

MANUAL

# Drives faceplate for CP600 control panels

## Quick start guide



## List of related manuals

Control panel manuals and guides	Document number
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Panel Builder 600 Software Manual	<a href="#"><u>3ADR010277</u></a>
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<b>CP6407, CP6410, CP6415</b>	
Operating instructions	<a href="#"><u>3ADR010470</u></a>
Installation instructions	<a href="#"><u>3ADR010451</u></a>

<b>CP6605, CP6607, CP6410, CP6415, CP6621</b>	
Operating instructions	<a href="#"><u>3ADR010108</u></a>
Installation instructions	<a href="#"><u>3ADR010103</u></a>

<b>CP604, CP607, CP610</b>	
Operating instructions	<a href="#"><u>3ADR010300</u></a>
Installation instructions	<a href="#"><u>3ADR010100</u></a>

Drive manuals and guides	Document number
--------------------------	-----------------

ACSx80 firmware and hardware manual document numbers

<b>ACS380</b>	
Firmware	<a href="#"><u>3AXD5000002927</u></a> <u>5</u>
Hardware	<a href="#"><u>3AXD5000002927</u></a> <u>4</u>

<b>ACS480</b>	
Firmware	<a href="#"><u>3AXD500000473</u></a> <u>99</u>
Hardware	<a href="#"><u>3AXD500000473</u></a> <u>99</u>

<b>ACS580-01</b>	
Firmware	<a href="#"><u>3AXD500000160</u></a> <u>97</u>
Hardware	<a href="#"><u>3AXD500000447</u></a> <u>94</u>

<b>ACS880-01</b>	
Firmware	<a href="#"><u>3AUA0000085967</u></a>
Hardware	<a href="#"><u>3AUA0000078093</u></a>

Drive Composer Entry/Pro Manual	<a href="#"><u>3AUA000009460</u></a> <u>6</u>
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## Download links

[3ADR010711](#) - Zip-archive containing quick start guide, configuration guide and project files for CP607, CP635, CP6407, CP6607.

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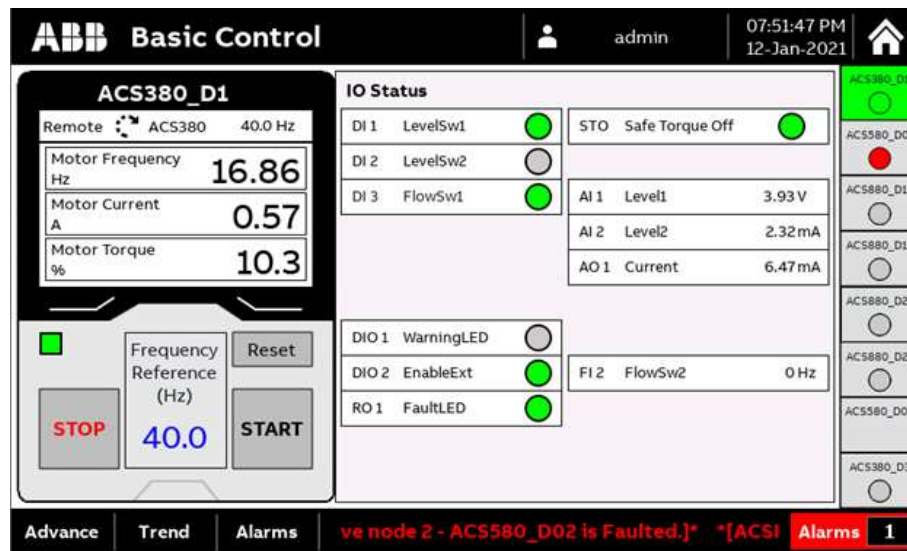
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# 1. Introduction

This quick-start guide will explain how to download and install the CP600 control panel 'drives faceplate' project, developed by ABB, onto a CP600 control panel and explain the functionality that is to be expected on each page. For detailed information about the (CP600) control panel or a particular drive, please refer to the appropriate hardware or firmware manual.

## 2. Drives faceplate overview

The drives faceplate for CP600 control panel offers easy operator interfaces for the ACSx80 All-Compatible drives. Use this document to setup the face plates and connect to the drives.



### 2.1. Flow chart

1. Perform ACSx80 installation and commissioning according to the drives manual, make necessary communication cable connections.
2. Perform drive parameter setup according to the parameter table shown in this guide.
3. Perform (CP600) control panel installation according to the CP600 manual.
4. Obtain control panel project files from the ABB site and save the correct file it to the USB drive
5. Insert the USB drive with the correct project file for the used panel type into the control panel USB port.
6. Apply power to the control panel
7. Using the [instructions in this guide](#) for the correct control panel, load (start) the project on the control panel
8. Alternatively, use Panel Builder software to download the control panel project file to the control panel.

### 2.2. Hardware requirements

- CP600 control panel
- 24VDC power supply
- USB-pen drive (to load the control panel project to the panel)
- Modbus RTU serial cable
- ACSx80 drive(s)
- 24VDC supply wiring

- Optional: USB comm cable for drive composer

## 3. Communications connectivity

The current project file available uses Modbus RTU protocol to communicate to the ACSx80 series All Compatible drives.

