

IQ STAR® ORION II CHILLED BEAM

INSTALLATION, COMMISSIONING AND MAINTENANCE

SE | MONTERING, INJUSTERING OCH UNDERHÅLL

FI | ASENNUS, KÄYTTÖÖNOTTO JA HUOLTO

DK | INSTALLATION, JUSTERING OG VEDLIGEHOLDELSE

DE | INSTALLATION, INBETRIEBNAHME UND WARTUNG

NL | INSTALLATIE, INBEDRIJFSTELLING EN ONDERHOUD

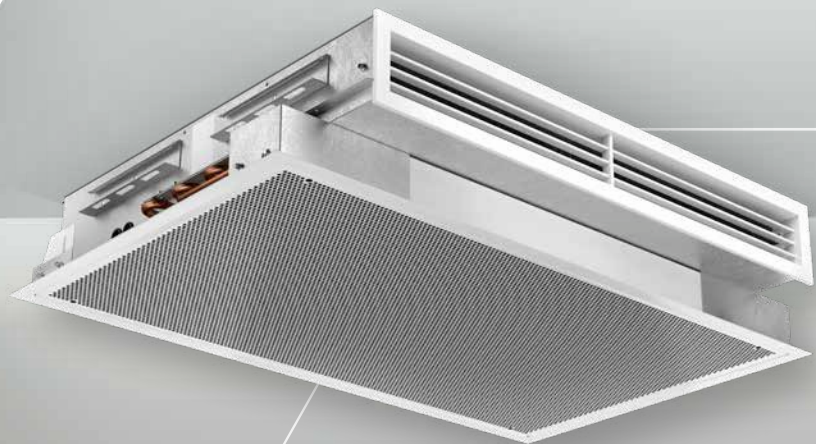
FR | MONTAGE, EQUILIBRAGE EN MAINTENANCE

IT | INSTALLAZIONE, MESSA IN SERVIZIO E MANUTENZIONE

PL | MONTAŻ, ROZRUCH I KONSERWACJA

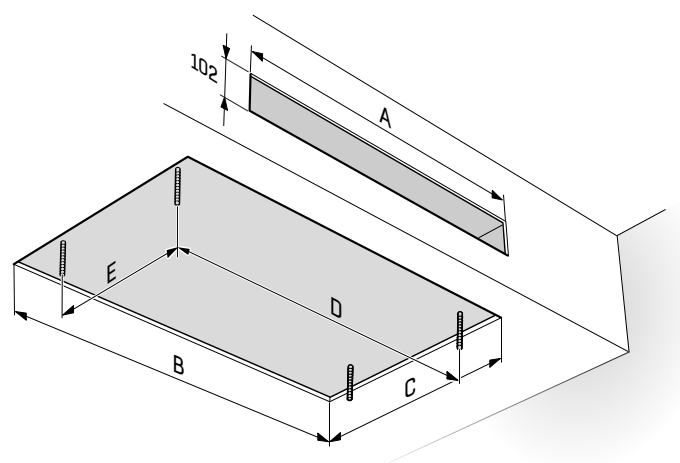
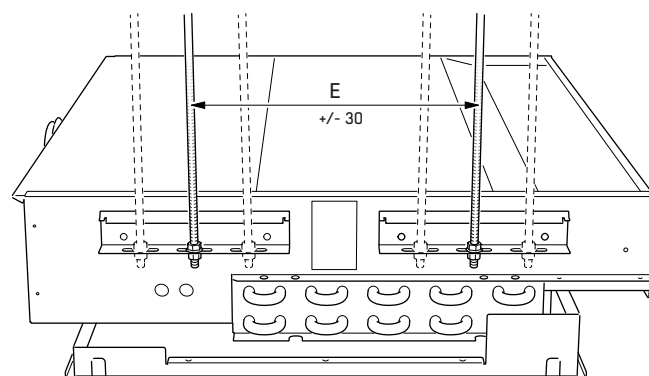
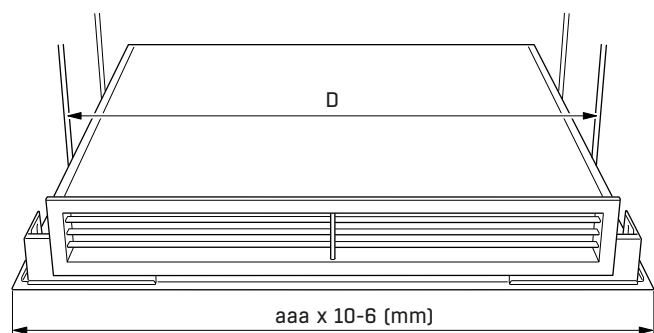
CZ | INSTALACE, UVEDENÍ DO PROVOZU A ÚDRŽBA

LT | MONTAVIMAS, PARENGIMAS EKSPLOATuoti IR PRIEžiūra

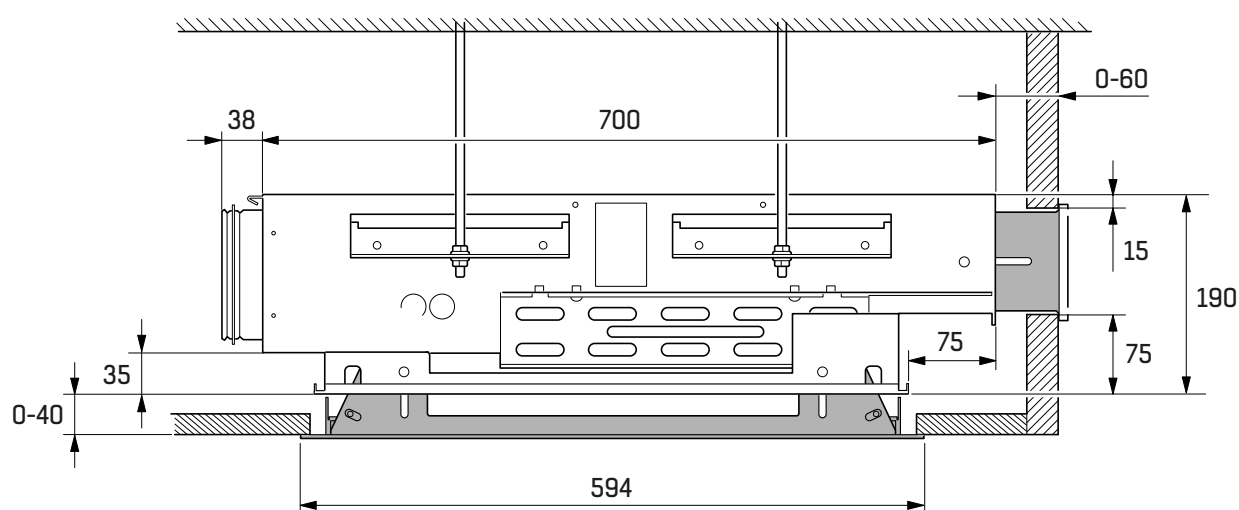


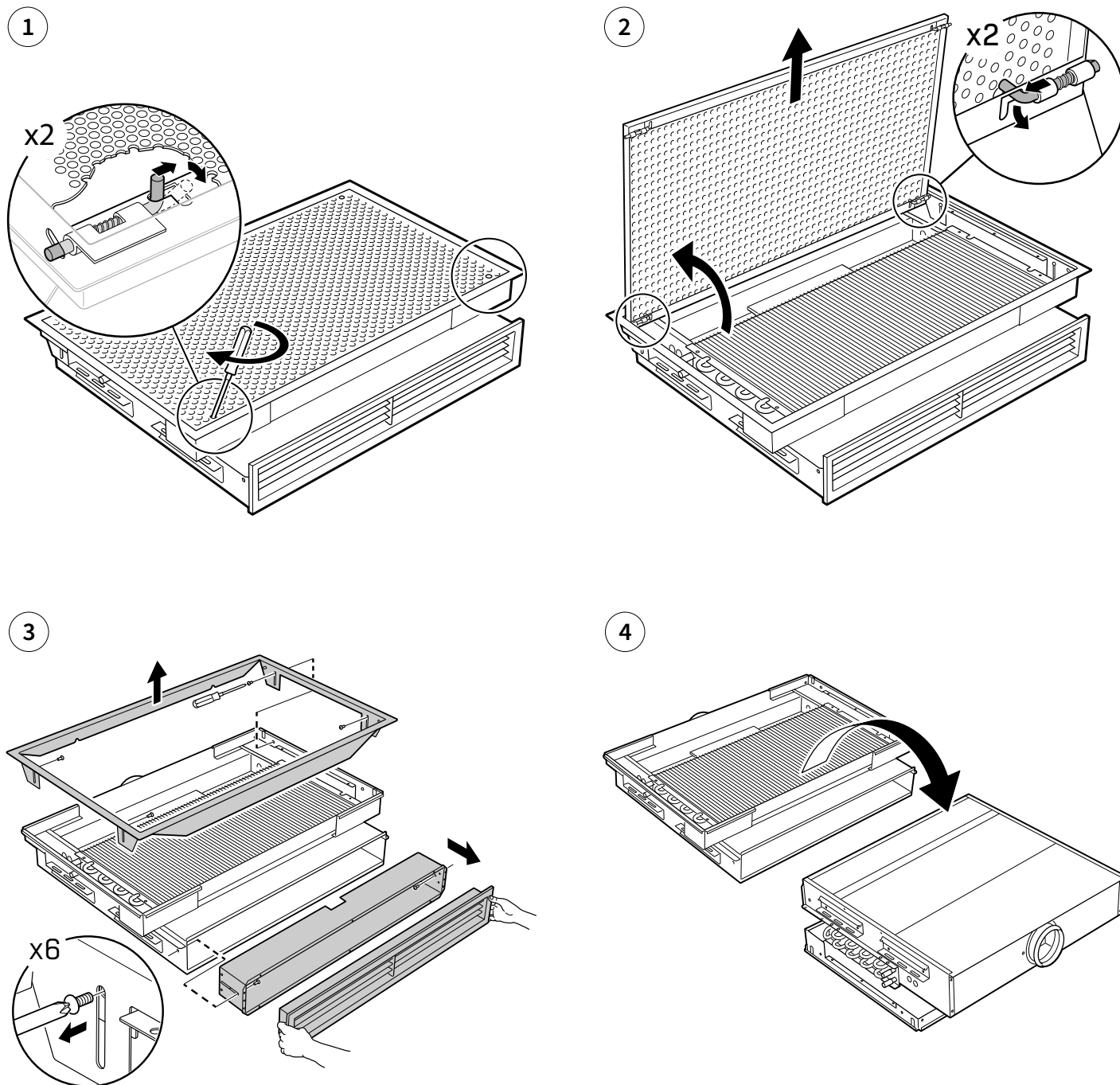
IQHA-aaa-b-cc-dd-1

aaa (cm) = 100,120,140,160

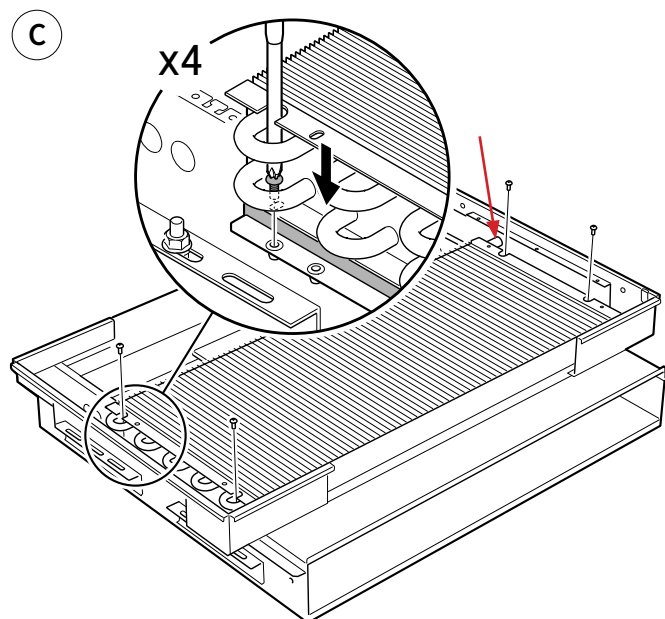
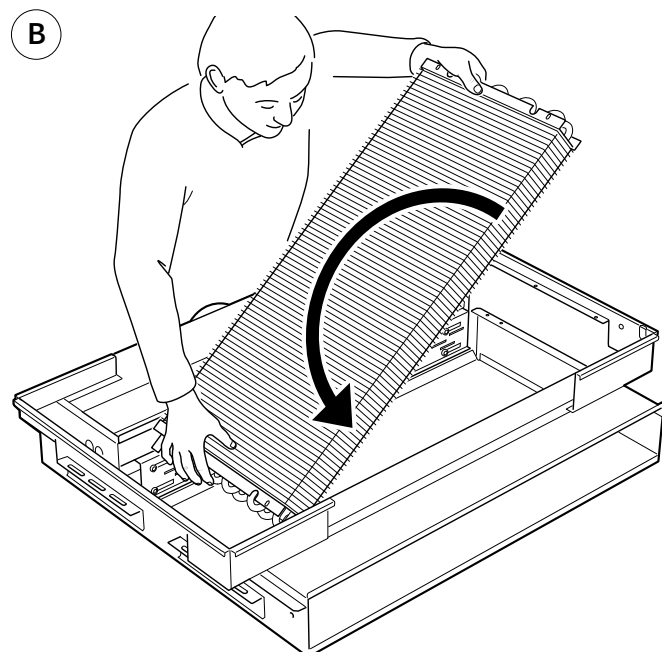
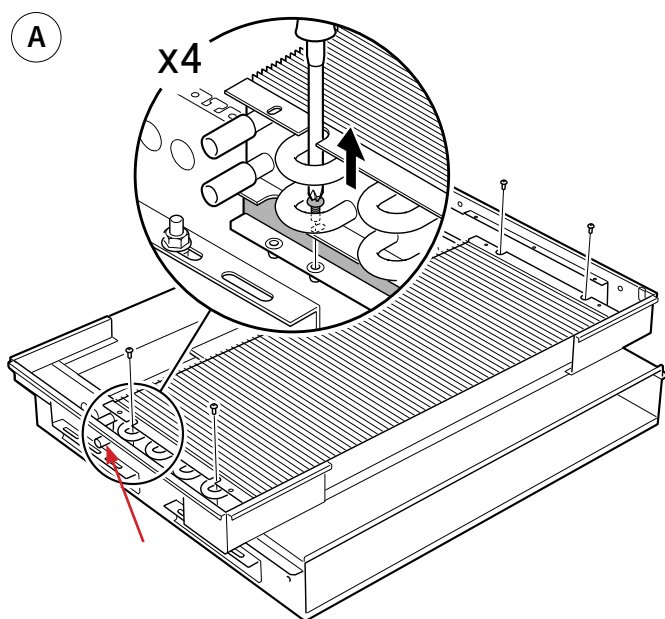


