

YJKP - Homing system

Description how to home the drive via WebVisu and Host control

YJKP

Title ..... YJKP Homing system  
Version ..... 1.10  
Document no. .... 100264  
Original .....en  
Author ..... Festo  
  
Last saved ..... 05.09.2019

## Copyright Notice

This documentation is the intellectual property of Festo AG & Co. KG, which also has the exclusive copyright. Any modification of the content, duplication or reprinting of this documentation as well as distribution to third parties can only be made with the express consent of Festo AG & Co. KG.

Festo AG & Co KG reserves the right to make modifications to this document in whole or in part. All brand and product names are trademarks or registered trademarks of their respective owners.

## Legal Notice

Hardware, software, operating systems and drivers may only be used for the applications described and only in conjunction with components recommended by Festo AG & Co. KG.

Festo AG & Co. KG does not accept any liability for damages arising from the use of any incorrect or incomplete information contained in this documentation or any information missing therefrom.

Defects resulting from the improper handling of devices and modules are excluded from the warranty.

The data and information specified in this document should not be used for the implementation of safety functions relating to the protection of personnel and machinery.

No liability is accepted for claims for damages arising from a failure or functional defect. In other respects, the regulations with regard to liability from the terms and conditions of delivery, payment and use of software of Festo AG & Co. KG, which can be found at [www.festo.com](http://www.festo.com) and can be supplied on request, shall apply.

All data contained in this document do not represent guaranteed specifications, particularly with regard to functionality, condition or quality, in the legal sense.

The information in this document serves only as basic information for the implementation of a specific, hypothetical application and is in no way intended as a substitute for the operating instructions of the respective manufacturers and the design and testing of the respective application by the user.

The operating instructions for Festo products can be found at [www.festo.com/sp](http://www.festo.com/sp).

Users of this document (application note) must verify that all functions described here also work correctly in the application. By reading this document and adhering to the specifications contained therein, users are also solely responsible for their own application.

# Table of contents

- 1 COMPONENTS/SOFTWARE USED..... 5**
  - 1.1 APPLICATION DESCRIPTION .....5
- 2 PREREQUISITES ..... 6**
- 3 HOMING ..... 7**
  - 3.1 VIA WEBVISU .....7
  - 3.2 VIA HOST CONTROL .....9



## 1 Components/Software used

Type/Name	Version Software/Firmware	Date of manufacture
Servo press kit YJKP	general	--
Application software YJKP (GSAY-A4-F0-Z4-1.3.5)	V1.3.5	--
Firmware controller (CECC-X)	V3.4.6	--
Firmware motor controller (CMMP-AS)	V4.0.1501.2.4	--

Table 1.1: 1 Components/Software used

### 1.1 Application description

This application note describes how to home the system by using the WebVisu and host control.

## 2 Prerequisites

Open a browser and start the WebVisu of the YJKP.

