

## *Service Manual*

# Aitecs 2016

SYRINGE INFUSION PUMP

BS049055EN-P01



Prior to servicing this pump, read this manual and the pump's Operator's Manual carefully to fully understand the pump's functionality and to ensure safe and proper servicing.

### 3.4.1. Syringe size calibration

The syringe size detection system stores the characteristics of the syringe clamp assembly, including the travel of the linear potentiometer in non-volatile memory.

Equipment:

- Spacer (gauge) SP0 (B8640027-04);
- Spacer (gauge) SP1 (B8640037-01);
- Spacer (gauge) SP2 (B8640037-02);
- Spacer (gauge) SP3 (B8640037-03).

Select the **Syringe size** from calibration menu and press the **OK** softkey. With the syringe clamp at the lowermost position press the **OK** softkey. One after another insert spacers from 0 to 3, each time closing the syringe clamp and pressing the **OK** softkey to acknowledge. Finally fix the syringe clamp at the uppermost position and again press the **OK** softkey.

### 3.4.2. Pusher button and pusher position calibration

Equipment:

- Calibration spacer (gauge) SP1 (B8640037-01).

Select the **Pusher button & pusher position** from calibration menu and press the **OK** softkey. Press the pusher lever if appropriate message appears. When display reads the **Insert spacer SP1 and press OK** message, insert the SP1 spacer and press the **OK** softkey. Syringe pusher shall move forward until it comes in contact with the spacer. When syringe pusher stops automatically and display reads a **CONFIRM** softkey, press the **CONFIRM** softkey.

### 3.4.3. Force (pressure) calibration

Equipment:

- Digitron pressure meter, model: 2022P (0-1500 mmHg);
- 50 ml BD PLASTIPAK or 60 ml BD syringe with extension line.

Screws fastening rear case to front case must be unscrewed.

Select the **Force sensor** from calibration menu and press the **OK** softkey. Then follow directions on the display.

When the **Is pusher free?** message appears, make sure that pushing surface of the retainer is not in contact with any part of pump or extraneous object.

When **Adjust readings...** message appears check the value indicated at left bottom corner of screen and adjust it, if out of above indicated on the screen range, by means of potentiometer R30 on the Drive Unit.

Upon prompt of inserting syringe, fill syringe with 10-20 ml of water, and fit it to the pump. Connect pressure meter to the syringe by means of the extension line. Locate the pressure meter at the same height as the syringe and press the **OK** softkey.

After the pusher comes in contact with syringe plunger press the **>** softkey and keep it depressed, allowing the transmission to run until the pressure meter reads  $(120 \pm 1.5)$  cmHg. When approaching the target value, it is recommended to run transmission in short steps, pressing the **>** key momentarily. If you fail to stop movement timely and target value is overridden, calibration procedure must be repeated from the beginning.

When pressure is adjusted as required, press the **OK** softkey.

Press the **BACK** softkey to exit.