MERIDIAN

104 TUNER - TEMPORARY OPERATION HANDBOOK

1. INTRODUCTION TO CONTROLS

The Meridian 104 tuner is fitted with three controls on the front panel and six tuning present controls directly underneath the meter. These presets, numbered from left to right 1 through 6, are selected by the right hand rotary switch which has an additional position 0 for standby. In the standby position, the tuner is kept running with the power supplies connected but there is no audio fed through to the preamplifier. This facility is provided for use with preamplifiers which have break through problems from radio to other inputs. It is an extremely convenient facility if you wish to stop the tuner and not switch on the disc. Normally, however, to use the tuner a preset between 1 and 6 will be selected. The rotary station selector switch performs no function other than to select a station. The two other major controls on the front panel are the extreme left hand switch, mute, which combines a mono defeat. With this switch in the up position the normal muting circuits operate with signal levels of around one microvolt, thus eliminating to a large extent inter-station noise when tuning. Pressing the switch down defeats the mute leaving the tuner wide open to receive signals below one microvolt, if indeed this is possible. The switch in the down position also disables the stereo decoder, so if you have a station which is particularly noisy on stereo because of lack of signal strength, pressing the switch down defeats the decoder which is a better solution than switching the preamplifier to mono to recombine the signal. Clearly, the integrity of the signal at low signal strength is maintained by not using the stereo decoder.

The right hand switch, called tune, combines two functions. With this switch in the upper position, the meter indicates the frequency to which the tuner is set. Depending on the model this will be between 88MHz - 104MHz, 88MHz - 108MHz, or 76MHz - 92MHz. With the switch in the upper position also, the AFC (automatic frequency control) is connected. Depressing this switch defeats the AFC and also converts the meter to read centre tuning. This gives an indication of the accuracy to which the tuner is set to the desired station. When the meter is in the centre, that is to say in the centre of the Meridian logo on the scale, then the tuner is perfectly in tune. Deviation to either side will cause increase of distortion and eventually, loss of signal.

In normal operation, that is when the tuner has been initially set up, the only control the user should need to operate is the station selector switch, unless of course a weak station is encountered and it is desired to switch it to mono. The tune switch is really only of use in actually setting up the stations, although of course it can be operated from time to time to see that no drifting has occurred.

2. SETTING UP A STATION

To set up the tuner in the first instance, connect the banded end of the DIN to DIN signal connector to the radio input of the Meridian 101 or other amplifier. The power cable should be plugged into a switched power outlet on the most convenient piece of Meridian equipment. In this way the system will be seen to be on when the meter is lit. Connect a suitable 75Ω aerial to the socket provided.

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Select radio on the 101 control unit and adjust the volume control to about one third advancement. Setting the station selector switch to position 1 and the two other switches in the upper position, insert the screwdriver provided into the preset 1 hole underneath the meter and gently turn until the blade engages with the potentiometer screw inside. It should now be possible to rotate the screwdriver clockwise or anticlockwise, watching the meter to tune to the rough frequency of the desired station. Some searching around maybe required as the accuracy of this meter is not greater than ½MHz. When the station which is desired has been identified then press the tune switch down and make a final adjustment with the screwdriver for exact centre reading. Having satisfied yourself that preset number 1 is correctly adjusted, then proceed to adjust different stations as desired, presets 2, 3, 4 etc. These presets can be in any order, it is not necessary for example that the frequency should be increasing or decreasing as you go round the scale but better that you select the stations in the order of the most likely frequency of listening.

If any difficulty is encountered in identifying the correct station to which the tuner should be set, it may help to refer to a table which gives a list of all the frequencies and locations of transmitters in the United Kingdom. This can be found in the Radio Times and National Newspapers.

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3. TUNING IN THE U.K.

Because the 104 is a particularly sensitive tuner, it should be noticed on setting up that it is possible for example, to pick up Radio 2, 3 and 4 in more than one frequency and in order to ensure the best possible reception and satisfaction, it is necessary to tune to the strongest signal in nearly all cases. The only possible exceptions to this are if the tuner is being operated close to a repeater station, in which case it may be available in mono only, and although this is the strongest signal it may be desired to listen to the stereo signal, possibly in a different direction. If there is any doubt about which station is the stronger, a few minutes listening should solve the problem.

4. SIGNAL STRENGTH

The best indicator of signal strength when listening to the tuner is to listen to the background hiss. All tuners produce a lower level of hiss with a stronger signal and in the case of the 104, background hiss level will reduce from aerial voltages of around 1 microvolt when the tuner begins to operate, reaching its ultimate quieting with an antenna voltage of about 50 microvolts in stereo and 5 microvolts in mono. Strictly speaking, any aerial voltage in excess of this is merely a luxury, although of course these higher voltages tend to ensure better immunity from ignition interference and so on. Another good indicator of the strength of the signal can be made from the tuning meter.

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With the tune switch pressed down, deliberately de-tune using the screwdriver to one side and noticing the point on the meter at which gross distortion begins. If the signal level is entirely adequate for totally silent stereo, it should be possible to de-tune by swinging the needle completely from one side of the meter to the other. In fringe areas, a smaller deflection of the tune meter will be possible and for particularly low signals where mono reception only is useful, will give a swing of the needle only across the Meridian logo written on the meter scale. If you are in any doubt choose the station which allows the biggest deviation from centre tune. If further difficulty is experienced then contact the Dealer who will be familiar with your reception area.