

TA-SCOPE Relay



Instruments

Wireless transmission relay



Engineering
GREAT Solutions

TA-SCOPE Relay

TA-SCOPE relay is a long-range transmission relay for measuring, balancing and diagnosing hydronic systems with multiple TA-SCOPE sensors. It is to be used in particular for applying the TA-Wireless method with the TA-SCOPE in large buildings.

Key features

- > **Long range wireless transmission**
Range between two relays reaches 5 to 6 floors indoor.
- > **Long-standing batteries**
Fully charged TA-SCOPE relays provide three days of power-efficient wireless performance.
- > **Easy configuration**
A software wizard integrated in the TA-SCOPE takes you step-by-step through an illustrated configuration process.



Technical description

Applications:

TA-SCOPE relay is a long-range transmission relay for measuring, balancing and diagnosing hydronic systems with multiple TA-SCOPE sensors.

It is to be used in particular for applying the TA-Wireless method with the TA-SCOPE in large buildings.

Configuration:

In order to configure long-distance transmission with the optional TA-SCOPE Relays select Configure Relays in the Options menu.

A software wizard takes you step-by-step through the configuration process. The option Add intermediate Relays allows adding more intermediate Relays to an existing relay configuration.

Ambient temperature:

During operation: 0°C – +40°C
During charging: 0°C – +40°C
During storage: -20°C – +60°C

Humidity:

Ambiant humidity: max 90% RH

Battery capacity, operating and charge times:

Capacity: 4 400 mAh
Operating time: >25 h
Charge time to full capacity: 6-7 h

Remark: Replacing the battery by another type is strictly forbidden and could lead to an explosion.

Wireless:

Between two relays:
868 MHz – EC version.
915 MHz – FCC version.
Range in open space: approx. 500 m.
Range indoors: approx. 5-6 floors.

Enclosure class:

IP 44

Colour:

Black

Charger:

Output voltage: 5,2 V DC (minimum 5,0 V, maximum 5,3 V)
Output current: Minimum 1 A.
Isolation: Class II.
Certification: IEC (868 MHz) and/or UL, CSA (915 MHz).
Complying with the LPS (Low Power Source) regulation.

Functions

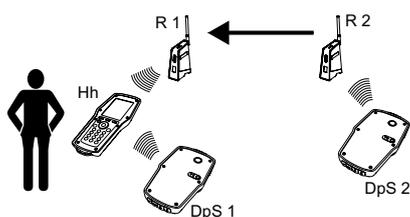
The TA-SCOPE relay is a high power transmission relay allowing to receive measurements performed by multiple TA-SCOPE Dp sensors located across a whole building.

It uses 868 MHz (Europe) or 915 MHz (US) radio for obtaining a large transmission range and bridges this signal with the 2,4 GHz used by the TA-SCOPE handheld and Dp sensors.

The elementary configuration is:

- Relay 1 near the operator
- Relay 2 near the second Dp sensor

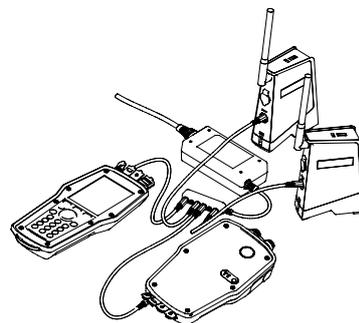
If larger range is needed, up to 5 intermediate relays can be added.



Hh = Handheld

DpS = Dp Sensor

R = Relay



Charging

Charging of TA-SCOPE relays is performed by using the multi-charger available in the TA-SCOPE case.

Operation

For best wireless range

Install the relays

- at some height (1 - 2 m) from the floor
- not too close to reinforced concrete walls
- not on a wet surface

Use technical shafts when available as channel for the radio waves (see Fig. 1).

Place relays near windows or outdoor to extend propagation of radio waves in larger buildings (see Fig. 2).

