# AOR - AR7030 - AR7030 Plus - Communications Receiver


**The discontinued AOR AR7030 is a very good receiver in my book.**
**However, it has seen it's share of quality problems, more with the parts used and the soft metal cabinet.**
**The use of those external "Serial to USB" cable adapters are a big "no-no" with the AR7030 (see text below)**
***(AOR UK photo)***

## *Discontinued Receiver*

### Dave N9EWO's Review

Unlike other AOR receivers that are made in Japan, this one is designed and made in the United Kingdom. For basic information and general features on the AR7030, please do a general internet search.

**The "Plus" version/ "Standard" version / Tuning Knob Encoder Issues**

Two versions of this HF "Communications Receiver" receiver were made. The "Standard" Unit and after awhile came the "Plus" version. I first started with a standard version, then moved on to a "Plus" enhanced unit about a year later. The "plus" version is still minus the NB7030 board installed, which adds the Notch and Noise Blanker functions. But the "Standard" can have it's good points vs the "Plus" version with an issue on the tuning encoder "knob".

At one time owning a "Standard" and a "Plus" unit together, and doing side by side tests using the same antenna, I could not find any major performance differences between the two. The real differences I like in the "Plus" version, are the enhanced processor which gives many more memories (400),and the alpha tags. The added optical encoder used with the tuning knob is somewhat of an improvement. The mechanical encoder found in the "Standard" Unit will jump frequencies a bit at times and this is very annoying. The "Plus" unit never skips a beat. But after a number of years of owning both versions, the mechanical "tuning knob" encoder in the "Standard" version seems to hold up much better with time.

The reason why I find this to be true is on the "plus" version is that after some use, say after 6~8 months of normal use (it

uses a Bourns *Optical* encoder for the tuning knob) I found a "up and down-left to right play feeling" to show up with the TUNING KNOB. This gives the knob a "wobble-loose" feel as you have used it after awhile . Again, This has something to do with the Bourns optical encoder that is used in the "plus" unit (the bearing gets shimed out or something ??). You do not notice this when the set is new. To me this is a pretty major flaw and should not be in a $1500.00 radio !! The "Standard" model has very little added play even after 2 years of use (Alps Mfg.) . This is at least on the samples I have used . I'm very careful with equipment and do not misuse it..so all that you read here..is in a "light" use situation. The optical encoder used with the Plus version is Bourns part ENA1J-B28-L00100 (now discontinued). It is **NOT** the ball bearing version of this encoder that was being used here which is a pity.

**The "Sync Detector" and Audio Quality**

Audio quality is where the AR7030 really shines for me. Now of course starting with the proper bandwidths is just as important. And the 7030's bandwidth's were very well chosen in my book. I like the (almost) 10khz filter, so I can open the receiver up when conditions are there, and to get the most out of the sync detection you really need this along with adjustment of the PBT control (I know some will really cringe on this comment).It drives me nuts to see manufactures stopping at 6khz or so.

| IF Filter | **"Standard"** | approx. bw | **"Plus"** | approx. bw |
|---|---|---|---|---|
| **X3** | **CFW455HT** | 6 Khz *(6.8)* | **CFK455J** (metal case) | 3 Khz *(3.8)* |
| X4 | CFW455IT | 4 Khz *(5.1)* | CFW455IT | 4 Khz *(5.1)* |
| X5 | CFJ455K14 (metal case) | 2 Khz *(2.1)* | CFJ455K14 (metal case) | 2 Khz *(2.1)* |
| X6 | CFU455G2 | 8 Khz *(9.5)* | CFU455G2 | 8 Khz *(9.5)* |
| X7 | open | | open | |
| X8 | open | | open | ***n9ewo chart*** |

**Murata ceramic IF bandwidth filters included as stock. The "plus" version uses a narrower filter on X3. Bandwidths in *"(x.x )"* is a approx. area what the receiver will actually display and closer to what the filter bandwidth really is. With the optional FL-124 daughter board one can make use of the larger crystal JRC filters. Between an additional CFU455G2 filter being used at the second 455 Khz IF amp (Q30) and 2 "IF Tail" filters (the wider tail filter is even another CFU455G2) following the second IF amp stage , will not allow the AR7030 to use wider bandwidth filters over 8 Khz *(9.5)*.**
***(N9EWO Chart)***

The receiver I had in my "Best Sync" detector list, before the AR7030 was the Sony ICF-2010. However the Sony's sync would still distort on the deepest part of a fade. A-B comparisons over the time I owned the AR7030's have really proved this out for me. Not only does the AR-7030 Sync circuit contains less distortion, it does not cut off the lower audio frequencies as does the Sony.

It not quite all wine and roses however. The audio on the high end is very clean when using the sync mode, however I can somtimes still hear very tiny amount of distortion on very deep fades that still creeps in there, line outputs or speaker/headphone outputs (Bass and Treble at both at "Max"). It's one of those more good things than bad (remember I'm extremely picky) and many will not even notice this. I have my all of my receivers tied into the hi-fi as well so I can detect more audio gremlins over the normal user. The "sync" audio quality is not 100% perfect in my view with this remaining fading distortion gremlin, but is still is one of the best (if not the best) in the audio department for a table top HF receiver.

**"Heterodyne with the Sync ....**

And speaking of a gremlin with the audio....there is another known one, but is still minor and for all of what the AR7030 does with audio with the sync on, and I don't worry about it. It's a small low level heterodyne that appears, you can change the tone of this "het" with the PBS control. But you will not get rid of it totally. This has not really bothered me that much. For the record here is what Richard Hillier of AOR UK sent me a couple of years ago on this. More of a intrest to "tech" types, I would NEVER do what is detailed below, it really is not that bad..but nevertheless is with us.

*From : Richard Hillier(AOR UK)*

*We are aware of the comment you have made regarding sync detection on your AR7030, they are a common characteristic to all AR7030's.*

*Heterodynes... JT has generated a response for this held in file:*

*Subject: AR7030 Sync detector heterodynes*

*Well, I was wondering when someone would mention the background heterodynes on the 7030's Sync AM mode. Given a few more components, a bit more PCB space and a bit more money (all in short supply) the problem could be fixed, but*

*as it is there's just a good old engineering compromise.*

*The effects come from harmonic mixing in the Sync Car mixer where the Sync VCO is combined with the DDS signal (check it out on the block diagram). Mostly the spurii are at least 40dB down and are barely audible on a well- modulated AM signal, but their level and pitch are dependent on alignment, PBS setting and temperature. A small adjustment of VR3 will move them around and you may be able to improve things. You can always return to the factory settings if needed. No damage will occur to the receiver from adjusting VR2 or VR3.*

*A further improvement may be obtained by reducing the value of R109 (I suggest adding 4k7 or 10k in parallel). This increases the injection into the product detector and helps to suppress AM sidebands on the carrier signal. The downside of this is that carrier coupling into the IF chain is increased, and this may result in a small residual S-meter reading on LSB or USB mode at certain PBS control settings. The carrier leakage into the IF is by magnetic coupling between the carrier filter (X13) and the selected IF filter, so it is dependent on bandwidth and may not occur at all with a Kiwa filter.*

**"And No Background Hiss In AM or Sync Mode's"**

Many of the receivers that I have owned over the years have suffered from background "Hiss".Even with the volume control all the way down this hiss still existed. The JRC NRD-525 that I used to own was a good example, just downright awful. The NRD-535 had improved on this hiss, however at the cost of the overall audio quality. The AR 7030 was a very pleasant suprise. No hiss..period (AM and Sync modes), and not at the expense of audio quality like clipping off the high's. Matter of fact after hearing my first signals coming out of a AR 7030, my JRC NRD-535D was no longer my prized receiver.

