

ATOM SYSTEM PRESENTATION

ATOM SYSTEM

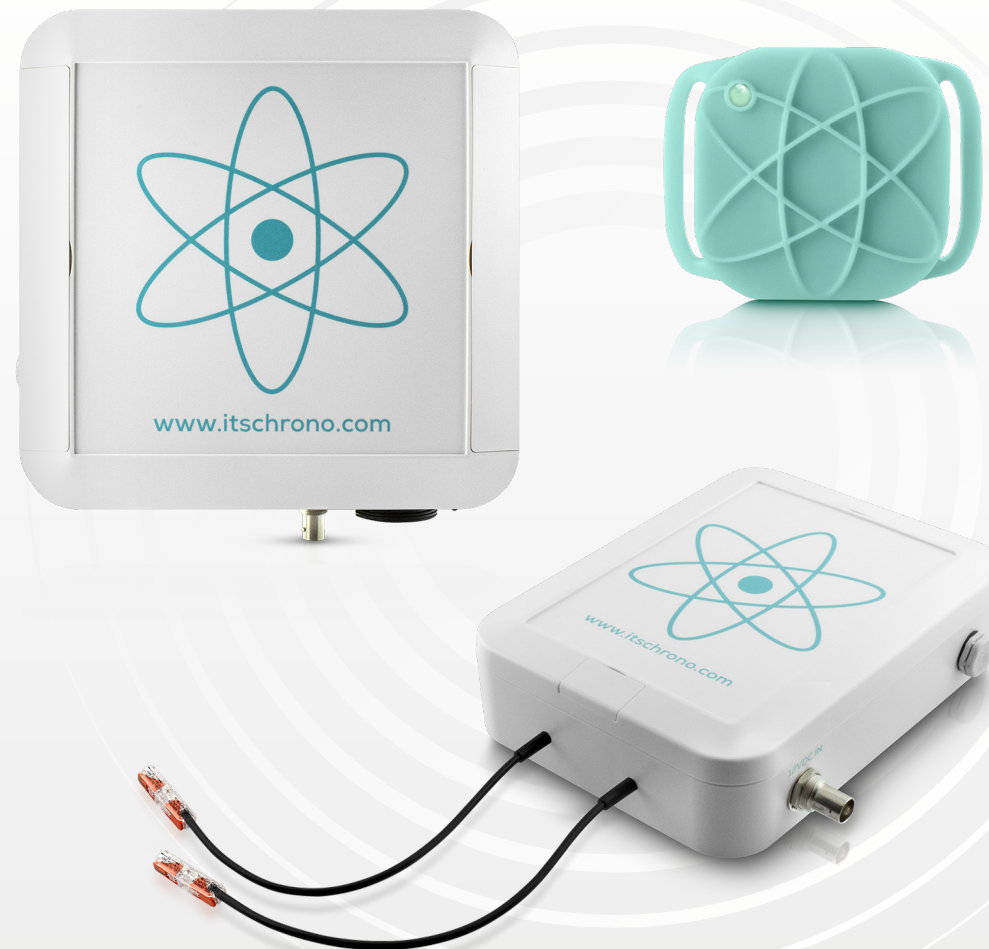
The **ATOM** system offers a real comfort of use and ensures a timekeeping in difficult conditions.

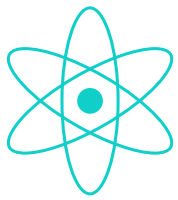
Unlike existing induction systems, its operation which uses **radio waves** has the advantage of eliminating problems related to external disturbances (electrical, environmental...) that can affect the detection height of transponders on the timing loop.

The active loop placed on the track is for activating **transponders** which will then emit a radio wave subsequently received by the decoder-receiver.

