

# NEAL

NO DISPUTE



## 9121P, 9221P, 9321P Operating Instructions

# NEAL RECORDING SYSTEMS

**The leading provider of high integrity, custom-designed interview recording equipment.**

NEAL recorders are in use with many law enforcement organisations in the UK in addition to law enforcement organisations in countries world-wide. Our products, whether used for investigation, disciplinary or interviews, provide a complete and evidential account of what has been said.

**“NO DISPUTE”**

Originally NEAL manufactured cassette recorders for professional applications. This technology was developed into an unmatched range of secure audio recording and transcription systems for legal applications, particularly criminal evidence interviews. The NEAL reputation for quality, ease of operation and reliability makes it the preferred choice of many government agencies and large corporations worldwide.

Part of the Canford Group since 1996, the NEAL range still includes cassette based systems for those who value its simplicity but includes digital recorders and software systems for the recording of interviews, meetings, disciplinary hearings and for the subsequent transcription.

For more information on the NEAL product range please visit [www.neal.co.uk](http://www.neal.co.uk) or contact the NEAL Sales team on **+44 (0)191 418 1199** and **sales@neal.co.uk**



# OPERATING INSTRUCTIONS

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912IP



922IP



932IP

## CD AUDIO RECORDER INTRODUCTION

This series of interview recorder makes audio recordings on compact discs (CDR). Which are easily replayed via any standard CD player.

We recommend you use a good quality 700MB CDR from a reputable manufacturer for all recordings. Recording time on a 700MB disk is 77 minutes.

**Note:** NEAL interview recorders will not operate with re-writable (CDRW) discs.



The **912IP Recorder** makes **one audio recording** on a single CD.



The **922IP Recorder** makes **two audio recordings** simultaneously. Producing two identical copies on two separate CDs. (In recorder sections CD A and CD B.)



The **932IP Recorder** makes **three audio recordings** simultaneously. Producing three identical copies on three separate CDs. (In recorder sections CD A, CD B and CD C.)

## RECORDER GENERIC FEATURES

- Two audio channels are recorded on each CD. This enhances audio quality reducing instances of “inaudible” recordings.
- Each of the two audio channels is ready connected to an external microphone which is stored in the back of the case.
- LED displays show the recording level on the two audio channels.
- The Recorder ensures that all media being recorded must be inserted and running correctly in order to engage and maintain the record mode.
- Status display shows real time, date, the elapsed time of recording, activity and alarm messages.
- Warning Alarm - This internal alarm sounds when any CD reaches a point 2 minutes before the end; If any disc fails or reaches the end; If any audio channel has been silent for 60 seconds.

## PORTABLE RECORDER CASE

**The carrying case is integral with the recorder.**

### TO USE THE RECORDER

- Place the recorder on the table with the carrying handle to the right.
- If using mains power, remove the Mains Power Supply and lead from the compartment beneath the handle
- Peel off the front section of the case, which has the NEAL logo, attached by Velcro to the underside and sides of the Recorder and fold this panel back.
- Peel off the rear panel of the Recorder, attached by Velcro to the rear and the sides of the recorder, fold this panel forwards and link to the front panel using the Velcro tab provided.

### TO USE THE MICROPHONES

- Open the pocket on the inside of the rear panel of the outer case and take out the Microphones.
- Place the Microphones on a convenient horizontal surface close to the two principal participants in the interview.
- The Microphone leads, (housed in the open pocket at the rear of the Recorder) are already connected to the Recorder.
- To pack away place the Microphones back in the pocket in the rear of the case as shown on the outside of the panel, with the flat side of the Microphones facing downward.
- Close this pocket using the central Velcro pad.
- Coil the Microphone leads and insert into the open pocket at the rear of the Recorder.

### TO CLOSE THE RECORDER CASE

- Peel off the Velcro tab holding the front and rear panels together.
- Fold the front and rear panels back over the Recorder.
- Reattach the rear panel to the rear and sides of the Recorder.
- Reattach the front panel to the sides and underside of the front of the Recorder.

### CD STORAGE

There is provision to store four CDs and sealing labels in the pocket on the top of the recorder.



## POWER SUPPLIES

**The Recorder can be powered either by an external AC mains supply using the Mains Power Supply or by the internal rechargeable battery.**

When the mains supply is connected, the rechargeable battery is charged, whether the Recorder itself is switched on or off.

