



INSTALLATION KIT MANUAL

- x ____ Dipole 136-146 MHz - code **14050**
- x ____ Dipole 145-175 MHz - code **14051**
- x ____ Dipole 385-470 MHz - code **14052**
- x ____ Dipole 117,5-135 MHz - code **14118**

- Cupler 136-150 MHz - 2 way - code **18102**
- Cupler 145-170 MHz - 2 way - code **18002**
- Cupler 136-150 MHz - 3 way - code **18101**
- Cupler 145-170 MHz - 3 way - code **18103**
- Cupler 136-150 MHz - 4 way - code **18106**
- Cupler 145-170 MHz - 4 way - code **18104**
- Cupler 385-470 MHz - 2 way - code **18202**
- Cupler 385-470 MHz - 3 way - code **18203**
- Cupler 385-470 MHz - 4 way - code **28204**
- Cupler 117,5-137 MHz - 4 way - code **18118**

- 2,0 mt Mast - code **14220**
- 5,5 mt Mast - code **14120**
- 6,0 mt Mast - code **14320**
- 7,0 mt Mast - code **14420**

The Kit Contain:
 2 or 3 or 4 dipoles +
 1 Coupler +
 1 Aluminum Mast with S/S bracket.

CONTENUTI

- 1.0) INFORMAZIONI GENERALI
 - 1.1) Introduzione
 - 1.2) Specifiche Ambientali
- 2.0) RACCOMANDAZIONI
 - 2.1) Unpacking - visual inspection
- 3.0) INFORMAZIONI DIPOLO
- 4.0) MONTAGGIO DIRETTIVE 2-3-4 DIPOLI
- 5.0) LOBI DI IRRADIAZIONE
- 6.0) CONNECTION
- 7.0) MONTAGGIO A PALO
 - 7.1) Montaggio del palo
- 8.0) COPYRIGHT

TABLES OF CONTENTS

- 1.0) GENERAL INFORMATION
 - 1.1) Introduction
 - 1.2) Enviromental specification
- 2.0) RECOMMENDATIONS
 - 2.1) Unpacking - visual inspection
- 3.0) DATA SHEET
- 4.0) ASSEMBLY OF 2-3-4 DIPOLS DIRECTIVES
- 5.0) IRRADIATION LOBES
- 8.0) CONNECTION
- 7.0) MAST MOUNT
 - 7.1) Montaggio del palo
- 8.0) COPYRIGHT

1.0) GENERAL INFORMATION

1.1) INTRODUZIONE

Il foglio informativo contiene le procedure per l'installazione dell'antenna Radio Dipolo

1.2) SPECIFICHE UTILIZZATE

Temperatura, salino, ghiaccio , resistenza alle radiazioni solari, in accordo a MIL-STD 810E

STANAG 4370 (NATO AECTP-230)

Resistenza alle vibrazioni in accordo a MIL-STD 167-1

Resistenza agli shock in accordo a MIL-STD 810

Trattamenti e verniciature in accordo a MIL-T-704

2.0) RACCOMANDAZIONI

Il mancato rispetto delle seguenti raccomandazioni e istruzioni può invalidare il valore della garanzia fornite dal costruttore stesso.

2.1) L'installazione deve essere effettuata da personale specializzato con nozioni sia di meccanica che di elettricità

2.2) L'installazione deve essere effettuata con attrezzatura idonea.

1.1) INTRODUCTION

The information sheet contains all the procedures for the installation of HF antenna including the positioning of the automatic tuning unit ATU. The following instructions should be used in accordance with the instructions of ATU

1.2) ENVIRONMENTAL SPECIFICATION

Temperature, salt, ice, sun irradiation resistance, in accordance with MIL-STD 810E

STANAG 4370 (NATO AECTP-230)

Vibration resistance in accordance with MIL-STD 167-1

Shock resistance in accordance with MIL-STD 810E

Treatments and paintings in accordance with MIL-T-704K

2.0) RECOMMENDATIONS

The failure to observe the following recommendations and instructions may invalidate the value of warranty provided by the manufacturer