However the SSB modes don't fair quite as well with hiss. In my tests, it's a bit excessive in the narrowest bandwidth (treble at max), appears to be more so with the 2 later samples that I have owned . This is more true when receiving weaker signals, but it can be a bit hard on the ears after awhile. But again using AM or Sync modes, it was not a issue for me.

**Frequency Display "very close"**

Another issue that has always rubbed me the wrong way over the years is, why do so many frequency displays on SW receivers read off (out of the box brand new) from what is actually being received. I will give JRC a good mark here as I have never seen a JRC off of any real measure . But the ICOM's , Kenwoods and Yaesu's that I have all used over the years have been off, sometimes by a couple of khz's. Again the AR 7030 wins good here..maybe it's just taking the time to align the circuits correctly, and/ or very good design. My # 7 sample "Plus" version was about 10 Hz off (high). Not perfect, but not bad either.

**The "Line" (record) Outputs**

I enjoy making recordings off the SW bands, broadcasting stations, pirate stations, whatever. So the level and quality coming out of the receiver's "Line Out" is most important to me. Again the 7030 is above average using the Sync mode. Very clean "line" signals, and there are 2 totally independent outputs. Also you can adjust on the front panel either output for a excellent match to whatever recording device you have connected to it. The only gremlin in this dept. is that they are using a 5-pin DIN here, and if you are going to roll your own plug, it does get a bit tight in the plug for the person weak in soldering. I have been using a couple of pieces of Belden micro-coax RG174 (8216) with very good results. However, you might want to keep the length below 6 ft as there is a bit if resistance in this stuff if you get too long. SSB modes do not fare as well (at least on the 6 samples I have owned). It does have a certain amount of hiss that does indeed irk out of the "line" outputs as well

***WARNING : I will NOT be held responsible for any information that is listed here.***
**ALL DONE AT YOUR OWN RISK !**

**A Few Hints:**

Here are a few little hints, if you are planning on grabbing onto a used one someday. A couple of items that I did right after I pulled a sample out of the box. Otherwise I find the radio to either, may not sound right, or doing something a bit strange to what I'm used to. None of there are serious , just operational notes and are of course subjective .

- Hit the double "O"'s (on/off switch) button and hit the "Cnfg" button. Rotate the spin wheel until you get to the RF GAIN mode. Be sure it's in "Man". I find that "Man" works best (auto mode is a pain) ,in the auto mode the attenutator will click on and off if the signal gets strong enough (It uses a relay) .This becomes annoying, because it tends to switch on and off and on and off if the signals hit just right. I have never seen this radio overload yet on my 60 ft longwire. I did not need for this Auto mode at least in the USA.

- Obtain some little "stick on" rubber feet, from the hardware store. Attach these to the bottom of the remote control. I place 4 on the corners, the ones on the battery cover end you want to keep on the cover. Add one more right in the center. Now you can place the remote control flat on the table, use it like a mouse right next to the radio. Simple but effective. Stick

4 on the bottom corners of the power supply "Floor Wart" while you are at it.

- The use of a external speaker is a must. This is the case with most tabletop receivers anyway and with the AR7030 is no different. I use SMALLER **OLDER** 2-way die-cast Realistic hi-fi speaker(s). The Realistic Minimus-77 cat # 40-2054 and the Realistic Minimus 7 cat # 40-2045 (both from the late 80's~early 90's) are the ONLY ones to use from my testing over the years. The tweeter helps very much here. However with any external speaker used with the AR7030, be sure that the speaker has a 8 Ohms rating. The receiver's specification's state this, and a note I received from AOR-UK stated, OK to use a 4 ohm but do not turn it up to max. I would just use a 8 Ohm and play it safe.

**NOTE:** I have tried many of Radio Shack's more current (still old) metal cased 2-way speakers and they all requied too much power to drive them (so that was a total bust). These older 40-2054 and 40-2045 speakers do not have this problem for some reason. The downside is that being the age that these are, the foam/rubber around the outer edge of the woofer can break down, so beware.

- The cabinet screws MUST not be overtightned. This is stated in the manual, and believe it ! My first 7030 screws were striped by the first North American Importer (we will not say names here, but used to be in VA). But if you ever need to open the case to install additional filters etc., obtain the correct 2.5mm hex key and follow the instructions in the manual. Just as important is to ALWAYS remove the **"BOTTOM"** cover FIRST and REPLACE it LAST (that is the last cover you put on). Otherwise the pieces may not fit right. Even with those warnings, it is not a easy set to take apart, the paint chips very easy. Another point to remember is every time you remove the screws on this set, a few micro-metal filings like to fly around inside the cabinet. It's soft metal used is the reason here. Give it a good upside down shake before you put the covers back on. Maybe even taking a small "Clean" brush around the holes (areas too) might not be a bad idea as well before you button it up for any loose ones that will not shake out ??

- Watch that antenna switch in the rear. If you are using a external antenna, be sure that you keep the switch in the "Normal" mode. Intermod will happen in peak signal times if you try and use the "Whip" selection. This is common sense here, but you can loose track of the status of this switch as it's in the rear of the radio and no indicator on the front.

- Perhpas to reduce problems with the "Tuning Knob - Shaft Play" (Wobble) down the road, **Do Not** use the "Dimple" on the front of the knob for any fast tuning ?? If you get in the habit at the start "Not To Use It" when the set is brand new, it may help on this problem (I have not varified this) ? The "Bourns" optical (Tuning Knob) encoder seems to have more problems with the shaft being shimed over time with use (and you get that wobble) and I'm thinking that this could be part of the problem (comments about this subject near the top of this page)? If you wish to tune fast, use the "fast" button.This works better anyway.

- Keep space around the "power supply". The included "Floor Wart" 15 volt supply runs very HOT after a bit of operation (at least the USA version/117 VAC does). So keep plently of air space around it, and don't set it on a carpet or stack anything on top or around it. Give it room to keep cool and you should be OK ?? (I have now received a number of reports with failures of these supplies, more than likely due to heat stress).