### RECHARGEABLE BATTERY OPERATION

- The rechargeable battery capacity is sufficient to power the recorder in the Record mode for approximately 120 minutes.
- The power consumption of the recorder when switched on in the Stop mode is similar to the consumption in the Record mode, so to conserve battery power, the Recorder should be switched off when not being used.
- The time taken to recharge a fully discharged battery is 3 hours. The recorder does not need to be switched on to recharge the battery.
- The Recorder can be used whilst charging.

### MAINS POWER SUPPLY

Use the Mains Power Supply to power the recorder for recording or for charging the battery.

- Open the front and rear of the Recorder and remove the Mains Power Supply complete with lead from the compartment at the right hand side of the Recorder.
- Plug the Mains Power Supply output lead into the power input connector on the rear of the Recorder.
- Plug the Mains Power Supply input lead into the mains power socket.
- To pack away the Mains Power Supply in the case, disconnect Mains Power Supply at the mains first then from the Recorder.
- Coil the leads around the Mains Power Supply and place the lead back in its compartment.

## INSERTION AND EJECTION OF DISCS

Storage capacity is required to store data in the CD-Extra format (See *DATA FACILITIES SECTION*.)

We recommend you use a good quality 700MB CD from a reputable manufacturer for all recordings. Recording time on a 700MB disk is 77 minutes.

- Insert a CD into each section with the label uppermost. Feed in the disc until it is captured by the mechanism.
- To eject a disc, if a recording is being made, first stop the recording by pressing the stop button, then press the eject button.
- The Recorder should **NOT** be transported with discs inserted.

# MAKING AN INTERVIEW RECORDING

## Step by step guide to get you started

- 1 Press front panel power button on recorder and wait for the power LED to light and then wait for the recorder system to complete initialisation. Any media present will be ejected.
- 2 Wait until the display shows the time and the date then insert blank discs in all sections with CD label uppermost.
- 3 Wait until the status display shows **STOP**.
- 4 To start recording press the record button. Record can only be engaged if all the discs are inserted.
  - The alarm sounds for a period of between 5 and 20 seconds. All discs are now recording. Wait until the start alarm is silent before starting the interview. This is to ensure that all systems are ready before the interview starts.
  - The record LED shows that recording is in progress. The display shows **REC** (recording).
- 5 To stop recording press the stop button. This will cease recording on all recorder sections. The display shows **STOP**.
  - If required you can again press record and re-commence recording, pressing stop to stop recording.
- 6 In order to eject the discs, the recorder must be in the stop mode. Press the eject button.
- 7 The recorder will eject the disks after finalisation, which takes a period of about two minutes. During finalisation and ejecting, the display shows **FINALISING** then **EJECTING**.
- 8 To switch off press the power button. The display will indicate that the recorder is shutting down and will blank the display and the power will go off when this process is complete.

**Note:** During recording the power button is inoperative.

## LOW BATTERY

If the internal battery becomes close to being fully discharged during a recording, the recorder provides warnings and automatically takes action to terminate the recording safely if necessary.

**First stage alarm:** This gives the user approximately two minutes to terminate the interview recording.

**Second stage alarm:** An audible alarm is every 30 seconds and the visible 'discharged battery' message is shown every 10 seconds. If the user does not take action to terminate the recording and eject the CDs, (or connect the mains power supply) the recorder will terminate the recording, finalise and eject the CDs.

**The time taken to recharge a fully discharged battery is 3 hours.**



## DISPLAY ICONS

The display shows icons representing the status of each section



**Media presence** - Indicator shows that a disc is present and ready for use.



**No media**



**Alarm** - Alarm symbol is used to signify an alarm condition.



**End of media**



**Low media**



**Disc failure**

## BATTERY STATUS ICONS

The display shows icons showing the status of the rechargeable battery.



**Charged** - At full charge the battery will be a steady filled block.



**Part Charged** - Part charge is indicated by the level in the icon.



**Discharged** - Empty battery which will flash when the low battery alarm is triggered



**Over Temperature** - Temporary whilst battery is hot



**Missing Battery** - No battery is present, should not normally be seen

**Charging** - During charge a bar will run up the battery.

## AUDIO FACILITIES

### CHANNEL 1 - EXTERNAL MICROPHONE SIGNAL

The microphone input connected to **ch 1 mic input** is recorded on channel 1.