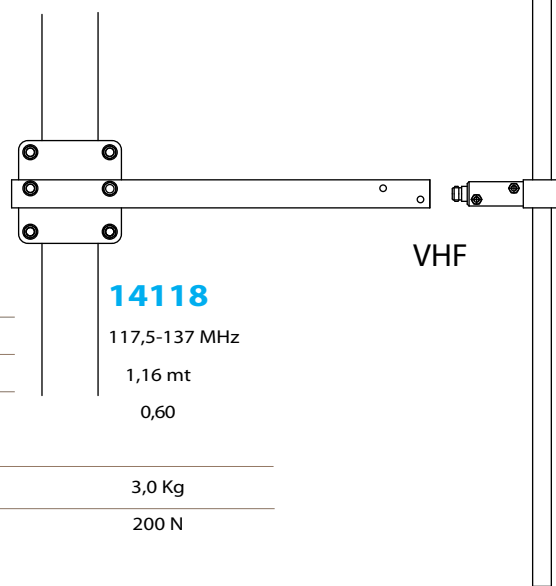
2.1) The installation must be performed by qualified personnel with adequate knowledge regarding of both mechanical and electricity

2.3) The installation must be made with suitable equipment.



VHF/UHF large band dipole

Code	14050	14051	14052	14118
Frequency	136-146 Mhz	146-174 Mhz	385-470 Mhz	117,5-137 MHz
Dipole Length	1,00 mt	0,90 mt	0,375 mt	1,16 mt
Distance from mast	0,535 mt	0,500 mt	0,2 mt (385-400 MHz) 0,18 mt (400-470 Mhz)	0,60
Weight	2,850 Kg	2,70 Kg	2Kg	3,0 Kg
Wind Load (160 Km/h)	185 N	120 N	98 N	200 N



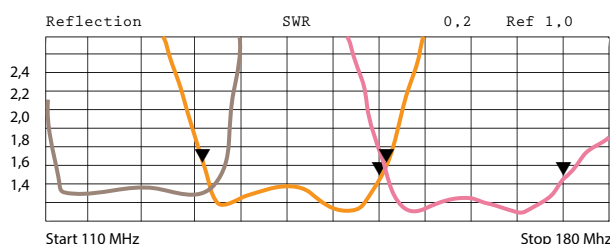
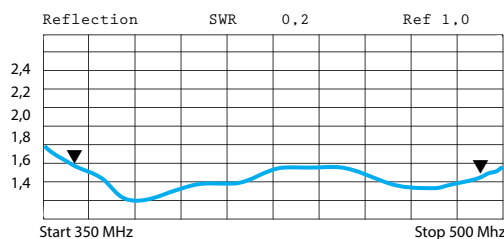
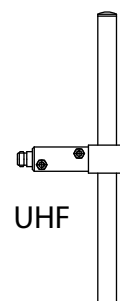
MECHANICAL FEATURES

Antenna structure	Stainless Steel 304
Plstic component	Lexan
Dimension	see the table
Mast Support	adjustable length
Hardware	Stainless steel A4
Working temperature	-35°C +80°C
Max wind resistance	200 Km/h