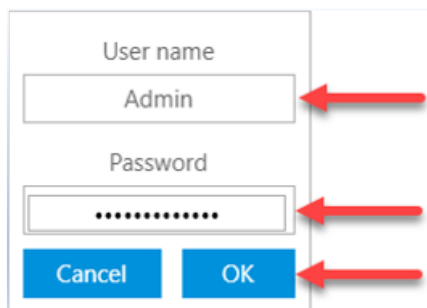
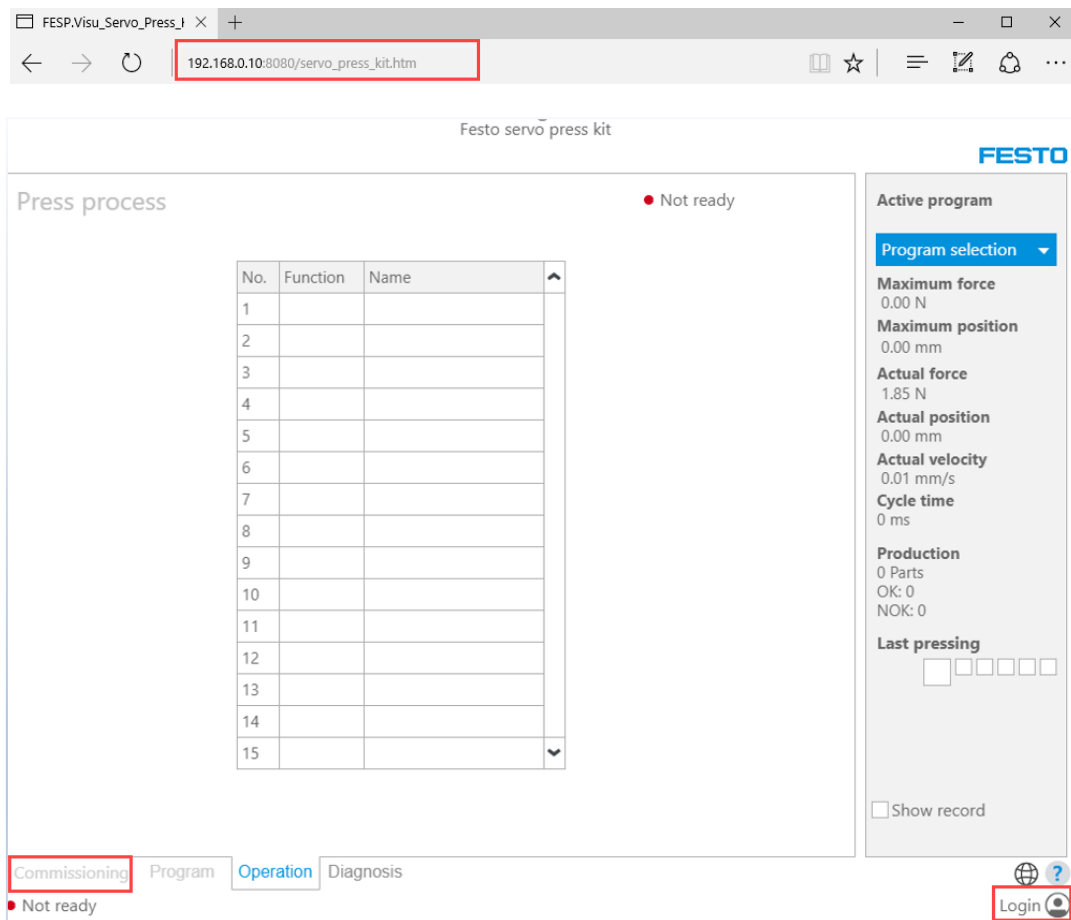
**In Browser:** <IP of the CECC-X>:8080/servo\_press\_kit.htm

The visualization of the servo-press kit is opened with 4 tabs :

- Commissioning , Program : Not active
- Operation , Diagnosis: Active

Click on **Login** to active the commissioning and program tabs. A new pop-up window appears and a password must be entered to login.

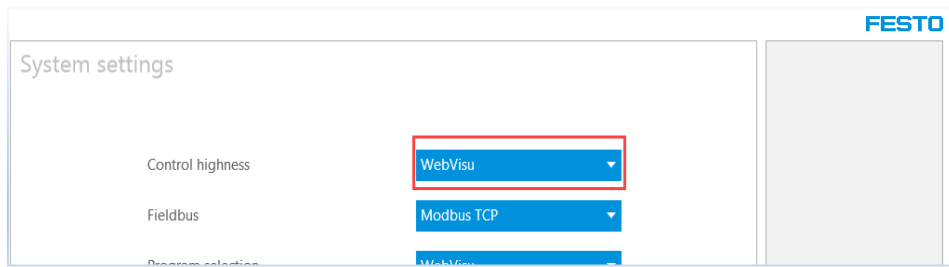
Default password:      User name:      Admin  
Password:              ServoPressKit



### 3 Homing

#### 3.1 Via WebVisu

1. go to the commissioning tab -> system settings and set the control to WebVisu.

