The Anytone/MyDEL-5189 70MHz FM Mobile Transceiver

Tim Kirby G4VXE takes a break from preparing The World of VHF to try out an interesting 70MHz mobile transceiver.

If you've kept an eye on *The World of VHF (WoVHF)* column in *Practical Wireless* (*PW*) recently, you can't fail to have noticed that 70MHz frequency modulation (f.m.) operations are starting to get mentioned much more often. Activity has increased significantly over the last few months and it's probably fair to say that in part this is due to the availability of commercial equipment from the Peoples' Republic of China (PRC).

Until recently, the only way to get on 70MHz f.m. was to use converted Private Mobile Radio (PMR) equipment. So, when the Editor called me recently and asked if I'd like to review one of the new breed of 70MHz f.m. mobiles – it's fair to say that I jumped at the chance.

The Rig Arrives!

The rig arrived from **Martin Lynch & Sons** badged as a MyDEL-5189, although the instruction manual and box showed the rig's original heritage as an AnyTone-5189, which is how the rig may be available from other retailers. The transceiver was well packaged for transit and comes neatly in its own small box and on opening it I found that the transceiver quite a small and simple rig.

Another first impression was that the heat-sink on the back of the rig is substantial! Certainly the heat-sink is effective. Despite enjoying some lengthy QSOs at the higher power level, the transceiver barely warmed up!

The build quality of the transceiver is good and solid and it has a pleasing 'feel to it'. However, It's perhaps not finished to quite the same standards as 'mainstream' manufacturers, but is entirely adequate.

The rig comes supplied with a mounting bracket, a microphone, a power lead and an instruction manual. The review model came with a standard microphone*, although advertisements from various sources specify that a DTMF microphone can be used.

The initial installation of the rig was in my shack, replacing the Philips FM1000 PMR set which I use regularly for 70MHz f.m. The AnyTone/MyDEL is a significantly smaller package – an immediate plus – and unlike the FM1000 and some of the other converted PMR rigs it has an internal speaker and an SO-239 antenna socket (many of the PMR sets are BNC), things to bear in mind if you're replacing an existing PMR set.

The power lead comes in two parts, like many modern rigs, with a 'tail' from the rig, to a connector which joins to the main lead. The overall length of the lead is good – I'm not sure if it was me, but the connector – once done up – wasn't that easy to release, at least with fingers! From a point of view of a good solid connection, this is good, but if you want to use it to take the rig out of the car when you park up, then it might be more problematic. I suspect it will become easier with use, but if not, you may wish to fit your own connectors.

***Note:** Martin Lynch & Sons Ltd. confirm that the transceiver is now supplied with a DTMF microphone as standard. **Editor**.*

Simple Front Panel

The front panel is simple, with seven controls and a display panel which shows **VFO**/**Memory** number, frequency and power level. The display is black text on an orange background which I found quite easy to read both in the shack and in the car. The microphone (or a PC) connects via an RJ-45 on the front panel.

Sadly, despite the 'standard' RJ-45 connector there's nothing standard about the wiring and a Yaesu DTMF microphone did not work with the rig. I did not test the PC interface to the rig – which is presumably of marginal use on 70MHz since there's no need to program repeaters with different offsets, CTCSS tones and so on.

I should probably mention the user manual now. The basics are covered clearly and make good sense. When it comes to some of the configuration that's possible within the 'shortcut operations' section of the manual, I'm afraid it's less clear! Various functions like 'channel delete' didn't work exactly as described. Neither did the **High**/**Medium**/**Low** power switch 'shortcut'.

Fig. 1: The simple layout of the controls perhaps indicate the 'designed for PMR' influence.

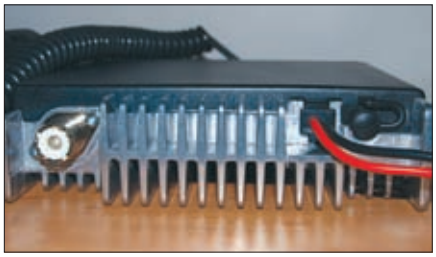

Fig. 2: A large external heatsink is used to dissipate any heat generated in the p.a. stages.