### CHANNEL 2 - EXTERNAL MICROPHONE SIGNAL

The microphone input connected to **ch 2 mic input** is recorded on channel 2.

### PEAK LEVEL INDICATORS

The two element peak reading LED meters, ch 1 and ch 2, monitor the input signal in the two audio channels.

- The red LED indicates maximum allowable recording level.
- The green LED indicates a level approximately 20dB below this level.

A normal recording should light the green LED but not the red LED. No adjustment to the recording levels are required.

### SIGNAL ALARM

If signal level on either channel is less than 30dB below peak level for a continuous period of more than 60 seconds, the alarm sounds continuously. The alarm is silenced when the signal level is restored or the Record mode is disengaged. (The Record mode is disengaged at end of disc or by selecting stop).

- A silent period of approximately 60 seconds is allowed after the start of any period of Record before the alarm sounds.
- The signal alarm indicates microphone silence, microphone not connected, microphone cable broken, or a fault in the recording chain of either channel.

**Note:** In some installations the sound of the alarm may be picked up by the microphone at a level sufficient to light the green LED. If this is the case, the alarm indicates the lack of any normal recording signal for a period of approximately 2 seconds, before the recording of the alarm sound silences the alarm.

## DATA FACILITIES

- The CD Recorder produces CDs to the CD-Extra format. Each CD contains both audio and data but still conforms to the audio CD standard.
- If the CD is inserted into any media player (CD player, DVD player, windows media player etc) it will play the Audio section of the CD.
- When the CD is inserted into a computer the Data section is made available. The computer may require you to start your media player separately in order to play the audio section.
- The data includes the; recorder serial number; start time of the log file (the time at which the record button is pressed.) ;the start time of the audio file (time at which the system actually commences making audio recordings.) There may be a difference between these two times of up to 15 seconds. The finish time of both files (the time at which the stop button is pressed.)

## NORMAL OPERATING INDICATIONS

### LOW DISC

When the discs reach the low disc point, the alarm sounds. The low disc point is approximately 2 minutes before the end of the recording.

## FAULT ALARM INDICATIONS

When a disc reaches its end or the system develops a fault the alarm sounds continuously. If more than one alarm is active, the various messages are presented and repeated in sequence.

### NO RECORDING MEDIA

If any discs are absent when record is pressed, then the Record mode is not engaged and the alarm sounds momentarily.

### WRONG RECORDING MEDIA INSERTED

If any discs of an incompatible format are present when record is pressed, then the Record mode is not engaged and the alarm sounds momentarily.

### PRE-RECORDED DISC INSERTED

If any discs already contain a recording when record is pressed, then the Record mode is not engaged and the alarm sounds momentarily.

### AUDIO SIGNAL ALARM

If an audio channel fails the alarm sounds until signal is restored. Once signal is restored then the alarm is silent. If the audio signal fault remains, the alarm sounds continuously. Stop all recording to silence the alarm. (See *AUDIO FACILITIES* section page 8)

### END OF DISC ALARM

If a disc reaches its end, then the alarm sounds continuously. Press stop to silence the alarm.

### FAULTY MEDIA

If any disc fails during the Record mode the alarm sounds every 10 seconds. Recording continues on the remaining discs.

- Press stop to end all recording. The alarm now sounds every 30 seconds.
- Press eject to finalise and eject all successful disc or discs.
- Press eject again to retrieve the faulty disc or discs.

## SAFETY NOTICE

The wires in the mains lead for the in-line power supply supplied with this apparatus are coloured in accordance with the following code:

**Blue = Neutral**      **Brown = Live**

If the mains plug needs to be removed and if the colours of the wires in the mains do not correspond with the coloured markings identifying the terminals in your plug proceed as follows:

The wire which is coloured blue must be connected to the terminal which is marked with the letter N or is coloured black.

The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured Red.

## CONNECTIONS

Switch off the power to this equipment before making any connections to the sockets on the rear of the equipment.

## MALFUNCTION

In the event of any apparent malfunction in the operation of the equipment, first switch off, wait at least ten seconds and switch on again. Contact service personnel if the malfunction remains.