## Important updated information with the "RF Atten step" setting in configuration menu (Plus versions)

This is SOLID information direct from AOR UK (I'm uncertain if this would affect eariler Plus versions ?). Of course with the standard version this will not even show up in the Config menu.

The “RF Atten step” in the configuration menu (Plus versions only) should be left set to **10dB** steps as default out of the box , do **NOT** set it to 20dB. This is because the preamp interleave is removed to maintain best dynamic range.

More current AR7030-PLUS certificates supplied in the carton with each Plus receiver states this (wording just above the serial number).

*"Note: Attenuator should be set to 10dB steps (even if the NB7030 / UPNB7030 option is fitted), this results in the attenuator selection of +10dB, 0dB, -10dB, -20dB for the PLUS unit (-30dB and -40dB being omitted)."*

**(This is corrected information vs. what is found in the AR7030 "features" FPU manual on page 3)**


**The AOR AR7030 next to a black Realistic "Minimus 7" 2-way die-cast speaker. (cat # 40-2045)**
**Gone from the marketplace since the early 90's, this speaker can still be purchased used at flea markets and on ebay.**
**Be careful hunting as many samples have foam/rubber destruction around the edges.**
***(see text above, photo: N9EWO)***

**The "Dreaded" Bourns Spin Wheels and "My" History with the set**

I was very happy with my first AR7030 which was a "Standard" unit, serial number was a bit over 100700. But only after 8 months or so, I was not able to turn up the volume control all the time. It actually got so bad after awhile that I was unable to use the control at all. You could still use the remote to adjust the volume. I did get that volume encoder replaced in time (after a few trips back to the now "out of business" importer). But I felt that it was just a bad sample and that was it for the second.

After being so pleased with the overall performance and audio quality I went for another "Standard" unit , and then even a third unit which was a "Plus" unit. At that time #1 went to a new owner (after being properly repaired).

Well again after 8 months or so AGAIN, I could not adjust the volume control all the time on my new "Plus" Unit. To make matters worse the "**< >** " were also starting to fail. Also my local friend who also purchased a AR7030 Plus at the same time that I did, was also having the same failures. Now it's getting real intresting.

These 2 controls used a "Mechanical" rotary encoder made by "Bourns". We (and AOR UK) use a term "Spin Wheels" in this text, do not confuse these with the encoder used in the tuning knob (not the same type or Mfg of encoder).

**AOR UK's responce**

AOR UK was starting to admit to a few reported failures (they have NEVER admited that there was a real problem here 100%), but not of any great nature....(yeh right).Here is a reply that I received from AOR UK from Dec 1998 on this problem.

*"The problem surrounding the Bourns click encoders is not as simple as it first appears. Not all failures are for the same reason.*

*Given the number of AR7030 receivers we have sold, you would expect that if the problem were due to tarnishing of the metal deposited on the substrate the service request for replacement encoders would be enormous. Whilst any failure is a great cause for concern, and this particular one occurs too regularly to be ignored, I can tell you that the numbers are not great.*

*As I think you are aware, we receive no direct input from Bourns regarding any quality issue. Bourns will only deal through their supplying distributor. This has meant that though a number of replacement encoders have been supplied, there seems little desire on our distributor, or possibly Bourns part, to actually address the problem.*

*As I said, the failures are not all clear cut. Any sample of this encoder, when opened reveals a similar level of tarnishing to that which your picture shows, whether it is fully functional or faulty. This has led me to investigate the problem further.*

*The failures I have seen have a short of a few thousand Ohms between the centre pin and either of the outer ones. This short seems to be very close to the pins, rather than on the contact area of the substrate. This is checked when the substrate is removed from the encoder body as the one in your picture.*

*During design and manufacture the Bourns part has been evaluated and seemed suitable in every respect, it is regrettable that long term this has not been proved to be the case. Ultimately my preferred course of action is to use a different manufacturers part. Unfortunately, the PCB and front panels are designed to take only the Bourns part. No other manufacturers unit is even remotely compatible physically making retro fitting of other parts difficult or impossible. This*

*does not preclude a change being made in any subsequent production however as PCB's etc can be re designed.*

*Naturally, if we are able to devise a way of fitting say an Alps part in this application we will make this modification available to existing users who's Bourns encoders fail. I would however stress that even most of the earliest sets have not suffered failure, so there is no reason to suppose that a replacement encoder will fail, once it has been fitted.*

*Best Regards*
*Mark W Sumner*
*(Production Controller)"*

**"My Views on the "Spin Wheels"**

They could not really come down why these were failing. I have my own theory. And mind you this not solid information, only my ideas.

I tore a semi-defective "wheel" apart , it looks like tarnish might be one of the problems ? Have a look at the picture below, I have taken a pencil eraser and cleaned off 1/4 of the encoder's track to show the tarinsh. Also whatever Bourns used to lub this wheel with (if anything) sure does not last. I can feel a very dried out greasy "somthing" on it, but as you can see, no longer doing it's job. I don't think it's not all one problem. I still think half of the blame still goes to the "gray" poop that is on the track (see picture). **However**, now the real problem I think lies with the 3 little copper "wippers" that make contact with the track. You can actually just blow a bit on these and make them bend them (puts heavy damage on them too). They are very very thin and have no real spring to them (well not enough..that's for sure).


**Production samples starting with serial # 102050, do NOT use this encoder (see other info below).**
**(Part marked as: Bourns Part No. ECW1J-B24-AC0024 Date Code: 9632X)**
***(N9EWO Photo)***

Well we did get a couple of "Spin Wheel" replacement parts (same Bourns part) for both units (mine and my friends) as they were still in warranty. All 4 (2 in each unit) were replaced and back to normal, but I was not feeling very good about the situation and the # 3 plus unit left me to another owner after being repaired

I have received many e-mails over the last years from others who have also experenced failures of these "Bourns" spin wheels.

This message was from Robert Gibson via the AR7030 mailing list.

*"My 7030 is on it's third spin wheel and second replacement push button (soft key). Also, the shaft of the tuning encoder is getting slack, causing the tuning knob to wobble. Not good considering the radio is only just over two years old. I like the receiver, but am worried about the prospect of having to keep replacing these parts."*

**The "Improved" 1999 version.**

In June of 1999, I received this information from AOR UK:

*David*

*Since my last email to you regarding the AR7030 on 19 January this year,we have addressed the Bourns click encoder issue using an Alps part. The PCB design for the new production control unit has been altered to accommodate the new controls as they are not a physical direct replacement for the Bourns part.*

*This change together with a change to the manufacturer of the LCD display (providing better visibility over a wider viewing angle and improved contrast) has taken place in the latest production run which has just commenced.*

*We have also produced a small additional PCB that enables the mounting of the Alps click encoders on sets originally fitted with the Bourns part. This board complete with encoders and fitting instructions is available at GBP 20.00 to those who wish to fit the new encoders to their sets, however as we have pointed out before, it is not the easiest job in the world to change the click encoders and there is little point in taking this approach on sets where the original encoders exhibit no signs of a problem.*

*In warranty repairs to any AR7030 having a click encoder problem may, at the discretion of the dealer concerned, use the additional PCB modification to replace the Bourns parts. The mystery still remains as to why certain encoders fail whilst the vast majority remain in operation without showing any problems. Because of this, it is probably best to avoid needless intervention into an AR7030 that is still functioning perfectly normally.*

*Regards*

*Mark W Sumner*

Additional from Mark dated June 1999, indicates a "Serial Number" that these will be starting from. Standard and "Plus" units.