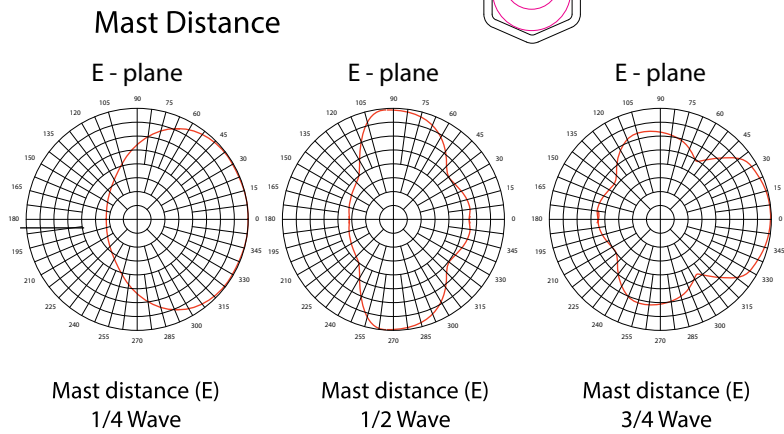
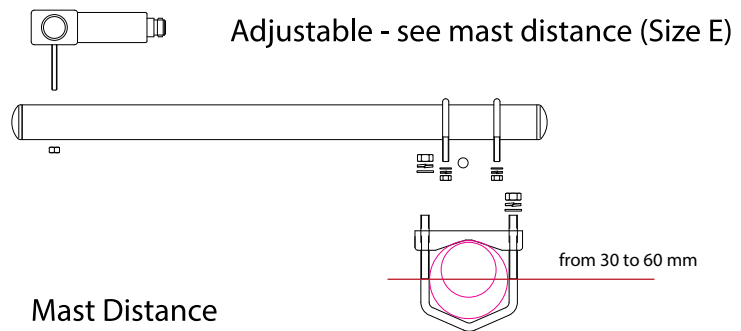
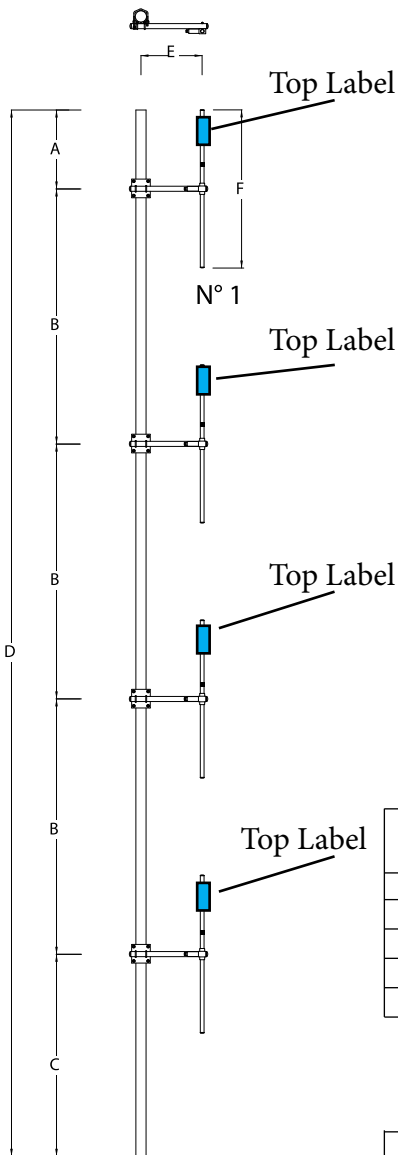
ELECTRICAL FEATURES

Frequency	see the table
Antenna	Center fed coaxial dipole
SWR	<1,5
Gain 1 element	3 dbi
Max power	200 W
Polarization	Vertical ad horizontal
Horizontal irradiation	210°
Vertical irradiation	78°
Connection	N connector exit in the base
Ground	Yes
Lightning protection	Yes

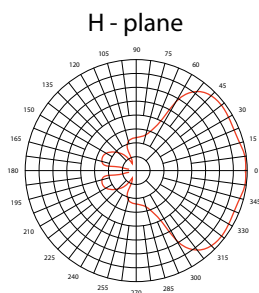


code	Frequency	Size A (mt)	Size B (mt)	Size C (mt)	Size D (mt)	Size E (mt) 1/4 wave	Size E (mt) 1/2 wave	Size E (mt) 3/4 wave	Size F (mt)
14050	136-146 Mhz	0,50	1,38	1,36	6,00	0,46	0,92	1,38	0,92
14051	145-175 Mhz	0,50	1,29	1,13	5,50	0,43	0,86	1,29	0,86
14052	385-470 Mhz	0,25	0,42	0,49	2,00	0,14	0,28	0,42	0,28
14118	117,5-137 Mhz	0,50	1,60	1,70	7,00	0,53	1,07	1,60	1,07

