



Mitja kocjančič <veso266@gmail.com>

Re: FW: Questions about Sangean ATS909-X2

2 sporočil

sangean customer service <service@sangeanus.com>

06. julij 2021 19:37

Odg. na: sangean customer service <service@sangeanus.com>

Za: veso266@gmail.com

thanks for your email but unfortunately the but the update jig and the software hex file is not available to the users updates must be performed by a certified technician to avoid any damage to the radio if you wish to update your ats-909x2 refer to the recall form attached to this email

also you would need to provide us with the following information

full name :

address :

so we could send out the return shipping label

Service department rep.**Sangean America, Inc.***9900 Jordan Circle**Santa Fe Springs, CA 90670**Office: (888)726-4326, (562) 941-9900**Fax: (562) 941-9909**E-mail: Service@sangeanus.com**Web: www.sangean.com*

----- Original Message -----

From: "Vince" <vince@sangeanus.com>

To: ""SAI-Service"" <service@sangeanus.com>

Sent: 7/6/2021 10:01:36 AM

Subject: FW: Questions about Sangean ATS909-X2

Please respond to this customer below.

From: MICHAEL MILLER [<mailto:mico554@aol.com>]

Sent: Monday, July 05, 2021 9:13 AM

To: Vince

Subject: Fwd: Questions about Sangean ATS909-X2

FYI...

Mike

Sent from my iPad

Begin forwarded message:

From: Mitja kocjančič <veso266@gmail.com>
Date: July 5, 2021 at 10:40:44 AM CDT
To: MICHAEL MILLER <mico554@aol.com>
Subject: Re: Questions about Sangean ATS909-X2

Hello there

Sadly the person you forwarded this email to never replied back

So I got my radio anyway, here it is compared to the old one:
https://youtu.be/_z-ZCy4zEFc (this video shows the reason I got it for :) BW filters)

I like it very much, this video shows its good side

Here its listening to Radio Algere: <https://youtu.be/fdgfHF6-qSw>

and here to RTL Radio Luxemburg:
<https://youtu.be/PddHDMSs6MU>

but sadly it has some problems: this video:
<https://youtu.be/AkO4Qlsg9dk>

shows its problems when it overloads near a presence of a transmitter while the old one does not

this video: <https://youtu.be/qKl1hcWQt9I>

shows commonly known interference from LCD problem, that happens on SW as well

the old one didn't have these problems, so I am not sure why the new one has it,

there is also a fw (software) problem (can be fixed probably easier than the hardware problems):

<https://youtu.be/WJbWLo-u9KA?t=3158>

where selecting FM step from the menu always defaults to 100kHz no matter what you choose

So I was able to answer this question myself

" is it possible to tune by 10kHz on FM (even on OIRT) or is it only possible to tune by 50kHz on all FM bands (in Russia they use 30kHz tuning on OIRT, so if you can tune by 10kHz on all FM just like on Sangean ATS909X that would be great)"

the answer is yes

while these questions from previous email are still left unanswered

Can firmware be updated by a geeky user?

in ATS909X you could use a Raspberry PI to download/upload stations (the radio used I2C protocol (IIRC it would send data to your I2C slave device on address 0x51 and up

A = SCL

B = SDA

To start download press FM+LIGHT together

To start upload press LW+LIGHT together (this will also reset all the stations to defaults if no data is sent to the radio)

Now I guess since Sangean USA had an update device, that now on ATS909X2 its also possible to update the firmware using this method (I hope that is true, since would really like to customize my radio)

UPDATE regarding firmware update 05.07.2021

I found this picture somewhere



it looks like there are 4 wires on an update jig, which am not sure where they connect to on the radio, maybe its USB (it has 4 wires), idk

would really love to lower stereo decoding threshold to a value that the older model had, since some fringe stations don't get a stereo decode now if they don't get RDS first

as well as remove the extra digit while in AM mode (since you cannot even use it, since when in AM mode you cannot tune by 10/20kHz like in SSB) and it annoys me deeply

Would implement this myself if I just knew how to update the firmware of this radio and had the firmware sources

Are there any other key combinations not in the manual?

I know these one

RESET + LIGHT --- Displays all segments on LCD

The best one

Power off the radio

Press LIGHT+POWER for 3-5 seconds until RUSSIA appears on screen --- you get OIRT band coverage + 10khz tuning on FM on your European Sangean ATS909X

Do you have a service manual for Sangean ATS909X2 (I only found service manual for Sangean ATS909X and ATS909)?

Sorry to bother you again, but you at least replied the first time, while the person you sent this to never did :(and now I don't even know who to turn to)

you are from sangean right? because if you are not I am terribly sorry to bother you with this technical stuff

I really love this radio but there are some features I would love to fix (the software ones would be easy to fix (probably easier to fix than the hardware problems) but without a way to update/write software for this radio it's hard) :(

Thanks for Answering and Best Regards

V V ned., 13. jun. 2021 ob 15:18 je oseba MICHAEL MILLER <mico554@aol.com> napisala:

Dear Mitja,

I am forwarding your email to a person that can help you.