*Hello David*

*The changes to the AR7030 spin wheel encoders and display will apply to both plus and standard sets.*
***The starting serial number for the new production is 102050.***

So if you purchase a sample over this serial number, you should be clear on that front.

**Back to Bourns with the Vol and < > spin wheels.**

AOR UK is now back using a Bourns part for the Vol and < > wheels again. Sorry, I do not have any additional information or part numbers on this. At least it's a more modern part and did not go back to the larger black ones. They have a die cast case just the old Alps ones used for many years (see KT6LN's picture below)

**Issue even with the newer "Bourns" encoders ? (volume and "< >")**


***New "Bourns" photo provided by Ismail KT6LN***
***Old "Bourns" photo and picture editing by N9EWO***

Above are pictures of the old Bourns “Volume” and “< >” encoder on the left and the latest Bourns part being used on the right. These encoders were used to the end of production.

Ismail KT6LN, is having a issue even with these newer encoders (Plus version with a serial number in the 1037xx area). The spin-wheel is supposed to move by one increment for every "click" but about once every 10 slow clicks it either misses one or it moves one and backs off immediately or it moves by two increments. It is unknown what the actual part number of this new Bourns encoder is as it’s unmarked.

As AOR UK indicates, these new encoders are NOT 100% guaranteed to work as one increment for every click. But Ismail told them with his sample, it moves +1 increment and then -1 (he could see LCD flash updating +1 but then backs down by 1).

These new “Bourns” encoders do rotate a bit tight when brand new (as installed in a AR7030) and I have found they will rotate easier with some use.

May be a one sample issue, I'm guessing. Many thanks to Ismail for the information here and the photo of the actual new encoder being used.

The Alps encoders for the volume and < > controls were not used in later production samples (2006 samples and beyond).

**The "New" unit (s)..one defective**

So after hearing all of this great news, I decided to go for unit number 4 with the new serial number and improvememts .

Number 4 arrived in good shape, however it was defective. First the Tuning knob had a very ruff feeling to it, like it was rubbing on something. The other and even worse problem was the fact that the external speaker jack was not working . Now I use a external speaker just about all of the time with my 7030. I use a very carefully chosen wire and phone plug, very flexable short light 20 ga wire to keep stress off of the jack. Well this one would not cut out the internal speaker all the way and the connection to the external was not there (aboout 50-50). Maybe a certain amount of tarnish was on the contacts in this "Jack", or the metal just does not return correctly to "reconnect" the internal speaker right..whatever ?? Anyway it went back to the dealer as a new defective..pronto. This problem I know can happen in time with the jack becomming "Flaky" after awhile in time, but I have never heard it happen "New out of the Box". Not a major problem maybe..however should this be on a radio with a $ 1500. price tag..?? Yep..another gremlin to be aware of down the road or be aware of before a used purchase. It's a super cheapo jack being used here, however it should not be too hard to replace with a better quality one.

**The "Big" Number 5**

Well now onto my sample # 5. A few comments here. Of course the new "Alps" spin wheels have a much better feel to them, aside from a bit of a "grizzly" feeling when rotated (only when new..after a bit of use this feeling has gone away). It would seem that these will hold up better with use ?? Time will tell ??

The LCD display does indeed have a brighter/sharper look to it. A couple of points that I have discovered on this "New" display.

A picture below of the" New vs the Old Display" on # 5. This picture does not show a big diffrence,and it's not a real major change but a bit more than what the photo shows. But it does look a bit darker and shaper on the new version, provided you have the control adjusted right. The way you adjust the contrast on the new versions is a bit weird. The shapest and darkest is sort of in the middle and not where you think it would be in the area of the control. This does help being a bit sharper, but still does not offset it's small size and my eye's still can get tired of it all after a few hours staring at it.


**NOTE: My # 5 "Plus" LCD display (top one) is with a 30 min "Warm-Up" time frame..then adjusted using the rear panel "contrast" control .**
**My eariler "standard" unit LCD was not affected by this "warm-up".**
**Be sure and read the "Backlighting" failure issue at the dead bottom of this web page.**
***(N9EWO Photo)***

The display on my # 5 sample responded a bit slower to tuning, that is "Slug-ish". You really notice this more when the set is cold. My "standard" unit showed nothing of the sort. This does clear for the most part after the set warms up awhile. # 6 has none of this display issue.

Another action of the LCD display is when the set is "cold vs warm", the contrast varies a bit. You want to adjust it on it's rear control when it's warm (say 1 hour or so), and leave it. Weird to say the least. The LCD brightness of the backlighting on every AR7030 that I have had so far gets dimmer with use (as time goes on).

A VERY strange quirk noticed with the # 5 sample (New type) display when the set is OFF. When off it still has a mild backlight which allows you to sort of see the clock. Well as the seconds click off, it strobes (flashes) a bit at each second. Never seen this on any of the 3 other units before (did not have #4 long enough to check that out). Another weird gremlin to say the least !!! It does not show this when it's on.

**Number 6 was another dud. 7 and 8 included the Improved Remote and No Problems.**

On to sample number 6 for me (another Plus version), very good news is the "Slug-ish" display problem was not an issue anymore (totally gone). Also the external speaker jack was also just fine .

The bad news with # 6 was we had some "moving" spuri-garbage that was heard in various spots all over the received range (even with no antenna connected). AOR UK never came back with the reason on this one. Was very strange indeed.

**Here is a .wav audio file (size 50k) of this garbage "spuri-noise" on Sample # 6. Frequency ± 9455 Khz, USB mode, No antenna was connected**

(Note : This noise showed up in additional places as well and moved around a bit as it warmed up.)

Number 7 and 8 (both Plus versions) had the new remote control included and was major improvement for me to the old one. More information on this "new remote" below in the "Misc" section.

| N9EWO's Approx. Serial Numbers Owned : AOR AR7030 |
|---|
| # 1 Standard Version : 10075x |
| # 2 Standard Version : 10081x |
| # 3 Plus Version : 10157x |
| # 4 Plus Version : 1021xx (defective out of the box) |
| # 5 Plus Version : 1020xx |
| # _ Plus Version : 10358x (test sample only) |
| # 6 Plus Version : 1036xx (defective) |
| # 7 Plus Version : 1037xx (included new style remote) |
| # 8 Plus Version : 1039xx My FINAL Sample (included new style remote) |

**So you see a "Fast charge" indication appear on the LCD display , but the internal BP123 battery option is not installed ?**

Here is one that I have first hand experience with after receiving back one of the earlier samples from the various repairs over the years. When I first contacted AOR UK with this, they had no clue what was going on (I think they thought I was nuts). But I see AOR UK did cover this in a bulletin (after my discovery).