Directive 4 Elements



Independent feed element separation with 1/4 wave mast distance					
		25 dB	30 dB	35 dB	40 dB
code	Frequency	Size B (mt)	Size B (mt)	Size B (mt)	Size B (mt)
14050	136-146 Mhz	1,56	1,84	2,12	2,48
14051	145-175 Mhz	1,46	1,72	1,98	2,32
14052	385-470 Mhz	0,48	0,56	0,64	0,76
14118	117,5-137 Mhz	1,813	1,38	2,46	2,88



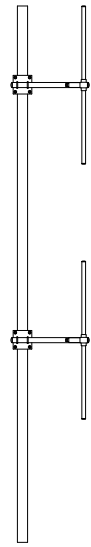
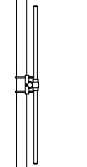
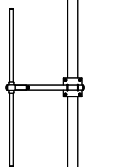
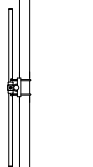
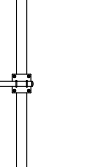
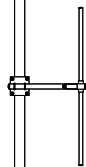
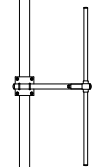
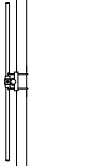
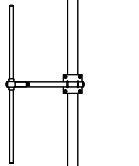
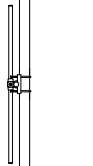
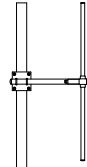
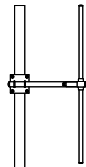
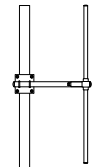
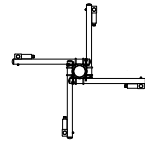
Directional	4 elements same direction	12 dBi gain
90°	2 elements + 2 elements at 90°	9 dBi gain
180°	2 elements + 2 elements at 180°	6 dBi gain
Omni	4 elements in 4 different position	5 dBi gain
Directional	2 elements same direction	6 dBi gain
Omni	2 elements opposite	3 dBi gain



