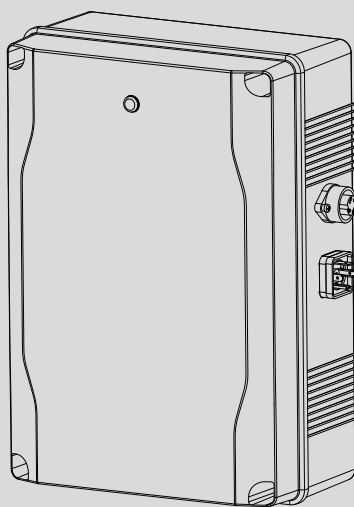
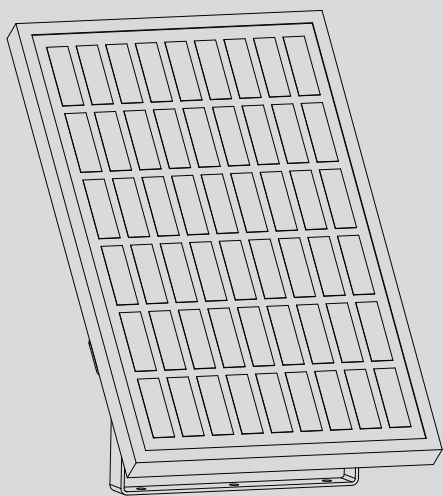




D811697 00100_03 06-04-16

QUADRO PER ALIMENTAZIONE IMPIANTO A PANNELLI SOLARI
 ELECTRICAL PANEL FOR SUPPLYING SOLAR PANEL SYSTEM
 TABLEAU POUR ALIMENTATION INSTALLATION AVEC PANNEAUX SOLAIRES
 SPEISUNGSTAFEL FÜR SOLARPNEELANLAGE
 CUADRO PARA ALIMENTACIÓN INSTALACIÓN CON PANELES SOLARES
 VOEDINGSPANEEL INSTALLATIE MET ZONNEPANELEN



ISTRUZIONI D'USO E DI INSTALLAZIONE
 INSTALLATION AND USER'S MANUAL
 INSTRUCTIONS D'UTILISATION ET D'INSTALLATION
 INSTALLATIONS-UND GEBRAUCHSANLEITUNG
 INSTRUCCIONES DE USO Y DE INSTALACION
 INSTALLATIEVOORSCHRIFTEN

ECOSOL BOX

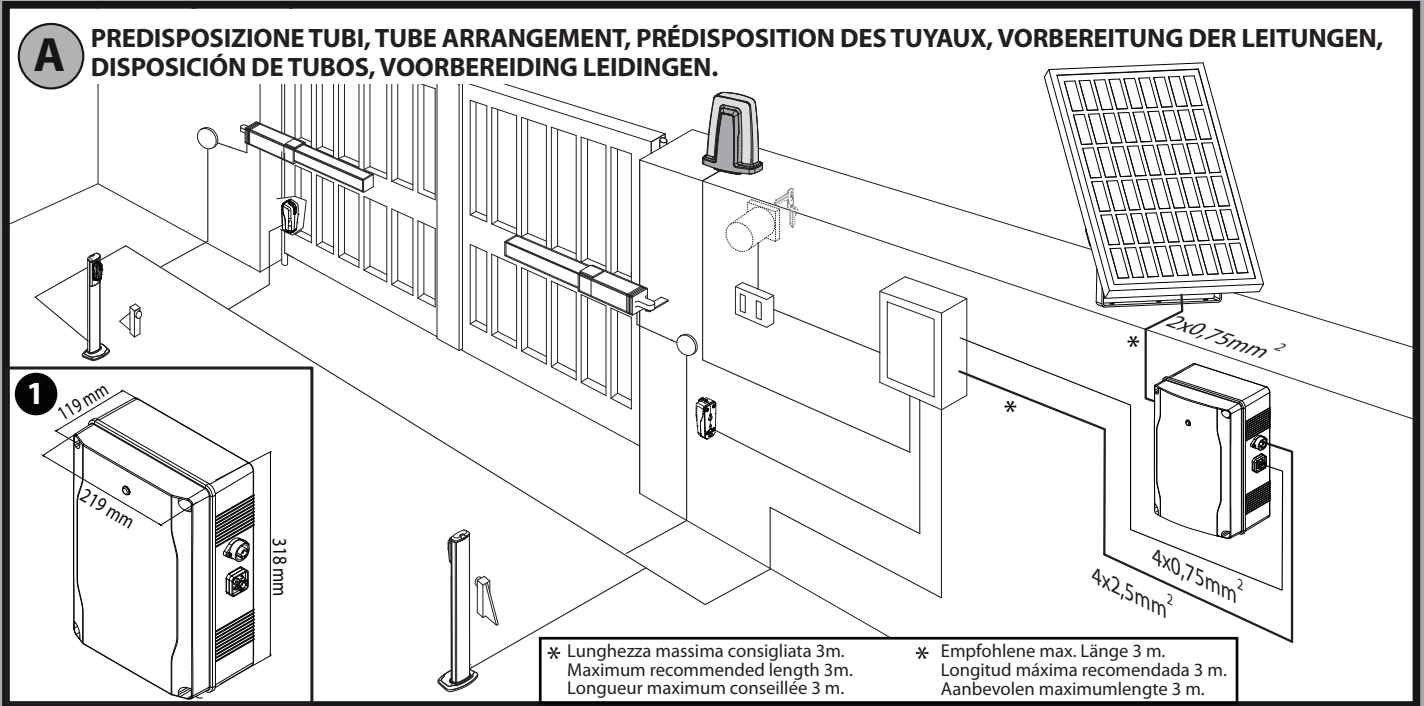


AZIENDA CON SISTEMA DI GESTIONE
 INTEGRATO CERTIFICATO DA DNV
 = UNI EN ISO 9001:2008 =
 UNI EN ISO 14001:2004

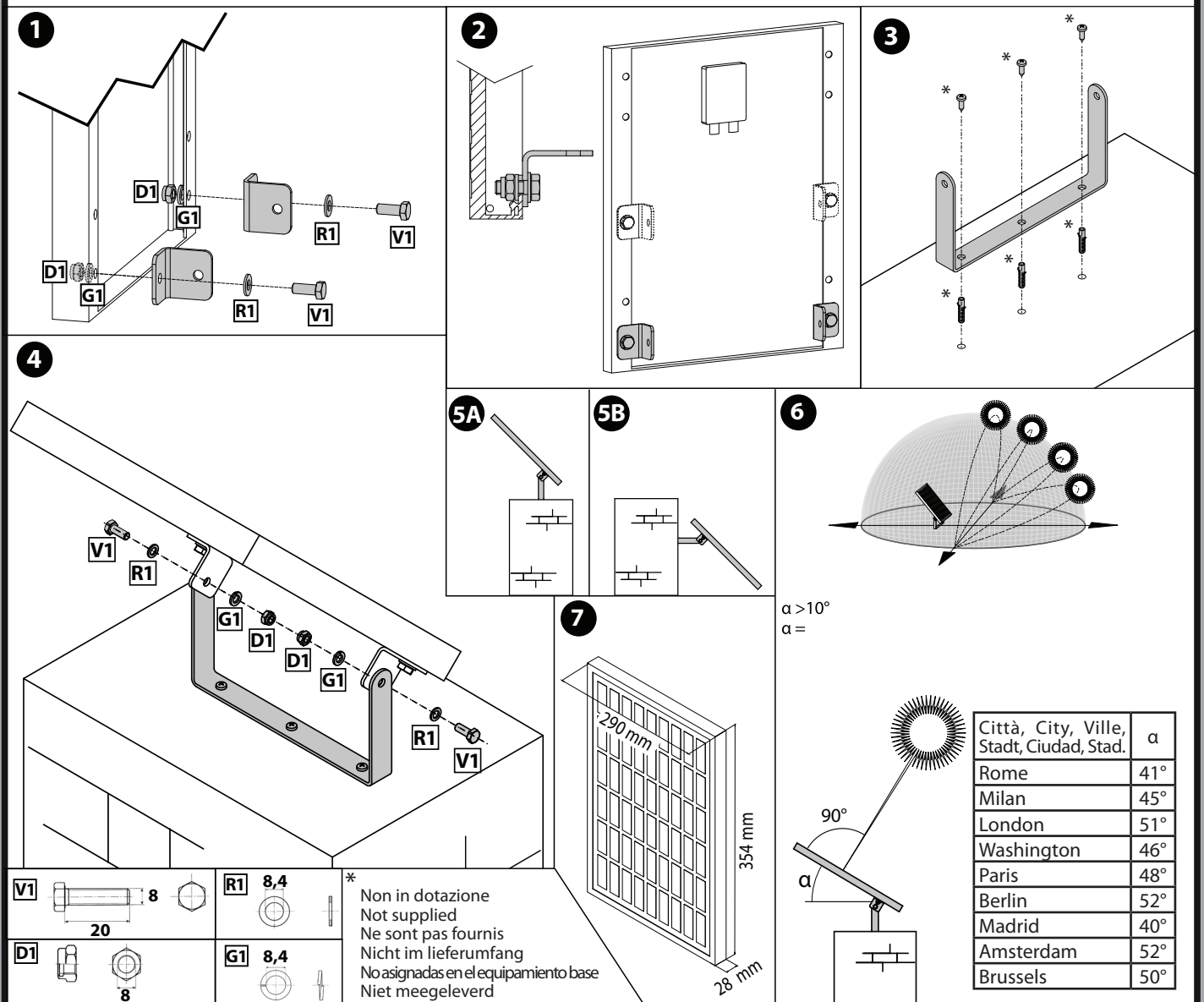
INSTALLAZIONE VELOCE-QUICK INSTALLATION-INSTALLATION RAPIDE SCHNELLINSTALLATION-INSTALACIÓN RÁPIDA - SNELLE INSTALLATIE

