

# Commissioning Report

## MENNEKES Charging Stations

This commissioning report applies to the following MENNEKES products:

### **Products with an ACU**

- Smart charging stations
- eMobility Gateway

### **Products with an SCU**

- Premium charging stations
- Basic charging stations

### **Products with an ECU**

- AMADIO charging stations
- Amtron® Professional charging stations

### **Products with an HCC3**

- AMTRON® Premium charging stations
- AMTRON® Xtra charging stations
- AMTRON® Trend charging stations

### **Products with a CPX**

- AMTRON® Start charging stations
- AMTRON® Light charging stations
- AMTRON® Standard charging stations
- AMTRON® Pro charging stations
- AMTRON® Basic charging stations
- Light wall-mounted charging stations

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Commissioning may only be performed by a qualified electrician.

### Operating and installation manual

Notes on performing the individual steps and on safety, e.g. warning notices, are not described here, but can only be found in the operating and installation manual for the respective charging station.

	OK
The operating and installation manual, especially the chapters / sections related to safety, has been read and understood.	<input type="checkbox"/>

### Inspection of the charging station

	OK
Inspection of the charging station in accordance with IEC 60364-6 and the respective applicable national regulations (e.g. DIN VDE 0100-600 in Germany).	<input type="checkbox"/>

# 1. Products with an ACU / SCU or ECU

## Charging station identification

Type (e.g. Smart 22, eMobility Gateway): \_\_\_\_\_

Serial number: \_\_\_\_\_

Firmware version: \_\_\_\_\_

Short description (project name / project number / installation location (e.g. parking garage, floor F, parking space 117) / connection to a backend system or MENNEKES ativo):  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

The charging station is not integrated in a network:

The charging station is integrated in a network as a Master (ECU with modem; ACU):

The charging station is integrated in a network as a Satellite (ECU without modem; SCU):

## Network (if necessary)

All Satellite charging stations in the network (complete for a Master charging station only):

Quantity	Type (e.g. Premium 22)	Installation location / special features

Master charging station or product with ACU in the network (complete for a Satellite charging station only):

Type (e.g. eMobility Gateway)	Serial number

**Identification of energy metres compliant with calibration law (if necessary)**

Year of manufacture of the meter: \_\_\_\_\_

Type designation of the meter (e.g. eHZ-KW8E2A5L0EF2P or EM2389):  
\_\_\_\_\_

Serial number of the meter (e.g. 09-45-4d-48-00-Fd-C9-31-02-E1 or ZJ5403660002):  
\_\_\_\_\_

## 1.1 Supply network connection / phase reversal in three-phase operation

To ensure that the network load is distributed as evenly as possible, we recommend connecting the supply lines to the terminals with reversed phase sequence.

Charging station	Input terminal			OK
	L1	L2	L3	
1st charging station in the network	L1	L2	L3	<input type="checkbox"/>
2nd charging station in the network	L2	L3	L1	<input type="checkbox"/>
3rd charging station in the network	L3	L1	L2	<input type="checkbox"/>
4th charging station in the network (cf 1st charging station in the network)	L1	L2	L3	<input type="checkbox"/>
... *	...	...	...	<input type="checkbox"/>

\* Enter further charging stations on the last page.

### For a charging station with ECU

To allow the correct assignment between each charging point and the applied phase position, for the ECU the correct phase position for each charging point must also be set in the web interface.

To ensure that the network load is distributed as evenly as possible, for the AMEDIO charging station the connection of the right-hand charging socket is phase-shifted by 120°.

Parameter	AMEDIO settings		Amtron® Professional settings	OK
	Master ECU	Slave ECU		
Phase connected to the Charge Point	Three-phase system		Three-phase system	<input type="checkbox"/>
1st charging station in the network:				
Phase rotation of the Charge Point	R/S/T (L1/L2/L3)	S/T/R (L2/L3/L1)	R/S/T (L1/L2/L3)	<input type="checkbox"/>
2nd charging station in the network:				
Phase rotation of the Charge Point	S/T/R (L2/L3/L1)	T/R/S (L3/L1/L2)	S/T/R (L2/L3/L1)	<input type="checkbox"/>
3rd charging station in the network:				
Phase rotation of the Charge Point	T/R/S (L3/L1/L2)	R/S/T (L1/L2/L3)	T/R/S (L3/L1/L2)	<input type="checkbox"/>
4th charging station in the network (cf 1st charging station in the network):				
Phase rotation of the Charge Point	R/S/T (L1/L2/L3)	S/T/R (L2/L3/L1)	R/S/T (L1/L2/L3)	<input type="checkbox"/>
...				

