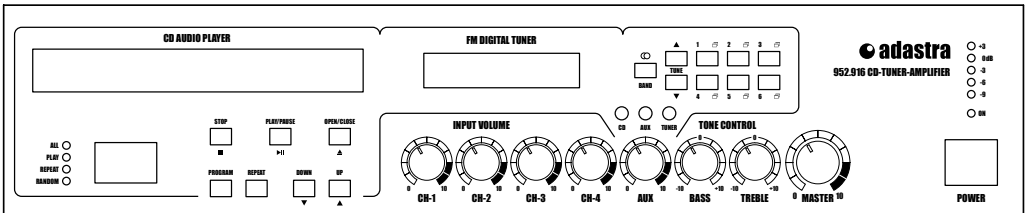




AMPLIFIERS FOR PUBLIC ADDRESS

Ref. No. 952.916

CD/FM TUNER MIXER AMP



NL CD/FM TUNER MIXER AMP

F CD/FM TUNER MIXER AMP

D CD/FM TUNER MIXER AMP

DK CD/FM TUNER MIXER AMP

Operation Manual



CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
WARNING: SHOCK HAZARD - DO NOT OPEN
AVIS: RISQUE DE CHOC ELECTRIQUE - NE PAS OUVRIR



WARNING:
THIS APPLIANCE MUST BE EARTHED

IMPORTANT

Then wires in the mains lead are coloured in accordance with the following code:

Green & Yellow:	Earth	(E)
Blue:	Neutral	(N)
Brown:	Live	(L)

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:

The wire which is coloured green and yellow must be connected to the terminal which is marked by the letter E or by the safety earth symbol or coloured green and yellow. The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black. The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured Red. If a 13Amp (BS1363) plug or any other type of plug is used, a 5 Amp fuse must be fitted either in the plug or at the distribution board.

GENERAL INSTALLATION

DO NOT run microphone cables near mains, data, telephone or 100V line cables

DO NOT run 100V line cables near data, telephone or other low voltage cables

DO NOT exceed 90% of the amplifiers output power when using 100V line (speech only)

DO NOT exceed 70% of the amplifiers output power when using 100V line (high level background music)

DO NOT use re-entrant horn loudspeakers for background music unless the loudspeaker has been specifically designed for this purpose.

AVOID Jointing the microphone cable, when this is unavoidable make sure a good screened connector is used, e.g. XLR

ALWAYS use a balanced or floating low impedance microphone terminating into a balanced input on long microphone cable runs.

ENSURE that all loudspeakers are in-phase

ENSURE that there are no short circuits on the loudspeaker line before connection to the amplifier.

FEATURES

120W OUTPUT POWER

This model can deliver very high output power at less than 1% THD

VERSATILE AND EASY TO USE

Incorporating all the necessary system components to provide versatility in an easy to use form: five channels of input signals (MIC/ LINE 1-4, AUX input).

PRIORITY AND MUTING

Input to INPUT 1 will activate the priority circuit, which temporarily mutes signals from other inputs, tuner or tape. Input also activates muting.

tone CONTROL

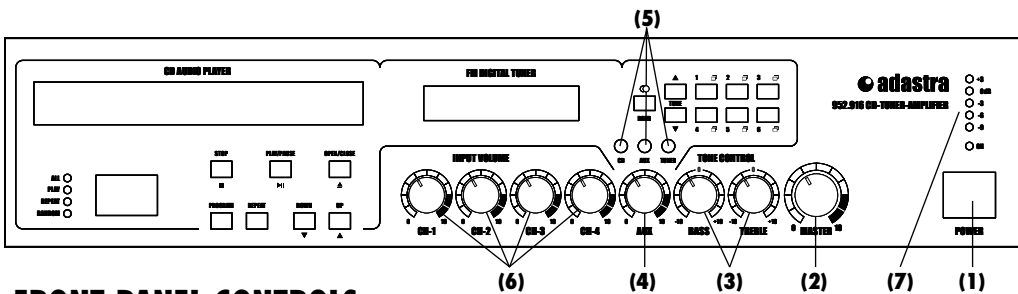
BASS / HIGH: The two-band tone control provides +/-10dB of control over the TREBLE and BASS range.