D811697 00100_03

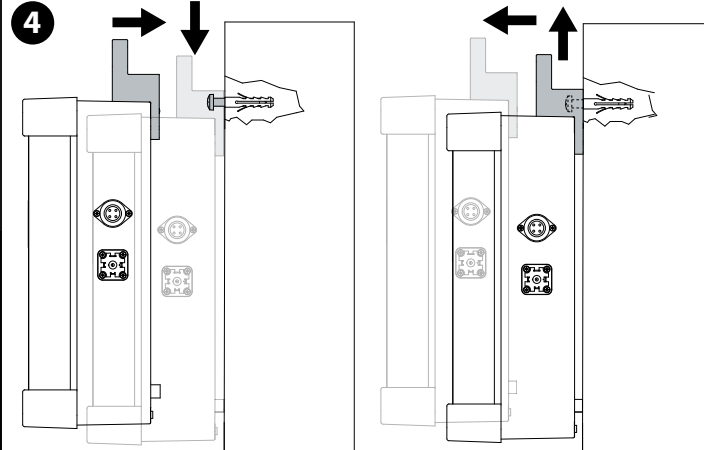
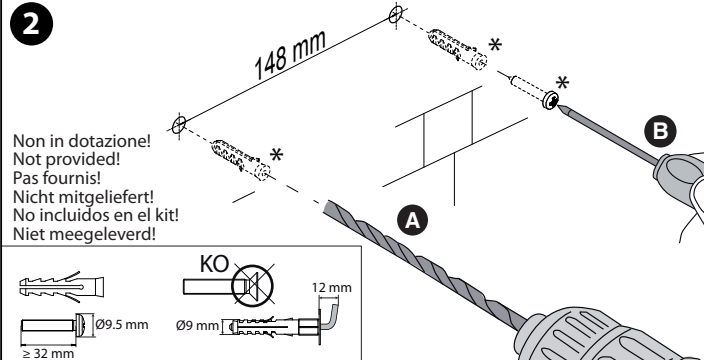
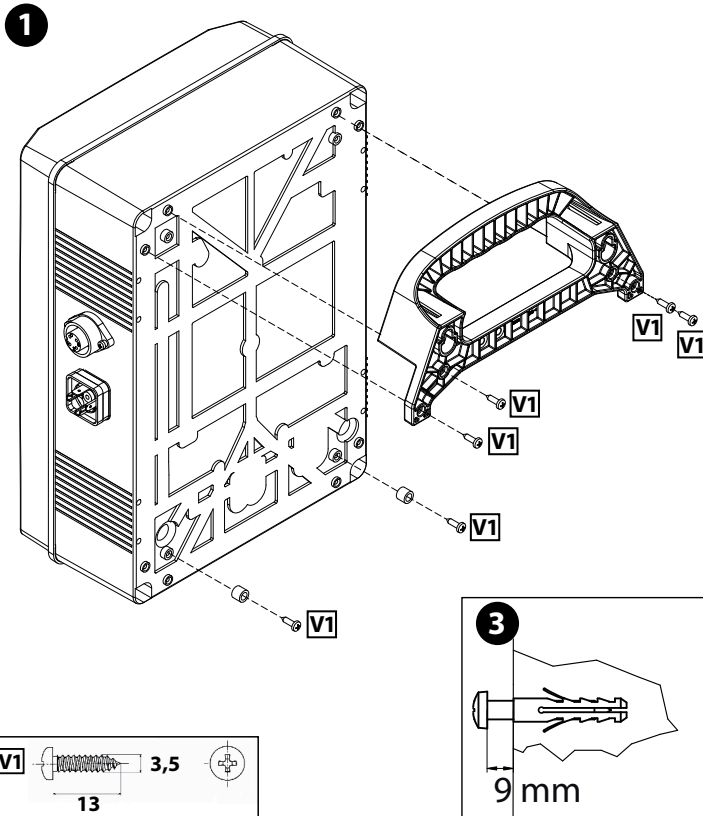
A PREDISPOSIZIONE TUBI, TUBE ARRANGEMENT, PRÉDISPOSITION DES TUYAUX, VORBEREITUNG DER LEITUNGEN, DISPOSICIÓN DE TUBOS, VOORBEREIDING LEIDINGEN.



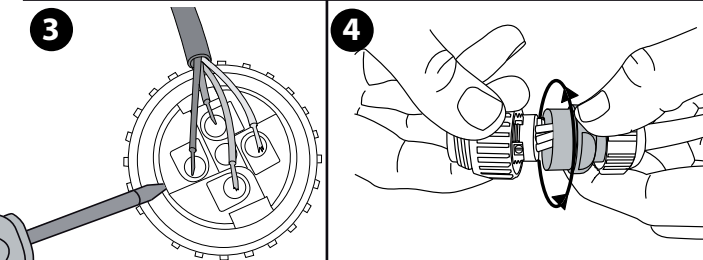
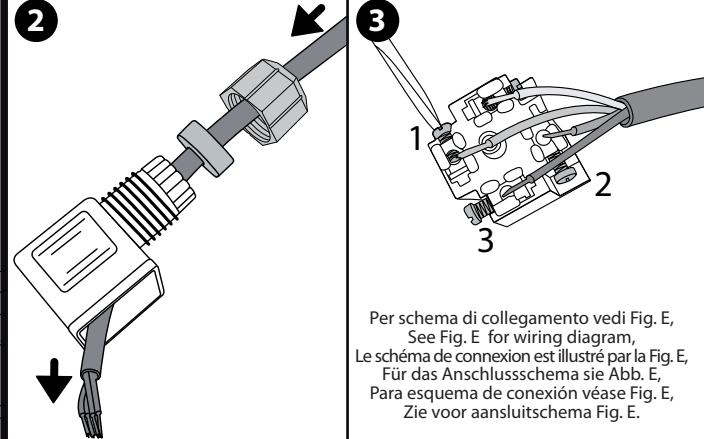
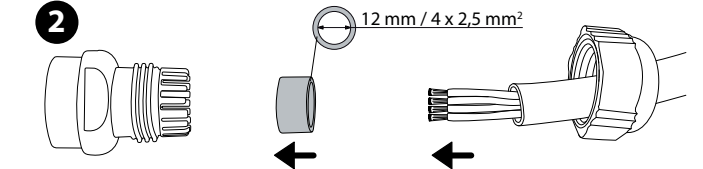
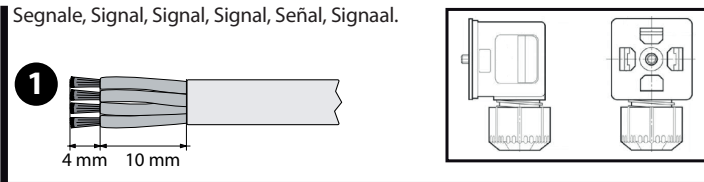
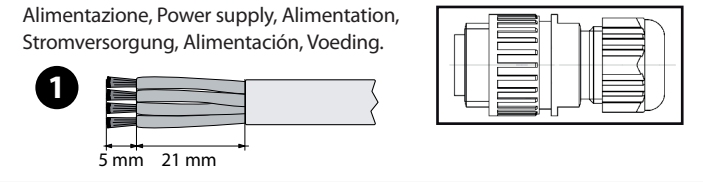
B Fissaggio Pannello, Fastening the Panel, Fixation du tableau, Befestigung Panel, Fijación Panel, Bevestiging Paneel.



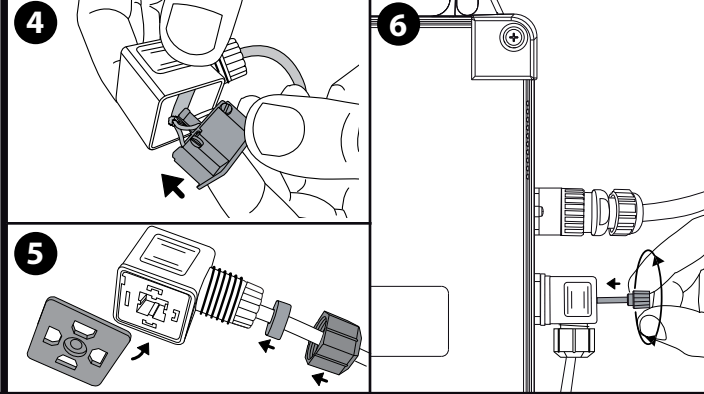
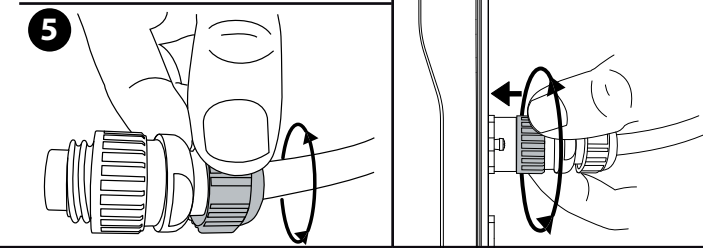
C Fissaggio Ecosol Box / Double con maniglia, Fastening Helios Box / Double with handle, Fixation de l'Ecosol Box / Double avec poignée, Befestigung Ecosol Box / Double mit Griff, Fijación Ecosol Box / Double con manilla, Bevestiging Ecosol Box / Double met handvat.