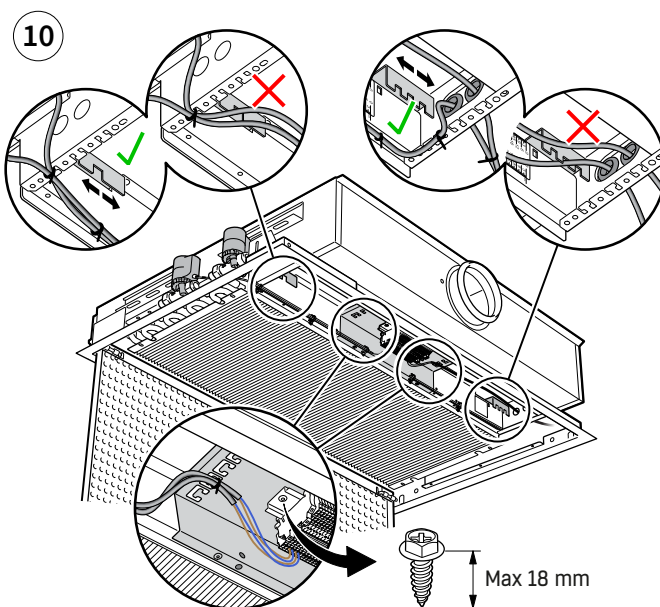
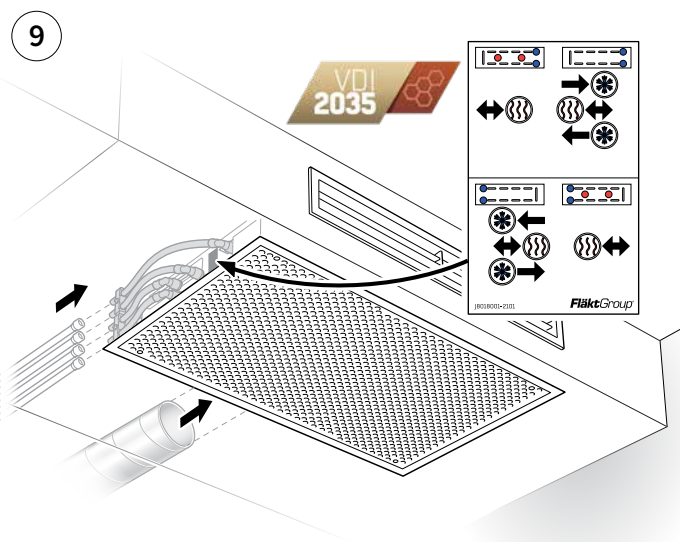
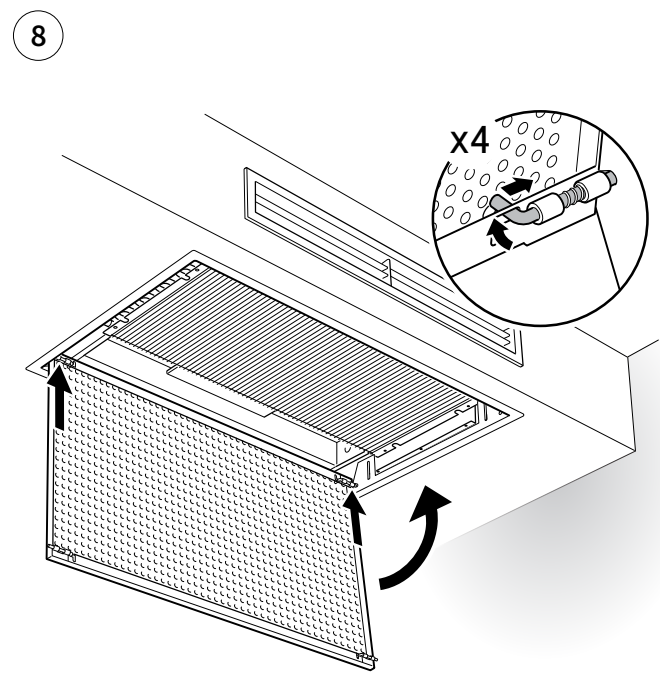
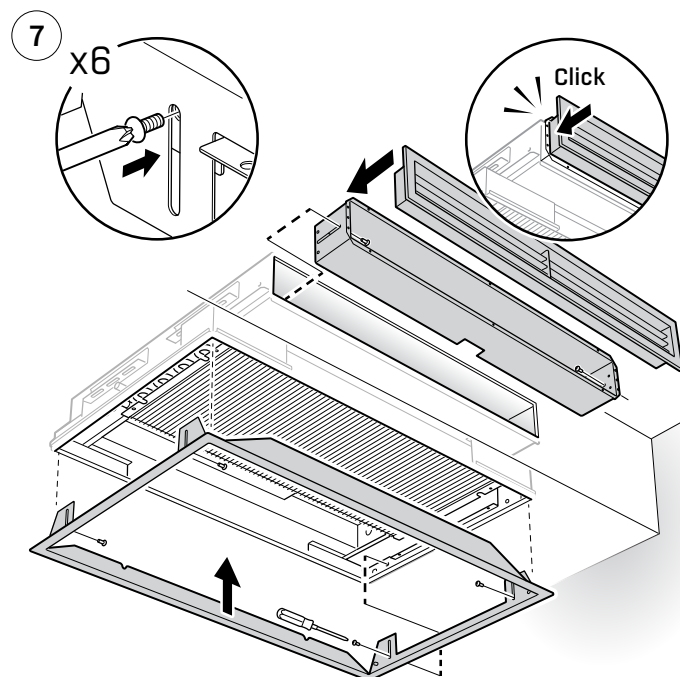
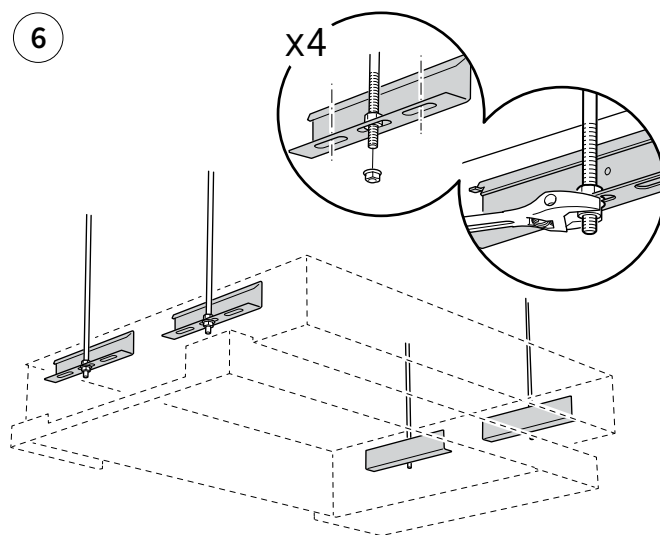
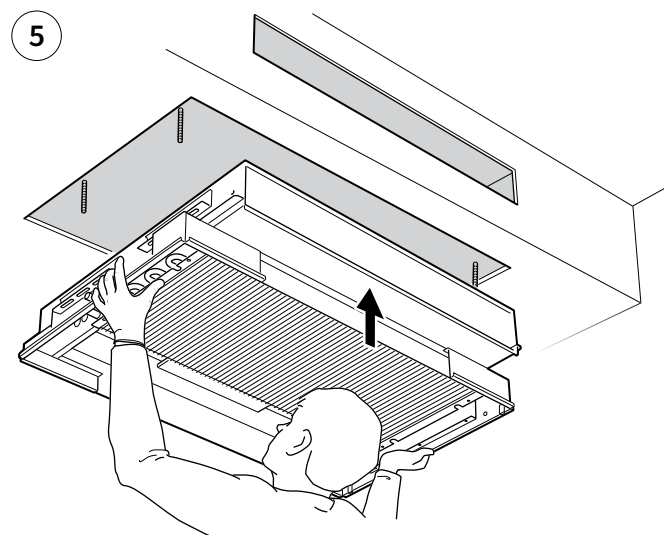
aaa (cm)	Ceiling	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
100	Plaster	810	980	580	838	190/310/430
120		1010	1080		1038	
140		1210	1280		1238	
160		1410	1480		1438	
100	T24/T15	810	1000	600	838	
120		1010	1200		1038	
140		1210	1400		1238	
160		1410	1600		1438	

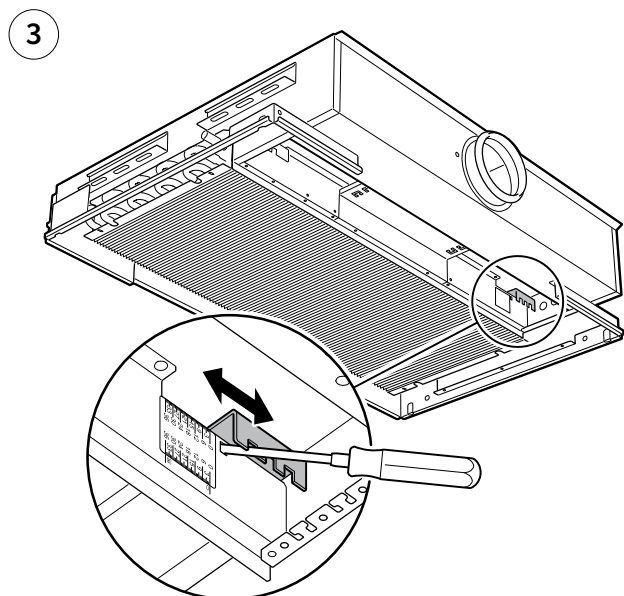
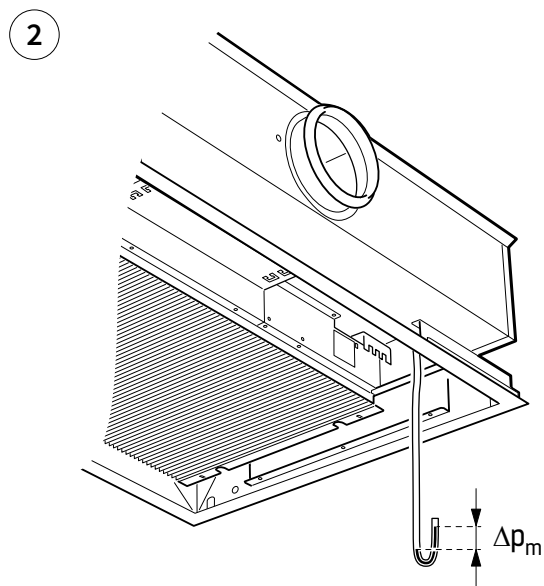
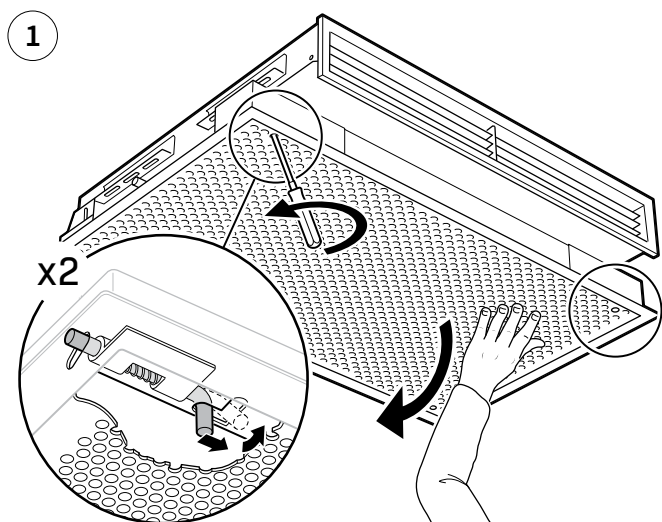




- GB IF NEEDED, THE COIL CAN BE TURNED OVER
 SE OM BEHOVET FINNS, VÄND PÅ BATTERIET
 FI KÄÄNNÄ PATERI TARVITTAESSA
 DK OM NØDVENDIGT VENDES FLADEN
 DE BEI BEDARF KANN DER WÄRMETAUSCHER UMGEDREHT WERDEN
 NL DRAAI INDIEN NODIG HET ELEMENT OM
 FR SI BESOIN, RETOURNER LA BATTERIE
 IT ALL'OCCORRENZA, CAPOVOLGERE LA BATTERIA
 PL W RAZIE POTRZEBY OBRÓĆ WĘŻOWNICĘ
 CZ V PŘÍPADĚ POTŘEBY VÝMĚNÍK OTOČTE
 LT JEI REIKIA, ŠILUMOKAITĮ GALIMA APVERSTI
 LV JA NEPIECIEŠAMS, APGRIEZIET SPOLI OTRĀDI

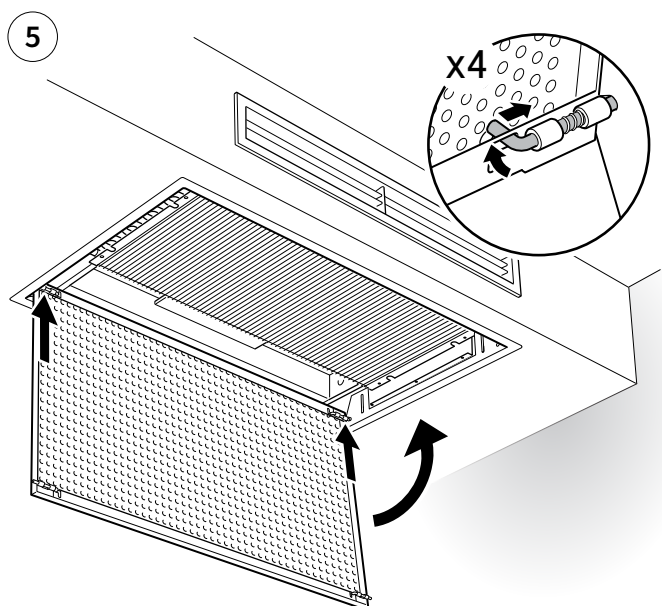






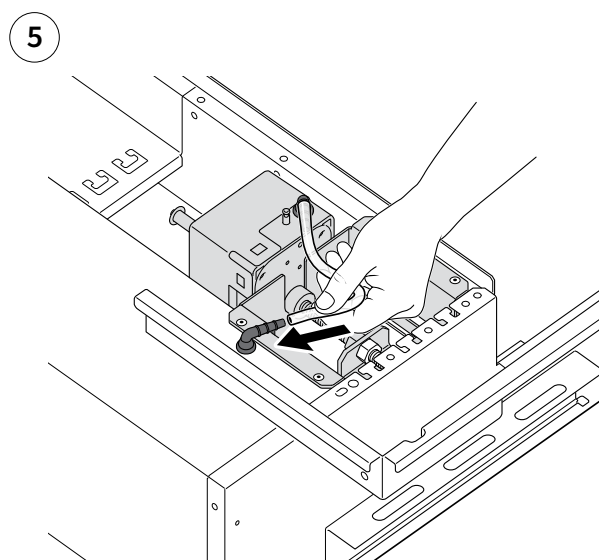
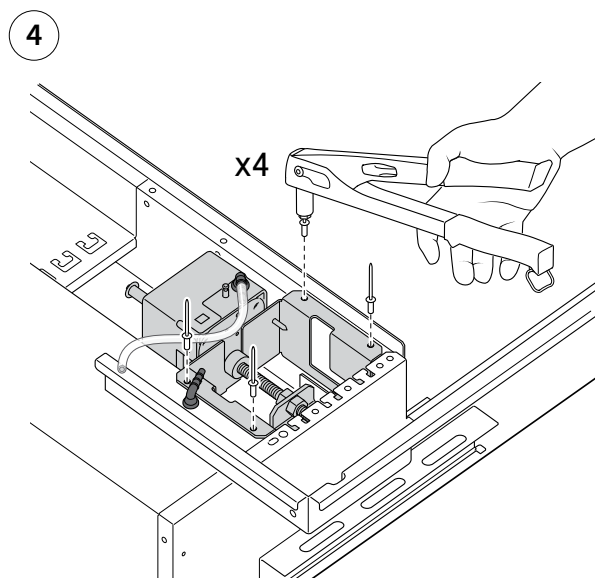
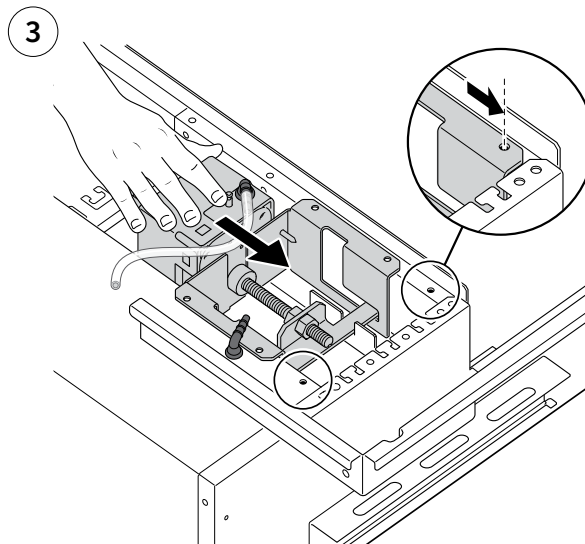
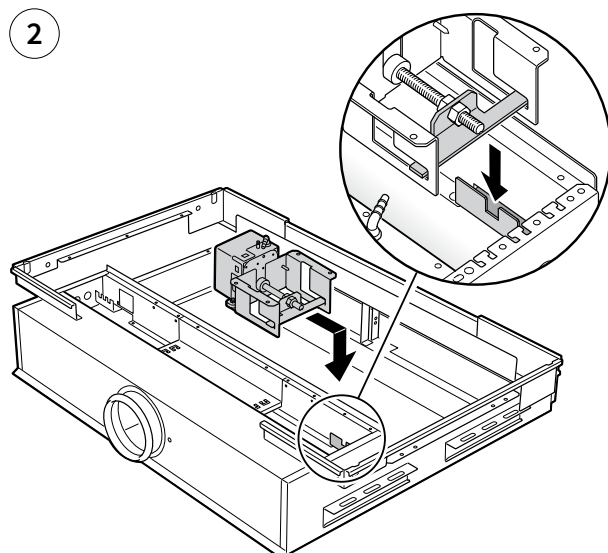
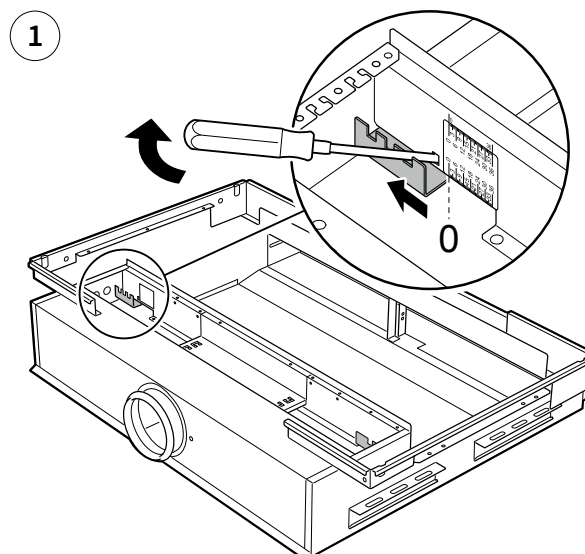
4

$q = k \sqrt{\Delta p_m}$	$q = 3.6k \sqrt{\Delta p_m}$
(l/s) (Pa)	(m³/h) (Pa)