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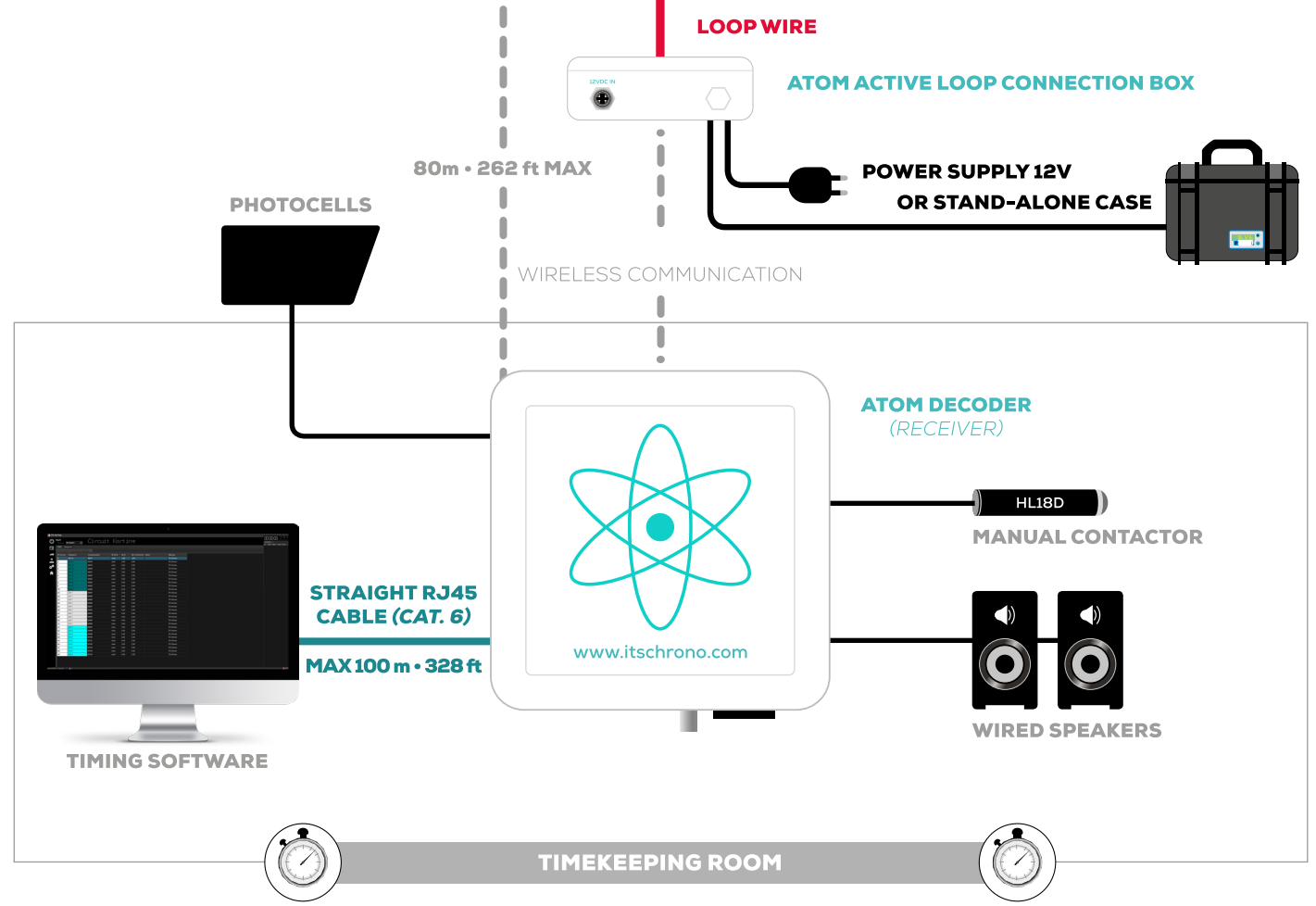
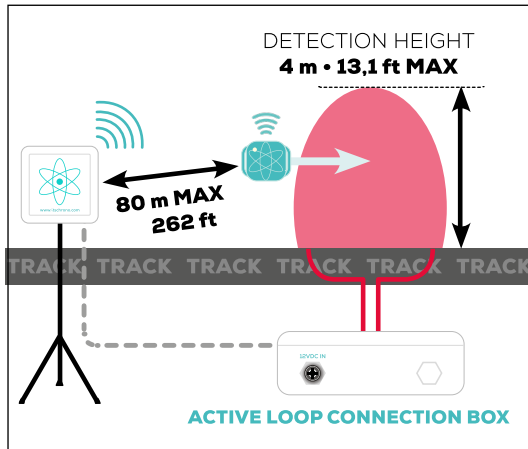
ATOM SYSTEM WORKING PRINCIPLE

