# ABB Ability™ Mobile Connect App for drives

## User manual

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- 3. Mobile Connect start-up

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EN
Original instructions
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Further information
Introduction to the manual

What this chapter contains
This chapter contains general information of the manual, list of related manuals, and a list of terms and abbreviations.

Purpose of the manual
This manual describes how to use the ABB Ability™ Mobile Connect App for drives via mobile device.

Note: Further in this manual "ABB Ability™ Mobile Connect App for drives" is referred as "Mobile Connect".

Applicability
This manual applies to ABB Ability™ Mobile Connect App for drives support application, version 4.2 or newer, accessed via mobile devices.

Drivetune mobile app version 4.0 or newer supports the Mobile Connect module.
Compatibility

Mobile Connect supports the following drive families. Note that the functionality may vary for each drive variant.

- ACS380
- ACH480, ACS480
- ACH580, ACQ580, ACS580
- ACS880 (some models), DCS880

All types of Assistant control panels are supported. However, remote access to the drive is possible only if the drive is equipped with following Bluetooth enabled Assistant control panels:

- ACS-AP-W, ACS-DCP-W (for China users only)
- ACH-AP-W

Safety instructions

If it is needed to change the drive parameters at the time of remote support, make sure that the Bluetooth control panel and the drive’s machinery are operated in a safe environment.

Read and obey the complete safety instructions of the Drive. See the Drives hardware manual.

Target audience

The reader is expected to be an automation engineering professional or an electrician and familiar with drive products and the concepts regarding their commissioning and operation, including the parameter system of ABB drives.

Related documents

<table>
<thead>
<tr>
<th>Manual</th>
<th>Code (English)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drive hardware and firmware manuals</td>
<td></td>
</tr>
<tr>
<td>Appropriate drive hardware manual</td>
<td>-</td>
</tr>
<tr>
<td>Appropriate drive firmware manual</td>
<td>-</td>
</tr>
<tr>
<td>Tool and maintenance manuals and guides</td>
<td></td>
</tr>
<tr>
<td>Drive composer PC tool user's manual</td>
<td>3AUA0000094606</td>
</tr>
<tr>
<td>Drive option manuals and guides</td>
<td></td>
</tr>
<tr>
<td>ABB Ability™ Mobile Connect for drives User manual</td>
<td>3AXD50000558483</td>
</tr>
<tr>
<td>ACX-AP-x assistant control panels user’s manual</td>
<td>3AUA0000085685</td>
</tr>
<tr>
<td>ABB Drive connectivity control panel User’s manual (for China variant)</td>
<td>3AXD50000515110</td>
</tr>
<tr>
<td>ABB Drive Connectivity Control Panel Quick Start-up Guide (for China variant)</td>
<td>3AXD50000514656</td>
</tr>
</tbody>
</table>
You can find manuals and other product documents in PDF format on the Internet at www.abb.com/drives/documents.
## Terms and abbreviations

<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACH-AP-W</td>
<td>Assistant control panel with Hand-Off-Auto functionality and Bluetooth interface</td>
</tr>
<tr>
<td>ACS-AP-W</td>
<td>Industrial assistant control panel with Bluetooth interface</td>
</tr>
<tr>
<td>ACS-DCP-W</td>
<td>Cloud connection assistant control panel with Bluetooth interface</td>
</tr>
<tr>
<td>Android</td>
<td>Mobile operating system developed by Google. It is used in smartphones and tablets.</td>
</tr>
<tr>
<td>DIB</td>
<td>Drives Installed Base. ABB drives management tool.</td>
</tr>
<tr>
<td>Drive</td>
<td>Frequency converter for controlling AC motors</td>
</tr>
<tr>
<td>Drivetune</td>
<td>Mobile application for managing and controlling ABB drives remotely</td>
</tr>
<tr>
<td>Fault</td>
<td>Event that leads to tripping of the device</td>
</tr>
<tr>
<td>iOS</td>
<td>Mobile operating system developed by Apple Inc. It is used in iPhone, iPod and iPad.</td>
</tr>
<tr>
<td>Mobile app</td>
<td>Mobile application. A software program designed to run on a mobile device (eg. smartphones, tablets, etc.)</td>
</tr>
<tr>
<td>Mobile Connect</td>
<td>Cloud-based support system for providing remote support and for troubleshooting of ABB drives.</td>
</tr>
<tr>
<td>Parameter</td>
<td>In the drive control program, user-adjustable operation instruction to the drive, or signal measured or calculated by the drive. In some (for example fieldbus) contexts, a value that can be accessed as an object, eg, variable, constant, or signal.</td>
</tr>
<tr>
<td>Salesforce</td>
<td>Cloud-based customer relationship management solution to collaborate business with customers.</td>
</tr>
</tbody>
</table>
Overview

What this chapter contains

This chapter gives an overview of the Mobile Connect platform.