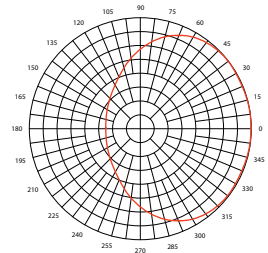
2 + 2 Elements - 90°

2 + 2 Elements - 180°

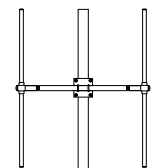
2 + 2 Elements - 360°



H - plane

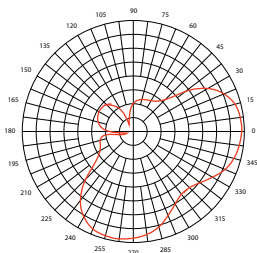


2 elements 180°

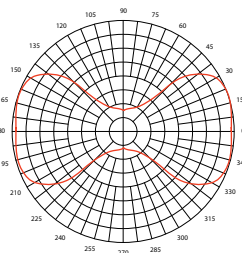


Irradiation Lobe

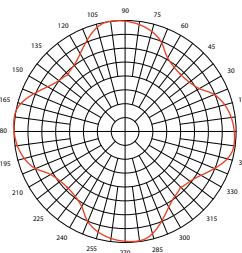
H - plane



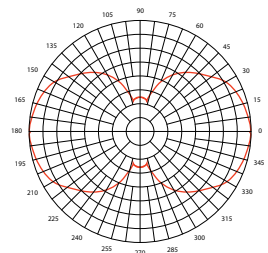
H - plane



H - plane



H - plane

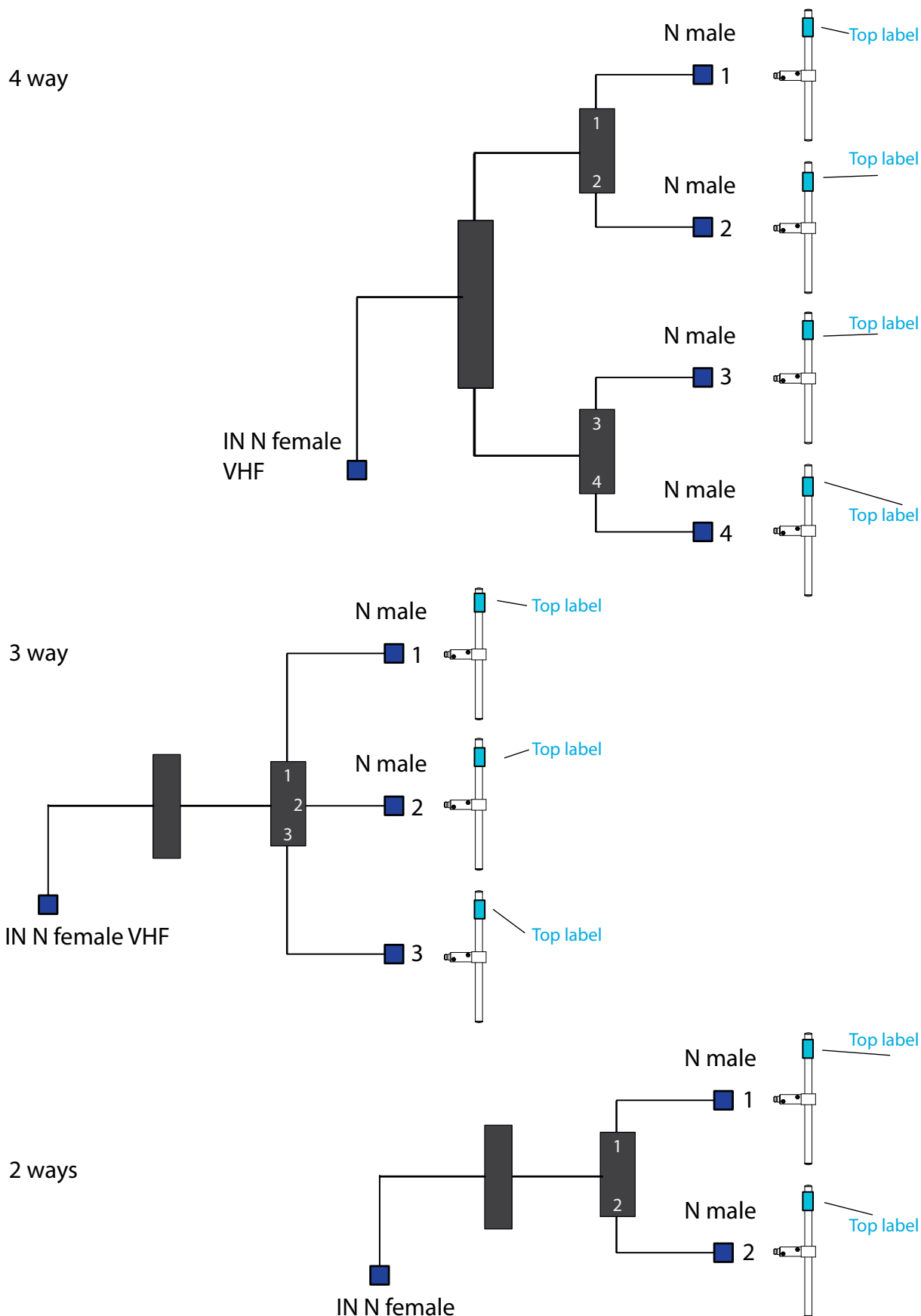


6.0) CONNESSIONE

- 6.1) Connettere il cavo coassiale al dipolo a mezzo di un connettore N maschio;
- 6.2) Connettere all'apparecchio VHF con il connettore N femmina

6.0) CONNECTION

- 6.1) Connect the coaxial cable to the dipole by means of a male N connector;
- 6.2) Connect to the VHF device with the N female connector