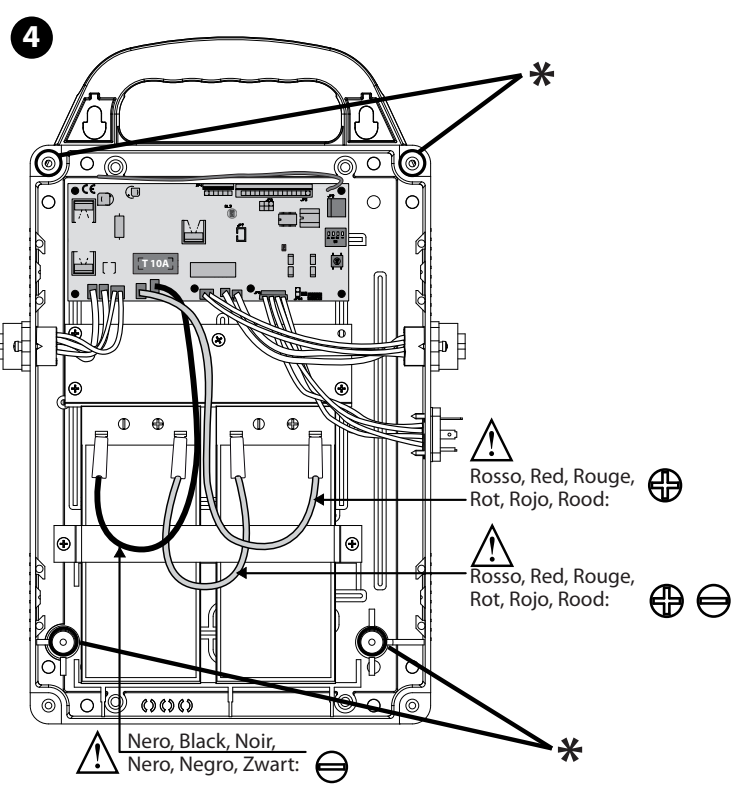
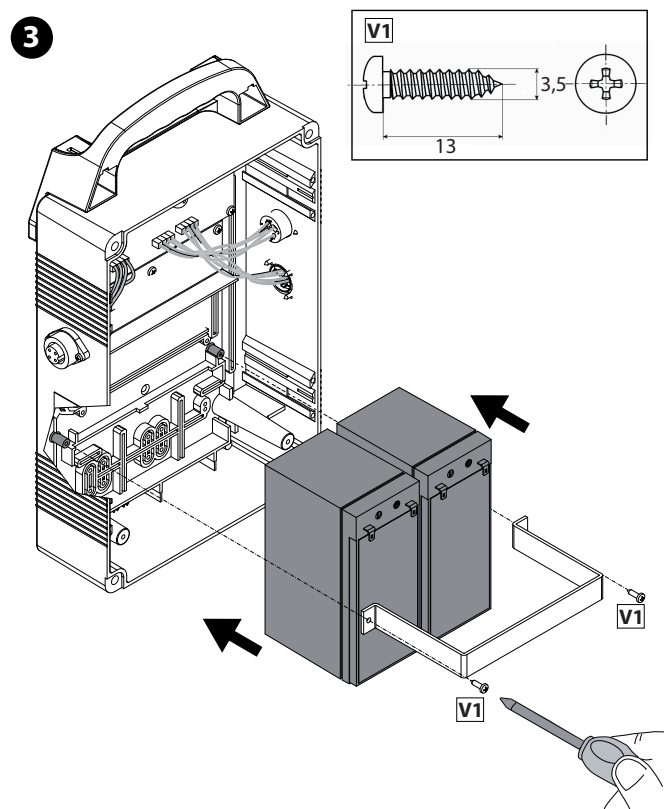
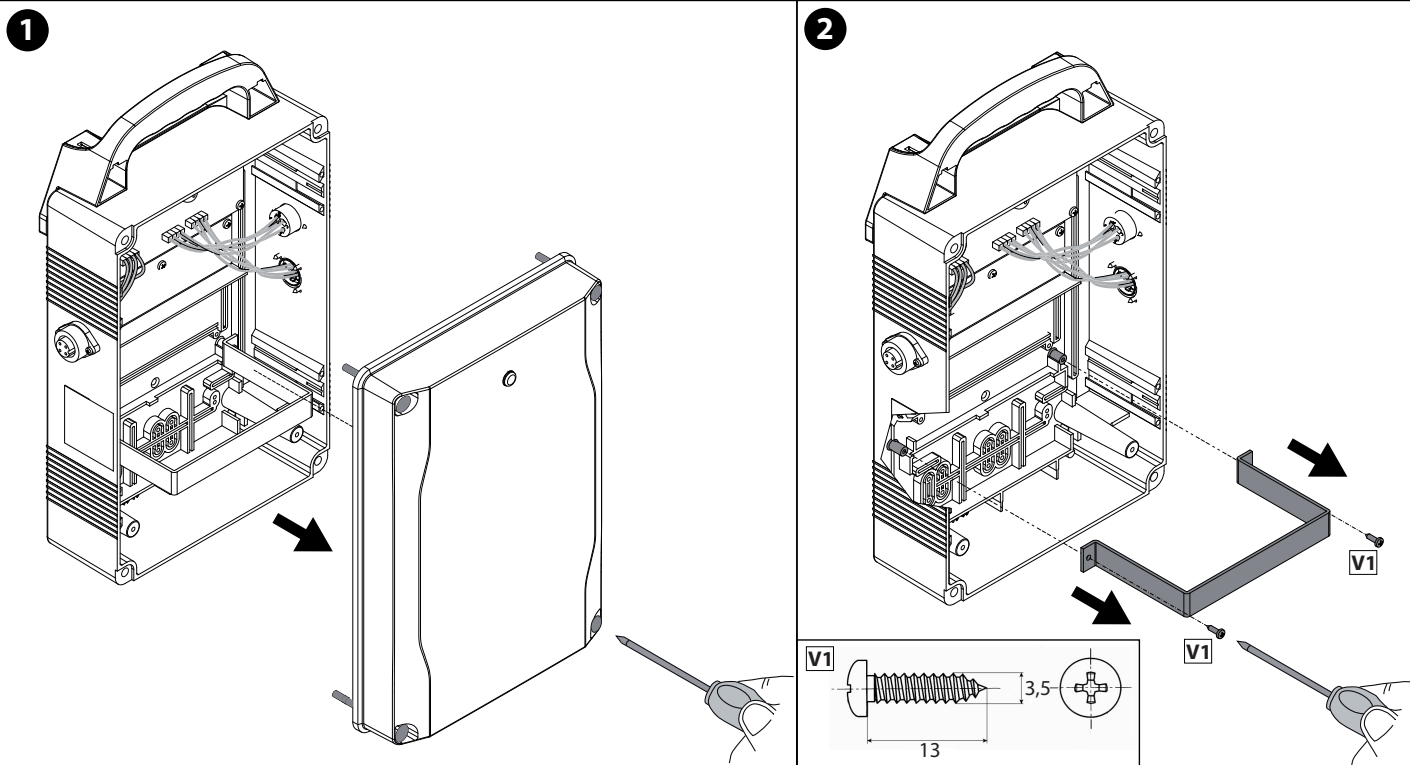
D Cablaggio Connettori / Connector Wiring, Câblage des connecteurs / Verkabelung Steckverbindungen / Cableado Conectores / Bekabeling Connectors.



Per schema di collegamento vedi Fig. E / J, See Fig. E / J for wiring diagram, Le schéma de connexion est illustré par la Fig. E / J, Für das Anschlussschema siehe Abb. E / J, Para esquema de conexión véase Fig. E / J, Zie voor aansluitschema Fig. E / J.



D1 Smontaggio Coperchio e Inserimento Batterie, Removing The Cover And Inserting The Batteries, Démontage Du Couvercle Et Mise En Place Des Batteries, Ausbau Der Abdeckung Und Einsetzen Der Batterien, Desmontaje De Tapa E Introducción De Baterías, Demontage Deksel En Plaatsing Batterijen.