**Mobile Connect overview**

Mobile Connect is a platform for remote drive support, to help commission and troubleshoot ABB drives remotely. The platform includes a web portal for the support user and a mobile application for the user who needs drive support. The Mobile Connect platform allows information exchange between the portal and the mobile device.

- **End user**, is the mobile application user requesting drive support.
- **Support user**, is the drive expert providing remote support through Mobile Connect web portal.

When end user requests for drive support, the support user creates a support case with a unique case ID in the Mobile Connect portal. The end user accesses the support case via Mobile Connect in the Drivetune mobile app. If a remote support session is established, the support user and the end user can exchange information about the case by chatting, exchanging voice messages, videos, and pictures. The users can also share Parameter backups and support packages. In addition, the support user can directly access parameters and events, if the end user allows access to the drive using the Bluetooth function supported in the Assistant control panel.

See the connections in below block diagram.
Block diagram

The block diagram provides an overview of how the end user and support user communicate using the Mobile Connect platform.

<table>
<thead>
<tr>
<th></th>
<th>Drive</th>
<th>End user's drive</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Mobile Connect module in Drivetune app</td>
<td>End user communicates with support user via mobile app. Login to the Mobile Connect module works with MyABB credentials and a valid Mobile Connect case ID shared by support user. Using Drivetune app and Mobile Connect, end user can: • pair with drive for remote access via Bluetooth connection • allow the support user to remotely access drive parameters and data • chat with support user or send photos, videos and voice messages • share backup and support packages with support user. <strong>Note:</strong> End user can also start/stop the drive via control panel if drive is operating in Local control mode.</td>
</tr>
<tr>
<td>3</td>
<td>Mobile Connect cloud</td>
<td>Cloud Interface for storage and information exchange between end user and support user.</td>
</tr>
<tr>
<td>4</td>
<td>Mobile Connect web portal</td>
<td>Support user communicates with end user using this web portal.</td>
</tr>
</tbody>
</table>
Mobile Connect start-up

What this chapter contains
This chapter describes the workflow to use the Mobile Connect platform.

End user requirements

<table>
<thead>
<tr>
<th>Component</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobile devices</td>
<td>• Android 7.0 or later&lt;br&gt;• iOS 13.0 or later</td>
</tr>
<tr>
<td>Assistant control panel</td>
<td>Direct access to the drive is possible only with following Bluetooth control panels: (1) ACS-AP-W or (2) ACH-AP-W or (3) ACS-DCP-W [for China users]</td>
</tr>
<tr>
<td>Other applications</td>
<td>Drive composer pro/entry PC tool application</td>
</tr>
</tbody>
</table>
Workflow for remote drive support

The steps below describe the workflow between end user and support user to accomplish remote support for drives using Mobile Connect.

**Note:** This manual includes only instructions associated with end user actions.

| Step | Action by | Action | For more information, see section ...
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>End user</td>
<td>Contact your local support and request drive support. Share drive details: Drive type, serial number, fault code, etc.</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>Support user</td>
<td>In the Mobile Connect portal, create a support case ID and share the case ID with end user.</td>
<td>-</td>
</tr>
<tr>
<td>3</td>
<td>Support user</td>
<td>Assign a support user. The case status changes from <em>Pending</em> to <em>Active</em>.</td>
<td>-</td>
</tr>
<tr>
<td>4</td>
<td>End user</td>
<td>Open Drivetune mobile app and tap <strong>Mobile Connect</strong> module. Enter the support session using the case ID from support user.</td>
<td>Viewing a support case (page 19)</td>
</tr>
<tr>
<td>5</td>
<td>End user</td>
<td>Chat with the support user.</td>
<td>Chatting with support user (page 23)</td>
</tr>
<tr>
<td>6</td>
<td>End user</td>
<td>Share drive related data, backup file and support packages, if needed.</td>
<td>Creating backups &amp; support packages (page 31)</td>
</tr>
<tr>
<td>7</td>
<td>Support user</td>
<td>Request direct access to drive parameters and events, if needed.</td>
<td>-</td>
</tr>
<tr>
<td>8</td>
<td>End user</td>
<td>Establish Bluetooth connection and allow support user to access parameters.</td>
<td>Pairing the drive for remote access (page 25)</td>
</tr>
<tr>
<td>9</td>
<td>Support user</td>
<td>Access drive parameters and events. Investigate the issue and propose changes to parameters, if needed. Monitor parameters when drive is operating with parameter references.</td>
<td>-</td>
</tr>
</tbody>
</table>
| 10   | End user  | Accept/deny proposed parameter changes or change parameter references. Changes are effective only if accepted.  
**Note:** You can also start/stop the drive via the control panel components of the mobile app when drive is operating in local control mode. | Approve or deny parameter change proposals (page 38) |
| 11   | Support user | Close the connection to the drive. | - |
| 12   | Support user | Update case summary and set the case status to *Resolved*, if drive issue is fixed. | - |
Installing Drivetune mobile app