\* Enter further charging stations on the last page.

## 1.2 Firmware Update ACU / ECU (where appropriate)

Tasks	OK
Firmware Update ACU / ECU to version no. _____ completed.	<input type="checkbox"/>
<b>Requirements:</b>	
<ul style="list-style-type: none"> <li>✓ The current Update file is available on your laptop / PC. You can download the Update file from our website <a href="http://www.chargeupyourday.com">http://www.chargeupyourday.com</a> under “Service”.</li> <li>✓ The web interface can be reached via a laptop / PC.</li> <li>❼ See the operating and installation manual for the product.</li> </ul>	
<b>For an ACU</b> <ul style="list-style-type: none"> <li>▶ In the web interface, navigate to “Main Page” &gt; “Setup” &gt; “ACU setup”.</li> <li>▶ Select the Update file under “Update ACU (via file upload)” and perform the update.</li> <li>✓ The ACU restarts.</li> </ul>	
<b>For an ECU</b> <ul style="list-style-type: none"> <li>▶ In the web interface, navigate to “System” &gt; “Firmware Update”.</li> <li>▶ Select the Update file and perform the update.</li> <li>✓ The ECU restarts.</li> </ul>	

## 1.3 Commissioning

Tasks	OK
Charging power checked for back-up fuse and limited if necessary.	<input type="checkbox"/>
Residual current device and miniature circuit breaker switched on.	<input type="checkbox"/>
Initial inspection according to IEC 60364-6 and the applicable national regulations (e.g. DIN VDE 0100-600 in Germany) performed and documented. *	<input type="checkbox"/>
<ul style="list-style-type: none"> <li>■ Residual current device tripping current [mA]: _____ / _____</li> <li>■ Residual current device switch-off time [ms]: _____ / _____</li> <li>■ Earthing resistance [<math>\Omega</math>]: _____</li> <li>■ Mains configuration: _____</li> <li>■ Voltage measurement [V]: _____</li> <li>■ Rotating field direction: _____ / _____</li> <li>■ Continuity of the protective conductor: _____</li> <li>■ Loop impedance: _____</li> </ul>	
Function check and load simulation performed via the MENNEKES test box.	<input type="checkbox"/>
<ul style="list-style-type: none"> <li>■ Status A (No vehicle connected)</li> <li>■ Status B (Vehicle connected but not ready to charge)</li> <li>■ Status C (Vehicle connected and ready to charge, ventilation not required)</li> <li>■ Status D (Vehicle connected and ready to charge, ventilation required (gassing batteries))</li> <li>■ Status E (Error - short circuit between CP and PE)</li> </ul>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

\* external test reports can be attached to this document.

## 1.4 Authorisation / Operating mode

Tasks	yes	no
No authorisation set (“free charging”).	<input type="checkbox"/>	<input type="checkbox"/>
Authorisation set through RFID without check.	<input type="checkbox"/>	<input type="checkbox"/>
Authorisation set through RFID with check (“whitelist”).	<input type="checkbox"/>	<input type="checkbox"/>
Authorisation set through backend system.	<input type="checkbox"/>	<input type="checkbox"/>

## 1.5 Network (if necessary)

Tasks	OK
For an ECU: Satellite charging stations added and configured in the network.	<input type="checkbox"/>
For an ACU: SCUs and HCC3s added and configured in the network.	<input type="checkbox"/>

## 1.6 Networking

Tasks	OK
IP address configured.	<input type="checkbox"/>
■ The IP address is assigned statically <input type="checkbox"/> or dynamically (DHCP) <input type="checkbox"/> .	
<b>For a dynamic IP address in a network</b>	
■ The IP address is assigned by: _____ (charging station or DHCP router)	
■ Charging station configured as a DHCP server (only if the IP address is assigned by the charging station).	
<b>For a static IP address - stand alone</b>	
■ Assigned IP address: _____	
<b>For a static IP address in a network</b>	
■ IP address range: _____	