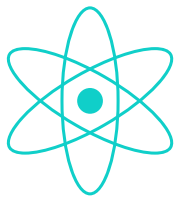
ATOM SYSTEM

DETECTION HEIGHT



ATOM TRANSPONDER





ATOM SYSTEM

ATOM DECODER

ATOM SYSTEM

TECHNICAL SPECIFICATIONS

BOX	Waterproof IP67
CABLES	RJ45 DATA BNC POWER SUPPLY
FREQUENCIES	868 MHz • 915 Mhz
POWER SUPPLY	12 VDC by adapter
RESOLUTION	0,001 s
TEMPERATURE RANGE	From -20°C to 55°C From -4°F to 131°F
DIMENSIONS	200 x 200 x 65 mm 7,9 x 7,9 x 2,6 in
WEIGHT	950 g • 33,5 oz
ACTIVE LOOP	14 loops maximum
TRANSPONDER ACTIVATION	HEIGHT up to 4 m • 13,1 ft SPEED 140 km/h • 87 mph max
WARRANTY	2 years

WARNING

THE DECODER IS EQUIPPED WITH TRANSMITTING AND RECEIVING ANTENNAS.

IN ORDER NOT TO DAMAGE YOUR DECODER, IT IS IMPORTANT NOT TO COVER IT WITH COMPONENTS BASED ON CARBON, METAL OR ANY MATERIAL THAT CAN REFLECT THE WAVES.

ATOM DECODER CONNECTORS • LED STATUS

DECODER

REF. ITSATOMD



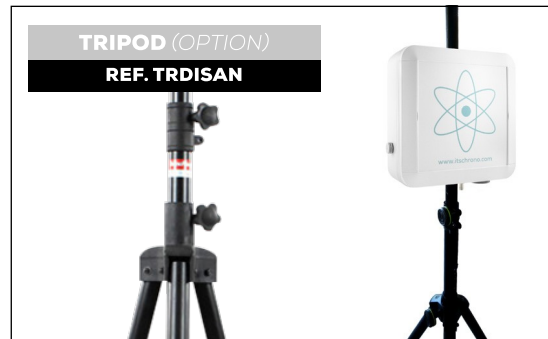
- 1 GPS ANTENNAS**
- 2 CELLS INPUTS**
- 3 MANUAL INPUT** • 3,5 mm MONO
- 4 AUDIO OUTPUT** • 3,5 mm MONO
- 5 BNC FEMALE PLUG** • 12V power supply
- 6 STRAIGHT RJ45 PLUG** • Ethernet connection

LED OF THE DECODER • STATUS

- GREEN • DECODER ON
- BLUE • 1 FLASH /3 s : GPS ACTIVE
• 1 FLASH /10 s : GPS INACTIVE
- WHITE • DETECTED TRANSPONDER
- RED • POWER-SUPPLIED DECODER

TRIPOD (OPTION)

REF. TRDISAN



ATOM DECODERS ASSOCIATED CABLES

TO TIMING COMPUTER • 100 m MAX (328ft)