DIGITAL TUNER

Ability to store up to eighteen broadcasting frequencies in the system's memory, in a simple and easy to use manner.

EMERGENCY POWER SUPPLY

Two terminals on the rear of the panel for 24VDC emergency power supply.



FRONT PANEL CONTROLS (Fig. 1)

1. POWER SWITCH

Pressing this switch to ON will make the power indicating LED ON and supply the power to this unit.

2. MASTER VOLUME

This control is used for adjusting the volume of finally mixed sound.

3. TONE CONTROL

The "Bass" and "Treble" tone controls provide +/- 10dB of control on the range of TREBLE and BASS.

These frequencies are: TREBLE: 10kHz and BASS: 100Hz

4. AUX VOLUME

This control is used to regulate the volume of the CD, AUX and tuner inputs.

5. CD, AUX AND TUNER BUTTONS

These buttons are used to select the signal source (CD, TUNER and AUX) on the AUX channel.

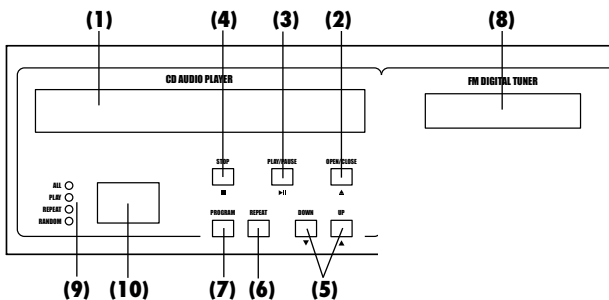
6. INPUT 1 - INPUT 4 INPUT VOLUME

These volume controls regulate the INPUT 1 - INPUT4 level.

7. OUTPUT LEVEL

The output level is displayed on the LED bargraph.

CD Section (Fig. 2)



1. CD LOADING TRAY

CD loading tray.

2. "OPEN/CLOSE" BUTTON

This button is used to open / close the CD loading tray.

3. "PLAY/PAUSE" BUTTON

This button starts CD playing. This function is indicated by the green "PLAY" indicator light in the "FUNCTION" area (9). By pressing the button, again, the unit will pause.

The "PLAY" indicator displays this function by flashing.

To return to play mode, press the button again.

4. "STOP" BUTTON

This button is used to stop the CD.

5. "TRACK UP/DOWN" BUTTONS

The purpose of these controls is to play a specific track on the CD. The number of the CD track is shown on the "PROGRAM" (10) display unit.

6. "REPEAT" BUTTON

This button is used to repeat each single track or the entire CD.

By pressing the button just once, the selected track is repeated. This function is indicated

by the green "REPEAT" indicator in the "FUNCTION" area (9).

By pressing the button twice, the complete CD will be repeated. This function is indicated by the simultaneous lighting up of the "REPEAT" and "REPEAT ALL" indicator lights in the "FUNCTION" area.

To disengage this function, press the button until both indicator lights go off.

7. "PROGRAM" BUTTON

This button is used to programme a sequence of tracks contained on a CD.

To perform the sequence to be listened to, the CD must be stopped.

The total number of tracks in the CD appears on the "PROGRAM" area display. By pressing the button, the display will start to flash and, by means of the "TRACK UP/DOWN" controls, the desired track will be selected.

If the "PROGRAM" key is pressed again, the desired track will be stored in the sequence

to be repeated. Perform this operation for the desired tracks.

Once the choice has been made, press the "PLAY/PAUSE" key to begin listening.

This function is indicated by flashing of the "PROGRAM" indicator light in the "FUNCTION" area. This indication will remain engaged throughout programming.

