

INSTALLATION GOLDen GATE Lonworks FTT-10, TBLZ-3-1-1-41 and TBLZ-1-2-1-41

1. General

The GOLDen GATE Lonworks communication unit is available in a number of kits for connecting up to GOLD and COMPACT units of various generations.

In addition to the communication unit itself (part no. 019400), each kit also includes connection cables.

TBLZ-3-1-1-41 Communications kit

Intended for use together with the Version B/C/D/E/F GOLD air handling units and COMPACT air handling units.

TBLZ-1-2-1-41 Communications kit

Intended for use together with the Version 4/A GOLD air handling units.

Safety precautions

Be careful when you connect leads to the unit. Never connect leads to the unit while the supply voltage is switched on. Doing so may result in injury to you and damage the unit. Observe local electrical safety regulations when carrying out the electrical installation work.

Communication unit

The unit consists of the following components:

1. 4-module standard enclosure for DIN-rail mounting to IP20.
2. 9-pin D-subconnector for connection via serial cable to computer for configuration or to a Version 4/A/B GOLD unit.
3. Terminal for a 10-30 V AC/DC, 25 mA power supply for 24 V
4. Terminal block for EIA 485 network (Used by Version C/D GOLD units)
5. DIL switch for the termination of the EIA 485 network
6. Terminal block for the LonWorks network.
7. "Service-Request" PIN.
8. Service LED.
9. Module Status LED.
10. Serial Status LED.

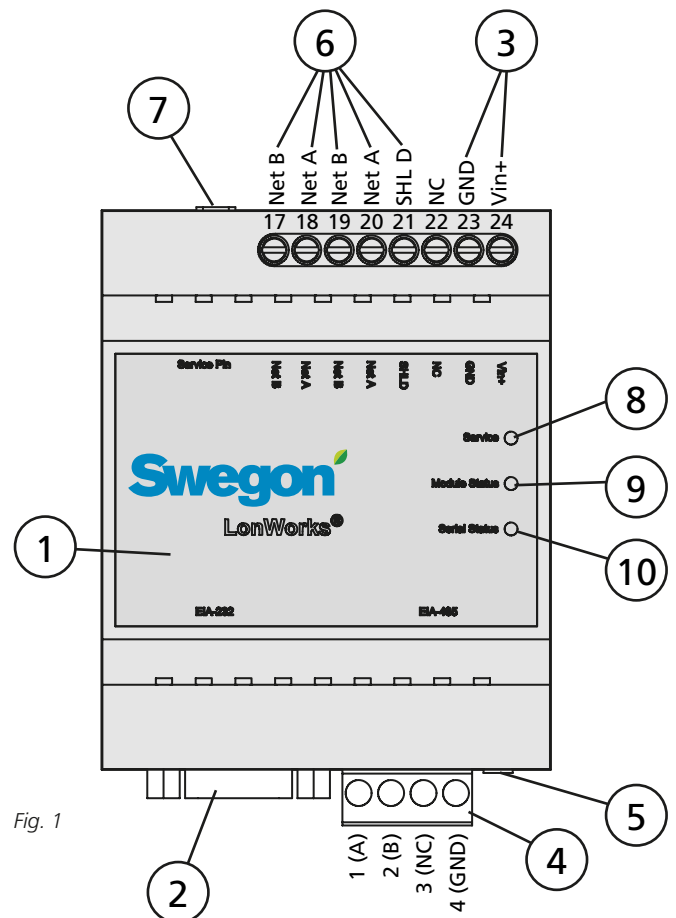


Fig. 1

2. Configuring

The communication unit must be configured before it can be put into operation. Energize the unit with 24 V AC, temporarily or according to the description in Section 4, Installation.

Configure the unit by means of the configuration software:

GOLDen GATE Config which is available from our website. Address

<http://www.swegon.com>, under Software. Install the computer program according the instructions in the set-up window.

A computer with Windows 98 or better is required, as well as an RS-232 serial port. Use the serial cable, supplied, with double 9-pin D-subconnectors. Start the configuration program and select Golden Gate LonWorks, See Fig. 2.

Select the appropriate serial port and version (GOLD 4A, B, C, D, E, F or COMPACT), see Figure 3.

