



**FASMATE ICON™** Connectors provide a reliable leak-tight connection that grips and seals male and female thread features.

Please thoroughly read and understand these operating instructions prior to operating the connector. The use of pressurized media for sealing and testing requires a thorough understanding of the *FasTest FASMATE* Operating Instructions.

- ICON™ SSR Calibration
- Connector Maintenance
- Safety Warnings Guidelines



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## **CALIBRATION INSTRUCTIONS for FNP and FXP FASMATE Page 2 of 5**



#### Other FN and FX Instruction Resources found on website:

WP101 FN Operating Instructions

WP118 FN Rebuild Instructions

WP119 FN Main Seal Replacement Instructions

WP158 FN ICON™ Calibration and ICON™ Rebuild Instructions

WP120 FX Operating Instructions

WP121 FX Rebuild Instructions

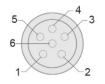
WP123 FX Main Seal Replacement Instructions

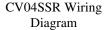
WP173 FX ICON™ Calibration and ICON™ Rebuild Instructions

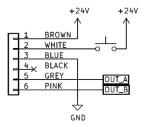
#### **SSR Calibration Wiring Diagrams:**

Pinout/Standard M8 Cables		
Pin Number	Wire Color	Description
1	BROWN	24 VDC
2	WHITE	CALIBRATION
3	BLUE	GROUND
4	BLACK	NC
5	GREY	SSR CONTROL A
6	PINK	SSR CONTROL B

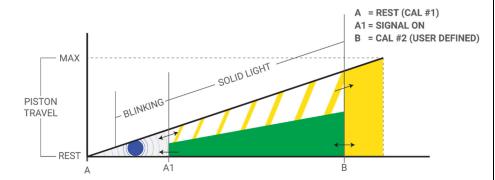
CV04SSR PINOUT







 A good connection is indicated when LED is green, and pins 5 and 6 are connected to each other by internal solid state relay.



Note: Point A1 is a preset distance from the rest position (A). As the shaft is extended from rest, it will begin flashing yellow within the good zone. A good connection is only indicated when the shaft retracts from beyond the upper limit (B). If a good connection is made and it's just to the right of Point A1, it could travel through point A1 once test pressure is introduced, and the light will change from green to flashing yellow. Cancel the test, reconnect, and try again.

#### **ICON Module LED Color Definitions:**

Fashing Blue Heartbeat=At Rest

Yellow Flash=Re-connect and try again. If it continues to flash yellow connector may need to be re-calibrted because of slight changes in connector position when media pressure is applied.

Yellow=Cross threaded connection, pre-mature connection before fully inserted.

Green=Good connection



### **CALIBRATION INSTRUCTIONS for FNP and FXP FASMATE Page 3 of 5**



#### **FNP SSR MODULE CALIBRATION with ADJUSTMENT CRADLE:**

**Sure Seal™** enabled connectors need to be calibrated to each application. **The FasMate FNP connector retains stored limit(s) even when power is removed.** Due to the fine sensor resolution and variations in seal height, limits may need to be set each time seals are replaced or the connector is re-built.

In order to calibrate the FNP, the upper and lower limits will be calibrated by minimum and maximum shaft positions.

Applicable to all SSR units, to enter the calibration mode, flash the calibration input high 4 times.

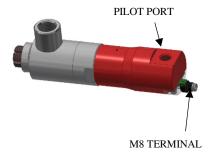
#### **FNP Series SSR Calibration Steps:**

DO NOT CONNECT MEDIA TO TERMINATION PORT ON CONNECTOR UNTIL CALIBRATION PROCESS IS DONE.

STEPS 1-5 ARE CONNECTOR AND CRADLE PREP BEFORE CALIBRATING.

- 1. Connect air line to the pilot port on connector.
- 2. Connect cable to the M8 Terminal.
- 3. Activate pilot pressure and remove main seal from connector. (Recommended pilot pressure 80-120psi).

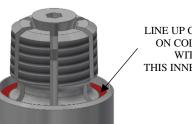




- 4. Place connector in the cradle tool. M8 terminal fits in groove in the cradle tool.
- 5. Make sure nuts are loose enough to adjust with fingers.