### 3.1. Modbus RTU

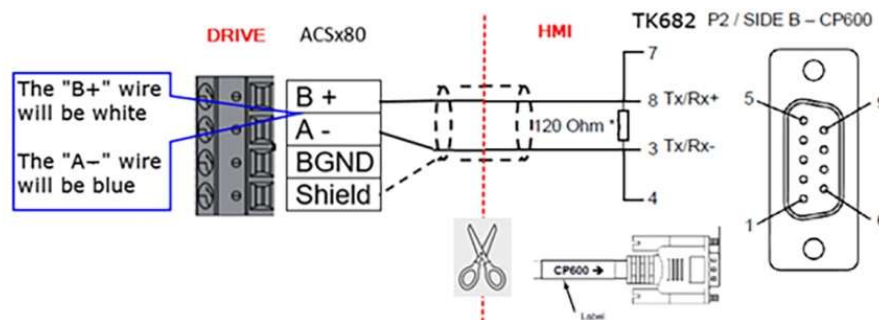
Using the Modbus RTU protocol with 2-wire RS485 wiring, up to 8 drives can be connected to the control panel network.

#### 3.1.1. TK682 Modbus RTU serial cable

The TK682 cable (1SAP500982R0001) can be used to provide the connection between the control panel and the first ACSx80 drive. Subsequent drives in the network should follow the Modbus RTU wiring instructions provided in the respective drive manual.

Use the following steps and the figure below to convert a TK682 cable to connect the CP600 control panel to an ACSx80 drive:

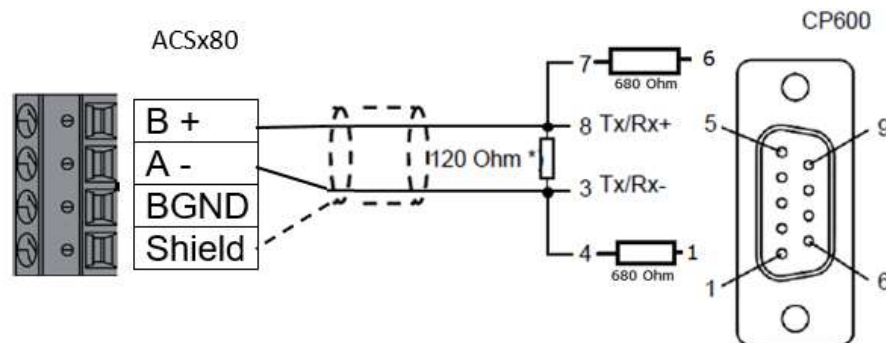
1. A TK682 cable will need to be stripped on the “AC500-eCo” labeled end to connect to the ACSx80 embedded fieldbus terminals, while the other end will mate with the CP600 control panel.
2. Each end of the TK682 cable has a 120 Ohm as a termination resistor between pins 8 and 3. These will remain in the cable on the CP600 side.
3. The wires on the drive end, (originally labeled AC500-eCo), must be exposed, stripped and connect-ed as follows:
  - a) White: connect to the B+ terminal on the ACSx80 drive
  - b) Blue: connect to the A- terminal on the ACSx80 drive
  - c) Shield: connect to the Shield terminal on the ACSx80 drive





### 3.1.2. Individual Modbus RTU serial cable

Use two 680 ohm resistors between pin 6 and 7 and 1 and 4 as well as a 120 ohm termination resistor between pins 3 and 8 on the CP600 side of the cable.

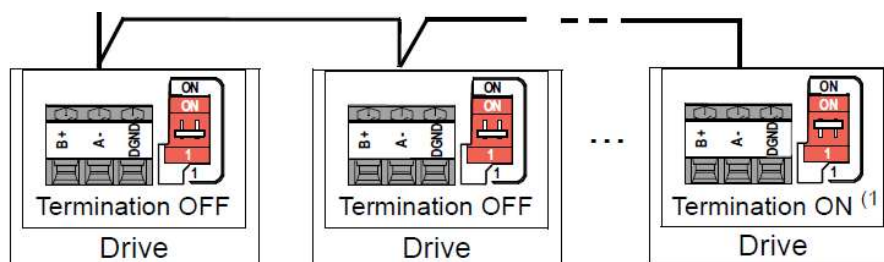


### 3.1.3. Single drive switch settings

1. Set the termination resistor switch to "ON" as per the diagram on the drive.
2. Set the bias resistor switch to "ON" as per the diagram on the drive.

### 3.1.4. Multiple drive switch settings

1. Connect drive to drive by connecting Terminal B+ to B+, terminal A- to terminal A- and Shield to Shield terminal.
2. As per the diagram on the drive;
  - a) Set the termination resistor and bias switch(es) in the middle drives to "OFF"
  - b) Set the termination resistor and bias resistor switch(es) in the last ACSx80 drive to "ON".



Example switch settings for ACS380



Termination resistor OFF



Termination resistor ON

## 4. Software

### 4.1. Configuring and programming software tools

The drive and (CP600) control panel can be setup and configured using the drive Keypad and control panel Touchscreen. Software tools can also be used to setup and configure the drive and control panel. These optional programs are Panel Builder 600 and drive Composer Entry or drive Composer Pro.

**Panel Builder 600:** This software provides configuration, application loading and programming for the CP600 control panel. Use this software to load the application to the control panel directly from a PC without the use of a USB memory stick. The Panel Builder program would also be necessary if the user decides to modify the control panel project in any way, or to design their own screens. Please refer to the Panel Builder 600 manual.

**Drive Composer Entry/Pro:** These software tools provide configuration and parameter setting for the ABB drive products. The drive Composer PC Tool can be used to save and download a parameter file from and to the drive, adjust parameters manually and monitor the drives actuals values in with a high sample rate

### 4.2. Software needed

- Control panel project update file - to be copied onto the USB-pen drive to upload to the control panel
- Optional: [Panel Builder 600 Software](#)
- Optional: [Drive Composer Entry/Pro](#)

### 4.3. Accessing the Software

- Panel Builder 600 project files: ABB library: [3ADR010711](#)
- Optional: [Panel Builder 600 or Automation Builder Software](#)  
(Panel Builder 600 can be purchased separately or as part of Automation Builder)  
Basic license is enough for CP607. Other panels need Standard license.

