User Guide: Boxx Atom System

V1.1 - January 2017

Before Using the Boxx Atom System

Before using the Atom system for the first time, please inspect the outer casing, plugs and cables for any physical damage as well as slowly rotate the unit to ensure all components are in place and nothing has come loose during shipping.

Safety Guidelines

The following guidelines will help to ensure the safe use of the Boxx Atom system:

- Keep all ventilation holes clear and unblocked and proper ventilation is provided at all times when in use.

- Do NOT insert objects of any kind into the ventilation holes as this may result in damage to the unit

- Do NOT use when wet and provide adequate cover when using in the rain.

- Do NOT use liquid cleaners or aerosol cleaners on the unit. Use a damp cloth for cleaning.

- Do NOT disassemble this product.

If you require assistance or are concerned about the working condition of the Boxx Atom system, please contact our Service team at **sales@boxx.tv or call +44(0)203 507 0385.**

Using the Boxx Atom System

The Boxx Atom system has been designed to be compact and lightweight with a durable aluminum enclosure. Care should be taken to avoid damaging the sensitive circuit board inside. Do not attempt to open or service the unit, as the internal circuits and antennas have been configured for optimum performance. Opening the Boxx Atom unit will void the unit's warranty.

Maintaining "line-of-sight" between the transmitter and receiver will optimise the range of the system. The Boxx Atom system has a unique transmission system which has been designed to transmit through walls and floors from a moving camera. All microwave transmission systems will have issues transmitting through objects such as concrete, steel, glass, water and the human body.

Accessories

It is recommended that only the accessories that come with or are purchased from Boxx TV are used with the Boxx Atom system. Use of other accessories may damage the unit. Any units damaged by 3rd party cables or accessories are not covered by the warranty.

Boxx Atom Transmitter Accessories

QTY	Product Code	Description
2	ANT601	5dBi 5GHz 14cm RP-SMA antenna
1	CBL101	BNC to BNC 40cm video/audio cable
1	CBL103	4-pin Hirose to 2-pin Anton D-tap power cable

User Guide: Boxx Atom System
V1.1 - January 2017

Boxx Atom Receiver Accessories

The following accessories are included in the price of the Boxx Atom Receiver. Replacement accessories can be purchased directly from Boxx TV or a local reseller.

QTY	Product Code	Description	
5	ANT102	3dBi 5GHz RP-SMA, 9cm rubber duckie antenna.	
1	CBL101	BNC to BNC 40cm video/audio cable	
1	CBL103	4-pin Hirose to 2-pin Anton D-tap power cable	
1	CBL111	4-pin XLR to 4-pin Hirose power cable.	
1	PS1205	90-264Vac 50/60Hz power supply	

Boxx Atom Transmitter Operations

A. Channel LCD Window
B. Channel Selection Button
C. 3G HD-SDI Video/Audio Output
D. 3G HD-SDI Video/Audio Input
E. 4-pin Hirose 7-32V DC Power Input
F. RP-SMA Antenna Port
G. Video Status Indicator LED
H. Power Status Indicator LED
I. HDMI Video/Audio Input
J. Fan Speed Control Pot
K. 1/4" Threaded Mount
L. Unit Serial Number

Fig 1

Boxx Atom Transmitter Setup

Power Supply

1. Using the CBL103 supplied with the Boxx Atom Transmitter, insert the 4-pin Hirose plug on the cable into the 4-pin socket on the Boxx Atom Transmitter (Fig 1-E).

2. Insert the 2-pin Anton D-tap plug on the CBL103 cable into the the 2-pin Anton D-tap socket on the camera or battery plate.

3. The Boxx Atom Transmitter will automatically turn on once power has been supplied to a unit and the last channel used will be displayed on the Channel LCD Window (Fig 1-A).

Boxx Atom Transmitter Setup - Continued

Notes:

The 4-pin Hirose connector on the transmitter and the CBL103 cable are configured so that pin 1 is negative and pin 4 is positive.

The Boxx Atom Transmitter can also be powered via mains power by connecting a CBL111 & PS1205 cables (sold separately) to the Boxx Atom Transmitter. Alternatively the Boxx Atom Transmitter can be powered via a 4-pin Lemo socket using a CBL107 cable (sold separately) which connects to the transmitter via its 4-pin Hirose socket (Fig 1-E).

Both the Boxx Atom Transmitter and Receiver can be turned on/off while connected to a power source by pressing and holding the Channel Selection Button (Fig 1-B & Fig 2-B) for 5 seconds.

Video/Audio

1. Connect the two ANT601 antennas to the Boxx Atom Transmitter via the RP-SMA Ports (Fig 1-F) on the top of the transmitter; making sure not to overtighten the connection as it may damage the internal components.

2. Using the CBL101 cable supplied with the Boxx Atom Transmitter, connect one side of the cable to the 3G HD-SDI BNC Input socket (Fig 1-D) on the Boxx Atom Transmitter.

