TRILOGY

USER MANUAL

903

THANK YOU

Welcome

Firstly, thank you for purchasing your Trilogy Audio Systems 903 Preamplifier, we value your custom.

We strive to design and build world class products that stand the test of time. By reading this manual you can gain a clear understanding of the 903's operation and learn to care for it correctly. In turn, it will reward you with a lifetime of outstanding performance.

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Nic Poulson.
CEO Trilogy Audio Systems.
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Introduction

We prefer that your Trilogy dealer delivers, installs, sets up and explains your 903's operation to you.

However, we still recommend that you read through this manual thoroughly and keep it to hand for reference if you intend using some or all of the 903's powerful and rather unique features.

Should any part of this manual or the operation of the 903 not be clear to you, please do not hesitate to contact your Trilogy dealer. If they are not available please contact ourselves directly.

About this manual

Throughout this user manual, the following icons are used:

[enter]	This refers to a physical control on the 903.
SEND	This refers to a physical connection on the 903.
`Bal Centre`	This indicates information that is presented on the display.

From this point on, any information presented on the left hand pages are pictorial representations of either the front or back views of the 903 or of the display.

Therefore consider the left hand pages as additional information to accompany the written descriptions on the opposite pages.

Unpacking

Be careful when unpacking your 903, it is heavy. Seek assistance if necessary. Store the packaging safely for future use. It is the ideal method of protecting your 903 from damage during transport.

Environment

Do not site the 903 near liquids, or place liquid-filled containers near the unit. If liquid does come into contact with the unit there is serious potential for an electric shock or fire hazard. Immediately pull out the mains plug from the wall socket. Contact your dealer to arrange an inspection before further use.

The 903 is cooled by convection and so needs good circulation of room temperature air, both under and around it. Do not place it near sources of heat such as radiators or in direct sunlight. Do not enclose in a cupboard. Do not place directly on carpet.

A flat, smooth surface is required. As with all high resolution audio equipment, your 903 is sensitive to vibration, strong magnetic fields and radio interference. A dedicated, high performance equipment platform sited away from other appliances is the optimum location.

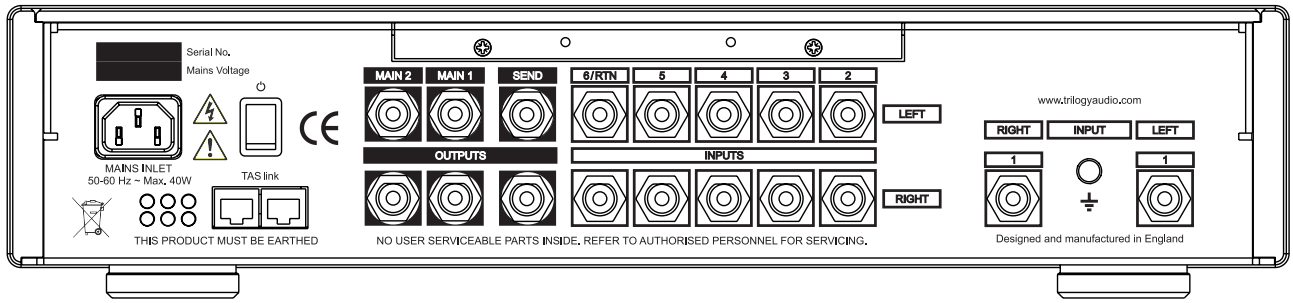
Power Supply

The AC input voltage has been set for the country where it was purchased. Check that the label on the rear panel matches your AC supply voltage before connecting the supply. The provided AC inlet cable should be used.

The 903 must be earthed through the IEC inlet connector. Do not disconnect the AC earth at any time. If in doubt about any aspect of power supply, consult your Trilogy dealer or a qualified electrician.

To realise your preamplifier's full potential we recommend high quality mains conditioning. See www.Isol-8.co.uk for more on power supply and system solutions from our highly acclaimed sister company. If you are not using a mains conditioner for best performance, make a direct connection to a mains outlet. Avoid using adapters where possible.

The IEC inlet provides the unit with power. Connect with the supplied AC input cable. It can be left connected at all times to ensure reliable operation. If not being used for extended periods of time, switch off at the mains outlet or the rear panel power switch. The 903 carries internal fuses for protection which are not user replaceable. If the standby indicator does not light when power is applied and power has been tested and available on the cable IEC socket, return the unit to an authorised Trilogy dealer for servicing.


Serial No.
Mains Voltage
MAINS INLET
50-60 Hz ~ Max. 40W
TAS link
THIS PRODUCT MUST BE EARTHED
MAIN 2
MAIN 1
SEND
OUTPUTS
6/RTN
5
4
3
2
INPUTS
LEFT
RIGHT
NO USER SERVICEABLE PARTS INSIDE. REFER TO AUTHORISED PERSONNEL FOR SERVICING.
www.trilogyaudio.com
RIGHT
INPUT
LEFT
1
1
Designed and manufactured in England

Connections

It is good practice to complete all interconnections before switching on to avoid any damage to your system's loudspeakers while plugging in.

Connect the supplied AC input cable. The 903 can be left connected at all times to ensure reliable operation. If not being used for extended periods of time; switch off at the mains outlet or at the rear panel power switch. See the Menu Operation section for timed, sleep and remote switching.

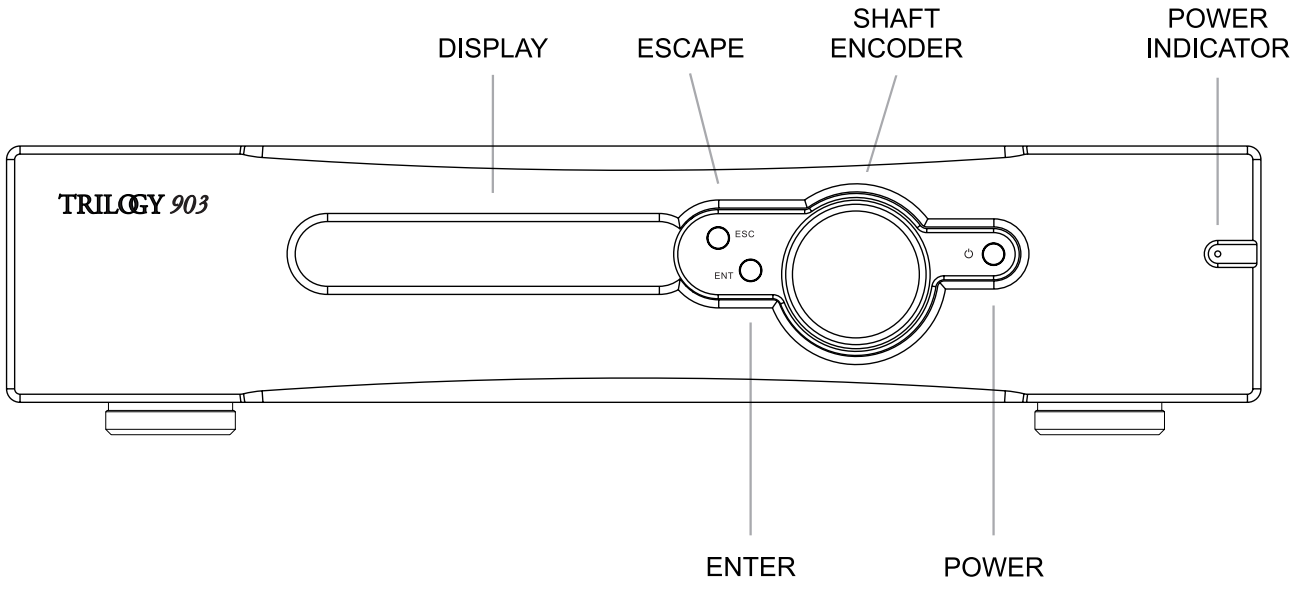
The 903 offers six stereo audio inputs, all on RCA phono connectors. When the optional internal phono stage is installed the first input is phono level and inputs 2-5 are line level, otherwise all are line level inputs. Connect your sources to these inputs as required.