However, with the information contained in the manual, which I would describe as 'indicative' rather than 'comprehensive', I managed to do everything that I wanted to do! Users should expect to have to fiddle around a bit and for the manual not to be as accurate as you might have wished – but keep a sense of humour about you and you'll be fine!

Incidentally, a number of the functions described in the manual assume that a DTMF microphone will have been supplied with your rig. As noted earlier, the review model was not supplied with a DTMF microphone, so this may have complicated things somewhat.

Getting On The Air

Then it was time to get on the air. There's no clearly marked **On/Off** switch, but pressing the control on the top left of the rig seemed most intuitive and so it proved! There is no **VFO** control, but I used the **Up/Down** controls on the microphone to change frequency.

As noted previously, setting the power level proved to be something of a challenge. In early advertisements from some suppliers of this rig, a power level of 60W was quoted and indeed, the somewhat 'generic' specifications in the back of the manual point to this too. However, I measured high power as 22W, medium power as 10W and low power as 3.5W. Later advertisements of the rig claim a 25W output, which is more accurate.

Connecting the rig to the antenna – a half wave vertical at around 10m (30ft) – it was time to compare the receiver with the PMR set. The Tring 'Parrot' MB7FM on 70.4375MHz was available during the first part of the review period and was most useful. The 'parrot' is located around 50km from my home and on my normal PMR set is a steady S5-S6.

There was perhaps a slight hint of more noise on the AnyTone/MyDEL

Manufacturer's Specifications

Frequency range	66-88MHz
Number of channels	250
Steps	
Operating voltage	13.8V d.c.
Squelch	Carrier/CTCSS/DCS/5-Tone/2-Tone/DTMF
Frequency stability	±2.5ppm
Operating temperature	-20 to 60°C
Dimensions (W H D)	160x155x40mm
Weight	1Kg
Receiver	
Sensitivity (12db SINAD)	<0.25µV
Adjacent Channel Sensitivity	>60dB
Intermodulation	>60dB
Spurious rejection	>70dB
Audio distortion	<5%
Audio power output	>2W @10% distortion
Transmitter	
Power output	60W/25W/10W (please see text ref 60W))
Modulation	f.m.
Adjacent Channel Power	>60dB
Hum and noise	>36dB
Spurious emission	>60dB
Audio distortion	<5%

Company: Martin Lynch & Sons Ltd. (Importers).

Equipment: The Anytone/ MyDEL-5189 70MHz f.m. mobile transceiver.

Pros: Small and simple rig. Build quality of the transceiver is good and solid and it has a pleasing 'feel to it'. It's not finished to quite the same standards as 'mainstream' manufacturers, but is entirely adequate.

Cons: No S-meter, relatively poor manual.

Price: £148.95 (see Martin Lynch note ref. special offer).

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Martyin Lynch G4HYK comments: Thanks for the courtesy copy of the review. Please note the new RRP is £148.95 and now includes a DTMF microphone as standard. The radio is available from stock and anyone ordering and quoting the *PW* review article will receive free carriage (UK Mainland) while the May issue is current. Accessories are available including programming software and lead at £19.95. Best Regards Martin.

rig than on the FM1000, but it was a very slight difference and the AnyTone/MyDEL received MB7FM well. If the AnyTone/MyDEL was slightly less sensitive than my FM1000 then it was marginally more sensitive than the Ascom SE550 that I had in the shack as well!

On transmit, the audio from the AnyTone/MyDEL was a much better level and more pleasing to listen to than from the FM1000 (the nice thing about the simplex repeater working as 'store and forward' is that you can listen for yourself!). **Note**: It's easy to switch between wide and narrow deviation using a menu shortcut on the review unit.

Disappointingly, for a transceiver being used in the Amateur Radio market, the transceiver has no indication of received signal strength whatsoever, so you'll have to use your ear to give signal reports. This is fine, but may take getting used to for some people and I must admit that I missed a visual indication of just how strong a signal was.

After some experiments in setting up the rig and getting comfortable with using it, I called "CQ" on 70.450MHz simplex and was called by one of my locals, **Alan Osborne G3SLI**. I was pleased to be called by Alan, because we speak often on 70MHz and he was able to compare my signal. Alan confirmed that my signal was the same strength as usual and that the audio quality was good.