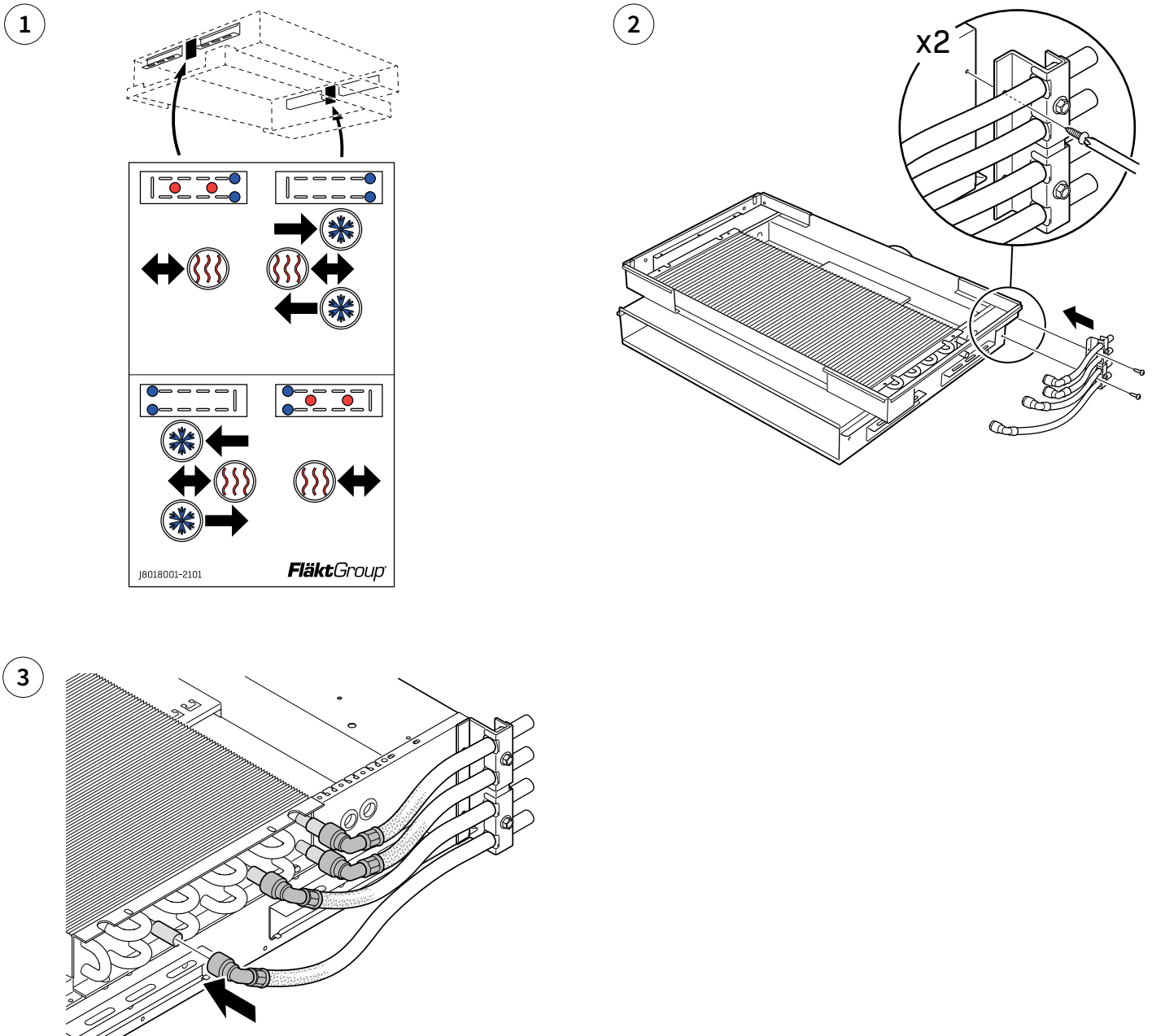
IQAZ-35-05

- GB RETROFITTING INTERNAL DAMPER MOTOR
- SE INSTALLATION I EFTERHAND AV INTERN SPJÄLLMOTOR
- FI SISÄISEN PELTIMOOTTORIN JÄLKIASENNUS
- DK EFTERFØLGENDE INSTALLATION AF INTERN SPJÆLDMOTOR
- DE NACHRÜSTUNG EINES INTERNEN KLAPPENMOTORS
- NL MONTAGE ACHTERAF VAN INTERNE KLEPMOTOR
- FR MONTAGE A POSTERIORI DU MOTEUR DE VOLET INTERNE
- IT INSTALLAZIONE SUCCESSIVA DEL MOTORINO INTERNO DELLA SERRANDA
- PL INSTALACJA SILNIKA PRZEPUSTNICY WEWNĘTRZNEJ
- CZ VÝMĚNA MOTORU VNITŘNÍHO REGULÁTORU
- LT VIDINĖS SKLENDĖS MOTORO ĮMONTAVIMAS
- LV IEKŠĒJĀ AMORTIZATORA MODERNIZĒŠANA

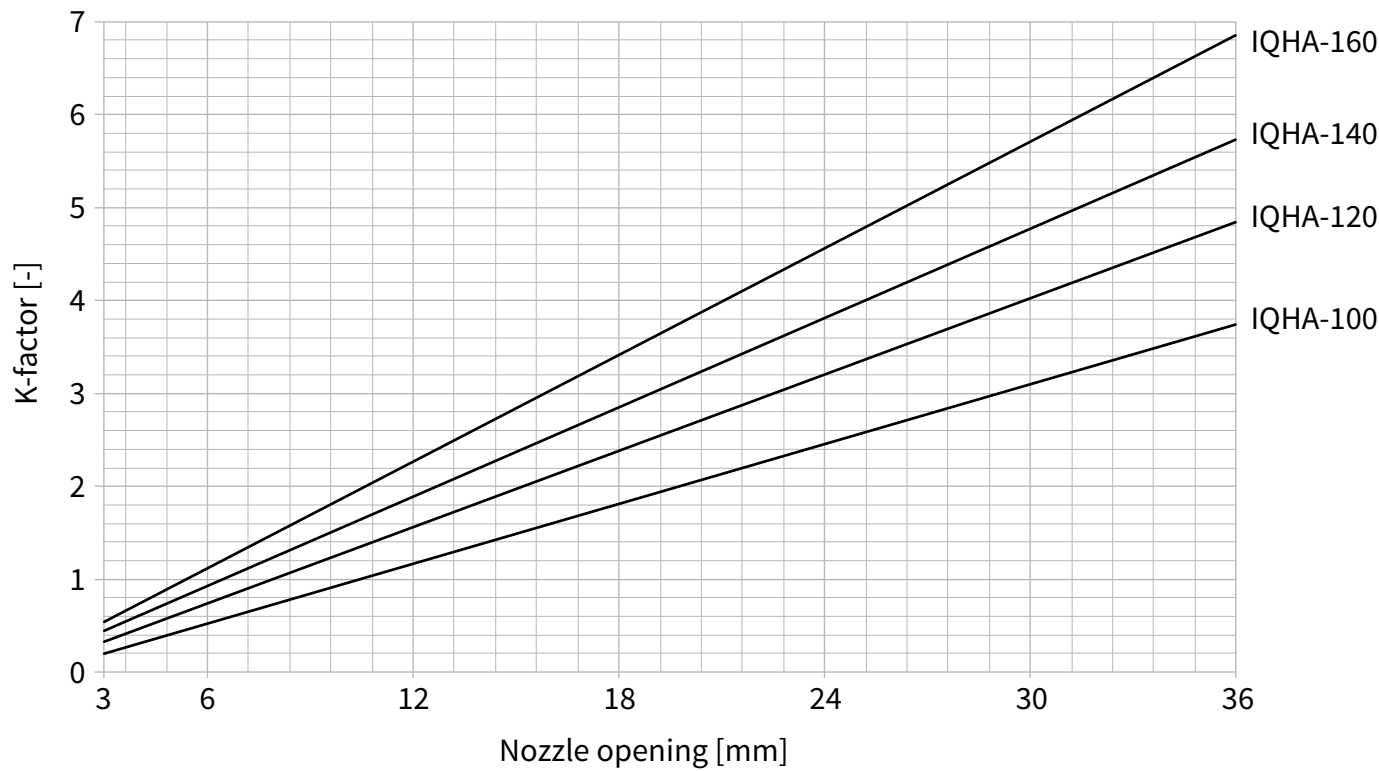


IQAZ-37-bb-2-1

- GB RETROFITTING FLEXIBLE HOSES
- SE INSTALLATION I EFTERHAND AV FLEXIBLA SLANGAR
- FI JOUSTAVIEN LETKUJEN JÄLKIASENNUS
- DK EFTERMONTERING AF FLEKSIBLE SLANGER
- DE NACHRÜSTUNG FLEXIBLER SCHLÄUCHE
- NL MONTAGE ACHTERAF VAN FLEXIBELE SLANGEN
- FR MONTAGE À POSTERIORI DES TUYAUX FLEXIBLES
- IT INSTALLAZIONE SUCCESSIVA DEI FLESSIBILI
- PL INSTALACJA WĘŻY ELASTYCZNYCH
- CZ DODATEČNÁ MONTÁŽ PRUŽNÝCH HADIC
- LT LANKŲ ĮŪNŲ MODERNIZAVIMAS
- LV ELASTĪGO ŠĻŪTENŲ MODERNIZĒŠANA

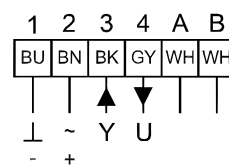


IQHA

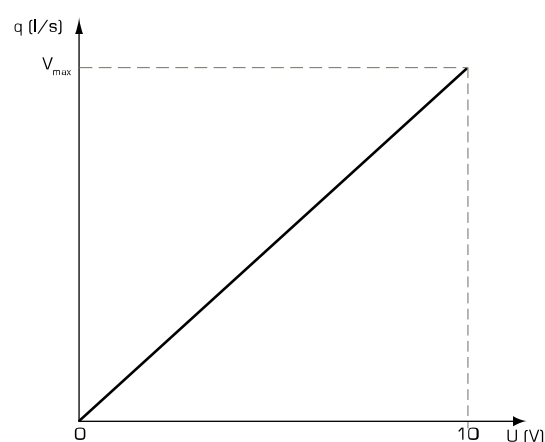
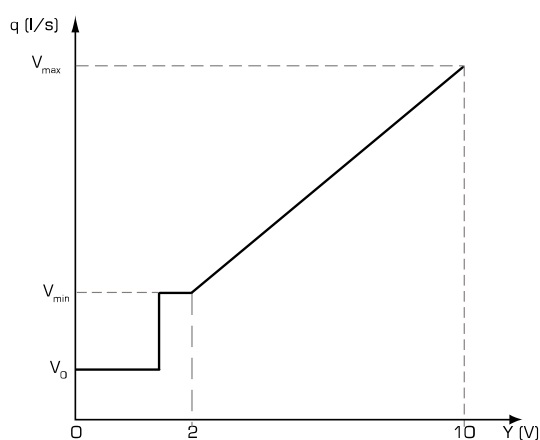


**309VM-024-150-MB-003****150 N****2,0 W (1,0 W) • 3,5 VA****12,5 mm/min • 36 mm****150 Pa • max.100 kPa**

XXXXXXX • XX • 15/11
 Serial nr. Software version YY/MM

Table 1: **Wiring**

1	2	3	4	a	b
24 VAC (L) 24 VDC (-)	24 VAC (N) 24 VDC (+)	0-10 V	0-10 V	Modbus	
Operating Voltage		Control signal (Y)	Feedback signal (U)		
blue (BU)	brown (BN)	black (BK)	grey (GY)		



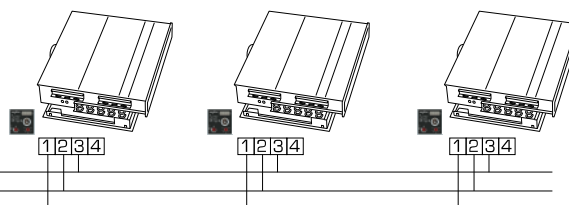
$$q_{act} = V_{min} + \frac{Y - 2}{8} \times (V_{max} - V_{min})$$

(l/s) (l/s)

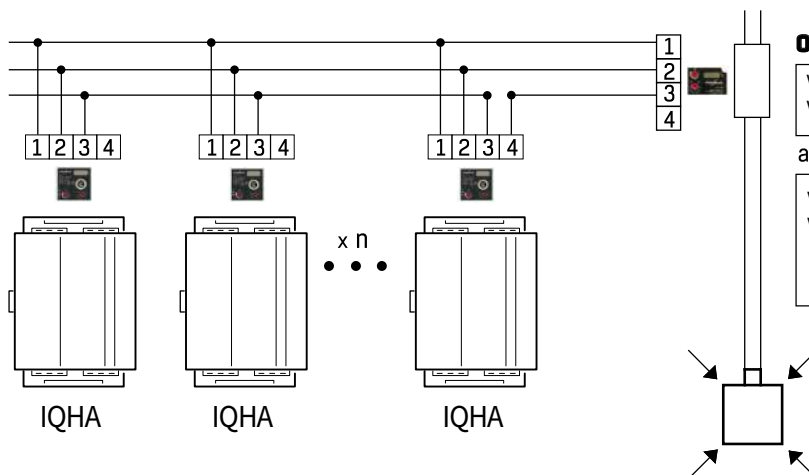
$$U = 0 - 10 \quad (0 \text{ V} = 0 \text{ l/s}, 10 \text{ V} = V_{max})$$

(VDC)

0...10 V
 24 VAC (-) / 24 VDC (+)
 24 VAC (L) / 24 VDC (-)



24 VAC (L) / 24 VDC (-)
 24 VAC (N) / 24 VDC (+)
 Y = 0 ... 10 V

**OPTIVENT VAV damper**

$$V_{min} = 0$$

$$V_{max} = V_{max}(IQHA) \times n$$

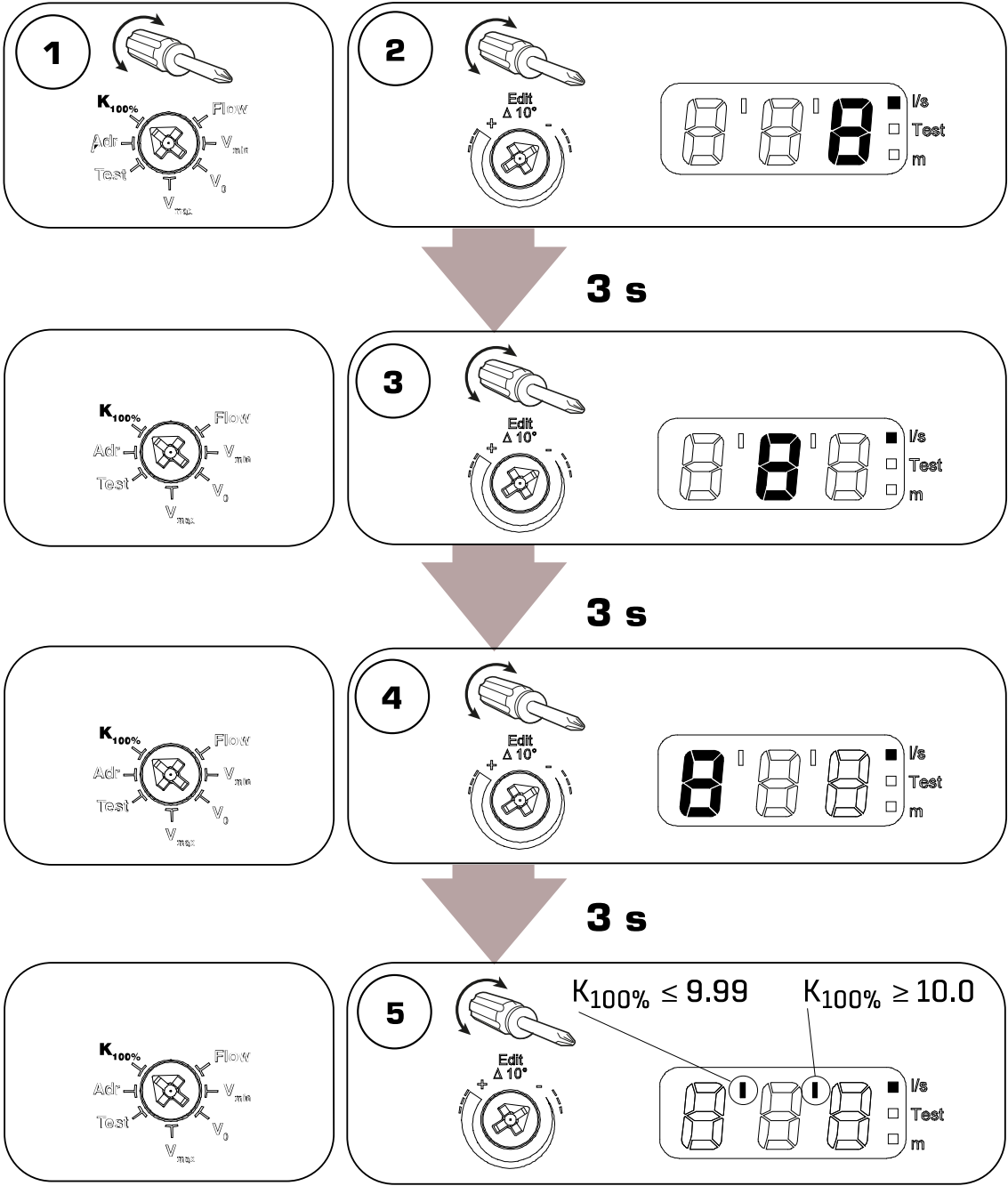
alt.