## NiMH BATTERY

This equipment includes a replaceable NiMH battery. This should only be replaced by qualified service personnel, noting the following:

## CAUTION

**Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.**

## QUICK GUIDE FOR 912IP

### Single CD Recorder



- Switch On using the power button.
- Wait until status display continuously shows the time in the first row and date in the second row:



- Check that the CD is a CD-R type.
- Insert CD in the recorder **with label facing up**.
- Wait (approx. one minute) until the CD has been accepted – each  symbol in the status display will then change to  (the disc present symbol):



- Press record. Wait until start alarm is silent before starting interview. During recording the date changes to elapsed time after one minute. A typical status display is:



alternating with



- At end of recording press stop. The display changes to:



- Press eject. Wait for CD to **Finalise** and eject. (approx. two minutes) The display shows:



alternating with



- When the disc is being ejected the display shows:



- The disc will automatically be ejected

# QUICK GUIDE FOR 9221P

## Dual CD Recorder



- Switch On using the power button.
- Wait until status display continuously shows the time in the first row and date in the second row:



- Check that the CD is a CD-R types.
- Insert CDs in the recorder **with label facing up**.
- Wait (approx. one minute) until the CDs have been accepted – each  symbol in the status display will then change to  (the disc present symbol):



- Press record. Wait until start alarm is silent before starting interview. During recording the date changes to elapsed time after one minute. A typical status display is:



alternating  
with



- At end of recording press stop. The display changes to:



- Press eject. Wait for CDs to **Finalise** and eject. (approx. Two minutes) The display shows:



alternating  
with



- When the discs are being ejected the display shows:



- The discs will automatically be ejected

## QUICK GUIDE FOR 932IP

### Triple CD Recorder



- Switch On using the power button.
- Wait until status display continuously shows the time in the first row and date in the second row:



- Check that the CD is a CD-R type.
- Insert CDs in the recorder **with label facing up**.
- Wait (approx. one minute) until the CDs have been accepted – each  symbol in the status display will then change to  (the disc present symbol):



- Press record. Wait until start alarm is silent before starting interview. During recording the date changes to elapsed time after one minute. A typical status display is:



alternating with



- At end of recording press stop. The display changes to:



- Press eject. Wait for CDs to **Finalise** and eject. (approx. two minutes) The display shows:



alternating with



- When the discs are being ejected the display shows:



- The discs will automatically be ejected

# TECHNICAL CONFIGURATION GUIDE

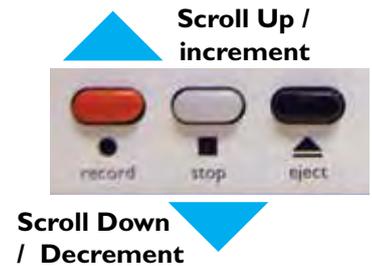
## SET-UP

- Press and hold the eject button for the duration of this first step.
- Press the record button **2 times**.
- Press the stop button **7 times** until set 'SETUP TOP LEVEL' appears on the LCD screen.
- Use the record button to **scroll up** and the stop button to **scroll down** through the menus.



## SELECTION OF MENU ITEMS

- On the set-up menu, use the record or stop key to scroll to the menu item of interest
- Press the eject button to enter the first item on this sub-menu. Further operations of the eject button select further items on this sub menu.



## CHANGE OF PARAMETERS

- If a numeric field is flashing then it can be adjusted by increment or decrement.
- Press the stop button to increment. Press the record button to decrement.

## STORING CONFIGURATION

Any change to a configuration setting is automatically stored by moving on to a display of a new sub menu item.

- When in sub-menu, return to the set-up menu by pressing eject when [EXIT] is shown on the bottom line of the sub-menu.
- When in set-up menu, either press record or stop to select [exit] and press eject to exit from configuration routine.

## CONFIG.TIME AND DATE SUB MENU

**Note:** When changing the time and date ALWAYS check or change the TIME ZONE FIRST. The time zone has a major effect on the time and therefore MUST be set prior to changing the time and date.

**Set day of month:** Press record to increment or press stop to decrement the day of the month then press eject button.

**Set month:** Press record to increment or press stop to decrement the month then press eject button.

**Set Year:** Press record to increment or press stop to decrement the year then press eject button.

**Set hour:** Press record to increment or press stop to decrement the hour then press eject button.

**Set minute:** Press record to increment or press stop to decrement the minute. Finally, press eject button.

**The time now is set and you will be taken to the Top-Level Menu.**

## TIME ZONE SUB MENU

**Note:** When changing the time and date ALWAYS check or change the TIME ZONE FIRST. The time zone has a major effect on the time and therefore MUST be set prior to changing the time and date.