8. DISPLAY MODE

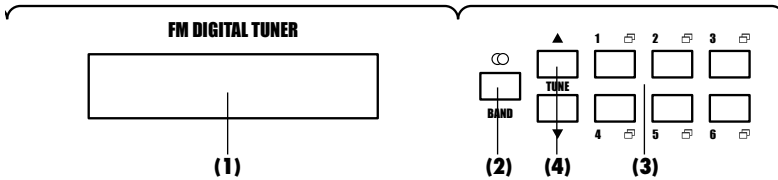
This display unit shows the state of the source on the AUX channel (CD, TUNER, AUX).

9. STATUS LED INDICATORS

These LEDs indicate the status of the CD. Their meanings have been explained previously according to function.

10. CD TRACK DISPLAY UNIT

This display unit indicates the number of the track being listened to.



Tuner section (Fig. 3)

1. TUNER FREQUENCY DISPLAY

By means of this display, it is possible to display the band and frequency of the tuner and stored channel.

2. BAND SELECTION BUTTON

This button is used to select the FM1, FM2 or FM3 band.

3. STORE/PRESET STATION RECALL BUTTONS (MEMO 1 - 6)

The purpose of these buttons is to recall the six frequencies stored in the three different bands. Altogether, a total of eighteen transmission frequencies can be stored. The same button is used to store the desired transmission frequency. The procedure as follows:

1. Select the band by means of BAND button (2);

2. Select the frequency to be stored by means of TUNE UP/TUNE DOWN button (4);

3. Press the store button (3) in which the desired frequency is to be stored for at least 2-3 seconds

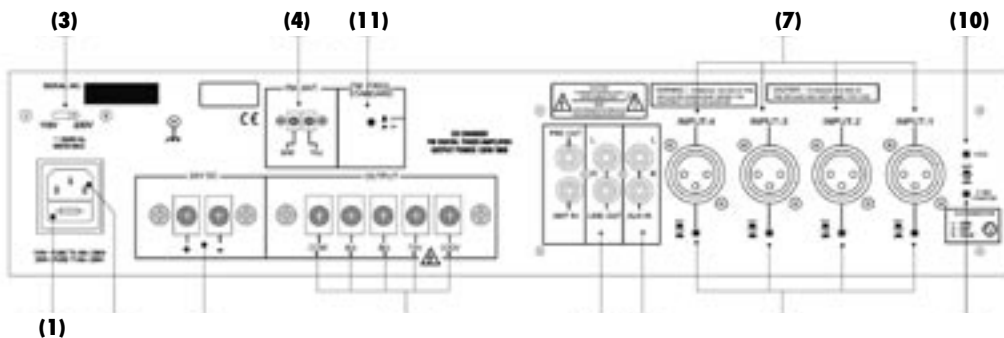
4. The present status of the tuner will be memorised in the selected address.

When the button is pressed for over 3 seconds, a search is made for the next strongest frequency.

4. UP/DOWN BUTTON

When the button is momentarily pressed once, the FM frequency will adjust with a single UP/DOWN count.

When the button is pressed for over 3 seconds, a search is made for the next strongest frequency.



REAR PANEL CONTROLS (Fig. 4)

1. FUSE HOLDER

Main fuse housing.

If blown, replace it with same type fuse as specified below. If the fuse continuously blows, refer servicing to qualified personnel.

VOLTAGE	=	AC 230V
FUSE	=	T1, 6A/250V

2. MAINS INPUT SOCKET

For connecting the power cable supplied with the product.

3. POWER VOLTAGE CHANGE

Permits changing the power supply voltage (230/115V).

This switch is preset; in case of variation, make sure the FUSE is correct (1).

4. ANTENNA TERMINAL

The purpose of this terminal is to connect the antenna cable when the tuner is used

5. "AUX IN" AUX INPUT CONNECTOR

An auxiliary source can be connected to this input (cassette player, CD...).