If for some reason you see a **"Fast charge"** indication appear in the top line in the LCD after you turn the set off (right of the clock numbers), and you do not have the option even installed, it is nothing to worry about.

With the BP123 lead battery option **not** installed and if a small power glitch happens in the power grid (this can happen even with the set off, but still connected to the power supply) , the microprocessor can get fooled and thinks is has detected the internal lead acid battery.

It of course never gets the job done being there is no battery to recharge. The cure is to leave the power supply connected with the receiver switched off. The **"Fast charge"** indication will continue to be displayed for about 2 hours and then it will display **"Std charge"** . *At this time* you can switch the set back on and then after you power it off again this time, all should be happy. You should have no more charge indication on the LCD after you turn it back off. If you still do, sorry to say I do not have any idea's for you.

Do not disturb the powered off receiver by unplugging the power supply or switching it on and off. The timer will reset and you have to start all over again.

**So do I still like this Receiver ??**

I still very much like the AR7030 in a number of respects. Details that other radio mfg's have totally missed (like audio quality) have been handled extremely well in this set. Actually still do own one Plus sample.

As you can see after a few years of owning **8 samples** of this receiver it has turned into a very mixed bag. Even with it's great performance and good audio quality on AM SYNC mode, in my view the set struggled with quality control and/or actual construction and parts used (oops, we cannot forget firmware-microprocessor bugs) right to the end of production in 2008.

Dave N9EWO

ver 11.5

## *Discontinued Receiver*


**Rear view of the AR7030**
***(N9EWO Photo)***

**********  Do NOT use "Serial to USB" External Adapter Cables with the AR7030 **********
**VERY IMPORTANT WARNING !!!!**

It is HIGHLY recommended that **ANY** external **"Serial to USB adapter cables"** are **NOT** be used with the AR7030's serial computer connections at any time. Host computer should be equipped with "on the mother board" serial port or the use of a **" properly installed "** **INTERNAL** PCI or PCI express serial card. I have experienced nasty bugs first hand on this subject and just one little "burp" could easily corrupt the sets firmware that may not be fixable (well at least not without replacing the sets microprocessor). Sorry , but this rules out the use of most current laptops. So you have now been warned !!

## External Speaker Jack Gremlin

**Another Part that can fail, the external speaker jack *(NOTE: This problem appears to have improved with later samples ???.....see main text above)*:**

Well this one actually has been covered on the internet elsewhere (and in my above text)....but now I too have experenced it. It involves the 1/8 inch phone jack used for the external speaker. Now I use a external speaker just about all of the time with my 7030', but once in awhile I might move the set into another room (it's rare), and use the internal speaker. Of course pull the plug out. I use a very carefully chosen wire and phone plug, very flexable short 20 ga wire to keep stress off of the jack. Well either a certain amount of tarnish is building up on contacts in this "Jack", or the metal just does not return correctly to "reconnect" the internal speaker right ??

Anyway with the #4 dud sample, it became very intermittent when I tried to use the internal speaker with one of my "Standard" units (I no longer own this sample). When I pushed the plug in and out a few times, that helped and was halfway useable fow awhile. Even if I jiggle the plug slightly when I use the external speaker, it cuts in and out a bit. Not a major problem..however should this be on a radio with a $ 1500 price tag..?? Yes, this is another gremlin to be aware of, but this one may not be of a panic nature ?

## Remote control change : Approx. serial numbers over 103670

In October 2005, a new remote control marked as the V2 IR7030 (referred to as IR7030-2) was started to be included with new production. The replacement is slightly larger in overall size and has a number of larger buttons to boot. Sadly it will NOT work with older firmware versions (requires not only the new remote but also an updated firmware IC (microprocessor). I feel this was a HUGE improvement.


**Old IR7030 remote (left) was used for almost 10 years, the new IR7030-2 (right) from October 2005 to the end of production in 2008.**
***(AOR UK photo - edited)***

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## Misc. "AR7030" comments from "Me" and others .

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Below are additional comments from other users. May or may not relate to my main text that I have above. Of course input from me thrown in as well. For anyone who is just starting to read this section...you should start at the bottom and read up, as most current entries are at the top.

Additionally, I have pdf file and can be **downloaded here** **,** parts may be repeated from the data below , however much more added as well. **Very important note** : The file is from the time frame between 1997 and 1999 and may or may not be valid anymore.

**Older AOR AR7030 Files - 1997 to 1999 (approx 175k)**
**(pdf Format)**

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**LCD Display Change in Newer AR7030's (also be sure and read the "LED Backlighting" failure topic at the bottom on this web page)**

Mark at AOR UK has some additional insight with the LCD display in the newer AR7030's . He claims that the older unit's also suffer this same happening when cold (but not as bad). I have never noticed it on any of my other units that I have had or any other LCD display in other equipment...at least not this bad. Hummm??? So for what it is worth...duh what was that again you say ???

*Hi David,*

*It would appear that the difference in contrast between cold and warm is a facet of the behaviour of the liquid crystal itself with temperature. The result is the requirement for a slightly different voltage on the contrast line to produce the same contrast result between the two temperatures.*

*Similar displays to that used in the AR7030 that operate to lower temperatures require a wider swing on the contrast voltage line, but actually recommend temperature compensation on the contrast input to maintain an even contrast result with temperature variation as the variation in contrast is more extreme. The issue is related to low temperature rather than high temperature conditions and concerns the speed of liquid crystal response at lower temperatures. These low temperatures are outside the normal operating range of any domestic equipment.*

*Incidentally, the same effect was apparent on the previous manufacturers display but the lower level of available contrast made it appear far less noticeable.*

*Best Regards*
*Mark*

A reply listed below on the weird "moving around" of the LCD contrast level on the latest production runs. You can live with this, however I have never seen this on a set to this date with a LCD screen. I think that a note with new sets should be included to indicate this. Turn the set on, let it warm up ay 30 min to an hour...THEN adjust the contrast control..and leave it alone after that.

Reply from Mark of AOR UK:

*Hi David*

*Your observations on the contrast variation between cold and warm on new display are correct and are a facet of this particular display, however we considered it a minor issue that was out-weighed by the advantages.*

*We looked at other displays before deciding on the one chosen however they required the use of a large negative voltage for production of the increased contrast level. This would have required an inverter circuit with all the attendant (potential) noise problems.*

*Best Regards*
*Mark*

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**More on Missing "die-cast can" in Later Samples**

A reply from Mark of AOR UK on the missing "die-cast can".This clears up most of the points made below. Just as I was thinking here...the Q47 problem. The eddystone comment was wrong as another company is still making these die-cast cans (Hammond). Check out the web site (link below). But I still have a problem in the back of my mind with this missing ?? You can make what you want from this information. I wish to thank AOR UK again for responding to this matter.