### Set letter of country:

- Press record to increment through the alphabet until you reach the first letter of the country in the required time zone. e.g. Increment to B for Britain.
- Press stop to decrement through the alphabet.

To exit to Top-Level menu cycle through to end of alphabet until [EXIT] then press eject button.

### Set country:

- Press record to increment through the countries beginning with the letter you previously selected until you reach the country in the required time zone.
- Press stop to decrement through the countries.

To exit to Top-Level menu cycle through to end of alphabet until [EXIT] then press eject.

### Set city or area:

- Press record to increment through the time zones within the country previously selected. This could be a city or an area.
- Press stop to decrement through the time zones with the country.  
To exit to Top-Level menu cycle through to end of alphabet until [EXIT] then press eject.

### Finally, press eject key:

This will confirm that the time zone will be altered. However a restart of the system is required.

## MEDIA TYPE SUB MENU

### CD-EXTRA SETUP SUB MENU

- Press eject key: 'XML Enabled': Press record or stop key to select [ON] or [OFF] operation.
- DEFAULT is off.

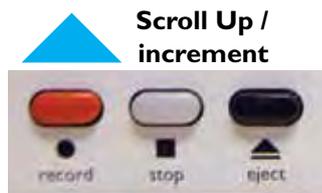
**Note:** CD-EXTRA records enhanced meta data to the CD. This format is NOT valid for some transcription software. When CD-EXTRA is enabled the finalisation time is approximately doubled.

- EXIT sub menu.
- Press eject key: This will save and exit from the configuration settings.

# QUICK GUIDE FOR SETTING THE TIME

## STEP 1

- Press and hold the eject button for the duration of this first step.
- Press the record button **2 times**.
- Press the stop button **7 times** until set 'SETUP TOP LEVEL' appears on the LCD screen.



Use the record button to **scroll up** and the stop button to **scroll down** through the menus.

**Scroll Down / Decrement**

## STEP 2

- Scroll up until 'CONFIG TIME AND DATE' shows in LCD display.
- Press the eject button to get into the TIME AND DATE setting.



## STEP 3

- Press the eject button until the digit that needs changing is selected. It will flash when it is selected.
- Press record (scroll up) or stop button (scroll down) to select the correct value.



## STEP 4

- When the correct time is set, press the eject button to come out of time set.
- Press the stop button once to take you to EXIT.
- Press the eject button to **save the changes** to the recorder.



## NOTES / TIPS

- Handle CDRs with care - by the outer edge only to prevent scratching. Keep CDRs away from dust and contamination.
- ONLY use a dedicated CD/DVD pen to write on the CD NEVER use a ball point pen or felt tip pen.
- If each microphone is placed near to the parties concerned the "stereo" recording will improve the intelligibility during transcription.
- Copies of CD recordings can be made with "RIP" AND "BURN" within Windows Media Player or with a dedicated CD copier.
- Low quality CDRs have many errors within them. ONLY use good quality CDRs from a reputable manufacturer.
- Low quality CDRs have a short life and may not replay after a number of years.
- The CD recordings from the NEAL CD interview recorders can be replayed on any CD player, most DVD players and a wide range of Software /Audio Programs.

## NEAL INTERVIEW EQUIPMENT



CD FIXED LOCATION AND PORTABLE INTERVIEW RECORDERS



CD TRANSCRIPTION SOFTWARE AND STAND-ALONE TRANSCRIBERS



DVD AUDIO VISUAL INTERVIEW SYSTEMS

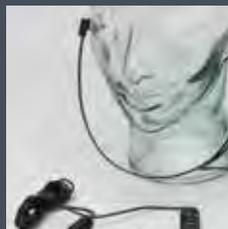
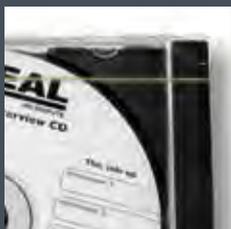


CASSETTE FIXED LOCATION AND PORTABLE INTERVIEW RECORDERS



CASSETTE TRANSCRIBERS AND CASSETTE HIGH SPEED COPIERS

## A FULL RANGE OF ACCESSORIES



Including sealed interview CDs, sealing labels and transcription systems. For more information on the NEAL product range please visit [www.neal.co.uk](http://www.neal.co.uk) or contact the NEAL Sales team on +44 (0) 191 418 1199 or email [sales@neal.co.uk](mailto:sales@neal.co.uk)



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