    Alternatively connect an HDMI cable (not supplied with the Boxx Atom Transmitter) to the HDMI Input socket (Fig 1-I) on the Boxx Atom Transmitter.

    Do not use both the HD-SDI BNC Input socket and HDMI Input sockets at the same time.

3. Connect the other end of the CBL101 (or HDMI) cable to the corresponding HD-SDI/HDMI video/audio output socket on the camera.

Notes:

The Boxx Atom Transmitter is equiped with a 3G HD-SDI Video/Audio Output socket (Fig 1-C) to be used for monitoring the video input signal.

When the video/audio input is being supplied from the camera via the HDMI Video/Audio Input socket (Fig 1-I), the 3G HD-SDI Video/Audio Output socket (Fig 1-C) will not function for monitoring the input signal. This feature is only available when the video/audio input is being supplied from the camer via a BNC cable to the 3G HD-SDI Video/Audio Input socket.

Boxx Atom Receiver Operations

A.   Channel LCD Window
B.   Channel Selection Button
C.   3G HD-SDI Video/Audio Output
D.   3G HD-SDI Video/Audio Output
E.   4-pin Hirose 7-32V DC Power Input
F.   RP-SMA Antenna Port
G.   Signal Strength Indicator LED
H.   Video Status Indicator LED
I.   Power Status Indicator LED
J.   HDMI Video/Audio Output
K.   1/2" & 1/4" Threaded Mount
L.   Unit Serial Number
M.   Fan Speed Control Pot

Fig 2

User Guide: Boxx Atom System
V1.1 - January 2017

Boxx Atom Receiver Setup

Power Supply

1. Using the CBL111 cable supplied with the Boxx Atom Receiver, insert the 4-pin Hirose plug on the cable into the 4-pin Hirose socket on the Boxx Atom Receiver (Fig 2-E).

2. Connect the 4-pin XLR plug of the CBL111 cable to the PS1205 4-pin XLR socket; making sure that the mains plug is also connected via the figure-8 connector on the PS1205 power supply.

3. The Boxx Atom Receiver will automatically turn on once power has been supplied to a unit and the last channel used will be displayed on the Channel LCD Window (Fig 2-A).

Notes:

Alternatively, if mains power is not available, the Boxx Atom Receiver comes equipped with either a V-lok or Anton Bauer battery plate and can be attached to a battery to power the unit. The CBL103 cable can also be used to connect the receiver to a power source using the Anton 2-pin D-tap connector.

Video/Audio

1. Connect the five ANT102 antennas to the Boxx Atom Receiver via the RP-SMA Ports (Fig 2-F) on the top of the receiver; making sure not to overtighten the connection as it may damage the internal components.

2. Using the CBL101 cable supplied with the Boxx Atom Receiver, connect one side of the cable to the 3G HD-SDI BNC Video/Audio Output socket (Fig 2-C) on the Boxx Atom Receiver.

    Alternatively connect an HDMI cable (not supplied with the Boxx Atom Receiver) to the HDMI Input socket (Fig 2-J) on the Boxx Atom Receiver.

    Do not use both the HD-SDI BNC Input socket and HDMI Input sockets at the same time.

3. Connect the other end of the CBL101 (or HDMI) cable to the corresponding HD-SDI/HDMI video/audio input socket on the monitor or recording device.

Notes:

The Boxx Atom Receiver comes with a dual 3G HD-SDI Video/Audio Output sockets (Fig 2-C & 2-D), so that two monitors or video recording devices can be connected to a single receiver. If a single monitor or video recording device is being used either 3G HD-SDI Video/Audio Output socket may be used.

Warranty

The system is sold with a limited warranty of 12 months (Warranty term) by Boxx.TV Ltd (Manufacturer). Specific advice, repairs and replacement options are available to the original purchaser in the event the Atom system fails to conform to this warranty. The Manufacturer shall not be responsible for product damages caused by natural disasters, fire, static discharge, misuse, abuse, neglect, improper handling, unauthorized repair, alteration or accident. The Manufacturer shall not be liable for any special, incidental or consequential damages, even if informed of the possibility thereof in advance. You must inform your place of purchase within 28 days of detecting a defect in material or workmanship not conforming to the specifications (see Specifications section of this guide) of the Atom system. During the Warranty term, the Manufacturer will, at its discretion and without extra charge, as your exclusive remedy, repair or replace the products that do not comply with this warranty; or failing this, will reimburse the purchase price of the system. This amount will be based on length of ownership and may be reduced in accordance with general accounting principles.

Repairs Under Warranty

A receipt of purchase, or any other proof of purchase, bearing the date of purchase and the product serial number must be presented for all warranty repairs. The Manufacturer reserves the right to refuse free-of-charge warranty service if the requested documentation cannot be presented or if the information is incomplete or incompatible with the Reseller's records. Repair, at the Manufacturer's option, includes replacement of boards or parts with new or functionally equivalent reconditioned parts or boards. The Manufacturer does not warrant the installation, maintenance or service of the system, parts or accessories.