To install only Panel Builder 600:

1. Start the Automation Builder Installer
  2. Select "Installer options" > "Additional tools"
  3. Check "HMI" > "Control Panel - CP600"
- Optional: Drive Composer Entry/Pro ([Drive Composer - Software Tools](#))

# 5. Setup

## 5.1. Drive setup

1. Perform ACSx80 drive installation and commissioning according to the drive manual, make necessary communication cable connections.
2. Use the drive keypad or Drive Composer to setup the drive parameters using the parameter table shown below.

### 5.1.1. Minimum required parameter settings (based on factory default settings)

Parameter	Description	Setting	Comment
58.01	Protocol enable	Modbus RTU (1)	Initializes embedded fieldbus communication. (50.02 = disabled)
58.03	Node address	[Address]	Modbus RTU mode address of the drive
58.04	BAUD RATE	19.2 kbit/s (example)	Transfer rate of the link. Same baud rate must be defined in the Modbus RTU master. (control panel)
58.05	PARITY	8 EVEN 1 (example)	Parity and stop bits. Same parity and stop bits must be defined in the Modbus RTU master. (control panel)
58.14	Communication loss action	[optional] e.g. Fault (1)	Defines the drive operation after the communication loss.
58.15	Communication loss mode	Any message (1)	Defines how the drives check for a communication loss. This must not be set to "CW / Ref1 / Ref2" as those are only written in specifics screens.
51.16	Communication loss time	[optional] e.g. 60	Time between communication break detection and the selected action. 1 = 100 ms.
58.25	Control Profile	ABB drives (0)	Communication profile "ABB drives" is mandatory
58.26	EFB ref1 type	Speed or frequency (0)	Speed or Frequency is mandatory. The selection is made via control mode (Par. 99.04)
58.28	EFB ref1 type	Speed or frequency (0)	Speed or Frequency is mandatory. The selection is made via control mode (Par. 99.04)
58.33	Addressing mode	Mode0 (0)	16-bit values (groups 1...99, indexes 1...99)
58.101	Data I/O 1	CW 16bit (1)	Control Word in 16 bit
58.102	Data I/O 2	Ref1 16bit (2)	Reference value 1 (e.g. speed) in 16 bit
58.103	Data I/O 3	Ref2 16bit (3)	Reference value 2 (e.g. torque) in 16 bit
58.104	Data I/O 4	SW 16bit (4)	Status Word in 16 bit
58.105	Data I/O 5	Act1 16 bit (5)	Actual value 1 (e.g. speed) in 16 bit

58.106	Data I/O 6	Act2 16 bit (6)	Actual value 2 (e.g. torque) in 16 bit
20.01	Ext 1 commands	Embedded fieldbus (14)	Embedded Fieldbus interface as source for start and stop
22.11	Ext1 Speed ref1	EFB ref1	Embedded Fieldbus interface as source for speed reference
58.06	Communication Control	Enable	To refresh the changed communication settings

3. Check that the motor data is setup correctly.

The drive is now ready to be controlled by the control panel.

## 5.2. Control panel setup

### 5.2.1. Control panel setup flow chart

1. Perform control panel installation according to the manual, including connecting the Modbus RTU communication cable.
2. Obtain control panel project file from ABB site, and save to the USB drive.
3. Insert the USB drive with the control panel project file into the control panel USB port.
4. Apply power to the control panel and load the project from the USB drive using the instructions given below (chapter 5.2.3)

Panel Builder may also be used to load the control panel project.

### 5.2.2. Downloading the drives faceplate application

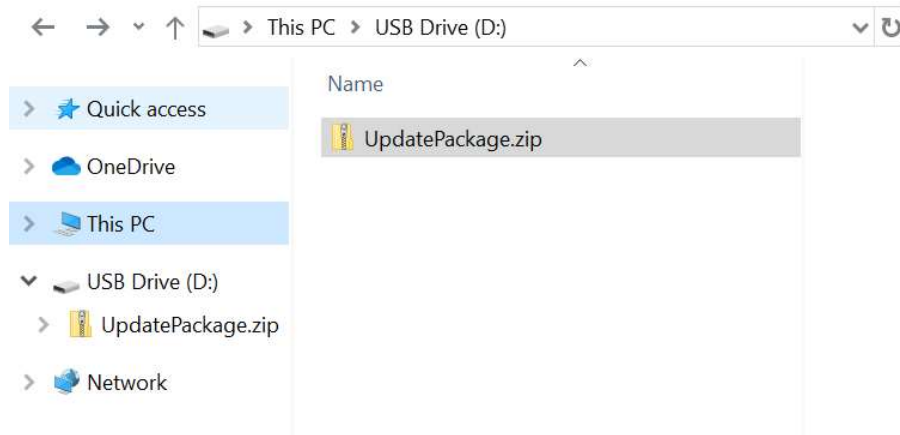
The drives faceplate applications are available in the ABB library and in the AC500 Application Example Selector.

1. Visit the [Application Examples Selector](#).
2. Choose subject "Connected devices" and topic "Drives".
3. Find "Application Example CP600 drives faceplate".

The zip-archive available here contains the project files for CP607, CP635, CP6407 and CP6607, a configuration guide (How to modify the project in Panel Builder 600) and this quick start guide.