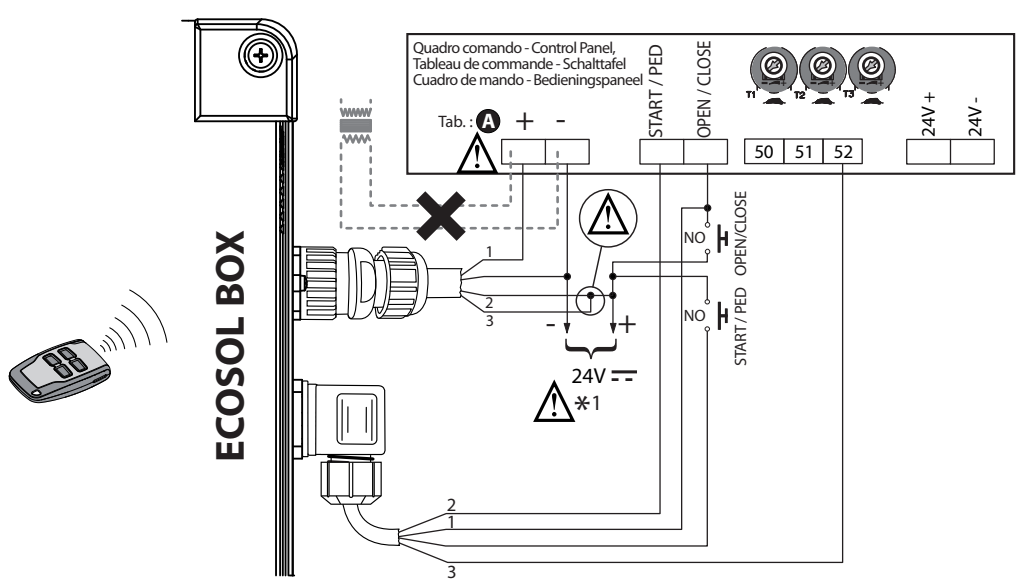
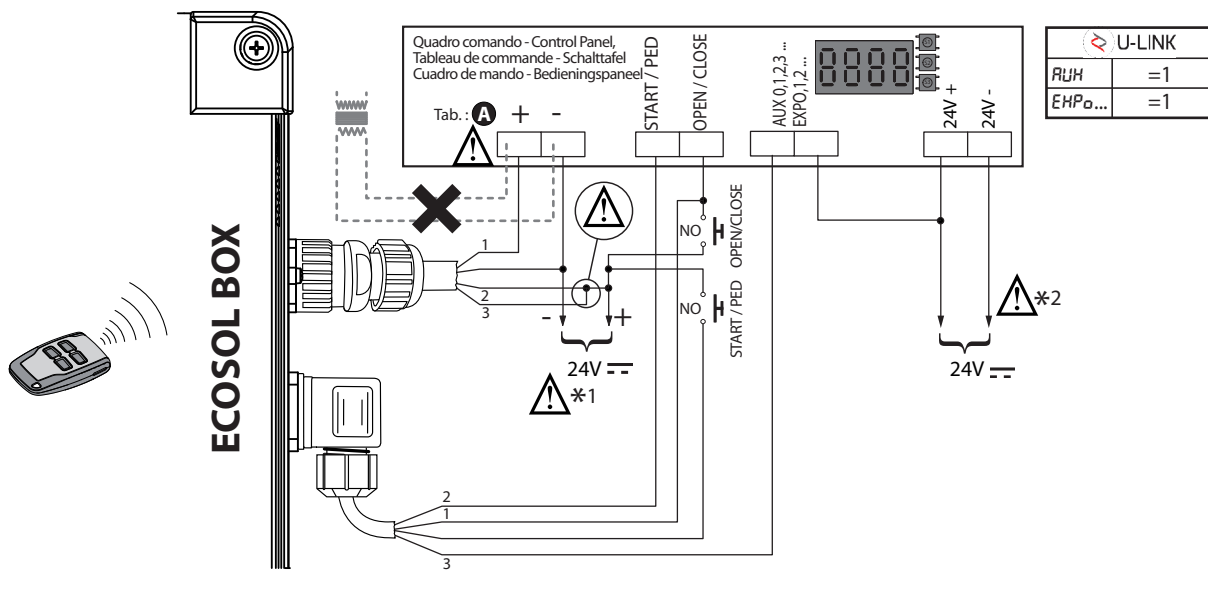
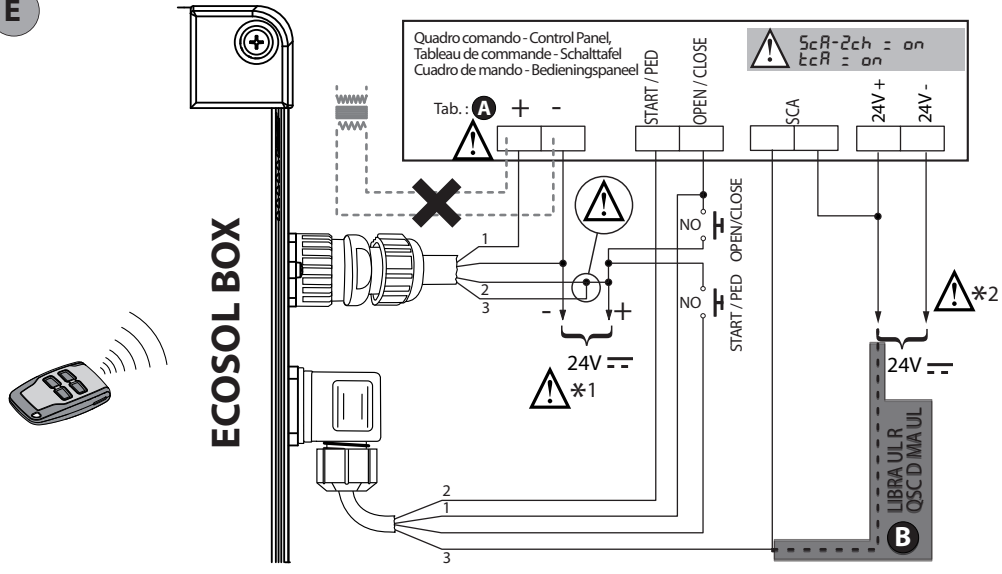
*** ATTENZIONE: NON OSTRUIRE I FORI DI AERAZIONE POSTI SUL RETRO!!!!**
WARNING: DO NOT BLOCK THE VENTILATION HOLES LOCATED ON THE BACK!!!!
ATTENTION : NE PAS BOUCHER LES TROUS D'AÉRATION PLACÉS AU DOS!!!!
ACHTUNG: VERSTOFEN SIE DIE LÜFTUNGSÖFFNUNGEN AUF DER RÜCKSEITE NICHT!!!
ATENCIÓN: ¡NO OBSTRUIR LOS ORIFICIOS DE AIREACIÓN (UBICADOS EN LA PARTE POSTERIOR)!!!
LET OP: DE VENTILATIEGATEN NIET BEDEKKEN (AAN DE ACHTERKANT)!!!!


Collegamento con scheda controllo automazione (se non diversamente indicato nel manuale delle schede di controllo),
 Connection with control panel (unless otherwise stated in the control boards' manual),
 Connexion sur la carte de contrôle de l'automatisation (à moins d'une indication contraire du manuel des cartes de contrôle),
 Anschluss mit Steuerungskarte Automatisierung (falls im Handbuch der Steuerungskarten nicht anders angegeben),
 Conexión con tarjeta control automatización (a menos que se especifique lo contrario en el manual de las tarjetas de control),
 Verbinding met kaart controle automatiseringssysteem (indien niet anders aangegeven in de handleiding van de controlekaarten).

Quadro comando, Control Panel, Tableau de commande, Schalttafel, Cuadro de mando, Bedieningspaneel.	Collegamento alimentazione, Power supply connection, Connexion de l'alimentation, Anschluss Speisung, Conexión alimentación, Aansluiting voeding.	
	+	-
CB HIDE	JP8	JP6
LIBRA C MV (da/as from/à partir de la/von/desde/vanaf vers.1.04 MICHELANGELO)	JP8	JP6
LIBRA C MO (da/as from/à partir de la/von/desde/vanaf vers.1.00.1 MOOVI BT)	JP8	JP6
LIBRA C G/LIBRA C GS	JP8	JP6
LINX	6	7
HQSC - ARES 1500 - ARES 1000 - DEIMOS BT 500	4	3
VENERE D	18	19
VENERE D ARGO + SCS-IO (ZONE= 129)	18	19
VENERE D ARGO G + SCS-IO (ZONE= 129)	18	19
THALIA - ELI 250 BT, KUSTOS BT/ KUSTOS ULTRA BT, PHOBOS BT A, IGEA, GIUNO, LUX BT, LUX G BT, SUB BT	JP21 Grigio - Grey - Gris - Grau - Gris - Grijs	JP21 Nero-Black-Noir-Nero-Negro-Zwart
THALIA P- ELI 250 BT, KUSTOS BT/ KUSTOS ULTRA BT, PHOBOS BT A, IGEA, GIUNO, LUX BT, LUX G BT, SUB BT	JP21 Grigio - Grey - Gris - Grau - Gris - Grijs	JP21 Nero-Black-Noir-Nero-Negro-Zwart
THALIA UL	JP30 Grigio - Grey - Gris - Grau - Gris - Grijs	JP30 Nero-Black-Noir-Nero-Negro-Zwart
LIBRA UL R - PHOBOS BT (FIG. E Rif. B)	JP5	JP2
QSC D MA UL - DEIMOS BT (FIG. E Rif. B)	4	3
MERAK - DEIMOS ULTRA BT A, ARES ULTRA BT A	JP13 Grigio - Grey - Gris - Grau - Gris - Grijs	JP13 Nero-Black-Noir-Nero-Negro-Zwart
MERAK BGS/ BG - GIOTTO BTS, GIOTTO BT	JP13 Grigio - Grey - Gris - Grau - Gris - Grijs	JP13 Nero-Black-Noir-Nero-Negro-Zwart
MERAK BM - MICHELANGELO	JP13 Grigio - Grey - Gris - Grau - Gris - Grijs	JP13 Nero-Black-Noir-Nero-Negro-Zwart
HAMAL - DEIMOS BT A, ARES BT A	JP13 Grigio - Grey - Gris - Grau - Gris - Grijs	JP13 Nero-Black-Noir-Nero-Negro-Zwart
ZARA - PHOBOS BT A, KUSTOS BT/ KUSTOS ULTRA BT, PHOBOS BT A	JP28 Grigio - Grey - Gris - Grau - Gris - Grijs	JP28 Nero-Black-Noir-Nero-Negro-Zwart

L'impianto viene disalimentato dopo 5 min. dall'ultimo comando.
 The system is disabled 5 minutes after the last command.
 L'installation est mise hors tension 5 minutes après la dernière commande.
 Die Anlage wird 5 Min. nach dem letzten Befehl von der Speisung getrennt.
 La alimentación a la instalación es interrumpida tras 5 min. del último mando.
 De voeding van het systeem wordt 5 min. na het laatste commando onderbroken.

E



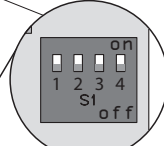
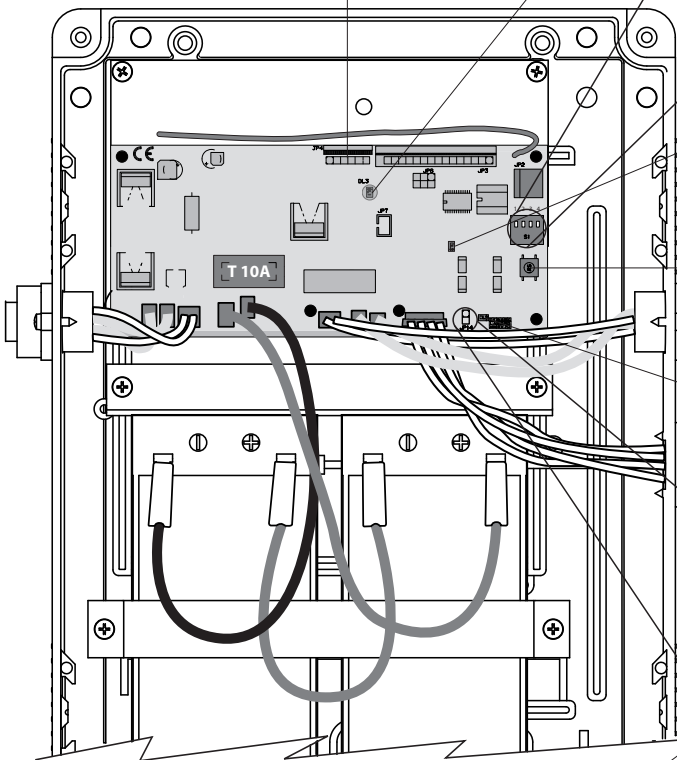
*1, *2  Vedi par. "Collegamento con scheda controllo automazione" - See sect. "Connection with automation control board", Cf. paragraphe Connexion sur la carte de contrôle de l'automatisation - Siehe Abschn. "Anschluss an Steuerungskarte Automatisierung", Véase apart. "Conexión con tarjeta control automatización" - Zie par. "Verbindung met kaart controle automatiseringsysteem".