Next, I put a call through MB7FM and was delighted to work **Larry Smith G4OXY** from near Biggleswade in Bedfordshire, as well as **Paul Waldock M0LRE/M** in East London. By this time, I was settling down and enjoying the rig, which has a simple 'feel' to it.

Considering the small size of the speaker on the rig, I found the audio quality excellent. You can, should you wish, connect an external speaker via the 3.5mm mono socket on the rear of the rig.

During a QSO with **Dave Davis G4AQK** I discovered that the default Time Out Time on the rig is three minutes! I wondered why the rig made a beep and went to receive! I hastily adjusted the Time Out Timer so it would never time me out!

And, during a QSO, with **Chris Hoare G4AJA** Chris asked me if I'd tried holding the **Enter** key on the front panel down. Obligingly I did and an 'alarm' sounded, which I found I could only silence by powering the rig off and on again. I'm not sure what the purpose of this (undocumented) feature is, but it amused us both!

The rig boasts 250 memories – definite overkill for 70MHz. However, I enjoyed the facility to store the regularly used f.m. channels into the memories and the ability to scan them. This worked well and once the instruction manual had been 'decoded' was comparatively simple to set up.

Scan 'dwell' time can also be configured, but I found the scanning speed fairly slow compared to other rigs and it couldn't (as far as I can see) be adjusted.

The CTCSS tones can be set-up for use on memory channels, although I'm not aware of any 70MHz repeaters that would demand this currently. Memories can also be 'named' with alphanumeric tags, although I didn't find a compelling reason to do so on 70MHz.

Note: The rig's frequency coverage is **66 to 88MHz** and there's no transmit inhibit to prevent operating out of the Amateur band – so you must take great care when operating. Take notice of the band edges where you're operating and ensure that you don't transmit out of band.

Tim enjoyed using the AnyTone/MyDEL AT-5189 rig very much.

Tim Enjoyed Using It!

I enjoyed using the AnyTone/MyDEL AT-5189 rig very much. It's a compact and efficient way of getting on 70MHz f.m. The rig is reasonably priced, although you may find that you can source converted PMR equipment that will perform similarly for less than the price of the AnyTone/MyDEL. However, for mobile use though, the AT-5189 scores highly on account of its compact size and ease of fitting into a small car.

Other plus-points are ease of use and whilst on the downside, the lack of an S-meter and a relatively poor manual for the more detailed functions should be considered. The rig has proved rightly popular so far – and it's good to hear 70MHz mobile becoming more active.

Many thanks to Martin Lynch and Sons Ltd. for the loan of the review rig and to my wife, **Julie** who took some of the photographs.

Mobile Use

The rig, being fairly small just about fitted in the centre console of my car. However, as it has a 'non-standard' microphone connector, I was unable to use my 'hands-free' microphone, but no doubt an adapter lead could be made if the rig was to be used regularly on the move. I had hoped to try the rig, mobile through MB7FM, but sadly the 'parrot' went out of service during the review period, but I suspect coverage would have been good.

Mobile activity is increasing on 70MHz f.m. and you stand a good chance of making some rewarding QSOs from the car if you operate regularly. I used a **Garex Electronics** (see **www.garex.co.uk**/) mag-mount 70MHz quarter wave antenna on the car and was surprised that the MB7NS 'parrot' – at Banstead in Surrey – was a surprisingly consistent signal over a distance of around 100km (62m). As you'll see from the photos, I also enjoyed using the rig in 'portable' mode, using the antenna on the car but making a few contacts from a remote track near our home.

Front panel buttons on the transceiver are small but are not too difficult to see in a mobile set-up and for those of us with big fingers there's a reasonable gap between the buttons – which always helps! The display is adequately sized and clear for mobile use – even in the sunshine.

Changing frequency is straightforward using the **Up**/**Down** keys on the microphone. And it would appear (from the manual) that using the DTMF microphone that other functions such as changing the power level can be more readily accessed.

Other functions – such as turning off the squelch quickly to hear a very weak station – might be hard owing to the size of the panel buttons and not recommended for safety reasons if you are on the move. Although most of my operation during the review was conducted on quiet country roads, the audio from the rig seemed quite adequate in volume and clarity.

PW