Get Config=Current setting and program version in the communication unit.

Set Config=Transfer the settings in the configuration program to the communication unit.

Upgrade FW=Downloads the new software for the version required into the communication unit. Open the preferred program file. It is located in the "GOLDen GATE Config" folder installed.

Open the relevant file and it will be installed in the unit connected.

A window will appear when the unit has been programmed. After the installation has been completed, it may be necessary to switch off and switch on the supply voltage to the communication unit.

Fig. 2

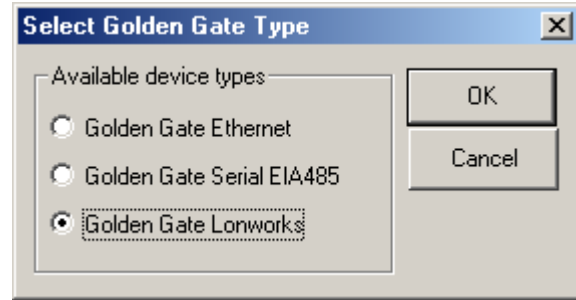
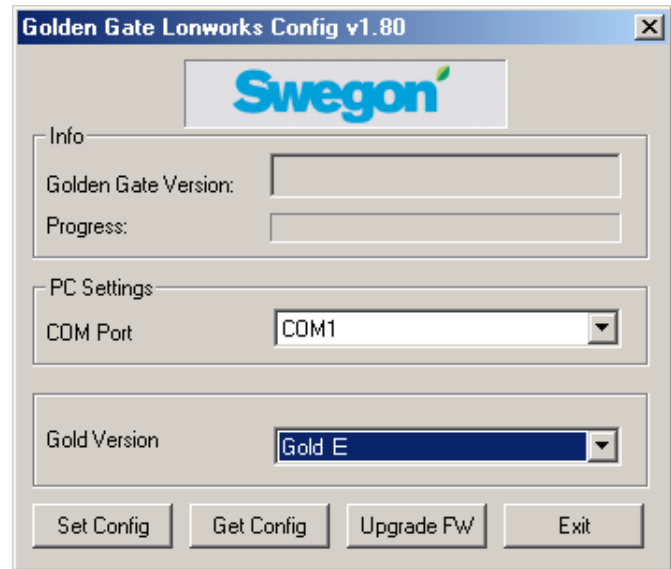


Fig. 3



3. Installation

3.1 GOLD, Version E/F

Place the communication unit on the DIN rail inside the electrical equipment cubicle of the air handling unit or inside an optional enclosure.

Connect the 24 V AC supply voltage to terminals Vin+ (24) and GND (23). Supply voltage can be obtained from the control unit of the air handling unit, see below and B in Fig. 4.

| | |
|--------------------|------------------|
| <i>GOLDen GATE</i> | <i>GOLD</i> |
| Terminal 24 (Vin+) | Terminal 31 (G) |
| Terminal 23 (GND) | Terminal 32 (G0) |

Connect the network from the GOLDen GATE communication unit to the control unit of the GOLD (A in Fig. 4). Use a 3-wire cable.

| | |
|-----------------------|------------------|
| <i>GOLDen GATE</i> | <i>GOLD</i> |
| Terminal 1 (A) | Terminal 1 (A) |
| Terminal 2 (B) | Terminal 2 (B) |
| Terminal 3 (Not used) | |
| Terminal 4 (GND) | Terminal 3 (GND) |

The DIL switch must be in the ON position (see Fig. 1, Item 5).

Connect the Lonworks-network to the communication unit, NET A (terminal 18 or 20), NET B (terminal 17 or 19) and shield, if required, to SHLD (terminal 21).

Communication between the communication unit and the air handling unit is activated by choosing LON in the hand-held terminal under Functions/Communication/EIA-485. See also the Operating and Maintenance Instructions for the GOLD.

