

Radiomobile

 THE SCIENCE OF SOUND

AKB924

OWNERS MANUAL

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HI-POWER RADIO CASSETTE PLAYER

Congratulations on your decision to purchase this high quality radio cassette player from Radiomobile. Designed by us and built to our exacting standards, we are sure this unit will give you hours of enjoyment and trouble-free operation. To ensure you get the very best from your new unit we recommend it to be matched with a pair of speakers from the extensive Radiomobile range.

How to install

GENERAL

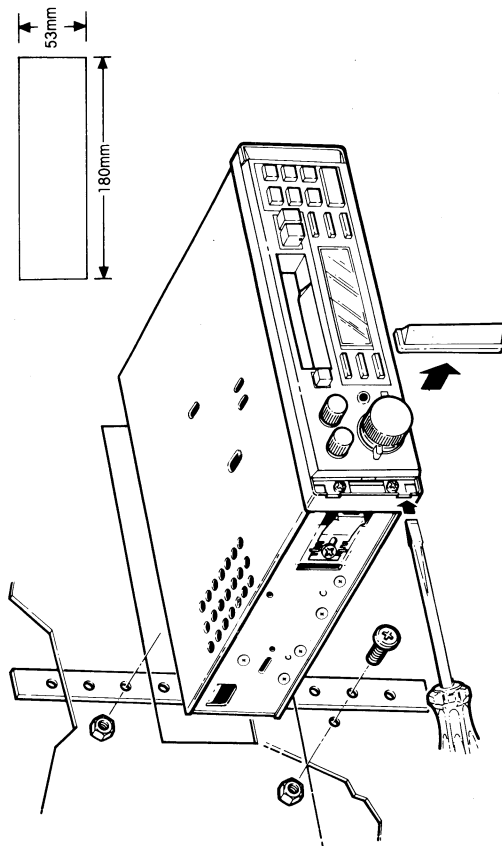
It is advisable to read through the complete installation and operating instructions to familiarise yourself with the controls and their functions before attempting to fit the unit.

CAUTION This audio unit is for use only on vehicles which have the negative terminal of the battery connected via a heavy cable or braid to the vehicle metalwork.

IMPORTANT CONNECTION MAY CAUSE SERIOUS DAMAGE TO THE UNIT.

IMPORTANT Disconnect the battery negative connection before commencing the installation.

NOTE: Stored information in trip computers etc. may be lost.