6. LINE OUTPUT CONNECTOR

The line output signal of this unit can be used to connect up another amplifier, e.g., a recorder or a signal processor, etc

7. INPUTS 1-4, MIC/LINE

These are XLR microphone/ line input connectors with balanced electrical circuit.

8. INPUT GAIN SELECT

According to the input signal source, the gain switches to MIC/LINE.

MIC (Microphone)	-54dB (2mV)
LINE (Deck, etc.)	-12dB (250mV)
	10k Ω

9. PHANTOM POWER SWITCH

This switch turns on the phantom power supply for all channels. Use this switch when you are using condenser microphones.

When this switch is turned on, DC +18V will be supplied to pins 2 and 3 of each INPUT socket. If you do not need phantom power, be sure to leave this turned off.

10. VOX SWITCH (priority)

This switch can be used to switch the VOX control (AUX priority) on and off. This control affects all four inputs 1- 4 and AUX

11. FM FREQUENCY SELECTION SWITCH

This switch permits selecting the tuning frequencies according to European (FM 87.5-108 MHz) or US standard (FM 87.5-107.9 MHz)

12. SPEAKER OUTPUT TERMINALS

Use speakers with the same or higher than the nominal output impedance of the amplifier.

4 Ω	8 Ω	70V	100V
22V	31V	40,8 Ω	83,3 Ω

13. 24Vdc EMERGENCY POWER SUPPLY

These terminals permit connection of a 24Vdc emergency power supply.

ANTENNA APPLICATION

FM RECEIVING ANTENNA

FM broadcasting weakens in hills and valleys, around buildings and in iron-reinforced buildings.

ANTENNA INSTALLATION EXCLUSIVELY FOR FM

Listening to the broadcasting, fix the antenna after deciding the location and the direction so that the reception may be optimised.

ANTENNA INSTALLATION USING COAXIAL CABLE

Noisy reception may occur in built-up areas and factory sites as around power cables. This may be the case even when an antenna is used exclusively for FM. In these regions, install the antenna using 75Ω coaxial cable.

INDOOR ANTENNA

In the regions where FM broadcasting is heard comparatively well due to the near distance to the station or wooden structure, you can receive broadcasting of good quality by using T-type antenna. (Using matching trans:300/75Ω)

SPECIFICATIONS

AMPLIFIER SECTION

Rated Output 120W (RMS)
Frequency Responce. 50Hz to 15000Hz
Signal to Noise Ratio
Mic 1-4.60dB
Aux80dB

Total Harmonic Distortion
(at 1kHz Rated Output) Less than 1.0%

Tone Controls Master volume
Bass. +/-10dB at 100Hz
Treble +/-10dB at 10kHz

Input Sensitivity/Impedance
Mic1-4 Balanced 2mV/600Ω
Line Input 1-4.Balanced 250m V/10kΩ
Aux250mV/10kΩ

Speaker Output/Impedance.120W 4Ω/22V
8Ω/31V
70V/40,8Ωs
100V/83,3Ω

TUNER SECTION

Radio range
European standard FM . . . 87.5MHz-108MHz
US standard FM 87.5MHz-107.9MHz
Antenna Input. . . .300Ω Twin Lead or75Ω Coax
Signal to Noise Ratio60dB

CD SECTION

THD (1kHz). Lesst han 0.2%
Signal to noise ratio. more than 85dB
Frequency response -3dB 20Hz-20kHz

PROTECTION

Amplifier:
Short-Circuit, Current Limiter, Thermal Cut-Out
Load: DC Offset, Turn-On/Turn
Off Transients (Delay), Output Fuse
Mainframe: AC Line Fuse

GENERAL

PowerSource 230Vac, 50Hz
PowerConsumption 350W
Dimensions (WxDxH) 430 x 340 x100mm
Weight (Net) 11.9kg

NOTE: Specifications and design are subject to change without notice.