## 1.7 Load management configuration

Tasks	OK
For an ECU: Master charging station or Satellite charging station configured as DLM Master or DLM Satellite.	<input type="checkbox"/>
Static load management configured.	<input type="checkbox"/>
<p>■ Load management ACU (“max. available total current (HT)”) [A]:  _____</p> <p>■ Load management ECU (“EVSE Sub-Distribution Limit”) [A]:  _____</p>	
Dynamic load management configured.	<input type="checkbox"/>
<p>■ The external meter measures:</p> <ul style="list-style-type: none"> <li>– external consumers only <input type="checkbox"/></li> <li>– total consumption (external consumers and charging station(s)) <input type="checkbox"/></li> <li>– Value (if available) [A]: _____</li> </ul>	
Dynamic load management configured with an energy management system (EMS).	<input type="checkbox"/>
<p>■ EMS manufacturer: _____</p> <p>■ EMS type: _____</p> <p>■ Value [A]: _____</p>	

## 1.8 Backend system connection

Tasks	OK
SIM card inserted in ACU / ECU.	<input type="checkbox"/>
Application protocol / OCPP mode set. OCPP 1.5 S <input type="checkbox"/> OCPP 1.6 S <input type="checkbox"/> OCPP 1.6 J <input type="checkbox"/>	<input type="checkbox"/>
ACU Name / OCPP ChargeBoxIdentity (ChargePointID) set:	<input type="checkbox"/>
<hr/>	
Backend system URL address set.	<input type="checkbox"/>
APN / Access Point Name set (if necessary).	<input type="checkbox"/>
Wireless communication configured (if necessary).	<input type="checkbox"/>
Password for HTTP Basic Authentication set (if necessary):	<input type="checkbox"/>
<hr/>	
ACU / ECU configured in backend system (charging point, ACU / ECU, location).	<input type="checkbox"/>

## 1.9 Control of components relevant to calibration law (if necessary)

Tasks	OK
Visual inspection of components relevant to calibration for presence and damage performed (e.g. QR code (public key), seal sticker, lead seal).	<input type="checkbox"/>

For charging stations that comply with calibration law, the following applies:

- i** Work on components that are subject to calibration law may only be performed by a **certified** service technician. Otherwise the charging station is no longer compliant with calibration law.  
All the necessary information is available on request.

## 2. Products with an HCC3 or CPX

### Charging station identification

Type (e.g. AMTRON® Xtra): \_\_\_\_\_

Serial number: \_\_\_\_\_

Firmware version: \_\_\_\_\_

Short description (project name / project number / installation location (e.g. parking garage, floor F, parking space 117) / connection to a backend system or MENNEKES ativo):  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

The charging station is not integrated in a network:

The charging station is integrated in a network as a Satellite:

(Integration in the network is only possible with an AMTRON® Premium.)

### Network (if necessary)

Product with ACU in the network (complete for a Satellite charging station only):

Type (e.g. eMobility Gateway)	Serial number

## 2.1 Supply network connection / phase reversal in three-phase operation

To ensure that the network load is distributed as evenly as possible, we recommend connecting the supply lines to the terminals with reversed phase sequence.

Charging station	Input terminal			OK
	L1	L2	L3	
1st charging station in the network	L1	L2	L3	<input type="checkbox"/>
2nd charging station in the network	L2	L3	L1	<input type="checkbox"/>
3rd charging station in the network	L3	L1	L2	<input type="checkbox"/>
4th charging station in the network (cf 1st charging station in the network)	L1	L2	L3	<input type="checkbox"/>
...	...	...	...	<input type="checkbox"/>

\* Enter further charging stations on the last page.