*"Hello David"*

*"As you have observed, the larger of the die cast boxes is indeed absent on the latest production run of the AR7030. The decision to omit the can was taken, as you quite rightly surmise, because of the stress it places on the PCB around Q47. We have always been aware that the level of radiation from the DDS system was low, however before deciding to omit the box extensive testing of the receiver was performed to check for the presence of any additional spurious radiation."*

*"I note the differences in reception shown by your real audio files, however this type of difference is actually unlikely to be a result of the missing box. It must be said that there are variations between production sets that are still within specification caused by many things, typically the change in manufacturers of a part which conforms to the same overall specification. Logic IC's are a prime example of this, also the variation in ceramic filter characteristics. Not withstanding this we will carry out more comparative tests."*

*"Incidentally I notice you have observed that Eddystone have ceased manufacturing the die cast boxes. This is true, however they are still manufactured by Hammond manufacturing who bought the business at the end of 1998. (take a look at* ***www.hammondmfg.com*** *for more details). The issue of obsolete parts has always been a consideration in the design of the AR7030. Basically in small scale production it is always necessary to be aware of the 'design-in' of very specialist parts which might go out of production. The most obvious case here was the Plessey SL6440CDP IF chip which had actually ceased production when the AR7030 began (though further manufacturing by Plessey did actually take place due to demand). We bought, and still hold large stocks of this part, though new stock still shows up on suppliers lists even now."*

*"As usual your comments and observations are appreciated."*

*Best Regards*
*Mark W Sumner*
*(Production Controller)*

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A reply on this subject from Ben Wallace . He makes a few good points here. How about it AOR...for pepole who want it..send them the missing "can" (top and bottom and the 4 screws), as long as it would not throw anything off from factory alignment ?? I had sent AOR UK an audio file showing lower background noise on my older standard unit (recording has both units, A-B comparison in it, listen to the mp3 audio file, link below).

*Hi Dave,*

*The response from AOR doesn't wash with me.*

*I develop and bring to production cellular phones and can tell you that shields can be a MAJOR problem with all*

*electronic products, and my cellular products in general.*

*First of all.....From an engineering standpoint, the AOR development team obviously decided that a shield was originally needed for the production receivers.*

*Since they have ommittted the shield, you have seen a difference in performance of the versions of receivers, with and without the shielded circuit.*

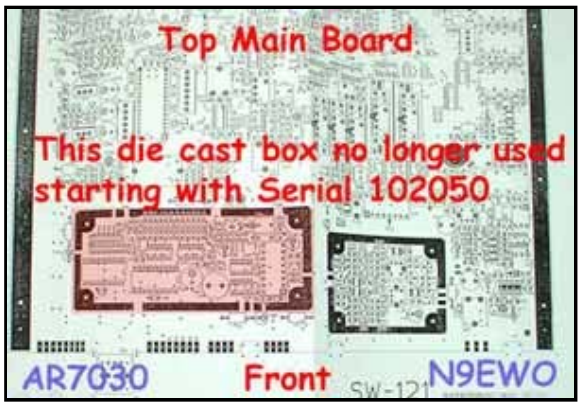
*In their reply to you, AOR stated that they have always been aware that the level of radiation from the DDS system was low, however before deciding to omit the box (shield -- let's call it what it is) extensive testing of the receiver was performed to check for the presence of any additional spurious radiation..... If that is the case, why did they use a shield in the first place??? No commercial manufacturer puts more into a product than absolutely necessary.*

*These questions still need to be answered. Did they have problems placing the shield in their "pick and place" machines? Did they suffer from automated soldering problems? Were the shields "hand placed" and "hand soldered" in the manufacturing process??? How did they know that excessive stress was occuring around Q47? Returns (RMAs)?*

*AOR states that perhaps the differences in reception shown by your audio files (you can have a listen to this , link below) , could have been caused by ..."the change in manufacturers of a part which conforms to the same overall specification....." Imagine you go down to the Ford dealer and buy a part for you car that doesn't work as well as the original.....where-upon the parts dealer tells you that it is an exact replacement made to the same specifications as the original.....what would you think?*

*Ben*

I had a peek in my "Above 102050 serial no" Plus 7030. Actually did NOT have to take it apart. I just shinned a little flashlight/penlight with a focused lens into one of the small 2 little holes on the rear cabinet and used the eye ball in the other..weird but it worked. Well as was indicated below (see below on this page for more info) my new sample is sure "missing" this "Die-Cast" shielded case (Left one). I cannot see this enhancing the operation of the set ?? I have noticed more background noise on this new set (with a few minor small hets mixed in places across the dial), but if this is because of the missing "Can", I could not tell you ?? So this is indeed correct information !! At least something does not sound right here...??




**Missing Die-Cast Can missing in one of the later (Above 102050) AR7030's. Left one, facing the front of the cabinet.**
***(N9EWO Photo)***

So who knows what is going on here ?? A few speculations , I know that there has been a service problem over the years in this area, as the Die-cast case can put a bit of stress on Q47 and creates bad solder joints at this IC. But why just take it out, it must have to be around this DDS part of the circuit to keep noise down right.... ?? Maybe it because that these little Die-Cast cases were made by Eddystone in the UK (it's marked right on them), well they went out of business eairler this summer ?? .

Hopefully AOR UK will throw a bit of logic on this in time, but they may say that it was because of the "solder problems of Q47" ? But a entire DDS/Synthesiser circuit not shelided....ahhhh I don't think that is a good idea ????

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********** "Missing Die Cast Case" *************

From the user groups, incl my responce....

*From: John Harding*

*Subject: [AR7030] Newer AOR7030's*

*"Hello Group,*
*I've had the opportunity to see a number of very recently shipped AOR7030's and either the design has changed or they are just missing it, but the larger (correction from John of an eariler post made..davez)of the two shielded boxes on the pc board have not been installed. If you have recently received a unit or have ordered a unit, you might want to check into this. The holes are still in the board as well as the silk-screening, but no shielding box. The smaller box has been in place. (boxes are the same design, just different sizes) Just another point, the speaker leads also seem to now be directly soldered to the board. No great loss, leads on speaker were too short to remove top cover anyway."*

N9EWO's comments:

Just FYI here. I have not had my new one open , but this could be the reason that I notice a bit more background noise in this new Plus that I just received a few weeks ago (side by side test between a older standard unit) ? Those little "Die Cast" covers that he makes reference to are (or "were" as they are now no longer in business as of a few months ago) made by Eddystone (marking on case proves this). (see the "real audio" file link below for the actual test I did)

(See comment below) Mike of the UK to me personally about a IC in the set no longer being made (since 1996) ..and no replacement ??