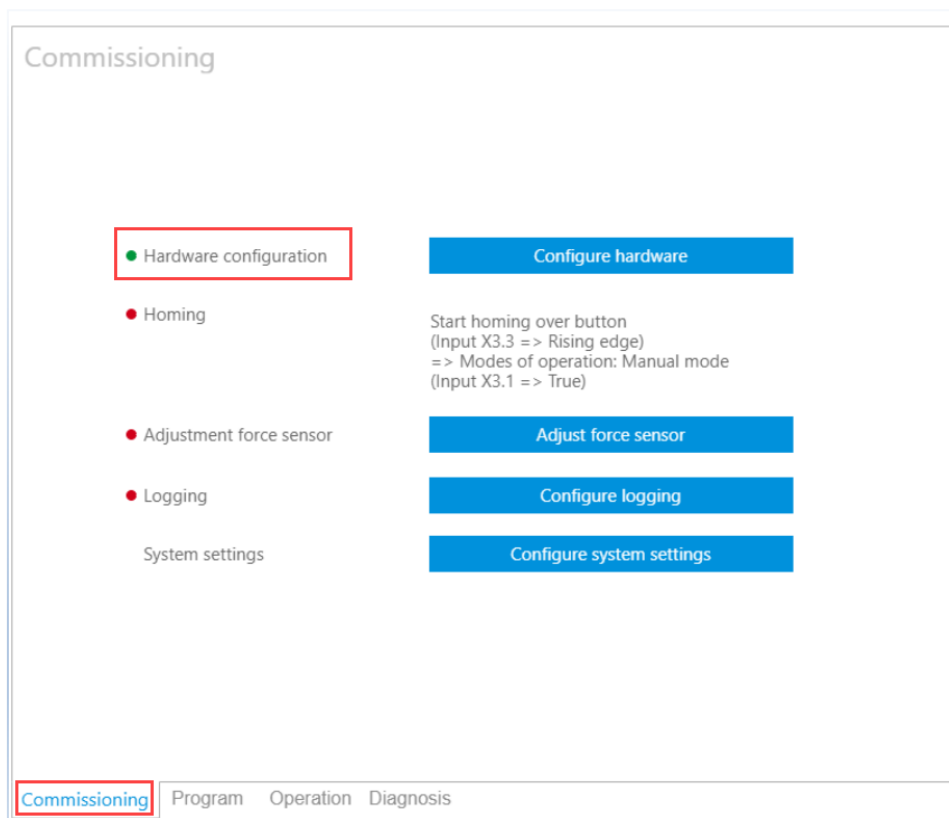


2. In commissioning tab check, if the hardware is configured successfully (= Green) .



**Note :**

- For further information about hardware configuration, please read AppNote Servo Press Kit YJKP - Hardware Configuration.



3. go to **Diagnosis** tab -> **Interface diagnosis** and check these requirements:

Required inputs:

- Manual mode (X3.1)
- Terminate press process (X3.5)
- Servo press activation (X17.4.2)

Required outputs:

- Servo press activated (X20.5.1)
- Homing requirement (X20.2.1)