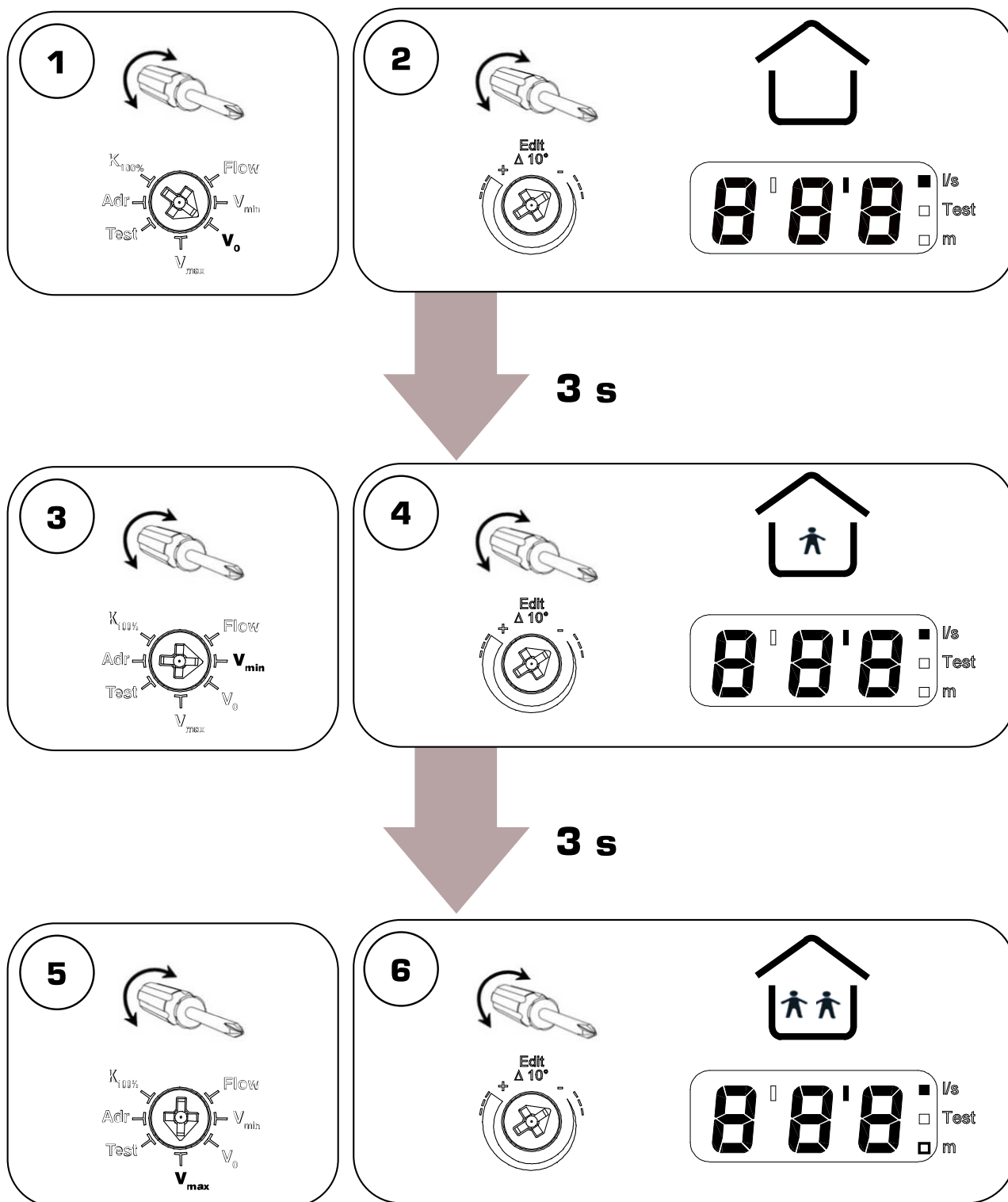
$$V_{min} = 0$$

$$V_{max} = V_{max}(IQHA_1) + V_{max}(IQHA_2) + \dots + V_{max}(IQHA_n)$$

K_{100%}

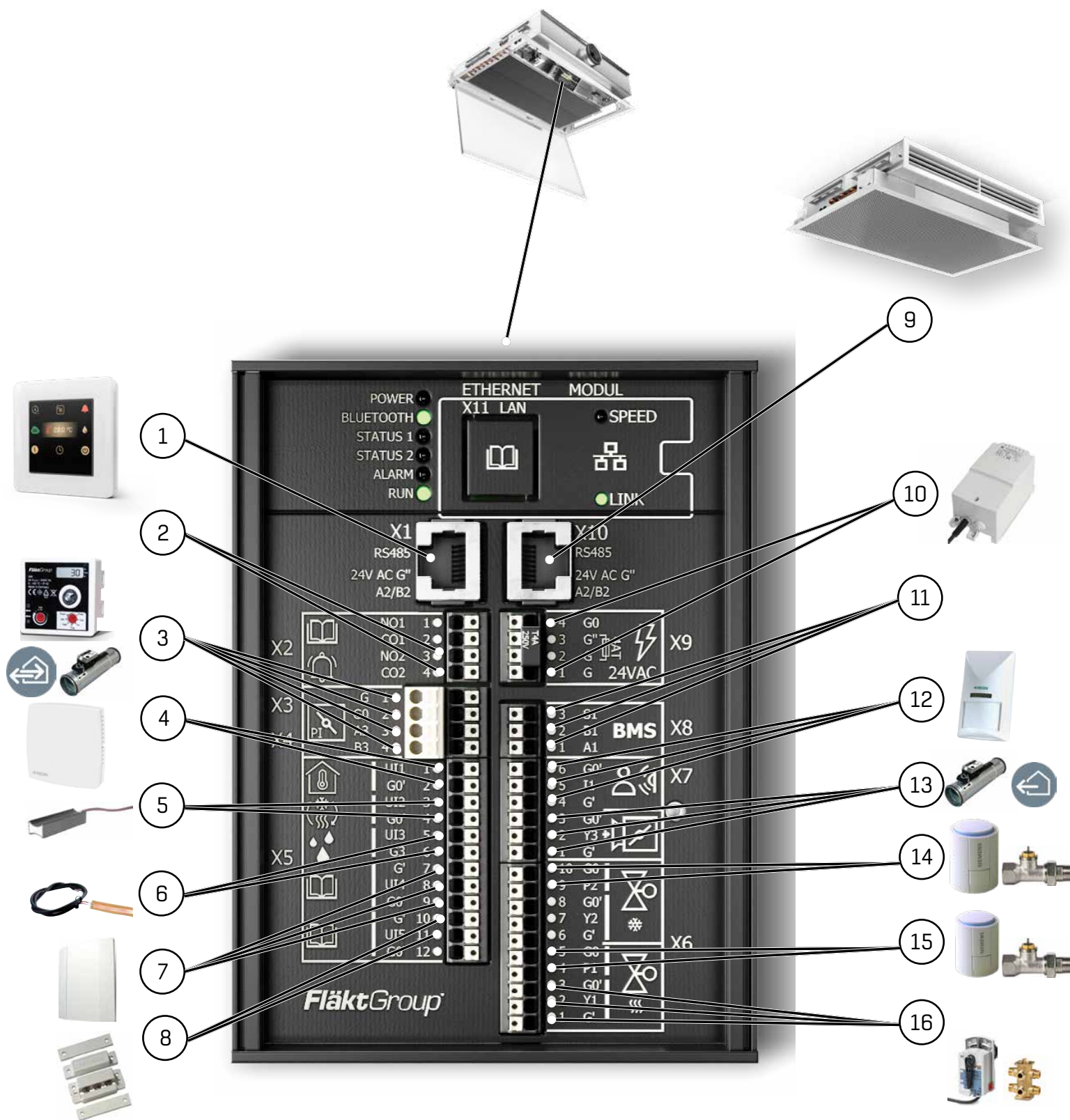
aaa (cm)	K100%
100	3.7
120	4.8
140	5.7
160	6.8



V_0 , V_{MAX} & V_{MIN} 

IQAZ 40

CLIENT CHILLED BEAM



	GB	SE	FI	DE	DK	NL	FR	IT	PL	CZ	LT
1	HMI via RJ45	HMI via RJ45	HMI via RJ45	HMI via RJ45	HMI via RJ45	HMI via RJ45	HMI via RJ45	HMI via RJ45	HMI via RJ45	HMI via RJ45	HMI via RJ45
2	Alarm contact	Alarmkontakt	Hälytysliitäntä	Alarmkontakt	Alarmkontakt	Alarmkontakt	Contact d'alarme	Contatto di allarme	Styk alarmowy	Alarmový kontakt	Alarmo kontaktas
3¹⁾	Pi actuator or VAV damper via Modbus RS-485-3	Pi-ställ-don eller VAV-spjäll via Modbus RS-485-3	Pi-toimilaitteen tai VAV-ilma-virtasäädin Modbus RS-485-3:n kautta	Pi-Stellant-rieb oder VAV-Klappe über Modbus RS-485-3	Pi-aktuator eller VAV-spjæld via Modbus RS-485-3	Pi-actuator of VAV-klep via Modbus RS-485-3	Actionneur Pi ou registre VAV via Modbus RS-485-3	Attuatore Pi o serranda VAV tramite Modbus RS-485-3	Siłownik Pi lub przepustnica VAV poprzez Modbus RS-485-3	Pi pohon nebo VAV klapka přes Modbus RS-485-3	Pi pavara arba VAV sklendė per Modbus RS-485-3
4	Room temperature sensor	Rumstemperaturgivare	Huonelämpötila-anturi	Raumtemperaturfühler	Rumtemperatursensor	Kamertemperatuursensor	Sonde de température ambiante	Sensore di temperatura ambiente	Czujnik temperatury pomieszczenia	Snímač pokojové teploty	Kambario temperatūros jutiklis
5	Clamp-on temperature sensor	Fastklämbar givare	Pinta-anturi	Klemmfühler	Klemmesensor	Klemtemperatuursensor	Sonde de fixation	Sensore con morsetto attivo	Czujnik zaciskowy	Příložný snímač teploty	Kontaktinis temperatūros jutiklis
6	Condensate sensor	Kondensgivare	Kosteusan-turi	Kondensationsfühler	Kondenssensor	Kondensatiesensor	Sonde de condensation	Rilevatore di condensa	Czujnik skraplania	Snímač kondenzace	Kondensato jutiklis
7	CO2 sensor	CO2-givare	CO2-anturi	CO2-Fühler	CO2-sensor	CO2 sensor	Sonde CO2	Sensore di CO2	Czujnik CO2	Snímač CO2	CO2 jutiklis
8	Window contact	Fönsterkontakt	Ikkunakosketin	Fensterkontakt	Vindueskontakt	Raamcontact	Contact de fenêtre	Contatto finestra	Styk okienny	Kontaktron	Langų kontaktas
9	To server chilled beam via RJ45	Till server kylbaffel via RJ45	To server jäähdytys-palkki via RJ45	Nach Server Kühlbalken über RJ45	Til server kølebaffel via RJ45	Naar de server koelbalk via RJ45	Pour server poutre climatique RJ45	Al server travi fredde tramite RJ45	Do serwerowej belki chłodzącej poprzez RJ45	K server chladicí trám přes RJ45	Prie server Šalčio sija per RJ45
10	Transformer 24 VAC	Transformator 24 VAC	Muuntaja 24 VAC	Transformator 24 VAC	Transformer 24 VAC	Transformator 24 VAC	Transformateur 24 VAC	Trasformatore 24 VAC	Transformator 24 VAC	Transformátor 24 VAC	Transformatorius 24 VAC
11	Building management system (BMS) via Modbus RS-485-1	Byggnads Hanteringssystem (BMS) via Modbus RS-485-1	Rakennuksen hallintajärjestelmä (BMS) Modbus RS-485-1:n kautta	Gebäude-managementsystem (BMS) über Modbus RS-485-1	Byggnings Styringssystem (BMS) via Modbus RS-485-1	Gebouwbeheersysteem (BMS) via Modbus RS-485-1	Système de gestion technique du bâtiment (BMS) via Modbus RS-485-1	Sistema di gestione dell'edificio (BMS) tramite Modbus RS-485-1	System zarządzania budynkiem (BMS) poprzez Modbus RS-485-1	Systém správy budov (BMS) přes Modbus RS-485-1	Pastato valdymo sistema (BMS) per Modbus RS-485-1
12	Occupancy (PIR) sensor	Närvarogivare (PIR)	Läsnäoloanturi (PIR)	Anwesenheitssensor (PIR)	Bevægelsessensor (PIR)	Aanwezigheidsensor (PIR)	Détecteur de présence (PIR)	Rilevatore di presenza (PIR)	Czujnik obecności (PIR)	Snímač přítomnosti (PIR)	Užimtumo (PIR) jutiklis
13	Extract VAV damper (0-10V)	VAV-spjäll för frånluft (0-10 V)	Poisto il-mamäärsäädin (0-10 V)	VAV-Abluft-klappe (0-10 V)	Udsugning VAV-spjæld (0-10 V)	Extract VAV-klep (0-10 V)	Registre VAV d'extraction (0-10 V)	Serranda VAV di estrazione (0-10 V)	Przepustnica VAV wyciągowa (0-10 V)	Odtahova klapka VAV (0-10 V)	šalinimo VAV sklendė (0-10 V)
14	Cooling valve	Kylventil	Jäähdytysventtiili	Kühlventil	Køleventil	Koelventiel	Vanne de refroidissement	Valvola di raffreddamento	Zawór chłodzący	Chladicí ventil	Aušinimo vožtuvas
15	Heating valve	Värmeventil	Lämmitysventtiili	Heizventil	Varmeventil	Verwarmingsventiel	Vanne de chauffage	Valvola di riscaldamento	Zawór grzewczy	Topný ventil	Šildymo vožtuvas
16	6-way valve	6-vägsventil	6-tieventtiili	6-Wegeventil	6-vejs ventil	6-wegklep	Vanne 6 voies	Valvola 6 vie	Zawór 6-drogowy	6-cestný ventil	6-krypcių vožtuvas

GB ¹⁾ Supply (boost) or extract (balance) VAV damper

DE ¹⁾ Zuluft- (Boost) oder Abluft- (Balanciert) VAV-Klappe

FI ¹⁾ Tulo (tehostus) tai poisto (tasapainotus) VAV-pellti

SE ¹⁾ Tilluft Boost eller frånluft Balans VAV-spjäll

ISYteq 3060 (X5)	④ Room temperature sensor STRZ-05-7
UI1	N/A
G0'	N/A

ISYteq 3060 (X5)	⑥ Condensate sensor STRZ-16-1-00
UI3	Black
G3	Red

ISYteq 3060 (X5)	⑤ Clamp-on temperature sensor STRZ-05-8 (change-over)
UI2	N/A
G0'	N/A

ISYteq 3060 (X5)	⑧ Window contact STRZ-38-1
G'	N/A
UI5	N/A

ISYteq 3060 (X7)	⑬ EMS(S,D) VAV damper (327VMZ-MB)	⑬ UL(S,D)A VAV damper (327VMZ-MB)
G'	2 (red)	2 (red)
Y3	Y (white)	Y (white)
G0'	1 (black)	1 (black)

ISYteq 3060 (X6)	⑭ Cooling valve STRZ-70-01/11/21-01
G0 (10)	Blue
P2	Brown

ISYteq 3060 (X6)	⑮ Heating valve STRZ-70-01/11/21-01
G0 (5)	Blue
P1	Brown

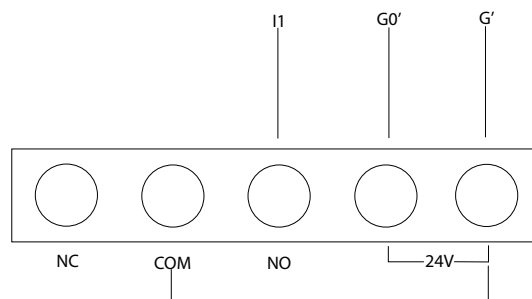
ISYteq 3060 (X7)	⑫ Occupancy (PIR) sensor STRZ-09-1 (* = See attached picture)
G0'	0V
I1	NO
G'	24V*

ISYteq 3060 (X7)	⑫ Occupancy (PIR) sensor STRZ-09-2 (* = See attached picture)
G0'	0V
I1	NO
G'	24V*

ISYteq 3060 (X3/X4)	③ EMS(S,D) VAV damper (327VMZ-MB)	③ UL(S,D)A VAV damper (327VMZ-MB)
G	2 (red)	2 (red)
G0	1 (black)	1 (black)
A3	CB (grey)	CB (grey)
B3	CA (pink)	CA (pink)

ISYteq 3060 (X9)	⑩ Transformer STRZ-24-2
G0	G0
G (1)	G

Extra explanation drawing for STRZ-09 (PIR)



ISYteq 3060 (X5)	⑦ CO2 sensor STRZ-18-3-1
G'	UB+
UI4	AOU1
G0'	GND

ISYteq 3060 (X5)	⑦ CO2 sensor STRZ-18-1-2
G'	V+
UI4	CO2
G0'	GND

GB Note: The temperature sensor will not function.

FI Huomautus: Lämpötila-anturi ei toimi.

DE Hinweis: Der Temperatursensor funktioniert nicht.

SE Obs: Temperaturgivaren fungerar inte.

ISYteq 3060 (X5)	⑦ CO2 sensor STRZ-18-1-1
G'	G
UI4	0-10V (CO2)
G0'	G0

GB Note: The temperature sensor will not function.

FI Huomautus: Lämpötila-anturi ei toimi.

DE Hinweis: Der Temperatursensor funktioniert nicht.

SE Obs: Temperaturgivaren fungerar inte.

ISYteq 3060 (X3/X4)	③ Pi Actuator (IQAZ-35)
G	2 (brown)
G0	1 (blue)
A3	B (white)
B3	A (white)

GB Note: Use copper twisted conductors exclusively when connecting to the ISYteq 3060 room controller.