### 5.2.3. Loading the control panel with an USB-pen drive:

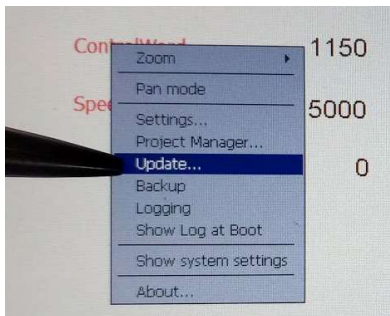
1. Copy the provided file "UpdatePackage.zip" for the specific CP600 control panel to the root of the USB-pen drive.



2. Insert the USB-pen drive into the CP600 control panel.

#### 5.2.3.1. Loading the project to a panel with an existing project

1. Press on a free space on the panel for about 3 seconds: the context menu pops up.
2. Select "Update".



3. In the update wizard keep defaults and press Next ("\\USBMemory").



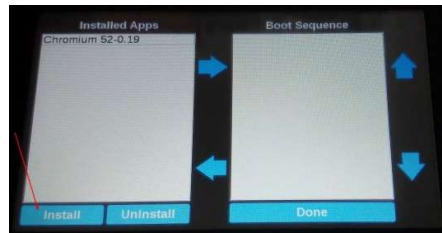
-> The project will be updated and loaded.

#### 5.2.3.2. Loading the project on a new CP600-eCo, CP600 2nd generation or CP600-Pro control panel

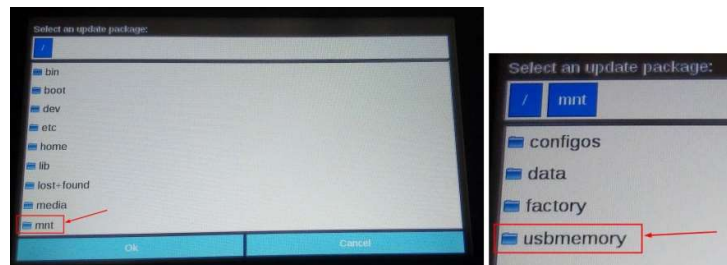
1. On the first screen select click on "Startup Sequence".



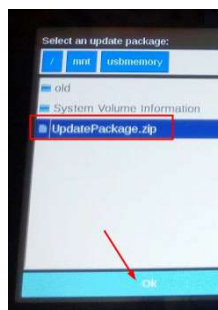
2. Select "Install" (do not install the Chromium).



3. Select (double click) the path to the USB-pen drive:  
mnt/usbmemory/



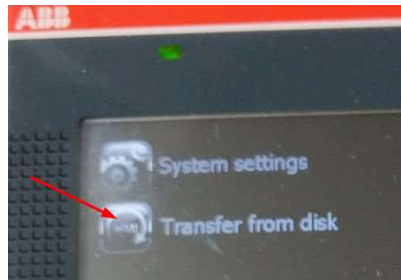
4. Select the "UpdatePackage.zip" file and press OK.



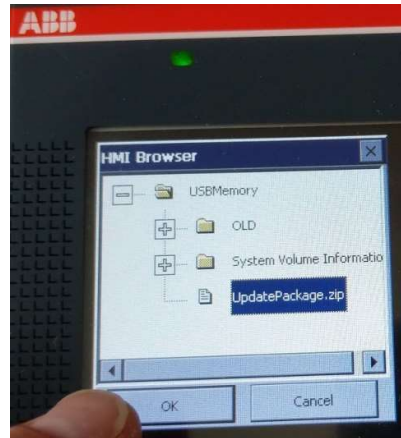
-> The runtime will be installed and the project will be loaded.  
After that the panel reboots automatically.

### 5.2.3.3. Loading the project on a new CP600 1st generation control panel

1. Press on the "Transfer from disk" icon.



2. Select the "UpdatePackage.zip" file and press OK.



-> The runtime will be installed and the project will be loaded.

#### 5.2.3.4. Accessing the system setting menu in case of a mistake

If you make a mistake during the project loading process, you can access the system update menu again, by holding your finger on the screen in any unused space for 3 seconds, after 3 seconds the context menu will pop up. Follow the steps under "Loading the project to a panel with an existing project" to try reloading the project.

Alternatively, you can cycle power to the panel, and tap the screen several times while the ABB logo is displayed during the boot-up process. This will cause the panel to enter the system settings menu, and a message will be displayed notifying the user that the panel is entering this mode. Once in the system settings mode, you can resume the process to load the project from the USB memory stick.





### 5.2.4. Loading the control panel with Panel Builder 600 software

Refer to Chapter 8 of the Panel Builder Software Manual "Transferring the Project to control panel Device".

1. See CP600 manual to assign an IP address to the control panel.
2. Open PanelBuilder600 Software and open the control panel project file (.jpr) from the archive of a dedicated panel.
3. From the menu, select "Run" > "Download to target" ().

Once the project has loaded, you can navigate the pages to set up the panel and the drives you have connected.

## 6. Commissioning the drives faceplate application

Once the control panel project is loaded, the Main page will be displayed. The control panel must now be configured to communicate with the drives that are on the control panel network. To begin, log in to the control panel with admin privileges by following the instructions in the next paragraph.

### 6.1. Accessing the initial user setup

Once the project is loaded, to access advanced settings for drives and panel configuration, select the user torso icon and enter the credential for either “admin” or “engineer1”.

User	Password	Operations
admin	1234	can access drives and panel settings pages
engineer1	1234	can access drives and panel settings pages
operator1	1234	Limited access. Drives monitoring and control only.



User name:

Password:

☐ Show password



## 6.2. Passwords setup

Currently, this can only be done by updating the password settings in the project file using the Panel Builder software. Once updated to the desired password settings, the project must be updated in the control panel.

Updating the password from the panel may be a feature available at a later release of the project file.