Input 6 is associated with auxiliary loops. The 903 allows separate selection of the source to be amplified, and the line level source for output SEND to a recorder, AV or multi-room system. Input 6 should be used for any return signal from the recorder etc. To prevent howl round, this 6/RTN cannot be selected as the SEND output.

Two sets of main line level outputs are provided. Connect MAIN 1 to your power amplifier via RCA phono cables. MAIN 2 is provided for connection to a second power amplifier for applications such as bi-amping. MAIN 2 is not independently buffered or controlled.

Twin TAS link connectors allow interconnection, control and monitoring of other Trilogy products via our proprietary TAS link technology. The associated LEDs on the rear panel give status information. The TAS link section of this manual contains further information. TAS link cables are available from your Trilogy dealer in various lengths.

A binding post is available to allow an earth connection from your turntable when the optional phono stage is fitted. This is not a safety mains earth, the 903 must be earthed via the IEC inlet connector.



Pin Code
[enter]
00----
Rotate [shaft encoder] to display first Pin Code pair
52----
[enter]
5200--
Rotate [shaft encoder] to display second Pin Code pair
5225--
[enter]
522500
Rotate [shaft encoder] to display third Pin Code pair
522594
[enter]
Warm up...

The number used above is purely an example.

Your unique PIN Code is detailed in the separate sheet accompanying your 903.

Mains Supply

Having made and checked all appropriate input, output and AC connections, power can be applied by pressing the [rear panel rocker switch]. The [power indicator] will be dimly lit to indicate the 903 is in standby. To turn on the 903 press the [power button] on the front panel.

Security

Each 903 comes with its own unique PIN for your security. Please take precautions to remember your PIN and make sure it cannot fall into the hands of others. Should you not be able to enter the correct PIN, contact your Trilogy dealer.

PIN Code Protection

When the preamplifier is first powered, or unplugged for approximately fifteen minutes, the preamplifier requires a security PIN code to be entered. When the display says PIN Code, press [enter] and the display will read `00----` where 00 are the first two digits of the PIN code you are entering. Set these digits correctly with the [shaft encoder], noting you can move backwards through 00 to 99 for speed. Press [enter], adjust the next pair of digits, [enter] to change the last pair then [enter] again to complete PIN code entry.

If the PIN is entered incorrectly, press [enter] at the warning but note that after three failures, the unit will be locked out for two minutes before prompting again for PIN entry.

PIN request when power is applied can be disabled in the appropriate menu should you prefer.

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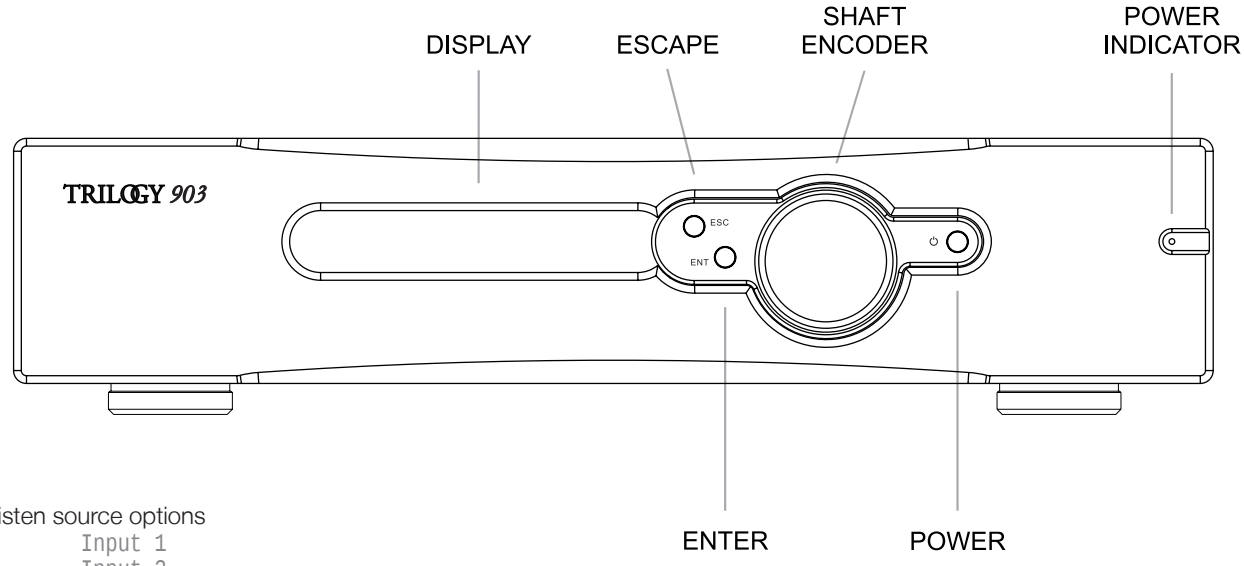
Powering the Preamplifier

Once the PIN code has been correctly entered if required/requested, the preamplifier can be powered using the [power] button. The message `Warm up...` will be displayed while the circuitry warms up, and any TAS link attached Trilogy products turn on if they are controlled from the 903. After sixty seconds, the preamplifier is unmuted, the default input and volume are selected and displayed before the menu defaults to the home page.

Turn off by again pressing the [power] button, which includes the ability to abort power up during the warming period. The message `Turn Off` is displayed and outputs are muted before valve circuitry is powered down after a couple of seconds. The 903 consumes very little power in this mode and will stand by waiting for return to operation via TAS link, infra red remote or a press of the [power] button. To remove power completely the [rear panel rocker switch] can be used.