Kind regards...

Sent from my iPhone

On Jun 13, 2021, at 6:20 AM, Mitja kocjančič <veso266@gmail.com> wrote:

Hello there, hope I am reaching the right person for some technical questions I have about Sangean ATS 909X2 radio (if you are not the right person to answer them, it would be great if you know someone that can :))

I am proud owner of Sangean ATS909X (although I had its antenna snap off at the base (was fixed by third party), and I had to clean dust from tuning knob) :

<https://www.youtube.com/watch?v=XhERjWvhvR8&t=2710s> (receiving Serbian pirates on MW)

<https://www.youtube.com/watch?v=Z0wV7AOarug> (receiving E Skip on FM from Cyprus)

and I am thinking of buying Sangean ATS909X2 and it seems a great radio but have some technical questions

not sure how much filters did ATS909X offer on FM (but it was a bit to wide for my taste sometimes), so I was really excited to hear about adjustable filters but are these filters fixed (only 110kHz, 85kHz, 65kHz on FM or can more filter be added through software update (since its DSP, I see now reason why new filters cannot be computed and added) (110kHz is sometimes a bit too narrow, at least 120kHz, 180kHz would be nice)

is it possible to tune by 10kHz on FM (even on OIRT) or is it only possible to tune by 50kHz on all FM bands (in Russia they use 30kHz tuning on OIRT, so if you can tune by 10kHz on all FM just like on Sangean ATS909X that would be great)

Can firmware be updated by a geeky user?

in ATS909X you could use a Raspberry PI to download/upload stations (the radio used I2C protocol (IIRC it would send data to your I2C slave device on address 0x51 and up

A = SCL

B = SDA

To start download press FM+LIGHT together

To start upload press LW+LIGHT together (this will also reset all the stations to defaults if no data is sent to the radio)

Now I guess since Sangean USA had an update device, that now on ATS909X2 its also possible to update the firmware using this method (I hope that is true, since would really like to customize my radio)

Are there any other Key combinations not in the manual?

I know these one

RESET + LIGHT --- Displays all segments on LCD

The best one

Power off the radio

Press LIGHT+POWER for 3-5 seconds until RUSSIA appears on screen --- you get OIRT band coverage + 10khz tuning on FM on your European Sangean ATS909X

Do you have a service manual for Sangean ATS909X2 (I only found service manual for Sangean ATS909X and ATS909)?

Thanks for Answering and Best Regards





Mitja kocjančič <veso266@gmail.com>
Za: service@sangeanus.com

06. julij 2021 21:31

Thank you so much for your answer

unfortunately most of the problems my radio has are hardware problems and its running software version 073 already so I guess I am out of luck here

I really hoped I could update the radio myself (once you know where to connect the wires and have a correct software + hex file to do so, and are careful I don't believe you can break the radio that easily and even if you do it's your own fault, since you were not careful, unfortunately I already had to open my Sangean ATS909X once, when its antenna had snapped off after 5 years (this will probably happen on my new Sangean ATS909X2 as well) so I know how to open these radios

you see, fw version 073 has 3 problems I discovered while comparing the new (Sangean ATS909X2 FW 073) and the old sangean ats909x(FW 1.29) receiver

1. problem is that no matter what you select as your Tuning step in the menu, tuning steps will always be 100khz
2. (for me it's really important, and I don't think sangean wants(has resources) to fix that); the new model will not decode stereo on fringe FM stations, you can see in this video: <https://youtu.be/f6TILrEZ5yg>

how the old one does decode stereo on a distant FM station, while the new one doesn't, so I guess stereo decode threshold was lifted which means stations now need at least RDS decode first before decoding stereo which is a big deal breaker for me, you can also read about this problem here: <https://swling.com/blog/2017/01/updated-version-of-the-sangean-ats-909x/>

and because these 2 bugs it appears only bother me and no one else, I wanted to fix them myself since Sangean I guess will not invest into fixing a bug only 1 user is experiencing

and the first step at fixing bugs and adding features I miss is to be able to update the firmware myself, then figuring out how fw is made and then fixing the issues myself

Question 2: Is it possible to at least get a service manual for Sangean ATS909X2?

I found them for Sangean ATS909 and Sangean ATS909X (which I am sending in an attachment sangean_ats-909x_sm == Service manual for ATS909X, ats909w-servicemanual == service manual for ATS909)

but for Sangean ATS909X2 I cannot find them, maybe you have them and could send them?

Thanks for Answering and Best Regards, I know these questions are not usual (and probably don't happen a lot so please don't be mad at them) so if you know someone in Sangean Headquarters in Taiwan (maybe an engineer that works on FW for this radio) that can answer them better than you can, please forward this email to them :)

V V tor., 6. jul. 2021 ob 19:37 je oseba sangean customer service <service@sangeanus.com> napisala:

[Citirano besedilo skrito]

št. prilog: 2



ats909w-servicemanual.pdf

8810K



sangean_ats-909x_sm.pdf

10505K