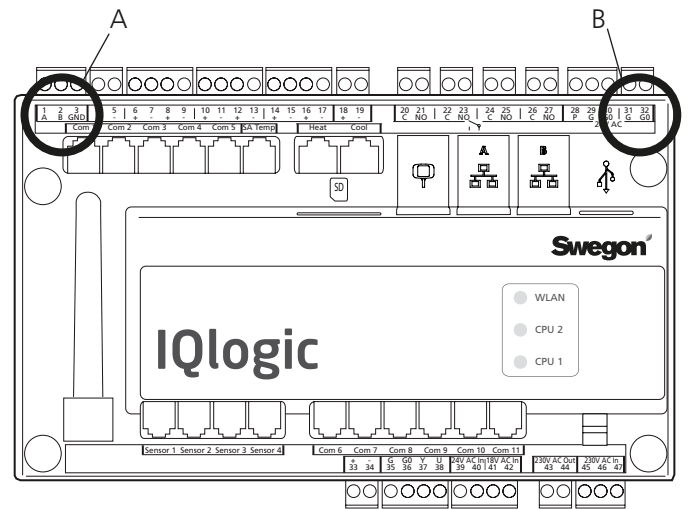


Fig. 4

3.2 GOLD, Version C/D

Place the communication unit on the DIN rail inside the electrical equipment cubicle of the air handling unit or inside an optional enclosure.

Connect the 24 V AC supply voltage to terminals Vin+ (24) and GND (23). Supply voltage can be obtained from the control unit of the air handling unit, see below and B in Fig. 5.

| | |
|--------------------|------------------------|
| <i>GOLDen GATE</i> | <i>GOLD</i> |
| Terminal 24 (Vin+) | Terminal 58 or 60 (G) |
| Terminal 23 (GND) | Terminal 59 or 61 (G0) |

Connect the network from the GOLDen GATE communication unit to the control unit of the GOLD (A in Fig. 5). Use a 3-wire cable.

| | |
|-----------------------|-------------------|
| <i>GOLDen GATE</i> | <i>GOLD</i> |
| Terminal 1 (A) | Terminal 27 (A) |
| Terminal 2 (B) | Terminal 28 (B) |
| Terminal 3 (Not used) | |
| Terminal 4 (GND) | Terminal 29 (GND) |

The DIL switch must be in the ON position (see Fig. 1, Item 5).

Connect the Lonworks-network to the communication unit, NET A (terminal 18 or 20), NET B (terminal 17 or 19) and shield, if required, to SHLD (terminal 21).

Start communication between the communication unit and the air handling unit by entering the settings described below. The search path in the hand-held micro terminal is the following: SETTINGS/INSTALLATION/COMMUNICATION/EIA485 and PROTOCOL/SETTINGS. See also the Operating and Maintenance Instructions for the GOLD.

Select the setting: LONWORKS/TREND under EIA-485/PROTOCOL.

Check to make sure that the following values are set under: EIA-485/SETTINGS.

- Address = 1.
- Speed = 38400
- Parity = none.
- Stop bits = 1.

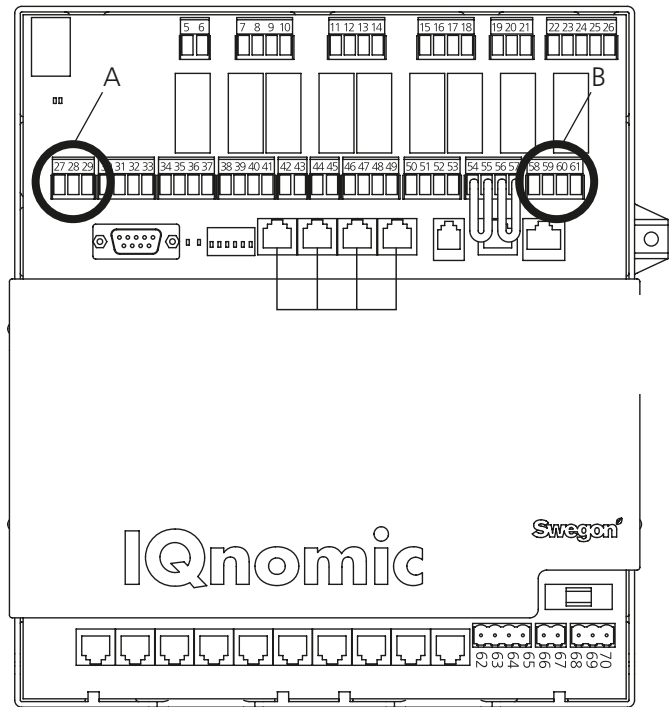


Fig. 5

3.3 COMPACT

Place the communication unit on the DIN rail inside the electrical equipment cubicle of the air handling unit or inside an optional enclosure.