STRAIGHT RJ45



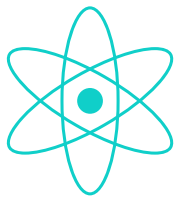
TO DECODER

BNC MALE



BACK TO THE SUMMARY





ATOM SYSTEM

ATOM TRANSPONDER AND ACTIVE LOOP

ATOM SYSTEM

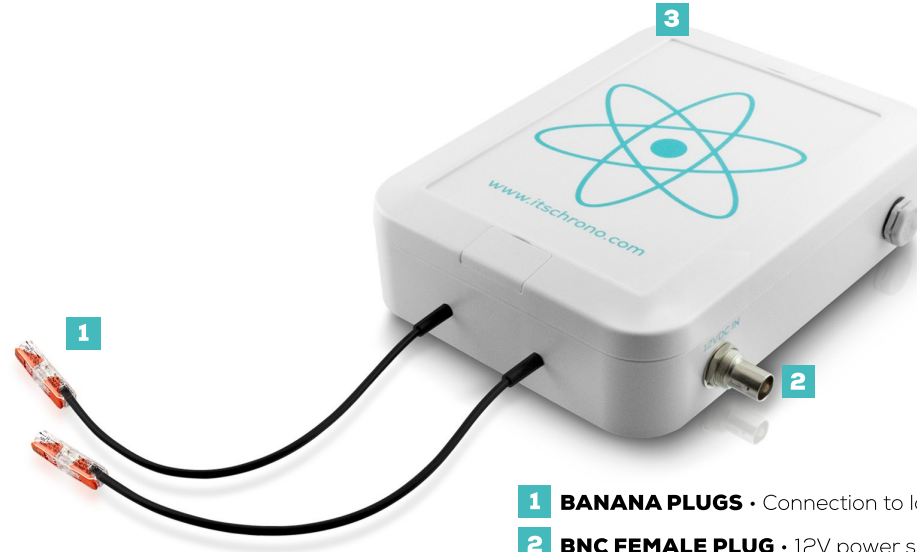
TRANSPONDER SPECIFICATIONS



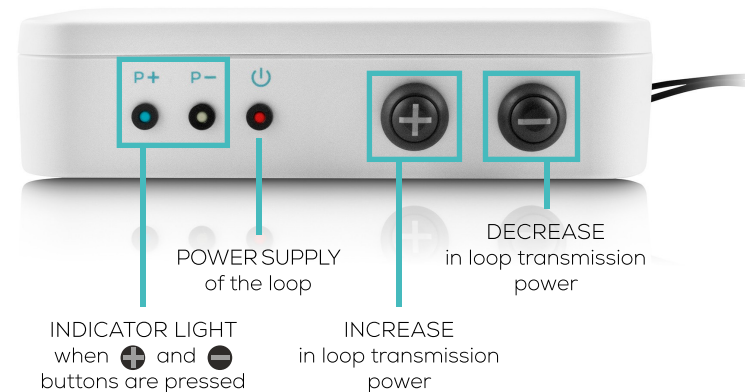
FREQUENCIES	868 MHz • 915 Mhz
WATERPROOF	Yes
BUTTON BATTERY	3V Lithium CR2450
REPLACEABLE BATTERY	Yes
MAX. DETECTION HEIGHT	4 m • 13.1 ft
MAX. DETECTION SPEED	140 km/h • 87 mph
TEMPERATURE RANGE	From -20°C to 55°C From -4°F to 131°F
DIMENSIONS	42 x 32 x 16,5 mm 1,7 x 1,3 x 0,6 in
WEIGHT	25 g • 0,9 oz
FIXING	Holder or neopren strap
WARRANTY	2 years

TRANSPONDER
REF. ITSATOMT

ACTIVE LOOP CONNECTORS



- 1 BANANA PLUGS** • Connection to loop wire
- 2 BNC FEMALE PLUG** • 12V power supply
- 3 ACTIVE LOOP CONNECTION BOX** • Remotely programmable



INDICATOR LIGHT when + and - buttons are pressed

INCREASE in loop transmission power

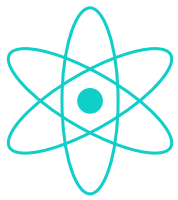
DECREASE in loop transmission power

ACTIVE LOOP SPECIFICATIONS

CONSUMPTION	40 mAh
DECODER CONSUMPTION	300 mAh
WEIGHT	480 g • 17 oz
DIMENSIONS	130 x 175 x 46 mm 5,1 x 6,9 x 1,8 in
WARRANTY	2 years

ACTIVE LOOP
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ATOM SYSTEM

CABLE GLAND INSTALLATION

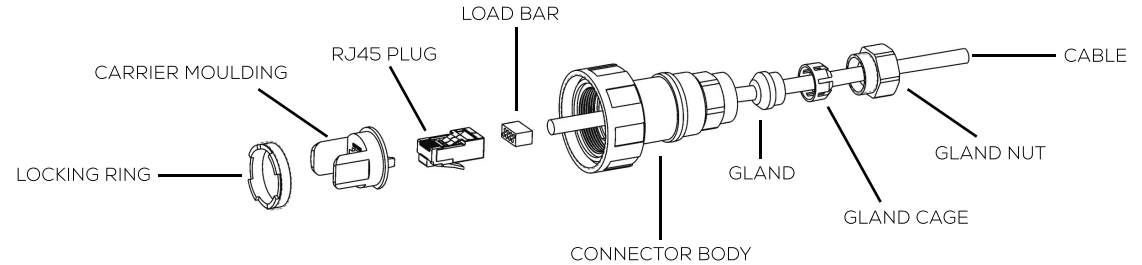
ATOM SYSTEM

IMPORTANT

BEFORE USING THE CONNECTOR, PLEASE READ THESE INSTRUCTIONS CAREFULLY TO ENSURE THE CONNECTOR SYSTEM IS COMPLETELY WATER TIGHT AND PERFORMS TO SPECIFICATION.