MOUNTING IN THE FACIA

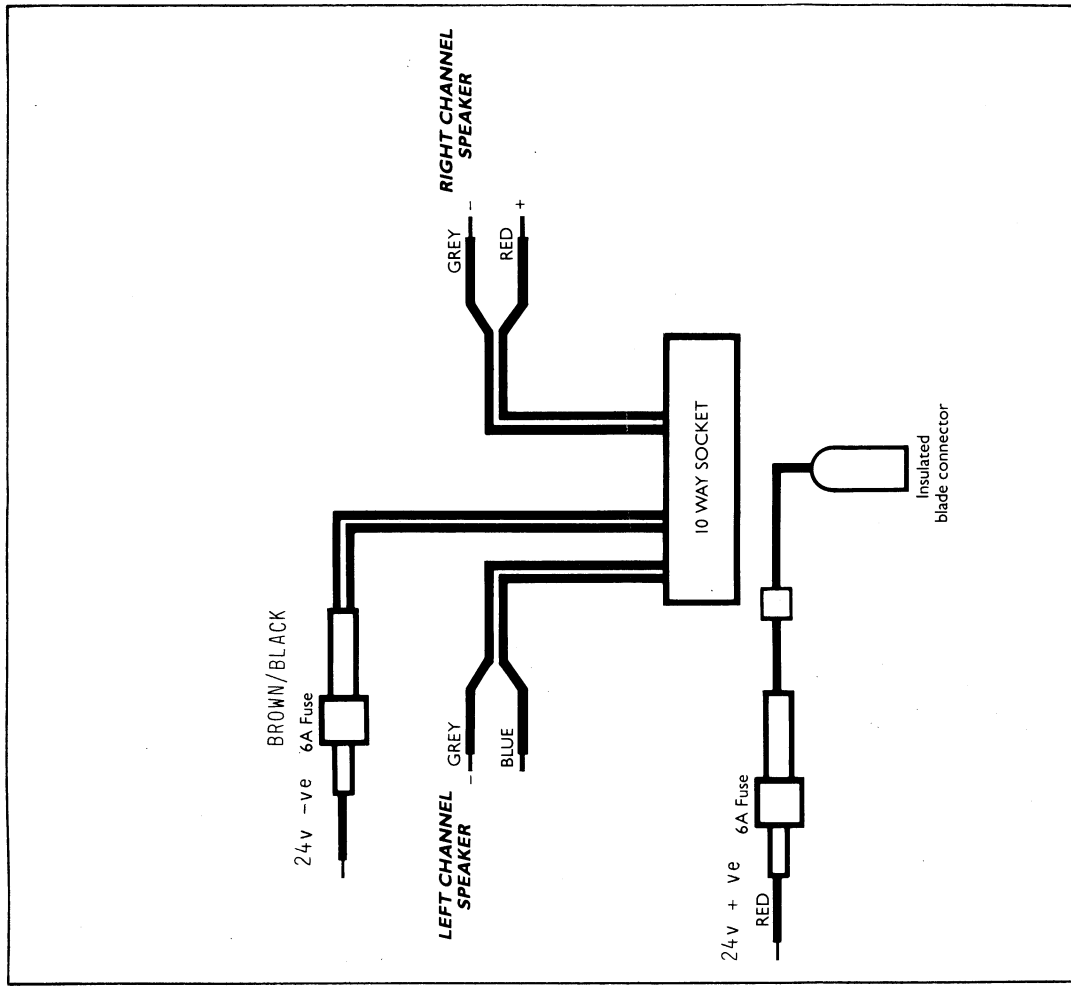
Where a location for fitting an audio unit is provided in the fascia ensure there is sufficient space available behind the panel to accommodate it. Also check for any possible obstructions (wiring, heater hoses, pipes etc) in the area where holes may have to be drilled. Remove the blanking plate, if fitted, and if necessary modify the aperture and any existing holes to the dimensions shown in the diagram. If fitting to an unpierced panel, cut aperture to the dimensions shown.

The unit is supplied complete with two adjustable front fixing springs to give a 'snap in' mounting. The springs may be adjusted for panel thickness of 2.00 to 9.00mm by slackening the spring retaining screws and relocating the springs.

To remove the unit, prize off the two side trim panels to gain access to the snap in springs and hold the springs back with a small screwdriver whilst pulling the unit forward out of the mounting area. Ensure the rear fixing has been removed.

Support the rear of the unit to prevent vibration when the vehicle is on the road. The perforated strip provided should be used, cut and bent to a suitable size and shape. One end should be attached to the rear of the set and the other to a convenient part of the surrounding metalwork behind the panel. Suitable nuts, screws and washers are provided.