Connect the 24 V AC supply voltage to terminals Vin+ (24) and GND (23). Supply voltage can be obtained from the control unit of the air handling unit, see below and B in Figure 6.

| | |
|--------------------|------------------|
| <i>GOLDen GATE</i> | <i>COMPACT</i> |
| Terminal 24 (Vin+) | Terminal 9 (G) |
| Terminal 23 (GND) | Terminal 10 (G0) |

Connect the network from the GOLDen GATE communication unit to the control unit of the COMPACT unit (A in Fig. 6). Use a 3-wire cable.

| | |
|-----------------------|-------------------|
| <i>GOLDen GATE</i> | <i>COMPACT</i> |
| Terminal 1 (A) | Terminal 11 (A) |
| Terminal 2 (B) | Terminal 12 (B) |
| Terminal 3 (Not used) | |
| Terminal 4 (GND) | Terminal 13 (GND) |

The DIL switch must be in the ON position (see Fig. 1, Item 5).

Connect the Lonworks-network to the communication unit, NET A (terminal 18 or 20), NET B (terminal 17 or 19) and shield, if required, to SHLD (terminal 21).

Start communication between the communication unit and the air handling unit by entering the settings described below. The search path in the control panel is the following: SETTINGS/INSTALLATION/COMMUNICATION/EIA485 and PROTOCOL/SETTINGS. See also the Operating and Maintenance Instructions for the COMPACT.

Select the setting: LONWORKS/TREND under EIA-485/PROTOCOL.

Check to make sure that the following values are set under: EIA-485/SETTINGS.

- Address = 1.
- Speed = 38400
- Parity = none.
- Stop bits = 1.

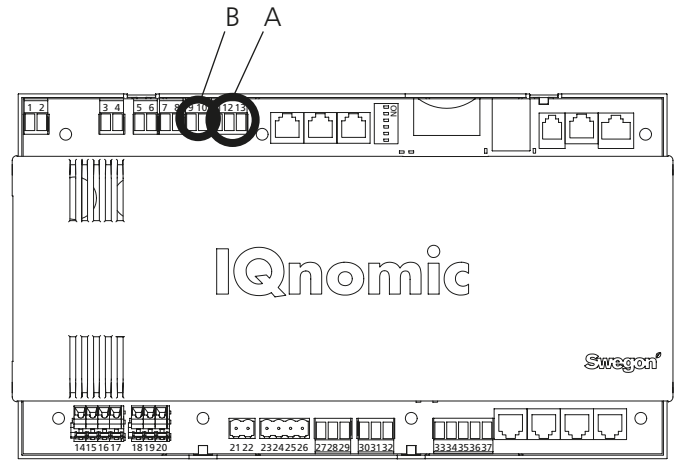


Fig. 6

3.4 GOLD, Version B

Place the communication unit on the DIN rail at the side of the junction hood of the air handling unit.

Connect the 24 V AC supply voltage to terminals Vin+ (24) and GND (23). Supply voltage can be obtained from the electrical equipment cubicle of the air handling unit, see below.

| | |
|--------------------|-------------------|
| <i>GOLDen GATE</i> | <i>GOLD</i> |
| Terminal 24 (Vin+) | Terminal 104 (G) |
| Terminal 23 (GND) | Terminal 103 (G0) |

Connect the network from the GOLDen GATE communication unit (Item 2 in Fig. 1) to the control unit in the GOLD (tapping for LON in Fig. 7). Use the data communication cable supplied.

DIL switch no. 4 on the GOLD air handling unit's control unit must be in the ON position, and DIL switch no. 3 must be in the OFF position (see Fig. 7).

Connect the Lonworks-network to the communication unit, NET A (terminal 18 or 20), NET B (terminal 17 or 19) and shield, if required, to SHLD (terminal 21).