This simple on/off operation is the standard setting from the Trilogy factory, but the detailed menus offer the ability to select an intermediate `Keep Warm` mode, where a brief press of the [power] button while powered keeps equipment at near optimum temperature. This is of particular benefit for other Trilogy equipment which can cycle power to its circuitry to keep warm, while reducing power consumption below standard mute modes. When `Keep Warm` is enabled, turn off to low power standby is achieved by pressing and holding the [power] button.



Listen source options

```
Input 1
Input 2
Input 3
Input 4
Input 5
Input 6
```

Send output options

```
Input 1
Input 2
Input 3
Input 4
Input 5
```

Balance options

```
Mute Right
Bal <15 .... Bal <1
Bal Centre
Bal >1 .... Bal >15
Mute Left
```

Brightness options

```
Bright Auto
Bright 1 .... Bright 9
```

More options

```
More  →  Cartridge (if phono option fitted)
         Time
         Defaults
         Names
         Tools
```

Overview

The Trilogy 903 offers a nested menu structure to access the variety of options. This is intuitive, using a combination of [enter] / [escape] buttons and the rotary [shaft encoder].

By default, the preamplifier displays what we call the 'Home Page', which is selectable as a blank screen, Trilogy logo, time, input or volume. The home page can be set differently when the preamplifier is off, compared with when it is powered.

Because the [shaft encoder] is normally used to adjust the volume from the home page, the first step to access any control is to press [enter] once, which shows the input selected for listening. This listen source can then be changed with the [shaft encoder] and allows the most basic of operations.

At this point you can press escape or enter once more. Pressing escape will return to the home page and the shaft encoder will control volume. Pressing enter will allow selection of the source that is sent to an external recorder or processor. [enter] again to adjust balance. [enter] again for display brightness and choose from automatic according to ambient light, or fixed levels 1-9. The next [enter] will display `More`, which is the route into the detailed menus, which are accessed by turning the [shaft encoder].

The top level menu is circular, so pressing [enter] when `More` is displayed will return to listen source selection. [escape] at any time from these top level settings to return to the home page, and press [escape] from the home page to display the current time. Holding [escape] for several seconds at the home page will display the unit's serial number when the preamplifier is powered off.

More → Cartridge → Gain → R → C

More → Cartridge → Gain 40dB
Gain 60dB

R 75 ohms
R 100 ohms
R 240 ohms
R 330 ohms
R 1 kohms
R 47 kohms

C none
C 100 pF
C 220 pF
C 330 pF
C 470 pF

Menu Operation

You will find it intuitive, but you advance between top level menus of input, output, balance, brightness and more using the [enter] button, whereas in most of the detailed menus found within More, the different menus are selected with the [shaft encoder]. The logic for this is we find it acceptable to select between the small number of high level menus using [enter], and also that each of these top level menus demands the use of the [shaft encoder].

To access the detailed menus, More should be displayed then turn the [shaft encoder] to select between cartridge (if phono option is fitted), time, defaults, names and tools. If you have enabled menu lock in the defaults (disabled by default), on turning the [shaft encoder] you will be prompted to enter the four digit menu PIN code provided with your 903. This is a different number to the six digit PIN entered when power is applied.

More/Cartridge

This menu will only be displayed where the optional phono stage, dedicated to input 1, has been installed. Otherwise the first 'more' menu will be More / Time. Unusually the cartridge menu works in the same way as the top level menu, cycling between settings of gain, resistance and capacitance using [enter] and changing live values with the [shaft encoder]. Any change to these three values is also stored as default when leaving this menu using [escape].

More → Time → Sleep
Timers
Time Set

More → Time → Sleep → Sleep Off
Sleep 0:01 ...Sleep 2:00

More / Time

This includes setting the current time and sleep time similar to that found on an alarm clock, putting the preamplifier to sleep after an adjustable number of minutes. On and off timers are also provided for each day of the week, plus global on/off timers that apply every day. Individual timers can be disabled and only some timers used if required. For example, turn on Saturday morning and turn off Sunday evening. Press [enter] to access Sleep, then select other time options if required. This setting can only be changed when the 903 is on.

More / Time / Sleep

Pressing the [enter] button when `Sleep` is displayed, will allow the user to set a sleep timer to turn the preamplifier off automatically after a set time. However during this countdown period the front panel button, an external remote or one of the timers might switch the preamplifier off first.

The default value displayed is `Off`, but using the [shaft encoder], the time can be adjusted from `0:01` (one minute until sleep) to `2:00` (two hours until sleep) in one minute steps. Once set as required, [escape] from this menu or leave the display timeout to return to the homepage if enabled. When the unit goes to sleep, by default it will switch off both the preamplifier and any TAS link attached peripherals.

If display timeout is not enabled and you stay on the sleep display, you will see a live countdown. If you wish to disable the sleep timer, set it to `Off`.

More → Time → Timers →

Mon ><:00

Mon ><:00

Tue ><:00

Tue ><:00

Wed ><:00

Wed ><:00

Thu ><:00

Thu ><:00

Fri ><:00

Fri ><:00

Sat ><:00

Sat ><:00

Sun ><:00

Sun ><:00

All ><:00

All ><:00

More / Time / Timers

Timers are provided to allow automatic on/off switching customised to your daily routine, like a modern central heating controller. This facility may be used to bring your audio equipment to optimum temperature before listening, to minimise power wasted overnight in maintaining temperature, or to provide wake-up music like an alarm clock.

[enter] from Timers to show the 'on timer' for Monday, designated with the filled square top right of the display. The day will be flashing. Turning the [shaft encoder] to the right shows the off timer for Monday with an empty square bottom right, then on/off for every day with the addition of 'all on' and 'all off' timers which will work every day.

The timer hours are adjustable 00 to 23, minutes are 00 to 59 as expected. We deliberately prevented the [shaft encoder] 'wrapping round', eg 23 hours to 00 hours. Before 00 hours, there is an additional setting of >< hours which disables that timer. Trilogy 903 Preamplifiers are shipped with all timers disabled and minutes set to 00, that is ><:00.

To adjust a timer, select the timer of interest with the [shaft encoder] and press [enter]. This allows hours to be changed, including disabling with a setting of ><. Press [enter] to edit the minutes or [escape] back to selecting the different days on/off. It will be clear what you are changing with the [shaft encoder] as the display will be flashing.

We have included what we hope is a useful feature. After editing timer minutes, pressing [enter] moves to the next timer —press [enter] to edit that. This speeds setting as you are likely to edit an off timer when you have edited that day's on timer. However if you edit the minutes on one timer and do not want to edit the next timer, simply press [enter] then choose another timer, or [escape] again to leave the timer menu.