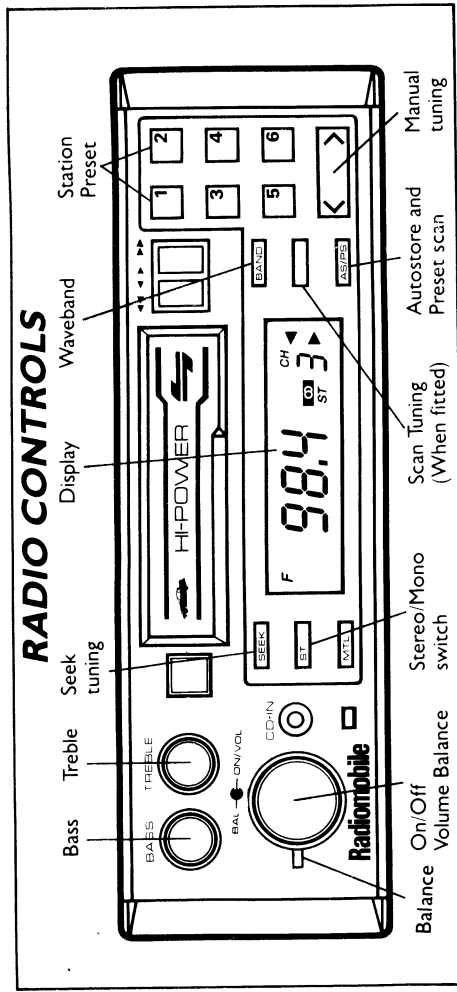
WIRING CONNECTIONS



NOTE: Left and right channel speakers are as viewed when sitting in the driving seat. Connect the wiring harness as shown in the diagram using suitable connectors. **IMPORTANT:** All earth connections must make good metal-to-metal contact, remove any paint, grease, etc.

SPEAKERS: The speakers used with this unit must be capable of handling 20W (max) output. Lower power speakers may be damaged if the volume is set too high.

How to operate



On/Off and Volume

Rotate the control knob clockwise to switch on the radio. Further rotation of this knob increases the volume. To switch off, turn the knob fully anti-clockwise.

Bass Tone Control

Turn the knob to the centre of its travel so that the indicator mark is in the 12 o'clock position. Clockwise rotation of the knob from this position increases bass response; anti-clockwise rotation decreases bass response.

Treble Tone Control

Turn the knob to the centre of its travel so that the indicator mark is in the 12 o'clock position. Clockwise rotation of the knob from this position increases treble response; anti-clockwise rotation decreases treble response.

Balance Control

Set the control to the centre of its travel where an indexing detent will be felt. Rotate the control knob clockwise to increase the sound level of the right channel speaker, and anti-clockwise to increase the sound of the left channel speaker. Adjust the control until the apparent sound level from each speaker is equal.

Waveband Selection

Momentarily pressing the button marked **BAND** will change the waveband from MW to LW or LW to FM or FM to MW etc. The chosen waveband will be indicated on the left-hand side of the display.

Tuning

The radio may be tuned to the desired station by:

- Manually setting the frequency with the manual tuning control.
 - Using the 'seek' mode to tune up the band to the next station of satisfactory signal strength.
 - Using the 'autostore' mode to select the six strongest signals on the selected waveband.
- Up to six stations on each waveband may be stored in the preset memory.

Manual Tuning

Select the desired waveband, then use the tune control by pressing < to decrease the frequency of > to increase the frequency until the desired station is heard or the frequency displayed.

Seek Tuning

Select the desired waveband, then momentarily press the SEEK button. The frequency will increase until the next station with a suitable signal strength is reached. The procedure may be repeated until the required station is reached.

Scan Tuning (only available on models without clock function)

Select the desired waveband, then momentarily press the SCAN button. This will cause the tuner to scan upwards through the waveband, stopping for approximately 4 seconds at each station of suitable signal strength until the operation is stopped by either pressing the SCAN button again or by pressing one of the station presets and holding it down for 4 seconds.

Search Sensitivity

During 'seek' or 'autostore' tuning in weak signal areas the tuner may search the whole waveband without finding a signal of suitable strength. It will then automatically switch to a higher sensitivity and again search the waveband, DK appears on the display during this operation. In known weak signal areas 'seek' or 'scan' tuning may be started in the high sensitivity mode by pressing the appropriate button twice.

Autostore Tuning

Press and hold down the AS/PS button until the tuner starts to search the waveband selected. This will be indicated by a constantly changing frequency display. Release the button and the receiver will search and store six of the stronger stations into the preset memory. **WARNING:** stations previously stored will be lost.

Stations stored may be repeated if insufficient signals are found.

This facility is particularly useful when travelling in areas where station frequencies are not known.