Fig. 1

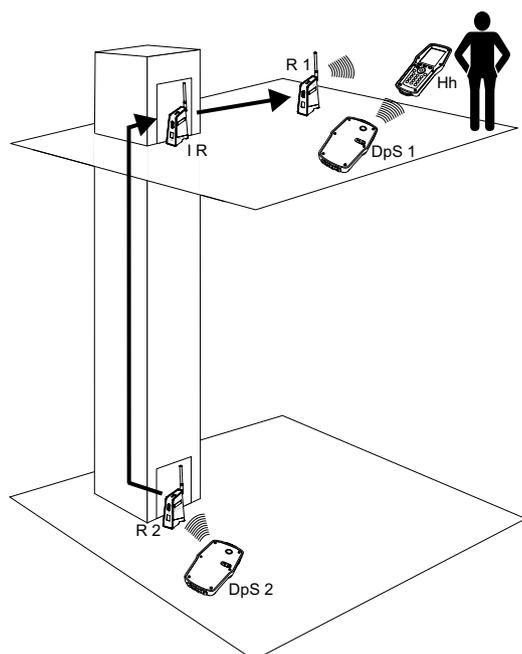
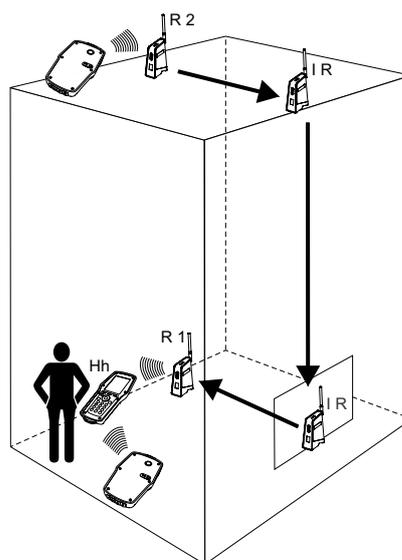


Fig. 2



I R = Intermediate Relay

Articles

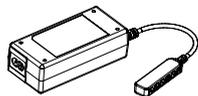


Relay

1 DC cable per relay included.

Version		L	H1	H2	B	EAN	Article No
Relay kit, case with 3 relays (2 Kensington locks and 1 belt clip included)							
868 MHz	Europe	90	130	100	45	7318793998903	52 199-961
915 MHz	US/AU/NZ	90	130	100	45	7318793999009	52 199-962
Relay, separate							
868 MHz	Europe	90	130	100	45	7318793999108	52 199-963
915 MHz	US/AU/NZ	90	130	100	45	7318793999207	52 199-964

Accessories



Multi-charger

With 6 DC cable connection points.
Excl. AC and DC cables.