What this chapter contains
This chapter describes how to install the Drivetune mobile app and access the Mobile Connect module.

Installing Drivetune app on Android device
If you are the end user, you must install the Drivetune mobile app to access the Mobile Connect module.

To install the Drivetune mobile app on your Android device, do these steps:

1. On your Android device, open your Google Play Store account and search for Drivetune app.
2. Against the Drivetune app, tap INSTALL and follow the instructions displayed on your screen.
3. After installation is completed, tap OPEN, to open the app. Proceed with Using Mobile Connect (page 16).

Installing Drivetune app on iOS device

1. On your iOS device, open App Store and search for Drivetune app.
2. Against the Drivetune app, tap INSTALL and follow the instructions displayed on your screen.
3. After installation is completed, tap OPEN, to open the app. Proceed with Using Mobile Connect (page 16).
Using Mobile Connect

1. On your Android or iOS device, open the Drivetune app.

   ![Mobile Connect module](image)

   **Note:** If Mobile Connect module is not displayed, make sure that you are using Drivetune version 4.0 or later.

3. For first time use only:
   a. Accept the End user license agreement.
   b. View the Feature walk-through or tap on Skip.
   c. Select your ABB support contract location, eg. People’s Republic of China, or any other region.

4. Log in with your MyABB account, choose
   - Login, if you already have an account.
   - New user? Sign up, if you need to create an account.
5. If login is successful, the Mobile Connect welcome screen appears.
Proceed with [Viewing a support case (page 19)].

**Note:** You can also log in from the About the app screen.
End user - How to use Mobile Connect in mobile app

What this chapter contains
This chapter instructs the end user on how to use Mobile Connect module in the mobile device.

Prerequisites
- Install Drivetune mobile app in your Android or iOS device and make sure you have access to the Mobile Connect module. See chapter Installing Drivetune mobile app.
- Make sure you received the Mobile Connect case ID and PIN number (e.g. 100 160 936F) from the support user.
- If support user requests direct access to the drive, connect the drive to Bluetooth control panel and enable Bluetooth connection on your mobile device.

Viewing a support case
1. On your mobile device, open Drivetune app and tap Mobile Connect.
2. On the Mobile Connect home screen, enter a valid case ID and PIN number (shared by support user). The case ID comprises of a ten-digit alphanumeric code (e.g. 100209 W84S) - first six digits are numeric, followed by four alphanumeric digits.

Note:

• If you entered an invalid case ID and PIN number, a communication error message appears. Tap OK and enter the correct ID.

• If you entered an inactive case ID and PIN number (Pending/Resolved/Rejected status) and with the drive paired, the case not active error message appears. To access the case, you must unpair the drive.

• Random entry of invalid case ID and PIN number, can block the next entry. For more information, contact your Mobile Connect representative.
3. The chat [1] screen appears. Proceed with *Chatting with support user (page 23)*.
On this screen you can also navigate to following screens:

- share backup and support packages [2]. See *Creating backups & support packages (page 31)* or

- Change history [3]. This screen requires Bluetooth connection, see *Pairing the drive for remote access (page 25).*
Chatting with support user

On the chat screen, you can interact with support user. You can text messages, send voice messages, share images and videos. You can also upload and share case related drive backup file and support packages.

Note: Make sure the image size is within the maximum limit of 1000 pixels. Otherwise the image may be resized or may take a longer loading time.

