ATH-200

Hybrid Transmission Station (2 coax, 2 fibers)

Instructions :

Power :

Connect your power cord to IEC(1). The green LED **Power On(6)** will light up and the other leds will be tested.

Fiber :

Connect one to two (optionnal) remote antennas (AFB-350) on those ports(2). You can use monomode Neutrik Opticalcon cable (this is the best solution) or use LC/APC patchcord **(you must be able to inspect and clean those connectors, we suggest to always use a new one**).
Be sure you use APC connectors (green connectors) and not PC (blue connectors) unless you request a PC adaptation.
When you plug connector to the socket a little « click » must be ear, wich means that it's correctly plugged.

RF in :

First be sure the ouptut power of your transmiter is between 0,5W(27dBm) and 20mW(13dBm).
Connect one or two transmitters to RF IN 1(3) and RF IN 2(3) (if you just have on transmitter put 50 ohms BNC loads on RF in 2 and OUT 2). Now connect a antenna through a coaxial cable to the OUT 1 and OUT 2 port. **If you don't need a local output plug a 50 ohms BNC load on corresponding OUT.**

LEDs(6) :

-**Optical On** : indicates inside radio over fiber modules are ok (T1 and T2).
-**RF in** : indicates that a power on input port 1 or 2 is detected and is above 20mW(13dBm).

More informations on www.bs-rf.com or contact us at contact@bs-rf.com
BSRF SAS – 31 boulevard Anatole France 93200 Saint Denis FRANCE

RF trim :

Those two trimmers (5) let you adjust the overall gain. The gain range goes from -24dB to +7dB. So you can attenuate or amplify power at the ouput of AFB-350, depending on your needs.
The first trim adjust gain for the AFB-350 connected to the fiber port **T1** and the second trim adjust gain for the AFB-350 connected to the port **T2**.

Power up sequence :

Switch on first the ATH-200 then the AFB-350.
Then switch on the transmitter.

How to set the gain correctly :

The output power at AFB-350's output depends on the power of the transmistter, loss in all coax cables, loss in fiber, gain set with trim.
The best way is to use a RF tools to measure RF power (RF power meter, spectrum analyser).

BE SURE THE INPUT POWER OF YOU METER IS ABOVE THE POWER YOU'RE GOING TO MEASURE.
Plug your meter to the AFB-350 ouput. Set the trim max left. Power up your transmitter then set the trim to get the desired output power.

Mode manual(default) or automatic :

The gain can be set manual or automatic. Selecting on of those two mode can be done by moving switches inside the ATH-200.

-Manual mode : gain is adjusted by front screws. If the input power change, it will also change at the AFB-350 output in the same way.

Illustration 1: Manual mode enabled

-Automatic mode : a reference is memorized then the automatic gain control will ajust the gain to stick to this power reference.

Illustration 2: Automatic mode enabled

Set reference in automatic mode :

Connect all devices (ATH-200, AFB-350 and transmitter).
-Remove ATH-200 top screws.
-Put up switch 1 to position ON to activate automatic mode

Illustration 3: Step 1

-Put up switch 2 to position ON to prepare to make a reference

Illustration 4: Step 2

-Use trimmers to set power (at output of AFB-350s) according to your needs.

-Put off switch 2 to position OFF to store references.