## 6.3. Panel setup

After logging into the control panel with admin privileges, more options will be seen on the bottom left to configure the panel and drive settings.

Click the button for Panel Settings to access the Panel Configuration page.

**ABB Panel Information**

Main OS Version: UN80AB19M01000538  
 Runtime Version: 2.8 (1) - Build (447)  
 Manufacturer Code: 542  
 Available Sys.Mem: 0421.15 MBytes  
 Flash Free Space: 0578.15 MBytes  
 Backlight Time: 0000727 Hours  
 System Up Time: 0000728 Hours  
 Project Date: 07/Dec/2020 - 16:42:46  
 Project Name: Project\_ModbusRTU\_ACSDrives  
 Comm. Status: Protocol loaded and executed without error.  
 Comm. Error Count: 0  
 Comm. Error Message:

Display Brightness: 100%

**Serial Communication Parameters**

Baudrate: 19200 Stop Bits: 1  
 Parity: Even Mode: RS-485  
 Data Bits: 8 Apply

**Network Adapter Parameters**

eth0 Use DHCP: No  
 Mac ID: 00:30:D8:08:E5:23  
 IP Address: 192.168.5.47 Apply  
 Subnet Mask: 255.255.240.0  
 Gateway: 192.168.0.1 Cancel

Drives Setting **\*[ACSDrive node 1 - ACS380-D1 is Faulted.]\*** Alarms **1**

### 6.3.1. Display brightness

Adjust the display brightness from this page by tapping the Display Brightness dropdown field and selecting the desired brightness percentage.

### 6.3.2. Modbus RTU communication setup

Set the parameters for the panel in the “Serial Communication Parameters” area, located on the right side of the page.

Adjust the panel settings to communicate with the drives that are connected to the network and press APPLY.

For the ACSx80 the default is:

8 data bits, 1 stop bit, parity EVEN, 19.2k baud, RS485 mode.

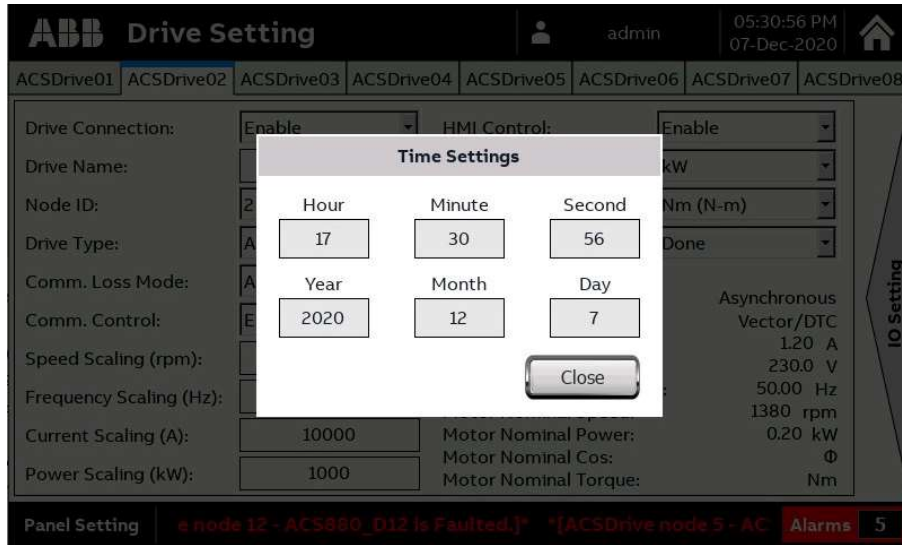
If the drive is using different settings these must be applied to the panel setup here as well.

### 6.3.3. IP-Settings

The “Network Adapter Parameters” can be used to change the IP-Address of the panel. This might be helpful if the Panel Builder 600 is used to modify the project.

### 6.3.4. Setting date and time

Adjust the panel time by touching the date/time in the upper right corner.



## 6.4. Individual drive setup

Apply parameters to each tab for as many drives as you have connected in your serial network, up to 8.

The initial connection is for one drive, go to other drive tabs to enable and configure as many as you have connected, up to 8.

### 6.4.1. Drive information entry

**ABB Drive Setting** | engineer1 | 04:49:15 PM 30-Jun-2020 | Home

ACSDrive01 ACSDrive02 ACSDrive03 ACSDrive04 ACSDrive05 ACSDrive06 ACSDrive07 ACSDrive08

Drive Connection:

Panel Setting | **\*[ACSDrive node 1 - ACS380-D1 is Faulted.]\*** | Alarms **1**

**ABB Drive Setting** | engineer1 | 04:49:58 PM 30-Jun-2020 | Home

ACSDrive01 ACSDrive02 ACSDrive03 ACSDrive04 ACSDrive05 ACSDrive06 ACSDrive07 ACSDrive08

Drive Connection:

Drive Name:

Node ID:

Panel Setting | **\*[ACSDrive node 1 - ACS380-D1 is Faulted.]\*** | Alarms **1**

When the drive settings are complete, the drives on the network will appear on the main page (shown in the main\_page description).

Enable the “Parameter Save” after finishing the changes to permanently save the changes in the drive!