E1

Dip Programmazione
Programming dip switches
Commutateur Dip de programmation
DIP Programmierung
Dip Programación
Dip Programming

DL3
Led programmazione radio / Segnalazione Batteria Scarica
Remote programming / Battery Low Warning LED
Voyant Del de programmation de la radio / Signalisation de batterie déchargée
Led Programmierung Funk / Anzeige Batterie leer
Led programación radio / Señalización Batería Descargada
Led's programming radio / Signalering Lege Batterij

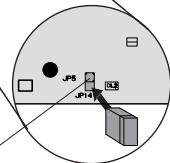
Connettore programmatore palmare
Palmtop programmer connector
Connecteur programmeur de poche
Steckverbinder Palmtop-Programmierer
Conector del programador de bolsillo
Connector programmeerbare palmtop



DL4
Led segnalazione ricarica
Recharge indicator LED
Voyant Del de signalisation de recharge
LED Anzeige Ladung
Led señalización recarga
Signaleringsled lading

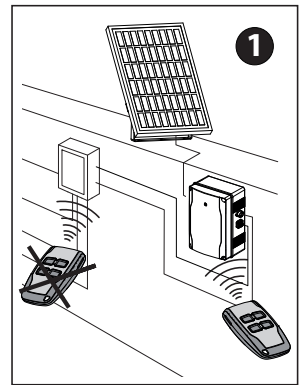
Pulsante programmazione radio,
Remote programming button,
Touche de programmation de la radio,
Taste Programmierung Funk,
Pulsador programación radio,
Knop programming radio .

DL2
Led segnalazione ponticello
inserito,
Jumper inserted indicator LED,
Voyant Del de signalisation de
barrette engagée,
LED Anzeige Jumper eingesetzt,
Led señalización puente
conectado,
Signaleringsled aanwezigte brug.

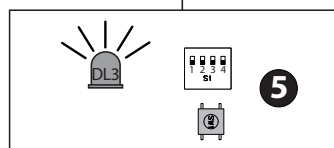
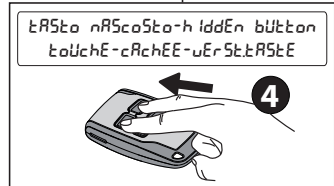
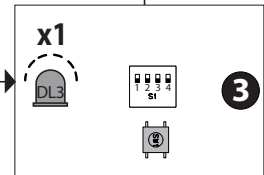
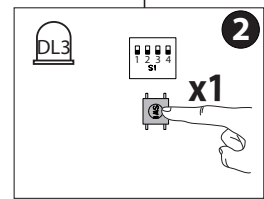


Ponticello abilitazione programmazioni quadro comando, Control Panel Programming enabling jumper,
Barrette d'activation des programmations tableau de commande, Jumper Befähigung Programmierungen Schalttafel,
Puente habilitación programaciones cuadro de mando, Brug activering programmeringen bedieningspaneel.

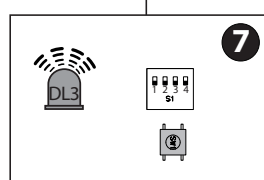
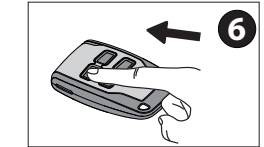
F



MEMORIZZAZIONE/MEMORIZING
MÉMORISATION/ABSPEICHERUNG
MEMORIZACIÓN/GEHEUGENOPSLAG
CH1 (START/PED)

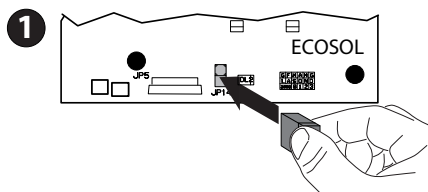


ERSto dES idERARto-dES idEr
bÜKton-töUche dES IrEE
GEUUE ERStE-tEeLr dESEERdR



G

AUTOSET MOTORE, MOTOR AUTOSET, AUTOCONFIGURATION DU MOTEUR, AUTOSET MOTOR, AUTOSET MOTOR, AUTOSET MOTOR.

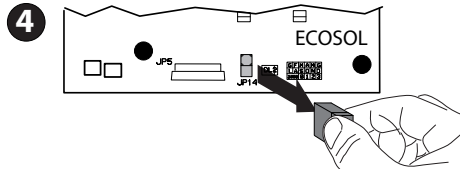


2
La centrale del motore è alimentata,
The motor control unit is powered,
La centrale du moteur est alimentée,
Die Zentrale des Motors ist nicht gespeist,
La central del motor está alimentada,
De centrale van de motor wordt gevoed.

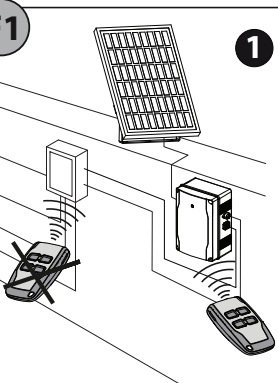
3 Quadro comando, Control Panel, Tableau de commande, Schalttafel, Cuadro de mando, Bedieningspaneel.



Eseguire le impostazioni e l'autoset sulla scheda controllo motore, Perform settings and run autoset function on the control panel,
Accomplir les configurations et l'autoconfiguration sur la carte de contrôle du moteur,
Die Einstellungen und den Autoset auf der Steuerungskarte Motor vornehmen,
Realizar las configuraciones y el autoset en la tarjeta control motor, De instellingen en autoset uitvoeren op de kaart controle motor.

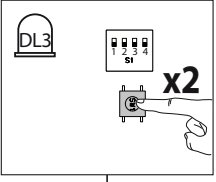


F1

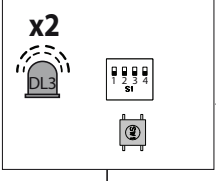


MEMORIZZAZIONE/MEMORIZING
MÉMOIRISATION/ABSPEICHERUNG
MEMORIZACIÓN/GEHEUGENOPSLAG
CH2 (OPEN/CLOSE)

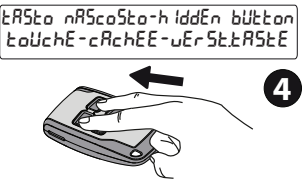
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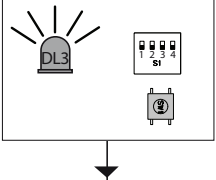
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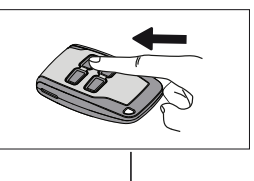
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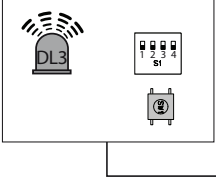
5