EAN

Article No

310 395-01



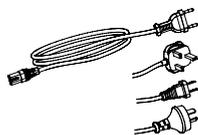
DC cable

To connect a device to the multi-charger

EAN

Article No

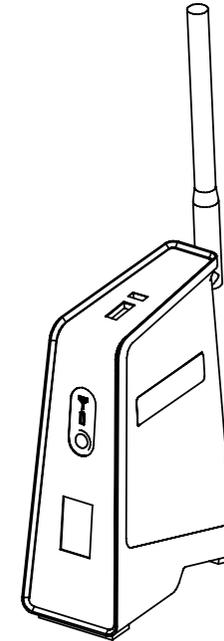
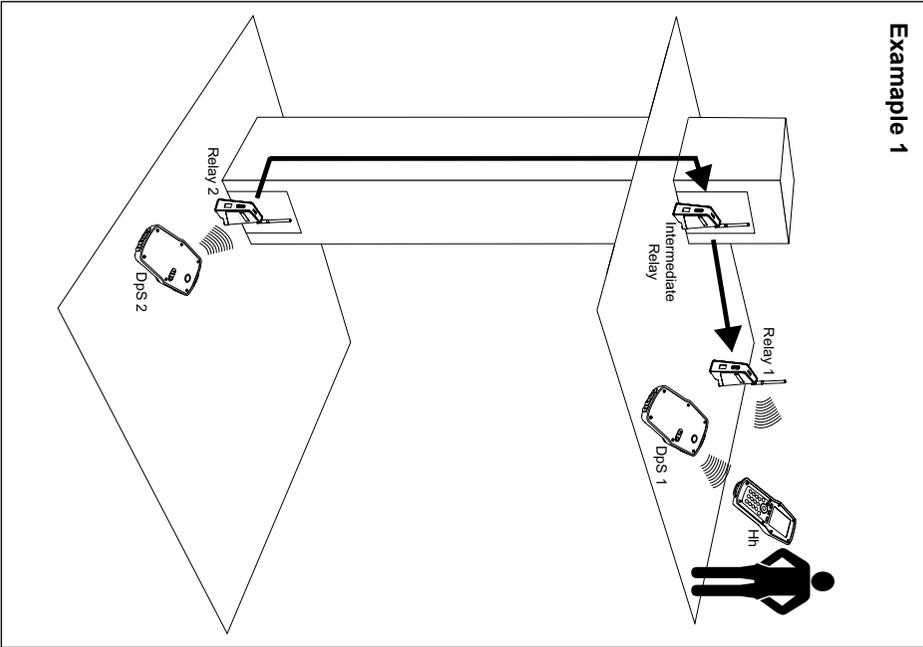
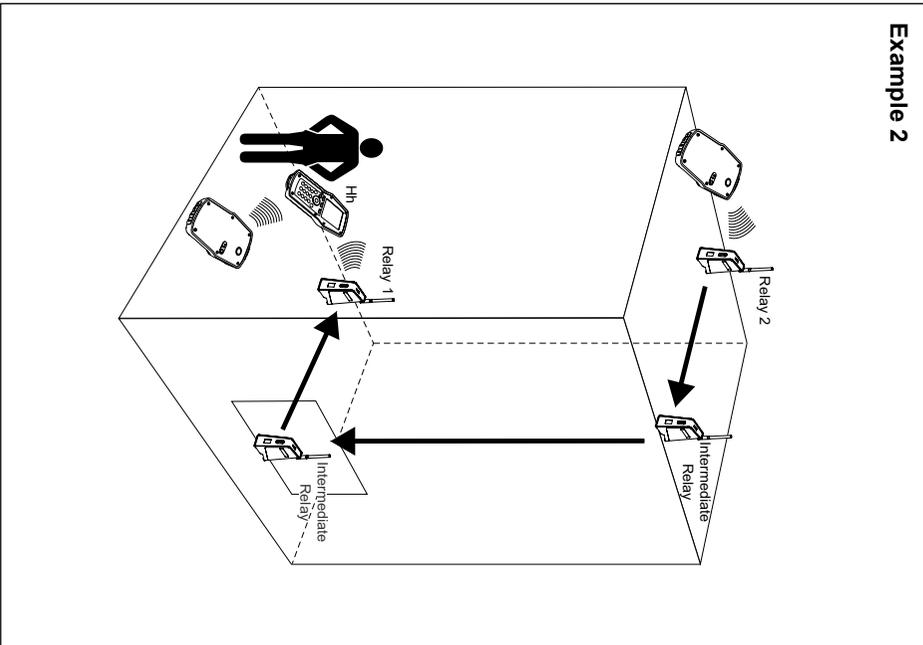
310 397-01

