

PRODUCT UPDATE

Terra AC Wallbox Firmware & Digital Feature Update

The purpose of this communication is to update you about the release of software functionalities for the ABB Terra AC Wallbox.

Scope

- Charger Firmware v1.6.3
- ChargerSync App v1.9.0
- ChargerSync Essentials Operational portal v1.9.0
- TerraConfig App v1.9.0
- TerraConfig Service Portal v1.9.0

The release covers the existing portfolio.

- CE non-display / display (MID certified, Eichrecht certified)
- UL non-display / display (UL certified)

Documents

- Modbus documentation update
- OCPP implementation documentation update
- Load management documentation update

Firmware 1.6.3

Features

Load management - update

- Improved the algorithm for local dynamic load management for single charger by introducing a phase-based load balancing algorithm
- Introduced the option to take into account the maximum phase imbalance of the grid in the dynamic load management algorithm for single charger
- Introduced fallback limit variable that can be described as the value (in Ampere) to which the charger will limit its power output to at the moment the connection with an external meter is lost for a certain amount of seconds

UK Smart Charging Legislation Compliance

- Support off-peak charging
- Support Randomized Delay
- Customized OCPP key - RandomDelayCancel

IT network on MID designs

Mistake proof validation check at charger level during firmware update process

Increase WiFi password length (to 32 characters)

Improved daisy chain

Show Charger IMEI

PE detection as default disable in the charger firmware

Support OCPP URL length of 200 characters

Charger by default process the scanning of ABB and external RFID card

MID certificate version number update

Modbus

Lock/Unlock cable on charger side

Improved 4100H – Set Charging Current Limit use case

Set Charging Current Limit register could be set anytime instead of during transaction

EV1 meter support

EV1 meter also supported by reading correct Active power total register.

Different ABB meters are identified internally by charger and information transferred according to specific profile

New Modbus register to define communication timeout while in secondary mode

Provides a configurable approach to support interoperability

OCPP

Smart Charging profile update

- GetCompositeSchedule
- Support complex charging schedule by increased stack and periods for different charger variants via:
 - ChargeProfileMaxStackLevel (16 for display models, 3 for non-display)
 - ChargingScheduleMaxPeriods (25 for all variants)
- report SupportedFeatureProfiles key to include SmartCharging profile while using GetConfiguration

GetDiagnostics

In Firmware Management profile, GetDiagnostics and DiagnosticsStatusNotification messages also supported.

Moving forward custom message diagnostic log will be phased out.

New key support:

MaxEnergyOnInvalidId

StopTransactionOnInvalidId

ResetRetries

TransactionMessageAttempts

TransactionMessageRetryInterval

Support UTC time zone offset format

Charger supports processing currentTime in the format of UTC±HH:MM as well send by Central System/OCPP Server.

This zone offset could be used for the purpose of identifying/displaying the time in local time zone. Possible to extract from BootNotification and Heartbeat messages.

OCPP keys to support local time zone

Keys supports for country specific local time adjustment and display purposes.

MeterValuesSampledData according to Measurand enumeration

Note: When phase is absent, the measured value is interpreted as an overall value as per OCPP section 7.43.

Improvement on UpdateFirmware from external OCPP server

Charger supports to use ABB URL 'location' to perform UpdateFirmware from external OCPP server.

Support mobile app operation by OCPP DataTransfer message**Allow OfflineTxForUnknownId****OCPP key to associate RFID tag with Free vending**

Align with DC charger approach, New FreevendIdTag key to associate with FreevendEnabled for auto charge behavior

AuthorizationKey support

chargePointVendor is updated as ABB

Bugs

further updates and improvements

Digital 1.9 (TerraConfig App, ChargerSync App, TerraConfig portal, ChargerSync portal)

Features

ChargerSync app - remote control

UK Smart Charging Legislation

Apps to support:

- deployment of UK schedule and randomized delay at moment of commissioning
- possibility to modify / override schedule
- possibility to modify randomized delay within ChargerSync app with each charge session initiated

Load management - update

Changed UI to support update to local load management supported with FW 1.6

Reset charger settings to defaults

Feature in TerraConfig app to reset all the charger setting to default values and configure freshly again.

This resets different channel inputs setting/limit done by mobile app, OCPP or ChargerSync cloud. Additionally, "Device Sync" option in the mobile app could be used for sync if the reset was performed during offline.

Helpful when load management/current limit setting not working as expected due to lowest limit.

ChargerSync portal: show total cost for free vend sessions

TerraConfig portal: OCPP link alias

Apps: Increase WiFi password length

WiFi password supports maximum 32 characters

TerraConfig App supports to enable/disable PE detection circuit

Bugs

TerraConfig portal: Existing URL to be extended to other customers

TerraConfig portal: filter on 3rd party OCPP configuration

ChargerSync portal: possibility to reuse a company name

ChargerSync portal: automated daylight saving time

Improved CRUD UI for TC app

Improved the Create, Read, Update, Delete UI for TC app

further improvements