## 2.2 Firmware Update HCC3 / CPX (if necessary)

Tasks	OK
Firmware Update HCC3 / CPX to version no. _____ completed.	<input type="checkbox"/>
Requirement: <ul style="list-style-type: none"> <li>✓ The current Update file is available on your laptop / PC. You can download the Update file from our website <a href="http://www.chargeupyourday.com">http://www.chargeupyourday.com</a> under “Service”.</li> <li>✓ The service interface can be reached via a laptop / PC.</li> <li>█ See the operating and installation manual for the product.</li> </ul> <ul style="list-style-type: none"> <li>▶ In the service interface, navigate to “System” &gt; “Firmware Update”.</li> <li>▶ Select the Update file under “HCC3 Update file” and perform the update.</li> </ul>	

## 2.3 Commissioning

Tasks	OK
Charging power checked for back-up fuse and limited if necessary.	<input type="checkbox"/>
Residual current device and miniature circuit breaker switched on.	<input type="checkbox"/>
Transfer system time for connection with MENNEKES Charge App (AMTRON® Xtra / Premium only).	<input type="checkbox"/>
Function test of the multi-function button performed (if necessary).	<input type="checkbox"/>
Initial inspection according to IEC 60364-6 and the applicable national regulations (e.g. DIN VDE 0100-600 in Germany) performed and documented. *	<input type="checkbox"/>
■ Residual current device tripping current [mA]: _____ / _____	
■ Residual current device switch-off time [ms]: _____ / _____	
■ Earthing resistance [ $\Omega$ ]: _____	
■ Mains configuration: _____	
■ Voltage measurement [V]: _____	
■ Rotating field direction: _____ / _____	
■ Continuity of the protective conductor: _____	
■ Loop impedance: _____	
Function check and load simulation performed via the MENNEKES test box.	<input type="checkbox"/>
■ Status A (No vehicle connected)	<input type="checkbox"/>
■ Status B (Vehicle connected but not ready to charge)	<input type="checkbox"/>
■ Status C (Vehicle connected and ready to charge, ventilation not required)	<input type="checkbox"/>
■ Status D (Vehicle connected and ready to charge, ventilation required (gassing batteries))	<input type="checkbox"/>
■ Status E (Error - short circuit between CP and PE)	<input type="checkbox"/>

\* external test reports can be attached to this document.

## 2.4 Operating mode (for products with an HCC3 only)

Setting	yes	no
“APP control” set.	<input type="checkbox"/>	<input type="checkbox"/>
“Mains control” set.	<input type="checkbox"/>	<input type="checkbox"/>
“Time control” set.	<input type="checkbox"/>	<input type="checkbox"/>
“Energy Manager” set.	<input type="checkbox"/>	<input type="checkbox"/>
“SCU” set.	<input type="checkbox"/>	<input type="checkbox"/>

## 2.5 Configuration

Tasks	OK
RFID UIDs authorised to charge added to whitelist (for AMTRON® Premium only).	<input type="checkbox"/>

## 2.6 Integration in a home network (for products with an HCC3 only)

Tasks	OK
Charging station integrated into a home network via WLAN.  ■ Network name / SSID (special characters are not supported): _____	<input type="checkbox"/>
■ WLAN key (special characters are not supported): _____	
Charging station integrated into a home network via LAN.  ■ The IP address is assigned statically <input type="checkbox"/> or dynamically (DHCP) <input type="checkbox"/> ■ Assigned IP address (for static IP address only): _____	<input type="checkbox"/>

### 3. Commissioning performed (please complete)

Tasks	OK
Leave the construction site clean and tidy.	<input type="checkbox"/>
Customers were informed about the configurations made and these were explained to them / implemented (e.g. start charging process, test residual current device, explain load management).	<input type="checkbox"/>
Photos taken of the most important commissioning operations (e.g. electrical installation, location of the charging station).	<input type="checkbox"/>
No defects found.  If defects / open points were found, write them down here:  _____ _____ _____ _____	<input type="checkbox"/>

#### **Customer contact details**

Customer: \_\_\_\_\_

Postcode / place: \_\_\_\_\_

#### **Installation company contact details**

Installation company: \_\_\_\_\_

Name of technician: \_\_\_\_\_

Telephone number: \_\_\_\_\_

Email: \_\_\_\_\_

**Driving directions**

Driving distance in km: \_\_\_\_\_

Home location: \_\_\_\_\_

**Working time, service**

from \_\_\_\_\_ o'clock to \_\_\_\_\_ o'clock

**For the customer (noted)**

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Signature / stamp: \_\_\_\_\_

**For the installation company (activities were performed in accordance with this document)**

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Signature / stamp: \_\_\_\_\_

**Remarks**