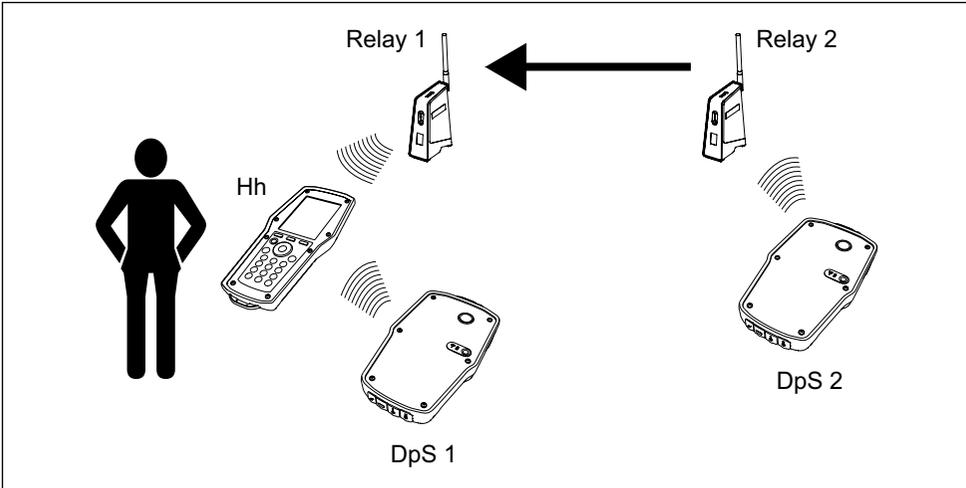
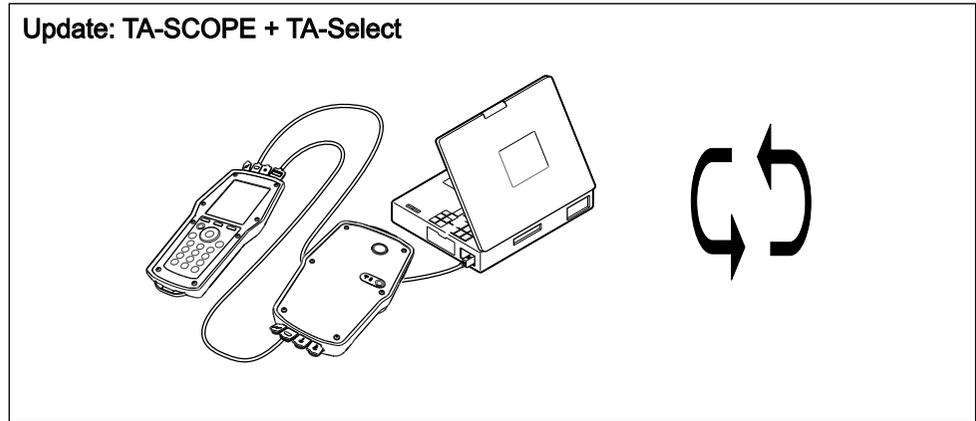
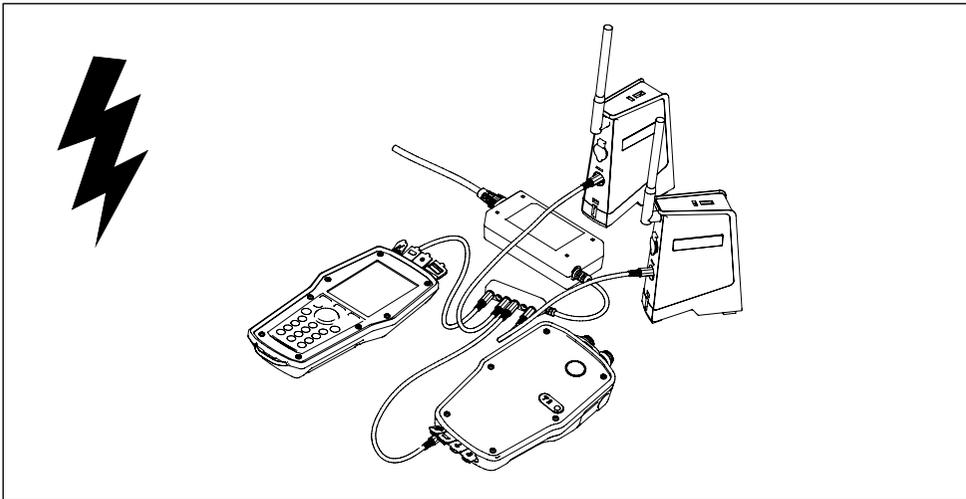


AC cable

Version	EAN	Article No
Europe		310 396-01
UK		310 396-02
US		310 396-03
AU/NZ		310 396-04

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Example 1

Example 2




www.tahydrionics.com/en/RelayFAQ

The US:
 « THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS: (1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND (2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRE OPERATION.
 NOTE: THE GRANTEE IS NOT RESPONSIBLE FOR ANY CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY THE PARTY RESPONSIBLE FOR COMPLIANCE. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.
 The antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons.

1. Home screen with 'Settings' icon highlighted.

2. Settings menu with 'Configure relays' selected.

3. Relay configuration screen with a list of options: 1. Wireless signal, 2. Configure relays, 3. Technical parameters, 4. Units, 5. Power saving, 6. Device names, 7. Language & formats, 8. Key beep, 9. Date & time, 10. Information messages, 11. Software updates.

4. Relay configuration screen with a message: 'You will now start configuring Dp sensors and Relays for long-distance transmission.'

5. Relay configuration screen showing a table of relay settings:

MAC	Name	Radio
XXXXXX XXXX		Enabled
XXXXXX XXXX		Enabled
XXXXXX	Relay 1 (0#)	Enabled
XXXXXX	Relay 2 (DpS 2)	Enabled

6. Summary screen showing three relay configurations with status icons and MAC addresses (XX VX.X).