The timers were designed with flexibility in mind. Day timers do not have to be used in on/off pairs, so you could have your system switch on Saturday morning and keep warm until Sunday evening, just using Saturday on and Sunday off timers. Similarly, each day could turn on at different times, but the All off timer would switch off the system at the same time every day.

When the unit switches off, it will switch off both the preamplifier and any TAS link attached peripherals.

More → Time → Time Set → Day HH:MM

More / Time / Time Set

An internal clock allows the preamplifier to operate its on/off timers and display the current time if required. The clock must be set by the user but, once the time is set, it keeps time even when there is no mains power applied. This clock offers the same accuracy as typical quartz units that are not locked to a time reference such as the Internet or a radio signal. As for similar devices, the clock may need adjusting occasionally.

To adjust the clock, press [enter] at the `Time Set` menu. The day and time will be displayed with the day flashing. Use the [shaft encoder] to adjust the day, [enter] to make the hours flash and adjust (always 24 hour clock), then [enter] again to adjust minutes. [enter] will cycle back to adjusting the day. Although seconds are not displayed, internally they are reset to zero if the time is adjusted.

More → Defaults → PIN Codes
Volume
Input
Film in
Output
Balance
Display
Warm Mode
External

More → Defaults → PIN Codes → Power Up → Use PIN
Skip PIN

More → Defaults → PIN Codes → Menu → Use PIN
Skip PIN

More / Defaults

A wide range of default values can be set in this menu, including startup listen and send selections, startup volume and settings to integrate a surround system. Display parameters such as home page, timeout and brightness, language, and whether volume is displayed in decibels or 0..99. Settings for external equipment using TAS link communications, and new facilities as they are developed.

More / Defaults / Menu Lock

PIN codes has two sub-menus to separately enable PIN requests when the preamplifier is powered or to enter all of the detailed menus beyond `More`. Whether a PIN is requested in each case can be set here, pressing [enter] at `Power Up` or `Menu` allows Use `PIN` or `Skip PIN` to be selected with the [shaft encoder].

More → Defaults → Volume Trim → Input X → Trim -10 .... Trim +10

More → Defaults → Volume → Start → Mute
-63dB .... -0dB

More → Defaults → Volume → Max → Mute
-63dB .... -0dB

More → Defaults → Volume → Film → Mute
-63dB .... -0dB

More / Defaults / Volume

If you press [enter] when you get to the defaults volume menu, you will see `Trim`. Rotate the [shaft encoder] to see alternatives `Start`, `Max` and `Film`. In order these are,

`Trim`	Volume offset for the selected input, to equalise levels between sources. Each step is 1dB.
`Start`	Default volume level every time the pre-amp is turned on, unless the default input is set to be a film input, for example from a surround processor.
`Max`	Maximum volume level that can be achieved for all inputs except any designated film input. This is useful when you don't trust others with your speakers! It is possible to increase the effective volume beyond this setting by adjusting the input trim. If the maximum setting is reduced below the startup setting, when [escape] is pressed the startup level is automatically lowered to match.
`Film`	Nominally unity gain for surround systems where an input has a fixed volume level and all adjustments are made on the surround processor. The audio performance of the Trilogy 903 pre-amp benefits from the lack of closed loop control of the pre-amp gain, hence the gain will vary depending on the valves. This setting allows fine tuning of the unity gain, or adjustment to a value which is not unity.

With `Trim`, `Start`, `Max` or `Film` displayed, press [enter] to view and change the setting with the [shaft encoder]. Note that when you press [enter] to adjust all but trim, the preamplifier volume will change to the setting which you want to edit, so you can audition the level correctly. For `Max` in particular we recommend caution. Press [escape] to leave the menu and the new value is saved.

You will not be able to edit the `Film` setting unless you have a film input defined (see more/defaults/film in) and that input is selected. If you have a film input selected, you will not be able to edit `Start` or `Max` which do not apply to the film mode.

Factory defaults for these volume settings are

`Trim`	0	all inputs
`Start`	-60dB	(12 when display is set to use 0..99, not dB)
`Max`	0dB	(99)
`Film`	-12dB	(81)

These settings can only be changed when the 903 is on.

More → Defaults → Input → Input 1
Input 2
Input 3
Input 4
Input 5
Input 6

More → Defaults → Film In → Nofilm
Input 1
Input 2
Input 3
Input 4
Input 5
Input 6

More → Defaults → Send Out → No output
Input 1
Input 2
Input 3
Input 4
Input 5

More / Defaults / Input

With `Input` showing, press [enter] to see the input that is selected every time the preamplifier is turned on with the [power] button, timers or externally via TAS link. Options are the six inputs. The default startup volume will also be selected at power on unless that input is designated as the film input, typically connected to a surround sound processor. In that case the default film volume is used. Hence menus associated with default input are defaults / volume and defaults / film in. Factory default is input 1 selected at power on. Changes to this setting will only be evident next time the preamplifier is turned on.

More / Defaults / Film in

If an input is designated here as the 'film input', it has its own setting for volume which over-rides the volume control and the volume is automatically changed to that setting when the film input is selected. This level is set in defaults / volume / film. When listening to a 'normal' stereo input after the film input, volume is restored to the default startup volume set in defaults / volume / start.

`No Film` is the factory setting for this parameter. To change this, press [enter] when `Film In` is displayed, then use the [shaft encoder] to select the film input. To avoid the volume jumping between the stereo and film volume settings as you pass over the currently selected input, changing this setting has no direct effect. Once an input is assigned as the film input, it must be deselected if already selected, then selected to enter the film mode.

More / Defaults / Output

The default output is selected when power is applied to the 903. The preamplifier does not have to be turned on. This operation is quite deliberate. Whether the preamplifier is on or in standby, it was felt important to maintain the currently selected record source so a recording can continue. The record output is maintained in standby mode, providing the rear panel switch is not set to off. This setting differs from the default input which is selected every time the preamplifier is turned on — the default output is only selected when the 903 is powered. Although applied at different times to the default input, changes are made in the same way, with options of `No output` or any input 1-5.

- More → Defaults → Balance → Bal <15 .... Bal <1
  - Bal Centre
  - Bal >1 .... Bal >15
- More → Defaults → Display → Home On → Blank
  - Logo
  - Time
  - Volume
  - Input
- Home off → Blank
  - Logo
  - Time
- Timeout → Off
  - 30 secs
  - 60 secs
  - 90 secs
- Bright → Bright Auto
  - Bright 1....Bright 9

More / Defaults / Balance

Default balance is similar to default startup volume as it is applied every time the preamplifier is turned on. Default balance is not used in film mode and can only be auditioned if the selected input is not designated as the film input. Similar to adjusting default volumes, when default balance is adjusted the preamplifier follows changes for proper auditioning.