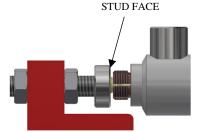


- Adjusting the cradle stud might take several tries before getting the collet groove lined up with inner face of the front body. SEE IMAGES BELOW.
- 7. Apply pressure to pilot port. Shaft on connector will stop against stud face. Adjust nuts and stud so the back edge/face of the collets lines up with inner face (Inner face shown in red).



LINE UP GROOVE ON COLLETS WITH THIS INNER FACE





8. When correct collet/shaft travel is completed, tighten nuts on cradle.



#### CALIBRATION INSTRUCTIONS for FNP and FXP FASMATE Page 4 of 5



M8 TERMINAL

- Connect cable to the programming tool.
- 10. Plug programming tool into 120v outlet. NOTE: CALIBRATION CRADLE IS NOT USED OR REQUIRED WHEN CALIBRATING THE **REST POSTION (CAL #1)**
- 11. Calibrating connector at rest, shaft and collets are fully retracted and no pressure applied to the pilot port.





12. Using the FasTest programming tool SPCT0204 or SPCT0204A press the button 4-5 times rapidly to enter calibration mode.

> CALIBRATION BUTTON



- 13. With the shaft and collets retracted press and hold calibration button until LED begins flashing then release button.
- 14. Cal #1 is now set.
- 15. Place connector in the cradle tool that has already been adjusted.
- 16. Apply pilot pressure.
- 17. Shaft will be up against the stud face.
- 18. Press and hold the calibration button until the LED begins flashing and release button.
- 19. Calibration is now complete, relieve pilot pressure and remove connector from cradle.
- 20. Validate calibration on actual test port.



PILOT PORT

**FXP SSR MODULE CALIBRATION with ADJUSTMENT CRADLE:** 

UNTIL CALIBRATION PROCESS IS DONE.

1. Connect air line to the pilot port on connector.

2. Connect cable to the M8 Terminal.

CALIBRATING.

DO NOT CONNECT MEDIA TO TERMINATION PORT ON CONNECTOR

STEPS 1-5 ARE CONNECTOR AND CRADLE PREP BEFORE

- Place connector in the cradle tool. M8 terminal fits down in groove in the cradle tool.
- Make sure nuts are loose enough to adjust with fingers.



- 5. Adjusting the cradle stud might take several tries before getting the collets/jaws in the correct position for calibration point #2.
- 6. Collet/jaw position required is just before they open. The collets must still be inside the sleeve to properly calibrate position #2.



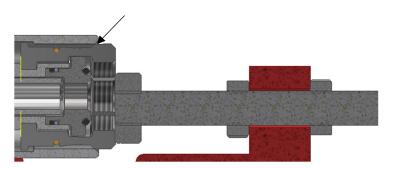


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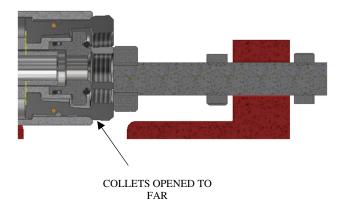
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### **CALIBRATION INSTRUCTIONS for FNP and FXP FASMATE Page 5 of 5**





- 7. Image above is a section view of the collets in the correct location to calibrate position #2. Just inside the sleeve.
- 8. IMAGE BELOW IS THE INCORRECT POSITION OF COLLETS!!



- 9. Collets must stop against the stud face of the cradle tool.
- 10. When correct collet/jaw travel is completed, tighten nuts on cradle.
- 11. When cradle has been adjusted correctly, calibration process can begin.

### NOTE: CALIBRATION CRADLE IS NOT USED OR REQUIRED WHEN CALIBRATING THE REST POSTION (CAL #1)

- 12. To calibrate connector at rest, collets are fully retracted and no pressure applied to the pilot port.
- 13. Using the FasTest programming tool SPCT0204 or SPCT0204A press the button 4-5 times rapidly to enter calibration mode.
- 14. After step 10, hold calibration button until LED begins flashing then release button. Cal #1 is now set.
- 15. Place connector into the cradle tool that has already been adjusted.
- 16. Apply pilot pressure.



- 17. Press and hold the calibration button until the LED begins flashing and release button.
- 18. Calibration is now complete, relieve pilot pressure and remove connector from the cradle.
- 19. Validate calibration on actual test port.