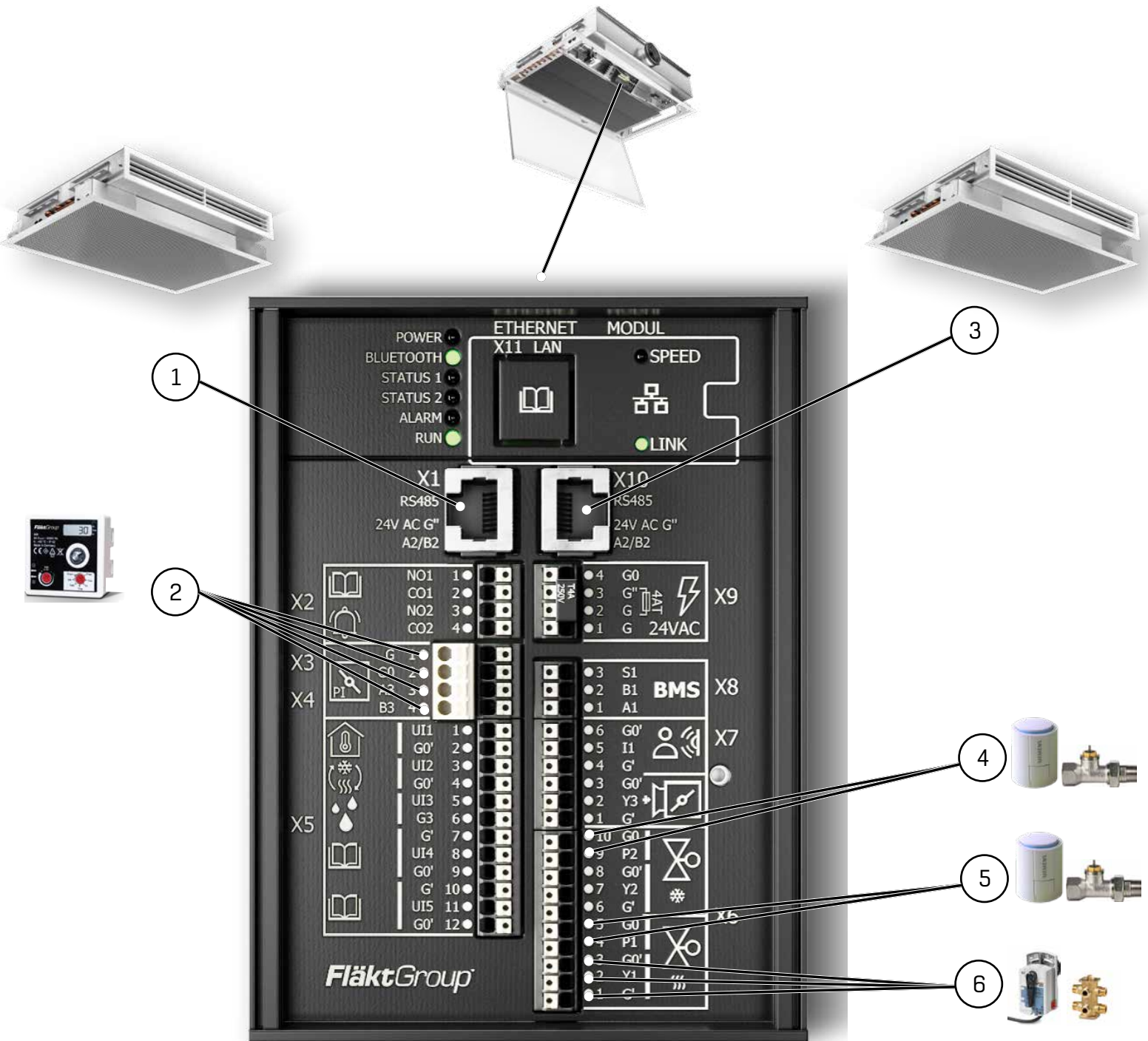
FI Huomautus: Käytä ISYteq 3060 -huoneen ohjainta liitettäessä yksinomaan kuparisia kierrettyjä johtimia.

DE Hinweis: Verwenden Sie ausschließlich verdrehtes isoliertes Kupferkabel, wenn Sie eine Verbindung zum Raumcontroller ISYteq 3060 herstellen.

SE Obs: Använd endast tvinnade kopparledare vid anslutning till ISYteq 3060-rumskontrollenheten.

IQAZ 40

SERVER CHILLED BEAM



	GB	SE	FI	DE	DK	NL	FR	IT	PL	CZ	LT
1	From server or client chilled beam via RJ45	Från server eller klient kylbaffel via RJ45	From server or client jäähdytys-palkki via RJ45	Vom Server oder Client über RJ45	Fra server eller klient kølebaffel via RJ45	Van server of client koelbalk via RJ45	Depuis le serveur ou le client, poutre climatique via RJ45	Da trave fredda server o client tramite RJ45	Z serwera lub klienta belki chłodzącej poprzez RJ45	Ze serveru nebo klient-ské chladicí trám přes RJ45	Iš serverio arba kliento šalčio sija per RJ45
2	Pi actuator via Modbus RS-485-3	Pi-ställdon via Modbus RS-485-3	Pi-toimilait-teen Mod-bus RS-485-3:n kautta	Pi-Stellant-rieb über Modbus RS-485-3	Pi-aktuator via Modbus RS-485-3	Pi-actuator via Modbus RS-485-3	Action-neur Pi via Modbus RS-485-3	Attuatore Pi tramite Modbus RS-485-3	Siłownik Pi poprzez Modbus RS-485-3	Pi pohon přes Modbus RS-485-3	Pi pavana per Modbus RS-485-3
3	To server chilled beam via RJ45	Till server kylbaffel via RJ45	To server jäähdytys-palkki via RJ45	Nach Server Kühlbalken über RJ45	Til server kølebaffel via RJ45	Naar de server koelbalk via RJ45	Pour server poutre climatique RJ45	Al server travi fredde tramite RJ45	Do serwe-rowej belki chłodzącej poprzez RJ45	K server chladicí trám přes RJ45	Prie server Šalčio sija per RJ45
4	Cooling valve	Kylventil	Jäähdytysventtiili	Kühlventil	Køleventil	Koelventiel	Vanne de refroidissement	Valvola di raffreddamento	Zawór chłodzący	Chladicí ventil	Aušinimo vožtuvas
5	Heating valve	Värmeventil	Läm-mitysventtiili	Heiz-ventil	Varmeventil	Verwarm-ingsventiel	Vanne de chauffage	Valvola di riscaldamento	Zawór grze-wczy	Topný ventil	Šildymo vožtuvas
6	6-way valve	6-vägsventil	6-tieventtiili	6-Wege-ventil	6-vejs ventil	6-wegklep	Vanne 6 voies	Valvola 6 vie	Zawór 6-drogowy	6-cestný ventil	6-krypčių vožtuvas

ISYteq 3060 (X4)	② Pi Actuator (IQAZ-35)
G	2 (brown)
G0	1 (blue)
A3	B (white)
B3	A (white)

ISYteq 3060 (X6)	⑥ 6-way valve STRZ-70-81-41
G0' (3)	G0 (black)
Y1	Y (grey)
G' (1)	G (red)

ISYteq 3060 (X6)	④ Cooling valve STRZ-70-01/11/21-01
G0 (10)	Blue
P2	Brown

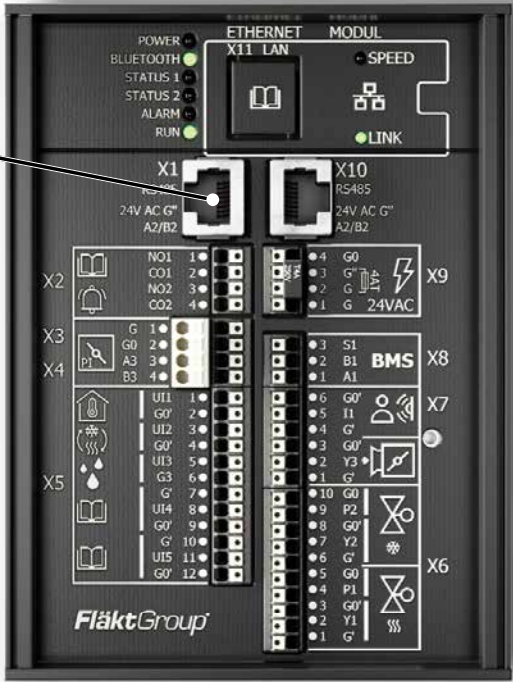
ISYteq 3060 (X6)	⑤ Heating valve STRZ-70-01/11/21-01
G0 (5)	Blue
P1	Brown

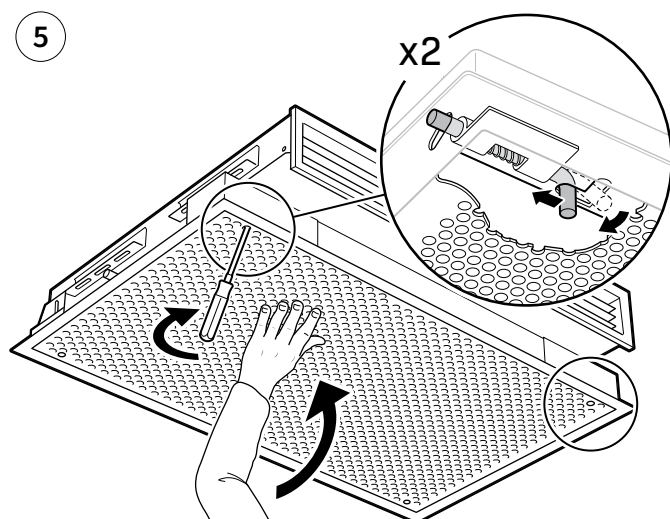
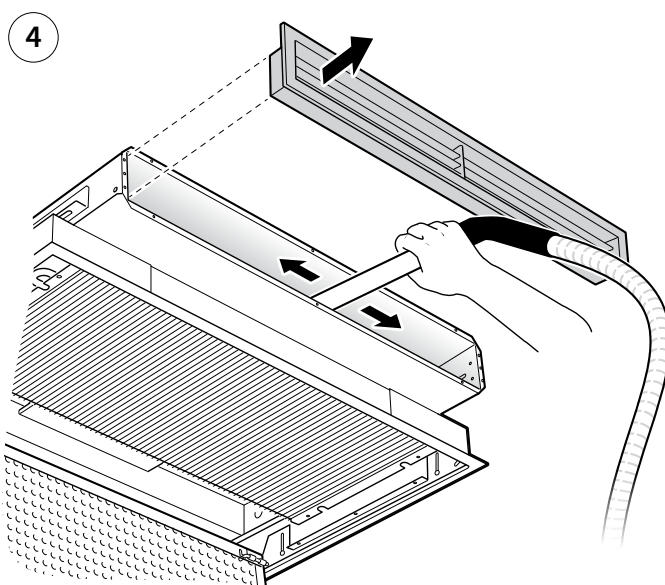
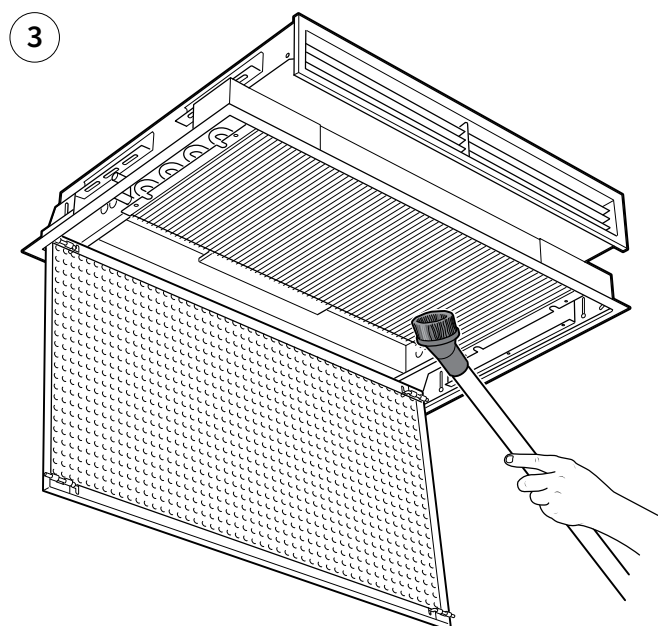
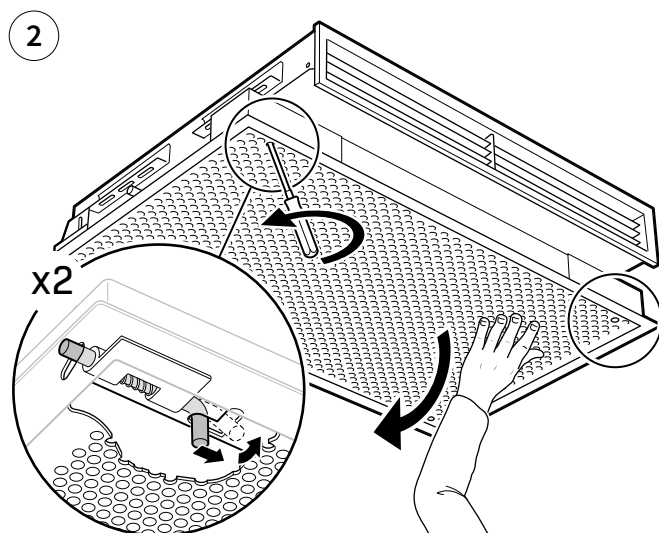
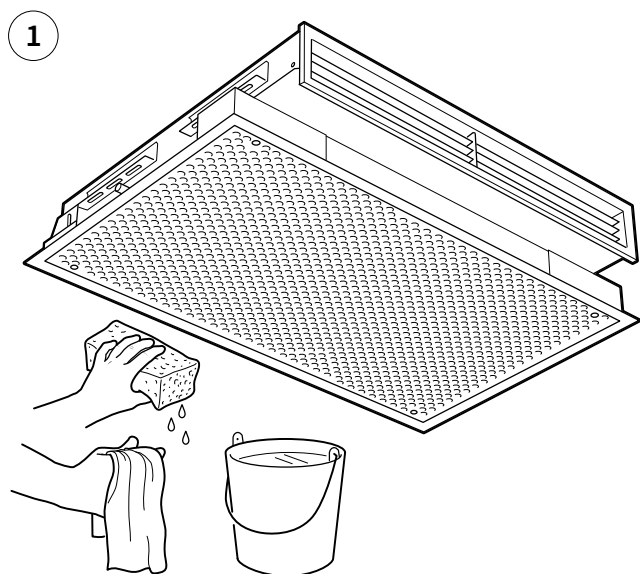
IQAZ 40

ISYTEQ TOUCH 2.1



Refer- ence	Color TIA 568 B Patch	Remark
VDD	Blue-White	24VAC/VDC ±10% 1,2W
A+	Orange-White	Modbus RTU RX+/TX+
B-	Orange	Modbus RTU RX-/TX-
GND	Blue	GND for power supply
NC	Green-White	Must be insulated
NC	Green	Must be insulated
NC	Brown-White	Must be insulated
NC	Brown	Must be insulated