Factory default balance is `Bal Centre` which will be displayed when you press [enter] from `Balance`. Adjust balance using the [shaft encoder] from the greatest left bias `<15` to a right bias of `>15`. The default balance cannot be adjusted to fully mute left or right speakers, a feature which is only available on the 'live' balance control to check for faults. For those interested in dB, each step is 1.0dB where the volume adjustment permits —if the volume is near minimum or maximum levels, the balance control will be limited in the range it can achieve.

Although volume can be displayed in dB or 0..99, balance is displayed as a number only.

This setting can only be changed when the 903 is on.

More / Defaults / Display

Press [enter] then use the [shaft encoder] to see the display options

`Home On`	What the display shows at idle when the pre-amp is on, e.g. time or input
`Home Off`	What is displayed when the amp is off
`Timeout`	After using a menu this dictates the time taken to return to the home display
`Bright`	Display brightness can be changed 'live', but this is the startup setting
`dB or 0..99`	Volume can be displayed in decibels (dB) or as a range 0..99
`Language`	The preamplifier hardware will permit foreign language support in the future

With any of the above displayed, press [enter] to see the current setting and make changes.

The options for `Home On` are a blank screen, the Trilogy logo, time of day, volume or input name. It is not logical for the 903 to display volume or input when it is switched off, so `Home Off` does not offer these options. Factory settings for these home pages are blank when the preamplifier is off and volume when turned on. Note that the blank display shows a single dot to the left when the preamplifier is off to indicate the unit is powered, as the main power LED is not illuminated.

`Timeout` can be set to off (disabled), 30, 60 or 90 seconds. This is the time to return to the home display from menus without using the [escape] button. Default `Bright` can be `Bright Auto`, depending on ambient light, or a fixed setting of `Bright1` (dim) to `Bright9`.

More	→	Defaults	→	Display	→	dB or 0..99 → Vol dB
						Vol 0..99
						Language → English 01
						Not fitted
More	→	Defaults	→	Warm Mode	→	Warm off
						Warm on
More	→	Defaults	→	External	→	Bus power → Pwr on
						Pwr off
						Bus remote → Not used
						In on
						In warm
						Out on
						Out warm
						High speed → Hi off
						Hi on

When the dB or `0..99` volume option is set to decibels, maximum volume is 0dB. Lower volumes are shown as a negative value, e.g. -10dB is 10dB below the maximum possible level. This mode will suit those with a technical interest, but might be confusing as the displayed number gets larger as the volume is lowered. The alternative is 0 to 99 where 99 is the maximum level.

The 903 has been designed to accept foreign language support in the future. Press [enter] to access this setting, and use the [shaft encoder] to select the `Language`. Note: `Language` will only allow English at this time.

More / Defaults / Warm Mode

By default, warm mode is off. When enabled, a short press of the power button turns the 903 on, a short-press when on puts it into warm mode, a long press when on or warm will turn the equipment off. For the 903 alone, warm mode simply mutes the preamplifier and is not of great benefit. This facility is really intended for use with our other amplifiers that have a true 'keep warm' mode. When connected via TAS link, placing the 903 in warm mode will maintain a lower, standby temperature on those other amplifiers which keeps them ready for use.

More / Defaults / External

This menu allows changes to TAS link settings for bus power, bus remote GPI and high speed data. We suggest you read the TAS link overview before changing these settings.

`Bus power` Bus power can be turned on or off. It is on by default. The bus must be powered by the amplifier or another Trilogy power source for the low speed bus to operate

`Bus remote` The bus remote line is one pin of the TAS link connector and is used to turn on Trilogy, or other manufacturer's, equipment that is not equipped with the TAS link low speed bus. Alternatively, the bus remote line can be an input to the 903 amplifier to allow turn-on from other systems. Options are,

`Not used`	Factory default
`In on`	Input with <2.5V turn off and >7.5V turn on
`In warm`	Input as above with additional 2.5V-7.5V keep warm
`Out on`	Output nominal 10V when pre-amp is on
`Out warm`	Output nominal 10V when pre-amp is on or warm Requires defaults/warm mode to be enabled

`High speed` By default the high speed data is on. This is used for communicating with other Trilogy products.

More → Names → Inputs

External

More → Names → Inputs → 1Input 1 → Input 1

2Input 2 → Input 2

3Input 3 → Input 3

4Input 4 → Input 4

5Input 5 → Input 5

6Input 6 → Input 6

More / Names

Inputs are named here. Where Trilogy peripherals are installed on TAS link and can be named, this is also done in these menus. [enter] for `Inputs`, to name the six inputs. The option to give names to TAS link devices relies on suitable devices being connected.

More / Names / Inputs

The preamplifier leaves the factory with input names set to Input 1, Input 2 etc. These names can be edited, for example to show the equipment type such as CD or Tuner. Names are limited to ten characters, but it is possible that not all characters will fit on the display. We use variable width fonts on the display to improve the look, meaning a capital “B” is much wider than a lower case “i”. Using variable width fonts actually increases the number of characters available on the display but it does mean the characters available depends on what you want to display.

With `Inputs` showing, press [enter] and the display will show the input number and name of the first input, `1Input 1`, where the first character will be flashing. At this stage you can select which input name to edit with the [shaft encoder]. When the desired input is displayed, press [enter] again and the first number will disappear to show the input name as it will appear in normal operation, `Input 1`.

Again the first character is flashing, but now it is flashing on the first character of the name which can be edited using the [shaft encoder]. Pressing [enter] moves to the second character, and so on through all ten possible characters before returning to the first character. Each flashing character can be changed with the [shaft encoder]. There is no delete function, so simply set that character to a space which is found by turning the [shaft encoder] fully anticlockwise. Because it would be impossible to see a flashing, blank space, if you are editing a character that is a space, a dot flashes at the top of that position.

Ten characters are allowed, even if they do not all fit onto the display. If you change characters near the beginning of the name, you may find end characters come into view, but if they are out of view during editing they will not be seen during normal operation. We could have scrolled the display for you to edit end characters otherwise off the display, but our method means you will not waste time editing a long name only to find it does not fit in normal use!

Pressing [enter] to cycle through the characters applies even when the characters are off the end of the display. You may need to press [enter] a few times without seeing a flashing character before returning to the first character flashing.

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More / Names / External

Shipped from the factory, other Trilogy equipment will turn on and off, following the 903 preamplifier if connected over TAS link. There is no need to name devices that are controlled over the TAS link bus, but naming allows their status to be checked through the display of the 903. This status includes running temperature and fault messages. Naming devices also allows their serial number and software version to be checked remotely.

To allow TAS link communication, each device controlled via TAS link needs a unique ID number. From the factory no ID number is set on equipment that does not have the facility to act as a controller, such as a power amp.

This menu intelligently combines the assignment of ID numbers and the naming process.