Manual Programming of Preset Station Selectors

- Select desired waveband.
- Tune in desired station or frequency.
- Press and hold down the desired preset button for approximately 4 seconds. Stations will be muted when button is first pressed and will return after approximately 4 seconds, the button may then be released as the station is now stored on this button. To recall selected station momentarily press the appropriate preset selector. (Up to six stations on each waveband).

Preset Memory Scan

Momentarily press the AS/PS button to start preset memory scan. The stored station on each of the preset memory buttons on the selected waveband will be sampled in turn for approximately 5 seconds.

To stop this operation, momentarily press the button again.

Tuning - Special Notes

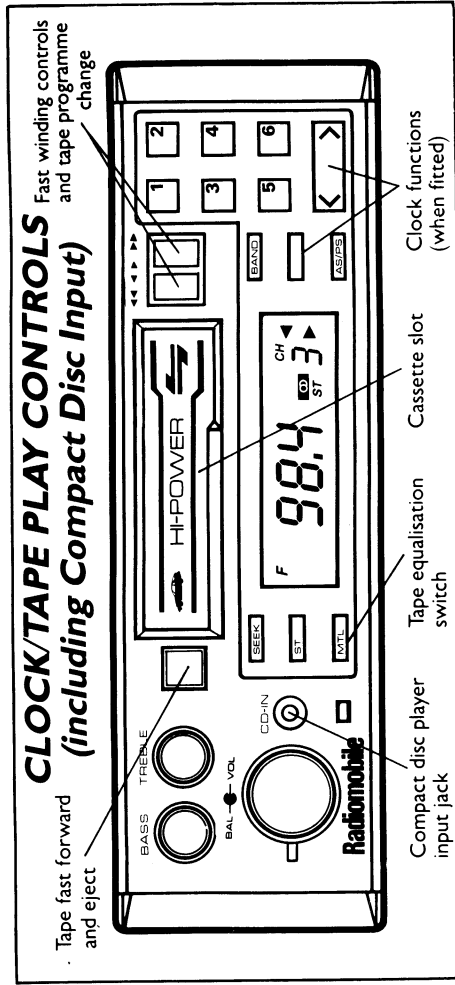
- When the unit is switched off and then back on again, the last station tuned will be retained.
- If the vehicle battery is disconnected the unit memory will have to be reprogrammed when the supply is restored.
- When using any of the automatic tuning modes it must be remembered that the signal strength is dependant upon the actual location of the vehicle and can be affected by movement of the vehicle around buildings etc. This may result in a known good signal being rejected.

Stereo/Mono Selector (FM Waveband)

To receive FM programmes in stereo, ensure the 'ST' indicator is displayed by momentarily pressing the 'ST' button if necessary.

When the stereo signal is being received the  symbol will be displayed above the 'ST' indicator

How to operate



Tape Player

The on/off, volume, tone, balance, and fader have the same functions as for the radio.

Cassette Play

Switch on the unit, adjust the volume and insert a cassette into the aperture, open or tape side towards the fast wind buttons. The radio will be automatically switched off and playback will commence in the direction of the displayed arrow. To play the other programme or side of the tape, press both fast wind controls simultaneously. Play will commence in the opposite direction and the other arrow will be displayed. When the end of the tape is reached, the tape will reverse and playback will commence in the opposite direction.

Tape Direction Indicators

For top label programme ensure ► is displayed.
For bottom label programme ensure ◀ is displayed.

Fast Forward Wind

To fast wind the tape use the two fast wind controls located adjacent to the cassette aperture. Fast winding in the direction of playback (indicated by the arrow) will advance the tape to the end of that programme. Automatic playback of the other programme will then commence. Fast winding in the opposite direction will bring the tape to the start of the side being played. Playback will then commence on the original side or programme. To stop fast wind at any point, lightly press the opposite fast wind control.

Tape Equalisation

The Metal switch provides for two tape equalisation characteristics. For metal or chrome tapes requiring 70µs equalisation set for red 'MTL' indicator on. (By pressing and releasing). For normal ferric and some early chrome tapes requiring 120µs equalisation set button so that 'MTL' indicator is extinguished.