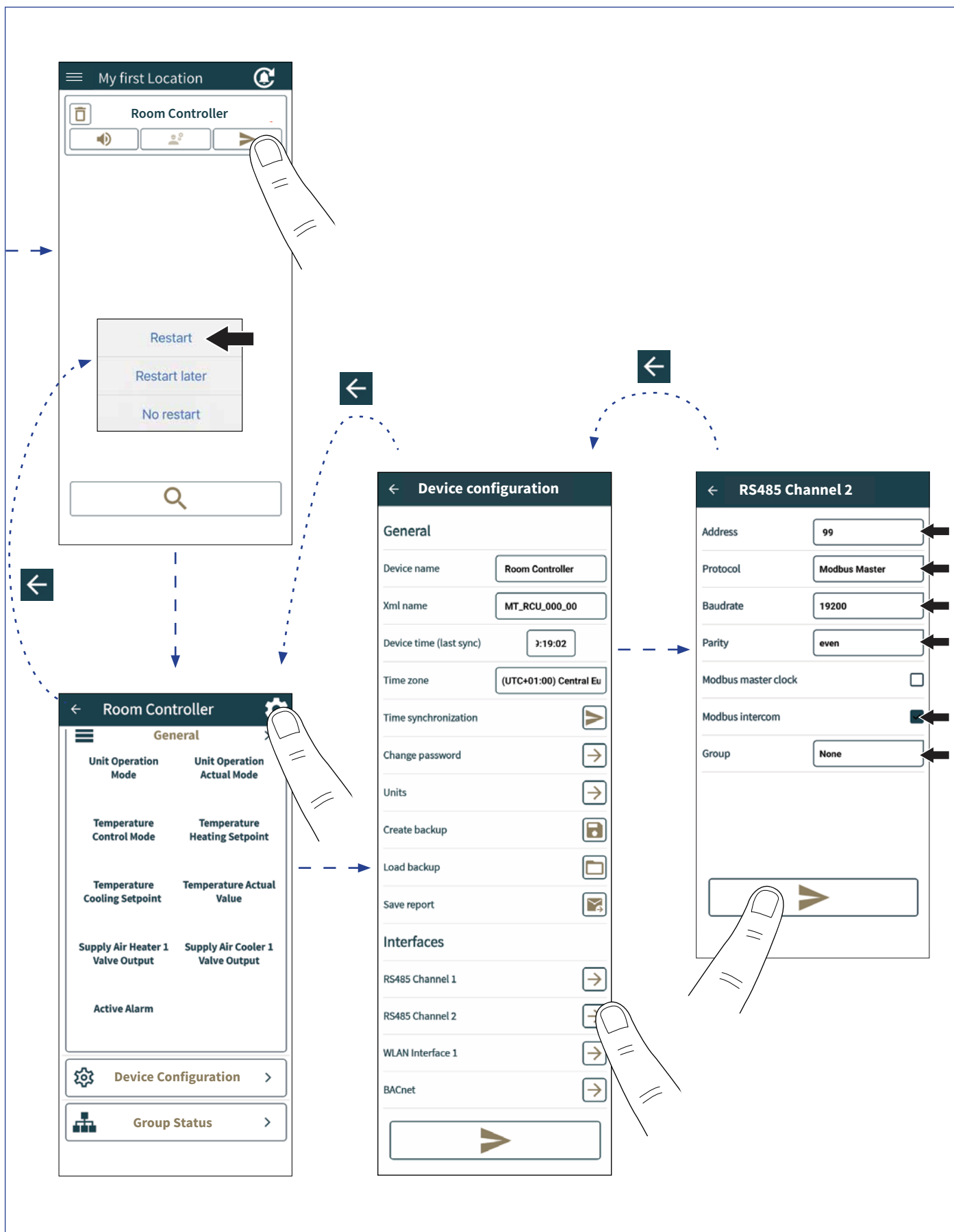


Guide 1

ISYteqGO Smartphone app for Chilled beams

QUICK GUIDE FOR COMMISSIONING A SINGLE CHILLED BEAM VIA APP



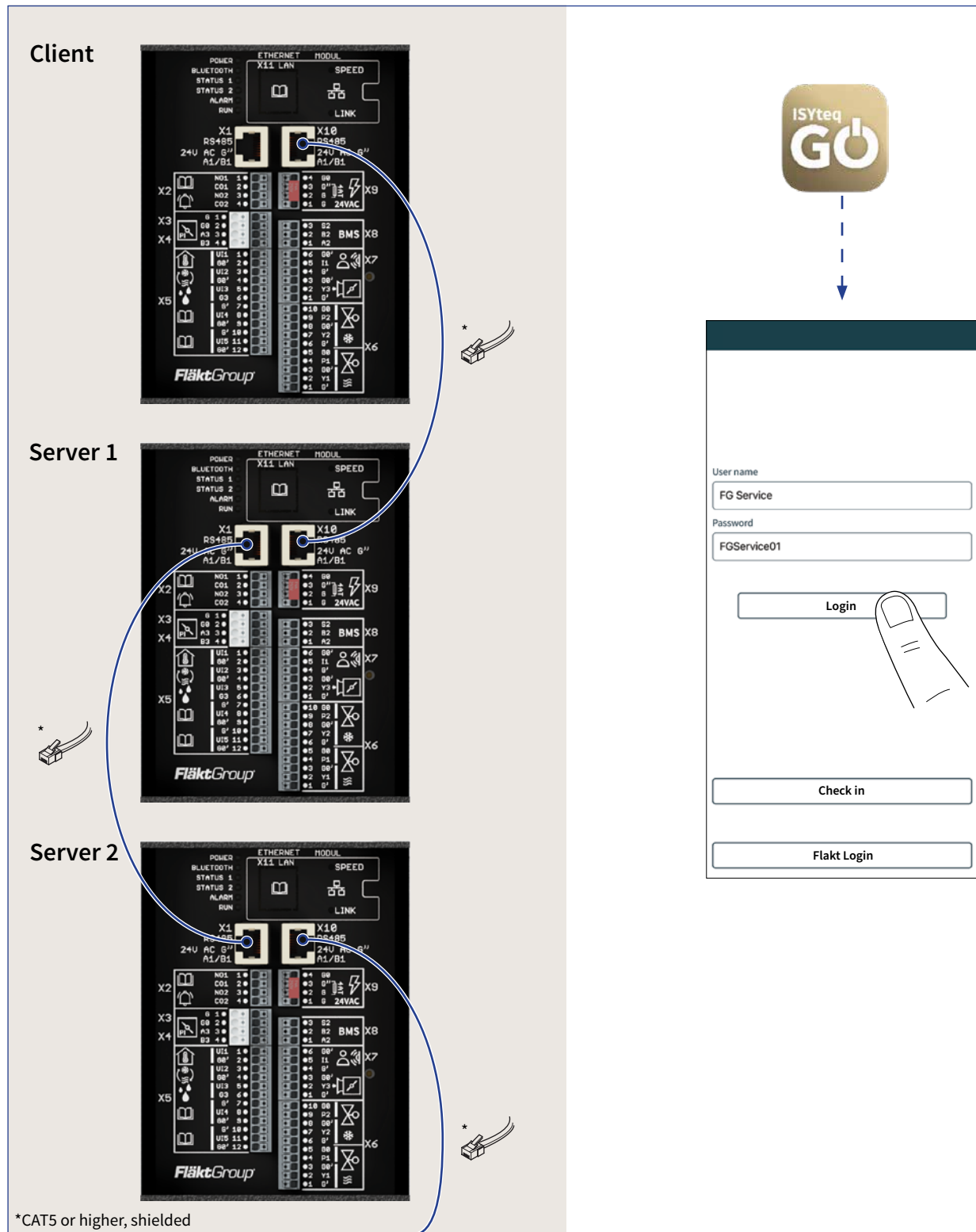




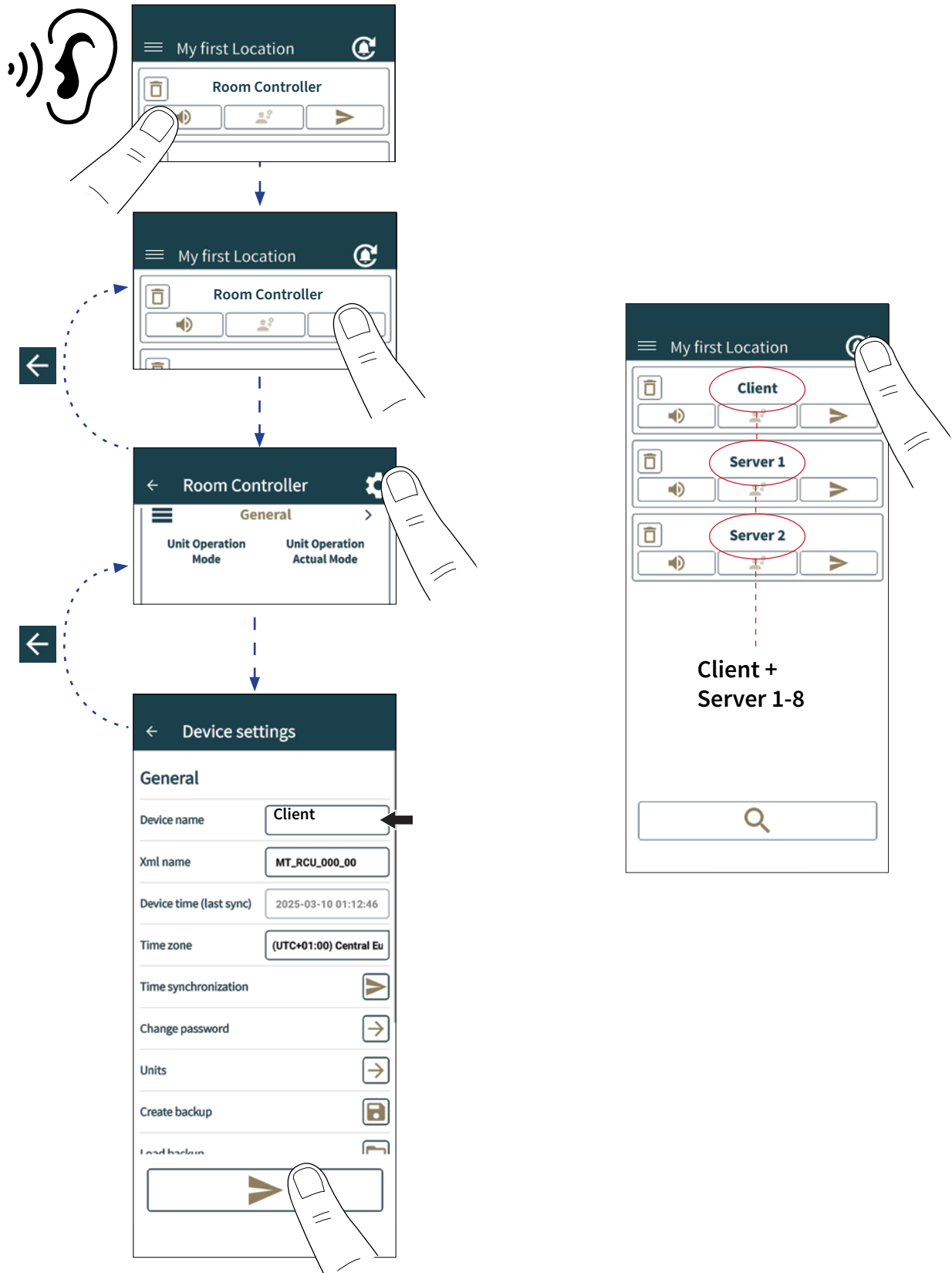
Appendix 2

ISYteqGO Smartphone app for Chilled beams

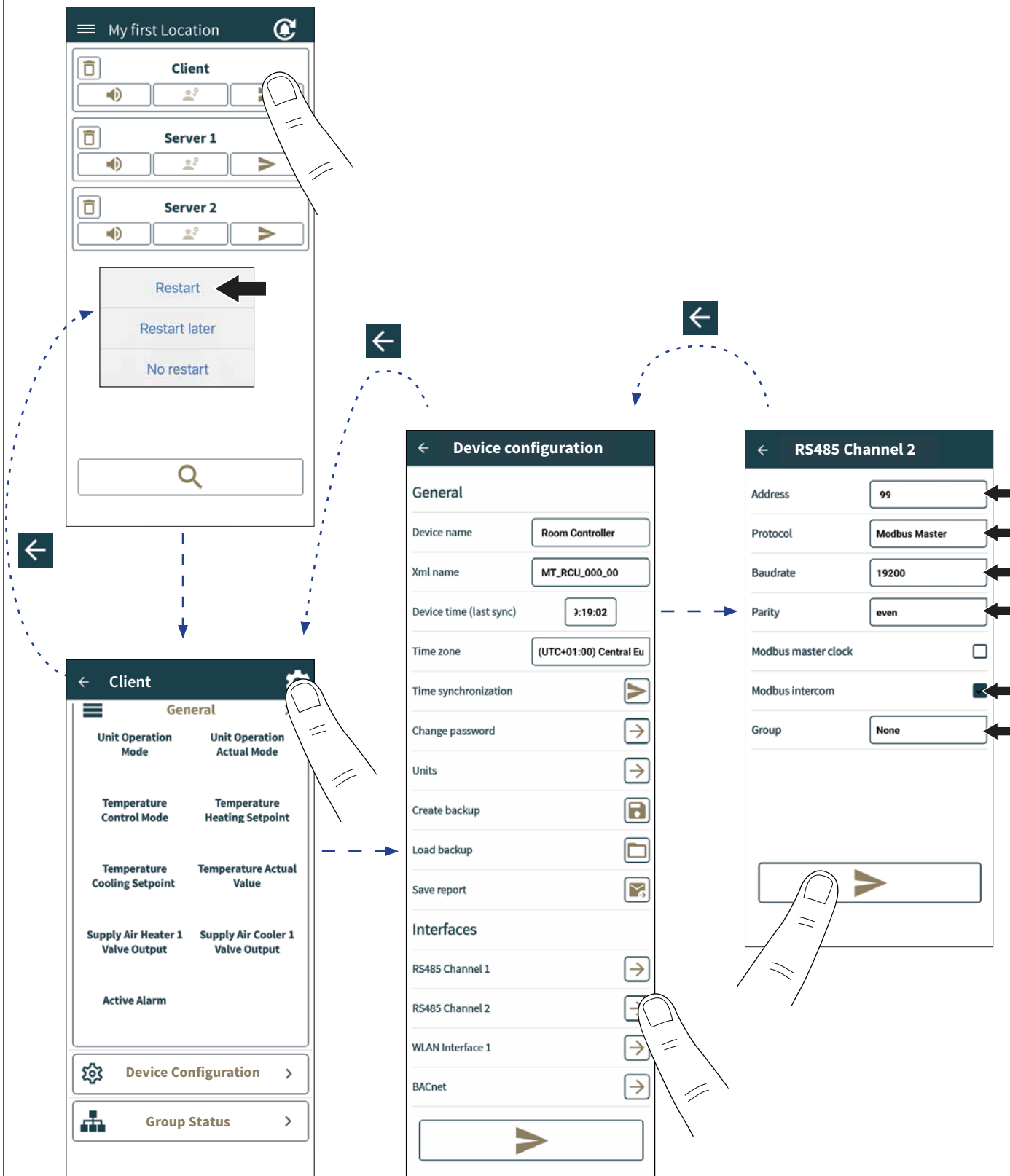
QUICK GUIDE FOR COMMISSIONING CHILLED BEAMS SERVER 1-8 VIA APP



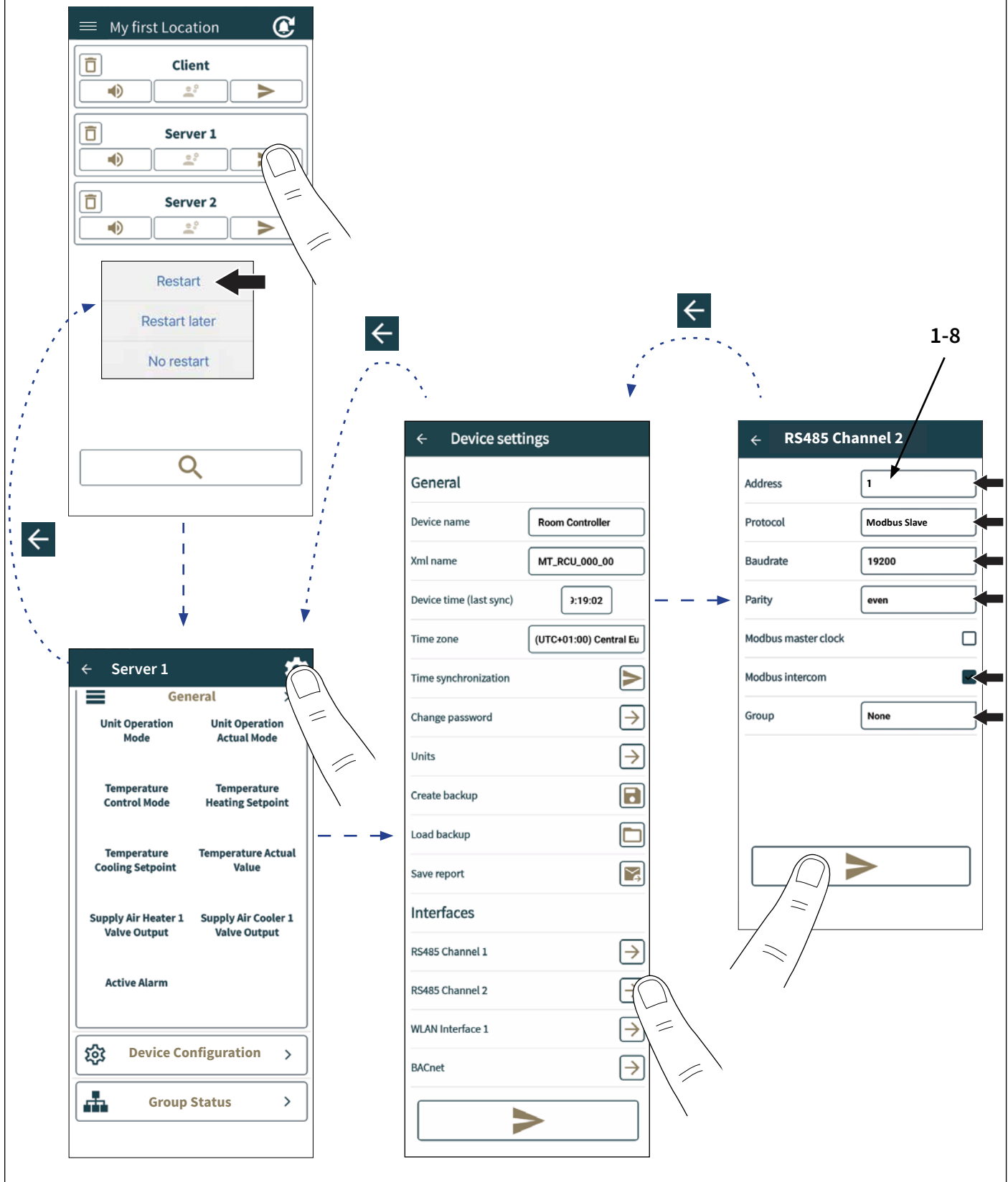
To change the Client and Server names



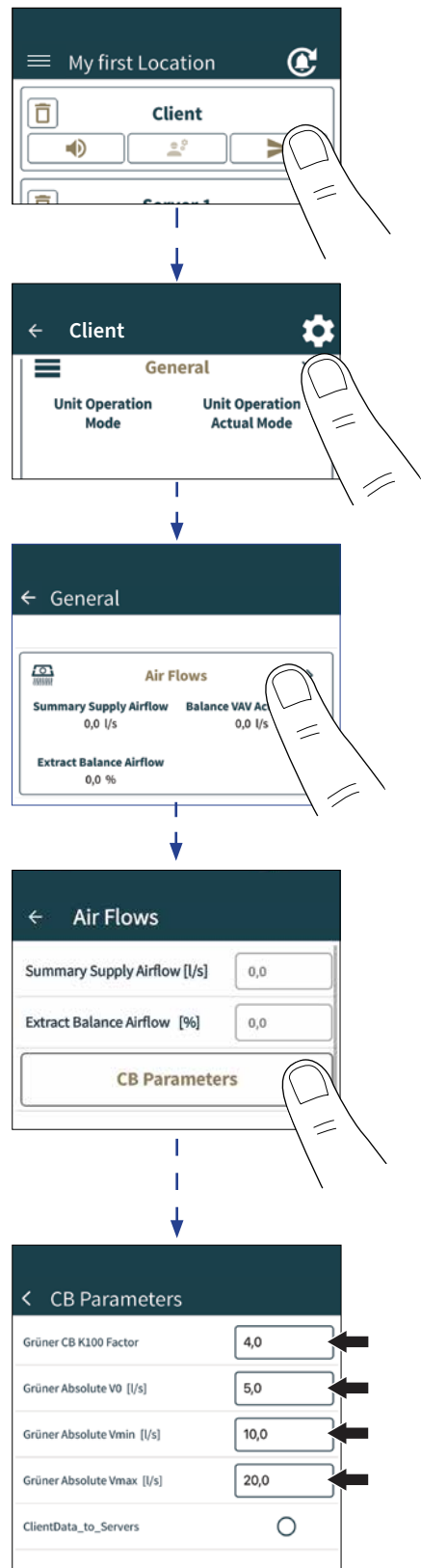
