



MANUAL FLEUR_{Reas}

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Safety precautions



CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN



CAUTION: TO REDUCE THE RISK OF ELECTRICAL SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED NEDAP SERVICE PERSONNEL.



Lightning flash with an arrowhead, enclosed in a triangle, alerts you to the presence of uninsulated voltage points inside the product which could cause a serious electrical shock.



An exclamation mark enclosed in a triangle alerts you to important operating and maintenance instructions in the documentation provided with the product.

WARNING! To avoid the risk of fire or electrical shock, never expose these products to water or operate in a high humidity environment.



EN 50419:2005

- This European Standard specifies a marking
- of electrical and electronic equipment in accordance with Article 11(2) of Directive 2002/96/EC (WEEE); This is in addition to the marking requirement in Article 10(3) of this Directive which requires producers to mark electrical and electronic equipment put on the market after 13 August 2005 with a 'crossed-out wheeled bin' symbol.
 - that applies to electrical and electronic equipment falling under Annex IA of Directive 2002/96/EC, provided the equipment concerned is not part of another type of equipment that does not fall within the scope of this Directive. Annex IB of Directive 2002/96/EC contains an indicative list of the products, which fall under the categories set out in Annex IA of this Directive;
 - that serves to clearly identify the producer of the equipment and that the equipment has been put on the market after 13 August 2005.

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Notice

The documentation is based in a Part numbers and Drawing number structure.

Part number can also be named as Artikel nummer or Article number

Drawing numbers can also be named as: Tekening

Drawing numbers are build up in a the drawing Number with a structure Txxx-yyy-zz

Txxx-yyy is the drawing number and extension number zz means:

10 is an overview drawing of the part and can contain wiring and circuit diagrams;

11 is the bill of material;

12 is the circuit diagram of the device.

Xxxx = 0000 – 9999

yyy = 000-999

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7. Optional Communication & Grow unit LAN. Article number: 9922644 Contains LAN type: XPORT by Lantronix
8. Optional Communication & Grow unit Customer Counting. Article number: 9926402
9. Optional Customer Counting Unit Tx, for FL-AS or FL-AL antennas
10. Optional Customer Counting Unit Rx, for FL-AS or FL-AL antennas

The FLEUReas system is complete wired up and ready for use. You only have to follow the next steps.

- Install the FLEUReas system according the: FLEUReas installation guide lines;
- Power up the FLEUReas system;
- Check the functionality;
- Call Nedap Customer Support for quick hands-on problem solution in case of unforeseen trouble [see Technical Support];
- Distance between two antennas when using hard tags Ø50 mm and FL-AS antennas is: 2.2 m;
- Distance between two antennas when using paper tags 4x4 and FL-AS antennas is: 1.7 m;
- Distance between two antennas when using hard tags Ø50 mm and FL-AL antennas is: 2.45 m;
- Distance between two antennas when using paper tags 4x4 and FL-AL antennas is: 2.0 m;
- Distance between an antenna and a wall, door, sliding door etc. must be at least 200 mm;
- Distance between an antenna and the nearest tagged item must be at least 2000 mm.

3 Wiring diagram

Schematically diagrams below shows an example of the connections between used modules. The picture shows the full configuration that can be built up.

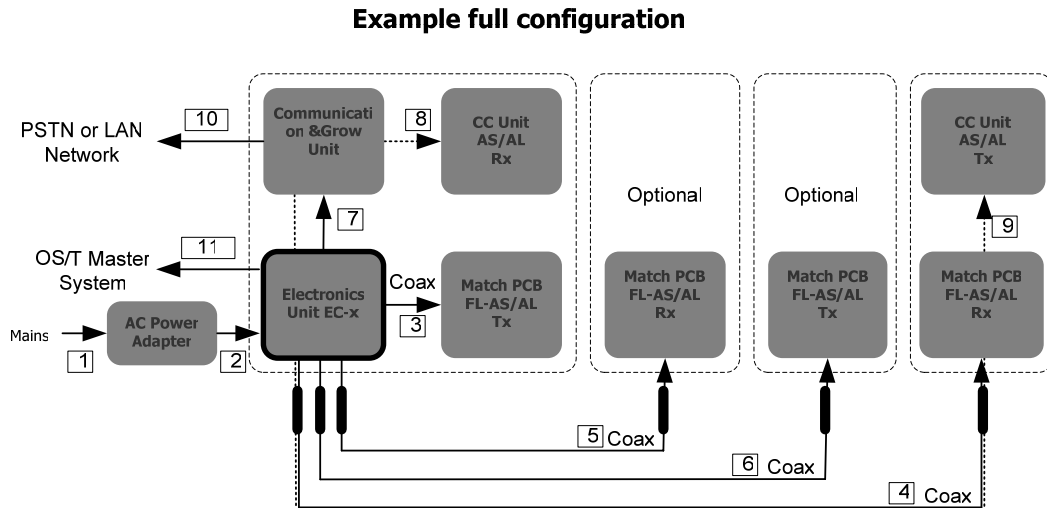


Figure 2 Example full configuration

The connections for a full configuration are:

- 1 Mains Cable Power Adapter**
Connects the Main power to the Power Adapter
- 2 DC power line**
Connects 30VDC from the Power Adapter to the Electronics Unit [9922679, 9922822, 9922849 or 9922857]
- 3 Tx coax cable**
Connects the Tx Output from the Electronics Unit EC-x to the Match PCB FL-AS or FL-AL. (7829663/7831455) Cable is provided with filters. The cable carries the RF signal including a 30VDC signal for lighting.
- 4 Rx coax cable**
Connects the Rx Input from the Match PCB FL-AS or FL-AL 7829663/7831455 to the Electronics Unit EC-x. Cable is provided with filters. The cable carries the RF signal including a 30VDC signal for lighting.
- 5 Rx coax cable**
Connects the Rx Output from the Electronics Unit EC-x to the Match PCB FL-AS/AL 7829663 or 7831455. Cable is provided with filters. The cable carries the RF signal including a 30VDC signal for lighting.
- 6 Tx coax cable**
Connects the Tx Input from the Match PCB FL-AS/AL 7829663 or 7831455 to the Electronics Unit EC-x. Cable is provided with filters. The cable carries the RF signal including a 30VDC signal for lighting.
- 7 Grow Cable**
Connects Electronics Unit to one of the Communication & Grow Units [9922628 or 9922636 or 9922644 or 9926402]. Carries 30VDC, Serial communication and inputs for CC Units AS/AL.

- 8 Signal cable CC Units AS/AL Rx or Tx**
Connects one of the Communication & Grow Units to one of the CC Units AS/AL Rx [8014434 series or 8016608 series]
- 9 Signalling cable**
Connects one of the Communication & Grow Units to one of the CC Units AS/AL Tx [8014507 series or 8016461 series]
- 10 Signalling cable**
Connects one of the two Communication & Grow Units to a LAN or PSTN network.
- 11 Signalling cable**
The Electronics Units can be connected to an OS/T master system.

4 FCC Declarations

Compliance statements (part15.19)

This device complies with part 15 of the FCC Rules and to RSS210 of Industry Canada. Operating 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 undesired operation.

Warning (part15.21)

Changes or modifications not expressly approved by party responsible for compliance could void the user's authority to operate the equipment.

This in particular is applicable for the antenna which can be delivered with the FLEUREas System.

RF Exposure (OET Bulletin 65)

To comply with FCC RF exposure requirements for mobile transmitting devices, this transmitter should only be used or installed at locations where there is at least 20cm separation distance between the antenna and all persons.

Information to the User (Part 15.106(b))

Note: This equipment has been tested and found to comply with the limits for a class B digital devices, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequent energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does not cause harmful interference to radio or television reception, which can be determine by turning the equipment off and on , the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

5 Specifications FLEUREas.

Enviromental

Description				
Antenna Hight	1665mm			
Antenna Width	322 mm[8760004, 8760012] 462mm[8760055, 8760063]			
Antenna Base	100mm			
Frame thickness	70mm			
Weight	12Kg [8760004, 8760012] 15Kg [8760055, 8760063]			
Material Construction	Aluminium			
Material Covers	ABS HI-121 and Calibre 201-15 FL-AS and FL-AL Metal EC30 and EC45			
Protection Class	IP20			
	Min.	Typical	Max.	Condition
Operating frequency	7.4 MHz		8.8 MHz	
Operational temperature	0°C		40 °C	
Storage temperature	-10°C		+70°C	
Relative Humidity	20%		90%	non-condensing
Operating Distance	0.9m		2.4m	Between antenna, Tag dependant

Input Requirements and electrical specifications

Description	Min.	Typical	Max.	Condition
Input Voltage	90VAC		264VAC	Full Range; 50/60Hz
Input Current	-	-	2A	90VAC 50Hz
Line Frequency	47 Hz	50-60Hz	63Hz	-
Inrush Current @25°C			60A	230VAC Cold Start
Operation Voltage	29.1VDC	30VDC	30.9VDC	
Power	15W		20W	230VAC 50Hz

Regulations

Safety approvals of the Power Adapter:	
·	cULus according to UL/CSA 60950-1
·	Japan PSE
·	CE Europe according to EN60950-1
Telecom system approval	
·	Canada IC ID according to RSS210 IC ID: 1444A-FLEUREAS
·	US according to FCC Part 15 FCC ID: CGDFLEUREAS
·	CE according to EN 300 330
·	Japan pending
In compliance with Human exposure assessment according to:	
·	EN50357 and EN50364
·	ICNIRP Guidelines
·	IEEE C95.1
·	RSS102
·	ARIB STD-38
Electromagnetic compatibility	
·	EN 301 489 (Emission according to CISPR 22)
·	IEC 61000-6-2
·	IEC 61000-6-3
·	CISPR 22