Compact Disc Player

A 3.5mm stereo jack socket is provided for use with a portable Compact Disc Player etc. The line output of the compact disc player may be linked to the C.D. input jack with a standard audio lead for playback through the AKB920 amplifiers.
Volume/on-off, bass, treble, balance and fader controls are operative.

Clock Setting (On models fitted with clock function)

Press and release the TF button to obtain the clock function on the display.
To set time (hours and minutes) press and hold down the TF button and use the manual tune control.
Press < to set hours (24 hour clock)
Press > to set minutes.

How to service

CLEANING KITS

There are a number of cleaning kits on the market. Typical kits consist of a cleaning tape, a bottle of cleaning fluid, a multi-purpose applicator and polishing tool with spare felts. Radiomobile cassette cleaning kit Part No YAB100, is available for this purpose.

CLEANING

Every month your player should be cleaned as follows:

Push open the tape flap and clean oxide residue from the capstan shaft, rubber pinch roller and tape head using cleaning fluid and purpose designed tools, eg methylated spirit and long cotton buds. (NOT CARBON TETRACHLORIDE OR TRICHLOROETHYLENE).

Regular use of a cassette cleaning tape is also recommended.

NOTE: Keep screwdrivers, magnets and other metal objects away from the playback head and capstan.

How to maintain

These simple precautions will assist in maintaining your tape player and tapes in good condition.

TAPE PLAYER

- Use a cleaning tape regularly to keep the playback head free from oxide residue. Alternatively, clean as outlined in the section "How to service".
- Every year, have the playback head demagnetised by your audio dealer.
- Always insert the cassette correctly, see "How to operate, tape Play Controls".
- Before fitting extra speakers consult your Radiomobile Audio Dealer.

HOME RECORDING

There is considerable variation in the quality and construction of tapes. Consistently good results will be obtained by using the following brands:

TDK, MEMOREX, MAXELL, SONY, HITACHI, FUJI.

TAPES

- Do not use tapes longer than C90.
- Do not store tapes in damp atmosphere.
- Avoid extremes of temperature. Do not expose to the direct rays of the sun or leave in the car overnight during cold weather. During a very severe winter, even the daytime temperature can fall low enough to cause problems.
- Do not store tapes near permanent magnets, for example, loudspeakers.
- Always put tapes back into their protective cases after playing.

Tapes may occasionally become tight in use due to uneven winding, thus making the playback slower than normal. In this case remove the cassette from the player and give the flat side a sharp tap on a hard surface.

INTERFERENCE SUPPRESSION

Ensure that the audio unit and aerial mounting are securely earthed to the vehicle body, see "How to install".

Ignition Noise

A crackling noise rising and falling in pitch in step with engine speed. Connect a 1 microfarad capacitor between the ignition coil terminal marked '+', ie coil supply terminal from the ignition switch, and the nearest coil mounting bolt. For some electronic ignition systems use a 3 microfarad capacitor.

NOTE: If your vehicle incorporates a 'Capacitor Discharge' ignition system DO NOT connect a capacitor to the '+' terminal of the coil. If the ignition causes interference with radio reception, it may be necessary to change to another type of ignition system.

Alternator Noise

A whine rising and falling in pitch in step with engine speed. Connect a 3 microfarad capacitor between the main output terminal on the alternator and the nearest alternator mounting bolt.

Regulator Noise

A steady 'crackle' which changes when headlamps and heated rear window are switched on. Fit a 1 microfarad capacitor between the regulator '+' terminal (warning lamp terminal on alternators with built-in regulator) and nearest good earth point on vehicle.

NOTE: DO NOT connect capacitor to any regulator terminal marked 'F', 'Field', '67', or 'EXC'.