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Text messages</td>
</tr>
<tr>
<td>2</td>
<td>Voice messages</td>
</tr>
<tr>
<td>3</td>
<td>Share live pictures</td>
</tr>
<tr>
<td>4</td>
<td>Share saved pictures</td>
</tr>
<tr>
<td></td>
<td>Share live videos</td>
</tr>
<tr>
<td>---</td>
<td>------------------</td>
</tr>
<tr>
<td>6</td>
<td>Share saved videos</td>
</tr>
</tbody>
</table>
Pairing the drive for remote access

Pairing the drive via Mobile Connect

To pair the drive and mobile device via Mobile Connect, follow these steps:

1. On your mobile device, login in to Mobile Connect using a valid case ID.
2. When support user requests for connection to drive, the message *A connection request has been received* appears on your chat screen.
3. Tap **Accept** to connect, otherwise tap **Deny**.
4. First time only: If Bluetooth connection is not turned on, the message "*Drivetune wants to turn on Bluetooth*" appears. Tap **Allow**. Follow the instructions displayed on the mobile screen.
5. On the Bluetooth Assistant control panel, press and hold the ? button for two seconds to make it discoverable. A blinking Blue LED indicates that Bluetooth is turned on. The control panel displays a PIN. Enter this PIN when your mobile prompts for Bluetooth connection.
6. Tap **Scanning**.

The application automatically scans after you allowed Bluetooth and enabled Location services on the mobile device for the Drivetune app. Wait while the application checks for connected drives (enabled via Bluetooth).

7. The detected drives are listed in the Connect to drive screen. Tap on the appropriate drive to connect.

8. The message *Connection established* appears on your mobile screen. The support user now has direct access to your drive parameters. The support user can end the connection at any time.

Drive is now connected and ready for remote access.

**Note:** Active connection to Drive composer and Mobile Connect is not possible at the same time.

- If a Mobile Connect session is ongoing with the drive paired to Drivetune, and during this time if you tried to connect the drive to Drive composer PC tool, the Mobile Connect session is deactivated, i.e. the connection to mobile device is automatically disconnected.

- If the connection between drive and Drive Composer PC tool is active, the Bluetooth option is not available to pair the drive with Drivetune.
You can also connect the drive without the Mobile Connect module. See *Pairing the drive via Drivetune (page 29)*.
Pairing the drive via Drivetune

You can also pair the drive via Drivetune app without opening the Mobile Connect module:

1. On your mobile device, open Drivetune app.
2. Tap **Pair to drive**.
3. If Bluetooth connection is not turned on, the message "Drivetune wants to turn on Bluetooth" appears. Tap **Allow**.
4. Follow the instructions displayed on the mobile screen.
5. On the Bluetooth Assistant control panel, press and hold the ? button for two seconds to make it discoverable. A blinking Blue LED indicates that Bluetooth is turned on. The control panel displays a PIN. Enter this PIN when your mobile prompts for Bluetooth connection. Tap Scan, to connect to the drive. Drive is paired with Drivetune app and ready for remote access.

**Note:** Active connection to Drive composer and Mobile Connect is not possible at the same time.

- If a Mobile Connect session is ongoing with the drive paired to Drivetune, and during this time if you tried to connect the drive to Drive composer PC tool, the Mobile Connect session is deactivated, i.e. the connection to mobile device is automatically disconnected.

- If the connection between drive and Drive Composer PC tool is active, the Bluetooth option is not available to pair the drive with Drivetune.
Creating backups & support packages

You can create a backup file or a support package while the drive is paired to Mobile Connect. You can share the file with support user after accepting the connection request from portal.

1. In the Backups & Support packages screen, tap **Create**.

2. Tap on **New backup** or **New support package**.
32 End user - How to use Mobile Connect in mobile app
3. The New backup file or New support package screen appears based on your selection. Type a name and description.

![New backup file screen](image)

4. Tap **Save**.
5. The new backup file is saved and prompts to select the following options:

- **Restore** - This option is available only for backup function and if the drive type of the backup file and that of paired drive is identical. This function restores the parameter values from the backup file. Tap **Confirm** and follow the instructions displayed on the mobile screen. When restore is completed, tap **OK**.
Confirm backup restore
Do not switch off drive or disconnect Drivetune app from panel throughout the restore process! The process might last a few minutes...

Cancel  Confirm

Created at  2020-03-16 14:04:13
Drive name  ACS560
• **Share** - Allows sharing the backup file to the contacts on your mobile device or send the file via email.
• **Edit** - Allows editing the backup file and support package information.