When first run with new equipment, pressing [enter] on this menu will display

`01.`

where 01 is the ID number and the dot means no device has responded. Use the [shaft encoder] to select ID 02, 03 etc. to a maximum of 24.

We suggest you use contiguous ID numbers starting from 01, as unit 01 is the first status that is fetched in that menu. With 01 (or other) displayed, TAS link connected units should have their front panel LEDS mostly off with a short flash on. This indicates the unit's button is temporarily not used for on/off and can be used to ‘grab’ an ID number from the 903. If you need to switch off the remote devices during this time, for example due to excessive audio levels, use the 903 power button to switch off both the 903 preamplifier and connected devices.

A two second press of the power button of a remote device will cause that device’s LED to change from an occasional flash to rapid flashing, to indicate it has taken the current ID. With multiple devices, it is possible to move between ID numbers 01,02 etc. using the [shaft encoder] and device LEDs will change their flashing to indicate which is being addressed. Grabbing an ID number where that ID number is used elsewhere, will cause the original device to automatically reset to having no ID number, just as it leaves the factory.

Once a device has an ID number, it will return with the factory name e.g. 01.993 and names can be edited in the same way as input naming. Press [enter] and `993` will be displayed with the first character flashing. Edit the name, using [enter] to advance through the characters and [escape] to save. There will be a short delay showing `01.` again while the name is written and read back over TAS link.

More → Tools → Int status
Ext status
Bus status
Version
Bond
Unbond
IR Code
Factory

More → Tools → Int status → Valve Timer
More → Tools → Graph → Graph
More → Tools → Ext status → 01. .... 24.

More → Tools → Bus status → Pwr → 9.8V
Pwr → 0.00A
Rem → 0.0V
Rem → 0.00A

More → Tools → Version → Internal → Master → Vx.xx
Internal → Display → Disp x.xx
Internal → Power → Vx.xx
External → 01. .... 24.

More / Tools

Tools offers detailed system information - 903 valve hours counter, TAS link peripheral status, a ‘health check’ for the TAS link bus itself, and a check of software versions in the preamplifier and peripherals. Tools also allows infra red remote checks, presets to be returned to the factory default and TAS link equipped peripherals to be ‘security bonded’ to the preamp.

More / Tools / Int status

For the Trilogy 903 there is only one detail reported under internal status when [enter] is pressed. This is the counter for operational hours of the installed valve. This counter can be reset by your Trilogy dealer when the valve is replaced.

More / Tools / Graph

Where TAS link is connected to a Trilogy power amplifier that supports current monitoring, for example the 993, this displays a live indication of speaker current. The top of the graph indicates current well within the capability of the power amplifier. When the bar reaches the right hand side of the display, higher levels will start a lower bar. At this stage the power amplifier is closely monitoring for overload, but without constraining the audio performance. The bar falls back slowly from any transient due to deliberate hysteresis, should the bar reach the lower right hand side then the power amplifier will mute.

More / Tools / Ext status

For intelligent TAS link devices that have been named (above), their status can be checked using this menu. The 903 will first look for unit ID 01 and advance from there until it finds a unit which can report its status. At the maximum, ID 24, the status check wraps round to ID 01. As an example, the Trilogy 993 is a power amplifier that can be paired with the 903 and its status includes a live power graph, heatsink temperature and a counter for the number of times the over-current protection circuit has operated.

The TAS link unit name is initially displayed for a given ID. To move between IDs use menu buttons or the [shaft encoder], to toggle through a unit's available status messages press [enter]. The manual for each connected Trilogy device offers individual detail.

(Status via IR remote operation)

The status button on Trilogy remote controls provides direct access to int status, graph and ext status. Each press will toggle between these tools without presenting the higher level name such as "Int status". Pressing escape will return directly to the home page, rather than into the menu structure.

More / Tools / Bus status

This menu displays in turn, TAS link bus power voltage and current, followed by bus remote voltage and current. You may be asked to use these tools as part of telephone support.

More → Tools → Bond

More → Tools → Unbond

More → Tools → IR Code → IR-- ---

More / Tools / Version

It is common practice to update software over a period of time. However, Trilogy do not believe this should happen regularly and are against automatic updates via a computer as this does carry risks. Although typically a dealer tool, options for software version are split between internal and external where the internal options are

```
Master
Display
```

These display the versions of the two controllers in the 903, although any TAS link connected display will show its own local software version. The external option will display the serial number / version of TAS link equipment that has been named — similar in operation to ext status.

More / Tools / Bond

To protect your investment in Trilogy equipment, this facility allows many Trilogy peripherals to be security bonded to the 903 preamplifier. The connected equipment, once bonded, cannot be turned on with its local power button or via TAS link other than with the original bonding 903. With target peripherals connected to TAS link, press [enter] and the message `Done` will be displayed. To prove bonding has been successful, power off bonded equipment either with their front panel buttons or via the 903. Then attempt to power peripherals with their front panel buttons which should not work if bonding has been successful.

Please note there is deliberately no indication which equipment is bonded to which. This is for your security.

More / Tools / Unbond

When reconfiguring your system, or moving to a different location, there may be a need for bonded equipment to be unbonded. Even Trilogy dealers are unable to undo security bonding and only the original 903 can unbond those items which it has previously secured. After pressing [enter] and receiving the message '`Done`', front panel buttons should be used, like bonding above, to test whether equipment can be turned on locally. In this case, it should now be possible to power peripheral equipment via their local front panel buttons.

More / Tools / IR Code

The 903 is supplied with a full function remote control. Our premium solid aluminium PRC is also compatible. It is also possible to use programmable remotes to operate the 903. Although some programmable remotes are very capable, experience shows that some can be complicated to setup. The standard factory setting for the 903 preamplifier is Philips' RC5 remote control standard with a system code of 16 decimal. The command codes in decimal below may be useful to program a remote control.

`01....06`	Input 1 … Input 6
`15`	Status
`80`	Escape
`81`	Enter

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More → Tools → Factory → Restore?

12	Power
13	Mute
16	Volume up
17	Volume down
86	Menu up
85	Menu down
47	Time

To aid fault finding with any remote control, the `IR Code` page shows the received two digit system code and two digit command as decimal numbers for any RC5 IR code received. The toggle bit that shows separate key remote presses is indicated with a T suffix. When nothing is received the display shows `IR ----`. If the display continues to show this despite you sending Infra Red commands, then those commands are not Philips RC5.

To leave the IR code display, you must use the front panel [escape] button, or wait for timeout. You cannot escape with infra red escape.

More / Tools / Factory

Selecting `Factory`, will prompt you with `Restore?` to check whether you are really sure you want to reset.

If you press [enter], this will return all values to standard, detailed in Appendix B. To abort, press [escape].

