





Name	ColumbEx Electrical System	
Function	The electrical birdcontrol system TONI-Columbex prevents birds from roosting at protected areas. It consists of two parallel Polycarbonate wires with an integrated tinned copper wire. Through an electrical power supply, electricity is funneled into the system, which disperses birds like an electric fence. There is no danger for birds or human beings touching the system incidentally. The system is extremely flexible and especially designed for the bird protection of monuments.	
Components	 Polycarbonate poles with integrated 1.6mm thick tinned copper wire Plastic knuckles Stainless-steel clips Connection sleeves 3x30 copper or stainless-steel Insulation cable black Generator 	
Measurements	B 5.2mm x H 3.5mm x L 1,200mm	
Colours	Nature (grey) or anthracite	
Protected area (depth)	100mm	
Electricity	6,700 V (system idle) 8,000 V (Maximum) 3,800 V at 500Ohm load	
Installation	Plastic knuckles are glued to the surface every 250-300mm with a suitable glue. The stainless steel poles are fastened into the knuckles and connected between each other with stainless-steel clips and connection sleeves. The generator must be connected by client to the power supply or can be supplied by an additional solar module. The generator and the poles are connected with high insulation cables. The power supply can be funneled into the system anywhere, a closed circuit is not necessary.	
Accessories	Rain guard, Lightning Choke	
Installation service	System control twice within the maintenance period.	

	Accessories	Article-No :
1	Special Adhesive	S-1101
2	Primer	C-3101
3	Power Supply, 2-wire	E-0801
4	Surge Generator	E-0901
5	Digital System Tester	E-10
6	Warning Sign	E-1101
7	TAPO Electrical Profile	E-03-0101
8	TAPO Spacers	E-03-0201
9	TAPO Butt Connectors	E-03-03
10	Rain Guard	E-12
11	Lightning Switch	E-13
12	Lightning Choke	E-14

Liability advise

TONI-Products are long established and proven bird control products. However, TONI products can only work effectively as part of an overall and planned programme of bird control. This includes hygiene management and the use of professionally trained personnel. Without limitation, TONI Bird Control Solutions GmbH & Co. KG will not accept liability for any consequences as a result of poor equipment maintenance, misuse, inappropriate use, lack of operative training, failure of due diligence or through lack of prior project consultation. In some countries, the use of TONI products may require an official permit for building regulation or nature conservation. TONI will not accept liability for any consequences as a result of missing approvals.



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Manufacturer: TONI Bird Control Solutions GmbH & Co. KG						
Product name:	Drawing Scale:					
ColumbEx Electrical System			1:0.8			
	Name	Date	Product-No:			
Done by	G.Draganov	18.12.2010	E-0201			