![Edit Screen]

• **Sync** - Uploads the backup file or support package to support user.
Approve or deny parameter change proposals

If you shared a backup or support package or if the support user accessed the drive parameters, the support user can propose changes to the parameters. The changes are effective only after you approve them.

**Note:** You must be aware of the potential risks of applying the parameter changes to the drive and make sure that it is safe to apply the proposed parameter changes. The Mobile Connect expert confirms with you before sending the parameter changes to you.

1. When Mobile Connect expert proposed changes, e.g. parameter values, the message appears on the chat screen. Read the safety message that you confirmed to the expert. Tap **View**, to navigate to the Change history page and view the proposed parameter changes.

2. In the Change history page, tap **Apply** to apply the changes, otherwise tap **Reject**.

**Note:** If you did not apply the changes within five minutes, the pending parameter changes are automatically rejected.
Pending to apply

99.07 Motor nominal voltage
400 → 401

99.06 Motor nominal current
1 → 2

99.09 Motor nominal speed
1430 → 1445

Reject  Apply
3. If you accepted the changes, you are prompted about the safety risks. Read the message and if you agree, tap **Yes** to proceed with the changes. Otherwise tap **No**.

**Note:** Proposed changes are applied only after you confirm.
4. If you tapped **Yes**, a re-confirmation message appears to check the safety of the drive before applying the changes. Read the message and confirm. Tap **Apply**, to proceed with sending the parameter changes to the drive, otherwise tap **Cancel**.

**Note:** Proposed changes are applied only after you confirm.

⚠️ **WARNING!** You must know the potential risk of applying the parameter changes to the drive and make sure that the proposed parameter changes are safe to apply.
5. If you tapped **Apply**, proposed parameter changes are applied to the drive.

![Parameter Changes Table]

The changes applied successfully message appears.
Note: If the connection to the drive closed (either by closing Bluetooth connection or by closing the mobile app) before you apply the parameter changes, the pending parameter changes will automatically expire. You can view them in the Change history page.

The pending parameter changes are automatically rejected in either of the following conditions:

- If the connection to the drive closed when you ended Bluetooth connection.
- If you closed the Mobile Connect module.
Shake the mobile to report a problem

From any screen inside the Drivetune app, you can report a problem with the Drivetune app.

Note: For any drive related problem contact your local support.

To shake the mobile device and report a drive issue, follow these steps:

1. From the Drivetune screen, shake the mobile to display the Report a problem feature.

2. Activate the **Shake to report** switch and tap **Report**.

3. In the **Feedback / Bug report** screen, enter an appropriate description.
4. The captured screen is attached by default. Provide extra information, if needed and tap **Pair to drive**.

5. Follow the instructions displayed on the mobile screen, to pair with drive.
6. If you changed the drive parameters, activate the **Send all modified parameters** switch.

![Feedback / Bug report](image)

7. In the mobile app, tap the Send button at the top.

8. Pick an Email app from the available list and tap **Send**, to send the Email.
9. If the Email was sent successfully, a confirmation message appears. Tap OK to confirm.
Disclaimers

Cybersecurity disclaimer

This product is designed to be connected to and to communicate information and data via a network interface. It is the Customer's sole responsibility to provide and continuously ensure a secure connection between the product and Customer network or any other network (as the case may be). Customer shall establish and maintain any appropriate measures (such as but not limited to the installation of firewalls, application of authentication measures, encryption of data, installation of anti-virus programs, etc) to protect the product, the network, its system and the interface against any kind of security breaches, unauthorized access, interference, intrusion, leakage and/or theft of data or information. ABB and its affiliates are not liable for damages and/or losses related to such security breaches, any unauthorized access, interference, intrusion, leakage and/or theft of data or information.

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■ **HSE disclaimer**

It is the sole responsibility of the end user to make sure that it is safe to apply the proposed parameter changes to the drive. ABB is not liable for any personal injury, material damage or monetary losses due to non-functionality or incorrect behavior of the application program due to unsuitable parameter settings.
Further information

Product and service inquiries
Address any inquiries about the product to your local ABB representative, quoting the type designation and serial number of the unit in question. A listing of ABB sales, support and service contacts can be found by navigating to www.abb.com/searchchannels.

Product training
For information on ABB product training, navigate to new.abb.com/service/training.

Providing feedback on ABB manuals
Your comments on our manuals are welcome. Navigate to new.abb.com/drives/manuals-feedback-form.

Document library on the Internet
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