**Drive Setting**

engineer1
 04:38:53 PM  
08-Dec-2020

ACSDrive01

ACSDrive02

ACSDrive03

ACSDrive04

ACSDrive05

ACSDrive06

ACSDrive07

ACSDrive08

Drive Connection:

Enable

HMI Control:

Enable

Drive Name:

ACS380\_D01

Power Unit Selection:

kW

Node ID:

1

Torque Unit Selection:

Nm (N-m)

Drive Type:

ACS380

Parameter Save:

Done

Comm. Loss Mode:

Any Message

Motor Data (Read Only)

Comm. Control:

Enabled

Motor Type:

Asynchronous

Speed Scaling (rpm):

1500

Motor Control Mode:

Vector/DTC

Frequency Scaling (Hz):

50.0

Motor Nominal Current:

0.70 A

Current Scaling (A):

100

Motor Nominal Voltage:

230.0 V

Power Scaling (kW):

100

Motor Nominal Frequency:

50.00 Hz

Motor Nominal Speed:

1370 rpm

Motor Nominal Power:

0.09 kW

IO Setting

Panel Setting

\*[ACSDrive node 1 - ACS380-D1 is Faulted.]\*

Alarms 1

Parameter	Default	Comment
Drive Connection	Enable (first drive) Disable all other	Set to “Enable” will show the next two parameters
Drive Name	-	This name will be used in the other screens. Maximum 12 characters long.
Node ID	Disable	Set to the node ID of the drive (Par. 58.03). Setting to a value between 1..32 will show the other parameters
Drive Type	Select...	If not selected, there will be no IO-status in the drive main_page.
Comm. Loss Mode	Any Message	Par.58.15. Should be set to “Any message” because the control word will only be send if the page of this drive is in front.
Comm. Control	Enable	Par. 58.06. Set this to “Refresh” after changing the parameter “Comm. Loss Mode” to refresh the communication interface
Speed Scaling (rpm)	Par. 46.01	Reflects the speed scaling for 20000 on the fieldbus. Should be the nominal speed. Used if drive control mode is vector or DTC. See Par. 99.04
Frequency Scaling (Hz)	Par. 46.02	Reflects the frequency scaling for 20000 on the fieldbus. Should be the nominal frequency. Used if drive control mode is scalar. See Par. 99.04
Current Scaling (A)	Par. 46.05	Reflects the current scaling for 20000 on the fieldbus. Should be a power of 10. The lower the value the higher the accuracy.
Power Scaling (A)	Par. 46.04	Reflects the power scaling for 20000 on the fieldbus. Should be a power of 10. The lower the value the higher the accuracy.
Control panel Control	Enable	Enable: drive can be control from the control panel Disable: drive can only be monitored from the control panel
Power Unit Selection	kW	Par. 96.16-Bit0 (0=kW, 1=hp)
Torque Unit Selection	Nm (n-m)	Par. 96.16-Bit4 (0=Nm (n-m), 1=lbft (lb-ft))

<b>Parameter Save</b>	<b>Done</b>	<b>Save. Activate the Save each time you have changed any parameter in this screen to permanently save the changes in the drive.</b>
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### 6.4.2. I/O information entry

The IO setting can be accessed from the “drive information entry” page by pushing to the grey “IO Setting” field on the right.

On this page you have the option to name the IO points that will be displayed on the Basic Control page with the Keypad emulator.

In the configuration column you can select the type of the IO point. This will change the respective parameter in group 11 “Standard DIO, FI, FIO”.

Enable the “Parameter Save” in the drive setting page after each change to permanently save the changes in the drive.

**ABB Drive Setting** | engineer1 | 05:24:14 PM 07-Dec-2020

ACSDrive01 ACSDrive02 ACSDrive03 ACSDrive04 ACSDrive05 ACSDrive06 ACSDrive07 ACSDrive08

### IO Setting

Type	Name	Configuration
DI 1	LevelSw1	
DI 2	LevelSw2	
DI 3	FlowSw1	Digital Input
DI 4	FlowSw2	Digital Input
AI 1	Temp01	
AI 2	FlowRate1	

Type	Name	Configuration
RO 1	FaultLED	
AO 1	Current	
DIO 1	WarningLED	Digital Output
DIO 2	EnableExt	Digital Input

Back

Panel Setting | **\*[ACSDrive node 1 - ACS380-D1 is Faulted.]\*** | Alarms 1

## 7. Operating the drives faceplate application

### 7.1. Common features

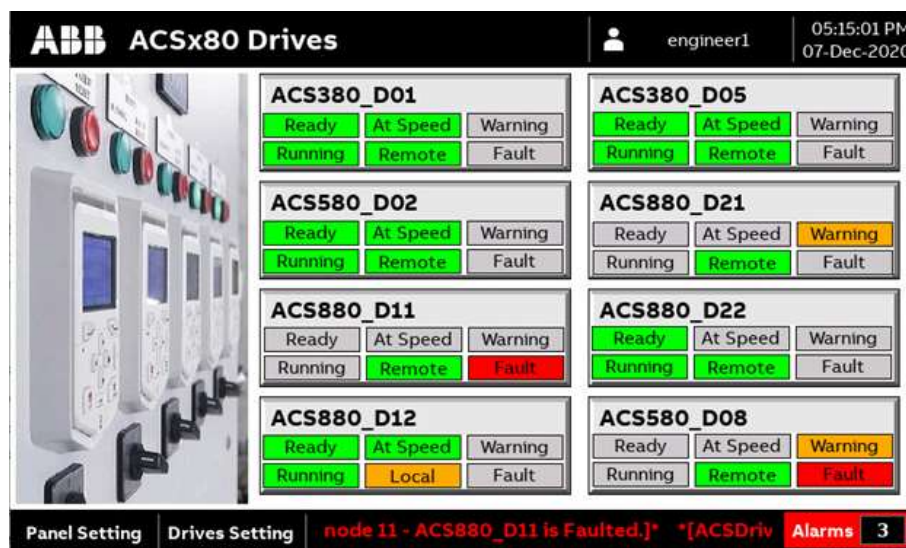
#### 7.1.1. Features common to all operating pages

- Scrolling alarm/fault display at the bottom of the screen
- Alarm counter at bottom right corner; displays total number of active alarms/faults
- Home icon, to access the main page from any other page
- Time/date display at top right corner, just to the left of the Home icon

#### 7.1.2. Features common to all non-main/home pages

On these pages, there is a column shown on the right side of the screen that displays the current Ready/Faulted/Warning status of all drives and their names which are connected to the network.

