



The 3902 is Audio Active Comparative. It uses the standard compact cassette, but the cassette is used on one side only. The 'Comparative' feature is obtained by using the lower half for the 'Teacher' recordings and the upper half for the 'Student' response recordings.

### Power from Mains (Model 3902, 3902/R)

Connect to the Mains supply, the green indicator (13) will light momentarily and then extinguish.

The green indicator (13) will NOT glow again until-

- a. a Headset is connected to the MASTER headset socket (2), or
- a cassette has been inserted in the tape deck and the door closed.

### Power from Rechargeable Battery (Model 3902/R)

The rechargeable battery is charged automatically when Mains is connected. It cannot be overcharged. When the rechargeable battery is low, the green power light (13) will flash. The battery must then be charged for approximately 6 to 8 hours for full charge.

The rate at which this battery is discharged is dependent on its original charged state, volume and use of cassette mechanism. **WARNING** - do not allow the battery to become totally exhausted as this will cause permanent damage to the battery.

### Power from Coomber 901 Controller (Model 3902 -24)

The 3902-24 model is powered by the Controller (24volts AC). The green indicator (13) will illuminate only when the Controller unit is switched on. **DO NOT CONNECT OR DISCONNECT** from the Controller while it is switched on - otherwise damage may ensue.

### Cassette Mechanism

This is a logic controlled solenoid Mechanism, which operates in a conventional manner, although it is designed with extra features especially useful in the Language learning and Special Needs areas of Education.

- a. To load a cassette press the EJECT button (14). The eject will only operate if the tape is not moving i.e. STOP or PAUSE modes. During RECORD, PLAY, REWIND, FAST FORWARD the eject is locked.
- b. Record is a two key sequence; press RECORD followed by PLAY.
- c. You can REVIEW straight from RECORD.
- d. 'Punch-in' RECORD is obtained when in the PLAY mode simply by pressing the RECORD key.
- e. The PAUSE key has dual operation. Permanent PAUSE is obtained by a single touch 'on' or 'off'. The indicator in the key will flash when in PAUSE mode. Temporary PAUSE is obtained by holding the key.

- f. During REWIND or FAST FORWARD, the speed of the tape increases after about 6 seconds. This reduces the time for fast winding operations.

- g. The mechanism has full AUTOSTOP on all functions.

- h. Set the turns counter to zero to locate the position of a passage on the cassette.

NOTE - It is important to keep the pinch wheel and heads clean in the usual manner to ensure trouble free performance.

### Automatic Recording Level

When recording, the Record Level is automatically set to give good and easy recordings at all times.

### To Make a Teacher Recording

The teacher track is the lower track on the cassette.

There are 3 methods for making a Teacher Recording:

- a. Stand alone. Recordings are made on the 3902 using a 3 key sequence - pressing and holding the TEACHER button (10) and then press the RECORD key. Release both, then press the PLAY key. A Headset will be required, connect to MASTER socket (2) or use an external Microphone connected to MIC socket (9).
- b. 901 Controller. The 3902 is connected to a 901 controller. NOTE - both STUDENT RECORD (12) and TEACHER RECORD (11) indicators will illuminate. Please see 901 operating manual for details.
- c. Teacher track recordings may be made on a conventional cassette recorder for playback on the Teacher track of the 3902. Remember though, to record on only one side of the cassette.

### To make a Student Recording

The MASTER headset socket (2) must always be used in individual or group activities.

Adjust STUDENT VOLUME (5) to obtain satisfactory volume of student speech (side-tone) through Headset(s).

Insert cassette as normal but ensure you are using the correct side.

Depress RECORD key followed by PLAY key, the red indicator marked STUDENT RECORD will light.

Adjust TEACHER VOLUME (4) to obtain correct playback sound level of Teacher track.

## Uses of Switches/Sockets (see diagram)

### PITCH CONTROL (1)

This is used to alter the playback speed of cassette. Turn clockwise to increase speed and anti-clockwise to decrease the speed. Pitch cannot be altered whilst in record.

### MASTER HEADSET SOCKET (2)

This socket must always be used first when headsets are connected.

### HEADSET SOCKETS (3)

Up to six sets of 1931 headsets (headphones with boom microphones) can operate together. The 3902 may be used for individuals, pairs or groups of up to six students. It is essential that the MASTER socket is always used. Failure to use this socket or to push the plug fully home may result in intermittent side-tone.

### TEACHER VOLUME (4)

This sets the playback volume of the Teacher track on headsets and loudspeaker. When in TEACHER RECORD, from a controller, it controls the level of the programme material on the headsets and side tone when in Teacher Track record.

### STUDENT VOLUME (5)

This sets the playback volume of the Student track on the headsets, loudspeaker and the level of the side-tone from the boom microphones.

### TONE CONTROL (6)

This adjusts the overall tone of the cassette playback on both teacher and student tracks.

### CALL TEACHER (7)

Can be used to "call" for attention when connected to Coomber 901 controller. Press and hold, the power LED will blink to confirm the operation.

### EXTERNAL KEYBANK (8)

This enables control of the cassette mechanism to be made using a remote keybank.

### MICROPHONE SOCKET (9)

Use an external microphone such as Coomber 1918/1808 for recording.