TASlink Overview

TAS link is Trilogy's proprietary bus system offering power and data to remote displays, and also data to other Trilogy audio products to synchronise power on/off and provide error information. TAS link has a bus remote line (GPI) allowing equipment from other manufacturers to be powered on/off by the 903, or allow the 903 to be turned on by another system.

Standard wired screened Cat5 or Cat5e cables should be used, the same as used for computer networks with RJ45 plug terminations. Do not however cross-plug computer networks and TAS link, as damage may result. It should be noted that Cat5/RJ45 cables are not unique to computer networks and are often used for telephony and other control systems. The cross-plugging issue is not unique to Trilogy products and Trilogy can take no responsibility for damage caused by failure to follow this instruction.

By using standard Cat5 wiring, users can take advantage of any structured wiring in their buildings.

Bus power

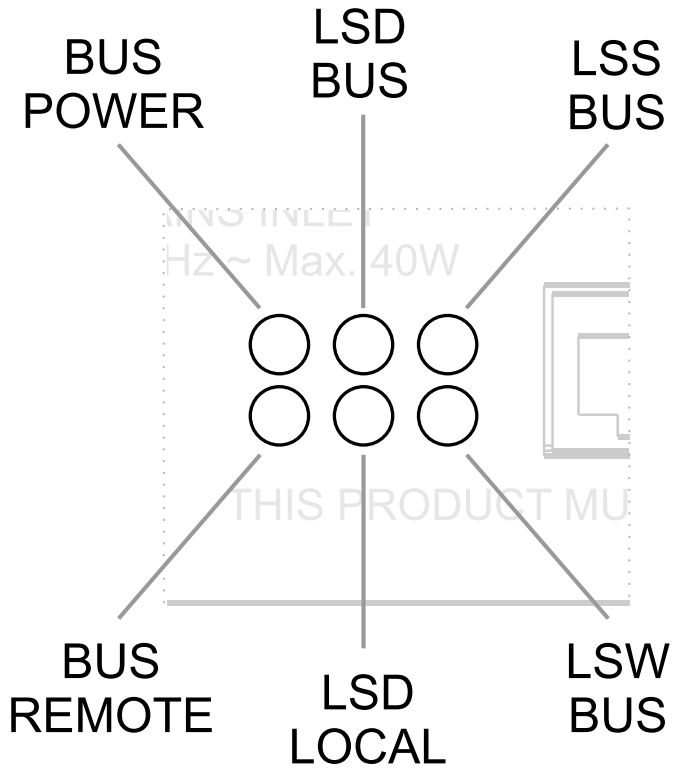
Nominally 10 Volts, bus power is used for external interfaces such as displays. The number of devices connected to the bus should be discussed with your dealer, as larger systems may require a small additional power supply. Even without displays, power is used by a number of audio devices that have internal optical isolators. Bus power should not be connected to non-Trilogy equipment.

Bus remote on

This is a 10 Volt remote control signal for Trilogy equipment to power up, by starting their turn on procedure. Usually output by the preamplifier and optically isolated in power amps, the preamplifier can be set to receive this signal instead so a different system can deliver the main power-on signal.

High speed bus

This is a balanced data bus used for devices that require regular and fast communication with the preamplifier. Examples of this are an external display that needs to update many times a second when adjusting volume, or a power amplifier providing measurements to display on a live power meter. This bus uses industry standard transceivers to offer best performance over long cable length, but the message format is unique to Trilogy. This bus normally operates continuously, but can be disabled in the master if there are no devices that need it. Where TAS link loops through a sensitive device that does not use the high speed bus, bus signals are looped locally between connectors and kept well away from audio.


BUS
POWER
LSD
BUS
LSS
BUS
BUS
REMOTE
LSD
LOCAL
LSW
BUS

Low speed (quiet) bus

This quiet bus is proprietary to Trilogy, both electrically and in the messages that are sent. Developed to serve audio devices that do not require fast updates, there are three optically isolated signals (LSS/LSW/LSD) which allow the microcontroller in the audio device to turn off during normal use. The master can briefly enable the microcontroller in the audio device to power up/down, or the audio device can alert the master to a fault which has automatically woken it from sleep. This bus operates infrequently and at 1/100 the frequency of the fast bus. In normal operation the quiet bus will be completely silent.

Rear Panel LEDs

The use of the rear panel LEDs may change over time. Currently, they are used to indicate,

Bus power
LSD bus
LSS bus
Bus remote
LSD local
LSW Bus

Diagnostics using these LEDs are possible, as part of Trilogy dealer training. You may be asked to look at these LEDs as part of any telephone support.

Front Panel Warning LEDs

Dots on the right of the front panel display are used to indicate problems. The centre right LED will flash if TAS link attached equipment capable of error reporting has a problem. Use more / tools / ext status to check which unit has a problem. When looking at individual unit status, this LED will continue to flash for any units that would produce this warning when on other menu screens.

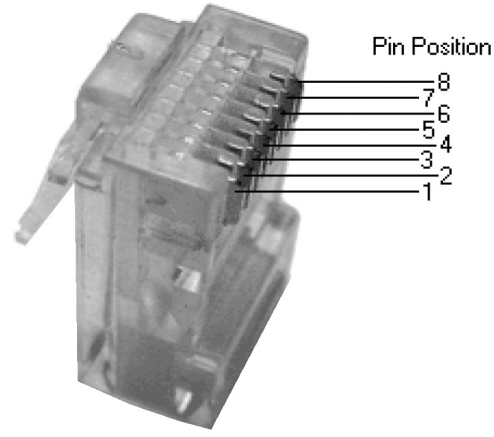
The top two LEDs on the right will flash if the current drawn on TAS link bus power has exceeded the maximum allowable, 500mA for more than one second or 1000mA for more than half a second.

Similarly, the bottom two right-hand LEDs will flash if the current drawn on the TAS link remote line has exceeded the specification, which is the same as the bus power line. Bus power and remote overcurrent will result in that output being switched off and mains power must be removed from the preamplifier to clear either of these faults.