### 7.2. Main/Home Page



The main page displays the current time in the upper right corner, the status of the drives that are connected, and buttons for drive settings, and panel settings (if logged in as admin or engineer1).

To access the drive you wish to control, tap on its status box. This will take you to the Basic control page of this drive.

If any alarm or warning is set, it will be shown on a banner on the bottom.

Navigation buttons to the drives or panel settings pages are shown, if the actual user has the rights to do so (admin or engineer1).

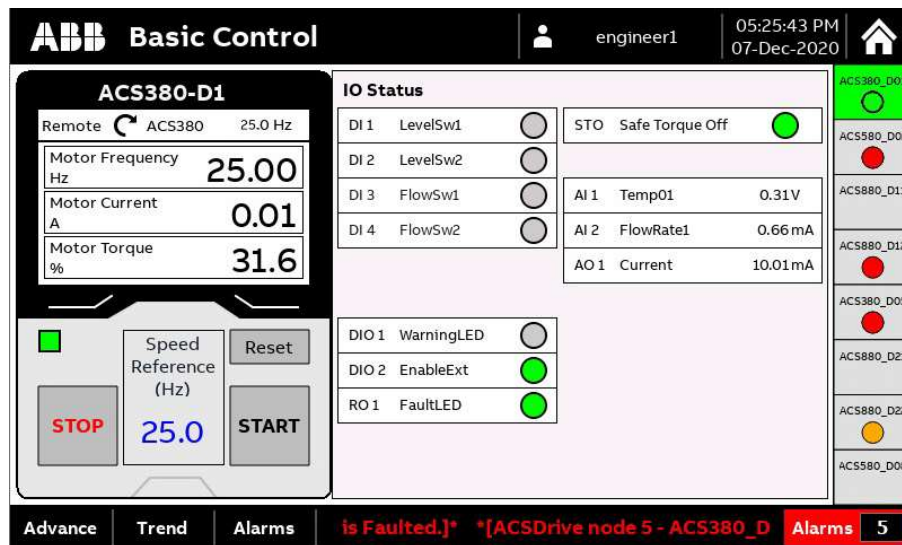
The actual user account that is logged in is shown in the top bar on the right side.

To log in with a different user account, such as admin, touch this field.



User	Password	Operations
admin	1234	can access drives and panel settings pages
engineer1	1234	can access drives and panel settings pages
operator1	1234	cannot access drives and panel settings pages

### 7.3. Basic control page



This page gives you the ability to use a simulated keypad to control the drive with start, stop, and speed reference controls.

The simulated keypad also displays actual values of motor frequency (Hz) /speed (rpm), motor current (A), and motor torque (%).

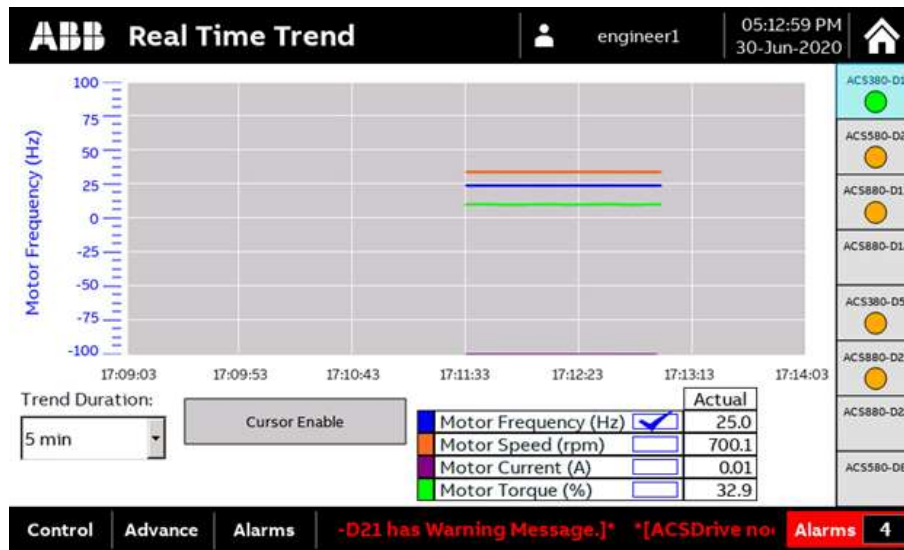
(The selection of frequency or speed depends on the control mode of the drive by parameter 99.04).

Fault and warning conditions are indicated by a blinking 'LED' as it would be on the Assistant Control Panel (ACS-AP-x).

Also, on this page is; the IO status, analog input conditions, and STO status are shown.

Navigate to Main page (home icon), Advance page, Trend page and Alarms page.

## 7.4. Trending page



This page will allow you to display a graphical trace of 4 actual values; motor frequency, motor speed, motor current, and motor torque.

There is a 'cursor enable' option.

The cursor will allow you to move the cursor on the graph to measure a point of interest on the monitor.

You can change the duration of the window from 1, 5, or 10 minutes.

The data in the monitor is not retentive.

If you navigate away from the trend page, the monitor will restart.

If you select another drive from the right side, the trend continues, but does not start from zero.

Navigate to Main page (home icon), Control page, Advance page and Alarms page.