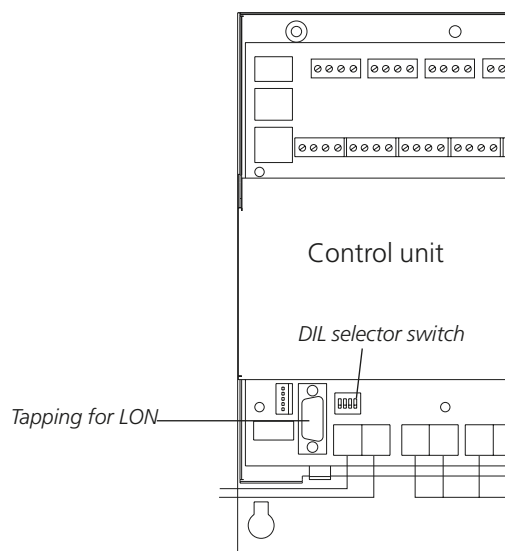


Fig. 7

3.5 GOLD, Version 4 and Version A

Place the communication unit on the DIN rail at the top of the air handling by the quick connector sockets and cable lead-throughs.

Connect the 24 V AC supply voltage to terminals Vin+ (24) and GND (23). Supply voltage can be obtained from the control unit of the air handling unit, see below and Fig. 8.

| | |
|--------------------|-----------------|
| <i>GOLDen GATE</i> | <i>GOLD</i> |
| Terminal 24 (Vin+) | Terminal 9 (G) |
| Terminal 23 (GND) | Terminal 7 (G0) |

Connect the network from the GOLDen GATE communication unit to the control unit of the GOLD unit. Use the communication cable supplied. The communication cable has a 4-pin round quick connector and a 9-pin D-subconnector. Connect between Connection A in Fig. 8 and Item 2 in Fig. 1.

Connect the Lonworks-network to the communication unit, NET A (terminal 18 or 20), NET B (terminal 17 or 19) and shield, if required, to SHLD (terminal 21).

Start communication between the communication unit and the air handling unit by setting LON COMMUNICATION to 0 in the hand-held micro terminal.

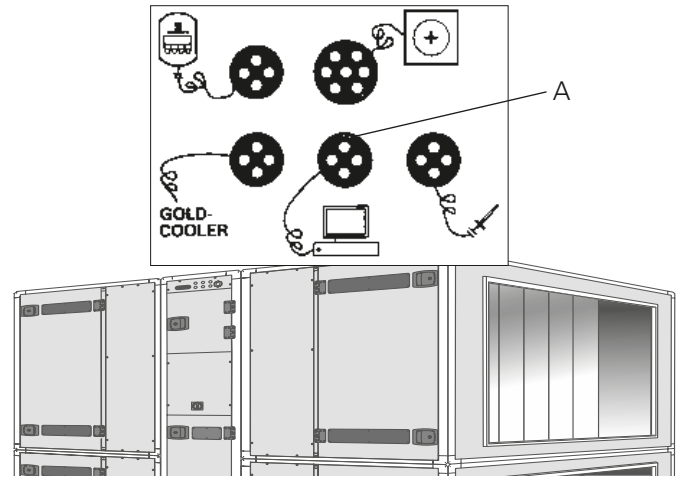


Fig. 8

4. General particulars

Service

Flashes if the unit has not been configured in the Lon-Works network.

Module Status

Flashes green while the unit is energized.
Flashes red if the unit has not been configured via the Golden Gate Config. software.

Serial Status

Flashes green when the unit communicates with the GOLD unit.
Is lit with red glow when the network is missing. The LON network connections must be re-established by a network operator.

Other Particulars

Closing terminations must be used for the system to operate correctly. The network operator determines the type of termination depending on the selected type of bus topology in use.

By pressing the "Service Request PIN" pushbutton, the network operator obtains the individual identification code of the communication unit.

When communication is established, a list of the available parameters can be fetched from the communication unit. The parameters that are required can be selected from this list. This list is also located as an "xif file" in the "GOLDen GATE Config" folder installed. The parameters for Version C are also described in the Function Profile that is available from our home page at www.swegon.com under Products/Air handling units/GOLD One-piece unit. Please contact Swegon for particulars of other versions.

The GOLD air handling units operate independent of whether or not the LON network is active.