**Diagnosis**

Process diagnosis   Device diagnosis   **Interface diagnosis**

---

**Digital inputs**

☐ X2.0 Step enabling condition input 1

☐ X2.1 Step enabling condition input 2

☐ X2.2 Step enabling condition input 3

☐ X2.3 Step enabling condition input 4

☐ X2.4 Step enabling condition input 5

☐ X2.5 Step enabling condition input 6

☐ X2.6 Step enabling condition input 7

☐ X2.7 Step enabling condition input 8

☐ X3.0 Start press process

☒ **X3.1 "Manual" operating mode**

☐ X3.2 "Automatic" operating mode

☐ X3.3 Start homing

☐ X3.4 Acknowledge the error

☒ **X3.5 Terminate press process**

☐ X17.0.2 Program selection Bit 0

☐ X17.1.2 Program selection Bit 1

☐ X17.2.2 Program selection Bit 2

☐ X17.3.2 Program selection Bit 3

☒ **X17.4.2 Servo press activation**

☐ X17.5.2 Activation of step operation

**Digital outputs**

☐ X4.0 Step enabling condition output 1

☐ X4.1 Step enabling condition output 2

☐ X4.2 Step enabling condition output 3

☐ X4.3 Step enabling condition output 4

☐ X20.0.1 Faults

☐ X20.1.1 Servo press ready for operation

☒ **X20.2.1 Homing requirement**

☐ X20.3.1 Press result OK

☐ X20.4.1 Press result not OK

☒ **X20.5.1 Servo press activated**

☐ X20.6.1 Program step done

**Host**

Selected field bus

Modbus TCP

Log (10s)   Save

	In	Out
1	0x0	0x0
2	0x0	0x0
3	0x0	0x0
4	0x0	0x0
5	0x0	0x0
6	0x0	0x0
7	0x0	0x0
8	0x0	0x0
9	0x0	0x0
10	0x0	0x0

**Analog inputs**

X19.0.2   17.32 mA

**CAN**

☐ CANopen manager

☒ Node ID 1

☐ Node ID 2

☐ Node ID 3

☐ Node ID 4

**Variables**

1	2	3	4	5
0.00	0.00	0.00	0.00	0.00


<   >

Commissioning   Program   Operation   **Diagnosis**

4. Start homing with **Input X3.3**. The cylinder will move in negative direction until it reaches the internal block. Then it will move 3mm in the positive direction .

During the movement, you will see this screen:

**Homing**



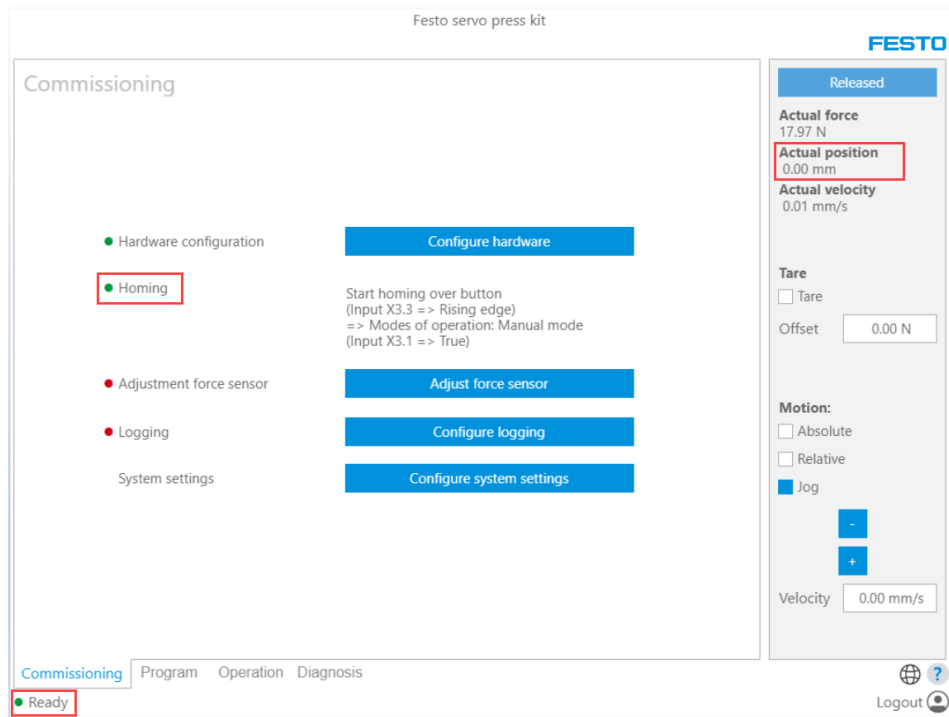
**Homing is currently running**  
Please wait until homing has been finished.