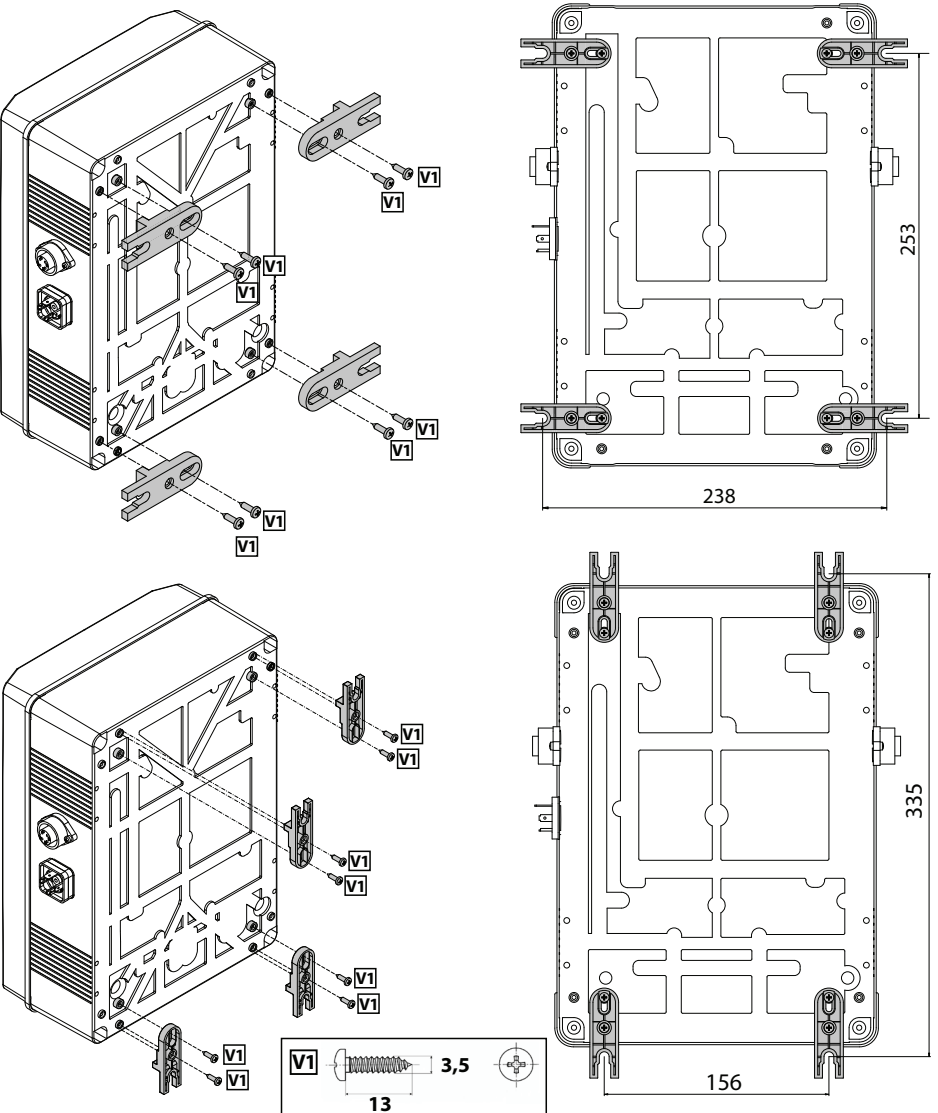
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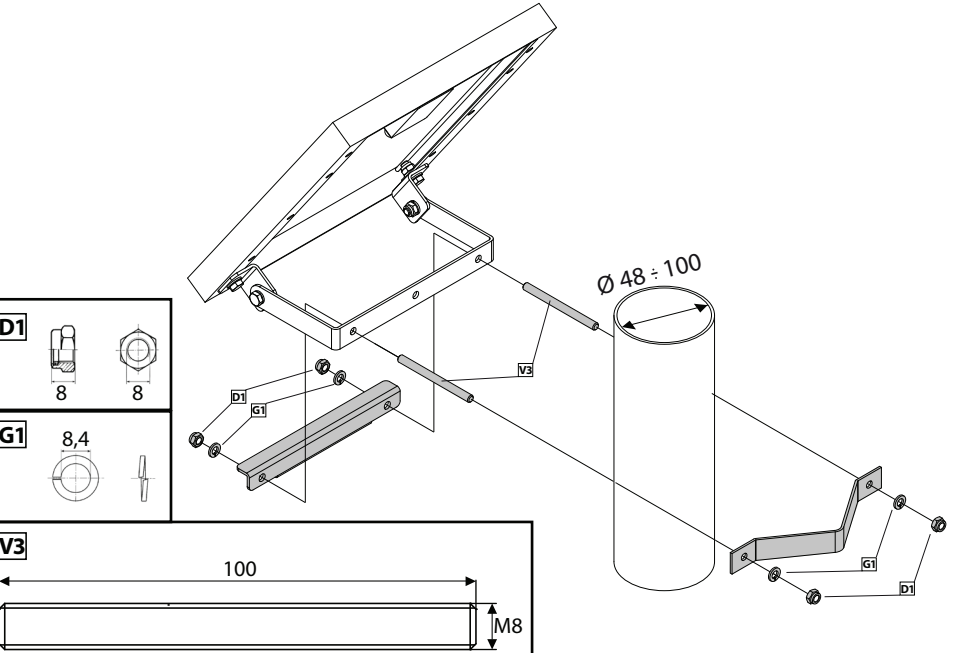
7



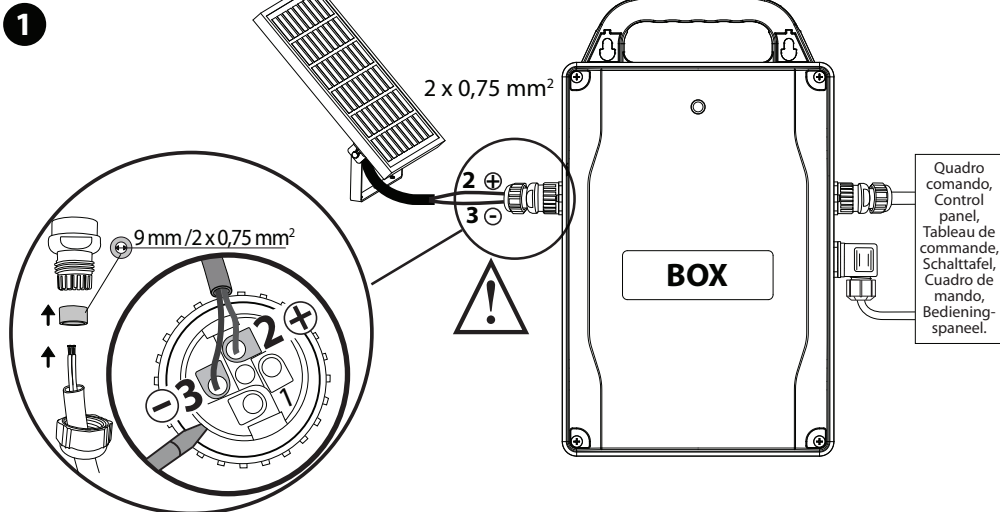
H Fissaggio Ecosol Box / Double con staffe, Fastening Helios Box / Double with brackets, Fixation de l'Ecosol Box / Double avec les étriers, Befestigung Ecosol Box / Double mit Bügeln, Fijación Ecosol Box / Double con abrazaderas, Bevestiging Ecosol Box / Double met beugels.



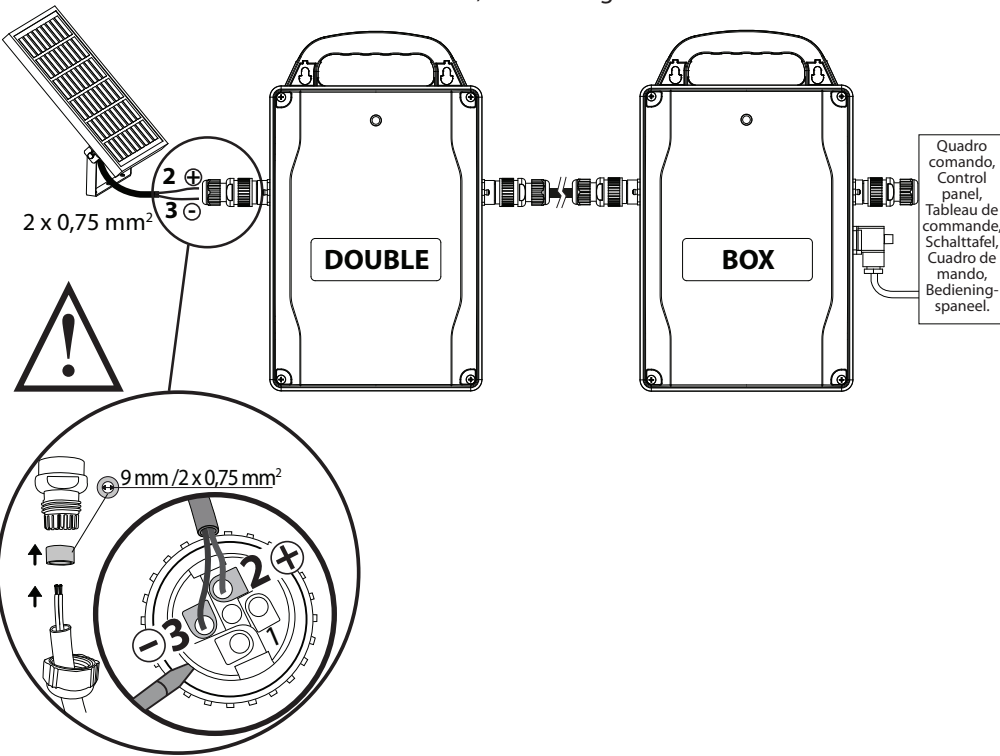
I Fissaggio Pannello a palo, Fastening the panel on post, Fixation du tableau sur poteau, Befestigung Panel an Pfahl, Fijación panel al poste, Bevestiging paneel aan paal.



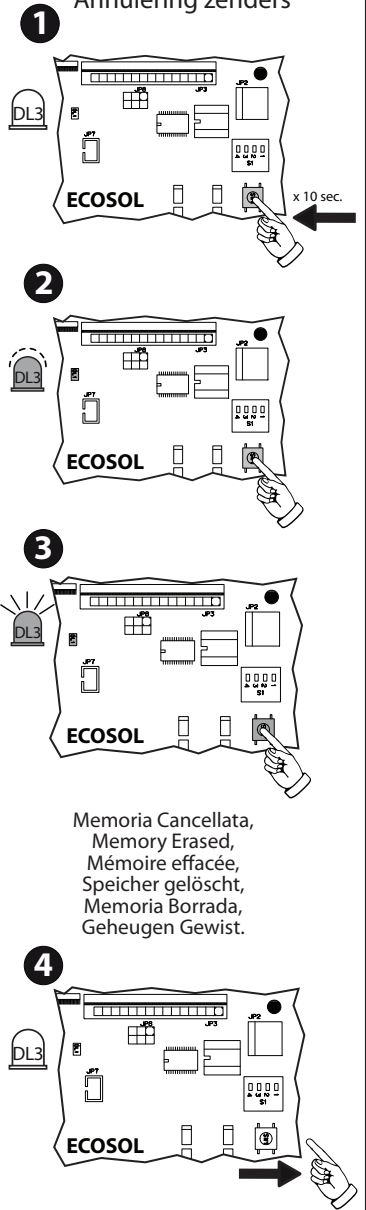
J Collegamento Ecosol Box, Ecosol Box connection, Connexion de l'Ecosol Box, Anschluss Ecosol Box, Conexión Ecosol Box, Aansluiting Ecosol Box.



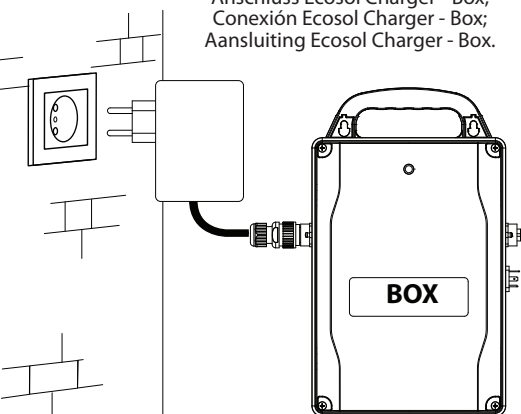
2 Collegamento Ecosol Box / Ecosol Double, Ecosol Box / Ecosol Double connection, Connexion de l'Ecosol Box / Ecosol Double, Anschluss Ecosol Box / Ecosol Double, Conexión Ecosol Box / Ecosol Double, Aansluiting Ecosol Box / Ecosol Double.