AKB924 SPECIFICATION

POLARITY	Negative and isolated wiring
SUPPLY VOLTAGE	21-32 volt dc
FUSE VALUE	6 amperes
AUDIO POWER	20 watts per channel (peak)
SPEAKER IMPEDANCE	4-8 ohms per channel
FREQUENCY RESPONSE (Tape)	50 Hz-12 kHz
WOW and FLUTTER	Less than 0.3% (DIN weighted)
CROSSTALK (Tape)	Better than 40 dB
S/N RATIO (Tape)	Better than 40 dB
RADIO FREQUENCY COVERAGE	MW 531-1602 kHz LW 153-231 kHz FM 87.5-108 MHz
DIMENSIONS	178mm (W) x 51mm (H) x 170mm (D)
WEIGHT	1.05 kg

AM	KHZ	FM	MHZ	INDEPENDENT LOCAL RADIO
290	1035	96.9	96.2/97.1	Aberdeen
290	1035	96.0	96.0	Belfast
293	1026	94.8	94.8	Birmingham
261	1152	97.2	97.2	Bournemouth
362	828	97.0	97.0	Bournemouth and area
225	1278	96.0	96.0	Brighton
238	1260	96.3	96.3	Bury St Edmunds
240	1251	96.3	96.3	Cardiff
221	1359	96.0	96.0	Coventry
220	1359	95.9	95.9	Dundee, Perth
258/189	1161/1584	95.8/96.4	95.8/96.2	Edinburgh
194	603	97.0	97.0	Exeter, Torbay
450/314	666/954	95.1/95.8	95.1/95.8	Gloucester, Cheltenham
261	1152	95.1	95.1	Great Yarmouth, Norwich
388	774	95.0	95.0	Guildford
203	1476	96.6	96.6	Hereford, Worcester
314/196	954/1530	95.8/96.2	95.8/96.2	Hertford, Bedford
288	1161	95.9	95.9	Humberston
271	1107	95.9	95.9	Inverness
257	1170	97.1	97.1	Ipwich
362	828	94.6	94.6	Leeds
238	1260	97.1	97.1	Leicester
194	1548	96.7	96.7	Leicester - General
194	1548	96.7	96.7	Liverpool
194	1548	95.8	95.8	London - News
303	1152	97.3	97.3	London - General
261	1152	97.3	97.3	Luton, Bedford
303	990	95.5	95.5	Luton, Bedford and area
362/379	828/872	95.5/97.6	95.5/97.6	Manchester
261	1152	97.0	97.0	Manchester (Gwent)
230	1305	104.0	104.0	Manchester
301	999	96.2	96.2	Merseyside
225	1332	95.7	95.7	Merseyside
261	1152	96.0	96.0	Merseyside
257	1170	97.3	97.3	Merseyside
309	999	97.3	97.3	Merseyside
210	1431	97.0	97.0	Merseyside
197	1521	95.2	95.2	Merseyside
194	1548	95.2/95.9	95.2/95.9	Merseyside
210/220	1431/1359	95.3/96.4	95.3/96.4	Merseyside
257	1170	104.3	104.3	Merseyside
257	1170	95.1	95.1	Merseyside
258/320	1161/936	96.4/97.4	96.4/97.4	Merseyside
257	1170	95.0	95.0	Merseyside
261	1152	96.0	96.0	Merseyside
257	1170	95.0	95.0	Merseyside
309	999	97.3	97.3	Merseyside
210	1431	97.0	97.0	Merseyside
197	1521	95.2	95.2	Merseyside
194	1548	95.2/95.9	95.2/95.9	Merseyside
210/220	1431/1359	95.3/96.4	95.3/96.4	Merseyside
257	1170	104.3	104.3	Merseyside
257	1170	95.1	95.1	Merseyside
258/320	1161/936	96.4/97.4	96.4/97.4	Merseyside
257	1170	95.0	95.0	Merseyside
261	1152	96.0	96.0	Merseyside
225	1332	95.7	95.7	Merseyside
261	1152	96.0	96.0	Merseyside
257	1170	97.3	97.3	Merseyside
309	999	97.3	97.3	Merseyside
210	1431	97.0	97.0	Merseyside
197	1521	95.2	95.2	Merseyside