I actually hated those little spring clips that held the speaker wires in , they always seemed to either not hold the speaker wires very tight or fell out. So this is a good thing. Dave N9EWO.

---

**N9EWO "MP3" Audio File. S/N with and without DDS "Die Cast" Cover.**

Here is the test in regards to the removed "can" being talked about here that I did back in 1999. First part of the recording is a newer "Plus" sample that is missing the metal shieled can.The second half of this "mp3 audio" file is with a older Standard unit that still has the "can". See if you can tell any difference?? Same weak station, antenna, bandwidth, receiver setup....etc. A very carefullly done "equal" test to be sure it was fair.

**AOR AR7030 test : No DDS shield in a newer "plus" sample vs. a "standard" model with the shield (0:31 sec. mp3 file)**

---

From: Mathias Eisenkolb

*A german SWL told me about the problem caused by the missing shield of the DDS circuit which produces some heterodynes in his set which I can not hear. In my receiver (serial no: 102039) the box is in.I don't know why this has been left off. Too expensive ? Heard something about shipping-probs where the box caused a damaged main-board caused by it's weight. 73 de Mathias*

(N9EWO: Hummm, this is still in the older batch of sets (before 102050), this could be in other sets other than the current production run ??....another intresting insight !!)

Another comment from Mike in the UK via the user group, including a bit from yours truly. But it sure seems to be this way on the "sample to sample" thing. I have not experenced the lock up on the Demo version of Data Master that I have been using.

*List and private email discussions suggest a common consensus of variability in behaviour. Some sets it seems behave like mine, others don't. Every '7030 appears to have it's own different quirks.*

*Dave (N9EWO) who has had five examples of the '7030, agrees:*

*"I'm really getting to think that every 7030 has it's own different quirks (no two being the exactly the same). A real shame, I have given up to trying to get at least close to a perfect model."*

*"It's a lot like a new car I guess.. but I have never experienced something like this in a radio (high sample to sample variation) in my over 30 years playing with sets."*

*The reason I think that the -demo- of DataMaster might have affected the firmware, is that despite scrupulously following the setup instructions in the documentation, it crashed when uploading memories, leaving the '7030 display showing weird characters and the buttons and tuning control locked. I switched the power feed off, disconnected the data lead and then switched the power on again. All seemed OK except for changing mode and filter simultaneously, where I noticed the loud clicks/pops which I'd not been aware of beforehand.*

*Apart from the clicks/pops my '7030 seems otherwise to be working OK. It just irks me that having paid a lot of money for a quality radio, it has annoying bugs which I've not observed on much cheaper radios.*
*Pity :*

*Best Wishes*

*Michael Slattery*
*Sheffield, UK*

Intresting comment from Michael Slattery in the UK, he was wondering if I haved checked inside my new one, I really do not plan on ever opening it if I can help it. But a good question here ??.

*"On a different matter entirely, I wonder whether you've looked inside your new '7030+. If you have, does it have a SL6440 IC as the second mixer? I ask since the SL6440 became obsolete sometime back in 1996! I thought that maybe AOR would have to abandon manufacture of the '7030 or do an extensive redesign since AFAIK the SL6440 was only produced by Plessey and there is no close equivalent. Perhaps AOR have vast stocks!"*

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**"No Sunshine On The AR7030"**

A note from Richard in the UK, and using his 7030 outdoors. Appears that one must keep sunlight from hitting either IR sensor.

*"Having double-ended my long-wire aerial so that I can do a bit of listening al-fresco, on a recent evening session I turned on and it went berserk taking some time to power up, and then full volume and display gone wild - power off at the mains pronto - scratch head - bring indoors - try again all seemed well. Was the problem the mains extension lead? So I took it outside again - same problem - back indoors all OK - put it in a bag to take on night shift with me and ponder the problem. When I turned it on at work I found that all was well, but that all the memories were corrupted - then the penny dropped. Heeding AOR's advice about sunshine and the display I'd positioned it with it's back to the setting sun which, at that time of evening is very noisy in the infrared region and of course the 7030 has one of it's IR detectors on the it's rear - problem solved, and now it goes outside with 'Blutac' over this. The second is that in re-storing all the memories and trying them I also discovered that, whilst most information such as BW, PBS BFO Offset are stored AGC Speed isn't which I find inconvenient and puzzling as to why AOR have not included this."*

---

**AOR USA "Sour Customer Service"**

Here is a posting from the AR7030 user/mailing list that might be of intrest ?? I think this radio got zonked via the "Computer" RS-232 cable in the storm. But is intresting how AOR **USA** treated the set and the situation. I wish him luck..You have to ship any AR7030 with that little thick "Cardboard" ring around the tuning knob. If you do not, damage will more than likely occur to the encoder !!! (NOTE : This "ring" was not used in later samples. They started to use a cut out notch in the inner box that locked the receiver in place within the box). AOR USA quit distributing and servicing/supporting the AR7030 long ago (gee I wonder why ??).

*I've had a 7030+ for almost a year and a half now. Like it very well, run it off my computer with the AOR Data Master software.*

*The other day I fired the unit up only to find the yellow-green screen on with no graphics and no normal radio activity!!*

*Now the evening before we had a typical fifteen minute thunderstorm, but I take all the precautions, the antenna was removed from the AOR and the power supply, the only thing hooked to the AOR was the rs232 (com 2) cable from the computer.*

*I packaged up the AOR and overnited it cross country to AOR in California.Their report was that my AOR 7030+ was not repairable and was scrap!!!*

*Cost to repair .....$1250.00*

*Well you could of knocked me over with a feather.....the computer still working and operative, had a Com port problem which was repaired for $145.00.*

*Damage and claim was reported to my insurance company who sent an investigator out to talk and look see. He balked at the $1250.00 cost, said with no power supply and antenna on it and with the low damage to the computer, AOR wasn't interested in repairing the unit!! He offered $610.00 on a take it or leave it basis. This was after the deductible, and two*

*years of depreciation!!*

*I had sent the AOR to California in the original factory box but when I received it back, the box was gone and replaced by a home-made card-board carton, and wasn't packed at all!! The radio would slide back and forth inside the box!!! Lord knows what additional damage that caused.*

*I Emailed AOR in the UK who responded quickly asking to send the radio back to them, saying that most all AOR were fixed within one bench hour....*

*So with fingers crossed and baited breath, we await AOR UK's word...wish me luck!!!*

Bill reports on Sep 21 that AOR UK did indeed repair it...so again don't count on AOR USA repairing your AR7030 !!