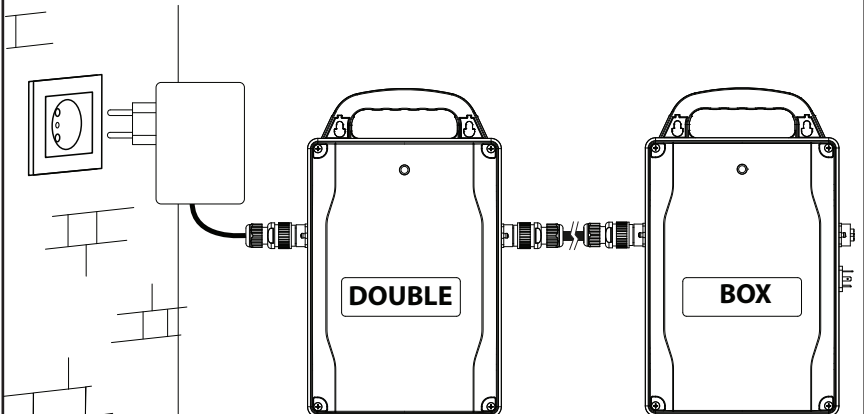
L Cancellazione radiocomandi
Transmitter cancellation
Cancellation émetteurs
Löschen von sendern
Cancelacion de transmisores
Annulering zenders



K **1** Collegamento Ecosol Charger - Box;
Ecosol Charger - Box connection;
Connexion de l'Ecosol Charger - Box;
Anschluss Ecosol Charger - Box;
Conexión Ecosol Charger - Box;
Aansluiting Ecosol Charger - Box.







2 Collegamento Charger - Double - Box; Charger - Double - Box connection;
Connexion du Charger - Double - Box; Anschluss Charger - Double - Box;
Conexión Charger - Double - Box; Aansluiting Charger - Double - Box.



Quadro comando, Control Panel, Tableau de commande, Schalttafel, Cuadro de mando, Bedieningspaneel.	ECOSOL*1	ECOSOL + DOUBLE*1	Impostazione DIP, DIP setting, Configuration des commutateurs Dip, Einstellung DIP, Configuración DIP, Instelling DIP.		
			DIP3	DIP4	
CB HIDE	20	40	ON	OFF	
LIBRA CMV (da/as from/à partir de la/von/desde/vanaf vers.1.04 MICHELANGELO)	15	30	ON	ON	
LIBRA C MO (da/as from/à partir de la/von/desde/vanaf vers.1.00.1 MOOVI BT)	20	40	OFF	OFF	
LIBRA C G - LIBRA C GS	20	40	OFF	OFF	
LINX	22	44	OFF	OFF	
QSCD MA - DEIMOS BT	9	19	OFF	OFF	
QSCD MA - URANO	7	15	OFF	OFF	
H QSC - ARES 1500-ARES 1000	6	13	OFF	OFF	
H QSC - DEIMOS BT 500	9	19	OFF	OFF	
VENERE D	9	18	ON	ON	
VENERE D - ARGO + SCS-IO (ZONE= 129)	8	16	ON	ON	
VENERE D - ARGO G + SCS-IO (ZONE= 129)	8	16	ON	ON	
THALIA THALIA P THALIA UL	ELI 250 BT	5	10	ON	OFF
	KUSTOS BT	20	40	ON	OFF
	KUSTOS ULTRA BT	20	40	ON	OFF
	PHOBOS BT A	20	40	ON	OFF
	PHOBOS N	20	40	ON	OFF
	IGEA	8	16	ON	OFF
	GIUNO BT A25	5	10	OFF	ON
	GIUNO BT A50	3	7	OFF	ON
	LUX BT	5	10	OFF	ON
	LUX G BT	3	7	OFF	ON
SUB BT	5	10	ON	OFF	
LIBRA UL R - PHOBOS BT (FIG. E Rif. B)	15	30	OFF	OFF	
QSC D MA UL - DEIMOS BT (FIG. E Rif. B)	8	16	OFF	OFF	
MERAK	DEIMOS ULTRA BT A	9	19	OFF	OFF
	ARES ULTRA BT A	6	13	OFF	OFF
MERAK BGS/ BG	GIOTTO BTS	20	40	OFF	OFF
	GIOTTO BT	20	40	OFF	OFF
MERAK BM - MICHELANGELO		15	30	ON	ON
HAMAL	DEIMOS BT A	9	19	OFF	OFF
	ARES BT A	6	13	OFF	OFF
ZARA	PHOBOS BT A	20	40	ON	OFF
	KUSTOS BT	20	40	ON	OFF
	KUSTOS ULTRA BT	20	40	ON	OFF

L'impianto viene disalimentato dopo 5 min. dall'ultimo comando. / The system is disabled 5 minutes after the last command. l'installation est mise hors tension 5 minutes après la dernière commande/ Die Anlage wird 5 Min. nach dem letzten Befehl von der Speisung getrennt./ La alimentación a la instalación es interrumpida tras 5 min. del último mando./ De voeding van het systeem wordt 5 min. na het laatste commando onderbroken.

*1 N. giorni di funzionamento in assenza di sole, 10 man/gg con 1 coppia di fotocellule 130, un lampeggiante. Durata manovra 25 Sec. 10 Sec. TCA.
 No. days of operation with no sun, 10 op/day with 1 pair of photocells 130, 1 flashing light. Operation time 25 Sec. TCA 10 Sec.
 Nombre de jours de fonctionnement en absence de soleil, 10 manœuvres/jour avec 1 paire de photocellules 130, un clignotant Durée de la manœuvre 25 secondes 10 sec. TCA.
 Anz. Tage Betrieb ohne Sonne, 10 Man./Tag mit 1 Paar Fotozellen 130, eine Blinkleuchte. Dauer Manöver 25 Sek. 10 Sek. TCA.
 Nº días de funcionamiento sin sol, 10 man/día con 1 par de fotocélulas 130, un indicador parpadeante. Duración maniobra 25 Seg, 10 Seg. TCA.
 Aantal dagen werking zonder zon, 10 man./dag met 1 paar fotocellen 130, een knipperlicht. Duur manoeuvre 25 sec. 10 sec. TCA.

N		LED	
<p>DL3 - Led programmazione radio / Led Batteria: (All'accensione effettua 4 lampeggi).</p> <p>DL3 - Remote programming LED / Battery LED: (Flashes 4 times at switch-on).</p> <p>DL3 - DEL Programmation / DEL Batterie : (Clignote 4 fois à l'allumage).</p> <p>DL3 - Led Programmierung Funk / Led Batterie: (Blinkt beim Einschalten 4 Mal).</p> <p>DL3 - Led programación radio / Led Batería: (Cuando se enciende parpadea 4 veces).</p> <p>DL3 - Led programming radio / Led Batterii: (Knippert 4 maal bij inschakeling).</p>	<p>Segnalazione programmazione radio (prioritaria rispetto alla segnalazione della batteria): <i>Remote programming indicator (has priority over battery indicator):</i></p> <p>Signalisation programmation de la radio (prioritaire par rapport à la signalisation de la batterie): <i>Anzeige Programmierung Funk (Vorrang vor Anzeige der Batterie):</i></p> <p>Señalización programación radio (prioritaria respecto a la señalización de la batería): <i>Signalering programmering radio (met voorrang op de signalering van de batterij):</i></p> <p>Segnalazione Batteria (attiva quando non si stà effettuando la programmazione radio): <i>Battery indicator (enabled when remote programming not in progress):</i></p> <p>Signalisation Batterie (active lorsque la programmation de la radio n'est pas en cours): <i>Anzeige Batterie (aktiv, wenn keine Programmierung Funk vorgenommen wird):</i></p> <p>Señalización Batería (activa cuando no se está realizando la programación radio): <i>Signalering Batterij (actief wanneer de programmering radio bezig is):</i></p>	<p>Vedi Fig. F - F1 - L ,</p> <p>See Fig. F - F1 - L.,</p> <p>Cf. Fig. F - F1 - L.</p> <p>Siehe Fig. F - F1 - L.</p> <p>Véase Fig. F - F1 - L.</p> <p>Zie Fig. F - F1 - L.</p>	<p>Batteria poco carica : E' possibile effettuare un numero limitato di manovre prima che l'automazione si blocchi per mancanza di energia. Attendere la ricarica attraverso il pannello oppure effettuare una ricarica con Ecosol-Charger</p> <p>Battery low: A limited number of operations can be performed before the automation system stops due to lack of power. Wait for the panel to charge the battery or charge using the Ecosol-Charger.</p> <p>Batterie peu chargée: On peut accomplir un nombre limité de manœuvres avant que l'automatisation ne se verrouille par manque d'énergie. Attendre la recharge à travers le tableau ou faire une recharge avec Ecosol-Charger.</p> <p>Batterie fastleer: Es ist möglich, eine begrenzte Anzahl von Manövern auszuführen, bevor die Automatisierung wegen Energiemangel blockiert. Das Nachladen über das Paneel abwarten oder mit Ecosol-Charger laden.</p> <p>Batería con poca carga: Se puede realizar un número limitado de maniobras antes de que la automatización se bloquee por falta de energía. Esperar que se recargue a través del panel o bien realizar una recarga con Ecosol-Charger.</p> <p>Batterij bijna leeg: Het is mogelijk een beperkt aantal manoeuvres uit te voeren, voordat het automatiseringssysteem geblokeerd raakt door gebrek aan energie. Wachten op lading via het paneel of opladen met behulp van Ecosol-Charger.</p>
<p>DL4 - Led segnalazione ricarica: DL4 - Recharge indicator LED: DL4 - DEL signalisation de recharge: DL4 - Led Anzeige Ladung: DL4 - Led señalización recarga: DL4 - Signaleringsled lading:</p>	<p>Segnalazione Batteria (attiva quando non si stà effettuando la programmazione radio): <i>Battery indicator (enabled when remote programming not in progress):</i></p> <p>Signalisation Batterie (active lorsque la programmation de la radio n'est pas en cours): <i>Anzeige Batterie (aktiv, wenn keine Programmierung Funk vorgenommen wird):</i></p> <p>Señalización Batería (activa cuando no se está realizando la programación radio): <i>Signalering Batterij (actief wanneer de programmering radio bezig is):</i></p>	<p> Il pannello solare stà ricaricando la batteria. Solar panel is charging the battery. Le panneau solaire est en train de recharger la batterie. Das Solarpaneel lädt die Batterie nach. El panel solar está recargando la batería. De batterij van het zonnepaneel wordt opnieuw geladen.</p>	<p> Batteria carica, Battery charged, Batterie chargée, Batterie geladen, Batería cargada, Batterij leeg.</p>
<p>DL2 - Led segnalazione ponticello inserito: DL2 - Jumper inserted indicator LED: DL2 - DEL signalisation de barrette engagée: DL2 - Led Anzeige Jumper eingesetzt: DL2 - Led señalización puente conectado: DL2 - Signaleringsled aanwezige brug:</p>	<p>Segnalazione Batteria (attiva quando non si stà effettuando la programmazione radio): <i>Battery indicator (enabled when remote programming not in progress):</i></p> <p>Signalisation Batterie (active lorsque la programmation de la radio n'est pas en cours): <i>Anzeige Batterie (aktiv, wenn keine Programmierung Funk vorgenommen wird):</i></p> <p>Señalización Batería (activa cuando no se está realizando la programación radio): <i>Signalering Batterij (actief wanneer de programmering radio bezig is):</i></p>	<p> Ponticello chiuso, quadro comando automazione sempre alimentato. Jumper closed, automation control panel always powered. Barrette fermée, tableau de commande automatisation toujours sous tension. Jumper geschlossen, Steuertafel Automatisierung immer gespeist. Puente cerrado, cuadro de mando automatización siempre alimentado. Brug dicht, bedieningspaneel automatiseringssysteem altijd gevoed.</p>	<p> Ponticello aperto. ATTENZIONE prima di chiudere il coperchio assicurarsi che il led segnalazione ponticello inserito sia spento. Jumper open: WARNING before closing the cover, make sure the 'jumper inserted' indicator LED is unlit. Barrette ouverte: ARRENTION avant de fermer le couvercle vérifier si la DEL de signalisation de barrette engagée est éteinte. Jumper open: ACHTUNG Vor dem Schließen der Abdeckung sicherstellen, dass die LED Anzeige Jumper aus ist. Puente abierto: ATENCIÓN antes de cerrar la tapa asegurarse de que el led de señalización puente activado esté apagado. Brug aperto: LET OP alvorens het deksel te sluiten, controleren of de signaleringsled aanwezige brug uitgeschakeld is.</p>