7.0) MONTAGGIO A PALO

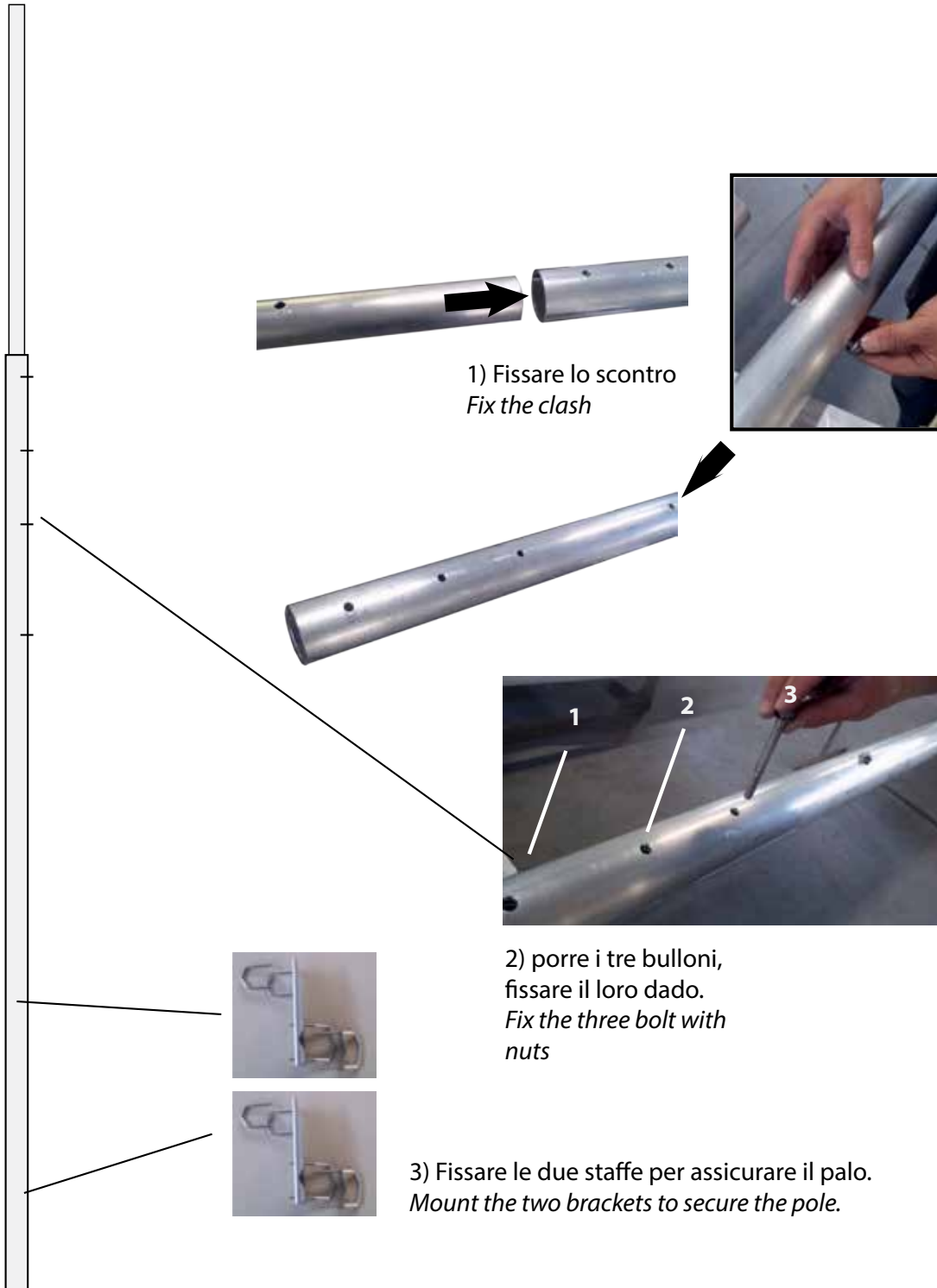
7.0) ASSEMBLY ON MAST

7.1) Montare il palo come in figura:

7.1) Mount the mast as the figure.

Montare i dipoli al palo secondo lo schema a pagina 5.

Mount the dipoles as the form at page 5.



8.0) DIRITTI DI PROPRIETA'

Banten si riserva di modificare queste istruzioni senza alcun preavviso ed in qualsiasi momento.

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