### TEACHER BUTTON (10)

This is used to alert the teacher when connected to a Coomber 901 Controller. See 901 operating manual for more details.

### TEACHER RECORD INDICATOR (11)

This shows that the TEACHER track is in record mode, the STUDENT TRACK INDICATOR will also illuminate indicating that the STUDENT track is being erased.

### STUDENT RECORD INDICATOR (12)

This shows that the STUDENT track is in record mode. The TEACHER track is unaffected and is in playback mode.

### POWER ON INDICATOR (13)

This illuminates when a headset is connected to the MASTER headset socket (2), the cassette mechanism is operating or a 901 controller is connected and switched on (3904-24 only). It will blink when the call teacher button is pressed, or when the rechargeable battery requires charging (3902/R only).

### EJECT BUTTON (14)

Opens the cassette door for tape insertion or removal. It only operates when the cassette is stationary, i.e. in the STOP or PAUSE modes.

## Cassette Safety Tabs

- Protecting your Teacher Track recordings only. To protect your teacher track recordings, ensure that the safety tab on the left hand side of the cassette has been removed. Student track recordings can still be made.
- Protecting both Teacher Track and Student Track recordings. If you remove the safety tab from the right hand side of the cassette, no recordings can be made and both Teacher and Student Track recordings are protected.

NOTE if the light in the RECORD key flashes 3 times, you are trying to enter RECORD on a cassette that has been protected.

## Coomber 1931 Headsets

You are recommended to use COOMBER 1931 Headsets, a useful feature being that the integral boom microphone may be switched off by swinging it upwards away from the mouth towards the headband.

## Connection to 901 Teacher controller unit

On the right hand side of the recorder is an 8 pin DIN socket for connection to a Coomber 901 Controller. Please Phone Coomber for details on how to expand your language learning equipment.

## Trapped Cassette Tapes?

The electronic tape mechanism is solenoid controlled. If the power is turned off while in PLAY/PAUSE modes, the EJECT button will not operate and the cassette tape will remain jammed in the machine - apparently faulty. THIS IS NOT THE CASE. Having had the power cut off in mid-flow, the solenoids have simply remained locked in position.

To correct the problem, switch on the 3904 at the mains plug, or by reconnecting it to the 901 controller (3904-24 model). A "clattering" sound will be heard as the solenoids reset themselves in the rest position. You will now be able to remove the cassette.

## SAFETY & GENERAL INFORMATION

**Headsets:** For personal safety and comfort connect headsets into equipment, turn volume down and then switch on **before** placing headsets over ears. For safety use only 600 ohm headsets (i.e Coomber type 1931).

**Environments:** The equipment should not be exposed to dust, moisture, water, chlorine and other corrosive substances in normal use or during storage. It will cause damage to this equipment.

**Swimming pool atmospheres:** are very hostile to all electro-mechanical equipment (e.g. steel rusts and rubber perishes). Equipment returned for repairs showing evidence of use in adverse environments may, at our discretion, be charged for even during the 12 month warranty period.

- Rechargeable battery replacement must be carried out by a competent qualified technician.
- The disposal of batteries (rechargeable or otherwise) where used in Coomber equipment should be discarded in accordance with local regulations.
- Do not cover the ventilation openings with any items (e.g. newspaper, fabrics etc.)
- Naked flames, such as lighted candles, should not be placed on or near the apparatus.
- The apparatus should not be exposed to dripping or splashing. No objects filled with liquids, such as vases, should be placed on or near the apparatus.

**European Safety Standard:** All Coomber equipment complies with EN60065. Any local requirements for use of this equipment should be taken into account.

### Class II construction - electrical safety

#### Mains Voltage

UK & EEC: 220-240V 50Hz **Mains Cable:** Line - Brown, Neutral - Blue  
USA: 110-120V 60Hz **Mains Cable:** Line - Black, Neutral - White

**Isolate from mains supply when not in use by removing the plug from the wall socket.**

**Mains Plug:** The mains cable fitted to this equipment is already provided with a moulded plug. If another plug type is required, follow instructions from the plug manufacturer, or seek advice from a qualified person. DISPOSE OF ORIGINAL PLUG SAFELY. DO NOT RE-USE.

**Mains Plug fuse rating:** 3Amp to BS1362 (applicable in UK)

**Model type and rating information is located on a label on the base of the product.**

**Additional Technical Information:** If you require any further help or information, or if any point is not clear, then please telephone 01905 25168/9 quoting your model number and serial number (located on a label on the rear of the product). Our Technical Department will be pleased to help you.

**Note:** This equipment contains no user serviceable parts and should only be dismantled by competent qualified personnel. **Dismantling will render the warranty void.**

#### Electrical Safety Testing:

- Safety testing and servicing should only be carried out by competent qualified personnel.
- The supply cable is part of a special assembly. If damaged the equipment should be returned to Coomber Electronic Equipment Limited or their agent for cable replacement.

## Coomber Electronic Equipment Ltd.

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- Coomber reserve the right to change products and specifications without notice.
- All Coomber equipment is covered by a 12 months warranty against defective components or faulty manufacture from date of dispatch. Any modifications to or misuse of the equipment renders this warranty void.
- Equipment that is security marked or damaged cannot under any circumstances be exchanged.