NEVER MOUNT OR DISMOUNT THE CABLE GLAND WHEN THE DECODER IS IN OPERATION.

CONNECTOR COMPONENTS



ASSEMBLY/WIRING INSTRUCTIONS

FIG.1

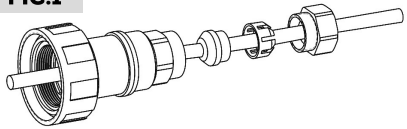


FIG.1 • Thread the gland nut, gland cage, gland and connector body on to the cable.

FIG.2

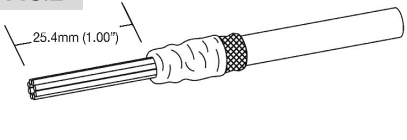


FIG.2 • Remove the cable jacket carefully taking care not to damage the braid and foil. Fold back the braid and foil over the cable jacket.

FIG.3

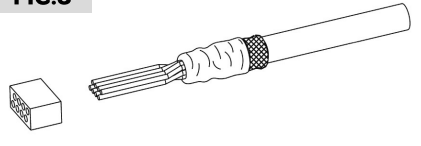
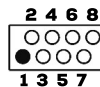


FIG.3 • Untwist the conductors and feed through the appropriate hole in the load bar, according to the wiring standard required. Push the loading bar fully home on to cable. Trim conductors to extend 8.64 mm out of the front of the load bar.

Loading bar viewed from rear, wire entry side :



WIRING CONFIGURATION

568-A	Position	568-B
White/Green	1	White/Orange
Green	2	Orange
White/Orange	3	White/Green
Blue	4	Blue
White/Blue	5	White/Blue
Orange	6	Green
White/Brown	7	White/Brown
Brown	8	Brown

FIG.4

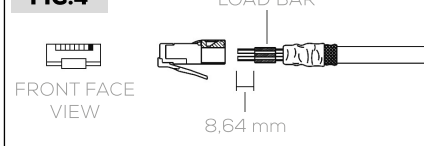


FIG.4 • Push load bar and cable fully home into RJ45, ensuring the braid and foil are in contact with the metal shell. Crimp RJ45 with appropriate crimp tool and die set. Trim back braid and foil flush with rear of RJ45 body.

FIG.5

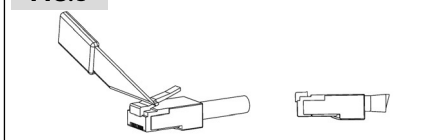


FIG.5 • Crop the latching clip on the RJ45 ensuring this is completely removed.

FIG.6

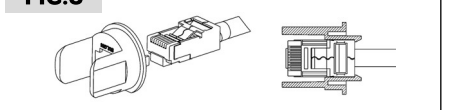


FIG.6 • Push the RJ45 into the carrier moulding until it latches.

FIG.7

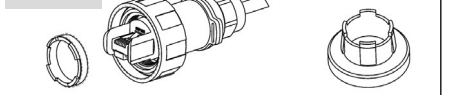


FIG.7 • Pull up the connector body and locate the carrier. The carrier sits into a 'D' shape aperture in the connector body, ensure it is seated correctly. Locate locking ring and tighten ring to retain insert, using the assembly tool provided.

FIG.8

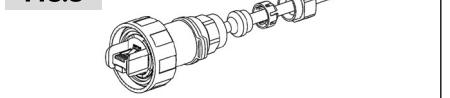
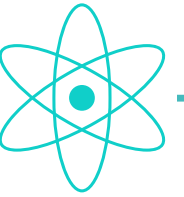


FIG.8 • Slide gland, gland cage and gland nut up to body moulding then tighten to torque of 1.5-2.0lb/ins, 13-18Nm. For the PX0834/A version fully tighten nut until end of travel.

NOTE : OVER TIGHTENING OF GLAND NUT MAY CONSTRICT CABLE AND COULD CAUSE SIGNAL DISTORTION.





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