Client settings



Server settings



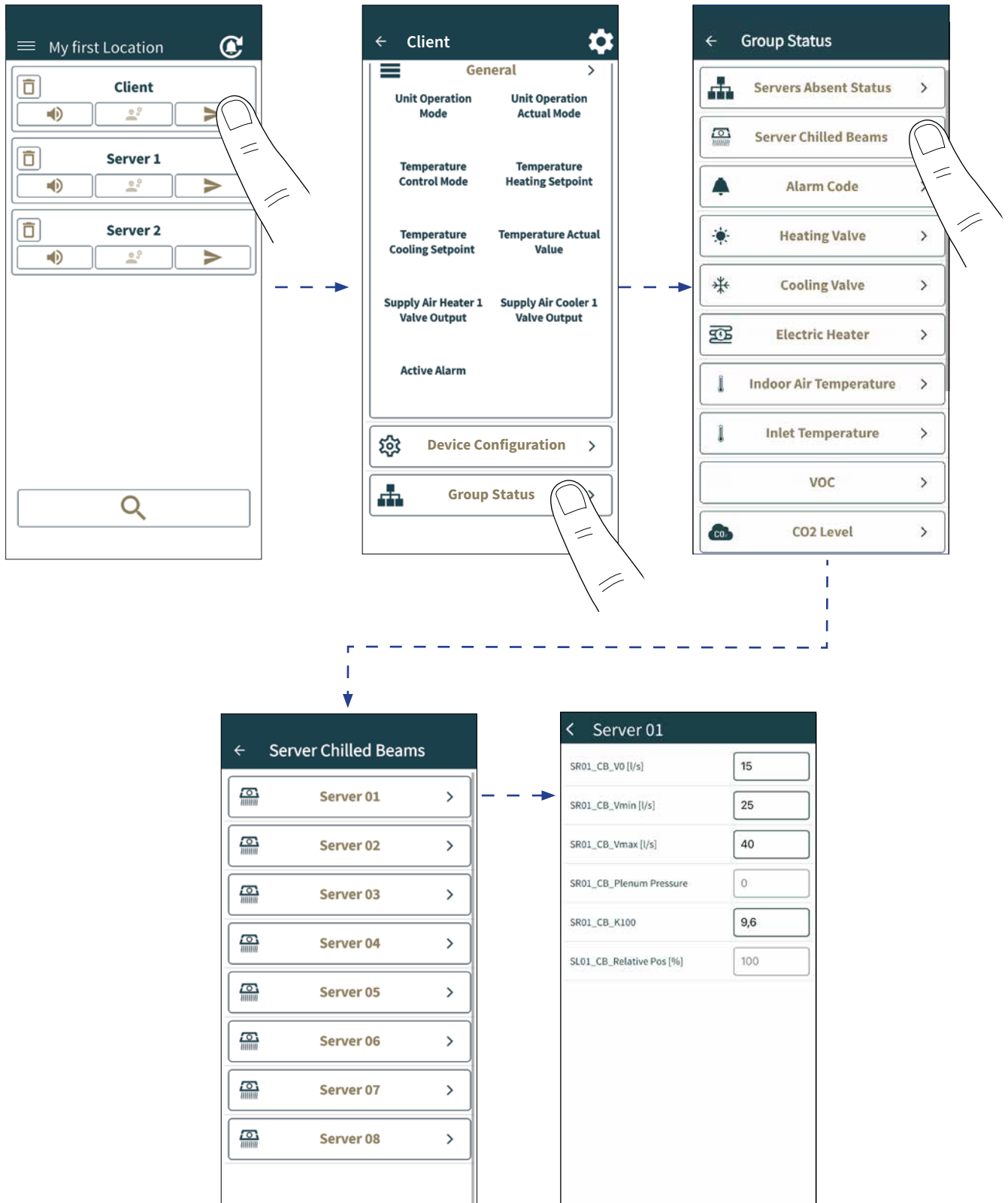
Client
CB parameters



Client
Copy CB parameters to Servers



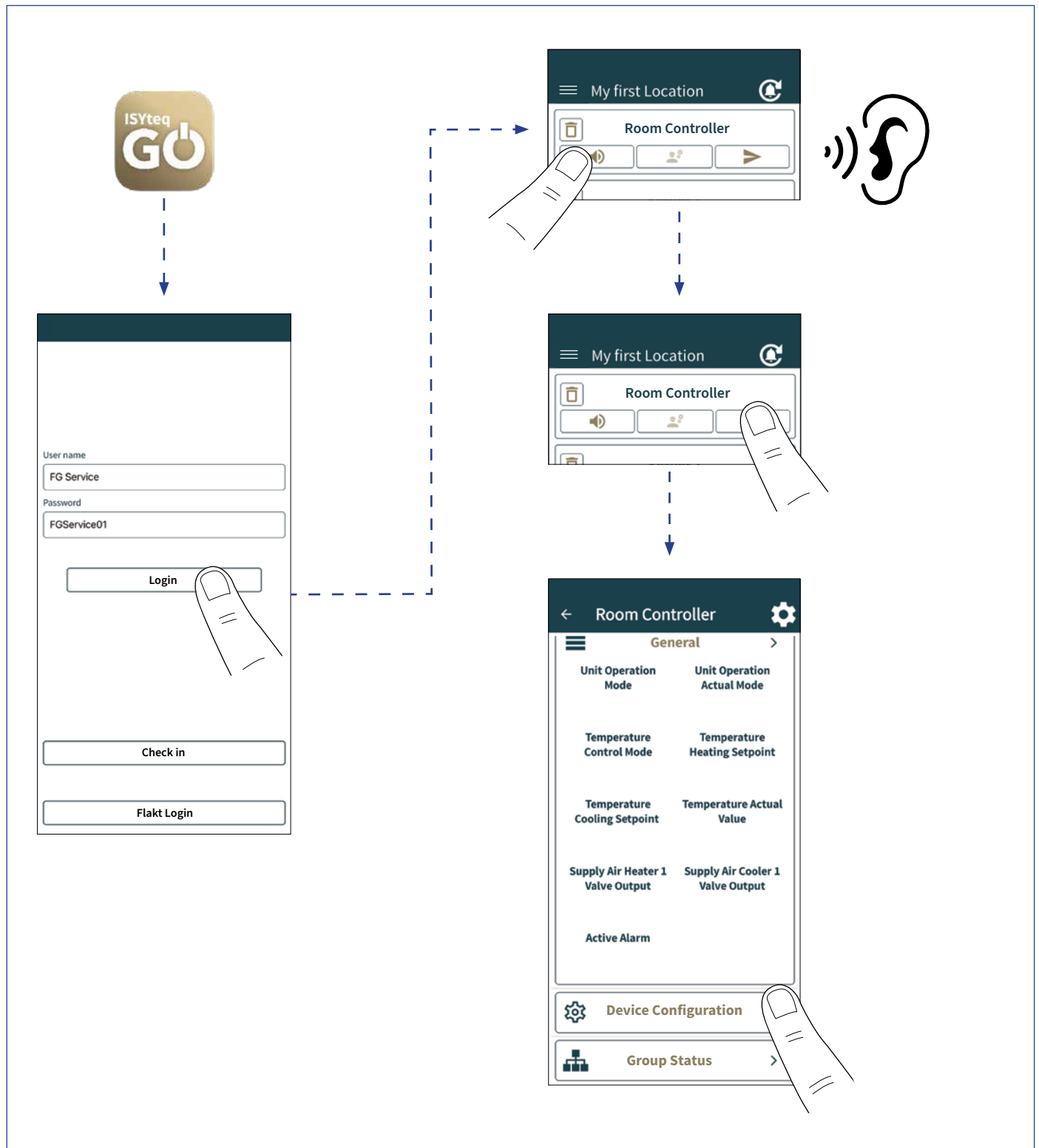
Client Check Servers

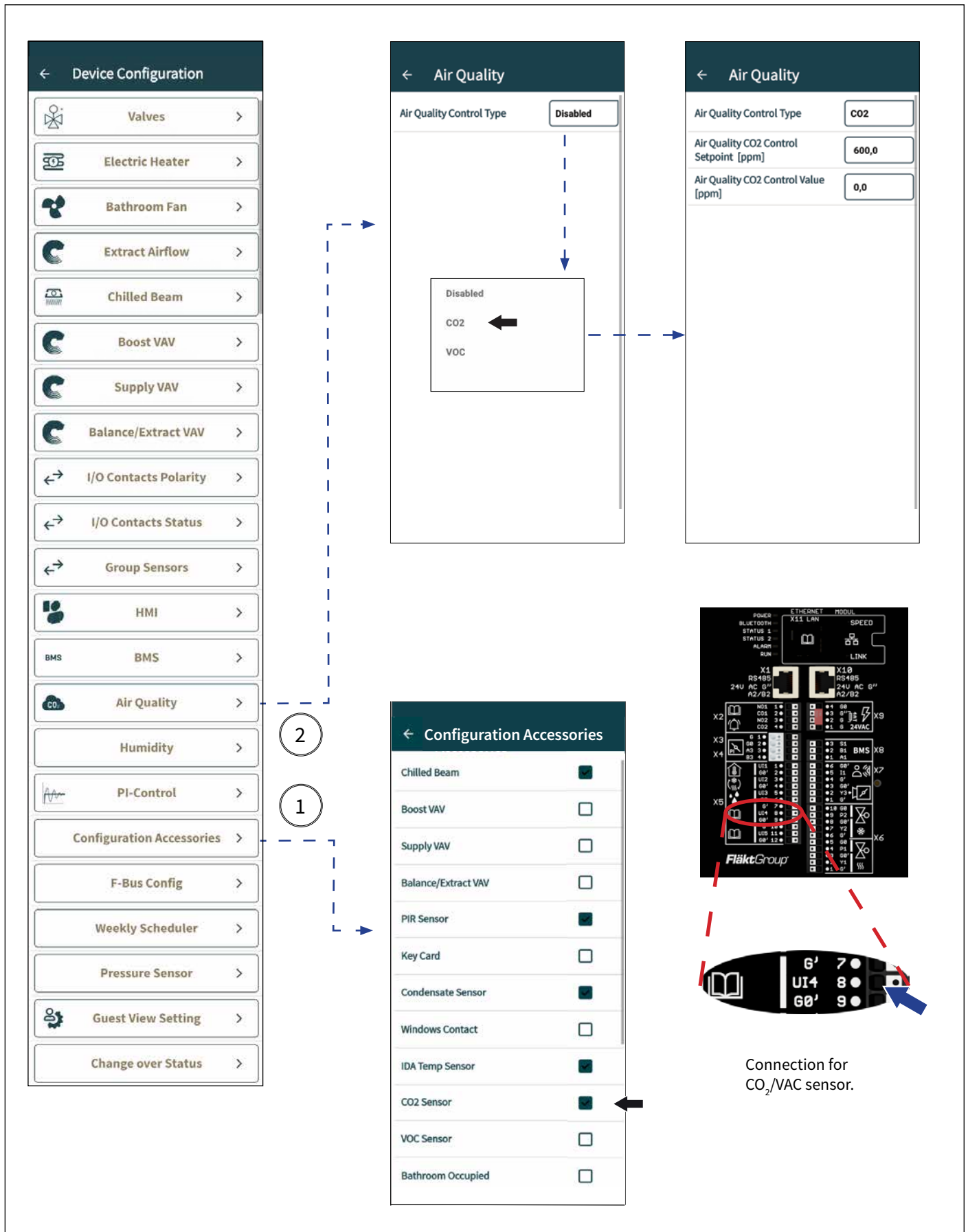


Appendix 3

ISYteqGO Smartphone app for Chilled beams

QUICK GUIDE FOR COMMISSIONING CHILLED BEAMS – ADDING CO₂ SENSOR VIA APP



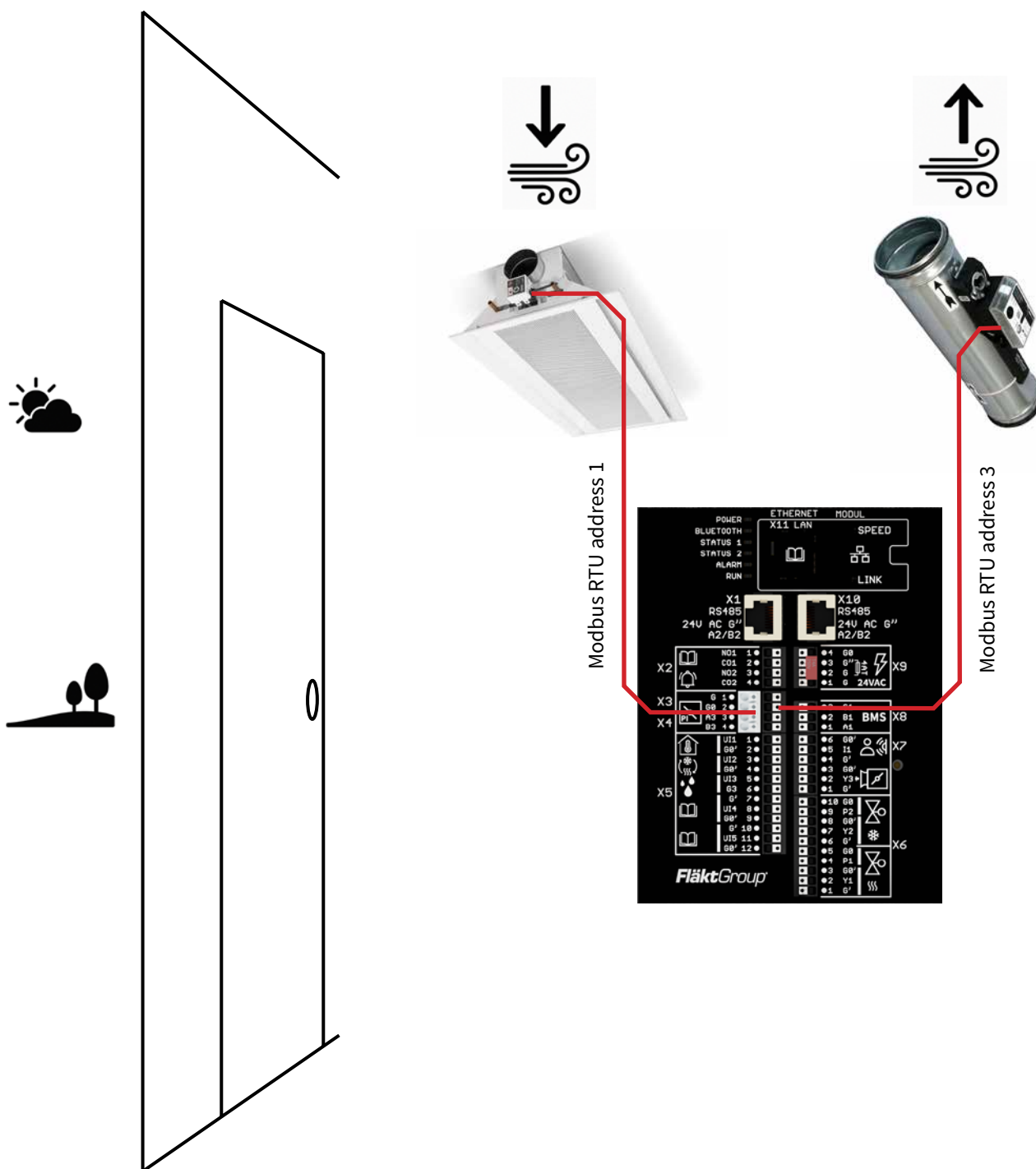


Appendix 4

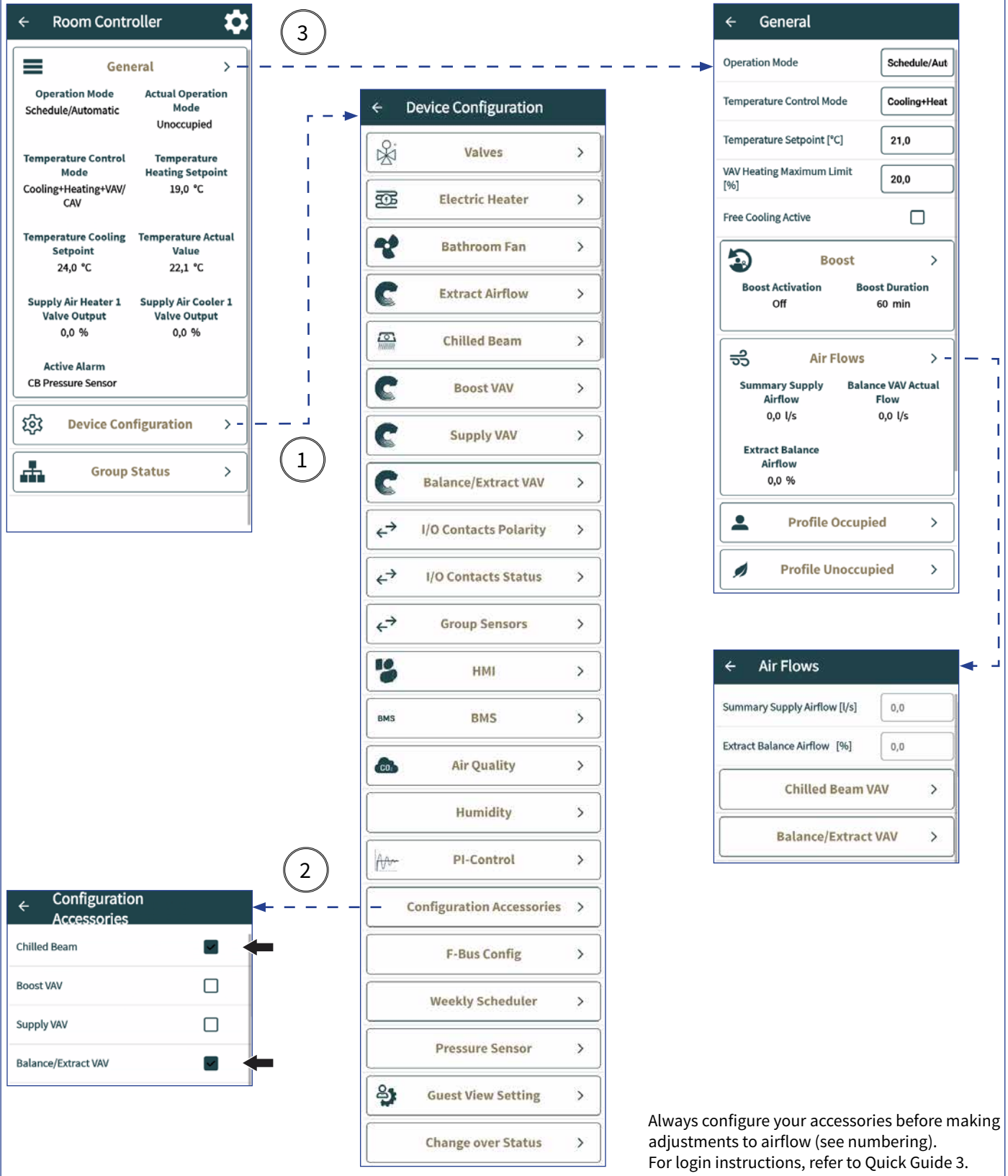
ISYteqGO Smartphone app for Chilled beams