194	1548	95.2/95.9	95.2/95.9	Merseyside
210/220	1431/1359	95.3/96.4	95.3/96.4	Merseyside
257	1170	104.3	104.3	Merseyside
257	1170	95.1	95.1	Merseyside
258/320	1161/936	96.4/97.4	96.4/97.4	Merseyside
257	1170	95.0	95.0	Merseyside
261	1152	96.0	96.0	Merseyside
257	1170	95.0	95.0	Merseyside
309	999	97.3	97.3	Merseyside
210	1431	97.0	97.0	Merseyside
197	1521	95.2	95.2	Merseyside
194	1548	95.2/95.9	95.2/95.9	Merseyside
210/220	1431/1359	95.3/96.4	95.3/96.4	Merseyside
257	1170	104.3	104.3	Merseyside
257	1170	95.1	95.1	Merseyside
258/320	1161/936	96.4/97.4	96.4/97.4	Merseyside
257	1170	95.0	95.0	Merseyside
261	1152	96.0	96.0	Merseyside
225	1332	95.7	95.7	Merseyside
261	1152	96.0	96.0	Merseyside
257	1170	97.3	97.3	Merseyside
309	999	97.3	97.3	Merseyside
210	1431	97.0	97.0	Merseyside
197	1521	95.2	95.2	Merseyside
194	1548	95.2/95.9	95.2/95.9	Merseyside
210/220	1431/1359	95.3/96.4	95.3/96.4	Merseyside
257	1170	104.3	104.3	Merseyside
257	1170	95.1	95.1	Merseyside
258/320	1161/936	96.4/97.4	96.4/97.4	Merseyside
257	1170	95.0	95.0	Merseyside
261	1152	96.0	96.0	Merseyside
225	1332	95.7	95.7	Merseyside
261	1152	96.0	96.0	Merseyside
257	1170	97.3	97.3	Merseyside
309	999	97.3	97.3	Merseyside
210	1431	97.0	97.0	Merseyside
197	1521	95.2	95.2	Merseyside
194	1548	95.2/95.9	95.2/95.9	Merseyside
210/220	1431/1359	95.3/96.4	95.3/96.4	Merseyside
257	1170	104.3	104.3	Merseyside
257	1170	95.1	95.1	Merseyside
258/320	1161/936	96.4/97.4	96.4/97.4	Merseyside
257	1170	95.0	95.0	Merseyside
261	1152	96.0	96.0	Merseyside
225	1332	95.7	95.7	Merseyside
261	1152	96.0	96.0	Merseyside
257	1170	97.3	97.3	Merseyside
309	999	97.3	97.3	Merseyside
210	1431	97.0	97.0	Merseyside
197	1521	95.2	95.2	Merseyside
194	1548	95.2/95.9	95.2/95.9	Merseyside
210/220	1431/1359	95.3/96.4	95.3/96.4	Merseyside
257	1170	104.3	104.3	Merseyside
257	1170	95.1	95.1	Merseyside
258/320	1161/936	96.4/97.4	96.4/97.4	Merseyside
257	1170	95.0	95.0	Merseyside
261	1152	96.0	96.0	Merseyside
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257	1170	97.3	97.3	Merseyside
309	999	97.3	97.3	Merseyside
210	1431	97.0	97.0	Merseyside
197	1521	95.2	95.2	Merseyside
194	1548	95.2/95.9	95.2/95.9	Merseyside
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261	1152	96.0	96.0	Merseyside
225	1332	95.7	95.7	Merseyside
261	1152	96.0	96.0	Merseyside
257	1170	97.3	97.3	Merseyside
309	999	97.3	97.3	Merseyside
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194	1548	95.2/95.9	95.2/95.9	Merseyside
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257	1170	95.0	95.0	Merseyside
261	1152	96.0	96.0	Merseyside
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