1) GENERAL INFORMATION

The range of ECOSOL products can be used to produce a solar energy power system for low-voltage (LV) automated devices. The system is particularly suitable for powering gates that are some distance from the mains power supply.

2) TECHNICAL SPECIFICATIONS

(All specifications refer to an ambient temperature of +20°C)

ECOSOL BOX	
Rated voltage	24 V $\overline{=}$
Maximum current	10 A
Rated battery capacity	7,2 Ah
Protection rating	IP55
Environmental conditions	-20°C + 50°C (battery recharge 0° +40°)
Batteries	Two 12V 7.2Ah batteries
Weight	6 kg
Dimensions	See Fig. A Ref. 1
Maximum Panel power	35 Wp (Watt-peak)
Built-in Rolling-Code radio-receiver	frequency 433.92MHz
Standby power demand	0,15 W
N° of combinations	4 billion
Max. n° of transmitters that can be memorized	63

Usable transmitter versions:

All ROLLING CODE transmitters compatible with  ((E-Ready)).

ECOSOL PANEL	
Rated voltage	24 V $\overline{=}$
Peak power	10 Wp (Watt-peak)
Operating temperature range	-20°C + 50°C
Dimensions	See Fig. B Ref. 7
Weight	2 Kg
ECOSOL DOUBLE	
Rated voltage	24 V $\overline{=}$
Maximum current	10 A
Rated battery capacity	7,2 Ah
Protection rating	IP55
Operating temperature range	-20°C + 50°C (battery recharge 0° +40°)
Dimensions	See Fig. A Ref. 1
Weight	5,5 Kg

3) TUBE ARRANGEMENT Fig.A

Install the electrical system referring to the standards in force for electrical systems CEI 64-8, IEC 364, harmonization document HD 384 and other national standards.

4) SYSTEM ARRANGEMENT FIG.A

Determine the most suitable point for installation, taking into account:

- 1) The maximum recommended length of cables
- 2) The position of ECOSOL Box: to get the best efficiency out of the batteries, ECOSOL box must be installed where it will be protected from high summer temperatures and low winter temperatures.
- 3) The position of the solar panel: The solar panel must be positioned so that it will receive sunlight on any day of the year.

WARNING: direct sunlight must hit every point of the panel's surface; even just a partial shadow over what might be just a small area of the panel (e.g. from vegetation) reduces the panel's efficiency considerably.

5) HOW TO FASTEN THE PHOTOVOLTAIC PANEL

- Fissaggio a muro (Fig. B)
- Fissaggio a palo (Fig. I)

WARNING: Turn the panel to face South for countries North of the equator (Europe, United States, Russia) and vice versa.

6) HOW TO FASTEN ECOSOL BOX FIG.C

- Fastening with handle (Fig. C)
- Fastening with brackets (Fig. H)

7) ECOSOL KIT DEVICES

The standard version of the kit comprises:

- 1) BOX - Power supply board for solar panel system.
- 2) PANEL - Solar panel for supplying power to low-voltage systems.

The following optional accessories are available to complete installation:

- 3) DOUBLE - Battery capacity expansion board for BOX
- 4) CHARGER - Mains-powered multi-frequency multi-voltage battery charger for BOX

- 5) SECURITY - Tamperproof screws kit for PANEL and POST BR
- 6) POST BR - Clamp for installing PANEL on post (Fig. I).
- 7) CABLE - 20m extension cable for ECOSOL CHARGER
- 8) SFQ - Electrical Panel Fixing Brackets (Fig. H).

8) Board features (Fig. E1).**9) Connection with control panel (Fig. E, G)**

WARNING: *1 Power always on to be used to supply devices that must be active even when control is not being used. E.g. Metal Object Detectors.
*2 Power only on during operation, to be used to supply auxiliary components. E.g. Photocells.

WARNING: Enable ScR-2ch and EcR logic on the automated device's control panel.

When ECOSOL Box receives a command, it powers the automated device's control panel and forwards the command received. It takes a few seconds (depending on the automated device being used) for the automated device's control panel to be ready to receive the command, meaning there will be a delay between pressing the button and the operation starting. The delay between the board switching on and the command being forwarded can be set using the dip switches (sect. DIP SWITCH settings)

The use of ECOSOL Box and use of the second radio channel are mutually exclusive. Once the automated device has completed the closing operation, ECOSOL Box cuts off power to the device's control panel. The most efficient system configuration is achieved by enabling automatic closing logic and selecting the minimum setting for the automatic closing waiting time. If no commands are received for 5 minutes, power to the system is cut off in any case. If automatic closing has not been enabled, power to the system is cut off in any case after 5 minutes. In this case, on some automated device models, 2 START commands may be necessary to get the device to close.

If the ECOSOL Box board's Open input stays on for more than 10 sec., it is controlled like a timer (enabling of automatic closing is compulsory). In this case, power to the system is cut off after 5 minutes and then, once the timer releases the Open input, the system is powered and the Open command is transmitted, the automated device waits for the automatic closing time after which it starts the closing operation.

10) Memorizing and deleting transmitters (Fig. F - F1 - L)

WARNING: Memorize transmitters on the ECOSOL Box board, No transmitter must be memorized on the automated device's control panel.

11) DIP SWITCH settings (Fig. M)

DIP1) ECOSOL Double [OFF] - ECOSOL Double connection.

ON: ECOSOL Double connected.

OFF: ECOSOL Double not connected.

DIP2) RADIO LEARN [OFF] - Transmitter programming.

ON: Enables wireless memorizing of transmitters:

- 1 - Press in sequence the hidden key (P1) and normal key (T1-T2-T3-T4) of a transmitter that has already been memorized in standard mode via the radio menu.
- 2 - Press within 10 sec. the hidden key (P1) and normal key (T1-T2-T3-T4) of a transmitter to be memorized.

The receiver exits programming mode after 10 sec.: you can use this time to enter other new transmitters. This mode does not require access to the control panel.

IMPORTANT: Enables the automatic addition of new transmitters, clones and replays.

OFF: Disables wireless memorizing of transmitters. Transmitters are memorized only by pressing the key.

IMPORTANT: Disables the automatic addition of new transmitters, clones and replays.

DIP3 - DIP4) Command transmission delay

DIP3	DIP3	Time [s]
OFF	OFF	1,3
ON	OFF	1,5
OFF	ON	1,7
ON	ON	2,1

12) ECOSOL Double (Fig. J)

WARNING: When using ECOSOL Double, before making the connection, check that the difference in voltage between ECOSOL Double's batteries and ECOSOL Box's is less than 0.7 V. If this is not the case, recharge the batteries that are lowest so that the difference in voltage does not exceed the threshold given.

13) ECOSOL Charge (Fig. K)

WARNING: If batteries are being recharged using ECOSOL Charge, it must be connected without breaking the connection between ECOSOL Box and ECOSOL Double, as illustrated in Fig. K.

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