Commissioning   Program   Operation   **Diagnosis**

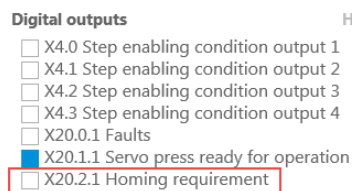
● Not ready

After a successful homing, homing status will indicate a valid (=green). The actual position will be set to **0.00mm** .



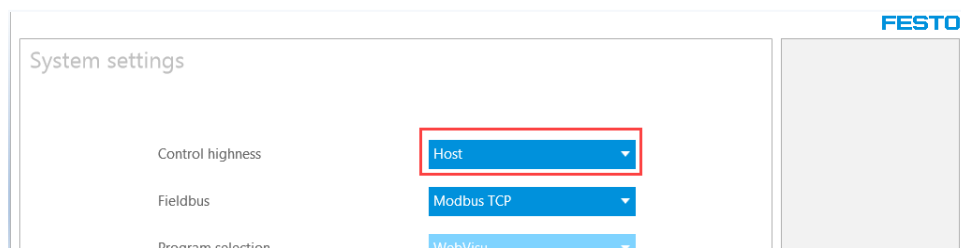


Digital output X20.2.1 is inactive.



### 3.2 Via Host control

1. go to the commissioning tab -> system settings and set the control to **Host**.



2. Two function blocks are required:

#### I. FB\_Connect

Required inputs:

- xEnable := true;
- enTargetComMode := 1;

Required outputs:

- xActive = true;
- enActualComMode = 1;
- xConnected = true;

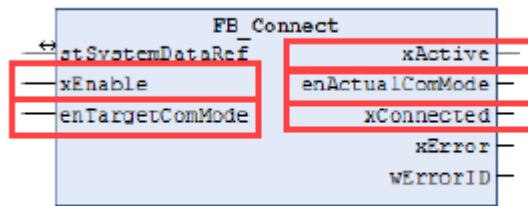


Figure 3-7: FB\_Connect

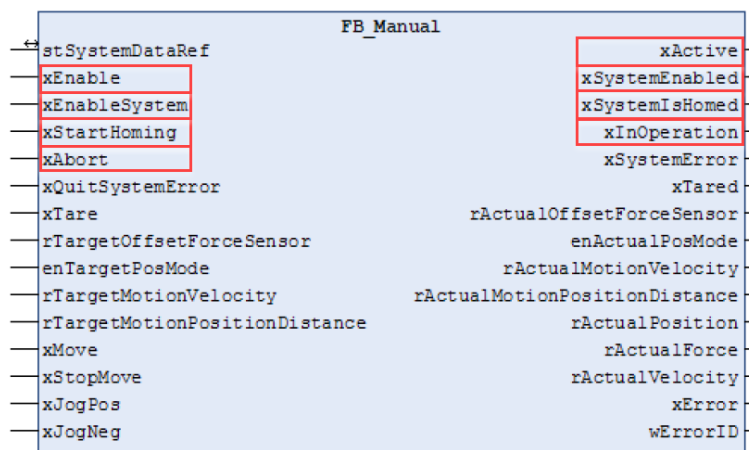
## II. FB\_Manual

Required inputs:

- xEnable := true;
- xEnableSystem := true;
- xAbort := true;

Required outputs:

- xActive = true;
- xSystemEnabled = true;
- xSystemIsHomed = false;
- xInOperation = false;



Start homing system with **xStartHoming := true**. The cylinder will move in negative direction until it reaches the internal block. Then it will move 3mm in the positive direction .

After a successful homing:

- xSystemIsHomed = True;
- rActualPosition = 0;

