KNX TECHNOLOGY - COMPLETE CONNECTED HOUSE

Learn about KNX multi-brand home automation technology quickly and easily with this complete model of connected house.
This instructional solution enables acquisition and validation of the skills for the diploma in Electricity and Connected Environments, in a simple home automation environment. Ideal for introducing your students quickly and clearly!

Delivered with ETS Lite software for programming the model.

PARTNER KNX

A chassis with wheels in aluminum profile
• Dimensions: (W)1200 x (D)700 x (H)1700mm - Weight: 92kg

Ref.	Version	Accessible on terminals
MCP-KNX	To put on table	Yes
MCP-KNX-P	To put on table	No
MCP-KNX-R	On wheels	Yes
MCP-KNX-PR	On wheels	No

EDUCATIONAL OBJECTIVES

▪ To learn about the HOME AUTOMATION environment of a simulated electrical installation
▪ To learn about and study the features of a KNX multi-brand home automation installation
▪ To understand the specifications of an electrical installation
▪ To produce electrical diagrams
▪ To create a parts list of components
▪ To analyze manufacturer technical datasheets
▪ To configure the KNX components
▪ To perform wiring and connection of electrical components in jumper wires on industrial terminals to avoid wear of component terminals
▪ To put installation into service
▪ To configure the WiFi network for control via tablet or Smartphone

TEACHING FILE SUPPLIED

Teaching instructions in English format Teacher / Students, including:
• Educational activities to create scenarios in order to optimize the operation of the installation while preserving the comfort of the occupant.
• Worksheets for skills assessment
• Technical instructions, KNX component manufacturer resources + Extracts of electrical standards + different wiring diagrams depending on the progress of the Practical Work
• Technical instructions, manufacturer resources for KNX components
• Different KNX installation programs

A chassis in aluminum profile tu put on table
• Dimensions: (W)1200 x (D)410 x (H)845mm - Weight: 68kg

DELIVERED WIRED AND SET | AUTONOMOUS WIFI NETWORK | TEACHING RESSOURCES STUDENTS / TEACHER

Supplied with a KNX remote control

OPTION TABLET WIFI 11'' CONFIGURED

Samsung® tablet
• 11 inch touch screen Full HD
• 1.3Ghz / 1.5Gb RAM
• 32GB

ref. TAB-97

COMPOSITION

front Face
• 1 KNX infrared detector
• 4 KNX programmable 4-button switches
• 1 KNX programmable 2-button switch
• 1 KNX programmable thermostat with display and keys (comfort mode, night mode, Eco mode, setpoint T °C)
• 1 simple two-way switch of standard habitat type
• 1 KNX universal adapter (example of use for houses to renovate)
• 1 WIFI router configured (system-specific local WIFI)
• 1 remote control
• 1 AC power cord
• 1 Image of a connected home composed of:
   1 LED light for simulating a strike
   2 LEDs for opening / closing simulation a garage door
   2 LEDs for opening / closing simulation a portal
   1 LED "running" simulation light of a watering pump
   8 LEDs for simple lighting simulation
   8 LEDs for opening / closing simulation of 4 shutters
   1 LED "ON" simulation light of a convector
   1 simulation lamp of a variable lighting
   1 simulation lamp of a controlled power socket
• 1 modular table composed of:
   1 differential circuit breaker 20A - 30mA
   2 circuit breakers 16A
   4 circuit breakers 10A (heating circuit, circuit lighting, circuit shutters, controlled socket circuit, opening circuit and watering)
   2 modular sockets
   2 modular remote switches
   1 KNX bus supply (320mA) for 32 devices
   1 24VDC power supply for the KNX / IP gateway
   1 KNX gateway / IP Inside Control
   1 programming interface / USB / KNX connection
   1 set of KNX actuators allowing the management:
     - a convector
     - a rolling shutter
     - variable lighting
     - discrete outputs
     - a power outlet

Back side (following version)
• 1 removable side with warning sign
• 1 KNX bus terminal block
• 1 KNX 230V terminal block
• 1 power terminal block
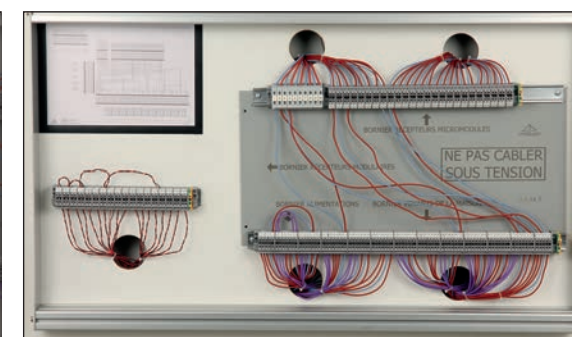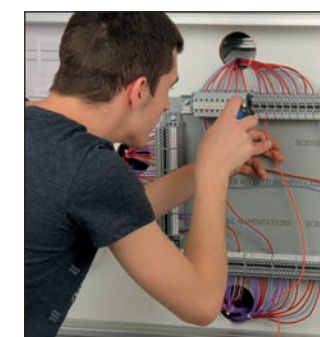• 1 receiver terminal block
• 1 wiring diagram

The set of switches of habitat type and KNX are integrated on the front panel.
A translucent plate on the universal adapter, covers the connectors and protects electrical contacts, only the programming buttons remain accessible.
The push buttons are very easily removable to facilitate access for programming.

The components are wired on the rear panel via industrial terminals to prevent wear of the component terminals.

A housing protects access to industrial terminals during live tests. Removable wiring diagram.

Rear panel with protective cover removed for wiring.

CYBERSECURITY OPTION
ROUTER - FIREWALL - VPN

ref. IP-FW

Router-Firewall can be integrated into Langlois communicating products.
It allows the application of skills in network administration and cybersecurity.
This module is very easy to integrate and configures simply and quickly.
The IP-FW option includes:
• 1 Router-Firewall ready to use with solution installed and configured.
• 1 set of ethernet cables
• 1 technical notice
• 1 set of network and cybersecurity oriented practical work:
  - Reminder on network administration and cybersecurity
  - Installation and connection of the module
  - Configuration of the box (DHCP Server, LAN Interface, VLAN, traffic rule...etc...)
  - Configuring a VPN tunnel
  - Carrying out maintenance operations.