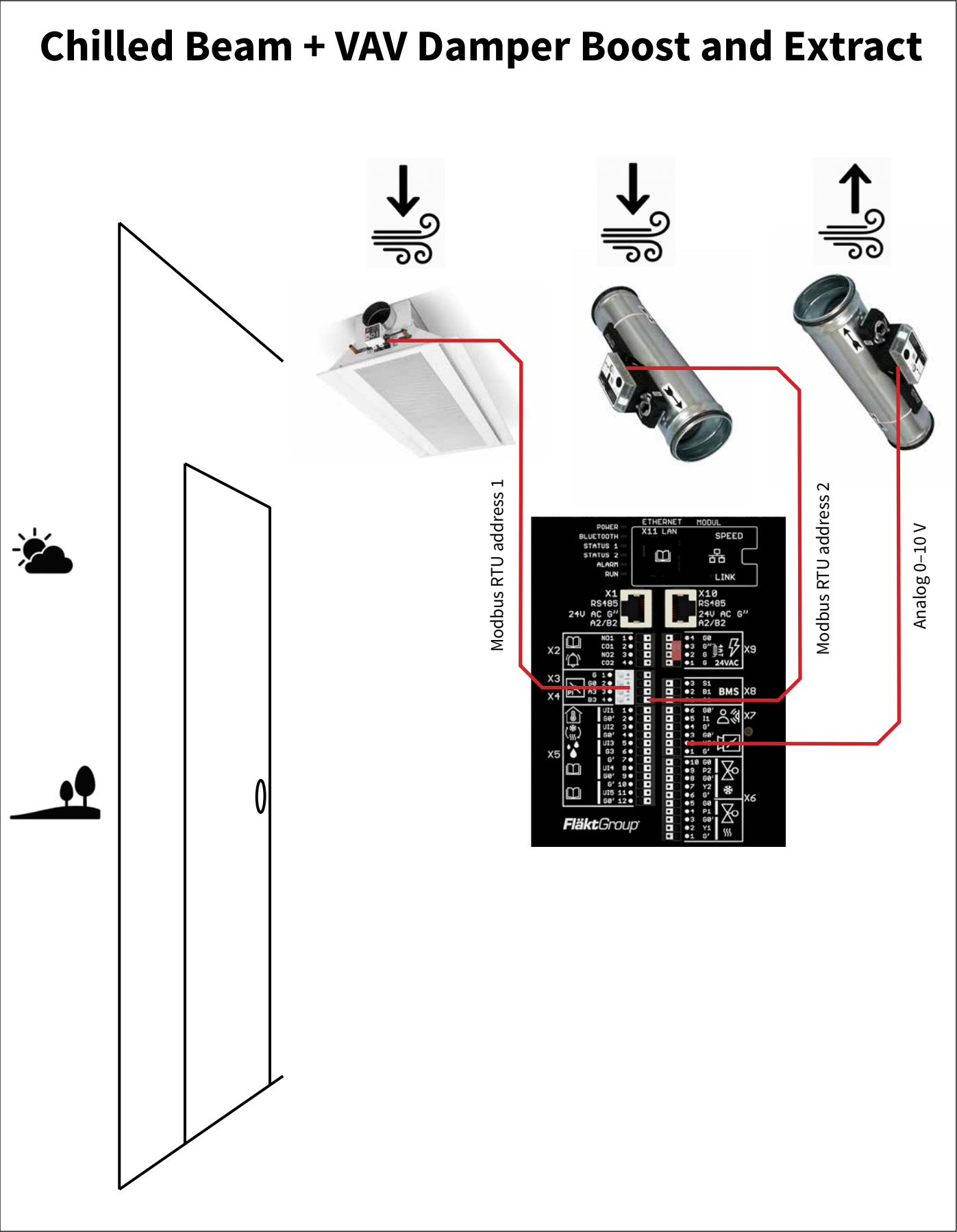
QUICK GUIDE FOR COMMISSIONING SUPPLY, BOOST AND EXTRACT AIRFLOWS VIA APP

Chilled Beam + VAV Damper Extract

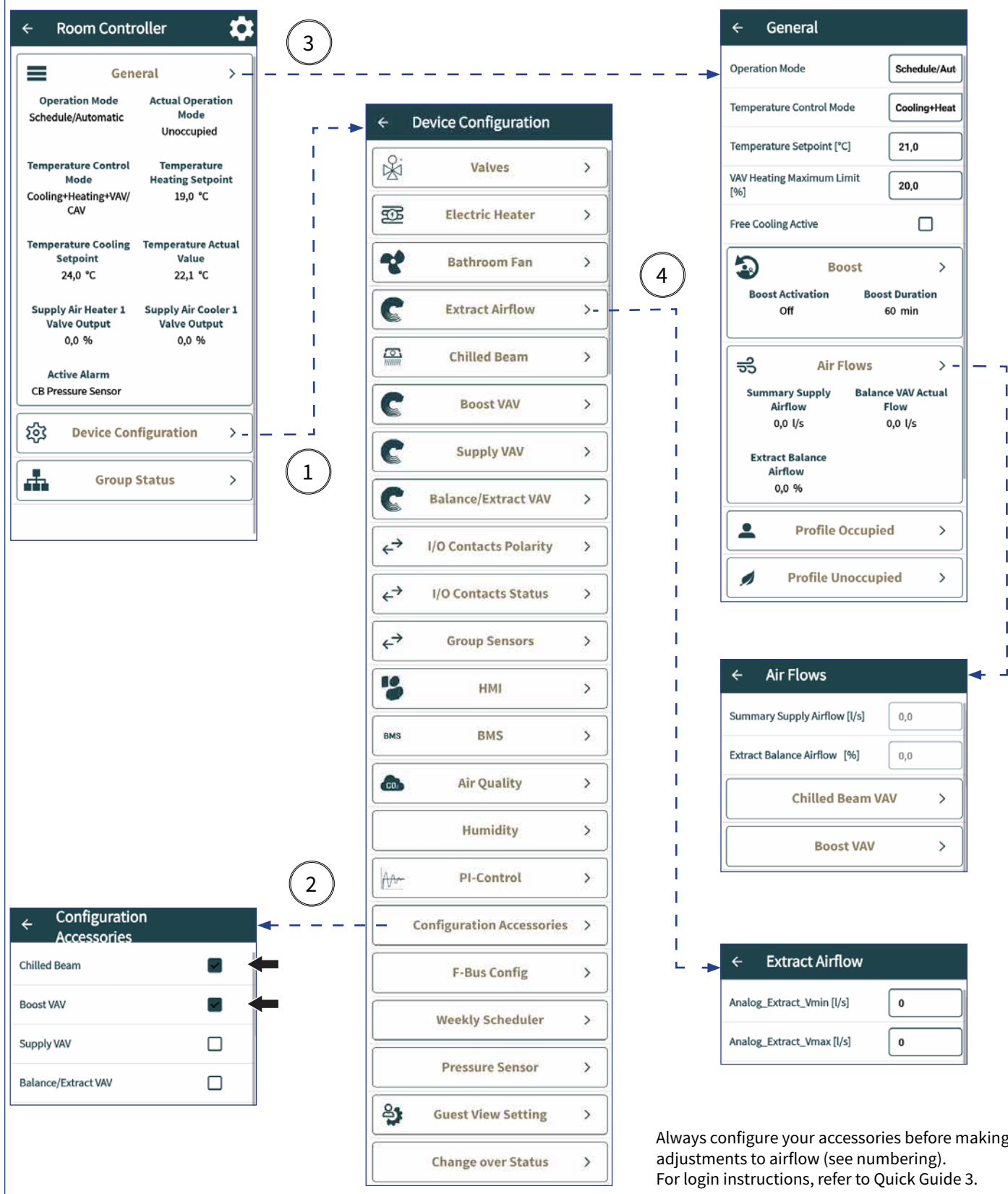


Chilled Beam + VAV Damper Extract

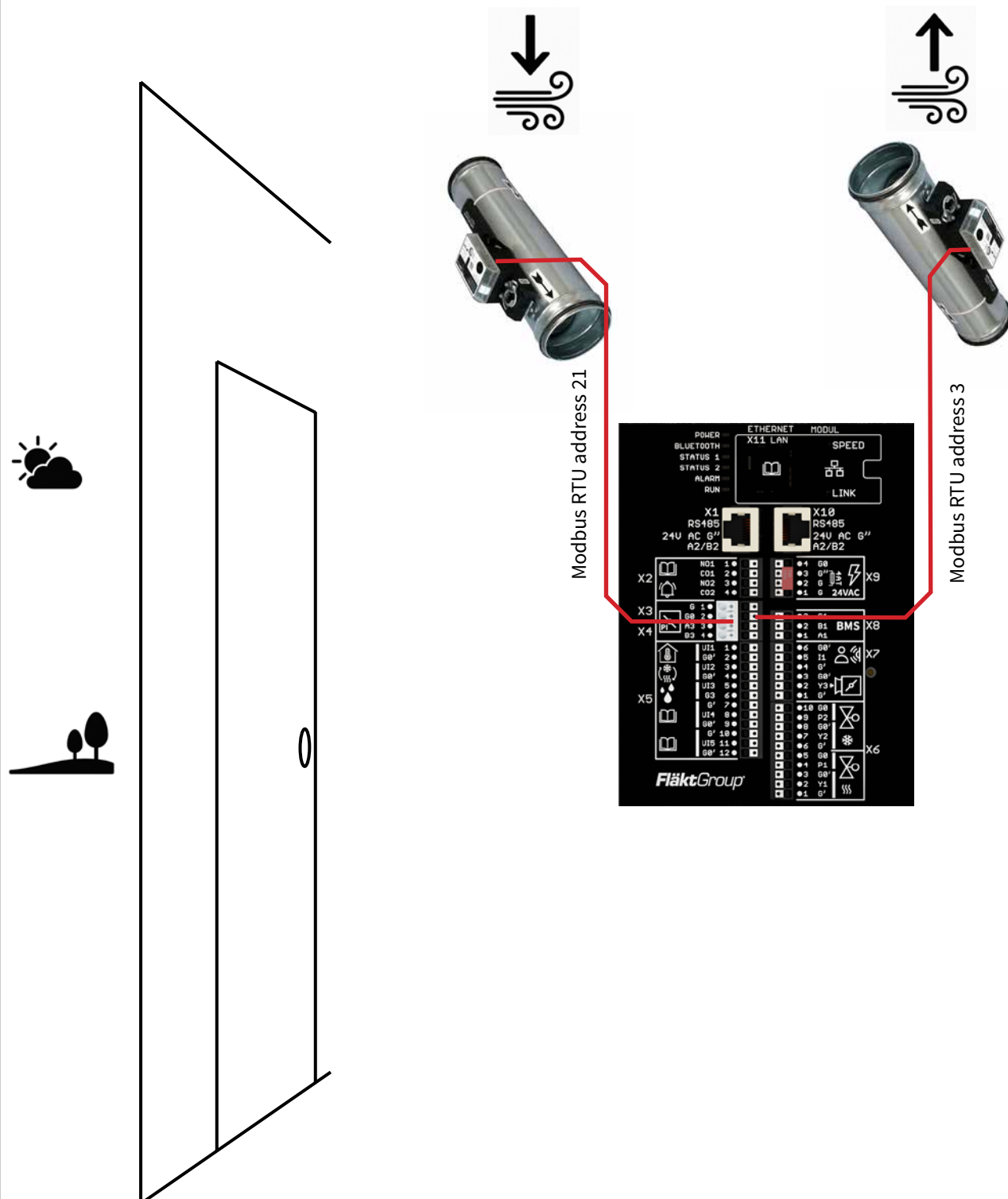




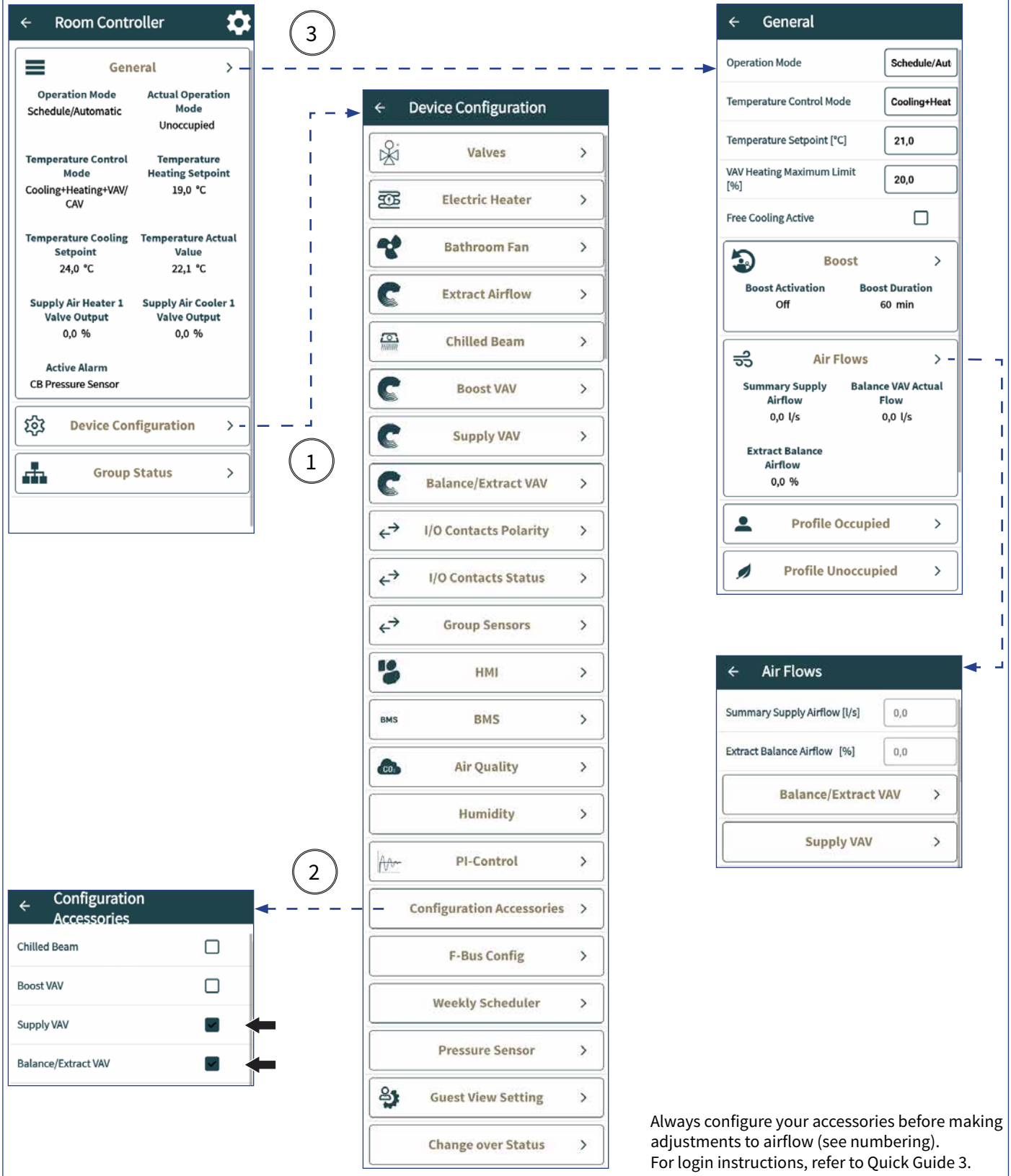
Chilled Beam + VAV Damper Boost and Extract



VAV Damper Supply + VAV Damper Extract



VAV Damper Supply + VAV Damper Extract



Always configure your accessories before making adjustments to airflow (see numbering). For login instructions, refer to Quick Guide 3.



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