Appendix A

TAS link Pinout

RJ45	CAT5 COLOUR	FUNCTION
2	Orange/white	BUS POWER
1	White/orange	0V
6	Green/white	LSW
3	White/green	LSS
4	Blue/white	DATA+
5	White/blue	DATA-
8	Brown/white	BUS REMOTE
7	White/brown	LSD



Appendix B

Default Settings

More	Cartridge	Gain	40dB		
More	Cartridge	R	47 kohms		
More	Cartridge	C	none		
More	Time	Sleep	Sleep Off		
More	Time	Timers	All disabled		
More	Defaults	PIN Codes	Power Up	Use PIN	
More	Defaults	PIN Codes	Menu	Skip PIN	
More	Defaults	Volume	Trim	Input X	Trim 00
More	Defaults	Volume	Start	-60dB	
More	Defaults	Volume	Max	0dB	
More	Defaults	Volume	Film	-12dB	
More	Defaults	Input	Input 1		
More	Defaults	Film in	No film		
More	Defaults	Output	No output		
More	Defaults	Balance	Bal Centre		
More	Defaults	Display	Home On	Time	
More	Defaults	Display	Home Off	Blank	
More	Defaults	Display	Timeout	60 secs	
More	Defaults	Display	Bright	Bright Auto	
More	Defaults	Display	dB or 0..99	Vol dB	
More	Defaults	Display	Language	English 01	
More	Names	Inputs	1Input1	Input 1	
More	Names	Inputs	2Input2	Input 2	
More	Names	Inputs	3Input3	Input 3	
More	Names	Inputs	4Input4	Input 4	
More	Names	Inputs	5Input5	Input 5	
More	Names	Inputs	6Input6	Input 6	

Cleaning

Dust the unit regularly with a soft cloth or soft brush. For more stubborn marks make sure the unit is switched off and disconnected from the power supply. Use a slightly damp cloth with a very small amount of mild PH neutral detergent. Do not use a wet cloth. Never use abrasives or alcohol based agents, they will harm the surface finish. Do not allow the unit to become wet when cleaning.

Servicing

Your 903 uses thermionic valves (vacuum tubes) for amplification. They are the key component in realising your preamplifier's very high performance. Valves have a finite lifespan and will need replacing during the lifetime of the preamplifier. This lifespan depends on how long and how hard they are used. In typical use, small signal valves can last for 5000 hours. Frequent switching on and off reduces valve life.

Please bear in mind that some failures can occur early on in a valve's working life, usually due to mechanical stresses that can occur during shipping. This is not a reflection on the preamplifier's design but is an inherent characteristic of all valves, and is impossible to predict even during the preamplifier's factory burn-in period. The good news is considerate circuit design and modern manufacturing methods mean that valves are now typically very reliable once established in service.

It is good practice for your dealer to replace the valves in your preamplifier periodically to prevent sudden loss of a signal path and to maintain optimum performance. If you are in any doubt your Trilogy dealer will help you assess whether your valves need replacing.

If your preamplifier exhibits noticeable loss of performance, extreme sensitivity to vibration or becomes excessively noisy then new valves should be fitted by your authorised Trilogy dealer.

WARNING! There are no user serviceable parts inside. Do not open or attempt to repair the unit, potentially fatal voltages are present inside even when disconnected from the power supply. Refer to your authorised Trilogy dealer for servicing.

Declarations

This product is guaranteed against defects in material and workmanship for 3 years from the date of purchase. This Guarantee excludes valves which are guaranteed for 6 months from date of purchase. This Guarantee is not transferable and is offered to the original purchaser only. This guarantee does not limit your statutory rights within the country of purchase. Failure to comply with any of the above instructions during installation or operation will render the manufacturer's warranty null and void.

Marking by the "CE" symbol indicates compliance of this device with the EMC (Electromagnetic Compatibility) and LVD (Low Voltage Directive) standards of the European Community

This preamplifier has been tested to ensure that its operation is not adversely affected by normal background levels of radio frequency interference, and that it does not itself generate excessive amounts of radio frequency energy.

If your preamplifier exhibits sensitivity to nearby radio frequency devices or is suspected of affecting another device, increase the distance between them. If the problem persists, consult your Trilogy dealer.

Glossary

Enter	Used to select next level of menu structure.	Bus	An interface where many devices share the same electrical connection.
Escape	Used to select previous level of menu structure.	RJ45	A standard latching connector chosen for TASlink.
Shaft Encoder	The rotary knob, used for volume control and data entry.	Cat5(e)	A standard 4 pair data cable chosen for TASlink.
Send	An output taken before the volume control for recording or AV loops.	Cartridge Loading	The electrical termination the phono cartridge “sees” when connected.
Return	An input back from the recording equipment or AV loops.	Capacitance	The ability to hold an electrical charge, resulting in decreasing impedance with frequency.
TAS link	Trilogy Audio Systems’ proprietary Link between products.	Gain	The ability of a circuit to increase the power or amplitude of a signal from the input to the output.
GPI	General Purpose Interface. A control voltage on TASlink that can be used as an input or output for connection to non Trilogy equipment.	Resistance	The degree to which an element opposes an electric current through it.

903 Specifications

Input	6 pair RCA phono sockets	Size (packaged)	590*510*250 (W*D*H)
Main outputs	2 pair RCA phono sockets	Weight	10Kg
Send (tape) outputs	1 pair RCA phono sockets	Weight (packaged	13Kg
Gain (Inputs to Main output)	14 dB +/- 0.5dB	Standby power consumption	< 1 Watt
Gain (Inputs to Send output)	0dB	Maximum power consumption	40 Watts
Film Gain (Inputs to Main outputs)	0dB (+/-1dB)	British Model	240V
Input impedance	50K Ohms	European Model	230V
Output impedance (Main output)	< 200 Ohms	USA/Canadian Model	120V
Frequency response	2Hz-50KHz +/-0.5dB	Japanese Model	100V
Distortion	< 0.01% A weighted at 1V output	Storage temperature	-20 to +50°C
Phase	Phase correct (non inverting)	Operating temperature	0 to +30°C
Size	465*312*106 (W*D*H)	Operating Humidity	10 to 80% (no condensation)
Size (including connectors)	465*350*106 (W*D*H)		

SPECIFICATION SUBJECT TO CHANGE

Returns

Should it be necessary for your 903 to be serviced, please send it in the original packaging to your dealer. If this is not possible please contact us directly and request a Return Authorisation Number. Please mark this number in the space provided on the outer packaging.

Please do not send products back to us without this number as we will not accept liability for the product.

If a product is not returned to us in its original packaging, after servicing we will return it, in Trilogy packaging and a nominal charge will be made.

Whilst the information given in this document is correct at the time of printing, small production changes in the course of our Company's policy of improvement through continued research and development might not necessarily be indicated in the specification.

If clarification of any point or specification is required, please refer to your Trilogy dealer.

We welcome your feedback, whether positive or negative, to help us further refine our products.

Please write to; Trilogy Audio Systems
PO Box 56402
London SE3 7WQ
United Kingdom

Or email; user@trilogyaudio.com

Please visit our web site; www.trilogyaudio.com

Acknowledgements

Many people have worked tirelessly to help bring the 903 to you, and I would like to take this opportunity to thank - Emeka Chigbu, Nigel Crump, Simon Dart, Chris Sims and Simon Quill for their dedication to this project.

Nic Poulson
CEO Trilogy Audio Systems.

TRILOGY

Designed & Manufactured in London, England.

USER MANUAL 903.26092016.V1