## 7.5. Alarms page

ABB Warnings and Faults				engineer1	05:19:05 PM 30-Jun-2020	
Tripping Fault	5091	Safe torque off	Information At Fault	ACS380-D1		
Active Fault 2	0	ACSx80 Drives No Fault Messages...	Motor Speed: 699.9	ACS580-D2		
Active Fault 3	0	ACSx80 Drives No Fault Messages...	Output Freq.: 25.0	ACS880-D11		
Latest Fault	6681	EFB comm loss	DC Voltage: 320.5	ACS880-D12		
2nd Latest Fault	6681	EFB comm loss	Motor Current: 0.0	ACS380-D5		
3rd Latest Fault	6681	EFB comm loss	Motor Torque: 34.6	ACS880-D21		
Active Warning 1	0	ACSx80 Drives No Warning Messages...	Main Status Word: 1337	ACS880-D22		
Active Warning 1	0	ACSx80 Drives No Warning Messages...	DI Delayed Status: 0	ACS580-D8		
Active Warning 1	0	ACSx80 Drives No Warning Messages...	Inverter Temp.: 46.0			
Latest Warning	A7CE	EFB comm loss	Reference Used: 25.0			
2nd Latest Warning	A7CE	EFB comm loss				
3rd Latest Warning	A7CE	EFB comm loss				
Control				Advance	Trend	SDrive node 21 - ACS880-D21 has Warning Me Alarms 3

This page displays active faults and warnings as well as most recent faults and warnings. Also shown is actual values at fault; Motor Speed, Output Freq, DC Voltage, Motor Current, Motor Torque, Main Status Word, DI delayed status, Inverter Temp, Reference Used.

Navigate to Main page (home icon), login page (torso icon), Control page, Trend page, and Advance page.

## 7.6. Advance control page

### 7.6.1. Status and control words with other drive information

ABB Advance Control				engineer1	05:32:38 PM 07-Dec-2020	
Bits	Status Word	Status	Bits	Control Word	Control	Control
0	RDY_ON		0	OFF1_CONTROL		Speed Reference (Hz): 25.0
1	RDY_RUN		1	OFF2_CONTROL		Acceleration Time 1 (s): 3.0
2	RDY_REF		2	OFF3_CONTROL		Deceleration Time 1 (s): 3.0
3	TRIPPED		3	INHIBIT_OPERATION		Status
4	OFF_2_STATUS		4	RAMP_OUT_ZERO		Motor Speed (rpm): 0
5	OFF_3_STATUS		5	RAMP_HOLD		Motor Frequency (Hz): 0.00
6	SWC_ON_INHIB		6	RAMP_IN_ZERO		Motor Current (A): 0.00
7	ALARM		7	RESET		Motor Torque (%): 0.0
8	AT_SETPOINT		8	JOGGING_1		DC Voltage (V): 592.0
9	REMOTE		9	JOGGING_2		Output Voltage (V): 0.0
10	ABOVE_LIMIT		10	REMOTE_CMD		Output Power (kW): 0.00
11	USER_0		11	EXT_CTRL_LOC		Inverter Temperature (%): 33.0
12	USER_1		12	USER_0		
13	USER_2		13	USER_1		
14	USER_3		14	USER_2		
15	RESERVED		15	USER_3		
Control				Trend	Alarms	D12 is Faulted.)* *[ACSDrive node 5 - ACS380-D01 Alarms 4

On this page, each bit of the Main Control Word, and the Main Status word is shown. This gives the user a better idea of the full picture of the drive status.

Actual values are also shown;

Motor Speed, Motor Frequency, Motor Current, Motor Torque; DC Voltage; Output Voltage, Output Power; Inverter Temperature.

If the drive has an OFF2 or OFF3 Emergency stop condition, the start inhibit navigation button will appear on the left side, and you can navigate to the start inhibit page to identify the condition.

The speed reference, Accel time 1, and Decel time 1 can also be changed from the Advance Control page in the upper right part of the page.

Bits	Status Word	Status	Bits	Control Word	Control
0	RDY_ON		0	OFF1_CONTROL	
1	RDY_RUN		1	OFF2_CONTROL	
2	RDY_REF		2	OFF3_CONTROL	
3	TRIPPED		3	INHIBIT_OPERATION	
4	OFF_2_STATUS		4	RAMP_OUT_ZERO	
5	OFF_3_STATUS		5	RAMP_HOLD	
6	SWC_ON_INHIB		6	RAMP_IN_ZERO	
7	ALARM		7	RESET	
8	AT_SETPOINT		8	JOGGING_1	
9	REMOTE		9	JOGGING_2	
10	ABOVE_LIMIT		10	REMOTE_CMD	
11	USER_0		11	EXT_CTRL_LOC	
12	USER_1		12	USER_0	
13	USER_2		13	USER_1	
14	USER_3		14	USER_2	
15	RESERVED		15	USER_3	

- Press the "Start Inhibit Status" triangle to review the status of the Start Inhibit parameter bits.

Gray = OFF or 0

Green = ON or 1

Yellow = Alarm

Navigate to Main page (home icon), login screen (torso icon), Control page, Trend page, Alarm page.

## 7.6.2. Start inhibit

Bit	Name	Description
0		
1		
2		
3	Fault reset	A fault has been reset
4		
5	Lost run enable	Run enable signal missing
6		
7		
8		
9		
10		
11		
12	Em Off2	Emergency stop signal (mode Off2)
13	Em Off3	Emergency stop signal (mode Off3)
14		
15		

This page shows the start inhibit status word. The Start inhibit status word specifies the source of the inhibiting condition that is preventing the drive from starting. After the condition is removed, the start command must be cycled.

To return to the Advance Control page, press the back arrow on the left side of the screen.



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