*"...repaired it....a new display module, and a bunch of miscellaneous related parts couple if IC's, caps and resistors, (if it was suspect and in the near path..it was replaced) labor, alignment etc...they even touched up some of the paint that had flaked off due to shipping rubs by the above "service group" on the underside, replaced a missing panel screw!!...looks like new!! Works like a "Champ". Cost only $170.00!!!!"*

*"A happy ending to a nasty storm/lightning/surge incident and what could have been the end of my AOR 7030+. Thanks.Bill"*

(UPDATE: Again AOR USA in CA, no longer does repair work on the AR7030)

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**Power Supply : "Dead Out Of The Box"**

Messgae from Nick KE2WG, as he too is feeling the AOR AR7030 blues. Can you say "Lack Of Quality Control" !!!

*"I picked up a 7030 Plus, arrived yesterday. Serial # 10206x.Dead out of the box new. OUCH, this hurts. I checked the wallwart supply. Found problem, it is dead. NO voltage output what-so-ever."*

He continues:

*"What I think so far: For comparison, I have a Kenwood TS-870. Quad conversion DSP at the IF level. Guess what, the 7030 hears very weak SSB signals on 75 meters, that the 870 does not. Both rigs were hooked to 300 FT long wire antennas, at 65 feet up. The antennas run side by side, about 30 feet apart from each other. Parallel would be the correct term here. I find the 7030 is a bit quieter than the 870. However, the bandwidth flexability of the 870 is much better than the 7030. Also, the Auto Notch of the 870 is tops. So, this is my first impressions of the 7030 plus. I intend to have the 7030 go head to head with my WJ and Racal receivers."*

* Nick informed me that the US dealer has repaired the power supply. By the way the Power Supply that I received with my last "Plus" unit..."Buzzes" fairly bad even at no load..The older power supply that I received with my "Standard" unit is just about totally quiet. So the quality of the power transformer inside this power supply varies ??

---

**Resistance Feeling with Tuning Knob**

A few old notes that I found as I was going over some old mail that I felt that were worthy to post, one indicates the same "friction" that I was having with my # 4 unit. Almost feels like a chunk of felt jammed behind the knob. The #5 and # 6 samples has none of this feeling what-so-ever. Other is with a power supply problem. EEB of course is no longer with us (thank goodness). I cannot give you the dates these were actually posted.

*I'm the proud owner of a new '7030+, my first serious receiver.Initial impressions are very good, especially of the low noise floor and quality audio. Two gripes though: My set suffers from the well known sync-detector-heterodynes problem, did anyone manage to eliminate this by realigning the sync or by bridging R109 with a 4k7 or 10k as recommended by JT?*

*Secondly, the tuning control; mine has more resistance to turning than I would have expected, in fact tuning the set when it's switched off I can here what sounds like the result of friction. Subjective I know but what does your set tune like? Also the rate of slow-tuning is faster than I was expecting, using thumb-in-dimple and turning at about 1/2 rev per second I'm clocking up just over 4KHz per rev in USB, 2-3 times what my cheapo DX-394 does. Maybe I'll get used to the faster tuning and even find it to be a better tuning rate?*

Nick Dawes

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**Another Power Supply Dud**

Michael Slattery wrote:

*Q: 1. Using the 2.1kHz filter in SSB modes, PBS set to zero, and no signal present, is the background noise the same in both USB and LSB modes? Even after it has been operating continuously for days my '7030's isn't. Running the filter calibration routine doesn't seem to make any difference!*

*A: For those having problems with distortion/noises when the AR7030 is in AM Sync try changing your power supply. When I received my AR7030 Plus last August the AM Sync was totally unusable due to distortion and noise. In addition when the receiver was turned off there was a low level hum from the speaker which would gradually get louder and after a couple of minutes it could be heard all over the house. Sent E-mail to AOR and they suggested the power supply might be the problem. When I fed the receiver from another power supply all the problems immediately cleared up. AOR promptly sent me a replacement supply. Don't know if this will help anyone but it is worth a try.*

*Al K4GLU*
*Chincoteague Island, VA*

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**Sticky Relays ??**

Comment from Bill Winkis

*Q: Just turned my AOR 7030+receiver on. It's tuned to 14.178- USB, and nothing...I can hear a little grabled talking in the backround, but?? The "S" meter works. Now switch over to AM -1270.0...and beautiful!! I've been throught the menu's three time and can't see anything out of line!! Is there a way to -reboot the whole cpu and get back to full default?? Or what's in the wrong position??*
*Bill Winkis*

*A: I have same problem when my receiver was 1 month old. The problem was in preselector relay (MW_SW). After I switch to/from MW/SW many times this problem go away.*

*Konstantin.*

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***WARNING : I will NOT be held responsible for any information that is listed here.***
**ALL DONE AT YOUR OWN RISK !**

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## A Final Note : LED Backlighting Failures

WHEW !!! You were thinking that the above text covered ALL of the AR7030's bugs and failure issues ?

From posted information around the Internet since early 2006 (including the **QTH AR7030 mailing list**), the LED backlighting for the LCD display have been failing in a number of samples. This may start as partial dimming in certain parts of the display (like one LED), only to all fail in time leaving the owner with a 100% dark LCD. Again, the LCD is not the part that goes bad; it's the LED backlighting within the display. The major downer is that the entire LCD display has to be REPLACED !!

Some REPORTED approx. serial numbers affected: 10227x, 10234x and another 10234x.

As we covered in the main review above, there have been at least 2 different types of displays used in the AR7030 over the years. Humm, I remember reading somewhere that a even 3rd model display was used with the latest samples ??

A reply from AOR UK responding back from March 2006 reads as:

*"It is not a major problem and the quality of module does appear to have statistically improved with time... as you would hope from a component manufacturer. I guess that is why some of the numbers you have seen are around Y2000 production. It is just a technology issue with this type of display."*

*"Latest type LCD module for AR7030, OPC2402LRUASOE" [after serial number 102050 ??]*
*[Basic module ? : PC2402, Manufacture: Power Tip, Made in Taiwan?]*

*"Original type LCD module for AR7030, OL2462B1P100" [up to serial number: 102050 ??]*
*[Basic module ? : L2462, Manufacture: Power Tip ??, Made in Taiwan?]*

*"It is possible to fit the later [newer] type module to the older radio, but the pins need modification,.....I would recommend customers try themselves."*

Sorry, I do NOT have this pin modification information or if you can even still purchase either one anymore as a part ? I do know that the cost of the "later" LCD was more.

From looking at the schematic and PC board pictorials there are 16 EXTREMELY TIGHT "plated though" solder connections for this LCD display. Without the skill and PROPER equipment one is almost sure to totally destroy the display board.

**IMPORTANT NOTE: At time writing I have not experienced this bug with any sample I have ever owned or used !**

Dave N9EWO

I do hope that at least part of the information here has been of use ? Also a very big "Thank You" to all who have e-mailed me with any information over the years, and as always..**"Caveat Emptor"**.

Cheers,
Dave N9EWO

ver 11.5

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Back to main page

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